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Zacks Small-Cap Research

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PURE Bioscience, Inc. (PURE-OTC)

PURE: The launch of PURE Control® will accelerate revenue growth in calendar 2018

PURE: relative valuation metrics indicate a fair value at $3/share.

Current Price (03/18/18)	$0.65
Valuation	**$3.00**

OUTLOOK

PURE develops and markets SDC-based antimicrobial products that provide non-toxic solutions to food safety challenges. SDC is a novel, patented platform technology with superior efficacy and low toxicity and can be used in diverse markets. Current focus is on food safety industry.

With the launch of PURE Control, we expect revenue growth will accelerate in calendar 2018 and beyond. We continue to be bullish on PURE shares.

SUMMARY DATA

52-Week High	**$1.35**
52-Week Low	**$0.65**
One-Year Return (%)	**-25.29**
Beta	**-1.55**
Average Daily Volume (sh)	**46,605**
Shares Outstanding (mil)	**68**
Market Capitalization ($mil)	**$44**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**N/A**
Insider Ownership (%)	**N/A**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**36.6**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2011 Estimate	**N/A**
P/E using 2012 Estimate	**N/A**
Zacks Rank	**N/A**

Risk Level	**High,**
Type of Stock	**Small-Growth**
Industry	**Med Products**
Zacks Rank in Industry	**N/A**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Oct)	Q2 (Jan)	Q3 (Apr)	Q4 (Jul)	Year (Jul)
2017	0.53 A	0.45 A	0.34 A	0.52 A	1.83 A
2018	0.46 A	0.41 A	1.00 E	2.00 E	3.88 E
2019					15.00 E
2020					35.00 E

Earnings per Share
(EPS is operating earnings before non-recurring items)

	Q1 (Oct)	Q2 (Jan)	Q3 (Apr)	Q4 (Jul)	Year (Jul)
2017	-$0.03 A	-$0.01 A	-$0.03 A	-$0.03 A	-$0.10 A
2018	-$0.04 A	-$0.03 A	-$0.02 E	-$0.02 E	-$0.11 E
2019					-$0.01 E
2020					$0.15 E

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

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WHAT'S NEW

PURE Exited Fiscal Second Quarter of 2018 with a Strong Balance Sheet

PURE reported **total revenue** of $0.41 million for the fiscal second quarter ended January 31, 2018, compared to $0.45 million for the fiscal second quarter of 2017, a decrease of 8%. According management in the conference call, the decrease was mainly due to fluctuations within the company's existing legacy customer base.

Core food safety revenue for the fiscal second quarter of 2018 increased 55% as compared with food safety revenue in the fiscal second quarter of 2017.

Gross margin was 67% during the second quarter of fiscal 2018 as compared with 70% during the same period in fiscal 2017. The decrease in gross margin percentage was primarily attributable to the sale of lower margin formulations and packaging configurations of products during the quarter ended January 31, 2018, as compared with the prior period.

R&D expenses for the fiscal second quarter of 2018 were $0.12 million, compared to $0.21 million for the fiscal second quarter of 2017.

SG&A expenses for the fiscal second quarter of 2018 were $1.42 million, compared to $1.33 million for the fiscal second quarter of 2017.

Net loss for the fiscal second quarter of 2018 was $2.0 million ($0.03/share), as compared with $0.94 million ($0.01/share) for fiscal second quarter of 2017.

As of January 31, 2018, PURE held $2.13 million in cash and cash equivalents with no long-term debt.

In October 2017, PURE completed a tender offer to amend and exercise three classes of outstanding warrants issued to investors who participated in its 2014, 2015 and 2017 private placement financings. PURE raised approximately $2.8 million in gross cash proceeds from the exercise of 4,756,163 outstanding warrants as part of the tender offer.

PURE offered its existing warrant holders the opportunity to exercise their warrants in cash at reduced exercise prices. Approximately 64% of the Company's outstanding warrants were exercised in the tender offer.

