BONEBIOLOGICS
delivering innovative orthobiologics

NASDAQ: BBLG

Regenerative Medicine for Bone

INVESTMENT PRESENTATION / JUNE 2026

SAFE HARBOR **STATEMENT**

This presentation contains “forward-looking” statements, including, without limitation, statements relating to: the future of Bone Biologics; our business strategy and plans; the ongoing development of our product candidates; our plans to commercialize, and the market potential for rhNELL-1; expectations regarding our development plans, expected growth in the orthobiologics market; our anticipated clinical, regulatory and other milestones (including the timing of such milestones); expected terms of patent coverage and the potential benefits of our product candidates.

Forward-looking statements also include all statements that are not historical facts. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These risks and uncertainties include, without limitation, those associated with the process of developing, obtaining regulatory approval for, and commercializing orthobiologic products; whether rhNELL-1 achieves adoption among surgeons and patients and adequate reimbursement from payors; competition in our target markets; the fact that results of past preclinical studies and clinical trials may not be predictive of subsequent trials; our reliance on third parties to manufacture our product candidates and conduct our clinical trials, which could delay or limit the future commercialization, development or regulatory approval of our product and product candidates; the fact that we may require additional capital to fully develop and commercialize rhNELL-1 and any of our other product candidates, and may be unable to obtain such additional capital in sufficient amounts or on terms acceptable to us; the risk that our patents may be challenged or invalidated; and other risks and uncertainties described in our filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in our most recent Annual Report on Form 10-K and subsequent filings with the SEC. These forward-looking statements represent our beliefs and assumptions only as of the date of this presentation, and we assume no obligation to update or revise any of these statements. We caution investors not to place considerable reliance on these forward-looking statements.

COMPANY **OVERVIEW**

Bone Biologics is **redefining bone regeneration with NELL-1**, a proprietary growth factor, proven to increase the quantity and quality of bone in preclinical trials, while displaying a strong safety profile

LARGE MARKET OPPORTUNITY	$3B spine fusion market, with long-term potential in $8B trauma and $11B osteoporosis markets
DIFFERENTIATED MECHANICS	NELL-1 grows bone only where bone exists — enabling controlled, higher-quality formation vs. current solution of FDA approved rhBMP
STRONG VALIDATION	45+ peer-reviewed publications, 3 animal models, 4 issued patents; exclusive NELL -1 technology rights from UCLA
CLINICAL PROGRESS	30-patient pilot in Australia supporting U.S. pivotal trial; Pre-clinical studies have shown 37.5 percentage point increase in fusion
EFFICIENT PATH TO APPROVAL	Clear FDA pathway: filing planned as a device/drug combination under Pre-Market Approval (PMA)

