

Equity Research

Concert Pharmaceuticals, Inc.

CNCE: Q2 2014--Insight Into '354 Therapeutic Window

• **Summary:** On August 12, before the open, CNCE reported Q2 2014 earnings, featuring new data from the ongoing phase I work for CTP-354 that may support the potential for the drug to have a broader therapeutic window than traditional benzodiazepines, and warrant further exploration of the agent in the planned spasticity studies. Overall, we are encouraged by the continued progress with '354 and '499, as well as the partnered programs, and continue to believe Concert's valuation does not fully reflect the potential of its many proprietary and partnered programs. Adjusting 2014E/2015E EPS to -\$2.07/-1.09 from -\$1.88/-0.74. Adjusting valuation range to \$15-17 from \$21-23 based on updates to our model on potential out-year expenses and product launches.

• **Financials:** Concert reported a net loss of \$7.99MM, or EPS of -\$0.45, and ended Q2 with cash and equivalents of \$98.3MM. A slight uptick in quarterly R&D expense to \$6.2MM from \$5.8MM in Q2 2013 reflected increased spending on clinical development of '354, and the company expects this to continue to increase in H2 2014.

• **New receptor occupancy data continues to support potential for '354 to demonstrate a high therapeutic index and long half-life supporting once-daily dosing, both of which could be important for commercial differentiation from marketed anti-spasticity therapies and benzodiazepines.** On the earnings call, Concert presented receptor of occupancy data for two patients receiving 6mg QD doses of '354, the first such data for the drug in repeat dosing, demonstrating that the drug provided GABA-A receptor occupancy of approximately 50% at five hours following dosing. There were indirect suggestions of a long half-life, which could speak to the potential for '354 to have differentiated 1x/day dosing, and no appreciable brain accumulation was observed. Both patients had very similar plasma concentrations and receptor occupancies, suggesting potential for good consistency patient to patient--a positive, though patient numbers are very small. The 50% occupancy approached the company's goal of 60% observed with single 20mg doses and which they had modeled might be achievable with the repeated 6mg dose, perhaps falling slightly below this bar due to the two patients having relatively high weights (220lbs on overage) which may have impacted the drug's volume of distribution. As expected, some neurologic side effects were seen, particularly transient dizziness and sleepiness, though it appears such side effects are likely more mild than the overt sedation that might be expected from traditional benzos dosed to reach comparable receptor occupancies. This suggests the potential for a broader therapeutic window, though we believe further escalation of the upper end of the dose range (CNCE is now assessing 12mg in the MAD study) and phase II studies assessing activity should better clarify '354's degree of differentiation.

Valuation Range: \$15.00 to \$17.00 from \$21.00 to \$23.00

Our valuation range is based on applying a 30x multiple to our 2022 estimated EPS and discounting at 15%, blended with 6x multiple of 2022 estimated sales, and discounting 12%. Key risks, in our view, are failure of '354 and/or '499 to show efficacy in subsequent studies and regulatory hurdles in spasticity or CKD.

Investment Thesis:

We believe Concert's proprietary and partnered candidates, and drug deuteration platform, will generate long-term value.

Please see page 5 for rating definitions, important disclosures and required analyst certifications

All estimates/forecasts are as of 08/12/14 unless otherwise stated.

Wells Fargo Securities, LLC does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of the report and investors should consider this report as only a single factor in making their investment decision.

Outperform / V

Sector: Biotechnology

Market Weight

Earnings Estimate Revised Down

EPS	2013A	2014E		2015E	
		Curr.	Prior	Curr.	Prior
Q1 (Mar.)	NE	(\$0.76) A	NC	NE	
Q2 (June)	NE	(0.45) A	(0.32)	NE	
Q3 (Sep.)	NE	(0.48)	(0.45)	NE	
Q4 (Dec.)	(4.66)	(0.50)	(0.49)	NE	
FY	(\$4.99)	(\$2.07)	(1.88)	(\$1.09)	(0.74)
CY	(\$4.99)	(\$2.07)		(\$1.09)	
FY P/EPS	NM	NM		NM	
Rev.(MM)	\$25,408	\$4,608		\$22,520	

Source: Company Data, Wells Fargo Securities, LLC estimates, and Reuters
NA = Not Available, NC = No Change, NE = No Estimate, NM = Not Meaningful
V = Volatile, * = Company is on the Priority Stock List

2014 quarterly EPS do not sum to full-year figure due to share count calculations.

