

## Calithera Biosciences (CALA: US\$8.37)

# Calithera Biosciences wipes off US\$222.3M in MCap in 2015, highest loser in Pharmaceuticals sector

Calithera Biosciences, Inc., NASDAQ's 17th largest Pharmaceuticals company by market cap, plummeted US\$12.43 (or 59.8%) year to date in 2015 to close at US\$8.37. This makes the stock the biggest decliner in the Pharmaceuticals sector which is up 81.4% in 2015. Compared with the NASDAQ-100 Index which has risen 9.3% YTD, this is a relative price change of -69%. In 2015 the market cap has declined US\$222.3 million.

### Fig 1: Stock Summary

Sector	Pharmaceuticals

Market Cap US\$149.7 million

Shares Outstanding 17,881,573

**ISIN** US13089P1012

**PermID** 1-5000784443

Relative Strength (3 mo) 7

### **Bullish Signals**

#### **Undervaluation:**

- The company is cash rich with Cash to Market Capitalisation at 68.1%.
- The Q Ratio, defined by James Tobin as MCap divided by Total Assets, is 1.4. Compared with the rest of the market the stock is undervalued.

### Other Bullish Signals:

Also, the following criteria set by Benjamin Graham:

- "A stock price down to at least two-thirds of tangible book value per share"; the price is 0.39 times tangible book value per share of USD21.57.
- "Current ratio of two or more"; current assets are 25.2 times current liabilities.

### **Bearish Signals**

- Falls to Rises: In the last three months the number of falls outnumbered rises 39:23 or 1.7:1.
- In the last 19 trading sessions there has been a net decline of 5.3%; the stock has retreated ten times and the biggest one day decline was 9.6% on Jul 20.
- In the NASDAQ market of 2,352 stocks traded today, the stock has a 6-month relative strength of 2 indicating it is trailing 98% of the market.
- The Moving Average Convergence Divergence (MACD) indicator of 12-day Exponential Moving Average (EMA) of 7.78 minus the 26-day EMA of 7.91 is negative suggesting a bearish signal.
- The Price/MAP 200 of 0.57 for Calithera Biosciences is lower than the Price/MAP 200 for the NASDAQ-100 Index of 1.8
- In the past 200 days this ratio has been under 0.57 48 times suggesting further downside. The stock is trading below both its MAPs and the 50-day MAP of US\$8.72 is lower than the 200-day MAP of US\$14.68, a bearish indicator. The 200-day MAP has decreased to US\$14.68. A decrease is another bearish indicator.
- The price to 200-day MAP ratio is 0.57, a bearish indicator.

### Other Bearish Signals:

## Fig 2: Bearish Indicators and Rank in Market

Description	Value	Rank In Market
Price/MAP200	0.57	In Bottom 6%
Volatility %	14.4	In Bottom 3%
Price Change %	-8.3	In Bottom 2%
Relative Strength (6M)	2	In Bottom 1%



## Price Volume Dynamics

### Fig 3: Shareholder Returns

Trailing quarter: The stock fell 39 times (61.9% of the time), rose 23 times (36.5% of the time) and was unchanged 1 time (1.6% of the time). The aggregate volume was 1.9 times average trading of 28.4 million shares. The value of US\$1,000 invested 3 months ago is US\$647 [vs 1,033 for the NASDAQ-100 Index] for a capital loss of US\$353.

PVUS\$1,000	Trailing Qtr	Trailing Yr	Trailing 3 Yrs
CALA	US\$647		
Pharmaceuti cals sector	1,261	2,430	4,042
NASDAQ-100 Index	1,033	1,181	1,766

## Fig 4: Turnover Rate & Turnover Period

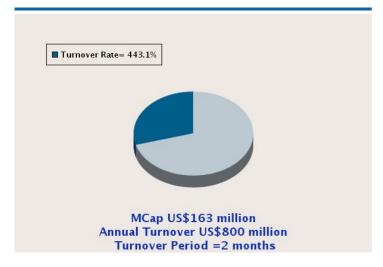
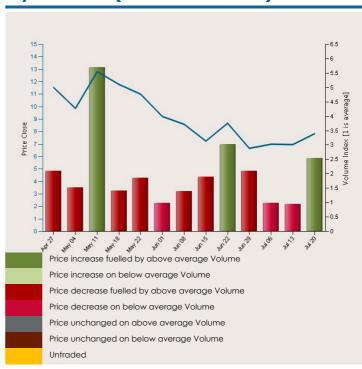


Fig 5: Trailing 3 months

Turnover	US\$363 million
Volume	37,376,681
Volume Index (1 is avg)	1.9

## Fig 6: Weekly Price Volume Dynamics (Last 12 Weeks)



## Fig 7: Price/Moving Avg Price [P/MAP200]



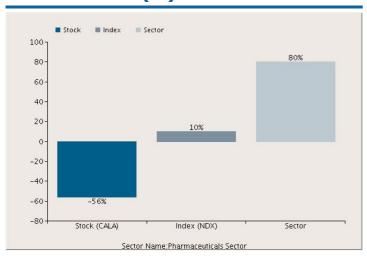
Fig 8: Trailing Price Change %

Price Change %	Quarter	Year	3 Years
CALA	-35.27		
Pharmaceuticals	26.1	143.01	304.16
NASDAQ-100 index	3.3	16.7	76.59



