Zacks Small-Cap Research

March 28, 2014

Brian Marckx, CFA
bmarckx@zacks.com
Ph (312) 265-9474

scr.zacks.com

10 S. Riverside Plaza, Ste 1600, Chicago, IL 60606

BioLife Solutions Inc (BLFS-NASDAQ)

BLFS: *$15.4M Equity Issuance, Debt Conversion*

OUTLOOK

Demand for biopreservation media is estimated to grow at an annual rate of almost 20% over the next several years, largely driven by rapid growth of the emerging field of regenerative medicine (including cell therapy and tissue engineering). BioLife's strategy is to build greater visibility and awareness of the benefits of their biopreservation products compared to the "home-brews" that currently dominate the market. Meanwhile, the company's contract manufacturing business is expected to provide a source of near-term revenue and cash flow to help fund the further development and commercialization of the biopreservation media business, which is expected to provide the bulk of revenue and drive earnings for the long-term. Maintaining Outperform rating.

Current Recommendation	**Outperform**
Prior Recommendation	Neutral
Date of Last Change	02/13/2014
Current Price (03/28/14)	$3.80
Target Price	**$11.00**

SUMMARY DATA

52-Week High	**$19.61**
52-Week Low	**$3.66**
One-Year Return (%)	**-3.00**
Beta	**-0.19**
Average Daily Volume (sh)	**23,975**
Shares Outstanding (mil)	**12**
Market Capitalization ($mil)	**$46**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**0**
Insider Ownership (%)	**37**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**51.7**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2014 Estimate	**N/A**
P/E using 2015 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**High,**
Type of Stock	**N/A**
Industry	**Med Products**

ZACKS ESTIMATES

Revenue
(in '000 of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2013	2160 A	2330 A	2171 A	2289 A	8949 E
2014	2332 E	2554 E	2382 E	2518 E	9887 E
2015					12220 E
2016					15854 E

Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2013	-$0.00 A	-$0.06 A	-$0.06 A	-$0.10 A	-$0.22 A
2014	$0.01 E	-$0.01 E	-$0.00 E	-$0.01 E	-$0.02 E
2015					$0.04 E
2016					$0.10 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

© Copyright 2014, Zacks Investment Research. All Rights Reserved.

WHAT'S NEW……

Updating for $15.4M Equity Issuance / Debt Conversion

BioLife closed on their previously announced $15.4M equity offering and completed the conversion of the outstanding $14.3M debt and interest to equity on March 25th. The privately placed issuance included 3.6M common shares @ $4.30 per share with 100% warrant coverage (7-year warrants w/ $4.75 conversion price). And per the agreement signed in late 2013 with the two promissory noteholders, the entire $14.3M debt+interest balance was converted to common stock on the same terms as the private placement. In total, the financing and debt conversion creates approximately 6.9M new basic shares and 13.8M new fully dilutive shares. After agency fees, net proceeds to BioLife from the transaction are approximately $13.6M – which BLFS notes will be used for working capital and general corporate purposes.

The company has been roughly cash-flow break even over the past 12 months and we expect cash flow to improve in 2014. As such, the financing provides a large cash cushion, eliminates any near-term liquidity risk and offers the company more flexibility and options in the event they pursue new growth initiatives. The debt conversion wipes the balance sheet clean of debt and relieves any risk of default or calls by the noteholders (although, given that the debt was held by insiders we did not view this as a near-term likely event). It also eliminates about $750k in annual interest expense. Importantly, management was patient in taking out the debt and acted opportunistically in order to minimize dilution. The number of new basic shares issued to convert the debt+interest was about 3.3M – had the conversion taken place in mid-2012 prior to the last maturity extension and when the stock was trading around $1.15 (adjusted for the reverse split), about 11M new basic shares (or more) may have been issued to convert the debt+interest (balance was $12.8M at that time).

Commensurate with the transaction, BLFS shares were approved for listing on NASDAQ.

We have updated our model to reflect the share issuance and debt conversion (we have made no other changes to our model). The increased share count has resulted in our per share price target moving from $17 to $11. We are maintaining our Outperform rating. See our Feb 14, 2014 report for our most recent complete update on the company.

