

T2 Biosystems (TTOO : US\$17.57)

T2 Biosystems sinks 9% in 2015

T2 Biosystems Inc., NASDAQ's 24th largest Healthcare-Products company by market cap, sank US\$1.75 (or 9.1%) year to date in 2015 to close at US\$17.57. Compared with the NASDAQ-100 Index which has risen 4.4% YTD, this is a relative price change of -13.5%. The volume YTD equalled the average trading of 77,430 shares. In 2015 the market cap has declined US\$35.1 million.

Introduction with Trends

We are currently bearish on this stock, both in the short-term based on technical indicators, as well as in the long-term based on fundamental metrics

What makes us most bearish on the stock is the following:

- The price to 200-day MAP ratio is 0.67, a bearish indicator.
- The Q Ratio, defined by James Tobin as MCap divided by Total Assets, is 4.4. Compared with the rest of the market the stock is overvalued and ranks in the bottom quartile of stocks by value of Q Ratio.
- In the last three months the number of falls outnumbered rises 38:25 or 1.52:1.

However, there are some reasons why some in the market are more bullish on the stock:

- Its Moving Average Convergence Divergence indicators are rising, with its 12-day EMA higher than its 26-day EMA.
- "Current ratio of two or more"; current assets are 14.6 times current liabilities.

Stock Summary

Sector	Healthcare-Products
Market Cap	US\$352.1 million
Shares Outstanding	20,040,604
ISIN	US89853L1044
Relative Strength (3 mo)	6

MCap: A Historical Perspective

	Share Price (USD)	Market Cap (US\$)
Last	17.6	352.1 million

Analysis

Bearish Signals

- The price is at a premium of 4.8% to the 1-month volume weighted average price of US\$16.76. Given that this premium has been under 4.8% one hundred four times and over 4.8% sixty-eight times in the last year, the downside:upside probability is estimated at 104:68 or 1.5:1.
- Falls to Rises: In the last three months the number of falls outnumbered rises 38:25 or 1.52:1.
- The Price/MAP of 0.67 for TTOO is lower than the Price/MAP for the NASDAQ-100 Index of 0.9.
- The price to 200-day MAP ratio is 0.67, a bearish indicator. In the past 200 days this ratio has been under 0.67 14 times suggesting further downside. The 200-day MAP has decreased to US\$26.10. A decrease is another bearish indicator.
- The Stochastic indicator of 82.3 has broken through the overbought line of 80.

Overvaluation:

- Price/Sales of 2958.94 versus sector average of 1.8 and market average of 2.4.
- The Q Ratio, defined by James Tobin as MCap divided by Total Assets, is 4.4. Compared with the rest of the market the stock is overvalued and ranks in the bottom quartile of stocks by value of Q Ratio.

Other Bearish Signals:

The stock has a score of merely 1 out of 9 set by Joseph Piotroski [pass mark >=5]:

Improvement in current ratio from 7.5 to 14.6.

Bearish Indicators and Rank in Market:

Description	Value	Rank In Market
Price to Book Value	6.6	In Bottom Quartile
Price/MAP200	0.67	In Bottom Quartile
Price/MAP50	0.58	In Bottom 8%
Volatility %	12.4	In Bottom 4%
Price Change %	-7.3	In Bottom 2%
Annual Revenue	US\$119,000	In Bottom 1%

Note

Neutral Indicators and Rank in Market:

Description	Value	Rank In Market
MCap	US\$352.1 million	In 3rd Quartile
Turnover in Quarter	US\$96.1 million	In 3rd Quartile

Bullish Signals:

- In the last 12 trading sessions there has been a net rise of 4.77%; the stock has advanced nine times and the biggest one day rise was 7% on Apr 08.
- In the NASDAQ market of 2,406 stocks and 1 unit traded today, the stock has a 6-month relative strength of 72 indicating it has outperformed 72% of the market.
- The Moving Average Convergence Divergence (MACD) indicator of 12-day Exponential Moving Average (EMA) of 18.28 minus the 26-day EMA of 17.71 is positive suggesting a bullish signal.
- The current short volume is 0.1 times its own historical average of 0.2%. It plummeted 41.5% from the previous day, plummeted 89.1% from a week ago and plummeted 90.3% from a month ago, a significant bullish indicator.

