

May 13, 2014

ANNUAL SHAREHOLDER MEETING

KAREN ZADEREJ GREG FREITAG PRESIDENT & CEO GENERAL COUNSEL

NASDAQ: AXGN



Agenda

- Welcome & Introductions
- 2014 Shareholders' Meeting Formal Actions
- AxoGen: The Year in Review
- AxoGen: Looking to the Future
- Questions and Answers



Shareholders' Meeting Formal Actions

- The election of Eight persons to the Board of Directors to serve for a term of one year or until their successors are duly elected and qualified.
- The amendment of the AxoGen 2010 Stock Incentive Plan to increase the number of shares of common stock of AxoGen authorized for issuance under the plan by 750,000 shares
- The ratification of the appointment of Lurie Besikof Lapidus & Company, LLP as AxoGen's independent registered public accounting firm for the fiscal year ending December 31, 2014.



Safe Harbor Statement

This Presentation contains "forward-looking" statements as defined in the Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations or predictions of future conditions, events or results based on various assumptions and management's estimates of trends and economic factors in the markets in which we are active, as well as our business plans. Words such as "expects", "anticipates", "intends", "plans", "believes", "seeks", "estimates", "projects", "forecasts", "may", "should", 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 product development, product potential, regulatory environment, sales and marketing strategies, capital resources or operating performance.

The forward-looking statements are subject to risks and uncertainties, which may cause results to differ materially from those set forth herein. Forward-looking statements in this presentation should be evaluated together with the many uncertainties that affect the Company's business and its market, particularly those discussed in the risk factors and cautionary statements in the Company's filings with the Securities and Exchange Commission. Forward-looking statements are not guarantees of future performance, and actual results may differ materially from those projected. The forward-looking statements are representative only as of the date they are made, and the Company assumes no responsibility to update any forward-looking statements, whether as a result of new information, future events or otherwise.



The Year in Review



AxoGen Overview

Focus on Executing Sales & Marketing Strategy To Drive Shareholder Value

- Only company focused on peripheral nerve repair solutions
- Addressing a \$1.6B+ current market opportunity
- Comprehensive product portfolio addresses all surgical peripheral nerve reconstruction needs
- Pioneering sales and market strategy, solid execution plan
- Poised for strong growth in 2014
- High gross margins: 78% in 1st Quarter 2014
- Barriers to competitive entry & growing body of clinical data
- Long term expansion potential beyond current market



Providing options for surgeon & patients

Nerve injuries can happen to anyone

- More than 1.4 million Americans will experience a nerve injury in 2014
- More than 900,000 will require a surgical intervention
- AxoGen products are used to repair patients of all ages and all walks of life



AxoGen Patient Story: Jajuan

- 10 year old aspiring football player & video game lover
- Laceration in hand caused loss of sensation and numbness
- Nerve and tendon injury repaired by Dr. Joshua Abzug
- Nerve gap bridged with Avance® Nerve Graft
- Sensory recovery underway



Need for Options in Nerve Repair

Nerves are Injured in Many Ways

Causes of Nerve Injuries

- Lacerations, power tool / saw accidents, motor vehicle accidents, battle field injuries, gunshot wounds, natural/other disasters
- Surgical injuries
- Nerve compression: Carpal tunnel revision, cubital tunnel



AxoGen Patient Story: Edward

- Navy Corpsman, shot while serving in Afghanistan
- 5 cm gap of sciatic nerve
- Family sought repair options other than amputation
- Repaired with Avance® Nerve Graft at Bethesda Naval (now Walter Reed National Military Hospital)
- Walking again on his own legs, attending Penn State



Need for Options in Nerve Repair

Peripheral Nerve Injuries Impact Quality of Life

Impact of Peripheral Nerve Injuries

- Pain chronic, stabbing, radiating, debilitating
- Numbness and Loss of Sensation
- Partial or Full Loss of Movement



