### CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered (1)	Amount to be Registered <sup>(2)</sup>	Maximum Offering Price per Share	Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, \$0.01 par value per share	247,699	:-)(4)	\$4,463,535.98 <sup>(4)</sup>	

- Relates to the resale or other distribution by the selling stockholder named herein of up to 247,699 shares of our common stock, \$0.01 par value per share (the "Common Stock") of Axogen, Inc. (the "Company").
- (2) Relates to such additional shares of Common Stock as may be issued in connection with a stock split, stock dividend or similar transaction, pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act").
- (3) Estimated solely for the purposes of computing the registration fee with respect to 247,699 shares of Common Stock pursuant to Rule 457(c) under the Securities Act, based on the average of the high and low prices of the Common Stock on the Nasdaq Stock Market on January 6, 2021.
- (4) Calculated in accordance with Rule 457(r) under the Securities Act with respect to the 247,699 shares of Common Stock registered pursuant to this prospectus supplement that have not previously been registered. Payment of the registration fee at the time of filing of the registrant's registration statement on Form S-3 filed with the Securities and Exchange Commission (the "Commission") on May 7, 2018 (File No. 333-224713), was deferred pursuant to Rules 456(b) and 457(r) of the Securities Act, and is paid herewith. This "Calculation of Registration Fee" table shall be deemed to update the "Calculation of Registration Fee" table in such registration statement.

# PROSPECTUS SUPPLEMENT (To Prospectus dated May 7, 2018)

247,699 Shares



Axogen, Inc.

**Common Stock** 

This prospectus supplement relates to the sale of up to an aggregate of 247,699 shares of common stock, par value \$0.01 per share (the "Common Stock") and supplements and amends the prospectus dated May 7, 2018. This prospectus supplement, together with the prospectus described above, may be used by the selling stockholder identified in this prospectus supplement to resell shares of our Common Stock from time to time.

We will not receive any cash proceeds from any sale of Common Stock by the selling stockholder.

The selling stockholder or its pledgees, assignees, permitted transferees or other successors-in-interest may offer and sell or otherwise dispose of the shares of Common Stock described in this prospectus supplement from time to time through public or private transactions at fixed prices, at prevailing market prices, at prices related to prevailing market prices, at varying prices determined at time of sale, or at privately negotiated prices. The selling stockholder will bear all commissions and discounts, if any, attributable to the sales of shares. We will bear all costs, expenses and fees in connection with the registration of the shares. See "Plan of Distribution" beginning on page S-9 of this prospectus supplement for more information about how the selling stockholder may sell or dispose of their shares of common stock.

Our Common Stock is traded on the Nasdaq Capital Market, referred to herein as Nasdaq, under the symbol "AXGN". The last reported sale of our Common Stock on Nasdaq on January 7, 2021 was \$19.62 per share.

Investing in our securities involves a high degree of risk. These risks are described under the caption "Risk Factors" beginning on page <u>S-5</u> of this prospectus supplement.

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

The date of this prospectus supplement is January 8, 2021.

Experts

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### ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we initially filed with the U.S. Securities and Exchange Commission (the "SEC") on June 11, 2018 using a "shelf" registration process as a "well-known seasoned issuer," as defined in Rule 405 under the Securities Act of 1933, as amended (the "Securities Act").

This document is in two parts. The first part is this prospectus supplement, which adds to and updates information contained in the accompanying prospectus as well as the documents incorporated by reference into this prospectus supplement. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in the accompanying prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

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

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Incorporation of Documents by Reference" in this prospectus supplement and in the accompanying prospectus.

Unless the context otherwise requires, references in this prospectus to "we," "us," "our," or the "Company" refer to Axogen, Inc. and its wholly owned subsidiaries, Axogen Corporation, Axogen Processing Corporation and Axogen Europe GmbH.

### PROPSECTUS SUPPLEMENT SUMMARY

This summary description about us and our business highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus or incorporated by reference. This summary does not contain all of the information you should consider before investing in our common stock. You should carefully read this entire prospectus supplement and accompanying prospectus, including each of the documents incorporated herein by reference, before making an investment decision.

#### Overview

We are the leading company focused specifically on the science, development and commercialization of technologies for peripheral nerve regeneration and repair. We are passionate about helping to restore peripheral nerve function and quality of life to patients with physical damage or transection to peripheral nerves providing innovative, clinically proven and economically effective repair solutions for surgeons and health care providers. Peripheral nerves provide the pathways for both motor and sensory signals throughout the body. Every day people suffer traumatic injuries or undergo surgical procedures that impact the function of their peripheral nerves. Physical damage to a peripheral nerve, or the inability to properly reconnect peripheral nerves, can result in the loss of muscle or organ function, the loss of sensory feeling or the initiation of pain.

Axogen's platform for peripheral nerve repair features a comprehensive portfolio of products, including Avance Nerve Graft, a biologically active off-the-shelf processed human nerve allograft for bridging severed peripheral nerves without the comorbidities associated with a second surgical site, Axoguard Nerve Connector, a porcine submucosa extracellular matrix ("ECM") coaptation aid for tensionless repair of severed peripheral nerves, Axoguard Nerve Protector, a porcine submucosa ECM product used to wrap and protect injured peripheral nerves and reinforce the nerve reconstruction while preventing soft tissue attachments, Axoguard Nerve Cap, a porcine submucosa ECM product used to protect a peripheral nerve end and separate the nerve from the surrounding environment to reduce the development of symptomatic or painful neuroma and Avive Soft Tissue Membrane, a processed human umbilical cord intended for surgical use as a resorbable soft tissue barrier. Along with these core surgical products, we also offer the Axotouch® Two-Point Discriminator, used to measure the innervation density of any surface area of the skin. Our portfolio of products is available in the United States, Canada, the United Kingdom, several European countries, South Korea and other international countries.