Current cash will support the Company's operations and business plan through end of fiscal 2018 according to our financial model.

Update on PURE Hard Surface- Expanding Use

Food Transport

In October 2017, PURE signed an agreement with, and received an initial order from, iGPS Logistics. PURE® Hard Surface disinfectant will be used by iGPS as a new sanitization solution.

PURE Hard Surface will be mist-spray applied to the surfaces of plastic pallets inside a trailer to quickly eliminate microorganisms, preventing cross contamination. Test results demonstrated rapid efficacy (consistently over 96% reduction in bacteria counts), coupled with a highly favorable safety profile.

The newly developed PURE pallet sanitization solution helps food transportation operations to comply with the Food Safety Modernization Act (FSMA) requirement that transport equipment be sanitized to prevent food contamination. The use of plastic pallets continues to expand in the food industry and they

are increasingly required by leading processors and retailers. Pallet sanitization is becoming a critical component of any food safety plan to prevent cross contamination. This initial sale supports start-up operations in five of 15 iGPS pallet pooling centers. PURE expects follow-on orders, as well as rollout to the balance of the iGPS system, in the coming months.

The agreement with iGPS marks the entry into a new $50M+ US food transportation sanitization market, which further diversifies PURE's revenue stream.

In January 2018, PURE received an initial order from a leading foodservice distributor for PURE® Hard Surface disinfectant to be used as a new, more effective, time-efficient transportation sanitization solution on trucks and trailers transporting food.

Several other large food transport companies are in various stages of testing.

Restaurants

Beginning early in calendar 2Q18, use of PURE Hard Surface will be rolled out by a blue chip national casual dining chain.

Processing/Manufacturing

In addition to PURE Control, Taylor Farms has been PURE's leading adopter of PURE Hard Surface for environmental and surface disinfection in its processing plants, and is currently using it in a growing majority of its 14-plant network. Within each plant, additional applications are being added regularly (including the Company's food transport sanitization solution).

The Company continues to on board additional food processing/manufacturing plants (most recently two household name national brands) while expanding applications within its customer portfolio of 70+ food processors.

Update on PURE Control

In parallel to its PURE Hard Surface® business, PURE is launching its second business segment **PURE Control**-which utilizes the company's lead compound SDC as direct **food contact processing aid**.

Currently, PURE is targeting three key fields for PURE Control.

Produce (FDA)

PURE **introduced PURE Control** at IPPE (International Production & Processing Expo) **in late Jan 2016**. IPPE is the world's largest annual poultry, meat and feed industry event attended by more than 30,000 industry leaders and their suppliers seeking to learn about the latest technological developments in the industry.

PURE targeted PURE Control as a food safety solution for a broad range of processed vegetables and fruits that are most frequently associated with pathogen contamination. In its regulatory filing, PURE demonstrated materially significant reductions in *Salmonella, Listeria and E. coli* in processed fresh produce, as compared with current processing chemicals.

Produce is the leading source of foodborne illness in the US. Given the immediate market need and the proven superior efficacy of SDC, we believe PURE Control can quickly achieve meaningful market penetration among fruit and vegetable processors.

In March 2017, the Company received its **first order** for PURE Control® antimicrobial from Taylor Farms, a leading produce processor, entering a new +$300 million US produce processing aids market to prevent foodborne illness.

In early March 2018, Taylor Farms expanded its use of PURE Control to a second line in the first plant, initiated installation on multiple lines in a second plant in Salinas, CA, and developed plans to expand to a third plant in calendar 2Q18. These plants supply produce to leading foodservice chains as well as to retailers.

According to management, a lot of produce processors are in various stages of testing PURE Control. The Company estimates that sales of PURE Control to the average produce processing plant can generate approximately $1 million in annual sales per plant/year.

Poultry (FDA/USDA)

In June 2015, PURE resubmitted a Food Contact Notification (FCN) to the US **FDA** for Silver Dihydrogen Citrate (SDC) as an **online reprocessing** antimicrobial for **raw poultry processing aid**.

