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Zacks Small-Cap Research

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Bone Biologics (BBLG-NASDAQ)

BBLG: 2Q Earnings Set the Stage for Study

BBLG continues to pursue a way to make bone regeneration more efficient and with better outcomes for patients. We value BBLG at $7.50 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.

The company announced its 2Q 2023 results, which showed a loss slightly more than we had expected, but with enough cash on hand to fund the crucial upcoming first in man studies.

Current Price (08/14/23)	$1.57
Valuation	**$7.50**

SUMMARY DATA

52-Week High	**$51.95**
52-Week Low	**$1.25**
One-Year Return (%)	**-97.30**
Beta	**0.13**
Average Daily Volume (sh)	**128,216**
Shares Outstanding (mil)	**1**
Market Capitalization ($mil)	**$2**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**N/A**
Insider Ownership (%)	**8%**
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**
P/E using TTM EPS	**N/A**
P/E using 2023 Estimate	**N/A**
P/E using 2024 Estimate	**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 E	0 E	0 E
2024	0 E	0 E	0 E	0 E	0 E
2025	0 E	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	-3.04 E	-3.19 E	-8.15 E
2024	-2.50 E	-2.60 E	-2.75 E	-2.78 E	-10.63 E
2025	-2.65 E	-2.75 E	-2.80 E	-2.89 E	-11.09 E

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

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COMPANY UPDATE

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 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.

Bone Biologics recently announced that it has received approval to begin pilot clinical trials with NB1 in spinal fusion patients. The approval was given by the Human Research Ethics Committee and the trials will take place in Australia. This is an important and exciting step for Bone as the study will evaluate the safety and effectiveness of the company's bone graft product—NB1. The study will include 30 adults who undergo transforaminal lumbar interbody fusion to treat degenerative disc disease. Importantly, this study design has been reviewed by the FDA's Division of Orthopedic Devices and is intended to support progression to a clinical study in the US.

That brings us to the 2Q earnings update from Bone. The earnings aren't so important to pay attention to as we know the company is in a research and development mode and not in the revenue generating mode. But the cash on hand is very important, and the rate that cash is being used is vital to understanding the state of the company. Cash on hand at the end of 2Q was just over $7 million, which the company notes is sufficient to fund through the six-month trial data reporting for their pilot study. Results from that study are expected to be released during 2Q2024. If the results are positive, as we expect them to be based on preliminary studies done by the company, we expect the company to have no trouble obtaining further funding to continue the advancement of the NELL-1 technology.

We are very pleased to see Bone has cash on hand to fund through the second quarter of next year because funding for companies such as Bone had become very difficult to obtain as credit markets have tightened up. As a result of those tighter markets, however, we believe risks have risen slightly for Bone and are adjusting the price target as a result—moving it to $7.50 per share. This slight decrease in the price target should in no way be taken as a sign that we are losing confidence in the technology from BBLG, simply that the macro environment is more difficult at the present time.

Summary

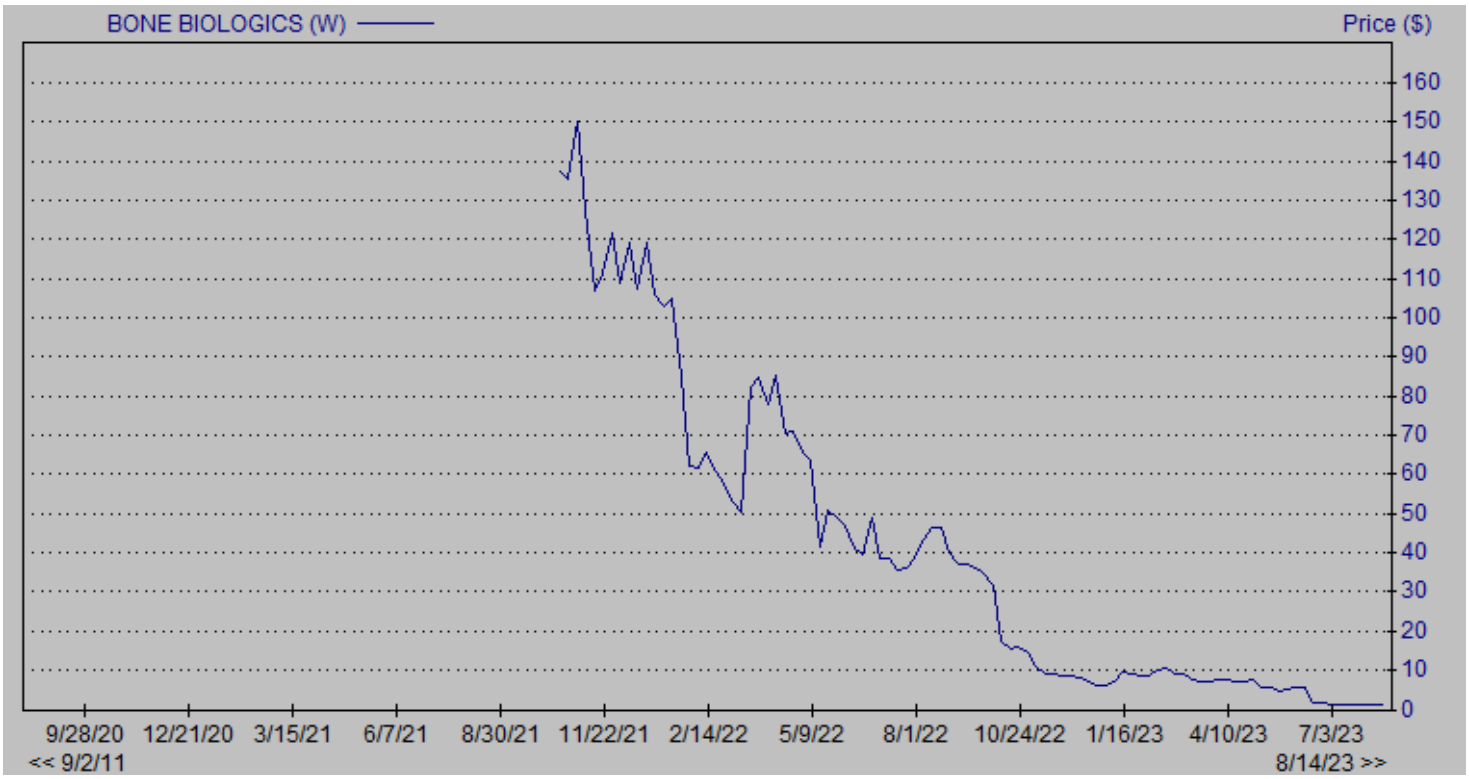
We have written before about the market opportunity that BBLG has and it continues to grow. Investors have been slow to recognize the potential in our view but now, ahead of the human trials, is the opportunity to get in at what we view as a discounted price. If trial results are positive, as we believe 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