Revenue from the distribution of Axogen's nerve repair products, Avance Nerve Graft, Axoguard Nerve Connector, Axoguard Nerve Protector and Avive Soft Tissue Membrane, in the United States is the main contributor to Axogen's total reported sales and has been the key component of our growth to date.

### **Corporate Information**

We were incorporated in Minnesota in 1977. Our principal offices are located at 13631 Progress Boulevard, Suite 400, Alachua, Florida 32615. Our telephone number is (386) 462-6800. We have three wholly owned subsidiaries, Axogen Corporation, a Delaware corporation, Axogen Processing Corporation, a Delaware corporation, and Axogen Europe GmbH, a limited liability corporation with its corporate seat in Vienna, Austria. Our web address is <a href="https://www.axogeninc.com">www.axogeninc.com</a>. Information contained in, or accessible through, our website does not constitute a part of this prospectus supplement.

Our reports that have been filed with the SEC, are available on our website free of charge, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Forms 3, 4 and 5 filed on behalf of directors and executive officers and any amendments to such reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Copies of this prospectus supplement and the accompanying prospectus may also be obtained without charge electronically or by paper by contacting Investor Relations, c/o Axogen, Inc., 13631 Progress Boulevard, Suite 400, Alachua, Florida 32615 or by calling (386) 462-6800.

The SEC also a web site at <a href="http://www.sec.gov">http://www.sec.gov</a> that contains reports, proxy and information statements and other information regarding companies that file electronically with the SEC.

### THE OFFERING

Common stock offered by the selling

stockholder

Up to 247,699 shares

Common stock outstanding as of the date of this prospectus supplement

40,618,766 shares

Use of proceeds

We will not receive any proceeds from the sale or other disposition

of the shares of common stock offered hereby.

Nasdaq Capital Market symbol

Risk factors

"AXGN"

In evaluating an investment in the shares of our common stock, prospective investors should carefully consider the risk factors and other cautionary statements contained in this prospectus supplement, including those described under "Risk Factors" beginning on page S-5, as well as the risk factors described in Part I, Item 1A "Risk Factors" in our latest Annual Report on Form 10-K, Part II, Item 1A "Risk Factors" in our latest Quarterly Report on Form 10-Q, and other reports that may be filed by us and along with the other information incorporated by reference into this prospectus supplement.

When we refer to the selling stockholder in this prospectus, we are referring to the entity named in this prospectus as the selling stockholder and, as applicable, any pledgee, assignee, permitted transferee or other successor-in-interest selling shares received after the date of this prospectus from the selling stockholder as a pledge, assignment or other transfer that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in this prospectus supplement and the accompanying prospectus, any free writing prospectus and in the documents incorporated by reference herein constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact may be deemed to be forward-looking statements. Forward-looking statements frequently, but not always, use the words "expects", "anticipates", "intends", "plans", "believes", "seeks", "estimates", "projects", "forecasts", "continue", "may", "should", "will", "goals", variations of such words and similar expressions are intended to identify such forward-looking statements. The forward-looking statements may include, without limitation, statements regarding our growth, product development, product potential, financial performance, sales growth, product adoption, market awareness of our products, data validation, our assessment of our internal controls over financial reporting, our visibility at and sponsorship of conferences and educational events. The forward-looking statements are and will be subject to risks and uncertainties, which may cause actual results to differ materially from those expressed or implied in such forward-looking statements. Such risks and uncertainties include, but are not limited to, risks and uncertainties caused by extraordinary events or circumstances, such as the COVID-19 pandemic, and their impact on our business and operations, the business and operations of our customers, suppliers and other business partners and economic conditions generally, and other factors discussed under the caption "Risk Factors" included in this prospectus supplement and those described in our Annual Report on Form 10-K, and our Quarterly Reports on Form 10-Q, which are incorporated by reference into the Registration Statement of which this prospectus supplement and the accompanying prospectus forms a part.

The following documents, among others, describe these assumptions, risks, uncertainties, and other factors. You should read and interpret any forward-looking statements together with these documents:

- · the risk factors contained in any prospectus supplement under the caption "Risk Factors";
- our most recent annual report on Form 10-K, including the sections entitled "Business", "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations";
- · our quarterly reports on Form 10-Q; and
- · our other SEC filings.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus supplement, the accompanying prospectus or in any document incorporated by reference in this prospectus supplement might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only of the date of the accompanying prospectus, the date of this prospectus supplement or the date of the document incorporated by reference in this prospectus supplement. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by applicable law. All subsequent forward-looking statements attributable to us are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

### RISK FACTORS

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

### USE OF PROCEEDS

We are filing this prospectus supplement to permit holders of the shares of our common stock described in the section entitled "Selling Stockholder" to resell such shares. We are not selling any securities under this prospectus supplement and we will not receive any proceeds from the sale of shares by the selling stockholder. We did, however, receive gross proceeds of approximately \$3.5 million upon the exercise of the option pursuant to the Option Agreement as described under the section entitled "Selling Stockholder."

The selling stockholder will pay any discounts, commissions, fees of underwriters, selling brokers or dealer managers and expenses incurred by the selling stockholder for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholder in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, printing fees, Nasdaq listing fees and fees and expenses of our counsel and our accountants.

### DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our Amended and Restated Articles of Incorporation ("Articles") and our Bylaws ("Bylaws"), in each case as amended to the date of this prospectus, which have been publicly filed with the SEC. See "Where You Can Find More Information" and "Incorporation of Certain Information by Reference." In addition, please refer to our other publicly filed documents incorporated herein by reference which describe our outstanding registration rights, equity incentive plans and other securities.

### COMMON STOCK

Under our Articles, we are authorized to issue up to 100,000,000 shares of common stock, par value \$0.01 per share. As of December 31, 2020, 40,618,766 shares of common stock were issued and outstanding.