## Price Volume Dynamics (continued)

## Fig 9: YTD Comparison Stock Sector Index (%)



### Fig 10: Short Selling to Mcap





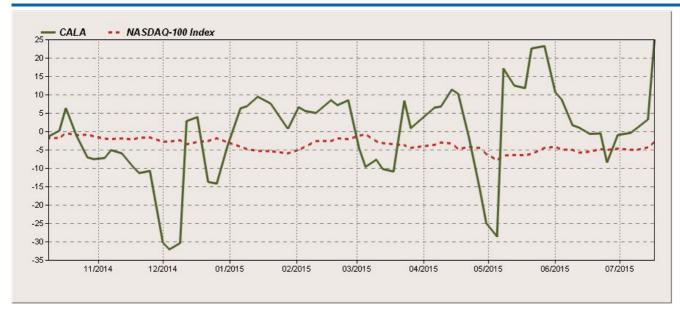
### Fig 11: Month-on-Month Comparison (Trailing Month - ended 21st)

	21 Jul	19 Jun	21 May	21 Apr	20 Mar	20 Feb
Price 21 Jul (USD)	9.13	8.66	12.02	14.69	15.71	16.21
% Price Change	5.3	-21.1	-18.2	-21.6	-3.1	-28.5
Avg Daily Volume	308,179	263,023	240,664	183,761	150,379	139,431
VWP (USD)	9.8	12.69	14.49	16.85	17.31	22.75
Price Range (USD)	6.6 - 9.89	6.75 - 13.73	8.82 - 16.5	13.96 - 22	12.31 - 19.13	15.32 - 23.29
Relative Price Change %	1.7	-21.3	-20.3	-21.1	-3.4	-35
Volatility %	49.8	103.4	87.1	57.6	55.4	52

Fig 12: Price Volume Trend: Trailing Quarter



Fig 13: Stock v Index (Trailing Year)





## Fig 14: Fibonacci Retracement





## Ranking

## Fig 15: Global Peer Group Analysis (all figures in USD)

Name	Relative Str. (6 mo)	MCap	PV \$1000 (1 yr)	Revenue	Net Profit	Total Assets
Protalix BioTherapeutics	35	165.8M	513.0	13.7M	(29.9M)	78.5M
Iran Parenteral Products	53	165.2M				
EPIRUS Biopharmaceuticals	64	164.4M	787.9	4,000	(41.8M)	51.4M
Starpharma Holdings	78	163.7M	826.9	931,730.8	(10.9M)	27.4M
Calithera Biosciences	19	163.3M			(21.7M)	104.8M
ReNeuron Group	16	161.7M	1,599.2	1.3M	(11M)	37.5M
E-Therapeutics	92	160.7M	1,195.6		(12.1M)	59.4M
Chiome Bioscience	23	159.1M	519.7	3.7M	(6.1M)	40.6M
Osvah Pharmaceutical Company	16	157.6M	2,079.5			

## **Global Peer Group Analysis (continued)**

Code	Country	Last Price	P/S	P/Book	Turnover Rate (%)	% Disc to 52-w Hi
PLX	US	US\$1.77	12.2		105.4	51.5
FTIR1	IR	IRR8,259.0			5.2	19.8
EPRS	US	US\$6.99	41,092.2	13.2	143.8	40.5
SPL	AU	69.0c	175.7	8.7	31.5	30.0
CALA	US	US\$9.13		1.6	443.1	
RENE	GB	GBX5.88	124.8	5.1	25.6	9.5
ETX	GB	GBX39.12		2.8	8.1	20.2
4583	JP	JPY895.0	43.2	4.4	754.2	55.7
DOSE1	IR	IRR18,541.0			4.8	3.9

## Fig 16: Recent Analyst Recommendations

Date	Brokerage	Action	Past Rating	Current Rating
01-May-2015	Zacks	Upgrade	Sell	Hold



## Ranking (continued)

## Fig 17: Rank in American Region out of 12,328 stocks

Description	Value	Rank	Quartile
MCap (US\$)	163.3M	4508	Second
Total Assets (US\$)	104.8M	5481	Second
Net Profit (US\$)	(21.7M)	9818	Bottom
Return on Equity %	(21.6)	6515	Third
Price to Book	1.6	3450	Second
Rel Strength 6 Mo (US\$)	28	8848	Third

### **Sector Sorting**

For Company searches, or for sorting by stocks and variables, an interactive version of today's Table is available here



