

## **Kindred Biosciences**

(KIN-NASDAQ)

Stock Rating: Outperform(S) ↑
Industry Rating: Outperform

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# Upgrading Based on Higher Expectations for AtoKin and Takeout Potential

#### **Event**

We are upgrading KIN from Market Perform (Speculative) to Outperform (Speculative) and raising our price target from \$15 to \$30.

#### **Impact & Analysis**

The primary reason for our upgrade is significantly higher expectations for Kindred's atopic dermatitis (AD) product AtoKin, which recently entered phase-3. Our more bullish view on AtoKin is based on competitor Zoetis' (ZTS) recent comments regarding its AD drug Apoquel. Zoetis expects the recently launched Apoquel to contribute approximately 1% of revenues in 2014, which would be about \$45-\$50MM. In the animal health market, this is considered a strong launch. In contrast, we had previously forecasted AtoKin sales of \$30MM by 2020 and risk adjusted that with a 70% probability of success. Based on indirect comparison of available data, we now believe that AtoKin should be more competitive with Apoquel. Specifically, we believe that Apoquel and AtoKin may be similar in activity as measured by CADESI-02 scores, but Apoquel is faster acting and works better for pruritus. However, given known risks associated with JAK inhibitors like Apoquel (e.g. increased infections), AtoKin could prove to be a safer choice for maintenance therapy of chronic AD dogs. We now forecast that AtoKin can gain ~20% peak market share in dogs treated for AD (previously 7%), and reach peak sales of \$95-\$100MM by 2020-2023. Finally, as more big Pharma companies look to the animal health market for growth opportunities (e.g., Eli Lilly) we believe Kindred could emerge as a potential leading acquisition target primarily because of its broad pipeline.

#### Valuation & Recommendation

Now \$30/share, which is an average of our updated DCF (\$26) with higher AtoKin forecasts, P/E multiple (\$29) using 16-19x 2017-2021 EPS discounted back, and multiple of sales or takeout valuation of (\$35) using 6-8x forward sales, discounted back. Our higher expectations for AtoKin and potential acquisition now outweigh our concerns about the CereKin phase-3 OA study.

Price (24-Feb) \$22.12 52-Week High \$22.63 52-Week Low **Target Price** \$30.00↑ \$8.75 <sup>500</sup> 1 200 Price: High Low Close(US\$) 24 180 22 20 160 18 16 14 12 3

(FY-Dec.)	2012A	2013E	2014E	2015E
EPS	- \$0.06	- \$0.85	- \$0.65	- \$1.11↑
P/E		na	na	na
CFPS	- \$0.03	- \$0.56	- \$0.58	- \$0.94↑
P/CFPS		na	na	na
Rev. (\$mm)	na	\$0	\$0	\$7
EV (\$mm)	na	\$164	\$164	\$164
Quarterly EPS	Q1	Q2	Q3	Q4
2013E	-\$0.10a	-\$0.10a	-\$0.40a	-\$0.22
2014E	-\$0.14	-\$0.17	-\$0.17	-\$0.17
Dividend	\$0.00	Yield		0.0%
Book Value	na	Price/Bo	ok	na
Shares O/S (mm)	16.2	Mkt. Cap	(mm)	\$358
Float O/S (mm)	8.2	Float Ca	p (mm)	\$181
Wkly Vol (000s)	466	Wkly \$ V	ol (mm)	\$6,527
Net Debt (\$mm)	-\$11	Next Rep	o. Date	na

Notes: All values in US\$ Major Shareholders:

First Call Mean Estimates: KINDRED BIOSCIENCES INC (US\$)

2013E: -\$0.76; 2014E: -\$0.68; 2015E: -\$1.02

 Changes
 Annual EPS
 Annual CFPS
 Target
 Rating

 2015E -\$1.18 to -\$1.11
 2015E -\$1.01 to -\$0.94
 \$15.00 to \$30.00
 Mkt(S) to OP(S)