$3B
SPINE FUSION MARKET

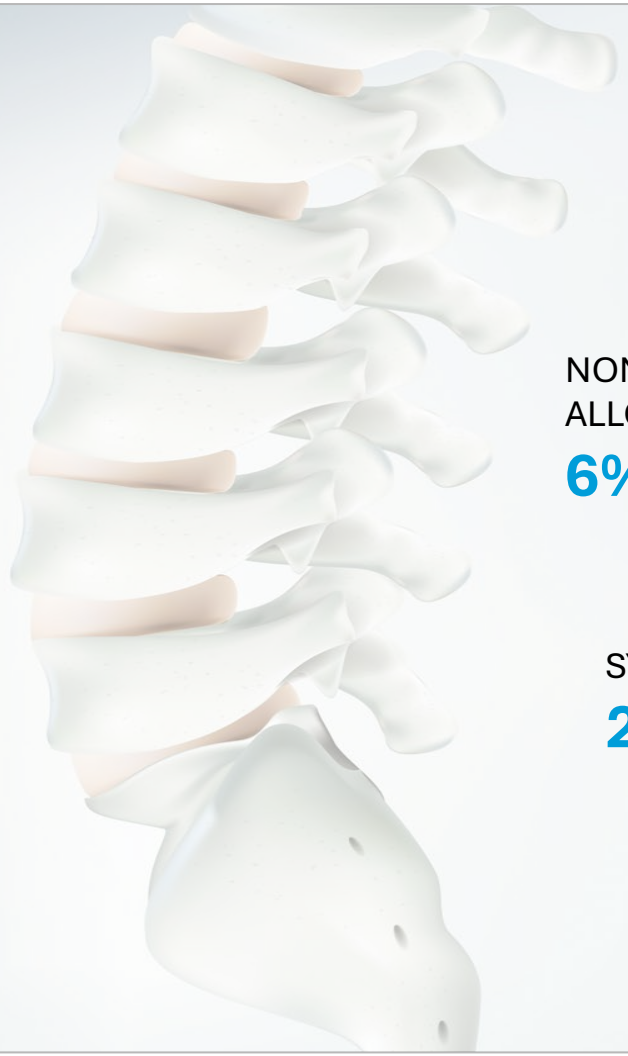
45+
PEER-REVIEWED PUBLICATIONS

37.5pp
INCREASE IN SPINE FUSION

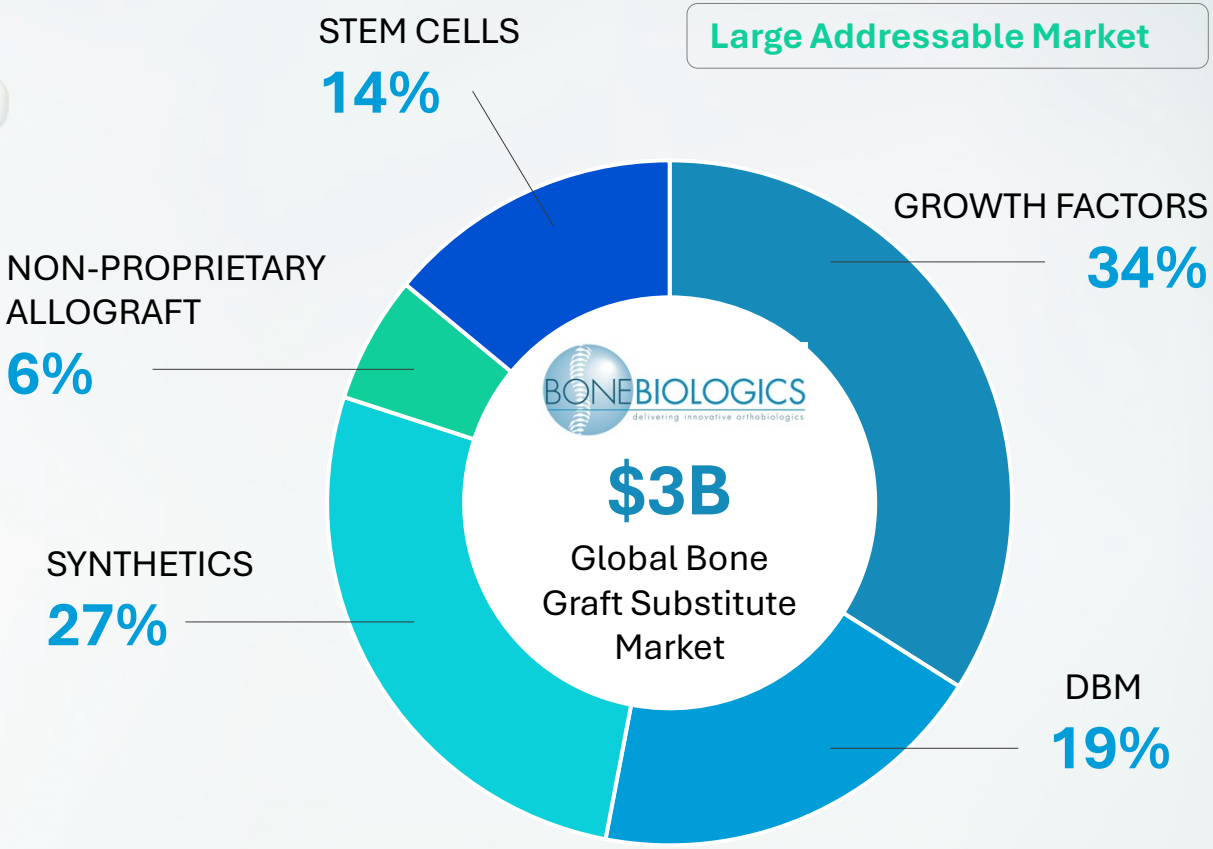
4
ISSUED PATENTS

ORTHOBIOLOGICS MARKET

Fragmented $3B Market Poised for Disruption by Next-Generation Solutions



Large Addressable Market



Sources: Orthopedic Network News

Hard Healer Fusion Remains a Critical Clinical Unmet Need

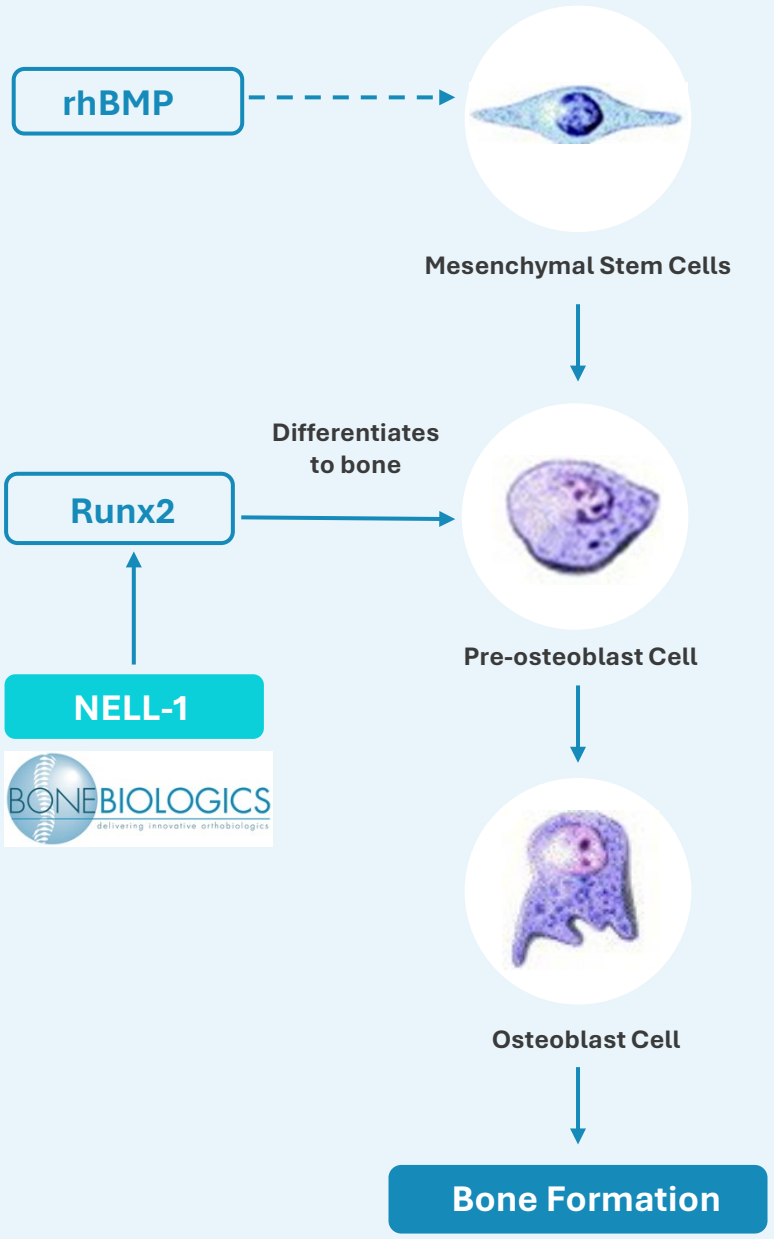
A major challenge in orthopedic surgery is effective bone regeneration – especially in hard healers

CHALLENGES WITH rhBMP	**PROPOSED** SOLUTION NELL-1
Rapid, uncontrolled bone growth can cause unsound structure (i.e., egg shelling)	Rapid, controlled, guided bone growth that should improve quality of bone
Swelling and intense inflammatory response in off label use; Cysts	Forms bone in target specific fashion later in the cascade without inducing inflammation
Unwanted bone formation – will grow where bone is not present	Does not initiate bone formation in surrounding tissue
Less dense bone formation	Systemic administration in mice showed a marked anabolic effect - potential osteoporosis therapy