Ticker	CNCE
Price (08/12/2014)	\$8.47
52-Week Range:	\$7-17
Shares Outstanding: (MM)	17.9
Market Cap.: (MM)	\$151.6
S&P 500:	1,932.52
Avg. Daily Vol.:	149,418
Dividend/Yield:	\$0.00/0.0%
LT Debt: (MM)	\$0.0
LT Debt/Total Cap.:	0.0%
ROE:	NM
3-5 Yr. Est. Growth Rate:	NM
CY 2014 Est. P/EPS-to-Growth:	NM
Last Reporting Date:	08/12/2014
	Before Open

Source: Company Data, Wells Fargo Securities, LLC estimates, and Reuters

Brian Abrahams, M.D., Senior Analyst
(212) 214-8060 /

brian.abrahams@wellsfargo.com

Matthew J. Andrews, Senior Analyst
(617) 603-4218 /

matthew.j.andrews@wellsfargo.com

Shin Kang, Ph.D., Associate Analyst
(212) 214-5036 /

shin.kang@wellsfargo.com

Ronald Hsu, M.D., Associate Analyst
(212) 214-5064 /

ronald.hsu@wellsfargo.com

Together we'll go far



Company Description:

Concert Pharmaceuticals (CNCE), Inc., headquartered in Lexington, Massachusetts, is a biotechnology company focused on improving therapies in a variety of areas such as neurology and kidney disease, using its platform technology around deuterium substitution. The company's lead development candidate is CTP-354, a GABA-A partial agonist in development for muscle spasticity. Another development candidate is CTP-499, a phosphodiesterase enzyme inhibitor in development for diabetic kidney disease. Alongside '354 and '499, its partnered pipeline includes CTP-730, a deuterated anti-inflammatory drug partnered with Celgene, AVP-786 for major depressive disorder partnered with Avanir, and JZP-386, a deuterated version of Xyrem for narcolepsy, partnered with Jazz.

- **FDA feedback on '499 path forward should help set stage for partnership discussions.** The company was optimistic after receiving FDA feedback suggesting a standard phase III design, likely 96 weeks in duration, which could potentially be comprised of a single study, use an enriched population, and contain a higher dose, could be possible. FDA also signaled their comfort with safety and view that the drug has activity. CNCE continues to pursue a partnership for the asset, and we believe such regulatory clarity, and aspects of the pivotal design which could potentially reduce the costs a partner might bear, could be attractive to a prospective partner, especially given the potential considerable investment likely required prior to commercialization.

Upcoming Milestones

Product	Event	Timeline
CTP-354	Report full data from ph.I MAD study	Oct 2014 (ANA)
	Initiate ph.II trial in SCI spasticity patients	year-end 2014
	Initiate ph.II trial in MS spasticity patients	1H15
	Report ph.II spasticity results	1H16
CPT-499	SPA discussions with FDA	2H14
	Sign partnership agreement	2H14+
AVP-786	Ph.II for treatment-resistant MDD first patient enrollment	Sep-14
	Ph.II for treatment-resistant MDD completion	year-end 2014
CTP-730	Ph.I study initiation	2H14
	Milestone from CELG for phase I study	2015
JZP-386	Ph.I study initiation	2014

Source: Company reports and Wells Fargo Securities, LLC estimates

Product Pipeline

Product (partner)	Indication/mechanism	Status
CTP-354	Spasticity, anxiety, pain; subtype selective GABA _A receptor modulator	Phase I
CTP-499	Diabetic nephropathy; multi-subtype selective inhibitor of phosphodiesterases	Phase II
AVP-786 (AVNR)	Neurologic and psychiatric disorders, depression; deuterium-substituted dextromethorphan analog plus low-dose quinidine	Entering phase II
JZP-386 (JZP)	Narcolepsy; deuterium-substituted Xyrem analog	Phase I
CTP-730 (CELG)	Inflammatory diseases	Entering phase I
JZP-386 (JZP)	Narcolepsy; deuterium-substituted Xyrem analog	Phase I
C-10068	Pain and seizures; deuterium-substituted dextromethorphan/ analog	Preclinical
d-ivacaftor	CF, COPD	Preclinical
d-praziquantel (NIH)	Parasitic diseases	Preclinical

Source: Company reports and Wells Fargo Securities, LLC

Biotechnology

Concert Pharma (CNCE)
Statement of Operations (Income Statement)