VALUATION / RECOMMENDATION

Our comparable group used to value BLFS consists of direct competitors as well as small stem cell therapeutics and regenerative medicine companies. Our valuation metrics include enterprise value-to-sales (EV/Sales) and price-to-sales (P/Sales) multiples using sales at trailing twelve months (ttm), estimated 2014, and estimated 2015 (estimates from analyst forecasts).

Based on these six metrics, BioLife is valued between approximately $10/share and $12/share. Average valuation of all six metrics is about $11/share. BLFS currently trades at approximately $4.00, which is below what we calculate to be fair value. We are maintaining our Outperform rating. Our price target has moved to $11/share.

	TICKER					Implied
METRIC	STEM	SIAL	ISCO	CYTX	Average	BLFS pps
EV/Sales (ttm)	36.0	4.1	5.6	11.7	14.3	$11.83
EV/Sales (2014 E)	21.9	3.9	6.7	17.9	12.6	$11.40
EV/Sales (2015 E)	16.4	3.7	4.0	10.8	8.7	$10.03
P/Sales (ttm)	37.0	4.2	5.9	11.4	14.6	$10.90
P/Sales (2014 E)	24.9	4.0	11.0	15.4	13.8	$11.28
P/Sales (2015 E)	18.7	3.8	6.6	9.3	9.6	$9.78
					Avg.	**$10.87**

FINANCIAL MODEL

BioLife Solutions Inc.

	2013 A	Q1E	Q2E	Q3E	Q4E	2014 E	2015 E	2016 E	2017 E
Product Sales & Ctrct Manuf	$8,340.2	$2,332.6	$2,554.2	$2,382.2	$2,517.6	$9,786.6	$12,219.5	$15,853.7	$20,007.4
YOY Growth	*47.8%*	*50.4%*	*9.6%*	*9.8%*	*10.0%*	*17.3%*	*24.9%*	*29.7%*	*26.2%*
Licensing Revenue	$609.2	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
YOY Growth	*2945.8%*	-	-	-	-	-	-	-	-
Total Revenues	$8,949.4	$2,332.6	$2,554.2	$2,382.2	$2,517.6	$9,786.6	$12,219.5	$15,853.7	$20,007.4
YOY Growth	*58.0%*	*8.0%*	*9.6%*	*9.8%*	*10.0%*	*9.4%*	*24.9%*	*29.7%*	*26.2%*
Cost of Product Sales	$5,186.5	$1,091.7	$1,611.7	$1,365.0	$1,465.2	$5,533.6	$6,676.1	$8,246.6	$10,303.8
Gross Income	$3,762.9	$1,240.9	$942.5	$1,017.2	$1,052.3	$4,253.0	$5,543.4	$7,607.1	$9,703.6
Gross Margin	*42.0%*	*53.2%*	*36.9%*	*42.7%*	*41.8%*	*43.5%*	*45.4%*	*48.0%*	*48.5%*
R&D	$487.8	$118.0	$124.0	$134.0	$140.0	$516.0	$690.0	$730.0	$825.0
% R&D	*5.5%*	*5.1%*	*4.9%*	*5.6%*	*5.6%*	*5.3%*	*5.6%*	*4.6%*	*4.1%*
Selling & Mktg	$841.5	$219.3	$237.5	$219.2	$226.6	$902.5	$1,099.8	$1,252.4	$1,560.6
% Sell&Mktg	*9.4%*	*9.4%*	*9.3%*	*9.2%*	*9.0%*	*9.2%*	*9.0%*	*7.9%*	*7.8%*
G&A	$2,719.0	$675.0	$698.0	$724.0	$765.0	$2,862.0	$3,299.3	$4,122.0	$5,001.8
% G&A	*30.4%*	*28.9%*	*27.3%*	*30.4%*	*30.4%*	*27.5%*	*27.0%*	*26.0%*	*25.0%*
Operating Income	($285.3)	$228.7	($117.0)	($60.0)	($79.2)	($27.6)	$454.3	$1,502.7	$2,316.2
Operating Margin	*-3.2%*	*9.8%*	*-4.6%*	*-2.5%*	*-3.1%*	*-0.3%*	*3.7%*	*9.5%*	*11.6%*
Total Other Inc. (Exp.)	($798.8)	($201.0)	($5.0)	$15.0	$15.0	($176.0)	$170.0	$190.0	$220.0
Pre-Tax Income	($1,084.1)	$27.7	($122.0)	($45.0)	($64.2)	($203.6)	$624.3	$1,692.7	$2,536.2
Taxes	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Tax Rate	-	-	-	-	-	-	-	-	-
Net Income	($1,084.1)	$27.7	($122.0)	($45.0)	($64.2)	($203.6)	$624.3	$1,692.7	$2,536.2
YOY Growth	*-34.7%*	*-484.5%*	*-56.8%*	*-85.5%*	*-86.7%*	*-81.2%*	*-406.7%*	*171.1%*	*49.8%*
Net Margin	*-12.1%*	*1.2%*	*-4.8%*	*-1.9%*	*-2.6%*	*-2.1%*	*5.1%*	*10.7%*	*12.7%*
EPS	($0.22)	$0.01	($0.01)	($0.00)	($0.01)	($0.02)	$0.04	$0.10	$0.15
YOY Growth	*-35.1%*					*-90.8%*	*-309.9%*	*151.0%*	*42.4%*
Diluted Shares O/S	5,008	5,040	12,000	12,010	12,020	10,268	15,000	16,200	17,040