NELL-1 MECHANISM OF ACTION

Improved Safety From Later Pathway Interaction

- NELL-1 acts later in the pathway of bone formation and only grows bone in presence of bone (improved safety)
- Runx2 protein is known as the "Master Switch" which activates NELL-1 and is responsible for bone growth
- rhBMP induces a molecular cascade early in the pathway
- rhBMP targets many cells – may lead to tissue formation in undesirable anatomical locations



Nell-1 MOA Demonstrates Clinical Viability

Over 45 peer-reviewed publications support MOA and its potential for better bone formation

Novel Wnt Regulator NEL-Like Molecule-1 Antagonizes Adipogenesis and Augments Osteogenesis Induced by Bone Morphogenetic Protein-2.

- Am J Pathol 186(2): 2016

Involvement of MAPK signaling molecules and RUNX2 in the NELL-1 induced osteoblastic differentiation.

- FEBS Letters 582: 365-371, 2008

Neural EGF-like protein (NELL-1): signaling crosstalk in mesenchymal stem cells and applications in regenerative medicine.

- Genes Dis. 4(3): 127-37, 2017

NELL-1 based demineralized bone graft promotes rat spine fusion

- Journal of Orthopedic Science 18(4): 646-657 2013

NELL-1 protein promotes bone formation in a sheep spine fusion model

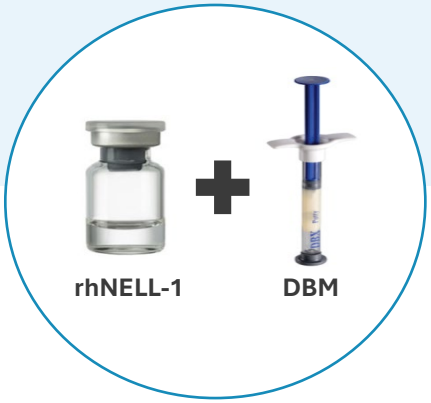
- Tissue Eng. Part A 17(7-8): 1123-35, 2011

NELL-1 induces Sca-1 mesenchymal progenitor cell expansion in NHP lumbar spine fusion model

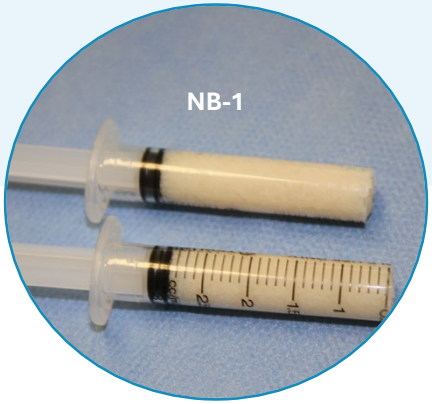
- JCI Insight. 2(12): 2017

Surgical Procedure Remains the Same

No Change to Protocol with Orthobiologic Prep and Implantation



A vial of NELL-1 and Demineralized Bone Matrix (DBM) will be sold in a convenience kit. Recombinant NELL-1 is mixed with demineralized bone matrix putty in the operating room.