Undervaluation:

- The company is cash rich with Cash to Market Capitalisation at 21.0%.

Other Bullish Signals:

% Growth Y.O.Y, Revenue & Net Profit



Analysis (continued)

Also, the following criteria set by Benjamin Graham:

- "Current ratio of two or more"; current assets are 14.6 times current liabilities.

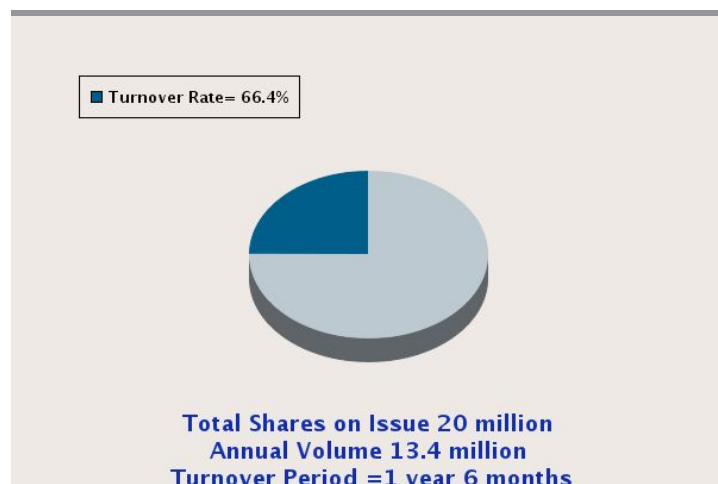
Bullish Indicators and Rank in Market:

