

KINDRED BIOSCIENCES, INC.

Post-2Q14 Focus on Major Catalyst CereKin Pivotal Top-line Data Next Week

• **Bottom Line:** KIN reported a 2Q14 EPS of (\$0.42), lower than our estimates of (\$0.34) and the Street of (\$0.35) as the company continues to advance its pipeline and remains on schedule for key pivotal data readouts. Despite higher-than-expected operating expenditures and EPS loss versus our ests, the focus remains on unblinding of the first pivotal trial of CereKin (diacerein) for treatment of osteoarthritis in canines scheduled to report top-line results this coming week of August 18. We estimate an 85% probability of success for CereKin and model peak sales of \$112M in 2022. Pivotal registrational studies for AtoKin in atopic dermatitis and SentiKin in post-operative pain both are expected to read out by year-end 2014. We believe KIN mgmt's aggressive pipeline advancement with two or more add'l assets poised to move into proof-of-concept clinical studies has a strong chance of seeing its first validation with the unblinding of the CereKin study. We maintain our OP rating based on a probability-derived DCF price target of \$29/shr.

• **CereKin (IL-1 Inhibitor) poised to unblind next week, strong chance of 1st major validation of KIN model.** We remain positive on next catalyst / inflection point for CereKin, oral chewable diacerein, in treating canine osteoarthritis pain and inflammation, perhaps the most important derisking event for KIN's model. Main source of differentiation will be in safety and efficacy vs NSAIDs commonly associated with toxicities of the lower GI tract (diarrhea) and requiring kidney / liver function monitoring. Clinical study is powered to 90% to detect a 25% difference between placebo and CereKin treatment arm at 8 weeks with a p-value < 0.025 needed for statistical significance due to two doses being studied. KIN submitted the NADA technical section and final package is on track to complete by year end, positioning CereKin for 4Q15 approval with 12-14 months for review. If CereKin fails despite our optimistic views, we would expect shares to trade down at least \$4-5/shr to \$10-12/shr. While our DCF-based price target would be reduced to \$21/shr implying an attractive investment, we expect CereKin failure would have a significant negative impact on investor sentiment, with many likely placing a lower value on AtoKin and SentiKin successes.

• **Small molecule and biologic pipeline expected to position KIN for 2 or more product launches annually.** KIN highlighted completion of pharmacokinetic studies for post-operative pain and stimulation of appetite in cats in addition to fever in horses, mentioned for the 1st time. KIN-007, a BTK inhibitor for lymphoma is currently on hold given its short half-life; pro-motility agent KIN-006 is being investigated for a more potent molecule. Management continues to build a biologics team, with fully functional molecular and in-house engineering antibody capabilities.

Key Stats:

(NASDAQ:KIN)

S&P 600 Health Care Index:	1,298.82
Price:	\$15.82
Price Target:	\$29.00
Methodology:	DCF, 12% discount rate, 2% terminal growth
52 Week High:	\$26.99
52 Week Low:	\$8.75
Shares Outstanding (mil):	19.2
Market Capitalization (mil):	\$303.7
Book Value/Share:	\$0.00
Cash Per Share:	\$5.62
Dividend (ann):	NA
Est LT EPS Growth:	NM



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2013A	--	--	--	--	0.0	--	--	--	--	(\$1.13)	NM
2014E - New	0.0A	0.0A	0.0	0.0	0.0	(\$0.38)A	(\$0.42)A	(\$0.40)	(\$0.51)	(\$1.72)	NM
2014E - Old	0.0A	0.0A	0.0	0.0	0.0	(\$0.38)A	(\$0.34)	(\$0.40)	(\$0.51)	(\$1.63)	NM
2015E - New	0.0	0.0	\$0.1	\$1.6	\$1.7	(\$0.55)	(\$0.70)	(\$0.93)	(\$1.01)	(\$3.20)	NM
2015E - Old	0.0	0.0	\$0.1	\$1.6	\$1.7	(\$0.55)	(\$0.69)	(\$0.92)	(\$1.00)	(\$3.16)	NM
2016E - New	--	--	--	--	\$55.6	--	--	--	--	(\$2.81)	NM
2016E - Old	--	--	--	--	\$55.6	--	--	--	--	(\$2.78)	NM

