

Reason for report:
EARNINGS

T2 BIOSYSTEMS, INC.

Preparing for T2Candida Panel Launch

• **Bottom Line:** We are maintaining our revenue projections following an earlier-than-anticipated FDA clearance for TTOO's T2Candida test. We reiterate our Market Perform rating and lower our PT to \$18.00 from \$23.50, which reflects compression in the emerging growth tools/diagnostics peer group multiple over the past three months.

• **Quarter in line.** TTOO reported 3Q14 adjusted EPS of (\$0.71) vs. our (\$0.65) estimate and the Street's (\$0.55). Excluding the accretion of redeemable preferred shares, GAAP EPS of (\$0.65) is in line with our estimate. Opex of \$7.8M is a 70% y/y increase, contributed by costs associated with becoming public and higher R&D/SG&A expenses related to clinical trials, product development, and marketing. With the core T2MR platform and T2Candida panel approved by the FDA in September, we expect TTOO will generate product revenue in 2015.

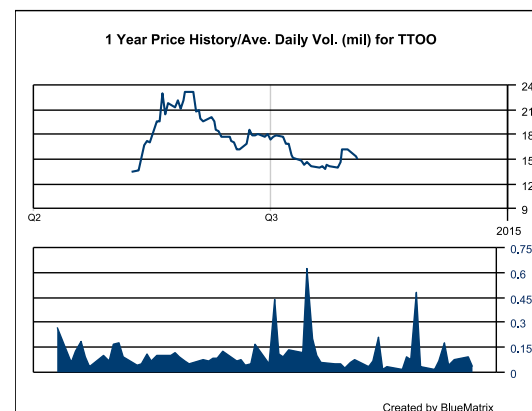
• **Building sales infrastructure to launch T2Candida panel.** The faster-than-anticipated 510(k) FDA-clearance allowed TTOO to jump-start its sales and marketing strategy for the T2Candida test in late 3Q. The initial 12-month plan is to acquire contracts with ~30 high-volume hospitals, which TTOO will support as it learns how to streamline and optimize implementation. Management plans to employ a direct sales force of 7 by end of November and increase it to 15 by end of 2015. We expect revenue will be concentrated in 2H15. Ultimately, TTOO is planning to drive broader adoption in the target 450 top U.S. hospitals in 2016. Of note, the company confirmed that the list price for T2Candida is >\$250/test, higher than the \$150 - \$250 range we had anticipated.

• **T2Bacteria and T2Stat on schedule, and other new potential opportunities.** Management indicated that the T2Bacteria panel and the T2HemoStat platform are both still on schedule for pivotal FDA studies in 2H15 and 1H16, respectively, consistent with previous communication. Furthermore, TTOO is exploring collaborations with interested third parties to develop new applications with the T2MR technology. This technology has broad applicability and could potentially create new revenue opportunities for the company. While opportunities outside medical diagnostics are too early to account for in our projections, we look forward to learning more about these projects as they materialize.

• **Model remains intact.** We are largely maintaining our model projections with the exception of 4Q14 R&D expense, which we nudged down by \$0.5M to keep in accordance with management expectations.

Key Stats: (NASDAQ:TTOO)

S&P 600 Health Care Index:	1,392.62
Price:	\$15.04
Price Target:	\$18.00 from \$23.50
Methodology:	~6.5x Sept-17 TTM revs., discounted 1 year back at ~20% rate
52 Week High:	\$24.50
52 Week Low:	\$11.00
Shares Outstanding (mil):	12.4
Market Capitalization (mil):	\$186.5
Book Value/Share:	\$0.40
Cash Per Share:	\$6.11
Net Debt to Total Capital:	NM
Dividend (ann):	\$0.00
Dividend Yield:	0.0%



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2013A	0.0	0.0	0.0	0.0	0.0	--	--	--	--	(\$8.69)	NM
2014E - New	0.0A	0.0A	0.0A	0.0	0.0	(\$4.90)A	(\$6.35)A	(\$0.71)A	(\$0.46)	(\$3.57)	NM
2014E - Old	0.0A	0.0A	0.0A	0.0	0.0	(\$2.88)A	(\$5.16)	(\$0.65)	(\$0.48)	(\$3.53)	NM
2015E - New	--	--	--	--	\$3.4	--	--	--	--	(\$2.09)	NM
2015E - Old	--	--	--	--	\$3.4	--	--	--	--	(\$2.06)	NM

Source: Company Information and Leerink Partners LLC Research

Revenues in \$MM. GAAP EPS presented. 1Q14 and 2Q14 EPS revised. Quarterly figures may not sum to annual total due to change in shares out. IPO was 8.7.14.

