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Equity Research

Healthcare | U.S. Biotechnology

6 May 2014

Celladon Corp.

Analyst Meeting Review

What's New? CLDN hosted an analyst meeting reviewing the MYDICAR gene therapy and market opportunity.

Animal data validates SERCA2a approach: Dr. Roger Hajjar presented preclinical and animal data validating the use of SERCA2a in normalizing calcium cycling and contractility of the heart. In rat models, SERCA2a was shown to significantly improve survival rates vs. dobutamine, which is currently used in treating heart failure. Large animal models also showed treatment with SERCA2a resulted in an increase in left ventricular ejection fraction vs. a decline with control and a decline in left ventricular end systolic volume vs. an increase with control. While animal data does not always translate to similar results in humans, we view these results as encouraging and trending in the right direction to validate the SERCA2a approach.

CUPID-2 on track to read-out in April 2015: CLDN reaffirmed that the event rate for the CUPID-2 trial is on track and results are still expected in April 2015. Recall that patients will be followed-up for one-year and until at least 186 events have occurred. If these results show significant benefits with MYDICAR treatment, then it could be accepted as a pivotal trial and an FDA approval could be granted in 2018. The FDA granted Breakthrough Therapy Designation for MYDICAR for the reduction of hospitalizations for NYHA Class III and IV chronic heart failure patients in early April.

Looking to target Nab positive patients: CLDN announced they are also looking to target the ~60% of patients who carry AAV1-neutralizing antibodies, currently excluded from MYDICAR trials, by removing antibodies through plasmapheresis. Early data from three patients showed a reduction in neutralizing antibody titers to levels that may allow these patients to benefit from MYDICAR therapy. If this approach is successful, CLDN estimates this would broaden the market opportunity for MYDICAR to an additional 900,000 patients.

CLDN: Quarterly and Annual EPS (USD)

	2013	2014			2015			Change y/y	
FY Dec	Actual	Old	New	Cons	Old	New	Cons	2014	2015
Q1	N/A	-0.37E	-0.37E	N/A	-0.40E	-0.40E	N/A	N/A	-8%
Q2	N/A	-0.40E	-0.40E	N/A	-0.35E	-0.35E	N/A	N/A	13%
Q3	N/A	-0.41E	-0.41E	N/A	-0.25E	-0.25E	N/A	N/A	39%
Q4	N/A	-0.44E	-0.44E	N/A	-0.27E	-0.27E	N/A	N/A	39%
Year	-26.13A	-1.62E	-1.62E	N/A	-1.27E	-1.27E	N/A	94%	22%
P/E	N/A		N/A			N/A			

Source: Barclays Research.
Consensus numbers are from Thomson Reuters

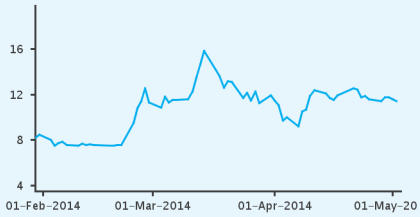
Stock Rating	OVERWEIGHT Unchanged
Industry View	NEUTRAL Unchanged
Price Target	USD 15.00 Unchanged

Price (05-May-2014)	USD 11.40
Potential Upside/Downside	+32%
Tickers	CLDN

Market Cap (USD mn)	211
Shares Outstanding (mn)	18.50
Free Float (%)	68.18
52 Wk Avg Daily Volume (mn)	0.2
Dividend Yield (%)	N/A
Return on Equity TTM (%)	N/A
Current BVPS (USD)	-2.88

Source: Thomson Reuters

Price Performance	Exchange-Nasdaq
52 Week range	USD 17.16-7.45



Link to Barclays Live for interactive charting

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U.S. Biotechnology **Industry View: NEUTRAL**

Celladon Corp. (CLDN)

