August 24, 2020

Zacks Small-Cap Research

Sponsored – Impartial - Comprehensive

M. Marin
312-265-8211
mmarin@zacks.com

scr.zacks.com
10 S. Riverside Plaza, Chicago, IL 60606

Biomerica Inc. (BMRA-NASDAQ)

BMRA: InFoods 2nd Patent & COVID-19 Evaluation Support Optimistic Outlook

InFoods® technology platform was granted a new patent by the USPTO, while BMRA's recently developed rapid test for exposure to COVID-19 ranked among top-performing COVID-19 serological tests.

OUTLOOK

With a 2nd patent, BMRA's inFoods technology platform has expanded its potential opportunities, we believe. In addition, a new Canadian study released last month ranked BMRA's rapid test for COVID-19 among the highest serological tests based on independent evaluations of sensitivity/specificity. BMRA's COVID-19 test can be used at point-of-contact sites at high-traffic venues such as airports, schools and businesses and other locations that require a rapid, high-volume method of testing, which could generate incremental revenue, we believe, as economies reopen.

Current Price (08/21/20)	$7.72
Valuation	**$9.50**

SUMMARY DATA

52-Week High	**$16.00**
52-Week Low	**$2.37**
One-Year Return (%)	**171%**
Beta	**-0.71**
Average Daily Volume (sh)	**578,782**
Shares Outstanding (mil)	**12**
Market Capitalization ($mil)	**$91**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**5**
Insider Ownership (%)	**26**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**0.0**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2020 Estimate	**N/A**
P/E using 2021 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**High,**
Type of Stock	**Small-Growth**
Industry	**Med Tech Diagn.**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Aug)	Q2 (Nov)	Q3 (Feb)	Q4 (May)	Year (May)
2019	1.27 A	1.50 A	1.12 A	1.20 A	5.20 A
2020	1.20 A	1.60 A	1.18 A	1.35 E	5.32 A
2021					6.03 E
2022					6.54 E

Price/Sales Ratio (Industry = 2.5x)

	Q1 (Aug)	Q2 (Nov)	Q3 (Feb)	Q4 (May)	Year (May)
2019	-$0.05 A	-$0.05 A	-$0.07 A	-$0.08 A	-$0.26 A
2020	-$0.05 A	-$0.05 A	-$0.09 A	-$0.07 E	-$0.26 A
2021					-$0.33 E
2022					-$0.30 E

Quarters might not sum due to rounding & share counts

Disclosures begin on page 8

© Copyright 2020, Zacks Investment Research. All Rights Reserved.

KEY POINTS

- With its 2nd U.S. patent for the InFoods® technology platform, we believe BMRA continues to expand the potential applications and use of inFoods. BMRA's InFoods diagnostic platform is in clinical studies with several prominent medical centers and research universities participating and the number of sites participating in the study continues to expand. In June, for example, the Mayo Clinic and the University of Texas Health Science Center joined the InFoods clinical trial.

- Separately, we are optimistic about the company's COVID-19 antibody tests. BMRA has developed two types of serological diagnostic tests for COVID-19, a rapid diagnostic test (RDT) and an enzyme-linked immunosorbent assay (ELISA).

- A new Canadian study released last month indicates that BMRA's RDT test showed 100% sensitivity and 100% specificity and was included in the rankings of top-performing COVID-19 serological tests based on independent evaluations of sensitivity/specificity.

- BMRA received a Conformitè Europëenne (CE) Mark to market the high-volume test in the EU. and is shipping in the EU. The company also seeks FDA approval for commercial sales in the U.S. pursuant to the FDA's EUA (Emergency Use Authorization) process.

INFOODS WINS SECOND PATENT

Opportunities Grow For BRMA's InFoods® Diagnostic Platform

BMRA recently announced that the United States Patent and Trademark Office (USPTO) has issued a Notice of Allowance for Biomerica's second U.S. patent on the InFoods® technology platform for the treatment of patients suffering from Irritable Bowel Syndrome (IBS) and other gastrointestinal diseases. These diseases impact an estimated more than 45 million Americans. IBS symptoms frequently are triggered when people eat specific foods. Trigger foods vary from one person to another. For instance, one person might be able to consume broccoli with no problem but milk triggers discomfort and symptoms, while another person might be fine with milk but cannot tolerate broccoli.