Source: Company Information and Leerink Partners LLC Research

Revenues (\$ 'MM); GAAP EPS; IPO closed 12/17/17; secondary closed 4/8/14

INVESTMENT THESIS

We rate KIN Outperform. KIN is a development stage biopharmaceutical company exclusively focused on bringing novel therapies for the treatment of pets (dogs, cats, & horses) to market. With three products in pivotal studies poised to read out before the end of 2014, an additional 7 products in development, and some further 30+ potential products identified, KIN is well-positioned to become a leader in the multi-billion dollar pet therapeutics market. Our DCF-based price target for KIN of \$29/shr assumes an 85% probability of technical success for CereKin, AtoKin, & SentiKin.

CHANGES TO 2014-2022 MODEL FORECASTS

(Revenues in 000s)

Total Revenue Forecasts									
	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
New	\$0	\$1,740	\$55,628	\$132,148	\$205,639	\$294,527	\$380,246	\$433,068	\$473,209
Old	<u>0</u>	<u>1,740</u>	<u>55,628</u>	<u>132,148</u>	<u>205,639</u>	<u>294,527</u>	<u>380,246</u>	<u>433,068</u>	<u>473,209</u>
Difference	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Total Adjusted EPS Forecasts									
	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
New	(\$1.72)	(\$3.20)	(\$2.81)	(\$1.09)	\$0.04	\$2.48	\$4.31	\$5.08	\$5.66
Old	<u>(\$1.63)</u>	<u>(\$3.16)</u>	<u>(\$2.78)</u>	<u>(\$1.07)</u>	<u>\$0.04</u>	<u>\$2.91</u>	<u>\$4.24</u>	<u>\$5.00</u>	<u>\$5.58</u>
Difference	(\$0.09)	(\$0.04)	(\$0.03)	(\$0.02)	\$0.00	(\$0.43)	\$0.07	\$0.08	\$0.08

Source: Company Information and Leerink Partners LLC Research

P&L Forecast Changes

(Shares Outstanding in 000s)

Tax Rate Forecasts									
	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
New	0.0%	0.0%	0.0%	0.0%	-1.3%	-0.1%	5.3%	11.3%	14.4%
Old	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>-1.3%</u>	<u>-18.9%</u>	<u>5.5%</u>	<u>11.5%</u>	<u>14.6%</u>
Difference	0.0%	0.0%	0.0%	0.0%	0.0%	18.8%	-0.2%	-0.2%	-0.2%

Total Shares Outstanding Forecasts									
	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
New	18,625	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426
Old	<u>18,810</u>	<u>19,672</u>	<u>19,672</u>	<u>19,672</u>	<u>19,672</u>	<u>19,672</u>	<u>19,672</u>	<u>19,672</u>	<u>19,672</u>
Difference	(185)	(246)	(246)	(246)	(246)	(246)	(246)	(246)	(246)

Source: Company Information and Leerink Partners LLC Research

VALUATION

We value KIN at \$29/share. Our price target is based on our DCF valuation, which assumes a 12% discount rate on sales and profits through 2022E and applying a 2% terminal growth rate. This equates to 14x 2020E EPS of \$4.31 discounted back 5 years at a 15% discount rate. Our analysis of a wide range of potential comparable companies suggests a price range from \$27/shr (animal health comps excluding Aratana) to \$48/shr (small biotech comps) on 2018 consensus sales forecasts.

RISKS TO VALUATION

Kindred is a late stage pet therapeutics company with no revenues and clinical assets.

- **Clinical and Regulatory Risk:** its success is dependent on the clinical and regulatory outcome of its pipeline assets where positive data and approvability are not assured.
- **Commercial Risk:** KIN plans to independently sell its products in the US, which will require significant capital, effort, and expertise that still needs to be developed for its 2015 launches.
- **Competitive Landscape:** Given limited IP protection and lower regulatory hurdles in pet therapeutics, KIN may face intensifying competition either from new product entrants or from generics.
- **Financing Risk:** Although Kindred has completed a secondary raise and currently has >\$100M of cash on the balance sheet, the company may need to raise additional capital to fund additional clinical development or to complete product acquisitions before becoming substantially cash flow positive, possibly diluting existing shareholders.

