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Zacks Small-Cap Research

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Pressure BioSciences (PBIO-OTC)

Looking ahead to 2020

Our valuation of $4.44 per share for PBIO is based on an NPV for the products, less corporate overhead. Our NPV uses an 11% discount rate across the business. We've modeled for $6 million of debt funding through 2024. Our valuation accounts for dilution from the existing outstanding preferred shares but does not include the exercise of options and warrants.

Current Price (12/20/19)	$1.00
Valuation	**$4.44**

OUTLOOK

Pressure BioSciences is at a tipping point. Demand grew modestly through its early years, but is expected to accelerate starting in 2020. On its 3Q19 conference call, the Company maintained top-line guidance of $6 million for 2020, driven primarily by anticipated sales of its recently launched Ultra Shear technology (UST). Management has committed to building 12 UST machines in 2020, but on the call hinted that it may increase that number based on pending demand. We are lowering our 2019 estimates slightly to reflect PBIO's focus 2020 and its launch of UST.

SUMMARY DATA

52-Week High	**$3.90**
52-Week Low	**$0.68**
One-Year Return (%)	**-51.22**
Beta	**1.11**
Average Daily Volume (shr)	**16,195**
Shares Outstanding (mil)	**2**
Market Capitalization ($mil)	**$2**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**0**
Insider Ownership (%)	**17**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**11.2**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2019 Estimate	**-0.2**
P/E using 2020 Estimate	**-0.3**
Zacks Rank	**N/A**

Risk Level	**High,**
Type of Stock	**N/A**
Industry	**Med Instruments**
Zacks Rank in Industry	**N/A**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2018	1.6 A	0.6 A	0.5 A	0.7 A	2.5 A
2019	0.5 A	0.5 A	0.5 A		2.4 E
2020					5.8 E
2021					9.4 E

Earnings per share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2018	-$1.64 A	-$9.20 A	-$1.92 A	-$2.66 A	-$15.33 A
2019	-$2.01 A	-$2.22 A	-$2.22 A		-$6.51 E
2020	-$2.01 A	-$2.22 A	-$2.20 A		-$3.50 E
2021					-$2.09 E

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RECENT NEWS

Pressure BioSciences reported 3Q19 results on December 19. As expected, the Company is largely focused on the near-term opportunity for its recently introduced Ultra Shear Technology (UST). The Company reiterated its 2020 revenue guidance of $6 million, while hinting that demand is robust for UST and for its BaroFold protein reaggregation technology service. The challenge for PBIO remains execution. Management and staff are somewhat under-resourced and chasing many opportunities for a company of its size.

With an expanded product line and increased need for more sensitive and higher-throughput instrumentation in the commercial market, we believe it is reasonable to expect both the number of orders and the size of orders to grow, while the sales cycle shortens.

Third Quarter Results

Revenues in 3Q19 totaled $0.5 million, consisting primarily of instrument, consumables and contract research services. Consumable sales rose 160% to $112,000 in the quarter, driven largely by increased usage of the PCT installed base. Contract research services (BaroShear/UST and BaroFold) rose 86% to $149,000. This increase is notable as contract services are usually a first step towards the purchase of a UST instrument or large-contract BaroFold services. PCT instrument sales declined largely due to reduced salesforce personnel. However, this business line is volatile and we don't see this aberration as cause for concern.

Gross margins came in at 43%, on the lower end of our long-term gross margin assumption, but it is important to note that at this revenue level and with the Company's relatively high fixed-cost structure, small revenue changes can have a relatively large impact on reported results.

Research and development spend was largely flat with year ago levels at $276,712. Sales and marketing fell by 40% compared with the year earlier period. General and administrative expense was up 18% and included some one-time expenses.

Given the Company's focus on 2020, we are reducing our estimates for 2019 to better fit current trends. Our revenue estimate goes to $2.4 million, from $3.2 million and we now look for a loss of -$6.51 for 2019. For 2020 our revenue estimate stays at $5.8 million, with an upward bias, and we raised our operating loss slightly to -$3.50, largely to reflect higher than expected interest costs.

FORECAST

Profit and loss

We base our model on instrument and service revenues for PBIO's three technology platforms – Pressure Cycling Technology (PCT), BaroFold and Ultra Shear Technology (UST). We expect the bulk of near-term sales growth to come from the UST-based BaroShear K45 machines, with customers graduating from contract services and pilot-scale equipment purchases before investing in capital-intensive large capacity production-scale instruments. We have modeled for PCT growth to stay in a range of 10-15%, although sales will likely accelerate from successful opinion leader and applications development, along with overall increasing levels of protein molecule research and development.

We forecast revenues of $12.1 million by 2022 with 66% coming from instrument sales and the balance from consumables and contract services. However, as PBIO is moving from the slower-moving academic

and government markets into broader and diversified commercial (pharma and biotech) markets, the magnitude and trajectory of revenue growth may differ considerably from our assumptions, especially in the next 12-24 months.