### **AtoKin (Fexofenadine) for Atopic Dermatitis**

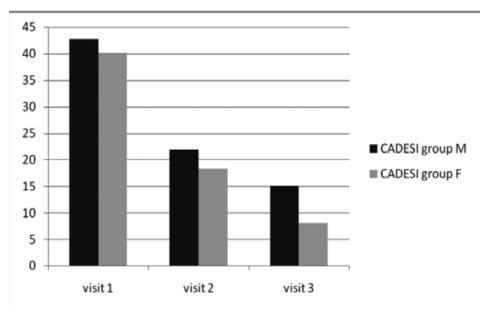
Atopic dermatitis (AD) is a common, potentially chronic, relapsing allergic skin disease that affects about 10% of dogs. Progressive AD disease is characterize by severe itching (pruritus) and scratching that could lead to skin hair loss, scabs, crusts and secondary bacterial infections. Treatment approaches vary for acute flares or chronic AD, and whether skin lesions are localized or extensive. The first and usually most effective long-term solution is to change the dog's living circumstances to avoid the allergen causing the condition; however, this is often not possible. Antihistamines control itching and scratching in 20%-40% of atopic dogs. Corticosteroids are the most effective anti-itch drugs, but they also have the most serious side effects, which is why they are best used in low doses and for a limited time. Topical glucocorticoid sprays such as Genesis and Cortavance (both from Virbac) can be used for localized skin lesions for short periods. However, more severe or extensive cases can be treated with a short course of oral glucocorticoids. Either prednisone, prednisolone or methylprednisolone can be given at 0.5 mg/kg once to twice daily until clinical remission. Side effects of oral glucocorticoids are usually proportional to drug potency, dosage and duration of administration. (Source: Olivry et al. International Task Force on Canine Atopic Dermatitis, Veterinary Dermatology, 2010).

**AtoKin is a high-dose, oral, chewable, beef-flavored formulation of Fexofenadine that Kindred is developing for AD in dogs.** The active ingredient in AtoKin is an antihistamine that is approved for allergic conditions in humans such as seasonal allergic rhinitis (trade names: Allegra, Telfast, and others). Kindred recently initiated the AtoKin phase-3 study, which is a multi-center, randomized double-blind, placebo-controlled study that is expected to enroll 200 dogs. The study will compare AtoKin 20mg/Kg once daily vs. placebo. The co-primary endpoints are CADLI score: Canine Atopic Dermatitis Lesion Index of six clinical symptoms associated with AD evaluated in five body regions, and PVAS scores: a zero-to-ten analog pruritus scale.

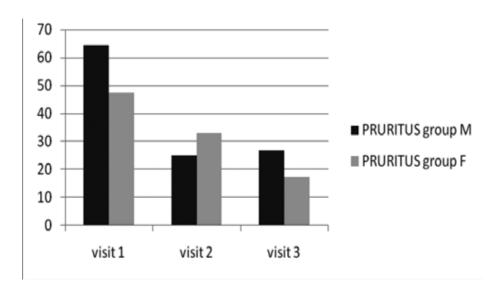
A small trial suggests that AtoKin could be as efficacious as oral glucocorticoids, the standard of care. The key trial that supports the AtoKin phase-3 study is a small study (15 dogs per treatment group) comparing Fexofenadine (Fex) 18mg/Kg per day vs. Medrol (methylprednisolone) 0.5mg/Kg per day (Source: Plevnik et al. Slovenian Veterinary Research, 2009). This was a non-inferiority trial that suggests the treatments have similar efficacy (please see Exhibit 1 for the results).

As illustrated below, the majority of dogs from both study groups experienced lowering of CADESI (Canine Atopic dermatitis Extent Severity Index) score parameters from the start to conclusion of the treatment. We initially had some concerns about this study because "there was no report of a power analysis done beforehand to justify such a small number of dogs in this non-inferiority trial; this study was probably underpowered." (Olivry, Veterinary Dermatology, 2013). However, based on a recent conversation with Kindred management, we learned that the study was not a post-hoc analysis.