### Dividends, Voting Rights and Liquidation

The holders of shares of our common stock: (i) have equal, ratable rights to dividends from funds legally available therefor, when, as and if declared by the Board of Directors, (ii) are entitled to share ratably in all assets available for distribution to holders of shares of common stock upon liquidation, dissolution or winding up of our affairs, (iii) do not have preemptive, subscription or conversion rights and there are no redemption or sinking fund provisions applicable thereto and (iv) are entitled to one vote per share on all matters which shareholders may vote on at all meetings of shareholders. Except as otherwise required by statute, our Articles or our Bylaws, all matters are decided by a majority vote of the number of shares entitled to vote at the time of the vote.

### Transfer Agent and Registrar

Broadridge Corporate Issuer Solutions, Inc. is the transfer agent and registrar for our common stock.

### Minnesota Anti-Takeover Laws

We are governed by the provisions of Sections 302A.671, 302A.673 and 302A.675 of the MBCA. These provisions may discourage a negotiated acquisition or unsolicited takeover of us and deprive our shareholders of an opportunity to sell their common stock at a premium over the market price.

In general, Section 302A.671 of the MBCA provides that a corporation's shares acquired in a control share acquisition have no voting rights unless voting rights are approved in a prescribed manner. A "control share acquisition" is a direct or indirect acquisition of beneficial ownership of shares that would, when added to all other shares beneficially owned by the acquiring person, entitle the acquiring person to have voting power of 20% or more in the election of directors.

In general, Section 302A.673 of the MBCA prohibits a public Minnesota corporation from engaging in a business combination with an interested shareholder for a period of four years after the date of the transaction in which the person became an interested shareholder, unless the business combination is approved in a prescribed manner. The term "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested shareholder. An "interested shareholder" is a person who is the beneficial owner, directly or indirectly, of 10% or more of a corporation's voting stock or who is an affiliate or associate of the corporation, and who, at any time within four years before the date in question, was the beneficial owner, directly or indirectly, of 10% or more of the corporation's voting stock. Section 302A.673 does not apply if a committee of our Board of Directors consisting of all of its disinterested directors (excluding current and former officers) approves the proposed transaction or the interested shareholder's acquisition of shares before the interested shareholder.

If a tender offer is made for our common stock, Section 302A.675 of the MBCA precludes the offeror from acquiring additional shares of stock (including in acquisitions pursuant to mergers, consolidations or statutory share exchanges) within two years following the completion of the tender offer, unless shareholders selling their shares in the later acquisition are given the opportunity to sell their shares on terms that are substantially the same as those contained in the earlier tender offer. Section 302A.675 does not apply if a committee of our Board of Directors consisting of all of its disinterested directors (excluding its current and former officers) approves the proposed acquisition before any shares are acquired pursuant to the earlier tender offer.

### SELLING STOCKHOLDER

### **Option Agreement**

On June 30, 2020 (the "Signing Date"), we, as borrower, our wholly owned subsidiaries Axogen Corporation ("AC") and Axogen Processing Corporation ("APC"), as guarantors, entered into a Term Loan Agreement with the lenders party thereto (the "Lenders"), including TPC Investments II LP, as the initial lender ("TPC"), and Argo SA LLC ("Argo"), as administrative and collateral agent for the Lenders. TPC and Argo are each affiliates of Oberland Capital.

In connection with the Term Loan Agreement, on the Signing Date, we and TPC entered into an Option Agreement, pursuant to which we granted to TPC the right to purchase, at any time on or prior to the later to occur of (a) the date on which all of the obligations under the Term Loan Agreement and related agreements are paid in full and (b) June 30, 2027, a number of newly issued shares of our common stock equal to an aggregate of \$3,500,000 divided by the Fair Market Value (as defined in the Option Agreement based upon the 45 day trailing average market value of our common stock) of a share of common stock on the date of exercise of such option (the "Exercise Price").

On December 10, 2020, TPC exercised in full its option under the Option Agreement. The Exercise Price was determined to be \$14.13, resulting in gross proceeds to us of approximately \$3.5 million and the issuance of 247.699 shares to TPC.

The foregoing summary descriptions of the Term Loan Agreement and the Option Agreement do not purport to be complete and are qualified in their entirety by reference to the full text of such documents, which were filed as exhibits to our <u>Current Report on Form 8-K</u>, filed on July 1, 2020, and are incorporated by reference herein.

### Selling Stockholder Table

The table below sets forth, to our knowledge, information concerning the beneficial ownership of shares of our common stock held by the selling stockholder that purchased shares of our Common Stock pursuant to the Option Agreement as of December 31, 2020. The information in the table below with respect to the selling stockholder has been obtained from the selling stockholder. The selling stockholder may sell all, some or none of the shares of common stock subject to this prospectus. See "Plan of Distribution." We have based our calculation of the percentage of beneficial ownership on 40,618,766 shares of common stock outstanding as of December 31, 2020.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to shares. Unless otherwise indicated below, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for the person named below.

The selling stockholder has not held any position or office, or has otherwise had a material relationship, with us within the past three years.

	Shares of Common Stock Beneficially Owned Prior to Offering		Number of Shares of Common Stock Being	Shares of Common Stock to be Beneficially Owned After Offering <sup>(1)</sup>	
Name of Selling Stockholder	Number	Percentage	Offered <sup>(1)</sup>	Number	Percentage
TPC Investments II LP	247,699	*%	247,699	0	*%

<sup>\*</sup> Less than 1%.

(1) We do not know when or in what amounts the selling stockholder may offer shares for sale. The selling stockholder might not sell any or all of the shares offered by this prospectus. Because the selling stockholder may offer all or some of the shares pursuant to this offering, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholder after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholder.