## Financial Results (Annual)

## 31 December, 2014

## Fig 18: Income Statement

Currency in Thousand of USD	2014-12-31	2013-12-31	Change %
Operating expenses:			
Research and development	16,367	9,900	Up 65.3
General and administrative	5,354	2,478	Up 116.1
Total operating expenses	21,721	12,378	Up 75.5
Loss from operations	-21,721	-12,378	Deterioration 75.5
Other income	9	1	Up 800.0
Net loss and comprehensive loss	-21,712	-12,377	Deterioration 75.4
Gain on extinguishment of convertible preferred stock			
Net loss attributable to common stockholders	-21,712	-12,377	Deterioration 75.4
Net loss per share attributable to common stockholders, basic and diluted	-467.0c	-13,153.0c	Reduced 96.4
Weighted average shares used in computing net loss per share attributable to common stockholders, basic and diluted	4,652,000	94,000	Up 4,848.9

## Fig 19: Balance Sheet

Currency in Thousand of USD	2014-12-31	2013-12-31	Change %
Assets			
Current assets:			
Cash and cash equivalents	101,969	33,820	Up 201.5
Prepaid expenses and other current assets	1,894	349	Up 442.7
Total current assets	103,863	34,169	Up 204.0
Restricted cash	46	116	Down 60.3
Property and equipment, net	861	559	Up 54.0
Total assets	104,770	34,844	Up 200.7
Liabilities, Convertible Preferred Stock and Stockholders' Equity (Deficit)	/		
Current liabilities:			
Accounts payable	693	150	Up 362.0
Accrued liabilities	3,428	1,194	Up 187.1
Total current liabilities	4,121	1,344	Up 206.6
Deferred rent	270	31	Up 771.0
Other non-current liabilities	13		
Total liabilities	4,404	1,375	Up 220.3
Commitments and contingencies			
Convertible preferred stock, 0.0001 par value, no shares and 7,757 shares authorized as	7	54,282	



## Financial Results (Annual) (continued)

## 31 December, 2014

of December 31, 2014 and 2013, respectively;no shares and 7,689 shares issued

and outstanding as of December 31, 2014 and 2013, respectively

Stockholders' equity (deficit):

Preferred stock, 0.0001 par value per share, 10,000 shares and no shares authorized as of

December 31, 2014 and 2013, respectively; no share issued and outstanding as of

December 31, 2014 and 2013

Common stock, 0.0001 par value, 200,000 and 9,896 shares 2 authorized as of

December 31, 2014 and 2013, respectively; 17,943 and 161 shares

issued and outstanding as of December 31, 2014 and 2013,

respectively			
Additional paid-in capital	152,218	9,329	Up 1,531.7
Accumulated deficit	-51,854	-30,142	Deterioration 72.0
Total stockholders' equity (deficit)	100,366	-20,813	Recovery
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	104,770	34,844	Up 200.7

### Fig 20: Cash Flow

2014-12-31		
2014-12-31	2013-12-31	Change %
-21,712	-12,377	Deterioration 75.4
361	281	Up 28.5
689	70	Up 884.3
2	5	Down 60.0
-1,544	-282	Deterioration 447.5
543	125	Up 334.4
2,058	310	Up 563.9
372	31	Up 1,100.0
-19,231	-11,837	Deterioration 62.5
-556	-164	Deterioration 239.0
70	-9	Recovery
-486	-173	Deterioration 180.9
	361 689 2 -1,544 543 2,058 372 -19,231 -556	361 281 689 70 2 5 -1,544 -282 543 125 2,058 310 372 31 -19,231 -11,837 -556 -164 70 -9



## Financial Results (Annual) (continued)

## 31 December, 2014

Cash Flows From Financing Activities			
Proceeds from issuance of common stock upon initial public offering, 71,625 net			
Net proceeds from issuance of convertible preferred stock	15,959	43,560	Down 63.4
Proceeds from stock option exercises	282	65	Up 333.8
Net cash provided by financing activities	87,866	43,625	Up 101.4
Net increase (decrease) in cash and cash equivalents	68,149	31,615	Up 115.6
Cash and cash equivalents at beginning of period	33,820	2,205	Up 1,433.8
Cash and cash equivalents at end of period	101,969	33,820	Up 201.5

## Fig 21: Performance Ratios

	2014-12-31	2013-12-31	Change %
Return on Equity (%)	-21.63		
Return on Assets (%)	-20.72	-35.52	Reduced 41.7
Total Liabilities to Operating Cash Flow	-0.23	-0.12	Deterioration 97.1
Total Liabilities/Total Assets	0.04	0.04	Up 6.5
Current Ratio	25.2	25.42	Down 0.9

## Fig 22: Per Share figures

	2014-12-31	2013-12-31	Change %
Cash	US\$21.92	US\$359.79	Down 93.9
Working Capital	US\$21.44	US\$349.20	Down 93.9
Shareholders' Funds	US\$21.57	-22,141.49c	Recovery
Total Liabilities	94.67c	US\$14.63	Down 93.5
Total Assets	US\$22.52	US\$370.68	Down 93.9
Net Tangible Assets	US\$21.57	-22,141.49c	Recovery
EPS Final	-467.0c	-13,153.0c	Reduced 96.4



## Company Overview and Regulatory Announcements

### **Activities**

Calithera Biosciences, Inc is a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer.

