



Market Snapshot

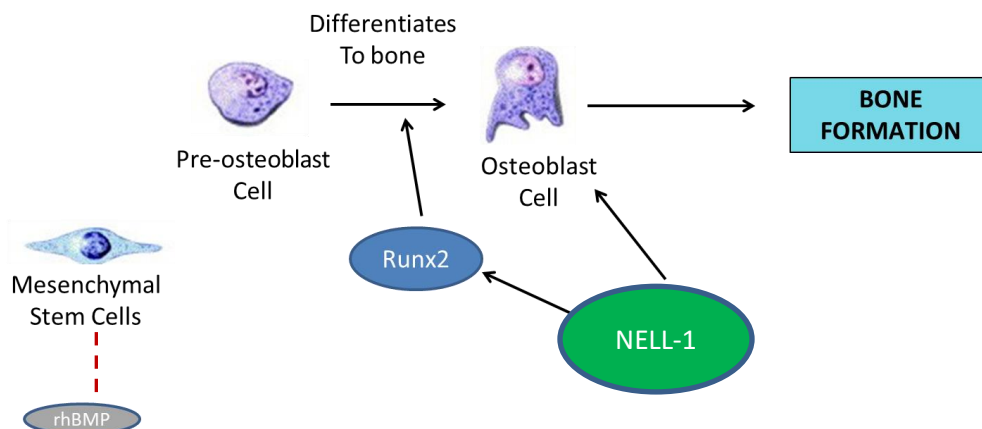
Nasdaq ticker symbol:	BBLG
Stock price (01/22/24):	\$3.77
52-week range:	\$2.91.- \$96.00
Market capitalization:	\$1.8 mil
Officer and director ownership:	15%
Fiscal year-end:	Dec 31

Founded to pursue regenerative medicine therapies to treat bone disorders, **Bone Biologics Corporation** is developing differentiated orthobiologic products for the multibillion-dollar spinal fusion market. The Company is undertaking groundbreaking work with select strategic partners, building upon unprecedented research involving the NELL-1 protein that has produced a significant number of studies and publications in peer-reviewed scientific journals. Bone Biologics is focusing current development efforts for its bone graft substitute product on bone regeneration in spinal fusion, and also holds technology rights to trauma and osteoporosis indications.

Investment Highlights

- **Developing a treatment for an unmet clinical need in spinal fusion.** Bone Biologics' NELL-1 recombinant protein technology provides faster, targeted bone regeneration for "hard healers" with an advantageous safety profile. NELL-1 potentially could replace current rhBMP (recombinant human proteins) by addressing limitations, which include unwanted and uncontrolled bone growth, and unsound bone structure.
- **Lead product addresses the \$3.0 billion orthobiologics market for spine fusion** plus the company faces additional multibillion-dollar market opportunities in osteoporosis and trauma.
- **Excellent preclinical results** have been generated to-date that demonstrate a 37.5% increases in spine fusion compared with the control.
- **Exclusive global license to proprietary technology from UCLA** that is protected by 5 patents, further supported by early strategic investors. In addition, more than 45 peer-reviewed publications confer additional scientific validation to the technology.
- **The clearly defined device/drug combination regulatory pathway will potentially speed development.** The U.S. Food and Drug Administration (FDA) has indicated that NELL-1 will be reviewed as a device/drug combo product with a Premarket Application (PMA) filing, a faster and more efficient process than a New Drug Application (NDA) filing.
- **An experienced management team** that is committed to operational excellence, commercial success and shareholder value. President and CEO Jeffrey Frelick has more than 25 years of medical technology industry and Wall Street experience. Chairman Don Hankey is a highly successful entrepreneur, having founded the Hankey Group and its seven operating companies across multiple industries.

NELL-1 Mechanism of Action



- ✓ NELL-1 acts later in the pathway of bone formation and only grows bone in the presence of bone, thereby providing a safety advantage
- ✓ Runx2 Protein is known as the "Master Switch" that activates NELL-1 and is responsible for bone growth
- ✓ rhBMP induces a molecular cascade early in the pathway
- ✓ rhBMP targets many cells and may lead to tissue formation in undesirable anatomical locations

No Change to Surgical Procedure



rhNELL-1



DBM

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



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



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

Proposed NELL-1 Solution to Hard Healers

- NELL-1 provides rapid, controlled, guided bone growth that avoids ectopic bone formation
- NELL-1 promotes the formation of bone in target-specific fashion later in the cascade, without inducing inflammation
- NELL-1 does not initiate bone formation in surrounding tissue or skeletal muscle
- *In vivo* efficacy supports spinal fusion in an endplate sparing lumbar interbody fusion in large animals

Management Team

Jeffrey Frelick, CEO and President

- COO Life Sciences Enterprises
- 15 yrs medtech sell-side analyst at Canaccord, ThinkEquity, Lazard and Leerink

Deina Walsh, CPF, Chief Financial Officer

- Former partner EFP Rotenberg LLP
- SEC reporting/compliance, financing experience

Brent Atkinson, Ph.D., R&D Consultant

- 25+ yrs. leading product dev., clinical, regulatory, and manufacturing of combination devices for spine and other bone-related applications

Board of Directors

Don Hankey, Chairman, CEO Hankey Group

Bruce Stroever, Former CEO Musculoskeletal Transplant Foundation

Rob Gagnon, Chief Financial Officer Remix Therapeutics

Siddhesh Angle, Ph.D., Pres. & CEO Regenosine

Clinical Strategy and 12-Month Milestones

- Bone Biologics commenced a 30-subject study in Australia, which has been accepted by both the U.S. FDA and Australia's Human Research Ethics Committee
- The Australian study design calls for 12 patients to receive 2.0 mg/mL, 12 patients to receive 1.5 mg/mL and 6 patients to receive a local autograft
- Study inclusion criteria include single-level degenerative disc disease to Grade-1 spondylolisthesis
- The primary endpoints are fusion success 12 months from radiological assessment and change from baseline in ODI index
- The secondary endpoints are adverse events and surgical measurements

Contacts

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