

Zacks Small-Cap Research

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Bone Biologics

(BBLG-NASDAQ)

BBLG: Making Major Step Toward Commercialization

BBLG continues to pursue a way to make bone regeneration more efficient and with better outcomes for patients. We value BBLG at \$22.50 per share using the discounted cash flow method.

Outlook

Bone Biologics is pursuing a better and more effective way of dealing with back pain requiring surgery by developing bone regeneration in spinal fusion using the recombinant human protein known as NELL-1/DBX, or NB1.

The company continues with human trials and is getting funding that will enable the approval process to continue. BBLG also filed for a patent that stands to strengthen the company's intellectual portfolio.

Current Price (06/26/25) \$4.16
Valuation \$22.50

SUMMARY DATA

52-Week High \$16.32
52-Week Low \$3.96
One-Year Return (%) -42.75
Beta 0.75
Average Daily Volume (sh) 61,197

Shares Outstanding (mil) 1
Market Capitalization (\$mil) \$4
Short Interest Ratio (days) N/A
Institutional Ownership (%) 34
Insider Ownership (%) 6

Annual Cash Dividend \$0.00
Dividend Yield (%) 0.00

5-Yr. Historical Growth Rates
Sales (%) N/A
Earnings Per Share (%) N/A
Dividend (%) N/A

Risk Level High
Type of Stock Small-Value
Industry Med-Biomed/Gene

ZACKS ESTIMATES

Revenue

(in millions of \$)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2022	0 A	0 A	0 A	0 A	0 A
2023	0 A	0 A	0 A	0 A	0 A
2024	0 A	0 A	0 A	0 A	0 A
2025	0 A	0 E	0 E	0 E	0 E

Earnings per share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2022	-0.07 A	-0.05 A	-0.12 A	-0.02 A	-0.13 A*
2023	-0.23 A	-1.69 A	-0.61 A	-5.89 A	-34.01 A
2024	-1.31 A	-0.67 A	-2.37 A	-1.00 A	-4.83 A
2025	-0.32 A	-0.58 E	-0.53 E	-0.50 E	-1.93 E

* Quarterly numbers don't add to annual due to share issuance and reverse split.

COMPANY UPDATE

Bone Biologics is a company developing products for spine fusion market and is entering an exciting and crucial time period as human trials have begun and results should be available, at least preliminary data, in the coming year. Given the preclinical studies that we've reported on extensively, we are optimistic that exciting results will be forthcoming that will positively impact the lives of thousands of spinal injury patients.

In order to continue the testing process, BBLG has to make financial moves much like many other companies at this stage of development. BBLG management recently announced that they priced a \$5 million public offering, which could grow to \$10 million if the warrants are exercised on a cash basis. While dilution is rarely welcomed by existing shareholders, funding is needed to continue the testing and approval process that we believe will be successful and make the short-term inconvenience worthwhile for shareholders in the long run.

As for why we are gaining optimism in BBLG, we have been discussing the promising initial results of the BBLG treatment known as NB1, and late last year the company has announced an important milestone—the first two human patients have been treated in the company's NB1 bone graft device. This marks the start of the pilot clinical study that will evaluate NB1 in 30 adult subjects who undergo transforaminal lumbar interbody fusion (TLIF) to treat degenerative disc disease (DDD) and will evaluate safety and effectiveness, fusion success, pain, function improvement and adverse events. According to the company, in order to be enrolled in the study, patients must have DDD at one level from L2-S1 and may also have up to Grade 1 spondylolisthesis or Grade 1 retrolisthesis at the involved level. These two initial patients were treated in Australia. As we've noted before, the study design was previously reviewed and agreed upon by the U.S. Food and Drug Administration's Division of Orthopedic Devices in a Pre-submission to support progression to a pivotal clinical trial in the United States.

There are approximately 350,000 spinal fusion surgeries done in the US every year with varying degrees of success in alleviating often debilitating back pain. The existing dominant technology, known as rhBMP, has been quite successful in advancing the spinal fusion procedure but there are also challenges that can come along with using that technology. Patients can experience such impacts as rapid, uncontrolled bone growth that causes an unsound structure and unwanted bone formation where bone will grow where it is not intended. Back pain impacts 65 million Americans, with 16 million of those having what would be considered chronic back pain, leading to an estimated \$12 billion per year in health care and indirect cost according to the Georgetown Policy Institute. While spinal fusion surgery isn't the appropriate treatment for every kind of back pain, it can help to relieve the pain associated with a variety of conditions.