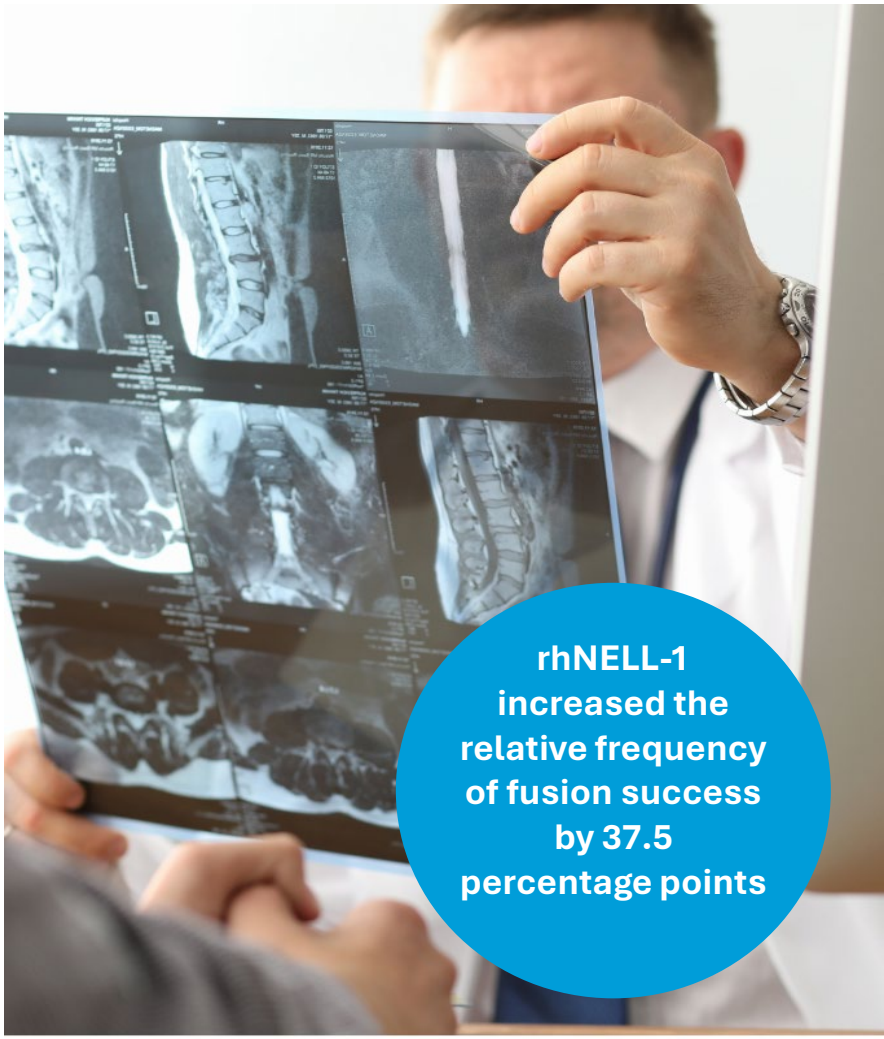
A delivery device will allow the surgeon to deliver the reconstituted NELL-1 with the appropriate quantity of DBM putty just prior to implantation.

NELL-1 + DBM mixture is then inserted into cage, just prior to implanting in patient.

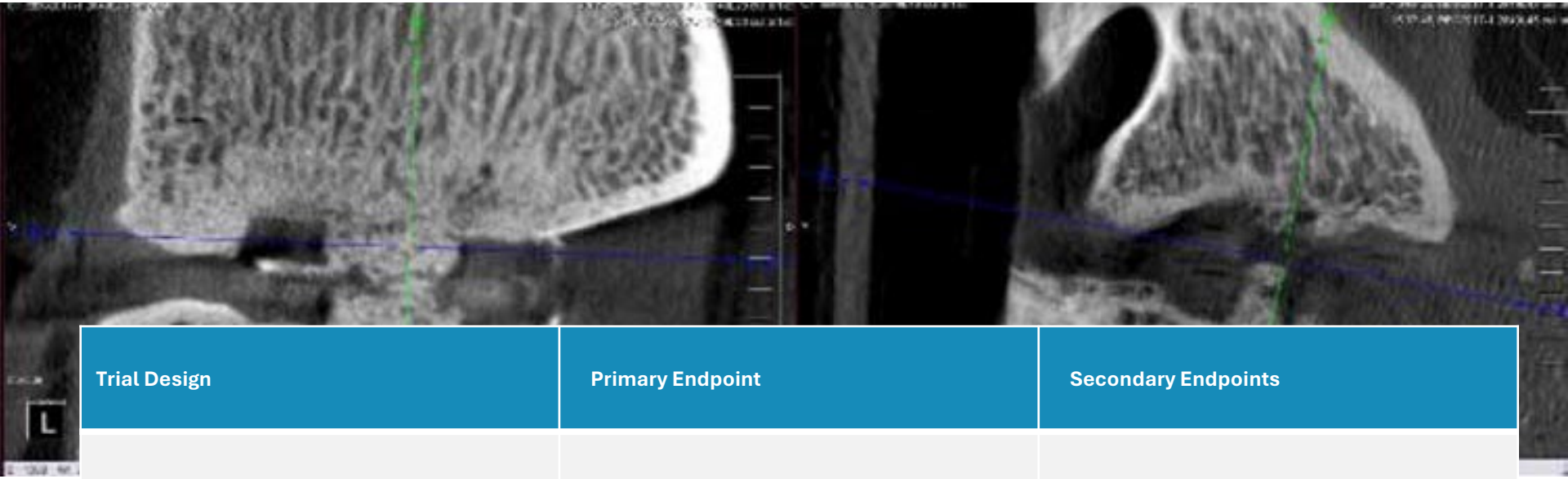
Studies Demonstrate Safety and Effectiveness