In April 2017, PURE received two required key regulatory notifications (**USDA** permission letter and an **FDA** FCN acknowledgement letter) on its path to obtain final regulatory approval of and commercialize PURE Control as a superior **raw poultry processing** aid into the +$350 million US market.

In May 2017, PURE's FDA FCN for use of PURE Control at concentrations up to 160 PPM as a raw poultry processing aid **became effective**. PURE received a "Letter of No Objection" from the USDA FSIS for use of PURE Control at concentrations up to 160 PPM in **pre-OLR and post-chill** poultry processing. PURE now **has regulatory approval** to commercialize PURE Control for these **non-OLR** poultry processing applications.

On August 2017, PURE Control antimicrobial was listed as a Safe and Suitable Ingredient in the USDA-FSIS Directive 7120.1 for Poultry Products, allowing immediate commercialization for pre-OLR and post chill applications, including parts processing.

In May 2017, PURE began its in-plant poultry processing trial to gain USDA approval for use of PURE Control during online reprocessing (OLR). If the plant trial is successful and no additional trials are required by the USDA, PURE anticipates that the USDA-FSIS would issue a "Letter of No Objection" within six weeks of the trial's completion. The Company would then have the regulatory approval necessary to begin commercialization of PURE Control for **OLR** applications.

In September 2017, a poultry processor initiated testing of PURE Control for poultry parts and achieved in plant results on parts that are superior to chemistries in use today, eliminating *Salmonella* with up to a 2.7 Log* reduction in bacteria.

During calendar 4Q17, PURE expects that the poultry processor conducting the tests will continue with several more rounds of optimization and validation in-plant testing. Anticipating successful completion of its in-plant work, PURE looks forward to this processor becoming the first customer to order and use PURE Control for parts processing. Additional processors are preparing to initiate their own optimization and validation in-plant testing in calendar 4Q17.

Once approved and commercialized, poultry processors will be able to use PURE Control in place of the highly toxic interventions currently being used. It is anticipated that the plant trial processors will be among the first customers for PURE Control for poultry processing.

Meats (FDA/USDA)

PURE continues its product development efforts for the application of SDC as processing aid/intervention for beef and pork. Pending positive test results, PURE expects to file the FCN for processing raw beef and pork in **calendar 2018**.

Huge Market Opportunity for SDC as a Food Contact Processing Aid

Food contamination, especially by Salmonella, is a global health issue. Salmonella is responsible for an estimated 1.2 million food borne illnesses each year. In testing, the USDA has found that at least 25% of chicken parts in the food supply chain were contaminated with Salmonella.

In order to address the issue, the USDA has initiated a Salmonella Action Plan, which is the top Department priority, aiming to significantly reduce the number of Salmonella-related food borne illnesses in the US. This USDA initiative drives increased scrutiny to poultry inspection and processing practices.

Processing aids or interventions commonly used in the US food industry today are highly toxic chemistries. In addition, pathogens can become increasingly resistant and render current interventions less efficacious. As a result, poultry processors need new, highly effective antimicrobial interventions that can provide a heightened level of control over Salmonella that current interventions are not achieving. The demonstrated ability of SDC to reduce Salmonella to levels below the detection limit (when applied during the on-line reprocessing of raw poultry products) has the potential to play an important role in the solution.

Produce is also a leading source of foodborne illness in the US. The Centers for Disease Control and Prevention (CDC) estimates that produce was responsible for 46% of foodborne illnesses and 23% of foodborne illness-related deaths in the US between 1998 and 2008. Leafy greens were identified as the primary source of foodborne illness.

We believe that SDC is a significant improvement over current processing chemicals and provides important advantages because SDC does not induce bacterial resistance and is:

- More effective in reducing or eliminating pathogens
- Easier to handle and dilute
- Non-corrosive to processing equipment
- Non-toxic - does not create noxious fumes

Now approved as food contact processing aid, SDC has the opportunity to target the $1+ billion-dollar market and command a big chunk of the market share based on its superior efficacy and safety.