PBIO should reach operating profitability by 2022 as sales growth moves overhead costs from 140% of sales (in 2018) down to c. 32%. Overhead expenses are expected to level out in the 15-20% range over the long-term.

Interest expense currently exceeds overhead for PBIO, but we expect that the Company will have sufficient resources to refinance/paydown this high cost debt beginning in 2022, if not sooner.

Cash flow

We expect PBIO to be a new user of cash through 2021. The Company's overhead burn rate is $300,000 per month and we estimate operating breakeven in the $9-10 million range, depending on sales mix and R&D spending. Our forecast includes $7 million in debt funding over the next several years.

EXHIBIT 1: FINANCIAL SUMMARY

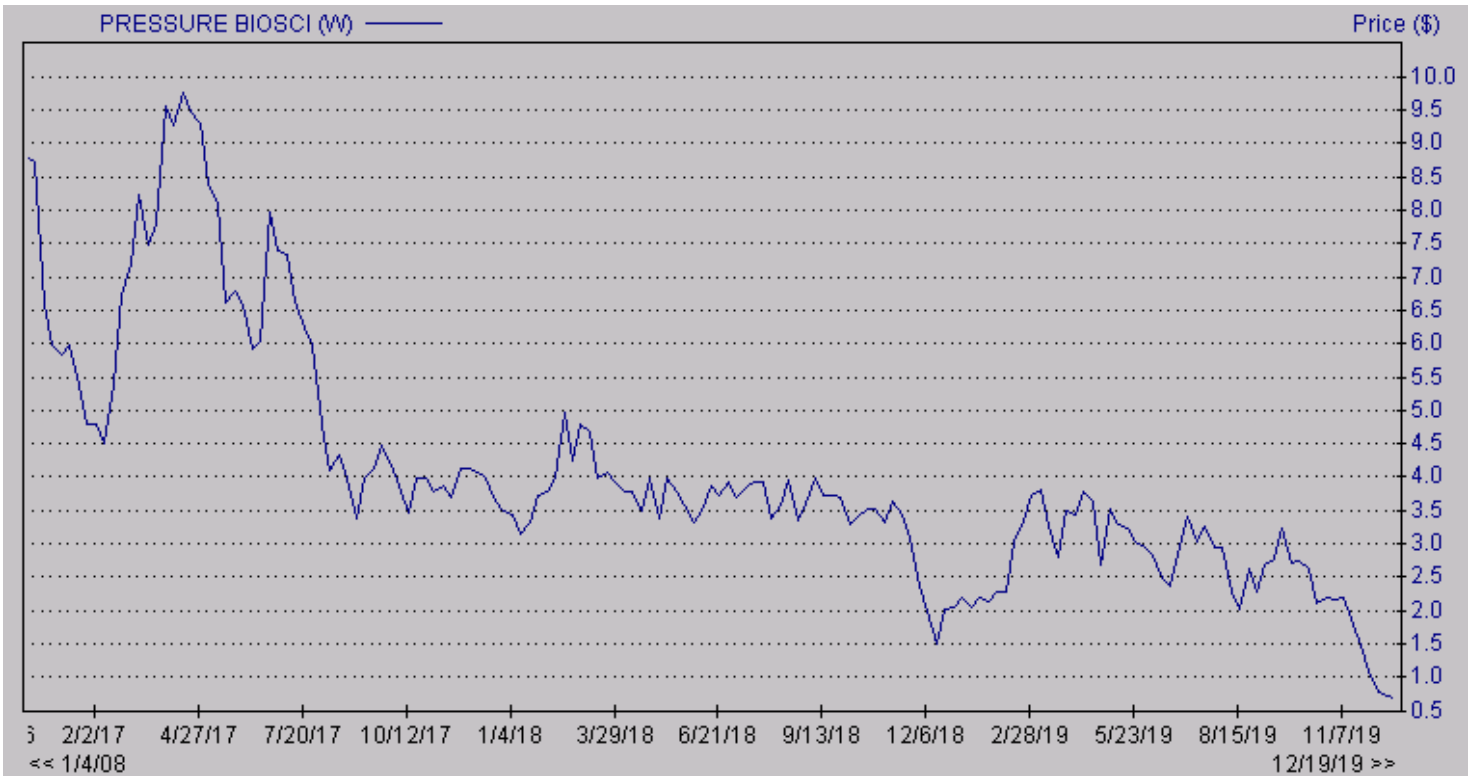
INCOME STATEMENT								
Fiscal year	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Revenue	1,976	2,240	2,458	2,352	5,808	9,390	12,619	15,801
Cost of sales	(834)	(1,273)	(1,280)	(1,223)	(2,585)	(4,143)	(5,513)	(6,879)
Gross Profit	1,142	967	1,178	1,129	3,223	5,248	7,106	8,922
Research & development	(1,183)	(989)	(1,208)	(1,148)	(1,205)	(1,217)	(1,229)	(1,242)
Selling, general & administrative	(3,695)	(4,626)	(4,447)	(4,891)	(5,082)	(5,336)	(5,603)	(5,883)
Operating profit (EBIT)	(3,736)	(4,647)	(4,477)	(4,910)	(3,064)	(1,306)	273	1,797
Interest income	0	0	0	0	0	0	0	0
Interest expense	(4,501)	(6,055)	(4,168)	(4,750)	(3,129)	(2,399)	(2,535)	(2,489)
Other expense/exceptionals	5,530	(13)	(1,054)	(146)	0	0	0	0
Pretax profit	(2,707)	(10,716)	(9,699)	(9,806)	(6,193)	(3,705)	(2,262)	(692)
Taxes	0	0	0	0	0	0	0	0
Net income (common shareholders)	(2,707)	(10,716)	(23,473)	(11,221)	(6,193)	(3,705)	(2,262)	(692)
Basic shares outstanding	911	1,114	1,531	1,724	1,768	1,768	1,768	1,768
Diluted shares outstanding	911	1,114	1,531	1,724	1,768	1,768	1,768	1,768
Basic EPS	**($2.97)**	**($9.62)**	**($15.33)**	**($6.51)**	**($3.50)**	**($2.09)**	**($1.28)**	**($0.39)**
Diluted EPS	**($2.97)**	**($9.62)**	**($15.33)**	**($6.51)**	**($3.50)**	**($2.09)**	**($1.28)**	**($0.39)**
Growth rates & margins								
Revenue growth	NA	13%	10%	(4%)	147%	62%	34%	25%
Gross profit as % of sales	58%	43%	48%	48%	55%	56%	56%	56%
R&D margin	60%	44%	49%	49%	21%	13%	10%	8%
SG&A margin	187%	206%	181%	208%	87%	57%	44%	37%
Tax rate	NA	NA	NA	0%	0%	0%	0%	0%
EBITDA reconciliation								
Depreciation & amortization	18	9	94	92	95	101	110	121
Stock based compensation	380	406	593	554	607	748	765	876
EBITDA	(3,338)	(4,232)	(3,789)	(4,264)	(2,362)	(457)	1,149	2,794