- Spine fusion effectiveness demonstrated across 3 animal species (rodent, sheep, NHP)
- Extensive outcome measures including micro CT, x-ray, histology, and biomechanics
- Completed two clinically relevant sheep studies that demonstrated that rhNELL-1 had no adverse reactions to NELL-1 and the *in vivo* efficacy results support fusion
- The pivotal sheep study evaluated the effect of rhNELL-1 combined with DBM on lumbar interbody arthrodesis in an adult ovine model to support initiation of a pilot clinical study in Australia and IDE approval from FDA

	Fusion Rate at 26 Weeks
sDBX	**0/8 (0%)**
sDBX + rhNELL-1	**3/8 (37.5%)**



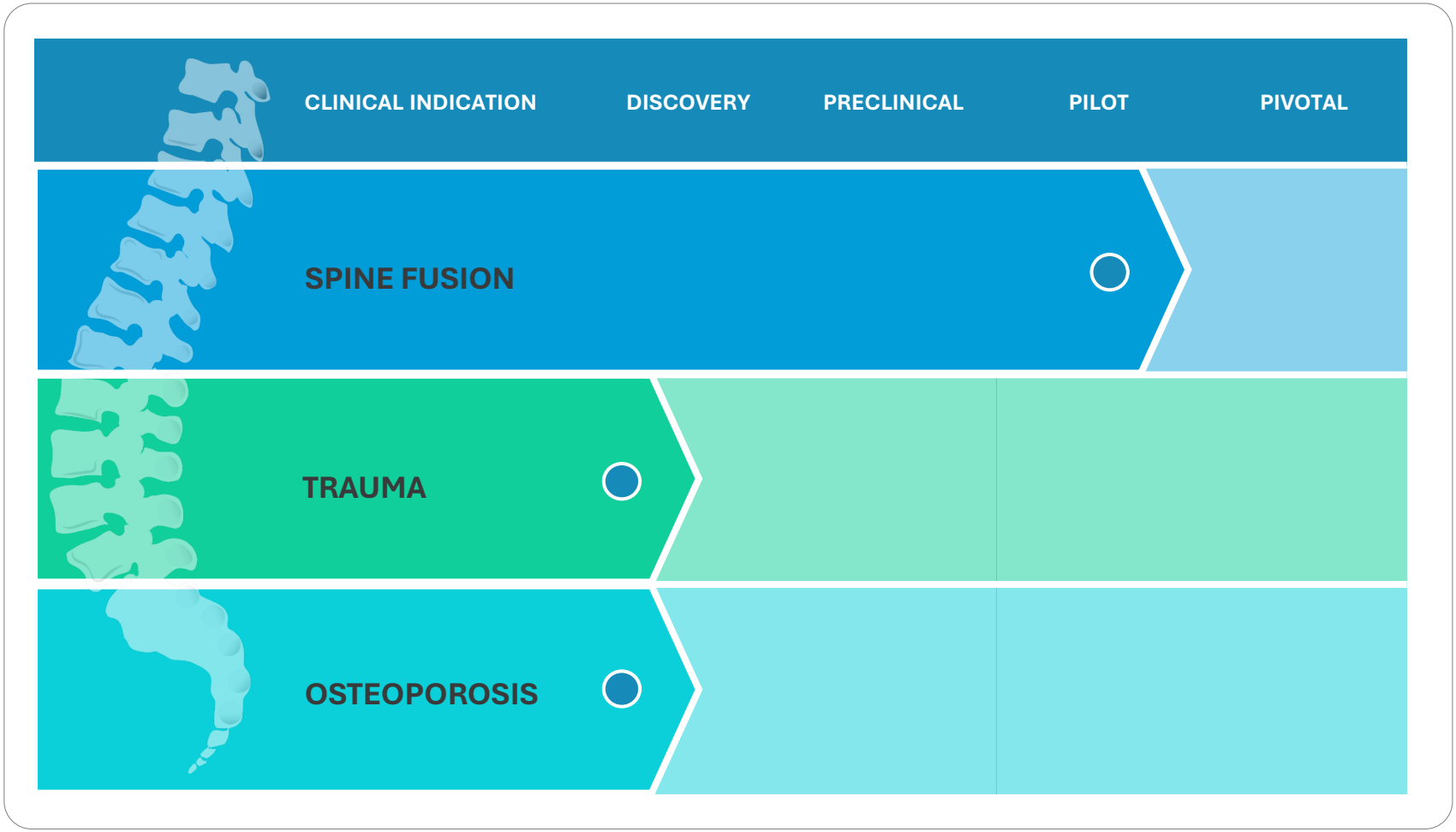
A Thoughtful Sequence of Clinical Trials