Stock Rating: OVERWEIGHT

Income statement ($k)	2013A	2014E	2015E	2016E	CAGR
Revenue	0	0	0	N/A	N/A
EBITDA (adj)	-19,897	-28,544	-24,766	-29,621	N/A
EBIT (adj)	-19,964	-28,698	-26,828	N/A	N/A
Pre-tax income (adj)	-23,100	-28,777	-26,729	N/A	N/A
Net income (adj)	-23,100	-28,777	-26,729	N/A	N/A
EPS (adj) ($)	-26.13	-1.62	-1.27	N/A	N/A
Diluted shares (k)	884.2	17,808.0	21,675.6	N/A	N/A
DPS	N/A	N/A	N/A	N/A	N/A

Margin and return data					Average
EBITDA (adj) margin (%)	N/A	N/A	N/A	N/A	N/A
EBIT (adj) margin (%)	N/A	N/A	N/A	N/A	N/A
Pre-tax (adj) margin (%)	N/A	N/A	N/A	N/A	N/A
Net (adj) margin (%)	N/A	N/A	N/A	N/A	N/A
ROIC (%)	-148.1	-82.3	-33.1	-61.5	-81.2
ROA (%)	-94.4	-65.0	-30.0	-52.1	-60.4
ROE (%)	-158.7	-84.9	-33.5	-62.7	-84.9

Balance sheet and cash flow ($k)					CAGR
Tangible fixed assets	308	5,154	11,092	16,319	275.6%
Intangible fixed assets	N/A	N/A	N/A	N/A	N/A
Cash and equivalents	18,370	36,136	75,588	42,874	32.6%
Total assets	21,154	44,160	89,513	62,137	43.2%
Short and long-term debt	1,044	1,044	1,044	1,044	0.0%
Other long-term liabilities	N/A	N/A	N/A	N/A	N/A
Total liabilities	6,597	10,246	9,723	11,281	19.6%
Net debt/(funds)	-6,859	-24,625	-64,077	-31,363	N/A
Shareholders' equity	14,557	33,914	79,791	50,856	51.7%
Change in working capital	-19,169	14,511	39,938	-34,162	N/A
Cash flow from operations	-16,196	-23,841	-23,474	-25,833	N/A
Capital expenditure	-87	-5,000	-8,000	-8,000	N/A
Free cash flow	1,664	-23,841	-23,474	-25,833	N/A

Valuation and leverage metrics					Average
P/E (adj) (x)	N/A	N/A	N/A	N/A	N/A
EV/EBITDA (adj) (x)	-0.2	0.5	2.2	0.7	0.8
Equity FCF yield (%)	N/A	N/A	N/A	N/A	N/A
EV/sales (x)	N/A	N/A	N/A	N/A	N/A
P/BV (x)	N/A	N/A	N/A	N/A	N/A
Dividend yield (%)	N/A	N/A	N/A	N/A	N/A
Total debt/capital (%)	-89.1	-265.1	-407.8	-160.9	-230.7

Selected operating metrics					Average
SG&A/sales (%)	N/A	N/A	N/A	N/A	N/A
R&D/sales (%)	N/A	N/A	N/A	N/A	N/A
R&D growth (%)	27.1	40.0	-10.0	N/A	19.0
SG&A growth (%)	15.4	64.6	10.0	N/A	30.0

Source: Company data, Barclays Research
Note: FY End Dec

Price (05-May-2014) **USD 11.40**
Price Target **USD 15.00**

Why Overweight? We view Celladon as having a favorable risk/reward profile for investors. The company is developing a gene therapy, Mydicar, to treat chronic heart failure. While there are considerable risks associated gene therapy, we also view the market opportunity as significant if the company is successfully develop the product.

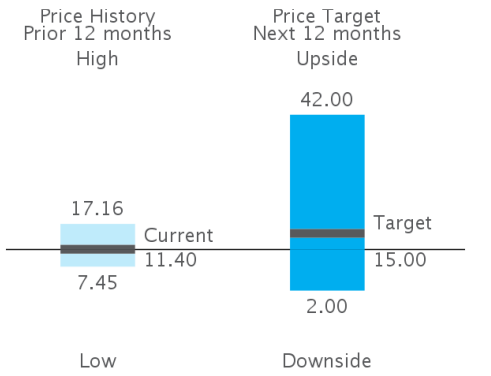
Upside case **USD 42.00**

We see significant upside potential for Celladon. If phase 2b results are positive, we see valuation increasing to $42/share.