Further details can be found at <a href="http://www.calithera.com">http://www.calithera.com</a>.

Economic Sector	Healthcare
Business Sector	Pharmaceuticals & Medical Research
Industry Group	Pharmaceuticals
Industry	Pharmaceuticals

### **Issued Capital**

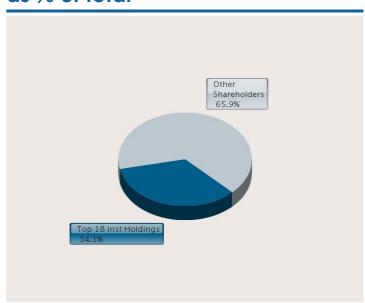
Based on 17,881,573 issued equity shares the market capitalisation is US\$149.7 million.

The top eighteen shareholders hold 34.1% of the issued capital leaving a float of 65.9%.

## Fig 23: List of Top 10 Institutional Holdings

Name of Shareholder	No. of Shares	% Held	Value USD
FMR LLC	2,132,700	11.93	17.9 M
Price T Rowe Associates Inc,MD	1,241,266	6.94	10.4 M
Wellington Management Group LLP	594,455	3.32	5 M
NEW Leaf Venture Partners L.L.C.	556,036	3.11	4.7 M
Ecor1 Capital LLC	295,480	1.65	2.5 M
Vanguard Group Inc	262,880	1.47	2.2 M
Everpoint Asset Management LLC	203,718	1.14	1.7 M
Candriam Luxembourg S.C.A.	190,000	1.06	1.6 M
Jennison Associates LLC	164,834	0.92	1.4 M
J.P. Morgan Chase & Co	127,475	0.71	1.1 M
Total	5,768,844	32.26	

## Fig 24: Top 18 Institutional Holdings as % of total



### **Financials**

## Annual Report for the year ended December 31, 2014

year-on-year comparisons with previous corresponding period

#### **Favourable Changes**

• Working capital to total assets up 1.1% to 95.2%.

### **Unfavourable Changes**

- •Loss of USD21.7m
- Current ratio down 0.9% to 25.2
- Operating cash flow is negative.

### **Major Common Size Ratios**

- •Total current assets to total assets up from 98.1% to 99.1%
- Cash to total assets up from 97.1% to 97.3%
- Fixed assets to total assets down from 1.6% to 0.8%.

### 8-K other news

## May 07: Calithera Biosciences: Results of Operations and Financial Condition

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=\_Archives\_edgar\_data\_1496671\_000119312515177079\_0001193125-15-177079.txt

Source: 8-K United States Securities and Exchange Commission



## March 26: Calithera Biosciences: Results of Operations and Financial Condition

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=\_Archives\_edgar\_data\_1496671\_000119312515106953\_0001193125-15-106953.txt

Source: 8-K United States Securities and Exchange Commission

## March 05: Calithera Biosciences: Entry into a Material Definitive Agreement

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=\_Archives\_edgar\_data\_1496671\_000119312515078800\_0001193125-15-078800.txt

Source: 8-K United States Securities and Exchange Commission

## December 09: Calithera Biosciences: Entry into a Material Definitive Agreement

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=\_Archives\_edgar\_data\_1496671\_000119312514437697\_0001193125-14-437697.txt

Source: 8-K United States Securities and Exchange Commission

## November 14: Calithera Biosciences: Results of Operations and Financial Condition

[News Story]

http://www.buysellsignals.net/hbn/8kviewer.jsp?doc=\_Archives\_edgar\_data\_1496671\_000119312514412230\_0001193125-14-412230.txt

Source: 8-K United States Securities and Exchange Commission

## Changes in Board and Management

## December 02 2014: Calithera Biosciences appoints Director

Calithera Biosciences has appointed H. Ward Wolff as a Director. The effective date is December 02, 2014.

### **Press Releases**

#### July 16: Calithera Biosciences insider exercises Stock Options and buys shares

Calithera Biosciences insider Waddill William D., exercised Stock Options and purchased 13,125 shares worth approximately US\$93,450 on July 14, 2015.

### July 10: Calithera Biosciences insider exercises Stock Options and buys shares

Calithera Biosciences insider Bennett Mark K, exercised Stock Options and purchased 18,365 shares worth approximately US\$122,678 on July 08, 2015.

#### June 23: Calithera Biosciences Selects Immunooncology Clinical Candidate Cb-1158, An Oral Arginase Inhibitor For The Treatment Of Cancer

[News Story] Similar mechanism of action to IDO inhibitors Potential to combine with anti-CTLA-4, anti-PD-1 and other immuno-oncology therapies

SOUTH SAN FRANCISCO, Calif., June 23, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdag:CALA), announced today at the JMP Securities Life Sciences Conference in New York City, the selection of CB-1158 as the clinical candidate for their immuno-oncology program targeting inhibition of arginase, a critical immunosuppressive enzyme secreted by myeloid-derived suppressor cells (MDSCs) in tumors. Calithera anticipates submitting an Investigational New Drug (IND) application to the FDA for its first in class oral arginase inhibitor for the treatment of cancer near the end of the first quarter of 2016. Arginase exerts its immunosuppressive effect by depleting the amino acid arginine in the tumor microenvironment and preventing the immune system's cytotoxic T-cells and natural killer (NK) cells from proliferating and killing the tumor. Inhibition of arginase activity reverses this immunosuppressive block and restores Tcell function

<a href='http://www.nasdaq.com/press-release/calithera-biosciences-selects-immunooncology-clinical-candidate-cb1158-an-oral-arginase-inhibitor-20150623-00184'>Read more...</a>

Source: Nasdaq Stock Exchange For more details click here.