INVESTMENT THESIS

TTOO is a developmental stage manufacturer of a novel detection platform with broad application. Its initial focus is to commercialize instruments and diagnostic tests for sepsis and hemostasis, and the company has received FDA clearance for its first product, a test to detect Candida infection in the bloodstream. TTOO's instruments and tests are based on a unique technology which capitalizes on the magnetic properties of water to detect a broad range of analytes in solution. We believe the market opportunities for TTOO's technology are broad, yet consider the 37% appreciation of its stock price since IPO to fairly balance the risks and opportunities at this point.

VALUATION

The median emerging growth tools and diagnostics company currently trades for 3.7x forward-twelve month revenue (vs. 5.5x 3 months ago). We believe TTOO deserves a premium to the peer group due to its unique, patent-protected technology, large market opportunity, and forecast for faster revenue growth than the peer group. We consider ~6.5x FTM revenue a fair reflection of these positive attributes, offset by inherent uncertainties over the revenue ramp for TTOO's products. When calculating a 12-month price target, we would normally calculate an enterprise value, using projected levels of debt and cash, that is a multiple of revenue for the twelve months ended Sept-16 (the forward twelve month revenue estimate, twelve months from now). However, for TTOO, we project out a year further given the company's stage in its product curve. Therefore, we apply our revenue multiple of ~6.5x to our revenue estimate of ~\$85M for the twelve months ended Sept-17 to yield a price of \$22 in two years. We discount that back at a rate of 20% to arrive at an \$18 12-month price target.

RISKS TO VALUATION

The primary risks to our price target for TTOO include, but are not limited to: a slower-than-projected adoption curve for the company's sepsis products, a smaller-than-projected market opportunity for the company's sepsis products, an unforeseen detrimental impact from an evolving competitive environment, regulatory risk, and product development risk.

	2012	2013	Mar-14	Jun-14	Sep-14	Dec-14e	2014e	2015e	2016e	2017e
Revenue										
Product	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,375	\$36,450	\$111,000
Other	<u>19</u>	<u>266</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total revenue	19	266	0	0	0	0	0	3,375	36,450	111,000
COGS	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,531</u>	<u>18,225</u>	<u>44,400</u>
Gross profit	19	266	0	0	0	0	0	844	18,225	66,600
SG&A	2,945	5,022	1,842	2,446	2,984	3,450	10,722	18,000	29,160	49,950
R&D	<u>11,727</u>	<u>14,936</u>	<u>5,065</u>	<u>4,703</u>	<u>4,803</u>	<u>5,520</u>	<u>20,091</u>	<u>24,000</u>	<u>27,338</u>	<u>36,630</u>
Operating income (loss)	(14,653)	(19,692)	(6,907)	(7,149)	(7,787)	(8,970)	(30,813)	(41,156)	(38,273)	(19,980)
Interest expense (income)	154	403	86	80	304	241	711	1,015	1,170	1,630
Other expense, net	<u>(352)</u>	<u>515</u>	<u>(73)</u>	<u>74</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>
Pretax income	(14,455)	(20,610)	(6,920)	(7,303)	(8,091)	(9,211)	(31,525)	(42,171)	(39,442)	(21,610)
Taxes	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net income	(\$14,455)	(\$20,610)	(\$6,920)	(\$7,303)	(\$8,091)	(\$9,211)	(\$31,525)	(\$42,171)	(\$39,442)	(\$21,610)
Accretion of redeemable preferred	<u>(4,412)</u>	<u>(6,908)</u>	<u>(1,906)</u>	<u>(1,906)</u>	<u>(758)</u>	<u>0</u>	<u>(4,570)</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net income applicable to common	(\$18,867)	(\$27,518)	(\$8,826)	(\$9,209)	(\$8,849)	(\$9,211)	(\$36,095)	(\$42,171)	(\$39,442)	(\$21,610)
Basic shares outstanding	2,315	2,373	1,412	1,451	12,379	20,041	8,821	20,166	20,428	20,791
Diluted shares outstanding	2,315	2,373	1,412	1,451	12,379	20,041	8,821	20,166	20,428	20,791
EPS diluted	(\$6.24)	(\$8.69)	(\$4.90)	(\$6.35)	(\$0.71)	(\$0.46)	(\$3.57)	(\$2.09)	(\$1.93)	(\$1.04)
<i>EPS growth</i>										
Sales growth								nm	980.0%	204.5%
Gross margin	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	nm	25.0%	50.0%	60.0%
SG&A % of revenue	15500.0%	1888.0%	nm	nm	nm	nm	nm	533.3%	80.0%	45.0%
R&D % of revenue	61721.1%	5615.0%	nm	nm	nm	nm	nm	711.1%	75.0%	33.0%
Operating margin	(77121.1%)	(7403.0%)	nm	nm	nm	nm	nm	(1219.4%)	(105.0%)	(18.0%)
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
D&A	\$571	\$584	\$144	\$0	\$0	\$250	\$394	\$1,183	\$2,083	\$3,330
EBITDA	(\$14,082)	(\$19,108)	(\$6,763)	(\$7,149)	(\$7,787)	(\$8,720)	(\$30,419)	(\$39,974)	(\$36,190)	(\$16,650)
Free cash flow										
Operarating cash flow	(\$13,303)	(\$18,053)	(\$5,791)	(\$6,400)			(\$31,365)	(\$41,165)	(\$34,984)	(\$9,206)
CapX	<u>(283)</u>	<u>(513)</u>	<u>(263)</u>	<u>(245)</u>			<u>(1,108)</u>	<u>(1,335)</u>	<u>(7,669)</u>	<u>(11,444)</u>
Free cash flow	(\$13,586)	(\$18,566)	(\$6,054)	(\$6,645)			(\$32,473)	(\$42,499)	(\$42,652)	(\$20,650)