Downside case **USD 2.00**

We see downside risks at approximately $2/share if Mydicar gene therapy does not receive approval. This assumes some value attributed to the early stage small molecule platform and some cash.

Upside/Downside scenarios



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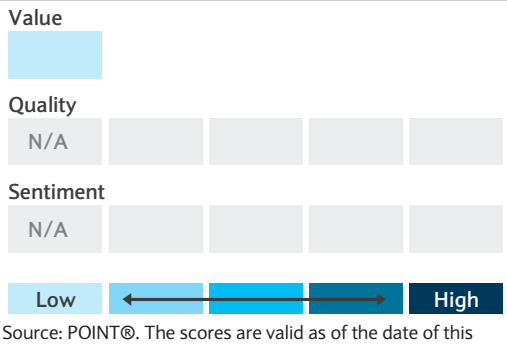

Source: POINT®. The scores are valid as of the date of this report and are independent of the fundamental analysts' views. To view the latest scores, please go to the equity company page on Barclays Live.

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Primary Stocks (Ticker, Date, Price)

Celladon Corp. (CLDN, 05-May-2014, USD 11.40), Overweight/Neutral, A/C/D/J/K/L/M

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Celgene Corp. (CELG)	Celladon Corp. (CLDN)	Cempra Inc. (CEMP)
Dendreon Corp. (DNDN)	Fibrocell Science Inc. (FCSC)	Gilead Sciences (GILD)
GlycoMimetics Inc. (GLYC)	Halozyme Therapeutics Inc. (HALO)	Idenix Pharmaceuticals (IDIX)
Incyte Corp. (INCY)	Intrexon Corp. (XON)	Medivation Inc. (MDVN)
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Vertex Pharmaceuticals (VRTX)		

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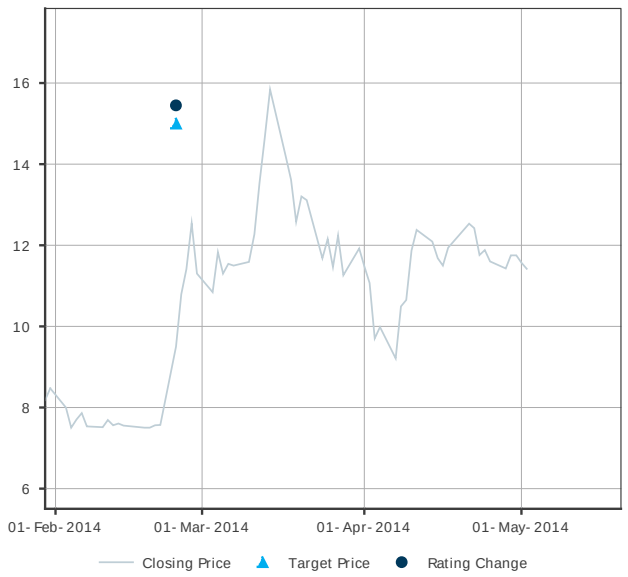
Celladon Corp. (CLDN)

USD 11.40 (05-May-2014)

Stock Rating	Industry View
OVERWEIGHT	**NEUTRAL**

Rating and Price Target Chart - USD (as of 05-May-2014) **Currency=USD**



Date	Closing Price	Rating	Adjusted Price Target
24-Feb-2014	9.50	Overweight	15.00

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

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Valuation Methodology: Our price target is based on a probability-adjusted NPV analysis. We have only included the systolic heart failure indication in our model which contributes ~$12/share. Including cash of ~$3/share, we arrive at our price target of $15.

Risks which May Impede the Achievement of the Barclays Research Price Target: Downside risks include failure of CUPID-2 trial, need for phase 3 trial, and inability to receive FDA approval for Mydicar.

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