#### June 16: Calithera Biosciences To Present At The Jmp Securities Life Sciences Conference 2015

[News Story] SOUTH SAN FRANCISCO, Calif., June 16, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced its participation at the JMP Securities Life Sciences Conference 2015.

For more details click here.

### June 11: Calithera Biosciences director awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) director Wolff Henry Ward, has been awarded Stock Options on 11,000 shares at an exercise price of US\$7.99. The transaction date was June 09, 2015. The shares last traded at US\$7.75.



### June 11: Calithera Biosciences Reports Phase I Data For Cb-839 In Patients With Acute Leukemias At The 20th Congress Of The European Hematology Association

[News Story] Promising Clinical Activity With Early Signs of Biologic Activity, Tolerability, and Durability Clinical Response Reported With Single Agent CRi in AML SOUTH SAN FRANCISCO, Calif., June 11, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical stage biotechnology company focused on the development of novel cancer therapeutics, announced that data from its lead, first-in-class glutaminase inhibitor CB-839 was presented today at the 20thCongress of the European Hematology Association (EHA), in Vienna, Austria. For more details click here.

#### May 30: Calithera Reports Phase I Data For Cb-839 In Patients With Solid Tumors At The 2015 American Society Of Clinical Oncology

[News Story] SOUTH SAN FRANCISCO, Calif., May 30, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical stage biotechnology company focused on the development of novel cancer therapeutics, today announced that data from its lead, first-in-class program CB-839 was presented today at the 2015 American Society of Clinical Oncology (ASCO) in Chicago, Illinois. For more details click here.

## May 21: Calithera Reports Initial Phase I Data for CB-839 in Patients with Acute Leukemias

[News Story]SOUTH SAN FRANCISCO, Calif., May 21, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical stage biotechnology company focused on the development of novel cancer therapeutics, today announced that data from its lead, first-in-class program CB-839 will be presented at the 20thCongress of the European Hematology Association (EHA) June 11-15, 2015, in Vienna, Austria.

For more details click here.

#### May 07: Events Calendar: Calithera Biosciences to Present at the Bank of America Merrill Lynch 2015 Healthcare Conference - Revised Date of Presentation

[News Story] SOUTH SAN FRANCISCO, Calif., May 7, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced its participation at the Bank of America Merrill Lynch 2015 Healthcare Conference.

For more details click here.

#### May 06: Events Calendar: Calithera Biosciences to Present at the Bank of America Merrill Lynch 2015 Healthcare Conference

SOUTH SAN FRANCISCO, Calif., May 6, 2015 Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced its participation at the Bank of America Merrill Lynch 2015 Healthcare Conference.

For more details click here.

For more details click here.

## April 21: Calithera Biosciences Highlights Results From Six Preclinical Abstracts at the American Association for Cancer Research Annual Meeting 2015

[News Story]

SOUTH SAN FRANCISCO, Calif., April 21, 2015-- Calithera Biosciences, Inc. (Nasdaq:CALA) a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today will announce preclinical data for its lead anti-cancer therapeutic candidate, CB-839, Calithera's novel, orally bioavailable glutaminase inhibitor, at the American Association for Cancer Research, taking place April 18-22, 2015 in Philadelphia, Pennsylvania.

## April 11: Events Calendar: Calithera Biosciences to Present at the 14th Annual Needham Healthcare Conference

[News Story] SOUTH SAN FRANCISCO, Calif., April 9, 2015 -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced its participation at the 14th Annual Needham Healthcare Conference. For more details click here.

### March 26: Pre-Earnings Calithera Biosciences Inc. Analyst Report Issued by BrokerBank Securities, Inc. [News Story]

Calithera Biosciences Inc. (NASDAQ:CALA) based in San Francisco, CA a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer will be reporting fourth quarter and year-end earnings this morning. For more details click here.



### March 26: Calithera Biosciences Reports Fourth Quarter and Full Year 2014 Financial Results and Recent Highlights

[News Story] Calithera to Host Conference Call Today at 4:30pm Eastern Time

SOUTH SAN FRANCISCO, Calif., March 26, 2015 (GLOBE NEWSWIRE) -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, announced today its financial results for the fiscal fourth quarter and year ended December 31, 2014.

For more details click here.