The NELL-1 technology at the heart of NB1 is the centerpiece of what Bone Biologics is developing. It was developed by UCLA TDG and Bone holds the exclusive worldwide rights to that technology. NELL-1 has been reviewed positively in over 45 peer reviewed publications demonstrating technological viability. NELL-1 has shown spine fusion effectiveness across three animal species—rodent, sheep and nonhuman primate and has competed two clinically relevant sheep studies that demonstrated NELL-1 increases the fusion rate and quantity of bone compared to the control group.

The company also announced it was working to strengthen its intellectual property by filing a patent application for its NELL-1 technology, which, if approved, will further the process toward commercialization—illustrating again the belief that management has in the ultimate success of this process.

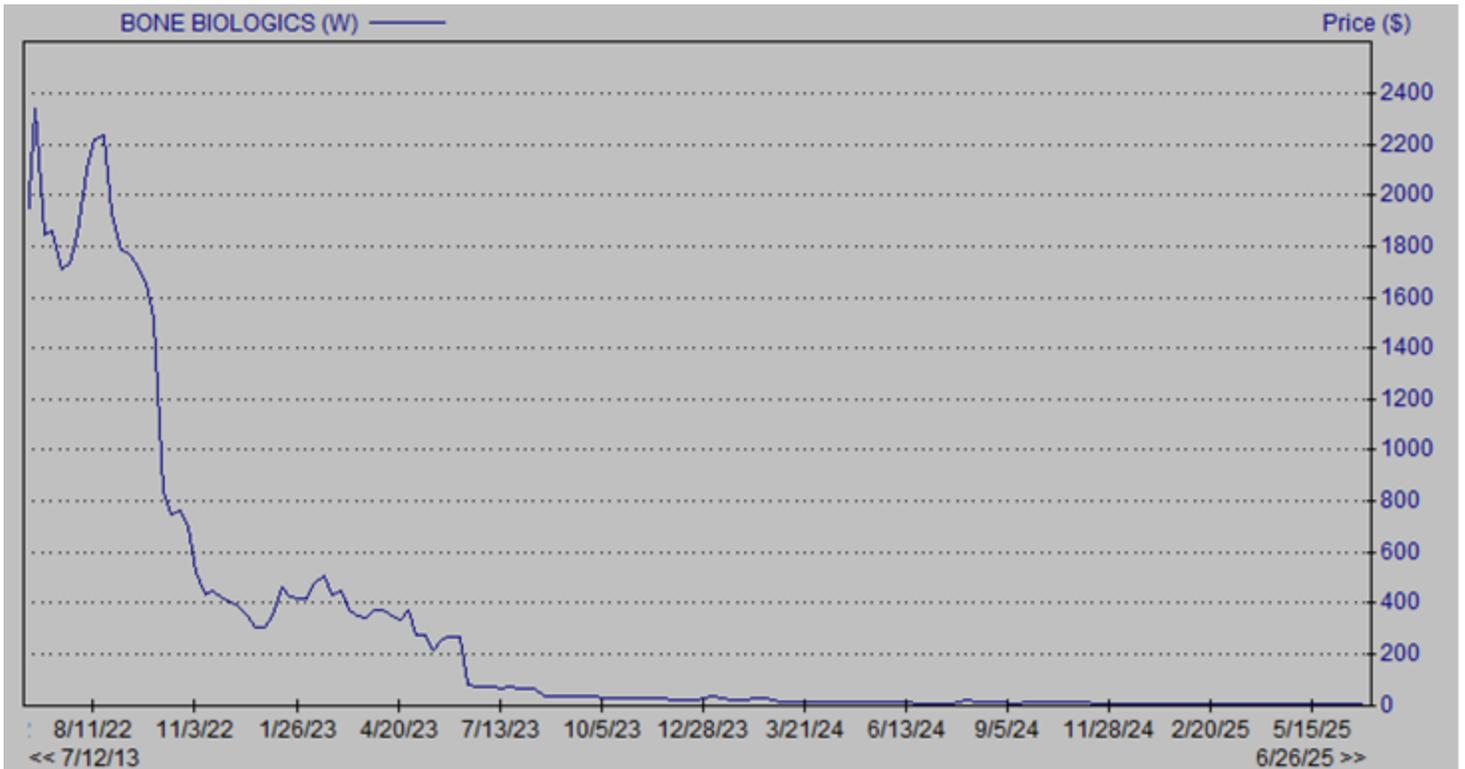
Summary

We have written before about the market opportunity that BBLG has, and it continues to grow. Investors have been slow to recognize the potential in our view but now, as human trials begin, is the opportunity to get in at what we view as a discounted price. If trial results are positive, as we believe they will be, the positive reaction in the investing community will likely be swift. We continue to be excited about the opportunity and the science behind NELL-1 and are looking forward to the results from the human trials ongoing this year. BBLG has what we believe is a product with great potential, addressing a market with seemingly insatiable demand and a solid funding situation, which is vital in this environment. As such, we believe investors with a longer-term investing horizon should take a look at BBLG.