We believe the USPTO action will expand the potential applications and use of inFoods. It covers the method allowing doctors to identify specific foods (pork, milk, shrimp, broccoli, chickpeas, and others). When patients eliminate the foods that test positive for triggering IBS and/or other gastrointestinal distress, generally their symptoms such as constipation, diarrhea, bloating, severe cramping, pain and indigestion ease or are eliminated entirely.

This is the second allowed patent BMRA has received as it applies for broad patent protection for a test panel and method to determine patient specific foods that might trigger IBS symptoms. BMRA has several additional U.S. and international patent applications pending that cover other claims pertaining to the InFoods platform to increase its coverage and scope. Separately, the company also recently announced that it had received its first patent for inFoods in Japan.

BMRA's InFoods diagnostic platform is in clinical studies at several prominent medical centers and research universities and the number of sites participating in the study continues to expand. Specifically, in June, the Mayo Clinic and the University of Texas Health Science Center joined the InFoods clinical trial.

ADVANCING TWO COVID-19 ANTIBODY TESTS

BMRA recently provided an update on its COVID-19 antibody tests. In April, Biomerica announced that it had signed two non-exclusive license agreements with New York's Mount Sinai Icahn School of Medicine to license technologies from Mount Sinai in order to scale up a laboratory version COVID-19 serological test. According to the *MIT Technology Review*, researchers at Mount Sinai's Icahn School of Medicine have developed technology for testing to detect antibodies against coronavirus in the blood of someone who has been exposed to the virus. The presence or absence of antibodies can determine whether the person has had exposure.

The company has developed two types of serological diagnostic tests for COVID-19, a rapid diagnostic test (RDT) and an enzyme-linked immunosorbent assay (ELISA). BMRA's test uses the ELISA microplate format that can run on the existing open system equipment installed in most domestic hospitals and clinical laboratories. Because the format is widely used, it is expected to make the BMRA ELISA format test easy to adopt. If the new ELISA COVID-19 test proves successful, BMRA believes that commercial sales could begin in the near-term, particularly given the significant unmet need for testing for the disease. Under the license agreements, once the test has been launched commercially, BMRA will pay royalties to Mount Sinai based on a percentage of gross sales.

Biomerica has sufficient capacity at its California production facility to produce more than one million tests monthly in the ELISA microplate format. BMRA has also expanded its provisional patent applications.

The company also launched a new high-volume production point-of-care version of an RDT COVID-19 Rapid Test, using a proprietary card system that eliminates most plastic. It is a serology, finger prick blood test to detect antibodies indicating if the person being tested has had an immune response to the novel Corona Virus (SARS CoV-2). The test can determine if the person has had exposure to the virus even if he or she is asymptomatic. The high-volume production version of the test is intended for larger customers doing high-volume screenings. Because the company has eliminated much of the plastic in the high-volume version, it is also considered to be *greener* with regards to the environment.

BMRA received a Conformitè Europëenne (CE) Mark to market the high-volume test in the EU. The CE mark shows that the test complies with the EU requirements and safety standards. Biomerica received the CE mark on May 5, 2020.

The company also seeks FDA approval for commercial sales in the U.S. pursuant to the FDA's EUA (Emergency Use Authorization) process. In February 2020, FDA issued *Immediately in Effect Guidance* on diagnostics testing for the coronavirus. The EUA process enables the FDA to move rapidly in an emergency situation such as the coronavirus pandemic. Specifically, it allows the FDA to authorize unapproved medical products or new uses of approved medical products to diagnose, treat or prevent serious diseases in an emergency situation when no approved alternatives are available. This enables BMRA to file for expedited clearance with the FDA under the EUA process.

BMRA's RDT Test Ranks Among Top-Performing COVID-19 Serological Tests in New Study

A new Canadian study released last month indicates that BMRA's RDT test showed 100% sensitivity and 100% specificity and was included in the rankings of top-performing COVID-19 serological tests based on independent evaluations of sensitivity/specificity.

VALUATION

We like chances for FDA clearance of InFoods and subsequent commercial demand. Particularly telling of the desperation and difficulty in developing effective IBS therapies, we believe, is the low FDA efficacy hurdle used to evaluate IBS drugs and the less than compelling clinical trial data used to (successfully) support FDA approval. Minimal effectiveness and drawbacks of IBS drugs has created what we believe is a relatively low attractiveness hurdle and, coupled with a lack of side effects and expected cost-benefit, one that may be easily cleared if InFoods is able to demonstrate only incremental benefit (either alone or to existing therapies).