Brian Marckx, CFA

© Copyright 2014, Zacks Investment Research. All Rights Reserved.

MANAGEMENT

Michael Rice
Chairman & Chief Executive Officer

Mike Rice became president and chief executive officer and a member of our Board of Directors in August 2006, and Chairman in August 2007. He has more than 20 years of leadership and entrepreneurial experience in the medical and high tech industries. He was most recently the senior business development manager for medical and wireless products at AMI Semiconductor (NASDAQ:AMIS). Mr. Rice also served as the director of marketing and business development at Cardiac Science, Inc., a manufacturer of automated external defibrillators. Prior to that, he was the Vice President, Sales and Marketing for TEGRIS Corporation, a privately held network services provider. Mr. Rice also spent 12 years at Physio Control Corporation in several sales and marketing management roles prior to its acquisition by Medtronic Inc.

Aby J. Mathew, Ph.D.
Sr. Vice President and Chief Technology Officer

Dr. Mathew was part of the founding team of BioLife Solutions, and is a co-developer of BioLife′s biopreservation media solutions. He is a co-inventor on multiple issued and pending patents related to methods, devices, and formulations for the preservation of cells, tissues, and organs. He holds a Ph.D. in Biological Sciences within the Biochemistry, Cell and Molecular Biology Program from Binghamton University and a B.S. in Microbiology from Cornell University. Dr. Mathew has been researching low temperature biopreservation since 1994, and his studies contributed to the development of BioLife′s current commercial HypoThermosol and CryoStor product platforms and intellectual property foundation. Dr. Mathew was part of the scientific team that linked cell death via apoptosis (programmed cell death) to exposure to hypothermic and/or freezing temperatures. These discoveries were integral to the development of BioLife′s improved intracellular-like biopreservation solutions, and also contributed to improvements in cryosurgical ablation of cancer. Dr. Mathew is currently active in, or previously a member of, the International Society for Cell Therapy (ISCT), AABB (formerly the American Association of Blood Banks), BEST (the Biomedical Excellence for Safer Transfusion collaborative), Tissue Engineering & Regenerative Medicine International Society (TERMIS), Society for Cryobiology, International Society for Biological and Environmental Repositories (ISBER), American Society for Cell Biology, and the Society for In Vitro Biology.

Mark Sandifer
Vice President of Quality

Mark′s background is in drug development and clinical administration. He has more than ten years of experience in quality assurance. His keen interest in how the quality aspects of our products support cell therapies comes from his work with Georgetown University Medical Center′s bone marrow transplant program in association with the National Marrow Donor Program. He directed BioLife′s effort in achieving ISO 13485:2003 certification and led the team effort in ISO 14644 qualification of BioLife′s CGMP production facility. Mark holds an M.S. in Biotechnology from Johns Hopkins University and a B.S. in Biology from George Mason University.

Daphne Taylor
Vice President, Finance & Administration, Chief Financial Officer

Daphne Taylor has served as Vice President, Finance & Administration, and Chief Financial Officer since August 2011. She has 20 years experience as a finance professional. Prior to joining BioLife, Ms. Taylor served as Vice President, Corporate Controller and Chief Accounting Officer of Cardiac Science Corporation from November 2005 through January 2009. From April 2002 through November 2005, she held various positions, including Vice President and Corporate Controller for LookSmart, a publicly held Internet technology company. In 2001, Ms. Taylor was Controller at SpeedTrak Communications and prior to that she was Controller for ViroLogic, a publicly held biotechnology company. Ms. Taylor held various finance positions at Core-Mark International, a distribution company, from 1996 to 2000. From 1991 to 1994, she was in public accounting with Coopers & Lybrand and is a licensed CPA. Ms. Taylor holds a B.A. in Management/Accounting from Sonoma State University, California.