Kindred - Income Statement Analysis 2013-2022E

(\$ in Thousands, Except EPS)																				
(Year Ended December 31)	2013	1Q14A	2Q14A	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	CAGR '17E-22E	
Revenue																				
Canine (Dogs) Rx Medicines	-	-	-	-	-	-	-	-	129	1,610	1,740	55,482	127,488	189,495	260,930	330,698	366,895	397,332	26%	
CereKin	-	-	-	-	-	-	-	-	129	522	651	23,192	47,366	66,163	89,882	103,474	107,693	111,631	19%	
AtoKin	-	-	-	-	-	-	-	-	-	1,088	1,088	23,095	39,760	53,811	66,177	79,810	82,983	85,969	17%	
SentiKin	-	-	-	-	-	-	-	-	-	-	-	9,195	27,862	37,521	47,370	57,413	65,719	72,232	21%	
Other small molecule													12,500	25,000	40,000	55,000	65,000	75,000	43%	
Other biologics														7,000	17,500	35,000	45,500	52,500	NM	
Equine (Horses) Rx Medicines													-	5,435	17,679	27,630	38,395	45,058	NM	
CereKin	-	-	-	-	-	-	-	-	-	-	-	-	-	3,317	13,399	21,145	30,754	36,238	NM	
SentiKin	-	-	-	-	-	-	-	-	-	-	-	-	-	2,119	4,280	6,484	7,641	8,819	NM	
Other small molecule																				
Other biologics																				
Feline (Cats) Rx Medicines																				
KIND-006																				
Other small molecule																				
Other biologics																				
EU Royalties (12% on EU sales)	-	-	-	-	-	-	-	-	-	-	-	146	4,660	10,709	15,918	21,918	27,779	30,819	46%	
Total Revenue	-	-	-	-	-	-	-	-	129	1,610	1,740	55,628	132,148	205,639	294,527	380,246	433,068	473,209	29%	
Growth (% y/y)													138%	56%	43%	29%	14%	9%		
COGS	-	-	-	-	-	-	-	-	19	403	422	27,814	62,110	90,481	120,756	152,098	173,227	189,284	25%	
COGS (% of sales)									15%	25%	24%	50%	47%	44%	41%	40%	40%	40%		
Gross Profit	-	-	-	-	-	-	-	-	110	1,208	1,318	27,814	70,039	115,158	173,771	228,147	259,841	283,925	32%	
						nm			85%	75%	76%	50%	53%	56%	59%	60%	60%	60%		
SG&A	1,079	1,679	2,499	2,300	3,500	9,978	4,250	6,625	11,275	13,375	35,525	50,300	54,150	69,950	74,450	81,050	85,750	89,350	11%	
SG&A (% of sales)						nm			nm	nm	nm	90%	41%	34%	25%	21%	20%	19%		
R&D	3,141	4,498	5,639	5,500	6,500	22,137	6,500	7,000	7,000	7,500	28,000	32,200	37,030	44,436	51,101	58,767	62,880	66,024	12%	
R&D (% of sales)						nm			nm	nm	nm	58%	28%	22%	17%	15%	15%	14%		
Operating Income	(4,219)	(6,177)	(8,138)	(7,800)	(10,000)	(32,115)	(10,750)	(13,625)	(18,165)	(19,667)	(62,207)	(54,686)	(21,141)	772	48,219	88,331	111,210	128,551	NM	
Operating Margin (% of sales)														0.4%	16.4%	23.2%	25.7%	27.2%		
Total Other Income/ (Expense)	6	9	28	22	22	90	21	21	21	21	84	38	10	10	46	119	214	323		
Pre-tax Income	(4,213)	(6,168)	(8,110)	(7,778)	(9,978)	(32,025)	(10,729)	(13,604)	(18,144)	(19,646)	(62,123)	(54,648)	(21,131)	782	48,265	88,450	111,424	128,874		
Change in Unrealized Gain / loss																				
Taxes																				
Rate (% of pre-tax income)			(\$14)											0%	-1%	0%	4,785	12,793	18,862	NM
																5%	11%	14%		
Net Income	(4,213)	(6,168)	(8,124)	(7,778)	(9,978)	(32,025)	(10,729)	(13,604)	(18,144)	(19,646)	(62,123)	(54,648)	(21,131)	782	48,265	83,664	98,631	110,011	NM	
EPS	(\$1.13)	(\$0.38)	(\$0.42)	(\$0.40)	(\$0.51)	(\$1.72)	(\$0.55)	(\$0.70)	(\$0.93)	(\$1.01)	(\$3.20)	(\$2.81)	(\$1.09)	\$0.04	\$2.48	\$4.31	\$5.08	\$5.66	NM	
Average Shares Outstanding	3,732	16,222	19,426	19,426	19,426	18,625	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426		