### March 20: Calithera Biosciences to Report Fourth Quarter and Year-End 2014 Financial Results on Thursday, March 26, 2015

SOUTH SAN FRANCISCO, Calif., March 20, 2015 Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced that the Company's fourth quarter and year-end 2014 financial results will be released on Thursday, March 26, 2015.

For more details click here.

### March 18: Calithera Biosciences Announces Five Data Presentations at the American Association for Cancer Research Annual Meeting 2015

[News Story]SOUTH SAN FRANCISCO, Calif., March 18, 2015 Calithera Biosciences, Inc. (Nasdaq:CALA) a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced the upcoming presentation of five preclinical abstracts, highlighting the potential of CB-839, the Company's novel, orally bioavailable glutaminase inhibitor, at the American Association for Cancer Research, taking place April 18-22, 2015 in Philadelphia, Pennsylvania.

For more details click here.

### March 06: Calithera Biosciences Gains Exclusive, Worldwide License to TransTech Pharma's Hexokinase II Inhibitor Program

[News Story] SOUTH SAN FRANCISCO, Calif., March 5, 2015 -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, announced today an exclusive global license agreement with TransTech Pharma, a clinical stage pharmaceutical company, granting Calithera exclusive world-wide rights to research, develop and commercialize TransTech's portfolio of hexokinase II inhibitors.

For more details click here.

### March 06: TransTech Pharma and Calithera Biosciences Enter Into Worldwide Licensing Agreement for Hexokinase II Inhibitor Program

[News Story] HIGH POINT, N.C.--(BUSINESS WIRE)-- TransTech Pharma, LLC today announced a global licensing agreement granting Calithera Biosciences, Inc. exclusive world-wide rights to research, develop and commercialize TransTech's portfolio of hexokinase II inhibitors. TransTech will receive an upfront payment and will be eligible to receive future development and commercialization milestones as well as royalties on sales of approved products.

For more details click here.

## February 12: Calithera Biosciences Director awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) Director Molineaux Susan, has been awarded Stock Options on 227,346 shares at an exercise price of US\$16.40. The transaction date was February 11, 2015. The shares last traded at US\$15.51, hitting a three-month low on the day.

## February 12: Calithera Biosciences Insider awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) Insider Sjogren Eric, has been awarded Stock Options on 45,000 shares at an exercise price of US\$16.40. The transaction date was February 11, 2015. The shares last traded at US\$15.51, hitting a three-month low on the day.

## February 12: Calithera Biosciences Insider awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) Insider Molineaux Christopher, has been awarded Stock Options on 45,000 shares at an exercise price of US\$16.40. The transaction date was February 11, 2015. The shares last traded at US\$15.51, hitting a three-month low on the day.

## February 12: Calithera Biosciences Insider awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) Insider Bennett Mark K, has been awarded Stock Options on 45,000 shares at an exercise price of US\$16.40. The transaction date was February 11, 2015. The shares last traded at US\$15.51, hitting a three-month low on the day.

## February 12: Calithera Biosciences Insider awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) Insider Waddill William D., has been awarded Stock Options on 45,000 shares at an exercise price of US\$16.40. The transaction date was February 11, 2015. The shares last traded at US\$15.51, hitting a three-month low on the day.

## February 12: Calithera Biosciences Insider awarded Stock Options

Calithera Biosciences (NASDAQ:CALA) Insider Hecht Curtis, has been awarded Stock Options on 25,000 shares at an exercise price of US\$16.40. The transaction date was February 11, 2015. The shares last traded at US\$15.51, hitting a three-month low on the day.



## February 04: Calithera Biosciences to Present at the BIO CEO & Investor and Leerink Global Healthcare Conferences in February

[News Story] SOUTH SAN FRANCISCO, Calif., Feb. 3, 2015 -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical-stage pharmaceutical company focused on discovering and developing novel small molecule drugs directed against tumor metabolism and tumor immunology targets for the treatment of cancer, today announced its participation in two investor conferences during the month of February. For more details click here.

#### December 10 2014: Calithera Presents Novel Pharmacodynamic Assay Data Confirming Glutaminase Inhibition in Tumor Biopsy Samples From Patients Treated With CB-839

[News Story] SOUTH SAN FRANCISCO, Calif., Dec. 10, 2014 -- Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical stage biotechnology company focused on the development of novel cancer agents, today announced results of studies with primary human breast tumors that support glutaminase as a potential target in triple negative breast cancer (TNBC). For more details click here.

## December 09 2014: Calithera Biosciences Gains Exclusive, Worldwide License to Mars Symbioscience's Arainase Inhibitors

[News Story] SOUTH SAN FRANCISCO, Calif., Dec. 9, 2014 -- Calithera Biosciences, Inc. (Nasdaq:CALA) announced today the signing of an exclusive global license agreement with Mars Symbioscience ("Symbioscience"), a division of Mars, Incorporated, granting Calithera rights to research, develop and commercialize Symbioscience's portfolio of arginase inhibitors, discovered as part of Mars' cocoa flavanol research program, for use in human healthcare. For more details click here.