### PLAN OF DISTRIBUTION

The selling stockholder, which as used herein includes donees, pledgees, transferees or other successors-ininterest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholder may use any one or more of the following methods when disposing of shares or interests therein:

- · ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a
  portion of the block as principal to facilitate the transaction;
- · purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- · an exchange distribution in accordance with the rules of the applicable exchange;
- · privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared
  effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options
  exchange or otherwise;
- broker-dealers may agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- · a combination of any such methods of sale; and
- any other method permitted by applicable law.

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

In connection with the sale of our common stock or interests therein, the selling stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholder may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholder from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. The selling stockholder reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholder also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholder and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Any selling stockholder who is an "underwriter" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the name of the selling stockholder, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholder that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholder and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholder for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholder may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholder against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholder to maintain effectiveness of the registration statement of which this prospectus constitutes a part.

### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549 on official business days during the hours of 10:00am and 3:00pm. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC maintains a website at http://www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. In addition, we maintain a website at http://www.axogeninc.com and make available free of charge on this website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained in, or accessible through, our website does not constitute a part of this prospectus or any accompanying prospectus supplement.

### INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" much of the information we file with it, which means that we can disclose important information to you by referring you to those publicly available documents. All of the information that we incorporate by reference is considered to be part of this prospectus supplement, and any of our subsequent filings with the SEC will automatically update and supersede this information. This prospectus supplement incorporates by reference the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information furnished under Items 2.02 or 7.01 of our current reports on Form 8-K, or exhibits related thereto, between the date of this prospectus supplement and the termination of the offering of the securities:

- our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC orFebruary 24, 2020, as amended on Form 10-K/A, filed with the SEC on June 12, 2020;
- our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 17, 2020;
- our Quarterly Reports on Form 10-Q for the periods ended March 31, 2020, June 30, 2020 and September 30, 2020, filed with the SEC on May 6, 2020, August 7, 2020 and October 30, 2020, respectively,
- our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on <u>April 23, 2020, June 1, 2020, July 1, 2020, July 22, 2020, October 2, 2020, October 29, 2020, December 4, 2020, December 14, 2020 and January 6, 2021; and
  </u>
- the description of our common stock contained in our registration statement on Form 8-A filed withthe SEC on August 6, 2013, including any amendment or report filed for the purpose of updating such description.

Any statement contained in this prospectus supplement, the accompanying prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement or accompanying prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus supplement modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

We will provide, upon written or oral request, at no cost, to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus. You may request a copy of these filings by writing us at Investor Relations, c/o Axogen, Inc., 13631 Progress Boulevard, Suite 400, Alachua, Florida 32615. Our telephone number is (386) 462-6800.

You should rely only on the information incorporated by reference or provided in this prospectus or any supplement. We have not authorized anyone else to provide you with different information. You should not assume that information in this prospectus or any supplement is accurate as of any date other than the date on the front of these documents.

### LEGAL MATTERS

The validity of the common stock offered by this prospectus supplement and the accompanying prospectus and certain legal matters will be passed upon for us by DLA Piper LLP (US), Short Hills, New Jersey.

### **EXPERTS**

The financial statements, and the related financial statement schedule, as of and for the years ended December 31, 2019 and 2018, incorporated in this prospectus by reference from Axogen, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019, and the effectiveness of Axogen, Inc.'s internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements and financial statement schedule have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

The financial statements, and the related financial statement schedule, as of and for the year ended December 31, 2017, incorporated in this prospectus by reference from Axogen, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2017, and the effectiveness of Axogen, Inc.'s internal control over financial reporting have been audited by Lurie, LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements and financial statement schedule have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

### **PROSPECTUS**



### Common Stock

We may from time to time offer to sell common stock in amounts, at prices and on terms described in one or more supplements to this prospectus. This prospectus provides a general description of our common stock. Each time we sell shares of our common stock, we will provide the specific terms of the shares in a supplement to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with such offerings. The prospectus supplement and any related free writing prospectus may add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as the documents incorporated by reference herein and therein, before you invest in any of our common stock.

We may offer and sell our common stock through underwriters, dealers or agents, or directly to purchasers, or through a combination of these methods. See "Plan of Distribution" beginning on page 6 of this prospectus.

Our common stock is listed on the Nasdaq Capital Market under the symbol "AXGN." The last reported sale price of our common stock on the Nasdaq Capital Market on May 4, 2018 was \$42.50 per share.

Investing in our securities involves risk. See "Risk Factors" on page <u>5</u> of this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as the documents incorporated by reference herein and therein, before you invest in any of our securities.

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

The date of this prospectus is May 7, 2018

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### ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (the "SEC") using a "shelf" registration process as a "well-known seasoned issuer," as defined in Rule 405 under the Securities Act of 1933, as amended (the "Securities Act"). Under this shelf registration process, we may offer and sell, from time to time, in one or more offerings the common stock described in this prospectus.

This prospectus provides you with a general description of the securities we may offer. Each time we sell the securities, we will, to the extent required by law, provide a prospectus supplement that will contain specific information about the terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with the offering. The prospectus supplement and any related free writing prospectus may add, update or change information contained in this prospectus. This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. You should carefully read this prospectus, the applicable prospectus supplement, and any applicable free writing prospectus, as well as the information and documents incorporated herein and therein by reference and the additional information under the heading "Where You Can Find More Information," before making an investment decision.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained in, or incorporated by reference into, this prospectus and the applicable prospectus supplement, and any free writing prospectus we have authorized for use in connection with a specific offering. You must not rely upon any other information or representation.

This prospectus and any accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus, any accompanying prospectus supplement and any applicable free writing prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus, any accompanying prospectus supplement or any applicable free writing prospectus is delivered, or securities sold, on a later date.

This prospectus may not be used by us to consummate sales of our securities unless it is accompanied by a prospectus supplement. To the extent there are inconsistencies between any prospectus supplement, this prospectus and any documents incorporated by reference, the document with the most recent date will control.