Exhibit 1. A Small Trial in 30 Dogs Suggests High Dose AtoKin (Fex) Has Similar Efficacy to Methylprednisolone, The Standard of Care in AD



Note: Mean values of CADESI at Visits 1, 2 and 3 = baseline, after 3 weeks of treatment and after 6 weeks of treatment; Group M = methylprednisolone treated; Group F = Fexofenadine treated



Note: Mean values of pruritus in percent at visits 1, 2 and 3

Source: Plevnik et al. Slovenian Veterinary Research, 2009

The other issue with this study is that it used the CADESI-02 scale, whereas the AtoKin phase-3 is using the CADLI scale. Although this makes it more difficult to extrapolate the results of the Plevnik study to the AtoKin phase-3 study, the scientific literature suggests that the CADLI score is better. The reliability of the CADESI-02 score has been found to be "less than desirable for a health measurement scale" (Sources: Germain, Rev Med Vet 2005; 156: 382–385; Plant, Veterinary Dermatology, 2012). The third version of CADESI, CADESI-03, is the only scale that has been "rigorously validated" for assessment of AD but is very inconvenient because of the length of time it requires for use. The CADLI score has been found to be strongly correlated with CADESI-03 (r=0.84) and it is much easier to use. Overall, the CADLI score has been found to be a simple and effective measure of AD lesion severity in dogs. (Source: Plant, Veterinary Dermatology, 2012).

**However, our more bullish views on AtoKin is based on Zoetis' expectations for competitor Apoquel.** Apoquel is a JAK inhibitor that Zoetis has recently launched in the US, Germany, Austria, and the UK for the treatment of dogs with AD. Zoetis also plans to launch Apoquel in the rest of the European Union, as well as New Zealand in 2014. During its 4Q13 earnings call, Zoetis management stated that Apoquel could contribute approximately 1% of revenues in 2014, which would be about \$45-\$50MM. In the animal health world, this is considered a strong launch. In contrast, we had previously forecasted AtoKin sales of \$30MM by 2020 and risk adjusted that with a 70% probability of success.

Based on indirect comparison of available data, we believe that AtoKin should be more competitive with Apoquel. In the Apoquel pivotal trial, on days 14 and 28, dermatologists recorded a 48.4% reduction in CADESI-02 scores in the Apoquel treated dogs. Similarly, the Apoquel treated dogs showed 47-67% reduction in owner assessed pruritus scores. On the other hand, as illustrated above, both AtoKin and Medrol reduced CADESI scores by ~50% after 3 weeks of treatment, and the benefit improved after 6 weeks of treatment. However, the pivotal data with Apoquel suggests that the benefit is maintained at roughly 50% CADESI-02 reduction. With AtoKin, the severity of pruritus gradually decreased throughout the study and became statistically significant after 6 weeks of treatment. In contrast, the owner pruritus VAS scores were significantly lower in the Apoquel treated dogs than in the placebo-treated dogs on each day of assessment, beginning with day 1, to day 28 (P < 0.0001).

Overall, the available data suggests that Apoquel and AtoKin may be similar in activity as measured by CADESI-02 scores, but Apoquel is faster acting and works better for pruritus. However, AtoKin may have a better safety profile. Apoquel is not recommended for dogs less than 12 months of age, whereas AtoKin has been studied in dogs over the age of 6 months. Similarly, by virtue of its mechanism of action, Apoquel may increase the risk of infection and cancer (similar to JAK inhibitors approved in humans). As a result, AtoKin could prove to be a safer choice for maintenance therapy of chronic AD dogs.