The raw poultry market opportunity is estimated to be in excess of $350 million and the processed produce opportunity is estimated to exceed $300 million. PURE's long term goal to capture a significant share, at least 10%, of those markets, which means peak annual sales of at least $65 million alone for the two markets.

We Continue to be Bullish on PURE Shares

We continue to be optimistic about the prospect of PURE's SDC technology and reiterate our fair valuation at $3.00 per share.

We are impressed with the recent progress the company has achieved and the positive developments within the company. We think the company's valuation is very attractive at this time.

PURE is a technology-based bioscience company that provides solutions to numerous global health challenges. PURE's proprietary high efficacy/low toxicity **SDC-based antimicrobials** represent innovative advances in diverse markets and lead today's global trend toward industry and consumer use of **"green" products**. Patented SDC is an electrolytically generated source of stabilized ionic silver, which formulates well with other compounds. As a platform technology, SDC is distinguished from

competitors in the marketplace because of its **superior efficacy**, **reduced toxicity** and the **inability of bacteria to form a resistance** to it.

PURE's SDC is the first new disinfectant registered with EPA in over 30 years. SDC's competitive advantages in efficacy and safety make it outstand among its competitors and represent a **paradigm shift** in the disinfectant/sanitizer market place.

Another key feature of SDC is that SDC-based products have broad applicability in diverse markets. The Company's current focus is to expand distribution of currently approved **disinfectant/sanitizer** products to consumers in the **food safety industry**. We believe the launch of PURE Control will greatly accelerate revenue growth in calendar 2018 and beyond.

In terms of valuation, we think PURE shares are undervalued at current market price. Currently, the Company trades around $0.65 per share with a market cap of $44 million based on 68 million shares outstanding. We think this is a deep discount based on the company's fundamentals. According to our model, revenue will grow at 167% CAGR in the next fiscal 3 years. PURE will become profitable in fiscal 2020 with an EPS of 0.15 based on total revenue of $35.0 million.

We think PURE shares should be traded at a P/E ratio of 25 x. Applying this P/E multiple with our estimated EPS of $0.15 per share in fiscal 2020, discounted at 20% for 2 years, we come up with a fair valuation at $3.00 per share. This values PURE at $204 million in market cap, which we think is still conservative.

But keep in mind the risks. We noticed that the company's lead product PURE Hard Surface has been in the market for a few years, but sales so far have not been impressive. This could happen to the company's second product PURE Control. Sales of PURE Control may take longer time to gain traction since PURE is still in its early stage of commercialization of its SDC technology. SDC technology is quite new to most customers in the disinfectant market, and the costs for SDC are also higher than those for most existing technologies. Therefore, rollout of the PURE Control may take longer time.