	2012A	2013A	1QA	2QA	3QE	4QE	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Revenues (1)															
Revenues from CTP-354															\$166,608
Royalties from sales of CTP-499															\$84,650
Royalties from sales of AVP-786															\$23,732
Royalties from sales of JZP-386															\$95,568
Milestones															\$52,000
License and research and development revenue	\$1,349	\$23,408	\$1,613	\$1,235	\$880	\$880	\$4,608	\$8,520	\$12,520	\$15,000	\$34,000	\$9,000	\$9,000	\$9,000	\$9,000
Total revenues, net	\$12,849	\$25,408	\$1,613	\$1,235	\$880	\$880	\$4,608	\$22,520	\$42,520	\$27,520	\$46,520	\$90,192	\$93,210	\$242,559	\$431,558
Expenses															
Cost of goods sold															
Research and development	\$24,193	\$21,790	\$5,594	\$6,243	\$6,450	\$6,950	\$25,237	\$30,284	\$31,799	\$33,389	\$34,724	\$35,766	\$36,839	\$37,944	\$39,082
Selling, general and administrative	\$7,266	\$8,028	\$2,538	\$2,718	\$2,800	\$2,900	\$10,956	\$12,380	\$12,875	\$13,391	\$16,069	\$48,206	\$81,950	\$147,510	\$184,387
Total operating expenses	\$31,459	\$29,818	\$8,132	\$8,961	\$9,250	\$9,850	\$36,193	\$42,665	\$44,674	\$46,779	\$50,793	\$83,972	\$123,681	\$195,122	\$239,006
Operating Income	(\$18,610)	(\$4,410)	(\$6,519)	(\$7,726)	(\$8,370)	(\$8,970)	(\$31,585)	(\$20,145)	(\$2,154)	(\$19,259)	(\$4,273)	\$6,220	(\$30,471)	\$47,436	\$192,552
Investment income	\$22	\$21	\$0	\$16	\$23	\$21	\$60	\$89	\$113	\$110	\$84	\$73	\$77	\$100	\$202
Interest and other expense	(\$1,856)	(\$1,667)	(\$431)	(\$280)	(\$207)	(\$148)	(\$1,066)	(\$294)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CTP-499 commercialization payment to GSK															
(Loss) income before benefit from income taxes	(\$20,444)	(\$6,056)	(\$6,950)	(\$7,990)	(\$8,554)	(\$9,097)	(\$32,591)	(\$20,349)	(\$2,041)	(\$19,149)	(\$6,939)	\$6,293	(\$30,394)	\$47,536	\$192,754
Benefit (expense) from income taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$126)	\$0	(\$2,852)	(\$15,420)
Net (loss) income	(\$20,444)	(\$6,056)	(\$6,950)	(\$7,990)	(\$8,554)	(\$9,097)	(\$32,591)	(\$20,349)	(\$2,041)	(\$19,149)	(\$6,939)	\$6,167	(\$30,394)	\$44,684	\$177,334
Accretion on redeemable convertible preferred stock	(\$388)	(\$396)	(\$55)	(\$100)	(\$100)	(\$100)	(\$255)	(\$300)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net loss applicable to common shareholders	(\$20,832)	(\$6,452)	(\$7,005)	(\$7,990)	(\$8,654)	(\$9,197)	(\$32,846)	(\$20,649)	(\$2,041)	(\$19,149)	(\$6,939)	\$6,167	(\$30,394)	\$44,684	\$177,334
Earnings per share (EPS)	(\$16.15)	(\$4.99)	(\$0.76)	(\$0.45)	(\$0.48)	(\$0.50)	(\$2.07)	(\$1.09)	(\$0.10)	(\$0.95)	(\$0.33)	\$0.26	(\$1.29)	\$1.70	\$6.59
Shares Outstanding (Basic)	1,290	1,292	9,188	17,937	18,137	18,337	15,900	18,937	19,537	20,137	20,737	21,337	23,603	24,203	24,803
Shares Outstanding (Diluted)	1,290	13,237	11,296	20,045	20,245	20,445	18,008	21,045	21,645	22,245	22,845	23,445	25,711	26,311	26,911