Description	Value	Rank In Market
Cash to MCap %	21.0	In Top Quartile

Insider Trades



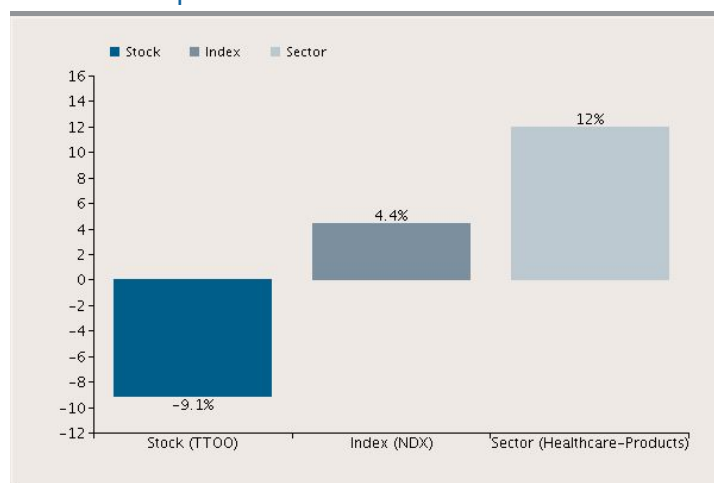
Turnover Rate & Turnover Period



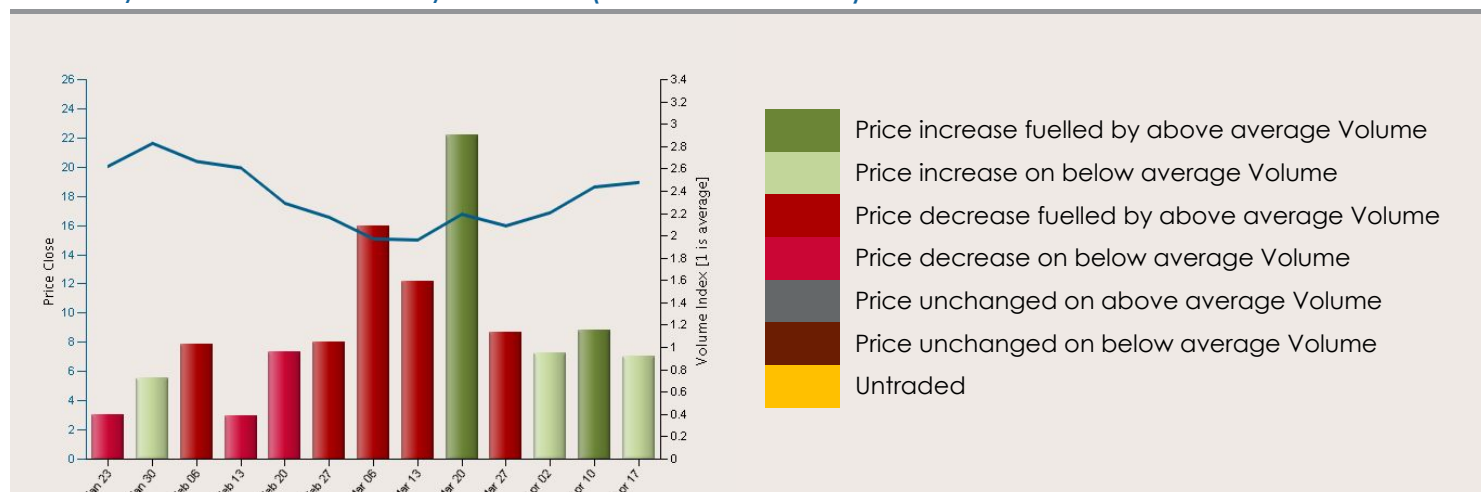
Trailing 3 months

Turnover	US\$96.1 million
Volume	5,570,147
Volume Index (1 is avg)	1.2

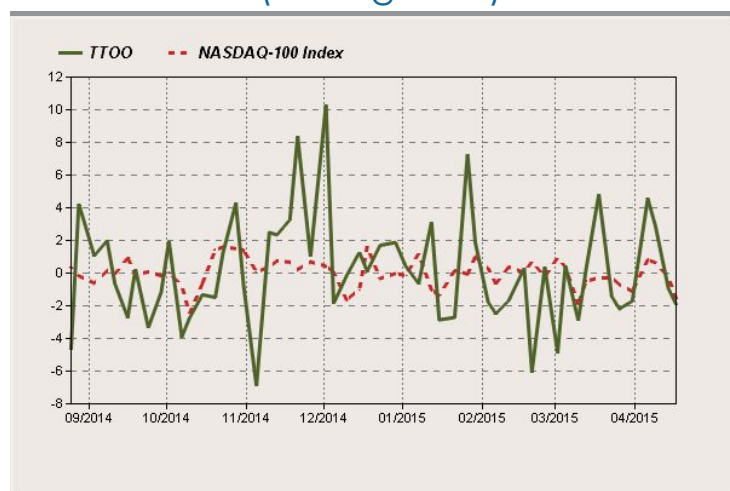
YTD Comparison Stock Sector Index



Weekly Price Volume Dynamics (Last 12 Weeks)



Stock v Index (Trailing Year)



Price/Moving Average Price [P/MAP]



Peer Group Analysis

Name	Last Price	Relative strength (6-months)	MCap (USD)	PV \$1000 (1 yr)	Revenue (USD)	Net Profit (USD)	Total Assets (USD)
Ocular Therapeutix	US\$26.50	97	565M	0	772,000	(28.7M)	78.2M
Synutra International	US\$7.80	87	446.9M	1,361	375.9M	30.9M	550.7M
Immune Design	US\$26.42	67	445.9M	0	6.4M	(34.2M)	78.4M
T2 Biosystems	US\$17.57	72	352.1M	0	119,000	(36M)	79.1M
Angie'S List	US\$5.88	8	344.4M	477	315M	(12.1M)	154.5M
Chemocentryx	US\$7.89	88	342M	1,489		(46.9M)	117M
Adamas Pharmaceuticals	US\$17.81	70	314.2M	1,349	55.8M	9M	161.2M

Recent Analyst Recommendations

Date	Brokerage	Action	Past Rating	Current Rating	Prev Target	Price Target
18-Mar-2015	Leerink Swann	Upgrade	Market Perform	Outperform	-	23

Company Overview

Activities

T2 Biosystems Inc. develops direct detection products for diagnostic applications. The Company offers diagnostic instrument for detection of infectious diseases in blood, plasma, serum, saliva, sputum and urine. T2 Biosystems operates in the United States.