AxoGen Patient Story: Frankie

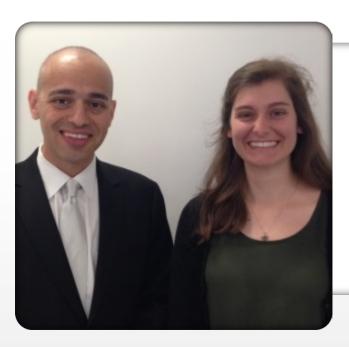
- 12 year old male, injured in an ATV rollover
- 7+cm defect in ulnar nerve
- Parents did not want risk of comorbidities associated with autograft repair
- Repaired with Avance® Nerve Graft & 2 AxoGuard® Nerve Connectors
- Return of fine motor skills in fingers, planning to join the military



Expanded into Oral Maxillofacial Market

Oral nerve injuries can occur during routine dental procedures

- Trigeminal nerve may be injured during routine procedures such as wisdom tooth removal, dental implants and benign tumor removal
- Injuries can lead to lack of sensation and pain in the mouth and facial area
- Prompt surgical attention is essential for successful outcome



AxoGen Patient Story: Anna

- Dartmouth College Student
- Lingual nerve severed during wisdom tooth removal
- Lost sensation in tongue, difficulty with speech
- Repaired by Dr. Sharokh Bagheri .
- Wrapped with AxoGuard® Nerve Protector
- Reporting 75% recovery at month 5



The AxoGen Family of Products

Complete line of products, Strong unmet need

- Thousands of implants to date
- Currently distributed in the US, Austria, Canada, Israel, Italy, Netherlands, Sweden, Switzerland, and the United Kingdom















Building Market Awareness

Continuing focus on building awareness among Surgeons, Patients & Investors

- Participated in in major clinical conferences
 - Educational sales booth
 - Podium presentations
 - Sponsored surgeon panels
- Garnered Positive Media Attention
 - Local and National television
 - Wall Street Journal, SF Chronicle









Educate Surgeons & Develop Advocates

Increased emphasis on education & hands-on training

- Launched AxoGen Professional Education Program
 - Educate on "best practices", science of nerve repair
- Continued Surgeon Advocacy and Speakers' Bureau
 - National and International Key Opinion Leaders
 - Data presentations, panel events and publications







Growing Body of Clinical Evidence

Continued development of clinical studies

- RANGER® Study largest multi-center, on-going registry study in peripheral nerve repair with processed nerve allograft
 - Continued enrollment 18 centers, 436 nerve injuries
 - 24 podium presentations, 2 peer reviewed presentations
- CHANGE clinical study multi-center prospective randomized comparative pilot study of hollow-tube conduits and Avance® Nerve Graft
 - Presented at AAHS Annual Meeting
 - Demonstrated favorable results versus hollow-tube conduits
- 12 Investigator initiated studies and publications



Recognitions

- 2013 Florida Fast 100
- Deloitte & Touche "Fast 500"
- Frost & Sullivan 2014 Technology Innovation Award
- National Business Incubator Association 2014 Finalist Incubator Client of the Year



Year in Review

Delivering business results while building for the future

- Competed \$18.6 million financing
- Up-list to NASDAQ
- Exceeded annual sales of \$10 million
 - Reported sales growth of over 42% over 2012
- Initiated AxoGen Professional Education Program
- Executing sales & marketing strategy
- Received CE Mark Approval for AxoGuard® Family of Products
- Successful expansion into oral maxillofacial market
- Nerve tissue recipient honored in Rose Parade
- Awarded or subcontractor in \$6 million in grants
- Third party report confirms traumatic nerve repair market in excess of \$1.7 billion
- Positive media coverage print, radio, TV
- Opened world-wide distribution center

.....Restoring quality of life to patients

Continued Execution of Sales Plan

Expanded Reach, Focus on Sales Execution

- Expanded Reach:
 - 24 direct sales professionals
 - 22 independent distributors
 - Available in 8 countries OUS
- Focused Sales Execution:
 - Breadth: grow account foot print
 - Depth: utilization of all 3 product lines, increase penetration
 - Quality: High and medium potential accounts
 - Reorder rate