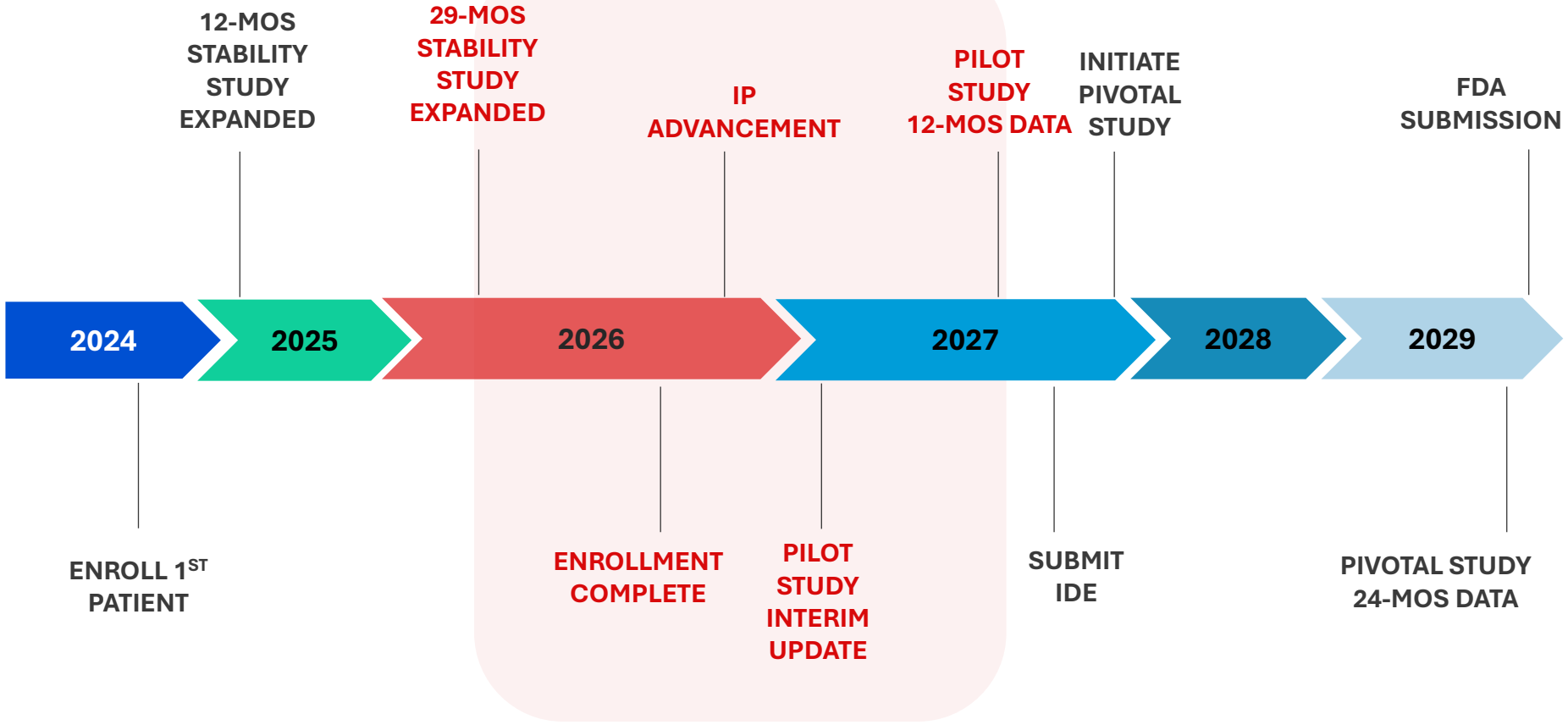
Trial Design	Primary Endpoint	Secondary Endpoints
30 patients: • 12 @ 2.0 mg/mL • 12 @ 1.5 mg/mL • 6 @ local autograft **Single level DDD patients**	• Fusion success rate @ 12-months from radiological assessment • Change from baseline in ODI	• Adverse events • Surgical measurements