### December 08 2014: Calithera Presents Preclinical Study Findings for CB-839 at the 56th American Society of Hematology Annual Meeting

[News Story] SOUTH SAN FRANCISCO, Calif., Dec. 8, 2014 Calithera Biosciences, Inc. (Nasdaq:CALA), a clinical stage biotechnology company focused on the development of novel cancer therapeutics, today announced preclinical data for its lead anti-cancer therapeutic candidate, CB-839, at the American Society of Hematology (ASH) Annual Meeting and Exposition in San Francisco, California. For more details click here.

### November 06 2014: Calithera Announces Multiple Abstracts Selected for Presentation at the 56th American Society of Hematology Annual Meeting

[News Story] SOUTH SAN FRANCISCO, Calif., Nov. 6, 2014 Calithera Biosciences, Inc. (Nasdaq:CALA) announced today that four preclinical abstracts highlighting the potential of CB-839, the Company's novel, orally bioavailable glutaminase inhibitor for the treatment of hematological malignancies, have been selected for presentation at the American Society of Hematology (ASH) annual meeting and exposition, taking place December 6-9, 2014 in San Francisco, California.

For more details click here.



## Board and Management & creation of shareholder value

### Susan M. Molineaux CEO & President & Director & Founder

Susan M. Molineaux, Ph.D. Dr. Molineaux, age 61, has served as our President, Chief Executive Officer and as a member of our board of directors since she co-founded Calithera in March 2010. Dr. Molineaux co-founded Proteolix. Inc., a biopharmaceutical company, where she served as Chief Scientific Officer from 2003 to 2005. Chief Executive Officer from January 2006 to January 2009 and again as Chief Scientific Officer from February 2009 until Proteolix's acquisition by Onyx Pharmaceuticals, Inc. in November 2009. From 2000 to 2003, Dr. Molineaux served as Vice President of Biology at Rigel Pharmaceuticals, Inc., a drug development company. From 1999 to 2000, she served as Vice President of Biology at Praelux, Inc., a biopharmaceutical company, and from 1994 through 1999, she served as Vice President of Drug Development at Praecis Pharmaceuticals, Inc., a biopharmaceutical company. From 1989 until 1994, she was a scientist in the Immunology group at Merck & Co. Dr. Molineaux currently serves as a member of the board of directors of Geron Corporation, a biopharmaceutical company, and Theravance Biopharma, Inc., a biopharmaceutical company. She also serves as a member of the board of directors of Bay Bio, Northern California's Life Science Association, and as a member of the board of directors of We Teach Science, a San Francisco Bay Area mentoring program for students in math and science. Dr. Molineaux holds a B.S. in Biology from Smith College and a Ph.D. in Molecular Biology from Johns Hopkins University, and she completed a postdoctoral fellowship at Columbia University.

#### William D. Waddill CFO & Senior Vice President

Mr. Waddill has served as our Senior Vice President, Chief Financial Officer and Secretary since April 2014. From 2007 to 2014, Mr. Waddill served as Senior Vice President and Chief Financial Officer at OncoMed Pharmaceuticals, Inc., a biopharmaceutical company, where he was the finance lead for the successful completion of a \$94 million initial public offering in July 2013, a \$126 million private equity financing in December 2008 and three major collaborations with pharmaceutical companies. Prior to OncoMed, Mr. Waddill was Senior Vice President and Chief Financial Officer at llypsa, Inc., where he was the finance lead for the company¿¿¿s \$420 million acquisition by Amgen Inc. in 2007. Mr. Waddill received a B.S. degree in accounting from the University of Illinois, Chicago, and certification as a public accountant (inactive) after working at PriceWaterhouseCoopers and Deloitte in Boston.

#### H. Ward Wolff Director

H. Ward Wolff. Mr. Wolff, age 66, has served as a member of our board of directors since December 2014. Mr. Wolff currently serves as Executive Vice President and Chief Financial Officer of Sangamo BioSciences, Inc. since 2007. Prior to Sangamo, Mr. Wolff was with Nuvelo, Inc., where he served as Senior Vice President, Finance and Chief Financial Officer until its restructuring in August 2007. Prior to that, he was Chief Financial Officer and Senior Vice President, Finance, of Abgenix, Inc. until April 2006 when Abgenix merged with Amgen Inc. Prior to joining Abgenix, Mr. Wolff held financial management positions in both public and private emerging growth companies, including serving as Senior Vice President and CFO of DoubleTwist, Inc., a life sciences company integrating genomic information and bioinformatics analysis tools. He began his career with Price Waterhouse, where he held a number of positions as a certified public accountant, including Senior Audit Manager. Mr. Wolff is a member of the board of directors of Portola Pharmaceuticals, Inc. From June 2006 until his appointment to Sangamo's management team he was a member of Sangamo's Board of Directors, serving as Chairman of the Audit Committee. He received a B.A. degree in Economics from the University of California at Berkeley and an M.B.A. degree from Harvard Business School.

**Creation of shareholder value in Calithera Biosciences:** Since appointment as Director: The present value of USD1,000 invested on the appointment date of December 02, 2014 at close price of US\$9.64 is US\$868, for a capital loss of US\$132.