BALANCE SHEET							
Fiscal year	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Cash & equivalents	81	103	702	1,308	613	764	2,460
Total current assets	**1,368**	**1,514**	**2,081**	**3,843**	**4,483**	**5,706**	**8,384**
Property plant and equipment	23	69	74	121	198	298	420
Total Assets	**2,160**	**2,400**	**2,818**	**4,477**	**5,110**	**6,349**	**9,064**
Accounts payable	589	659	474	498	523	549	2,408
Accrued liabilities	1,169	1,570	1,567	1,645	1,728	1,814	1,905
Total current liabilities	**9,266**	**16,726**	**8,410**	**11,233**	**13,031**	**14,888**	**15,787**
Long-term debt (all types)	0	77	5,767	11,213	12,945	14,782	15,669
Total liabilities	**16,783**	**8,525**	**17,034**	**24,277**	**27,867**	**30,603**	**33,133**
Common stock / additional paid in capital	30,844	39,794	40,964	41,573	42,321	43,087	43,963
Warrants	9,879	19,807	20,707	20,707	20,707	20,707	20,707
Retained earnings / accumulated deficit	(55,349)	(65,730)	(75,889)	(82,081)	(85,786)	(88,048)	(88,740)
Other comprehensive income / (loss)	0	0	0	0	0	0	0
Total equity	**(14,623)**	**(6,125)**	**(14,215)**	**(19,800)**	**(22,757)**	**(24,254)**	**(24,069)**
Total liabilities and equity	**2,160**	**2,400**	**2,818**	**4,477**	**5,110**	**6,349**	**9,064**

CASH FLOW STATEMENT							
Fiscal year	2017A	2018A	2019E	2020E	2021E	2022E	2023E
Cash from operating activities	**(3,905)**	**(5,695)**	**(6,186)**	**(3,335)**	**(1,602)**	**277**	**3,854**
Capital expenditures	(22)	0	(13)	(58)	(94)	(126)	(158)
Purchases of intangibles	(150)	0	0	0	0	0	0
Cash from investing activities	**(172)**	**0**	**(13)**	**(58)**	**(94)**	**(126)**	**(158)**
Cash from financing activities	**4,019**	**5,718**	**6,797**	**4,000**	**1,000**	**0**	**(2,000)**
Net change in cash during period	**(57)**	**22**	**598**	**607**	**(696)**	**151**	**1,696**

Source: Company filings, Zacks Investment Research estimates.

HISTORICAL STOCK PRICE



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