

KINDRED BIOSCIENCES, INC.**AtoKin Decision Perplexing; Downgrading to Market Perform**

• **Bottom Line:** Following the perplexing decision by KIN mgmt to discontinue the development of AtoKin (fexofenadine for atopic dermatitis) in the midst of the pivotal study, we are downgrading KIN to Market Perform due to: (1) removal of peak pot'l AtoKin sales of \$86M in 2022E; (2) an incremental delay of profitability from 2019E to 2020E; and (3) reduced probabilities of success for other products in development given the failure and/or discontinuation of the company's two lead development candidates. Unfortunately, the failure of CereKin and discontinuation of AtoKin for commercial and not clinical reasons raises too many questions about strategy and execution. Our price target of \$6/shr (from \$11.25) is based on our DCF valuation, with a 12% discount rate and a 2% terminal growth rate, and largely assumes that KIN trades at or slightly above cash per share of ~\$5.

• **AtoKin discontinuation tough for us to defend.** Given: (a) previous knowledge and acknowledgement of Apoquel's strong launch, (b) mgmt's emphasis of its plan to increase the size of the AtoKin study in order to minimize risk of clinical failure, (c) minimal additional investment needed to complete the study, and (d) pot'l alternative value-generating approaches for the asset, we are challenged to find an explanation for discontinuation of the program at this point. CEO Richard Chin commented that the strong commercial and clinical performance of ZTS's Apoquel drove the decision as mgmt viewed its ability to generate a positive return as low. Dr. Chin claimed that while the cost of completing the pivotal study likely would have only been ~\$1-2M, costs of toxicology, mfg validation, and the cost of building commercial inventory drove the decision. Since Apoquel's successful launch was well known and the clinical profile also was well characterized, we struggle to make sense of this decision and its timing.

• **Specialty strategy no longer the emphasis.** We believe KIN has shifted from what we viewed as a "specialty pharma" and "speed to market strategy" to a revised strategy where the company will "develop products that are superior or clearly differentiated." For us, the change in emphasis on novel products materially alters our thesis.

• **Other products in development could drive value, but meaningful catalysts likely far off.** We acknowledge the potential for KIN to shift to a discovery company with a relatively slow burn rate, yet we await management clarity on the go-forward strategy and historical plans to develop and market its own products.

Key Stats:**(NASDAQ:KIN)**

S&P 600 Health Care Index:	1,402.31
Price:	\$9.24
Price Target:	\$6.00 from \$11.25
Methodology:	DCF, 12% discount rate, 2% terminal growth
52 Week High:	\$26.99
52 Week Low:	\$8.13
Shares Outstanding (mil):	19.7
Market Capitalization (mil):	\$182.0
Book Value/Share:	\$0.00
Cash Per Share:	\$5.40
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	0.0A	0.0	0.0	(\$0.38)A	(\$0.42)A	(\$0.31)A	(\$0.35)	(\$1.46)	NM
2014E - Old	0.0A	0.0A	0.0A	0.0	0.0	(\$0.38)A	(\$0.42)A	(\$0.31)A	(\$0.53)	(\$1.64)	NM
2015E - New	0.0	0.0	0.0	0.0	0.0	(\$0.39)	(\$0.46)	(\$0.49)	(\$0.53)	(\$1.87)	NM
2015E - Old	0.0	0.0	0.0	\$0.9	\$0.9	(\$0.57)	(\$0.58)	(\$0.73)	(\$0.84)	(\$2.73)	NM

Source: Company Information and Leerink Partners LLC Research
Revenues (\$ 'MM).

GAAP EPS; IPO in Dec. 2013; secondary closed 4/8/14.