Unless the context otherwise requires, references in this prospectus to "we," "us," "our," or the "Company" refer to AxoGen, Inc. and its wholly owned subsidiaries, AxoGen Corporation and AxoGen Europe GmbH.

This prospectus includes trademarks, tradenames and service marks that are the property of us and of other organizations. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus may appear without the "TM," "®," "©" or "SM" symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, trade names and service marks. We do not intend our use or display of other parties' trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.

### PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus or incorporated by reference into this prospectus. This summary does not contain all the information that you should consider before investing in our securities. You should carefully read this entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including each of the documents incorporated herein or therein by reference, before making an investment decision.

#### Overview

We are a global leader in developing and marketing surgical solutions for peripheral nerves. We provide products and education to improve surgical treatment algorithms for peripheral nerve damage or discontinuity. Our portfolio of products includes Avance Nerve Graft, an off-the-shelf processed human nerve allograft for bridging severed peripheral nerves without the comorbidities associated with a second surgical site, AxoGuard Nerve Connector, a porcine submucosa extracellular matrix ("ECM") coaptation aid for tensionless repair of severed peripheral nerves, AxoGuard Nerve Protector, a porcine submucosa ECM product used to wrap and protect damaged peripheral nerves and reinforce the nerve reconstruction while preventing soft tissue attachments, and Avive Soft Tissue Membrane, a minimally processed human umbilical cord membrane that may be used as a resorbable soft tissue covering to separate tissues and modulate inflammation in the surgical bed. Along with these core surgical products, we also offer the AxoTouch Two-Point Discriminator and AcroVal Neurosensory and Motor Testing System. These evaluation and measurement tools assist healthcare professionals in detecting changes in sensation, assessing return of sensory, grip and pinch function, evaluating effective treatment interventions, and providing feedback to patients on peripheral nerve function. Our portfolio of products is available in the United States, Canada, the United Kingdom and several European and other international countries.

We began marketing products in 2008 and our revenues have increased from approximately \$4.8 million in 2011 to approximately \$60.4 million in 2017. Gross profit for the year ended December 31, 2017 was approximately \$51.1 million, while our loss from operations for the year ended December 31, 2017 was approximately \$8.0 million. We have continued to broaden our sales and marketing focus, which we expect to have a continuing positive contribution to our revenue growth in the long term.

Avance Nerve Graft and Avive Soft Tissue Membrane are processed in the United States at our processing facility in Dayton, Ohio. AxoGuard Nerve Connector and AxoGuard Nerve Protector are manufactured in the United States by Cook Biotech Incorporated and are exclusively distributed by us worldwide. The AcroVal Neurosensory and Motor Testing System and AxoTouch Two Point Discriminator are contract manufactured by Viron Technologies, LLC (formerly Cybernetics Research Laboratories) ("Viron") in Tucson, Arizona. Viron supplies the AcroVal Neurosensory and Motor Testing System and AxoTouch Two Point Discriminator unpackaged and they are packaged at our distribution facility in Burleson, Texas.

### Peripheral Nerve Regeneration Market Overview

Peripheral nerve damage or discontinuity ("PND") is a major source of physical disability impairing the ability to move muscles or to feel normal sensations. Failure to treat peripheral nerve damage or discontinuity can, in severe cases, lead to full loss of sensation and/or function, pain and, sometimes, amputation. Many peripheral nerve patients who receive treatment do not optimally recover. They may suffer from both reduced, or no, muscle strength, and reduced, or no, sensitivity and pain.

Every day patients suffer traumatic bodily injuries resulting in damage or discontinuity to peripheral nerves severe enough to require surgical treatment, including injuries from motor vehicle accidents, power tool injuries, gunshot wounds, dislocations, fractures, lacerations, or other forms of penetrating trauma. The peripheral nerves commonly damaged or discontinued from these traumas include the digital, median, ulnar, radial, facial, spinal accessory and brachial plexus nerves. The "Extremity Trauma" portion of the Market (as defined below) encompasses the traumatic PND described above but excludes the OMF, Breast and Carpal Tunnel (as such terms are defined below) portions of the Market.

Beyond the physical damage or discontinuity to peripheral nerves resulting from traumatic bodily injury described above, peripheral nerve damage or discontinuity also occurs due to surgical intervention.

Nerve damage or discontinuity can occur during dental and oral surgery procedures such as third molar extractions, placement of dental implants and removal of tumors during which one or more sections of the trigeminal nerve can be damaged or discontinued ("OMF"). This can result in numbness in certain areas of the face and mouth.

Breast reconstruction neurotization ("Breast") is another portion of the Market. Currently, when a woman undergoes autologous breast reconstruction after a mastectomy, she receives the shape of a natural breast but loses sensory feeling. This forfeiture of sensation can have a profound effect contributing to quality of life issues such as depression and other emotional challenges. In certain cases, sensation can be returned to the breast area with the use of the Company's products through an innovative surgical technique called ReSensation. The Company believes that the ideal breast reconstruction should restore size, shape, symmetry, softness and now, sensation — without the potential risks and co-morbidity associated with autograft. The ReSensation technique incorporates the Company's vision into a reproducible and efficient solution for reconstructive plastic surgeons.

Finally, peripheral nerves can also be damaged due to compression injuries. For instance, severe and recurrent carpal tunnel cases may result in complications and damage to the peripheral nerve that requires surgical intervention and protection of the peripheral nerve. PND caused by recurrent carpal tunnel syndrome and cubital tunnel syndrome constitutes the "Carpal Tunnel" portion of the Market.