We estimate a 70% probability of success for the AtoKin phase-3 study. In general, antihistamines control itching and scratching in 20%-40% of atopic dogs. (Source: Olivry, Veterinary Dermatology, 2010). Moreover, as stated above, there is some data, albeit of intermediate quality, that suggests high dose Fex (i.e., AtoKin) is similar to Medrol, the gold standard in AD. The Fex dose in the phase-3 trial (20mg/kg) is similar to the dose in the Plevnik trial (18mg/Kg). Therefore, we believe there is a strong probability that AtoKin will beat placebo. Kindred has already obtained Protocol Concurrence for the AtoKin phase-3 trial, and plans an

NADA filing in the second half of 2014, which would put AtoKin on track for potential FDA approval in late 2015.

#### Our Updated AtoKin Forecast: \$95MM Sales by 2020 (previously \$30MM)

We forecast that AtoKin can reach the market in 4Q15. Our market share and pricing assumption are outlined below, and are in part based on our market research survey with 30 veterinarians treating AD in dogs. In general, we now forecast that AtoKin can gain ~20% peak market share in dogs treated for AD. We estimate that Kindred can charge roughly \$1/day for average treatment duration of 30 days. This could again prove conservative. As illustrated below, we forecast that Atokin can reach US sales of \$95MM in 2020. However, given our 70% probability of success, we only include the risk-adjusted sales in our financial model.

Exhibit 2. Our Updated AtoKin Forecast for Atopic Dermatitis in Dogs

AtoKin - Atopic Dermatitis (AD)	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Pet Dogs being seen by a Vet at least once, MM	59.0	59.6	60.1	60.5	61.0	61.5	61.9	62.4	62.9	63.3	63.8
Percentage of dogs visiting vets that are diagnosed with AD (Avg. 10% of dogs, but higher among those taken to Vets).	12.1%	12.2%	12.2%	12.3%	12.3%	12.4%	12.4%	12.5%	12.5%	12.6%	12.6%
Growth rate	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Number of dogs diagnosed with AD, MM	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	7.9	8.0
% of dogs with AD that are actually treated by Vet (Source: BMO Proprietary Survey)	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%	47%
Number of dogs undergoing treatment for AD, MM	3.4	3.4	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.7	3.8
AtoKin Market Share Among Treated Dogs Number of dogs treated with AtoKin	1.8% 58,754	8.1% 276,680	13.5% 465,109	17.1% 596,040	19.3% 679,181	20.4% 729,251	20.0% 721,308	19.3% 704,143	18.7% 691,638	18.3% 682,920	17.9% 677,280
Avg. Price per Qtr, \$/Qtr (\$1/day for 1 month; Source: BMO Proprietary survey with 30 Vets treating AD).  Y/Y Change	\$30	\$30	<b>\$30</b> 1.0%	<b>\$31</b> 2.5%	<b>\$32</b> 2.5%	<b>\$33</b> 2.5%	<b>\$33</b> 2.5%	<b>\$34</b> 2.5%	<b>\$35</b> 2.5%	<b>\$36</b> 2.5%	<b>\$37</b> 2.5%
AtoKin Sales for Dogs with AD, \$MM	\$4	\$33	\$56	\$74	\$86	\$95	\$96	\$97	\$97	\$98	\$100
Y/Y Change			70%	31%	17%	10%	1%	0%	1%	1%	2%
Risk adjusted sales for AtoKin based on our probability of success (70%)	\$2	\$23	\$39	\$52	\$61	\$67	\$68	\$68	\$68	\$69	\$70
Y/Y Change			70%	31%	17%	10%	1%	0%	1%	1%	2%

Source: US Pet Ownership & Demographics Sourcebook 2012 edition, Kindred Biosciences, BMO Capital Markets Pharmaceuticals Research

Exhibit 3. Valuation \$30/Share: Average of DCF (\$26/share), P/E Multiple (\$29/share), and Multiple of Sales or Takeout Valuation (\$35/share)