INVESTMENT THESIS

We rate KIN market perform. KIN is a development stage biopharmaceutical company exclusively focused on bringing novel therapies for the treatment of pets (dogs, cats, & horses) to market. With the failure of CereKin (canine osteoarthritis) followed by the discontinuation of AtoKin (canine atopic dermatitis) and SentiKin, the only product in pivotal studies poised to read out "around mid-2015," we expect KIN to trade at or near cash until either SentiKin succeeds in its post-operative pain development studies or several of the 7 additional products in development provide proof-of-principle data. Our price target of \$6/shr assumes that KIN trades at or near cash until clarity on the strategy and prospects for earlier stage products become clear.

VALUATION

We value KIN at ~\$6/share. Our price target is based on our DCF valuation, which assumes a 12% discount rate on sales and profits through 2022E and applies a 2% terminal growth rate. In addition, cash & cash equivalents as of the end of 3Q14 was \$5.40/shr.

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 which 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	1Q14	2Q14	3Q14A	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	CAGR '17E-22E
Revenue																			
Canine (Dogs) Rx Medicines	-	-	-	-	-	-	-	-	-	-	-	7,032	21,306	44,443	69,974	102,404	129,005	147,487	47%
CereKin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NM
AtoKin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NM
SentiKin	-	-	-	-	-	-	-	-	-	-	-	7,032	21,306	28,693	36,224	43,904	50,255	55,237	21%
Other small molecule												11,250	22,500	22,500	22,500	22,500	22,500	22,500	NM
Other biologics												-	-	4,500	11,250	22,500	29,250	33,750	NM
Equine (Horses) Rx Medicines														2,119	4,280	6,484	7,641	8,819	NM
CereKin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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)	-	-	-	-	-	-	-	-	-	-	-	-	591	1,790	3,733	5,878	8,602	10,836	79%
Total Revenue	-	-	-	-	-	-	-	-	-	-	-	7,032	21,897	48,351	77,988	114,766	145,248	167,143	50%
Growth (% y/y)																			
COGS	-	-	-	-	-	-	-	-	-	-	-	3,516	10,292	21,275	31,975	45,906	58,099	66,857	45%
COGS (% of sales)									15%	25%	nm	50%	47%	44%	41%	40%	40%	40%	
Gross Profit	-	-	-	-	-	-	-	-	-	-	-	3,516	11,605	27,077	46,013	68,860	87,149	100,286	54%
						nm	nm	nm	nm	nm	nm	50%	53%	56%	59%	60%	60%	60%	
SG&A	1,079	1,679	2,499	2,342	3,000	9,520	3,750	4,000	4,750	5,500	18,000	27,500	26,550	34,000	35,650	38,150	40,150	40,650	9%
SG&A (% of sales)						nm	nm	nm	nm	nm	nm	391%	121%	70%	46%	33%	28%	24%	
G&A	1,079	1,679	2,499	2,342	3,000	9,520	3,000	3,000	3,000	3,000	12,000	13,000	14,000	12,100	15,600	18,400	20,400	20,900	
G&A (% of sales)											nm	185%	64%	25%	20%	16%	14%	13%	
CereKin (Dogs) launch costs								\$0	\$0	\$0	-	-	-	-	-	-	-	-	
AtoKin (Dogs) launch costs									\$0	\$0	-	-	-	-	-	-	-	-	
SentiKin (Dogs) launch costs											-	6,500	4,550	3,250	3,250	3,250	3,250	3,250	
Small molecule (Dogs) launch costs													-	3,150	2,250	2,250	2,250	2,250	
Biologics (Dogs) launch costs														4,500	3,150	2,250	2,250	2,250	
CereKin (Horses) launch costs														-	-	-	-	-	
SentiKin (Horses) launch costs														-	-	-	-	-	
Sales Force							\$750	\$1,000	\$1,750	\$2,500	6,000	8,000	8,000	2,000	1,400	1,000	1,000	1,000	
														9,000	10,000	11,000	11,000	11,000	
R&D	3,141	4,498	5,639	3,755	4,000	17,892	4,000	5,000	5,000	5,000	19,000	21,850	23,380	25,016	26,267	26,792	26,792	26,792	3%
R&D (% of sales)						nm					nm	311%	45%	34%	28%	24%	22%	21%	
Operating Income	(4,219)	(6,177)	(8,138)	(6,097)	(7,000)	(27,412)	(7,750)	(9,000)	(9,750)	(10,500)	(37,000)	(45,834)	(38,324)	(31,939)	(15,904)	3,917	20,207	32,843	NM
Operating Margin (% of sales)														-66.1%	-20.4%	3.4%	13.9%	19.6%	
Total Other Income/ (Expense)	6	9	28	25	22	90	21	21	21	21	84	38	10	10	46	119	214	323	
Pre-tax Income	(4,213)	(6,168)	(8,110)	(6,072)	(6,978)	(27,322)	(7,729)	(8,979)	(9,729)	(10,479)	(36,916)	(45,796)	(38,314)	(31,929)	(15,858)	4,036	20,421	33,166	
Change in Unrealized Gain / loss																			
Taxes																			
Rate (% of pre-tax income)														0%	0%	0%	-3%	-1%	-1%
Net Income	(4,213)	(6,168)	(8,124)	(6,048)	(6,978)	(27,322)	(7,729)	(8,979)	(9,729)	(10,479)	(36,916)	(45,796)	(38,314)	(31,929)	(15,858)	4,036	20,421	33,166	NM
EPS	(\$1.13)	(\$0.38)	(\$0.42)	(\$0.31)	(\$0.35)	(\$1.46)	(\$0.39)	(\$0.46)	(\$0.49)	(\$0.53)	(\$1.87)	(\$2.32)	(\$1.94)	(\$1.62)	(\$0.80)	\$0.20	\$1.04	\$1.68	NM
Average Shares Outstanding	3,732	16,222	19,426	19,713	19,713	18,769	19,713	19,713	19,713	19,713	19,713	19,713	19,713	19,713	19,713	19,713	19,713	19,713	