Further details can be found at
www.t2biosystems.com.

Economic Sector

Healthcare

Regulatory Announcements

April 08: Study Published in Future Microbiology Demonstrates Significant Cost and Survival Benefits for T2 Biosystems' T2Candida Panel for Sepsis
[News Story]

Study Showed Rapid Diagnosis of Candida, a Leading Cause of Sepsis, Significantly Reduces Patient Deaths and Hospital Costs Annually

LEXINGTON, Mass., April 8, 2015 -- T2 Biosystems, Inc. (Nasdaq:TTOO), a company developing innovative diagnostic products to improve patient health, today announced that results from an analysis on the impact of using the company's T2Candida(Registered) Panel were published in Future Microbiology.

[For more details click here.](#)

Conferences/Exhibitions

March 02: Events Calendar: T2 Biosystems to Present at the Cowen Healthcare Conference

[News Story] LEXINGTON, Mass., March 2, 2015 T2 Biosystems, Inc. (Nasdaq:TTOO), a company developing innovative diagnostic products to improve patient health, today announced that John McDonough, president and chief executive officer, is scheduled to present at the Cowen Healthcare Conference on Tuesday, March 3, 2015 at 10:00 a.m.

[For more details click here.](#)

Financial Results

February 18: T2 Biosystems Reports 2014 Fourth Quarter, Full Year Results

[News Story] LEXINGTON, Mass., Feb. 17, 2015 -- T2 Biosystems (Nasdaq:TTOO) today reported operating highlights and financial results for the fourth quarter and year ended December 31, 2014. Recent operational highlights included:

<http://www.nasdaq.com/press-release/t2-biosystems-reports-2014-fourth-quarter-full-year-results-20150217-01115>

Source: Nasdaq Stock Exchange
[For more details click here.](#)

Financial Results

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Source: Nasdaq Stock Exchange

[For more details click here.](#)

Conferences/Exhibitions

February 11: Events Calendar: T2 Biosystems Announces 2014 Fourth Quarter and Year-End Results Release and Conference Call Date

LEXINGTON, Mass., Feb. 10, 2015 -- T2 Biosystems, Inc. (Nasdaq:TTOO) today announced that it will release its 2014 fourth quarter and year-end financial results after the market closes on Tuesday, February 17, 2015. In conjunction with the release, the Company will host a conference call with the investment community at 4:30 p.m.

[For more details click here.](#)

Conferences/Exhibitions

February 05: Events Calendar: T2 Biosystems to Present at the Leerink Global Healthcare Conference

LEXINGTON, Mass., Feb. 5, 2015 (GLOBE NEWSWIRE) -- T2 Biosystems, Inc. (Nasdaq:TTOO) today announced that John McDonough, president and chief executive officer, is scheduled to present at the Leerink Global Healthcare Conference on Thursday, February 12, 2015, at 8:05 a.m. ET at the Waldorf Astoria Hotel in New York City.

A live, listen-only webcast of the presentation may be accessed by visiting the Events & Presentations section of the Company's website at www.t2biosystems.com under Investors & Press.

[For more details click here.](#)

Key Developments

February 03: T2 Biosystems and Canon U.S. Life Sciences Announce Joint Collaboration to Develop Novel Test Panel to Rapidly Detect Lyme Disease

[News Story] LEXINGTON, Mass., Feb. 3, 2015 T2 Biosystems, Inc. (Nasdaq:TTOO) a company developing innovative diagnostic products to improve patient health today announced that the company has entered into a multi-year, strategic agreement with Canon U.S. Life Sciences, Inc. to jointly develop a novel diagnostic test panel to rapidly detect Lyme disease, a tick-borne bacterial infection that, if left untreated, can cause chronic joint inflammation, neurological disorders and cognitive defects.

Under the terms of the agreement, T2 Biosystems will receive an upfront payment of \$2 million from Canon U.S.