Source: Company reports and Leerink Partners estimates

Disclosures Appendix

Analyst Certification

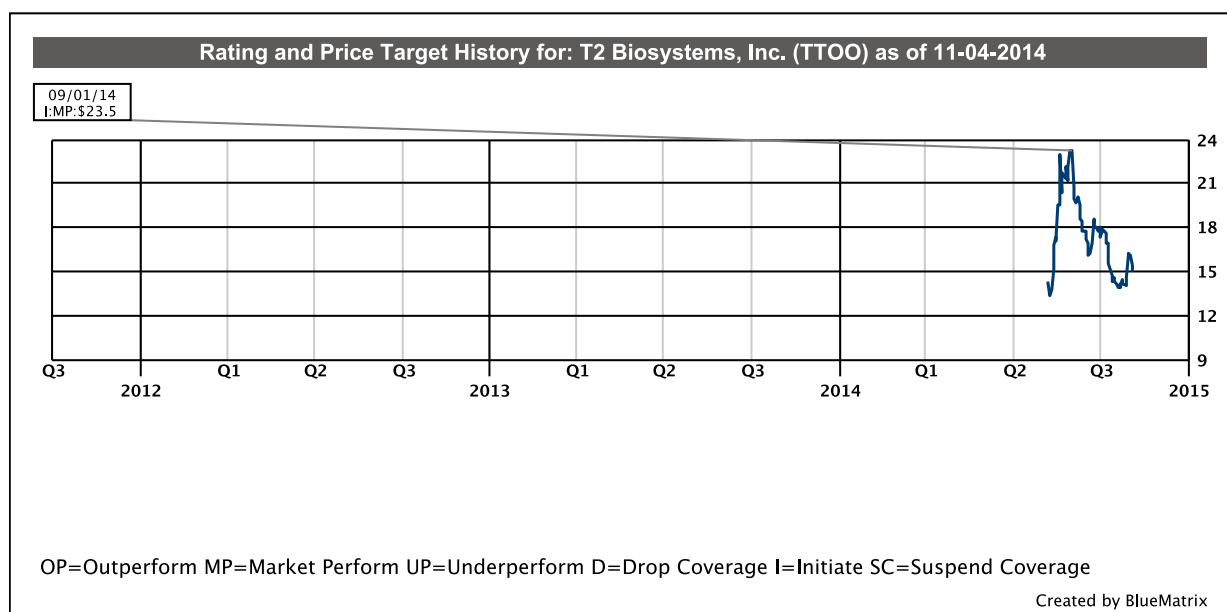
I, Dan Leonard, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

Valuation

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Distribution of Ratings/Investment Banking Services (IB) as of 09/30/14				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	138	69.30	51	37.00
HOLD [MP]	61	30.70	2	3.30
SELL [UP]	0	0.00	0	0.00

Explanation of Ratings

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform in line with its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark over the next 12 months. The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.

For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

Important Disclosures

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Leerink Partners LLC makes a market in T2 Biosystems, Inc.

Leerink Partners LLC has acted as a co-manager for a public offering of T2 Biosystems, Inc. in the past 12 months.

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