DCF Valuation, \$000		Q4 2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	>2025E
Cash flow from operations		(1,343)	(10,087)	(16,553)	7,845	37,193	49,665	60,910	64,614	40,492	36,641	34,892	32,858	31,323	32,106
Y/Y Growth				NM	NM	NM	34%	23%	6%	-37%	-10%	-5%	-6%	-5%	3%
CAPEX		(2)	(12)	(12)	(13)	(13)	(14)	(15)	(18)	(22)	(23)	(23)	(25)	(26)	(26)
Interest Expense (1-t)		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Free Cash Flow to the Firm (FCFF)		(1,344)	(10,098)	(16,566)	7,832	37,180	49,651	60,895	64,596	40,470	36,618	34,869	32,833	31,298	32,081
Y/Y Growth				NM	NM	NM	34%	23%	6%	-37%	-10%	-5%	-6%	-5%	3%
Discount Period		0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	
Discount Rate	9%														
Discounted FCFF		(1,344)	(9,672)	(14,557)	6,314	27,499	33,690	37,908	36,892	21,205	17,602	15,378	13,284	11,617	
	Total, \$000s	Per share						вме	O Comm	ents:					
PV of FCFF (2013-2025)	195,816		Although we use a relatively low discount rate for a development stage company, our revenue and OPEX forecasts are risk adjusted based on our expected probability of success for each program.										asts are		
Terminal Value at 2025	493,548		Terminal growth rate assumption is 2.5% based on 1) relatively low generic competition and brand loyalty, 2) biologics pipeline, and 3) effectiveness of lifecycle management tactics in this market.										ologics		
PV of Terminal Value	183,200		TV is rou	ighly 40%	of our va	aluation a	nd accou	nts for the	7 other	andidate	s such as	the biolo	gics in the	e pipeline	
Cash & Equivalents, pre-IPO Total Debt	10,992 0														
Total Stockholders' Equity Value; Pre-IPO Capital	390,007														
Shares Issued at IPO	8,625	\$7.00													
Net Proceeds from IPO	\$55,097	\$3.19	\$55 1M r	aised at I	PO (8.62	5MM sha	res at \$7	share ad	liusted for	underwri	iting char	nes & oth	er eynens	(293	
Diluted shares Post IPO,		Ψ0.10	\$55.1M raised at IPO (8.625MM shares at \$7/share, adjusted for underwriting charges & other expenses)												
000s	17,273														
Total Stockholders' Equity Value, Post IPO	\$445,104	\$26													
						PE M	lultiple V	aluation	Using No	n-GAAP	EPS				
						2017E	2018E	2019E	2020E	2021E		2017-20	<b>EPS CA</b>	GR	

			PEM	ultiple Va	aluation l	Jsing No	n-GAAP
			2017E	2018E	2019E	2020E	2021E
		EPS	\$1.99	\$2.65	\$3.24	\$3.42	\$1.98
		15	\$22	\$27	\$30	\$29	\$16
		16	\$24	\$29	\$32	\$31	\$17
	PEx	17	\$25	\$31	\$34	\$33	\$18
		18	\$26	\$32	\$36	\$35	\$19
		19	\$28	\$34	\$38	\$37	\$20
Discount I	Period		3.5	4.5	5.5	6.5	7.5
Average		\$29		Min	\$16	Max	\$38
Discount	ate	9%		•			

		Reven	ues per	Share Mu	ıltiple Va	luation (i	.e. Take	out valuation)
			2017E	2018E	2019E	2020E	2021E	2017
	Sales pe	r share	\$5.45	\$7.55	\$8.89	\$9.54	\$9.24	20.
		6.0	\$24	\$31	\$33	\$33	\$29	
		6.5	\$26	\$33	\$36	\$35	\$31	
	Multiple	7.0	\$28	\$36	\$39	\$38	\$34	
		7.5	\$30	\$38	\$42	\$41	\$36	
		8.0	\$32	\$41	\$44	\$44	\$39	
count	Period	•	3.5	4.5	5.5	6.5	7.5	-
rage		\$35		Min	\$24	Max	\$44	
nunt	rate	9%		•	•	•		•