[For more details click here.](#)

Company Overview (continued)

8-K other news

February 19: T2 Biosystems: Results of Operations and Financial Condition

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=_Archives_edgar_data_1492674_000110465915012002_0001104659-15-012002.txt

Source: 8-K United States Securities and Exchange Commission

January 21: T2 Biosystems: Financial Statements and Exhibits

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=_Archives_edgar_data_1492674_000110465915003647_0001104659-15-003647.txt

Source: 8-K United States Securities and Exchange Commission

December 31: T2 Biosystems: Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=_Archives_edgar_data_1492674_000110465914089654_0001104659-14-089654.txt

Source: 8-K United States Securities and Exchange Commission

October 17: T2 Biosystems: Entry into a Material Definitive Agreement

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=_Archives_edgar_data_1492674_000110465914072280_0001104659-14-072280.txt

Source: 8-K United States Securities and Exchange Commission

September 23: T2 Biosystems: Other Events

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=_Archives_edgar_data_1492674_000110465914067604_0001104659-14-067604.txt

Source: 8-K United States Securities and Exchange Commission

Issued Capital

Based on 20,040,604 issued equity shares the market capitalisation is US\$352.1 million. It is NASDAQ's 32nd largest Healthcare-Products company by total revenue.

The top sixteen shareholders hold 30.2% of the issued capital leaving a float of 69.8%.

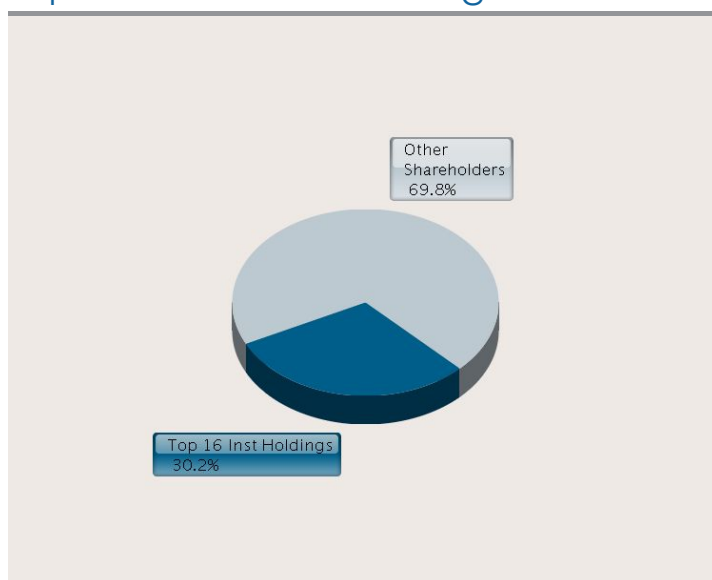
Source

Www.BuySellSignals.com

Top 10 Shareholders

Name of Shareholder	No. of Shares	% Held
Goldman Sachs Group Inc	3,457,325	17.25
Gilder Gagnon Howe & Co Llc	1,413,976	7.06
Harvest Capital Strategies Llc	320,000	1.6
Fmr Llc	217,900	1.09
Blackrock Fund Advisors	164,305	0.82
Ra Capital Management Llc	138,002	0.69
Tiger Management Llc	90,909	0.45
Northern Trust Corp	59,824	0.3
Columbus Circle Investors	51,800	0.26
Woodstock Corp	29,070	0.15
Total	5,943,111	29.66

Top 16 Institutional Holdings



Board and Management

David Elsbree **Director**

David Elsbree has served as a member of our board of directors since July 2014. From 1970 until 2004, Mr. Elsbree was employed by Deloitte & Touche, most recently as a former senior partner. Mr. Elsbree served in a number of leadership roles in the firm's high technology practice, including partner-in-charge of the New England High Technology Practice. Mr. Elsbree served on the board of directors of Art Technology Group, Inc. from June 2004 until January 2011 and on the board of directors of Acme Packet, Inc. from November 2006 until March 2013. Mr. Elsbree received his B.A. from Northeastern University. Mr. Elsbree's extensive knowledge of and experience with technology companies and financial expertise contributed to our board of directors' conclusion that he should serve as a director of our company.