INCOME STATEMENT AND BALANCE SHEET

Bone Biologics Income Statement and Balance Sheet									
	1Q2024A	2Q2024A	3Q2024A	4Q2024A	1Q2025A	2Q2025E	3Q2025E	4Q2025E	2026E
Revenues	0	0	0	0	0	0	0	0	0
Cost of Good Sold	0	0	0	0	0	0	0	0	0
Gross Profit	0	0	0	0	0	0	0	0	0
Operating Expenses									
Research and Dev.	245,625	350,442	429,747	1,104,571	423,576	432,048	440,688	449,502	1,728,190
Gen. and Admin.	657,911	459,223	521,274	450,368	614,910	614,910	627,208	639,752	2,459,640
Total Operating Expenses	903,536	809,665	951,021	1,554,939	1,038,486	1,046,958	1,067,897	1,089,255	4,187,830
Loss From Operations	(903,536)	(809,665)	(951,021)	(1,554,939)	(1,038,486)	(1,046,958)	(1,067,897)	(1,089,255)	(4,187,830)
Interest income (expense)	255	15,147	19,993	15,686	20,039	20,039	20,440	20,849	80,156
Other income/(expenses)	37,311	10,785	(9,974)	17,538	1,355	1,355	1,382	1,410	5,420
Loss before provision for income taxes	(865,970)	(783,733)	(941,002)	(1,521,715)	(1,017,092)	(1,025,564)	(1,046,075)	(1,066,996)	(4,102,254)
Provision for Income taxes	0	0	0	0	0	0	0	0	0
Net loss	(865,970)	(783,733)	(941,002)	(1,521,715)	(1,017,092)	(1,025,564)	(1,046,075)	(1,066,996)	(4,102,254)
Deemed dividend on warrant inducements	0	0	(3,212,504)	0	1	1	0	0	0
Net loss per share	(\$1.31)	(\$0.67)	(\$2.37)	(\$1.00)	(\$0.32)	(\$0.58)	(\$0.53)	(\$0.50)	(\$1.73)
Wtd Avg Shares Outstanding	660,928	1,168,423	1,753,409	1,517,235	3,183,191	1,780,532	1,958,585	2,154,444	2,369,888
Assets									
Current Assets									
Cash	3,227,634	2,332,068	3,566,426	3,325,131	2,746,555	2,801,486	2,661,412	2,528,341	12,401,924
Advances on R&D contract services	328,844	650,275	385,742	258,059	263,220	268,485	273,854	279,331	284,918
Prepaid Expenses	283,096	211,121	113,650	278,179	280,961	283,770	286,608	289,474	292,369
Total Assets	3,839,574	3,193,464	4,065,818	3,861,369	3,290,736	3,353,741	3,221,874	3,097,147	12,979,211
Liabilities and Stockholders Equity									
Current Liabilities									
Accounts Payable	146,186	231,872	190,057	373,042	247,843	250,321	252,825	255,353	257,906
Notes Payable	0	0	0	0	0	0	0	0	15,000,000
Other liabilities	18,440	52,635	83,345	4,670	3,315	3,348	3,382	3,415	3,450
Total Liabilities	164,626	284,507	273,402	377,712	251,158	253,670	256,206	258,768	15,261,356
Stockholders Equity									
Common Stock	1,016	1,315	2,096	2,953	3,270	3,107	2,951	2,804	2,663
Additional Paid-in Capital	85,448,860	85,466,303	87,289,983	88,502,082	90,272,124	92,077,566	93,919,117	95,797,500	97,713,450
Accumulated Deficit	(81,774,928)	(82,558,661)	(83,499,663)	(85,021,378)	(87,235,817)	(88,980,602)	(86,038,471)	(92,961,926)	(99,998,259)
Total Stockholders Equity	3,674,948	2,908,957	3,792,416	3,483,657	3,039,577	3,100,071	2,965,667	2,838,377	(2,282,146)
Total Liabilities and Stockholders Equity	3,839,574	3,193,464	4,065,818	3,861,369	3,290,736	3,353,741	3,221,874	3,097,147	12,979,211

HISTORICAL STOCK PRICE



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