And in terms of the potential commercial appeal for InFoods, the dearth of sufficiently effective IBS therapies, high related healthcare costs and overall frustration from physicians and patients as a result of lack of better options means high demand already exists for more effective IBS therapies. Couple that with payers pushback to reimburse for (relatively expensive) Rx IBS drugs until other (less expensive) options have been tried, and we think appeal to the critical 3Ps (i.e. patient, physician and payer) in the healthcare treatment chain will be sufficiently satisfied to drive meaningful demand shortly following launch.

We value BMRA's base business at $2.50/share. We estimate rapid growth for inFoods commencing in approximately 2023 – 2024. Applying an 11x multiple to our $8.4M 2024 forecasted InFoods revenue and discounting back to the present at 14%/year, results in InFoods present value of over $70M, or about $7.00/share. We believe our forecast could be conservative particularly as the company's patent portfolio expands.

We also believe that the incremental value of the company's two COVID-19 serological tests could add some $2.00-$3.00 per share, given the ongoing demand for testing of this disease and the frequency with which tests will be administered to certain individuals. For example, at many universities, college students are being required to test at least twice monthly in order to be allowed to remain on campus. It is still early, but estimates of the size of the COVID-19 testing market range from $8.5 billion to over $11 billion by 2026-27. If BMRA captures less than 0.1% of the market, we believe it could translate into an incremental nearly $3 per share of valuation that is not included in our current valuation.

BALANCE SHEET AND LIQUIDITY

Cash Balance Up Substantially Since YE Fiscal 2019

BMRA had a cash balance of $2.4 million at February 2020, up from $686,785 at the end of fiscal 2019, following a private placement of $2 million of convertible preferred stock with Palm Global Small Cap Master Fund. The preferred shares are convertible into BMRA common shares at $3.50 per share, which represents a premium to the $2.76 price of BMRA share at the time the transaction closed. Palm converted 250,000 shares in March.

Among other initiatives, the proceeds of the Palm Global transaction are earmarked for obtaining FDA clearance for H. Pylori and launching it in the U.S. and completing the IBS clinical trials in order to obtain FDA clearance for InFoods. A portfolio manager of Palm who has served on other public company boards has been appointed as a non-voting observer to the Biomerica board.

BMRA also extended and expanded its shelf registration enabling the company to raise funds depending on market conditions and capital needs.

RECENT NEWS

- BMRA received a second Notice of Allowance for inFoods on August 12, 2020.
- On July 22, 2020, the company filed a shelf registration.
- University of Texas Health Science Center joined the InFoods clinical trial on June 29, 2020.
- BMRA filed for FDA Emergency Use Authorization (EUA) for its COVID-19 test on June 16, 2020.
- The Mayo Clinic joined the inFoods clinical trial on June 1, 2020.
- BMRA received the CE mark authorizing commercial sales of the high-volume COVID-19 test in the EU on May 5, 2020.
- BMRA reported 3Q FY2020 results on April 15, 2020.
- On April 2, 2020, BMRA announced new licensing agreements with Mount Sinai in New York.

RISKS

We believe risks include those outlined below, among others.

- BMRA might not be able to obtain regulatory approval of its developing product portfolio as quickly as it expects or at all.
- In order to continue advancing its developing pipeline, BMRA might need additional funding that could be dilutive to existing shareholders.
- The company could incur unanticipated costs in commercializing its products.
- Competition could increase.

FINANCIAL MODEL

Biomerica Income Statement & Projections
($ thousands except per share data)