Source: Leerink Partners and Company Reports

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Average Shares Outstanding	3,732	18,625	19,426	19,426	19,426	19,426	19,426	19,426	19,426	19,426	

Source: Leerink Partners and Company Reports

Disclosures Appendix

Analyst Certification

I, Seamus Fernandez, 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.

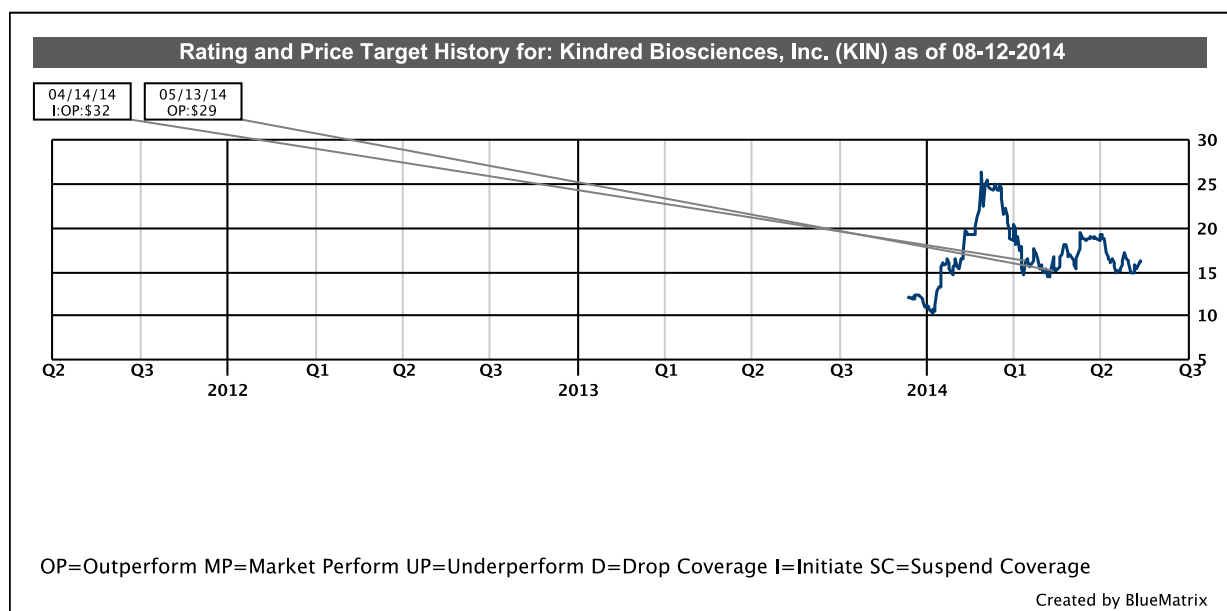
Valuation

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Distribution of Ratings/Investment Banking Services (IB) as of 06/30/14				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	138	69.00	50	36.20
HOLD [MP]	62	31.00	2	3.20
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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MEDACorp is a network of healthcare professionals, attorneys, physicians, key opinion leaders and other specialists accessed by Leerink and it provides information used by its analysts in preparing research.

In the past 12 months, the Firm has received compensation for providing investment banking services to Kindred Biosciences, Inc. .

Leerink Partners LLC makes a market in Kindred Biosciences, Inc.

Leerink Partners LLC has acted as the manager for a public offering of Kindred Biosciences, Inc. in the past 12 months.

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