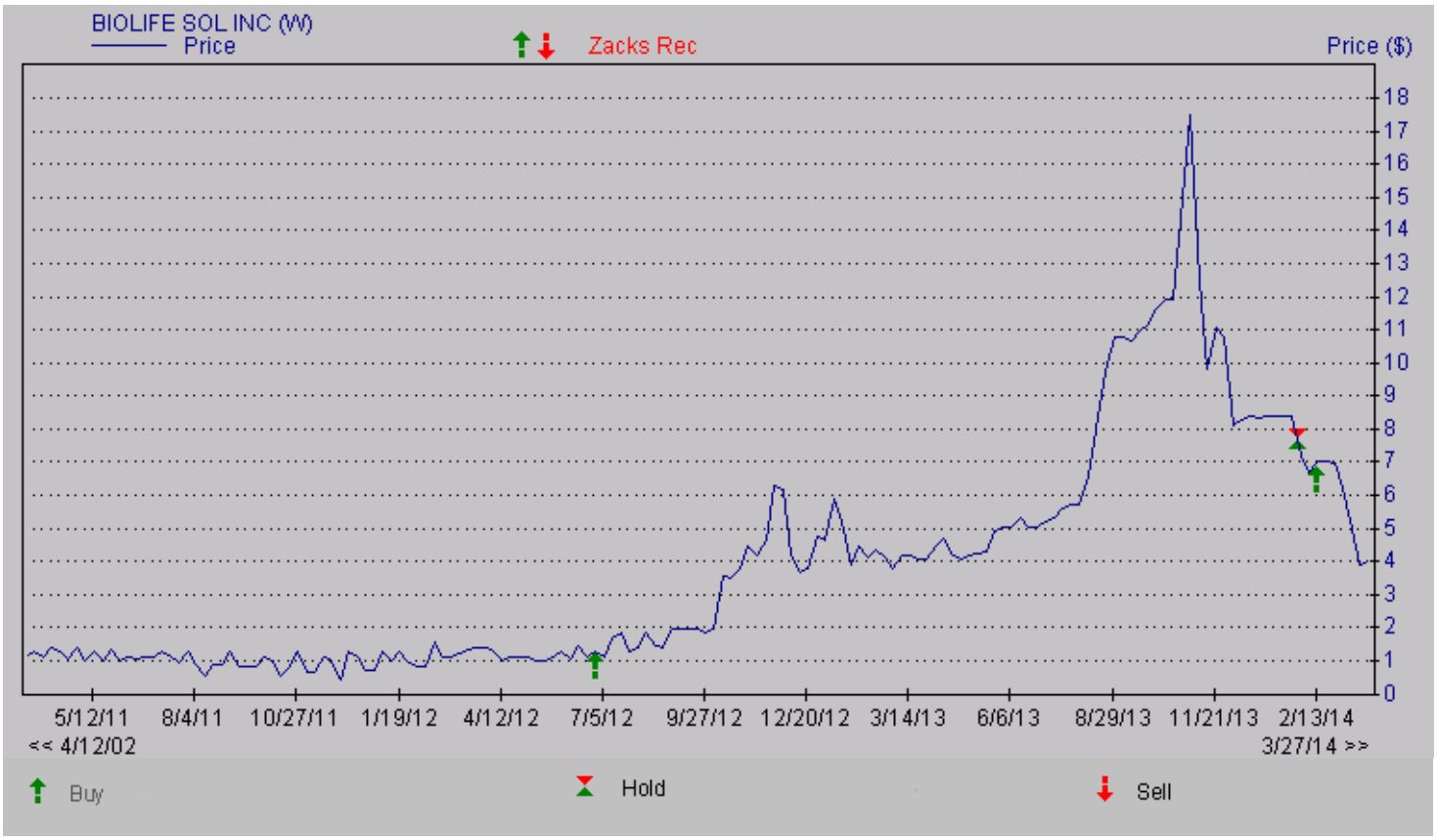
Joe Annicchiarico
Director of Manufacturing