Strong Competitive Barriers

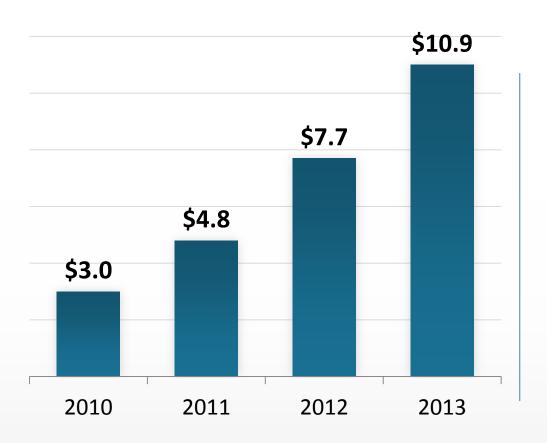
IP and Unique Regulatory Framework

- Avance® Nerve Graft
 - 6 issued U.S. patents; 4 pending U.S. patent applications; 3 issued international patents and 9 pending international patent applications
 - Regulatory path US: Biologic Transition Process
 - November 2010: Enforcement Discretion letter from FDA allowing continued sales under controls applicable to HCT/P with agreed transition plan to Biologic (BLA)
 - BLA requires a phase III clinical trial; SPA approved by FDA
 - Regulatory path ex-US: Country by country
 - Registration completed in Austria, Canada, Israel, Italy, Netherlands, Switzerland and the United Kingdom.
- AxoGuard® Nerve Connector & AxoGuard® Nerve Protector
 - FDA 510(k) Clearance, CE Mark and Health Canada Approval
 - Patents held by Cook Biotech, AxoGen exclusive WW license for nerve



Strong Growth

42%+ Annual Sales Revenue Growth



46% Revenue Growth Q1 2013 over Q1 2014



78% Gross Margin Q1 2014



Balance Sheet & Capital Structure

Balance Sheet Highlights	March 31, 2014
Cash and cash equivalents	\$16,807,753
Total current assets	\$22,434,498
Total current liabilities	\$ 1,922,861
Note Payable — Revenue Interest Purchase Agreement**	\$26,255,540

Capital Structure	March 31, 2014
Common Stock	17,445,968 shares
Common Stock Options	2,098,195 shares
Common Stock Warrants	89,686 shares
Fully Diluted	19,633,849 shares

^{**} PDL BioPharma, Inc. \$20.8M Revenue Royalty Agreement:

- Maximum 8 years (10/2020) paying 9.95% on Gross Revenue from current products
- No re-payment after last royalty payment

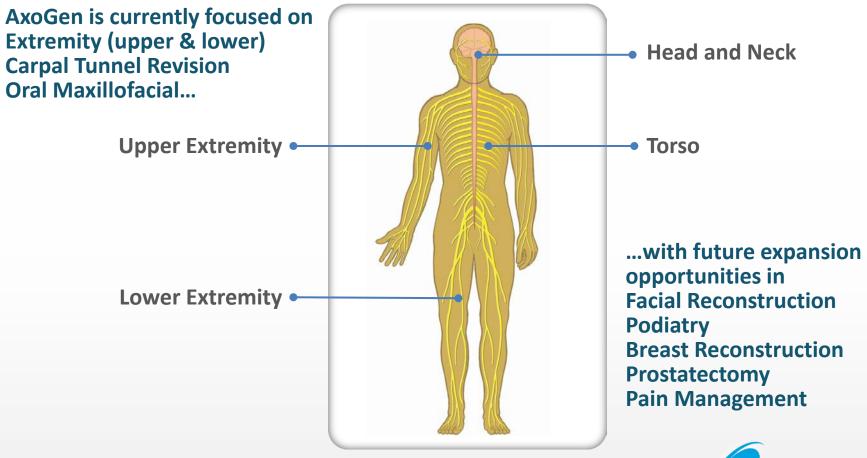


Looking to the Future



Expanding to Other Markets

The Nerve Repair Market is Large with Opportunity for Expansion



Investment Considerations

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Thank you for joining AxoGen's 2014 Shareholders' Meeting

Questions?





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Recognitions Deloitte & Touche "Fast 500" Frost & Sullivan 2014 Technology Innovation Award

It's time to rethink nerve repair!

AxoGen is the only company dedicated to the \$1.6 billion US nerve repair market

> Visit us at www.AxoGenInc.com Follow us on Twitter @AxoGen