We estimate the United States PND market for our current product portfolio for Extremity Trauma, OMF, Breast and Carpal Tunnel is \$2.2 billion (the "Market"). From a product prospective, as to the Market, we estimate that Avance Nerve Graft represents \$976 million, AxoGuard Nerve Connector represents \$391 million, AxoGuard Nerve Protector represents \$433 million and Avive Soft Tissue Membrane represents \$439 million.

We estimate that the Extremity Trauma portion of the Market is approximately \$1.5 billion. The estimated size of the Extremity Trauma portion of the market is based upon epidemiological studies regarding the general number of trauma patients, physician interviews and incidence of PND in the population. We believe that each year in the U.S., more than 1.4 million people suffer damage or discontinuity to peripheral nerves resulting in over 700,000 extremity nerve repair procedures.

We estimate that the OMF portion of the Market is approximately \$293 million, based upon research that has indicated approximately 80,350 PND occur in the U.S. each year that are related to benign tumor resections, third molar surgeries, anesthetic injections and dental implants. We have applied the average sales price of the Avance Nerve Graft, AxoGuard Nerve Connector and AxoGuard Nerve Protector that address such PND in order to derive the OMF portion of the Market.

According to market data, there are annually 307,660 breast cancer patients of which 113,834 receive a mastectomy. Of those mastectomy patients, every year, more than 20,000 women choose autologous flap reconstruction as compared to implant based reconstructions. Removing those procedures that are not appropriate for neurotization, and based upon our assumption that 65% of women will elect to have a bilateral procedure, we estimate that the Breast portion of the Market is approximately \$250 million.

We estimate that the Carpal Tunnel portion of the Market is approximately \$188 million, or 118,000 procedures. According to literature, there are approximately 500,000 primary carpal tunnel and 53,000 primary cubital tunnel relief surgeries performed annually in the U.S. For carpal tunnel, we estimate that our addressable market is the 20% of carpal tunnel surgeries that require revision procedures to address the recurrence of symptoms. From the 53,000 primary cubital tunnel surgeries, we estimate that our addressable market is 18,000 of such surgeries comprised of revision and primary interventions. As a result, we estimate that approximately 100,000 carpal tunnel revision surgeries and 18,000 total cubital tunnel procedures are addressable each year in the U.S. to mitigate the recurrence of symptoms. These revision and primary surgeries are required due to compression of the peripheral nerve due to soft tissue attachments from the surrounding tissue or tissue infiltration entrapping the nerve. To prevent additional recurrences, surgeons will opt to use a nerve protection product such as the AxoGuard Nerve Protector. In order to derive the Carpal Tunnel portion of the Market, we multiplied the average sales price of our AxoGuard Nerve Protector by the number of estimated procedures.

### Market Expansion Opportunities

Although distribution and sales of products in the Extremity Trauma, OMF, Breast and Carpal Tunnel portions of the Market constitute our prime revenue sources today, market expansion opportunities in lower extremity surgery, head and neck surgery, urology and the surgical intervention for pain offer us new and expanded revenue opportunities. For example, we have developed the AxoGuard NerveCap which is designed to protect a peripheral nerve end and separate the nerve from the surrounding environment to reduce the development of asymptomatic or painful neuromas ("Neuroma Management"). A neuroma is a tangled mass of disorganized nerve and fibrous tissue which, if not properly diagnosed and addressed, can require long term pharmacologic treatment and pain management. An example of the use of the AxoGuard Nerve Cap is in the situation of a digital amputation whereby the nerves that are cut in the amputation may form a neuroma if the nerve end is not properly terminated or capped. In 2018, we intend to conduct clinical evaluation and user preference studies of the AxoGuard Nerve Cap and define our marketing plan for Neuroma Management.

Lower limb/total join replacement is another market opportunity. In the United States there are approximately 700,000 total knee replacements ("TKR") per year and 310,000 total hip replacements ("THR") per year. We estimate that 6% of patients have neuropathic pain with TKR and THR and more than 60,000 have neuropathic pain post joint replacement. We believe if we proceed with entering this area in the future it would increase the market for our products by approximately \$125 million.

### **Corporate Information**

We were incorporated in Minnesota in 1977. Our principal offices are located at 13631 Progress Boulevard, Suite 400, Alachua, Florida 32615. Our telephone number is (386) 462-6800. We have two wholly owned subsidiaries, AxoGen Corporation, a Delaware corporation, and AxoGen Europe GmbH, a limited liability corporation with its corporate seat in Vienna, Austria. Our web address is <a href="https://www.axogeninc.com">www.axogeninc.com</a>. Information contained in, or accessible through, our website does not constitute a part of this prospectus or any accompanying prospectus supplement.

Our reports that have been filed with the SEC are available on our website free of charge, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Forms 3, 4 and 5 filed on behalf of directors and executive officers and any amendments to such reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Copies of this prospectus and the applicable prospectus supplement may also be obtained without charge electronically or by paper by contacting Investor Relations, c/o AxoGen, Inc., 13631 Progress Boulevard, Suite 400, Alachua, Florida 32615 or by calling (386) 462-6800.

### RISK FACTORS

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should carefully consider the specific risks discussed under "Risk Factors" in our annual report on Form 10-K for our most recent fiscal year, as updated by our quarterly reports on Form 10-Q and other SEC filings subsequent thereto, pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, and in any applicable prospectus supplement. The risks and uncertainties described in any applicable prospectus supplement and in our SEC filings are not the only ones facing us. Each of these risks could materially and adversely affect our business, results of operations and financial condition, resulting in a decline in the trading price of our common stock and a complete or partial loss of your investment.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement or related free writing prospectus, and the documents incorporated by reference herein and therein may contain "forward-looking statements" within the meaning of the safe harbor provisions of Section 27A of the Securities Act, Section 21E of the Exchange Act, and the Private Securities Litigation Reform Act of 1995. These forward-looking statements only provide our current expectations or forecasts of future events and financial performance and may be identified by the use of forward-looking terminology, including the terms "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "will," "should," "could," "predicts," or the negative thereof, or other variations or comparable terminology, though the absence of these words does not necessarily mean that a statement is not forward-looking. Forward-looking statements include all matters that are not historical facts and include, without limitation, statements concerning our business strategy, outlook, objectives, future milestones, plans, intentions, goals, and future financial condition, including the period of time for which our existing resources will enable us to fund our operations.