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.

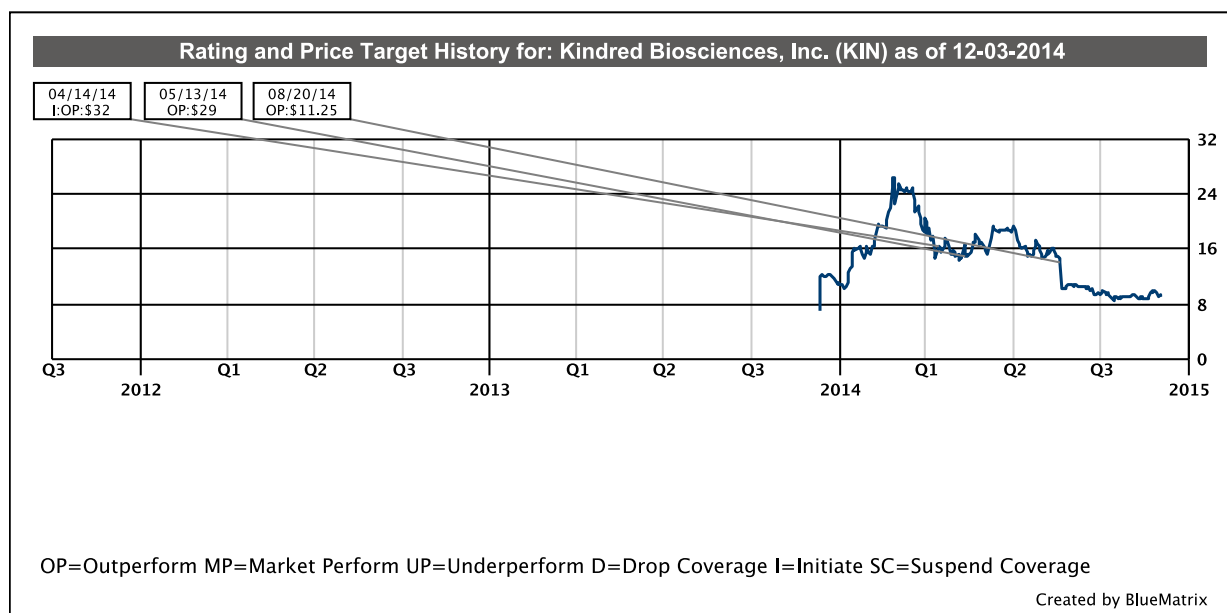
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Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	138	69.30	51	37.00
HOLD [MP]	61	30.70	2	3.30
SELL [UP]	0	0.00	0	0.00