First-in-Man pilot clinical trial in Australia enables and precedes U.S. pivotal study

Focus on Fusion Provides Differentiated Product in Clinical Need



Clear Pathway to FDA Approval



Strong IP Barrier

Patent No.	Title	Issued
U.S. Patent No. 9,447,155	Isoform NELL-1 peptide	9/20/2016
U.S. Patent No. 9,974,828	Isoform NELL-1 peptide	5/22/2018
U.S. Patent No. 11,000,570	Isoform NELL-1 peptide	5/11/2021
U.S. Patent No. 10,335,458	Pharmaceutical compositions for treating or preventing bone conditions	7/2/2019

Exclusive license to NELL-1 technology from UCLA for spine, trauma and osteoporosis

4
issued patents

IP strategy is to expand portfolio via composition of matter, methods of use and methods of production

LEADERSHIP TEAM

Jeffrey Frelick
President & CEO

- COO Life Science Enterprises
- Med-Tech analyst, Canaccord, ThinkEquity, Lazard, Leerink
- Consultant, Boston Biomedical Consultants
- Regional Sales Mgr., Becton Dickinson (NYSE: BDX)
- Laboratory Technologist, Clinical Pathology Facility

Deina Walsh
Chief Financial Officer

- Partner in EFP Rotenberg LLC
- Certified Public Accountant

Brent Atkinson, Ph.D.
R&D Consultant

- VP R&D, AlloSource
- VP Product Development, BioSET
- Director R&D, Dentsply
- Product Development Scientist, Sulzer Biologics (SIX Swiss Exchange: SUN)

The board of directors are all independent and have executive operational experience in life science companies

Bruce Stroever
MTF
Johnson & Johnson (NYSE: JNJ)

Rob Gagnon
Opus Genetics (Nasdaq: IRD)
Remix Therapeutic
Verastem Oncology (Nasdaq: VSTM)
Harvard Bioscience (Nasdaq: HBIO)

Siddesh Angle. Ph.D.
Regenosine
Zimmer (NYSE: ZBH)

Phil Meikle
Biosystems

KEY FINANCIAL HIGHLIGHTS

Well-Funded, Low Burn, Runway into 2026

Cash on Hand:	$4.5 million (as of March 31, 2026)
Cash Runway:	Current funds expected to support operations into Q4 2026
Shares Out:	1.8 million
Market Cap:	$2.5 million (as of June 23, 2026)
Debt:	None
Balance Sheet:	Strong working capital, efficient OpEx, manageable burn

INVESTMENT SUMMARY

NEAR-TERM $3B MARKET OPPORTUNITY

- Global target market in spine fusion
- Surgeon concern is hard healers
  - Fusion rates are low
  - Longer recovery times lead to poorer outcomes
- Longer-term potential the $11B osteoporosis and $8B trauma markets

NELL-1 SOLUTION

- NELL-1 provides rapid, controlled guided bone growth
- Grows bone only in presence of bone
- >45 peer-reviewed publications
- NELL-1 demonstrates efficacy and is well-tolerated
- Easily administered during surgical procedure

SEASONED LEADERSHIP GUIDES CLEAR REGULATORY & COMMERCIAL PATH

- A clear and efficient regulatory pathway, with FDA regulating NELL-1 as a device/drug combination with PMA filing
- 30-patient pilot clinical trial underway
- Deep management team & board of directors reflected as public company operators, regulatory and scientific

CONTACT

CORE IR
Investor Relations
(212) 655-0924
investors@bonebiologics.com

bonebiologics.com

BONEBIOLOGICS
delivering innovative orthobiologics

NASDAQ: BBLG