You should read carefully the risks described in the section entitled "Risk Factors" beginning on page 5 of this prospectus, and in any accompanying prospectus supplement or related free writing prospectus, together with all information incorporated by reference herein and therein, to better understand the significant risks and uncertainties inherent in our business and underlying any forward-looking statements. As a result of these risks, actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this prospectus or in any accompanying prospectus supplement or related free writing prospectus, or incorporated by reference herein and therein, and you should not place undue reliance on any forward-looking statements.

Any forward-looking statements that we make in this prospectus speak only as of the date of such statements and we undertake no obligation to publicly update any forward-looking statements or to publicly announce revisions to any of the forward-looking statements, whether as a result of new information, future events or otherwise.

### DESCRIPTION OF THE SECURITIES WE MAY OFFER

The following description of our capital stock is not complete and may not contain all the information you should consider before investing in our capital stock. This description is summarized from, and qualified in its entirety by reference to, our Amended and Restated Articles of Incorporation ("Articles") and our Bylaws ("Bylaws"), in each case as amended to the date of this prospectus, which have been publicly filed with the SEC. See "Where You Can Find More Information" and "Incorporation of Certain Information by Reference." In addition, please refer to our other publicly filed documents incorporated herein by reference which describe our outstanding registration rights, equity incentive plans and other securities.

### COMMON STOCK

Under our Articles, we are authorized to issue up to 50,000,000 shares of common stock, par value \$0.01 per share. As of May 4, 2018, 34,697,845 shares of common stock were issued and outstanding.

### Dividends, Voting Rights and Liquidation

The holders of shares of our common stock: (i) have equal, ratable rights to dividends from funds legally available therefor, when, as and if declared by the Board of Directors, (ii) are entitled to share ratably in all assets available for distribution to holders of shares of common stock upon liquidation, dissolution or winding up of our affairs, (iii) do not have preemptive, subscription or conversion rights and there are no redemption or sinking fund provisions applicable thereto and (iv) are entitled to one vote per share on all matters which shareholders may vote on at all meetings of shareholders. Except as otherwise required by statute, our Articles or our Bylaws, all matters are decided by a majority vote of the number of shares entitled to vote at the time of the vote.

### Transfer Agent and Registrar

Broadridge Corporate Issuer Solutions, Inc. is the transfer agent and registrar for our common stock.

#### Minnesota Anti-Takeover Laws

We are governed by the provisions of Sections 302A.671, 302A.673 and 302A.675 of the MBCA. These provisions may discourage a negotiated acquisition or unsolicited takeover of us and deprive our shareholders of an opportunity to sell their common stock at a premium over the market price.

In general, Section 302A.671 of the MBCA provides that a corporation's shares acquired in a control share acquisition have no voting rights unless voting rights are approved in a prescribed manner. A "control share acquisition" is a direct or indirect acquisition of beneficial ownership of shares that would, when added to all other shares beneficially owned by the acquiring person, entitle the acquiring person to have voting power of 20% or more in the election of directors.

In general, Section 302A.673 of the MBCA prohibits a public Minnesota corporation from engaging in a business combination with an interested shareholder for a period of four years after the date of the transaction in which the person became an interested shareholder, unless the business combination is approved in a prescribed manner. The term "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested shareholder. An "interested shareholder" is a person who is the beneficial owner, directly or indirectly, of 10% or more of a corporation's voting stock or who is an affiliate or associate of the corporation, and who, at any time within four years before the date in question, was the beneficial owner, directly or indirectly, of 10% or more of the corporation's voting stock. Section 302A.673 does not apply if a committee of our Board of Directors consisting of all of its disinterested directors (excluding current and former officers) approves the proposed transaction or the interested shareholder's acquisition of shares before the interested shareholder.

If a tender offer is made for our common stock, Section 302A.675 of the MBCA precludes the offeror from acquiring additional shares of stock (including in acquisitions pursuant to mergers, consolidations or statutory share exchanges) within two years following the completion of the tender offer, unless shareholders selling their shares in the later acquisition are given the opportunity to sell their shares on terms that are substantially the same as those contained in the earlier tender offer. Section 302A.675 does not apply if a

committee of our Board of Directors consisting of all of its disinterested directors (excluding its current and former officers) approves the proposed acquisition before any shares are acquired pursuant to the earlier tender offer.

### **Registration Rights**

In connection with that certain Securities Purchase Agreement, dated as of August 26, 2015, between us and EW Healthcare Partners L.P., formerly named Essex Woodlands Fund IX, L.P. ("Essex"), we also entered into a Registration Rights Agreement with Essex, pursuant to which we granted Essex certain demand and "piggy-back" registration rights with respect to its shares of our common stock. The resale of all of Essex's shares has been registered pursuant to the Registration Rights Agreement.

### USE OF PROCEEDS

Unless the applicable prospectus supplement states otherwise, we anticipate that the net proceeds from the sale of our securities will be used for general corporate purposes, and we will retain broad discretion with respect to the allocation thereof.

### PLAN OF DISTRIBUTION

We may offer securities under this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters or dealers, through agents and/or directly to one or more purchasers. The securities may be distributed from time to time in one or more transactions:

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

We may also sell equity securities covered by this registration statement in an "at the market offering" as defined in Rule 415(a)(4) under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price on or through the facilities of Nasdaq or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale.