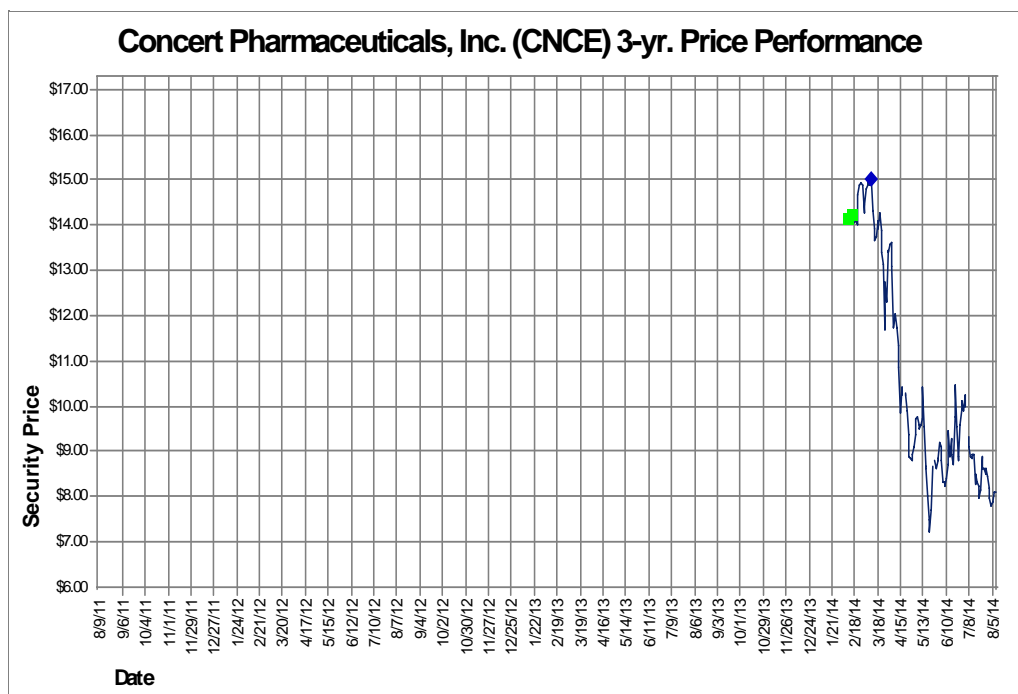
Source: Company reports and Wells Fargo Securities, LLC

Note: We do not provide estimates of 2015 quarterly EPS at this point. 2014 quarterly EPS does not sum to full year EPS due to share count calculations

Note: In 000's \$, except per share amounts; FY ends 12/31

(1) Not probability weighted

Required Disclosures



	Date	Publication Price (\$)	Rating Code	Val. Rng. Low	Val. Rng. High	Close Price (\$)
□	2/13/2014		IPO at \$14.00			
	3/10/2014		Abrahams, M.D.			
◆	3/10/2014	14.88	1	21.00	23.00	15.03

Source: Wells Fargo Securities, LLC estimates and Reuters data

Symbol Key

- ▼ Rating Downgrade
- ▲ Rating Upgrade
- Valuation Range Change
- ◆ Initiation, Resumption, Drop or Suspend
- Analyst Change
- Split Adjustment

Rating Code Key

- 1 Outperform/Buy
- 2 Market Perform/Hold
- 3 Underperform/Sell
- SR Suspended
- NR Not Rated
- NE No Estimate

Additional Information Available Upon Request

I certify that:

- 1) All views expressed in this research report accurately reflect my personal views about any and all of the subject securities or issuers discussed; and
- 2) No part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by me in this research report.

- Wells Fargo Securities, LLC maintains a market in the common stock of Concert Pharmaceuticals, Inc.
- Wells Fargo Securities, LLC or its affiliates managed or comanaged a public offering of securities for Concert Pharmaceuticals, Inc. within the past 12 months.
- Wells Fargo Securities, LLC or its affiliates intends to seek or expects to receive compensation for investment banking services in the next three months from Concert Pharmaceuticals, Inc.
- Wells Fargo Securities, LLC or its affiliates received compensation for investment banking services from Concert Pharmaceuticals, Inc. in the past 12 months.
- Concert Pharmaceuticals, Inc. currently is, or during the 12-month period preceding the date of distribution of the research report was, a client of Wells Fargo Securities, LLC. Wells Fargo Securities, LLC provided investment banking services to Concert Pharmaceuticals, Inc.

CNCE: Key risks, in our view, are failure of '354 and/or '499 to show efficacy in subsequent studies and regulatory hurdles in spasticity or CKD.

Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm, which includes, but is not limited to investment banking revenue.

STOCK RATING

1=Outperform: The stock appears attractively valued, and we believe the stock's total return will exceed that of the market over the next 12 months. BUY

2=Market Perform: The stock appears appropriately valued, and we believe the stock's total return will be in line with the market over the next 12 months. HOLD

3=Underperform: The stock appears overvalued, and we believe the stock's total return will be below the market over the next 12 months. SELL

SECTOR RATING

O=Overweight: Industry expected to outperform the relevant broad market benchmark over the next 12 months.

M=Market Weight: Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months.