Financial Results (Annual)

31 December, 2014

Annual Report for the year ended December 31, 2014

year-on-year comparisons with previous corresponding period

Favourable Changes

- EPS continued to be negative like in the previous year
- However, there was an improvement from \$US-19.72 in the previous year to \$US-4.15
- Current ratio up 93.9% to 14.6
- Working capital to total assets up 7.3% to 88.6%.

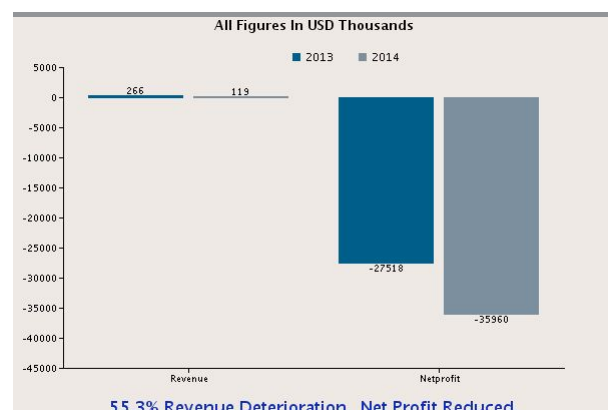
Unfavourable Changes

- Loss of \$US36.0m
- Total liabilities to total assets up 22.2% to 0.3
- Operating cash flow is negative.

Major Common Size Ratios

- Total current assets to total assets down from 95.3% to 95.2%
- Cash to total assets down from 94.7% to 93.3%
- Fixed assets to total assets steady at 3.5%.

Year on Year Revenue & Net Profit (In USD millions)



INCOME STATEMENT

Currency in Thousand of USD	2014-12-31	2013-12-31	Change %
Research and grant revenue	119	266	Down 55.3
Operating expenses:			
Research and development	19,782	14,936	Up 32.4
Selling, general and administrative	11,018	5,022	Up 119.4
Total operating expenses	30,800	19,958	Up 54.3
Loss from operations	-30,681	-19,692	Deterioration 55.8
Interest expense, net	721	403	Up 78.9
Other income (expense), net	12	-515	Recovery
Net loss	-31,390	-20,610	Deterioration 52.3
Comprehensive loss	-31,390	-20,610	Deterioration 52.3

Financial Results (Annual) (continued)

31 December, 2014

Reconciliation of net loss to net loss applicable to common stockholders:

Net loss	-31,390	-20,610	Deterioration 52.3
Accretion of redeemable convertible preferred stock to redemption value	-4,570	-6,908	Reduced 33.8
Net loss applicable to common stockholders	-35,960	-27,518	Deterioration 30.7
Net loss per share applicable to common stockholders- basic and diluted	-415.0c	-1,972.0c	Reduced 79.0
Weighted-average number of common shares used in computing net loss per share applicable to common stockholders- basic and diluted	8,674,931	1,395,562	Up 521.6

BALANCE SHEET

Currency in Thousand of USD	2014-12-31	2013-12-31	Change %
Assets			
Current assets:			
Cash and cash equivalents	73,849	30,198	Up 144.5
Accounts receivable	201		
Prepaid expenses and other current assets	1,076	195	Up 451.8
Inventories	115		
Restricted cash, current portion	80		
Total current assets	75,321	30,393	Up 147.8
Property and equipment, net	2,760	1,118	Up 146.9
Restricted cash, net of current portion	260	340	Down 23.5
Deferred tax assets	313		
Other assets	480	34	Up 1,311.8
Total assets	79,134	31,885	Up 148.2
Liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)			
Current liabilities:			
Accounts payable	735	943	Down 22.1
Accrued expenses and other current liabilities	3,662	1,319	Up 177.6
Current portion of notes payable	295	1,759	Down 83.2
Deferred revenue	80		
Deferred tax liabilities	313		
Current portion of deferred rent	87	25	Up 248.0
Total current liabilities	5,172	4,046	Up 27.8
Notes payable, net of current portion	20,660	3,299	Up 526.3
Deferred rent, net of current portion	106	45	Up 135.6
Warrants to purchase redeemable securities		1,225	
Other liabilities	195		
	26,133	8,615	Up 203.3