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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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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Leerink Partners LLC Equity Research

Director of Equity Research	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
Associate Director of Research	Alice C. Avanian, CFA	(617) 918-4544	alice.avanian@leerink.com
Healthcare Strategy	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
	Alice C. Avanian, CFA	(617) 918-4544	alice.avanian@leerink.com
Biotechnology	Howard Liang, Ph.D.	(617) 918-4857	howard.liang@leerink.com
	Joseph P. Schwartz	(617) 918-4575	joseph.schwartz@leerink.com
	Michael Schmidt, Ph.D.	(617) 918-4588	michael.schmidt@leerink.com
	Gena Wang, Ph.D., CFA	(212) 277-6073	gena.wang@leerink.com
	Paul Matteis	(617) 918-4585	paul.matteis@leerink.com
	Jonathan Chang, Ph.D.	(617) 918-4015	jonathan.chang@leerink.com
	Richard Goss	(617) 918-4059	richard.goss@leerink.com
Life Science Tools and Diagnostics	Dan Leonard	(212) 277-6116	dan.leonard@leerink.com
	Justin Bowers, CFA	(212) 277-6066	justin.bowers@leerink.com
Pharmaceuticals/Major	Seamus Fernandez	(617) 918-4011	seamus.fernandez@leerink.com
	Ario Arabi	(617) 918-4568	ario.arabi@leerink.com
	Aneesh Kapur	(617) 918-4576	aneesh.kapur@leerink.com
Specialty Pharmaceuticals	Jason M. Gerberry, JD	(617) 918-4549	jason.gerberry@leerink.com
	Derek C. Archila	(617) 918-4851	derek.archila@leerink.com
Medical Devices, Cardiology & Orthopedics	Danielle Antalffy	(212) 277-6044	danielle.antalffy@leerink.com
	Puneet Souda	(212) 277-6091	puneet.souda@leerink.com
	Richard Newitter	(212) 277-6088	richard.newitter@leerink.com
	Ravi Misra	(212) 277-6049	ravi.misra@leerink.com
Healthcare Services	Ana Gupte, Ph.D.	(212) 277-6040	ana.gupte@leerink.com
	Matthew Milask	(212) 277-6084	matthew.milask@leerink.com
Healthcare Technology & Distribution	David Larsen, CFA	(617) 918-4502	david.larsen@leerink.com
	Christopher Abbott	(617) 918-4010	chris.abbott@leerink.com
Digital Health	Steven Wardell	(617) 918-4097	steven.wardell@leerink.com
Sr. Editor/Supervisory Analyst	Mary Ellen Eagan, CFA	(617) 918-4837	maryellen.eagan@leerink.com
Supervisory Analysts	Robert Egan		bob.egan@leerink.com
	Amy N. Sonne		amy.sonne@leerink.com
Editorial	Cristina Diaz-Dickson	(617) 918-4548	cristina.diaz-dickson@leerink.com
Research Associate	Carmen Augustine	(212) 277-6012	carmen.augustine@leerink.com

New York
299 Park Avenue, 21st floor
New York, NY 10171
(888) 778-1653

Boston
One Federal Street, 37th Floor
Boston, MA 02110
(800) 808-7525

San Francisco
201 Spear Street, 16th Floor
San Francisco, CA 94105
(800) 778-1164