U=Underweight: Industry expected to underperform the relevant broad market benchmark over the next 12 months.

VOLATILITY RATING

V = A stock is defined as volatile if the stock price has fluctuated by +/-20% or greater in at least 8 of the past 24 months or if the analyst expects significant volatility. All IPO stocks are automatically rated volatile within the first 24 months of trading.

As of: August 12, 2014

49% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Outperform.

Wells Fargo Securities, LLC has provided investment banking services for 43% of its Equity Research Outperform-rated companies.

48% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Market Perform.

Wells Fargo Securities, LLC has provided investment banking services for 33% of its Equity Research Market Perform-rated companies.

3% of companies covered by Wells Fargo Securities, LLC Equity Research are rated Underperform.

Wells Fargo Securities, LLC has provided investment banking services for 7% of its Equity Research Underperform-rated companies.

Important Disclosure for International Clients

EEA – The securities and related financial instruments described herein may not be eligible for sale in all jurisdictions or to certain categories of investors. For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. For the purposes of Section 21 of the UK Financial Services and Markets Act 2000 ("the Act"), the content of this report has been approved by WFSIL a regulated person under the Act. WFSIL does not deal with retail clients as defined in the Markets in Financial Instruments Directive 2007. The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients.

Australia – Wells Fargo Securities, LLC is exempt from the requirements to hold an Australian financial services license in respect of the financial services it provides to wholesale clients in Australia. Wells Fargo Securities, LLC is regulated under U.S. laws which differ from Australian laws. Any offer or documentation provided to Australian recipients by Wells Fargo Securities, LLC in the course of providing the financial services will be prepared in accordance with the laws of the United States and not Australian laws.

Hong Kong – This report is issued and distributed in Hong Kong by Wells Fargo Securities Asia Limited ("WFSAL"), a Hong Kong incorporated investment firm licensed and regulated by the Securities and Futures Commission to carry on types 1, 4, 6 and 9 regulated activities (as defined in the Securities and Futures Ordinance, "the SFO"). This report is not intended for, and should not be relied on by, any person other than professional investors (as defined in the SFO). Any securities and related financial instruments described herein are not intended for sale, nor will be sold, to any person other than professional investors (as defined in the SFO).

Japan – This report is distributed in Japan by Wells Fargo Securities (Japan) Co., Ltd, registered with the Kanto Local Finance Bureau to conduct broking and dealing of type 1 and type 2 financial instruments and agency or intermediary service for entry into investment advisory or discretionary investment contracts. This report is intended for distribution only to professional investors (Tokutei Touseika) and is not intended for, and should not be relied upon by, ordinary customers (Ippan Touseika).

The ratings stated on the document are not provided by rating agencies registered with the Financial Services Agency of Japan (JFSA) but by group companies of JFSA-registered rating agencies. These group companies may include Moody's Investors Services Inc, Standard & Poor's Rating Services and/or Fitch Ratings. Any decisions to invest in securities or transactions should be made after reviewing policies and methodologies used for assigning credit ratings and assumptions, significance and limitations of the credit ratings stated on the respective rating agencies' websites.

About Wells Fargo Securities, LLC

Wells Fargo Securities is the trade name for the capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including but not limited to Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission and a member of NYSE, FINRA, NFA and SIPC, Wells Fargo Institutional Securities, LLC, a member of FINRA and SIPC, Wells Fargo Prime Services, LLC, a member of FINRA, NFA and SIPC, Wells Fargo Bank, N.A. and Wells Fargo Securities International Limited, authorized and regulated by the Financial Conduct Authority.

Wells Fargo Securities, LLC is a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission and a member of the New York Stock Exchange, the Financial Industry Regulatory Authority and the Securities Investor Protection Corp.

This report is for your information only and is not an offer to sell, or a solicitation of an offer to buy, the securities or instruments named or described in this report. Interested parties are advised to contact the entity with which they deal, or the entity that provided this report to them, if they desire further information. The information in this report has been obtained or derived from sources believed by Wells Fargo Securities, LLC, to be reliable, but Wells Fargo Securities, LLC, does not represent that this information is accurate or complete. Any opinions or estimates contained in this report represent the judgment of Wells Fargo Securities, LLC, at this time, and are subject to change without notice. For the purposes of the U.K. Financial Conduct Authority's rules, this report constitutes impartial investment research. Each of Wells Fargo Securities, LLC, and Wells Fargo Securities International Limited is a separate legal entity and distinct from affiliated banks. Copyright © 2014 Wells Fargo Securities, LLC.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE