UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): September 4, 2025

BONE BIOLOGICS CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**001-40899**	**42-1743430**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

2 Burlington Woods Drive, Ste. 100 Burlington, MA	**01803**
(Address of principal executive offices)	(Zip Code)

(Registrant's telephone number, including area code): **(781) 552-4452**

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	**BBLG**	**Nasdaq Capital Market**
Warrants to Purchase Common Stock, $0.001 par value per share	**BBLGW**	**Nasdaq Capital Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

On September 4, 2025, the Company issued a press release with respect to the CEO's Letter to Stockholders. A copy of the press release is attached hereto as Exhibit 99.1 and incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
99.1	Press Release Bone Biologics CEO Issues Letter to Stockholders, dated September 4, 2025
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

BONE BIOLOGICS CORPORATION

Date: September 4, 2025

By: */s/ Jeffrey Frelick*
Jeffrey Frelick
Chief Executive Officer

Exhibit 99.1

Bone Biologics CEO Issues Letter to Stockholders Highlighting Company Update and Outlook

BURLINGTON, Mass. (September 4, 2025) – Bone Biologics Corporation ("Bone Biologics" or the "Company") (NASDAQ: BBLG, BBLGW), a developer of orthobiologic products for spine fusion markets, announces that President and Chief Executive Officer Jeffrey Frelick has issued the following letter to stockholders.

To My Fellow Stockholders:

I am pleased to provide a progress report on Bone Biologics' development of NB1 and to review our expected milestones for the coming year, including the anticipated completion of enrollment in our first-in-human study and an interim update. As a reminder, NB1 consists of the recombinant human protein NELL-1 (rhNELL-1) combined with demineralized bone matrix (DBM).

NELL-1 has several unique properties that suggest it will be ideal for treating spinal fusion, trauma, osteoporosis and other bone-related indications, and may be especially useful among so-called "hard healers." This potential lies in its ability to provide rapid, specific and guided control over bone regeneration. We are optimistic that NB1 may provide an important alternative to a vexing clinical problem by improving the safety profile of an osteopromotive orthobiologic.

First-in-Human Study

We commenced our pilot clinical study with NB1 in Australia last year. This multicenter, prospective, randomized study is evaluating the safety and preliminary effectiveness of NB1 bone graft in patients with degenerative disc disease who are undergoing transforaminal lumbar interbody fusion.

The study is assessing two concentrations of NB1 relative to autograft control in up to 30 subjects. The study's primary clinical endpoints include fusion success at 12 and 24 months after surgery, and change from the baseline Oswestry Disability Index, which is the gold standard tool to measure a patient's functional disability. While the clinical trial enrollment has been slower than anticipated, we do expect to complete enrollment by end of the year.

Product Improvements

Stability studies conducted by third parties recently achieved an 18-month shelf life for our protein, representing an improvement from the prior shelf life of 12 months. We also demonstrated improvement in the formulation of our protein that should enable compatibility with the new, scaled semi-automated fill/finish process that will be required for our upcoming pivotal study.

In June, we filed a U.S. patent application directed to the proprietary compositions of rhNELL-1 polypeptide and its uses for treating bone conditions. The patent application, if approved, will support our strategic plan to advance our clinical development program.

One-Year Outlook

We expect to achieve a number of value-creating events in the coming year under our cost-efficient business model, including the following:

- Adding additional hospital sites in Australia and completing enrollment in our pilot study by year-end.
- Expanding our shelf life to 24 months from 18-months in preparation for increasing manufacturing scale for a pivotal study.
- Developing a more robust potency assay to better measure NB1's biological activity.
- Providing an interim update on the trial once all the patients have reached six-month follow up.

On June 30th, we completed a public offering raising gross proceeds of $5 million. We expect our current cash position to fund planned operations into the second quarter of 2026.

The Opportunity for NB1

The scientific basis for developing NB1 is the potential for increased safety and better fusion rates. Spine fusion is a common surgical procedure in the treatment of numerous spinal diagnoses including degenerative disc disease, spinal stenosis, spondylolisthesis and other spinal deformities. A bony fusion is essential for restoring segmental stability, preventing or correcting deformity and improving long-term outcomes. Lumbar intervertebral fusion is achieved by creating an environment that's conducive to the formation of a continuous osseous bridge across the involved spinal segments.

We remain optimistic that spinal fusion patients will benefit from our solution for hard-to-heal bones, and we are very excited about the potential to help these patients as we advance NB1 along the clinical and regulatory pathway. We believe our effort will be well-rewarded not only by patients, but also by caregivers and Bone Biologics' stockholders.

I extend thanks to all of our constituents for their ongoing support.

Sincerely,

Jeffrey Frelick
President & Chief Executive Officer
September 4, 2025

About Bone Biologics

Bone Biologics was founded to pursue regenerative medicine for bone. The Company is undertaking work with select strategic partners that builds on the preclinical research of the NELL-1 protein. Bone Biologics is focusing development efforts for its bone graft substitute product on bone regeneration in spinal fusion procedures, while additionally having rights to trauma and osteoporosis applications. For more information, please visit www.bonebiologics.com.

Forward-Looking Statements

Certain statements contained in this press release, including, without limitation, statements regarding the expected achievements for the year 2025, timing, implementation, and success of the Company's pilot clinical study, the ability of the Company's lead product candidate NB1 to provide rapid, specific and guided control over bone regeneration and show fusion success in humans, the ability of NB1 to compete in global markets, as well as statements containing the words "anticipate," "may," "believe," "should," "will," "expect," "potential," "outlook," and words of similar import, constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve both known and unknown risks and uncertainties. The Company's actual results may differ materially from those anticipated in its forward-looking statements as a result of a number of factors, including, but not limited to, market and other conditions and risks generally associated with an undercapitalized developing company, as well as the risks contained under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's Annual Report on Form 10-K for the year ended December 31, 2024 and the Company's other filings with the Securities and Exchange Commission. Except as required by applicable law, we undertake no obligation to revise or update any forward-looking statements to reflect any event or circumstance that may arise after the date hereof.

Contact:

Alliance Advisors IR

Jody Cain
Jcain@allianceadvisors.com
310-691-7100

# # #