Financial Results (Annual) (continued)

31 December, 2014

Commitments and contingencies

Redeemable convertible preferred stock		112,813	
Stockholders' equity (deficit):			
Preferred stock, \$0.001 par value; 10,000,000 shares authorized; no shares issued and outstanding at December 31, 2014 and 2013			
Common stock, \$0.001 par value; 200,000,000 and 28,254,907 shares authorized at December 31, 2014 and 2013, respectively; 20,041,645 and 1,411,986 shares issued and outstanding at December 31, 2014 and 2013, respectively	20	1	Up 1,900.0
Additional paid-in capital	156,576		
Accumulated deficit	-103,595	-89,544	Deterioration 15.7
Total stockholders' equity (deficit)	53,001	-89,543	Recovery
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	79,134	31,885	Up 148.2

CASH FLOW

Currency in Thousand of USD	2014-12-31	2013-12-31	Change %
Operating activities			
Net loss	-31,390	-20,610	Deterioration 52.3
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	691	584	Up 18.3
Stock-based compensation expense	1,653	578	Up 186.0
Noncash interest expense	112	44	Up 154.5
Noncash warrant expense			
Change in fair value of warrants	1	530	Down 99.8
Loss on disposal of asset		6	
Deferred rent	5	-5	Recovery
Changes in operating assets and liabilities:			
Accounts receivable	-201		
Prepaid expenses and other current assets	-1,217	-138	Deterioration 781.9
Inventory	-115		
Accounts payable	-208	372	Deterioration
Accrued expenses and other liabilities	2,405	586	Up 310.4
Deferred revenue	80		
Net cash used in operating activities	-28,184	-18,053	Deterioration 56.1
Investing activities			
Purchases of property and equipment	-2,084	-513	Deterioration 306.2
Decrease in restricted cash		80	
Net cash used in investing activities	-2,084	-433	Deterioration 381.3

Financial Results (Annual) (continued)

31 December, 2014

Financing activities

Proceeds from issuance of common stock in initial public offering, net of offering costs	58,089		
Proceeds from issuance of redeemable convertible preferred stock, net		39,768	
Proceeds from issuance of common stock and stock options exercises, net	153	55	Up 178.2
Proceeds from issuance of note payable, net	19,714		
Repayments of note payable	-4,037	-848	Deterioration 376.1
Net cash provided by financing activities	73,919	38,975	Up 89.7
Net increase (decrease) in cash and cash equivalents	43,651	20,489	Up 113.0
Cash and cash equivalents at beginning of period	30,198	9,709	Up 211.0
Cash and cash equivalents at end of period	73,849	30,198	Up 144.5

EBITDA AND MARGINS

	2014-12-31	2013-12-31
Net Income Margin %	-30,218.49	-10,345.11

PERFORMANCE RATIOS

	2014-12-31	2013-12-31	Change %
Return on Assets (%)	-45.44	-86.3	Reduced 47.3
Total Liabilities to Operating Cash Flow	-0.93	-0.48	Deterioration 94.3
Total Liabilities/Total Assets	0.33	0.27	Up 22.2
Current Ratio	14.56	7.51	Up 93.9

PER SHARE FIGURES

	2014-12-31	2013-12-31	Change %
Revenue from operating activities	1.37c	19.06c	Down 92.8
Cash	US\$8.51	US\$21.64	Down 60.7
Working Capital	US\$8.09	US\$18.88	Down 57.2
Shareholders' Funds	US\$6.11	-6,416.27c	Recovery
Total Liabilities	US\$3.01	US\$6.17	Down 51.2
Total Assets	US\$9.12	US\$22.85	Down 60.1
Current Debt	1.0c	1.79c	Down 44.0
Net Tangible Assets	US\$6.11	-6,416.27c	Recovery
EPS Final	-415.0c	-1,972.0c	Reduced 79.0

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