### Christopher J. Molineaux Senior Vice President of Development

Dr. Molineaux has served as our Senior Vice President of Development since April 2013. From 2010 to 2013, Dr. Molineaux served as President of INDStrat LLC, a consulting firm. From 2004 to 2009, Dr. Molineaux was Vice President of Development at Proteolix, where he led the team that developed carfilzomib (marketed as Krypolis) through the completion of Phase 2 clinical trials for accelerated approval in the United States for the treatment of refractory multiple myeloma. Previously, Dr. Molineaux led the oral anemia project team at FibroGen, Inc. and prior to that, led the team at Praecis that discovered and developed abarelix (marketed as Plenaxis), which was approved for the treatment of prostate cancer. Dr. Molineaux received a B.S. in Zoology from University of Maryland, College Park, a Ph.D. in Immunology and Infections Diseases from Johns Hopkins University, and completed his postdoctoral fellowship at the Uniformed Services University of the Health Sciences.



## Board and Management & creation of shareholder value (continued)

#### Mark K. Bennett Senior Vice President of Research

Dr. Bennett has served as our Senior Vice President of Research since June 2010. From 2003 through 2009, Dr. Bennett was at Proteolix, Inc., most recently as Vice President of Research, where he led the research efforts in the discovery of carfilzomib, oprozomib, and PR-957. Dr. Bennett previously was Director of Cell Biology at Rigel Pharmaceuticals, Inc. and an Assistant Professor of Molecular and Cell Biology at the University of California, Berkeley. Dr. Bennett received a B.S. degree in Biochemistry and Biophysics from Oregon State University, a Ph.D. degree in Neuroscience from the California Institute of Technology, and completed postdoctoral fellowships at the European Molecular Biology Laboratory and Stanford University.

### Curtis C. Hecht Vice President of Business and Corporate Development

Mr. Hecht has served as our Vice President of Business and Corporate Development since April 2014. From 2013 to 2014, Mr. Hecht served as Vice President of Business Development at inVentiv Health, a global healthcare commercialization and consulting services company. Since 2011, he has also served as a Partner at DNA Ink, a life sciences business development and licensing firm. Prior to that, Mr. Hecht served in a number of roles at Hoffman La-Roche Inc., most recently as Global Alliance Director from and Director of Global Business Development. While at Roche, he managed the Roche-Genentech Joint Development and Operations Committee that oversaw the global development for Avastin, Herceptin, Rituxan, Tarceva, Perjeta, Erivedge, TDM1. He currently sits on the advisory board to Biocision, LLC. Mr. Hecht received a B.S. in Chemistry from California State University, Sacramento and an M.B.A. from Carnegie Mellon University.

### Eric B. Sjogren Senior Vice President of Drug Discovery

Dr. Sjogren has served as our Senior Vice President of Drug Discovery since June 2010. Dr. Sjogren has over 25 years of experience in small molecule drug discovery in the pharmaceutical industry. Prior to joining Calithera, Dr. Sjogren was Vice President and Head of Medicinal Chemistry at Roche Palo Alto, LLC from 2003 through 2009, where he directed a small molecule drug discovery team in the areas of inflammation, virology, and central nervous systems disorders. Dr. Sjogren received a B.A. degree in Chemistry from the University of California, San Diego and a Ph.D. degree in Chemistry from Harvard University.



### Glossary

#### Cash/MCap:

Cash plus Liquids/Market Capitalisation (times)

Moving Average Price (n periods) (Fig 2, 7):

Sum of Prices for each Period/Number of Periods

Price Close/Moving Avg Price (Fig 2, 7):

Latest Price/Moving Average Price

Price/Sales (Fig 16):

Share Price/Sales Per Share (times)

Relative Strength (n-th Period) (Fig 1, 2, 17, 15):

Price close today/Price close 'n' periods ago, then ranked by percentile within the entire market.

Return on Equity (Shareholders' Funds) (Fig 17, 22):

Net Profit/Net Assets (%)

**Turnover Period (Fig 4):** 

Time Period required for trading all Outstanding Shares

Volatility (Fig 2, 11):

Highest Price minus Lowest Price/Lowest Price (%)

Volume Weighted Price (VWP) (Fig 11):

The Volume Weighted Price (VWP) is the summation of turnover divided by total volume in the same period.

Current Ratio (Fig 22):

Current Assets/Current Liabiliites (times)

PVUS\$1000 (Fig 3):

Present value of US\$1000 invested 1 year/'n' years ago

Price/NTA (Fig 17, 16):

Closing Share Price/Net Tangible Assets Per Share (times)

Relative Price Change (Fig 11):

Today's Relative price change with respect to Benchmark Index

Return on Assets (Fig 22):

Net Profit/Total Assets (%)

Turnover (Fig 5):

Last Price \* Volume

Turnover Rate (Fig 16, 4):

US Dollar value of annual trading volume as a percentage of market capitalisation

Volume Index (Fig 5):

Number of shares traded in the period/Average number of shares traded for the period

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