Joe joined BioLife Solutions in December 2011 after serving for six years at MediQuest Therapeutics, Inc. in Bothell, Washington, where he was an integral part of the company′s first NDA filing. He spearheaded process scale-up and validation efforts, patent protection, and clinical trial supply chain management. His tenure at MediQuest included time as a Scientist, Formulation Manager, and most recently, as Director of Manufacturing and Clinical Supplies. Prior to his tenure at MediQuest, he worked in speciality chemical sales at Drummond American and spent four years as a formulation

© Copyright 2014, Zacks Investment Research. All Rights Reserved.

development Chemist at a pair of personal care products companies in New Jersey. Joe earned his Bachelor's Degree in Biology from The Johns Hopkins University in Baltimore, Maryland, in 1997.

HISTORICAL ZACKS RECOMMENDATIONS



DISCLOSURES

The following disclosures relate to relationships between Zacks Small-Cap Research ("Zacks SCR"), a division of Zacks Investment Research ("ZIR"), and the issuers covered by the Zacks SCR Analysts in the Small-Cap Universe.

ANALYST DISCLOSURES

I, Brian Marckx, CFA, hereby certify that the view expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report. I believe the information used for the creation of this report has been obtained from sources I considered to be reliable, but I can neither guarantee nor represent the completeness or accuracy of the information herewith. Such information and the opinions expressed are subject to change without notice.

INVESMENT BANKING, REFERRALS, AND FEES FOR SERVICE

Zacks SCR does not provide nor has received compensation for investment banking services on the securities covered in this report. Zacks SCR does not expect to receive compensation for investment banking services on the Small-Cap Universe. Zacks SCR may seek to provide referrals for a fee to investment banks. Zacks & Co., a separate legal entity from ZIR, is, among others, one of these investment banks. Referrals may include securities and issuers noted in this report. Zacks & Co. may have paid referral fees to Zacks SCR related to some of the securities and issuers noted in this report. From time to time, Zacks SCR pays investment banks, including Zacks & Co., a referral fee for research coverage.

Zacks SCR has received compensation for non-investment banking services on the Small-Cap Universe, and expects to receive additional compensation for non-investment banking services on the Small-Cap Universe, paid by issuers of securities covered by Zacks SCR Analysts. Non-investment banking services include investor relations services and software, financial database analysis, advertising services, brokerage services, advisory services, investment research, investment management, non-deal road shows, and attendance fees for conferences sponsored or co-sponsored by Zacks SCR. The fees for these services vary on a per client basis and are subject to the number of services contracted. Fees typically range between ten thousand and fifty thousand per annum.

POLICY DISCLOSURES

Zacks SCR Analysts are restricted from holding or trading securities in the issuers which they cover. ZIR and Zacks SCR do not make a market in any security nor do they act as dealers in securities. Each Zacks SCR Analyst has full discretion on the rating and price target based on his or her own due diligence. Analysts are paid in part based on the overall profitability of Zacks SCR. Such profitability is derived from a variety of sources and includes payments received from issuers of securities covered by Zacks SCR for services described above. No part of analyst compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in any report or article.

ADDITIONAL INFORMATION

Additional information is available upon request. Zacks SCR reports are based on data obtained from sources we believe to be reliable, but are not guaranteed as to be accurate nor do we purport to be complete. Because of individual objectives, this report should not be construed as advice designed to meet the particular investment needs of any investor. Any opinions expressed by Zacks SCR Analysts are subject to change without notice. Reports are not to be construed as an offer or solicitation of an offer to buy or sell the securities herein mentioned.

ZACKS RATING & RECOMMENDATION

ZIR uses the following rating system for the 1077 companies whose securities it covers, including securities covered by Zacks SCR:
Buy/Outperform: The analyst expects that the subject company will outperform the broader U.S. equity market over the next one to two quarters.
Hold/Neutral: The analyst expects that the company will perform in line with the broader U.S. equity market over the next one to two quarters.
Sell/Underperform: The analyst expects the company will underperform the broader U.S. Equity market over the next one to two quarters.

The current distribution is as follows: Buy/Outperform- 17.1%, Hold/Neutral- 74.9%, Sell/Underperform – 7.1%. Data is as of midnight on the business day immediately prior to this publication.