

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, 6 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% increase in fusion
- **Efficient Approval Path:** Clear FDA pathway - filing planned as a device/drug combination under Pre-Market Approval (PMA)

\$3B

SPINE FUSION
MARKET

45+

PEER-REVIEWED
PUBLICATIONS

37.5%

INCREASE IN
SPINE FUSION

6

ISSUED
PATENTS

PROBLEM

Uncontrolled bone growth, inflammation, and off-target formation limit fusion success in hard-to-heal patients

SOLUTION

NELL-1 enables controlled, targeted bone formation to support dense, high-quality fusion without inflammation

NELL-1 MECHANISM OF ACTION

Improved Safety From Later Pathway Interaction

- **Late-Stage Activation:** NELL-1 acts later in the pathway of bone formation and only grows bone in presence of bone (improved safety)
- **Runx2-Driven Signaling:** Runx2 protein is known as the “Master Switch” which activates NELL-1 and is responsible for bone growth
- **Early-Pathway Stimulation:** rhBMP induces a molecular cascade early in the pathway
- **Non-Specific Targeting:** rhBMP targets many cells – may lead to tissue formation in undesirable anatomical locations

SEAMLESS SURGEON ADOPTION

Surgical Procedure Remains the Same



- A vial of NELL-1 and Demineralized Bone Matrix (DBM) will be sold in a kit. Recombinant NELL-1 is mixed with demineralized bone matrix putty in the operating room
- A delivery device allows surgeon to deliver the reconstituted NELL-1 with the appropriate quantity of DBM putty just prior to implantation
- NELL-1 + DBM mixture is inserted into cage, just prior to implanting in patient

TOLERABILITY & EFFICACY

Studies Demonstrate Safety and Effectiveness

- Multi-species validation: Spine fusion efficacy demonstrated in rodent, sheep, and non-human primate models
- Robust assessments: Outcomes evaluated using micro-CT, X-ray, histology, and biomechanics
- Clinically relevant sheep data: Two sheep studies showed no adverse reactions and in vivo fusion efficacy
- Pivotal translational study: rhNELL-1 plus DBM evaluated in ovine lumbar fusion to support Australian pilot study and FDA IDE

FINANCIAL HIGHLIGHTS

- **Cash on Hand:** \$6 million (as of September 30, 2025)
- **Cash Runway:** Funding expected to support operations into Q4 2026
- **Shares Out:** 1.7 million
- **Market Cap:** \$3.1 million (as of January 15, 2026)
- **Debt:** None
- **Balance Sheet:** Strong working capital, efficient OpEx, manageable burn

SEASONED LEADERSHIP

Deep management team & board of directors reflected as public company operators, both regulatory and scientific