PROJECTED INCOME STATEMENT

	2017 (Jul)					2018 (Jul)					2019 (Jul)	2020 (Jul)
$ in million except per share data	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FYE	FYE	FYE
Total Revenues	**$0.53**	**$0.45**	**$0.34**	**$0.52**	**$1.83**	**$0.46**	**$0.41**	**$1.00**	**$2.00**	**$3.88**	**$15.00**	**$35.00**
YOY Growth	*185.5%*	*154.0%*	*-16.1%*	*-1.7%*	*42.0%*	*-12.6%*	*-8.1%*	*195.9%*	*288.3%*	*111.6%*	*287.1%*	*133.3%*
CoGS	0.26	0.13	0.13	0.23	0.76	0.15	0.16	0.40	0.80	1.51	5.25	10.50
Gross Income	**$0.27**	**$0.31**	**$0.21**	**$0.28**	**$1.07**	**$0.32**	**$0.25**	**$0.60**	**$1.20**	**$2.37**	**$9.75**	**$24.50**
Gross Margin	*50.5%*	*70.0%*	*60.9%*	*55.1%*	*58.5%*	*68.5%*	*60.8%*	*60.0%*	*60.0%*	*61.1%*	*65.0%*	*70.0%*
R&D	$0.25	$0.21	$0.22	$0.10	$0.78	$0.14	$0.12	$0.30	$0.35	$0.91	$1.20	$1.35
% R&D	*46.7%*	*47.9%*	*65.7%*	*18.4%*	*42.5%*	*31.0%*	*29.2%*	*30.0%*	*17.5%*	*23.6%*	*8.0%*	*3.9%*
SG&A	$1.34	$1.33	$1.30	$1.26	$5.23	$1.45	$1.42	$1.45	$2.00	$6.31	$7.50	$10.00
% SG&A	*251.8%*	*298.2%*	*385.2%*	*244.3%*	*285.6%*	*311.4%*	*345.0%*	*145.0%*	*100.0%*	*162.9%*	*50.0%*	*28.6%*
Other	$0.28	$0.17	$0.28	$0.35	$1.07	$0.66	$0.74	$0.35	$0.45	$2.20	$1.75	$2.50
% Other	*52.4%*	*38.0%*	*81.4%*	*67.4%*	*58.4%*	*141.4%*	*180.0%*	*35.0%*	*22.5%*	*56.7%*	*11.7%*	*7.1%*
Operating Income	**($1.6)**	**($1.4)**	**($1.6)**	**($1.4)**	**($6.0)**	**($1.9)**	**($2.0)**	**($1.5)**	**($1.6)**	**($7.1)**	**($0.7)**	**$10.7**
Operating Margin	-	-	-	-	-	-	-	-	-	-	*-4.7%*	*30.4%*
Other Net	($0.1)	$0.5	($0.1)	($0.4)	($0.3)	($0.4)	$0.0	$0.0	$0.0	($0.4)	$0.0	$0.0
Pre-Tax Income	**($1.7)**	**($0.9)**	**($1.7)**	**($1.8)**	**($6.3)**	**($2.3)**	**($2.0)**	**($1.5)**	**($1.6)**	**($7.5)**	**($0.7)**	**$10.7**
Income taxes(benefit)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Tax Rate	-	-	-	-	-	-	-	-	-	-	-	-
Reported Net Income	**($1.7)**	**($0.9)**	**($1.7)**	**($1.8)**	**($6.3)**	**($2.3)**	**($2.0)**	**($1.5)**	**($1.6)**	**($7.5)**	**($0.7)**	**$10.7**
YOY Growth	-	-	-	-	-	-	-	-	-	-	*-90.6%*	*1621.4%*
Net Margin	-	-	-	-	-	-	-	-	-	-	*-4.7%*	*30.4%*
Shares Out	*64.8*	*63.6*	*62.7*	*62.8*	*63.5*	*65.0*	*68.0*	*68.0*	*68.0*	*67.2*	*70.0*	*72.0*
Reported EPS	**($0.03)**	**($0.01)**	**($0.03)**	**($0.03)**	**($0.10)**	**($0.04)**	**($0.03)**	**($0.02)**	**($0.02)**	**($0.11)**	**($0.01)**	**$0.15**
YOY Growth	-	-	-	-	-	-	-	-	-	-	*-91.0%*	*1579.2%*
One-time charge	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
Non-GAAP Net Income	**($1.7)**	**($0.9)**	**($1.7)**	**($1.8)**	**($6.3)**	**($2.3)**	**($2.0)**	**($1.5)**	**($1.6)**	**($7.5)**	**($0.7)**	**$10.7**
Non-GAAP EPS	**($0.03)**	**($0.01)**	**($0.03)**	**($0.03)**	**($0.10)**	**($0.04)**	**($0.03)**	**($0.02)**	**($0.02)**	**($0.11)**	**($0.01)**	**$0.15**

Source: Company filing and Zacks estimates

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