human trials beginning 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								
		2022A	1Q2023A	2Q2023A	3Q2023E	4Q2023E	2024E	2025E
Revenues		0	0	0	0	0	0	0
Cost of Good Sold		0	0	0	0	0	0	0
Gross Profit		0	0	0	0	0	0	0
Operating Expenses								
	Research and Dev.	1,579,298	2,590,645	2,295,251	2,524,776	2,777,254	10,362,580	10,880,709
	Gen. and Admin.	2,085,875	556,892	744,617	819,079	900,987	2,227,568	2,338,946
Total Operating Expenses		3,665,173	3,147,537	3,039,868	3,343,855	3,678,240	12,590,148	13,219,655
Loss From Operations		(3,665,173)	(3,147,537)	(3,039,868)	(3,343,855)	(3,678,240)	(12,590,148)	(13,219,655)
	Interest income (expense)	0	556	428	0	0	(300,000)	(900,000)
	Other income/(expenses)	2,180,553	(562,918)	1,270,202	0	0	0	0
Loss before provision for income taxes		(1,484,620)	(3,709,899)	(1,769,238)	(3,343,855)	(3,678,240)	(12,890,148)	(14,119,655)
Provision for Income taxes		0	0	0	0	0	0	0
Net loss		(1,484,620)	(3,709,899)	(1,769,238)	(3,343,855)	(3,678,240)	(12,890,148)	(14,119,655)
Net loss per share		($0.13)	($0.23)	($1.69)	($3.04)	($3.19)	($10.63)	($11.09)
Wtd Avg Shares Outstanding		11,423,074	16,115,577	1,047,022	1,099,373	1,154,342	1,212,059	1,272,662
Assets								
Current Assets								
	Cash	7,538,312	6,188,319	7,007,809	7,147,965	7,290,924	7,436,743	7,585,478
	Prepaid Expenses	956,925	595,434	615,238	646,000	678,300	712,215	747,826
Total Assets		8,495,237	6,783,753	7,623,047	7,793,965	7,969,224	8,148,958	8,333,303
Liabilities and Stockholders Equity								
Current Liabilities								
	Accounts Payable	888,461	2,279,194	1,689,095	1,773,550	1,862,227	1,955,339	2,053,106
	Notes Payable	0	0	0	0	0	5,000,000	15,000,000
	Other liabilities	1,659,468	1,732,160	241,160	253,218	265,879	279,173	293,131
Total Liabilities		2,547,929	4,011,354	1,930,255	2,026,768	2,128,106	7,234,511	17,346,237
Stockholders Equity								
	Common Stock	15,300	16,701	3,135	15,302	15,303	15,300	15,300
	Additional Paid-in Capital	77,892,235	78,425,824	83,129,021	83,960,311	84,799,914	78,425,824	78,425,824
	Accumulated Deficit	(71,960,227)	(75,670,126)	(77,439,364)	(78,208,416)	(78,974,099)	(77,526,677)	(87,454,058)
Total Stockholders Equity		5,947,308	2,772,399	5,692,792	5,767,197	5,841,118	914,447	(9,012,934)
Total Liabilities and Stockholders Equity		8,495,237	6,783,753	7,623,047	7,793,965	7,969,224	8,148,958	8,333,303

HISTORICAL STOCK PRICE



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