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

Each time that securities covered by this prospectus are sold, we will provide a prospectus supplement or supplements that will describe the method of distribution and set forth the terms and conditions of the offering of such securities, including the offering price of the securities and the proceeds to us, if applicable.

Offers to purchase the securities being offered by this prospectus may be solicited directly. Agents may also be designated to solicit offers to purchase the securities from time to time. Any agent involved in the offer or sale of our securities will be identified in a prospectus supplement.

If a dealer is utilized in the sale of the securities being offered by this prospectus, the securities will be sold to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If an underwriter is utilized in the sale of the securities being offered by this prospectus, an underwriting agreement will be executed with the underwriter at the time of sale and the name of any underwriter will be provided in the prospectus supplement that the underwriter will use to make resales of the securities to the public. In connection with the sale of the securities, we, or the purchasers of securities for whom the underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for which they may act as agent. Unless otherwise indicated in a prospectus supplement, an agent will be acting on a best efforts basis and a dealer will purchase securities as a principal, and may then resell the securities at varying prices to be determined by the dealer.

Any compensation paid to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers will be provided in the applicable prospectus supplement. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof and to reimburse those persons for certain expenses.

To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involve the sale by persons participating in the offering of

more securities than were sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option, if any. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

If indicated in the applicable prospectus supplement, underwriters or other persons acting as agents may be authorized to solicit offers by institutions or other suitable purchasers to purchase the securities at the public offering price set forth in the prospectus supplement, pursuant to delayed delivery contracts providing for payment and delivery on the date or dates stated in the prospectus supplement. These purchasers may include, among others, commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions. Delayed delivery contracts will be subject to the condition that the purchase of the securities covered by the delayed delivery contracts will not at the time of delivery be prohibited under the laws of any jurisdiction in the United States to which the purchaser is subject. The underwriters and agents will not have any responsibility with respect to the validity or performance of these contracts.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc. ("FINRA"), the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate proceeds of the offering.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

### General Information

Underwriters, dealers and agents that participate in the distribution of our securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive and any profit they make on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. Any underwriters or agents will be identified and their compensation described in a prospectus supplement. We may indemnify agents, underwriters, and dealers against certain civil liabilities, including liabilities under the Securities Act, or make contributions to payments they may be required to make relating to those liabilities. Our agents, underwriters, and dealers, or their affiliates, may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

Representatives of the underwriters through whom our securities are sold for public offering and sale may engage in over-allotment, stabilizing transactions, syndicate short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves syndicate sales in

excess of the offering size, which creates a syndicate short position. Stabilizing transactions permit bids to purchase the offered securities so long as the stabilizing bids do not exceed a specified maximum.

Syndicate covering transactions involve purchases of the offered securities in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit the representative of the underwriters to reclaim a selling concession from a syndicate member when the offered securities originally sold by such syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Such stabilizing transactions, syndicate covering transactions and penalty bids may cause the price of the offered securities to be higher than it would otherwise be in the absence of such transactions. These transactions may be effected on a national securities exchange and, if commenced, may be discontinued at any time.

Underwriters, dealers and agents may be customers of, engage in transactions with or perform services for, us and our subsidiaries in the ordinary course of business.

We will bear all costs, expenses and fees in connection with the registration of the securities as well as the expense of all commissions and discounts, if any, attributable to the sales of any of our securities by us.

### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549 on official business days during the hours of 10:00am and 3:00pm. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC maintains a website at http://www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. In addition, we maintain a website at http://www.axogeninc.com and make available free of charge on this website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained in, or accessible through, our website does not constitute a part of this prospectus or any accompanying prospectus supplement.

### INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" much of the information we file with it, which means that we can disclose important information to you by referring you to those publicly available documents. All of the information that we incorporate by reference is considered to be part of this prospectus, and any of our subsequent filings with the SEC will automatically update and supersede this information. This prospectus incorporates by reference the documents listed below and any future filings made by AxoGen with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information furnished under Items 2.02 or 7.01 of our current reports on Form 8-K, or exhibits related thereto, between the date of this prospectus and the termination of the offering of the securities:

- our annual report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on February 28, 2018;
- the information specifically incorporated by reference into our annual report from our definitive proxy statement on Schedule 14A, filed with the SEC on March 29, 2018, as amended and supplemented by the Definitive Additional Materials on Schedule 14A that we filed with the SEC on March 29, 2018 and March 30, 2018;
- our quarterly report on Form 10-Q for the quarter ended March 31, 2018, filed with the SEC on April 30, 2018;
- our current reports on Form 8-K, filed with the SEC on <u>January 5, 2018</u>, <u>March 13, 2018</u>, and <u>April 13, 2018</u>;
- the description of our common stock contained in our registration statement on Form 8-A filed withthe SEC on August 6, 2013, including any amendment or report filed for the purpose of updating such description.

Any statement contained in any document incorporated by reference herein will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any additional prospectus supplements modifies or supersedes such statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide, upon written or oral request, at no cost, to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus but not delivered with the prospectus. You may request a copy of these filings by writing us at Investor Relations, c/o AxoGen, Inc., 13631 Progress Boulevard, Suite 400, Alachua, Florida 32615. Our telephone number is (386) 462-6800.

You should rely only on the information incorporated by reference or provided in this prospectus or any supplement. We have not authorized anyone else to provide you with different information. You should not assume that information in this prospectus or any supplement is accurate as of any date other than the date on the front of these documents.

### LEGAL MATTERS

Legal matters with respect to the securities offered hereby are being passed upon for us by DLA Piper LLP (US), Short Hills, New Jersey.

### **EXPERTS**

The consolidated financial statements and schedule of AxoGen, Inc. and its subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 2017, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2017, have been incorporated by reference herein in reliance upon the reports of Lurie, LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

# 247,699 Shares



# **Common Stock**

PROSPECTUS SUPPLEMENT

January 8, 2021