	2019 A	Q1A	Q2A	Q3A	Q4E	2020 E	2021 E	2022 E	2023 E
InFoods TOTAL	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$205.60	$1,489.50
YOY Growth									
Legacy TOTAL	$5,201	$1,194	$1,597	$1,177	$1,350	$5,318	$6,025	$6,339	$6,789
YOY Growth	-6.5%	-6.2%	6.4%	-6.7%	15.8%	9.3%	10.9%	5.2%	7.1%
Total Revenues	$5,200.7	$1,194.4	$1,596.4	$1,176.9	$1,350.2	$5,317.9	$6,025.3	$6,544.3	$8,278.2
YOY Growth	-6.5%	-6.2%	6.4%	-6.7%	15.8%	2.3%	10.9%	8.6%	26.5%
Cost of Goods Sold	$3,908.7	$827.1	$1,127.5	$964.9	$993.7	$3,913.2	$4,073.1	$4,240.7	$5,165.6
Gross Income	$1,292.0	$367.3	$468.9	$212.0	$356.4	$1,404.6	$1,952.2	$2,303.6	$3,112.6
Gross Margin	24.8%	30.8%	29.4%	18.0%	26.4%	26.4%	32.4%	35.2%	37.6%
SG&A	$2,025.7	$506.4	$553.8	$653.6	$576.5	$2,290.3	$2,537.4	$2,894.0	$3,300.9
% SG&A	39.0%	42.4%	34.7%	55.5%	42.7%	175.3%	42.1%	44.2%	39.9%
R&D	$1,679.1	$370.5	$404.9	$473.3	$462.2	$1,710.9	$3,001.6	$2,747.9	$2,027.4
% R&D	32.3%	31.0%	25.4%	40.2%	34.2%	32.2%	49.8%	42.0%	24.5%
Operating Income	(2,412.8)	(509.6)	(489.7)	(914.9)	(682.3)	(2,596.5)	(3,586.7)	(3,338.4)	(2,215.6)
Operating Margin	-46.4%	-42.7%	-30.7%	-77.7%	-50.5%	-48.8%	-59.5%	-51.0%	-26.8%
Total Other Income (Expense)	$44.0	$4.1	$4.5	$54.0	$4.3	$66.9	$25.0	$40.0	$71.0
Pretax Income	($2,368.7)	($505.5)	($485.3)	($860.9)	($678.0)	($2,529.6)	($3,561.7)	($3,298.4)	($2,144.6)
Tax expense (benefit)	$24.2	$0.8	$0.0	$0.0	$0.0	$0.8	$0.0	$0.0	$0.0
Tax Rate	-1%	0%	0%	0%	0%	0%	0%	0%	0%
Net Income	($2,393.0)	($506.3)	($485.3)	($860.9)	($678.0)	($2,530.4)	($3,561.7)	($3,298.4)	($2,144.6)
EPS	($0.26)	($0.05)	($0.05)	($0.09)	($0.07)	($0.26)	($0.33)	($0.30)	($0.19)
Diluted Shares O/S	9,213	9,744	9,817	9,890	9,912	9,841	10,650	10,900	11,250

Source: Company reports, Zacks estimates

© Copyright 2020, Zacks Investment Research. All Rights Reserved.

HISTORICAL STOCK PRICE



© Copyright 2020, Zacks Investment Research. All Rights Reserved.

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, M. Marin, 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.

INVESTMENT BANKING AND FEES FOR SERVICES

Zacks SCR does not provide investment banking services nor has it received compensation for investment banking services from the issuers of the securities covered in this report or article.
Zacks SCR has received compensation from the issuer directly, from an investment manager, or from an investor relations consulting firm engaged by the issuer for providing non-investment banking services to this issuer and expects to receive additional compensation for such non-investment banking services provided to this issuer. The non-investment banking services provided to the issuer includes the preparation of this report, investor relations services, investment software, financial database analysis, organization of 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 and types of services contracted. Fees typically range between ten thousand and fifty thousand dollars per annum. Details of fees paid by this issuer are available upon request.

POLICY DISCLOSURES

This report provides an objective valuation of the issuer today and expected valuations of the issuer at various future dates based on applying standard investment valuation methodologies to the revenue and EPS forecasts made by the SCR Analyst of the issuer's business.
SCR Analysts are restricted from holding or trading securities in the issuers that they cover. ZIR and Zacks SCR do not make a market in any security followed by SCR nor do they act as dealers in these securities. Each Zacks SCR Analyst has full discretion over the valuation of the issuer included in this report based on his or her own due diligence. SCR Analysts are paid based on the number of companies they cover. SCR Analyst compensation is not, was not, nor will be, directly or indirectly, related to the specific valuations or views expressed in any report or article.

ADDITIONAL INFORMATION

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

CANADIAN COVERAGE

This research report is a product of Zacks SCR and prepared by a research analyst who is employed by or is a consultant to Zacks SCR. The research analyst preparing the research report is resident outside of Canada, and is not an associated person of any Canadian registered adviser and/or dealer. Therefore, the analyst is not subject to supervision by a Canadian registered adviser and/or dealer, and is not required to satisfy the regulatory licensing requirements of any Canadian provincial securities regulators, the Investment Industry Regulatory Organization of Canada and is not required to otherwise comply with Canadian rules or regulations.