Discount rate 9%
Source: Kindred Biosciences Form S-1, BMO Capital Markets Pharmaceuticals Research

#### Other companies mentioned (priced as of February 24, 2014)

Zoetis (ZTS, \$29.70, Outperform) Eli Lilly (LLY, \$58.03, Underperform) 19.9%

2017-20 CAGR 20.5%

## Kindred Biosciences Income Statement: Our GAAP Near-Term Forecasts

GAAP Income Statement, \$000	2012A	Q1 2013	Q2 2013	Q3 2013	Q4 2013	2013E	Q1 2014	Q2 2014	Q3 2014	Q4 2014	2014E	2015E	2016E
Revenues	0	0	0	0	0	0	0	0	0	0	0	6,694	50,266
Cost of Sales	0	0	0	0	0	0	0	0	0	0	0	3,083	17,593
Gross Profit	0	0	0	0	0	0	0	0	0	0	0	3,611	32,673
Research and development	75	220	220	954	1,451	2,846	2,215	2,728	2,719	2,716	10,378	9,867	10,016
General and administrative	45	89	89	259	272	710	277	283	288	294	1,142	13,437	17,040
Earnings from operations	(120)	(310)	(310)	(1,213)	(1,724)	(3,556)	(2,492)	(3,011)	(3,007)	(3,010)	(11,520)	(19,693)	5,618
Other (Income) / Deductions - Net	(0)	0	0	(3)	(9)	(12)	(55)	(54)	(51)	(49)	(209)	(165)	(133)
Income From Continuing Operations Before Provision for Taxes on Income	(120)	(310)	(310)	(1,210)	(1,714)	(3,544)	(2,437)	(2,957)	(2,956)	(2,961)	(11,311)	(19,528)	5,751
(Benefit) / Provision for Taxes on Income	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income/ (loss)	(\$120)	(\$310)	(\$310)	(\$1,210)	(\$1,714)	(\$3,544)	(\$2,437)	(\$2,957)	(\$2,956)	(\$2,961)	(\$11,311)	(\$19,528)	\$5,751
Earnings Per Share - Basic	(\$0.06)	(\$0.10)	(\$0.10)	(\$0.40)	(\$0.23)	(\$0.86)	(\$0.15)	(\$0.18)	(\$0.18)	(\$0.18)	(\$0.70)	(\$1.18)	\$0.34
Earnings Per Share - Diluted	(\$0.06)	(\$0.10)	(\$0.10)	(\$0.40)	(\$0.22)	(\$0.85)	(\$0.14)	(\$0.17)	(\$0.17)	(\$0.17)	(\$0.65)	(\$1.11)	\$0.32
Weighted-Average Shares - Basic	2,113	3,000	3,000	3,001	7,399	4,100	16,173	16,236	16,298	16,358	16,266	16,499	16,705
Weighted-Average Shares - Diluted	2,113	3,000	3,000	3,001	7,766	4,192	17,273	17,336	17,398	17,458	17,366	17,599	17,805
Dividend per Share	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

_	2012A	Q1 2013	Q2 2013	Q3 2013	Q4 2013	2013E	Q1 2014	Q2 2014	Q3 2014	Q4 2014	2014E	2015E	2016E
Growth Rates (YOY)													
Revenues	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	651%
Gross Profit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	805%
Operating Income (EBIT)	NA	NA	NA	NA	1341%	2872%	705%	872%	148%	75%	224%	71%	-129%
Net Income	NA	NA	NA	NA	1333%	2863%	687%	855%	144%	73%	219%	73%	-129%
EPS- Diluted	NA	NA	NA	NA	290%	1393%	37%	65%	-58%	-23%	-23%	70%	-129%
Margins													
Gross Profit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	54%	65%
Operating Profit	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-294%	11%
Net Income	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-292%	11%

Source: Kindred Bioscienses SEC Filings, BMO Capital Markets Pharmaceuticals Research

## Kindred Biosciences Income Statement: Our GAAP Longer-Term Forecasts

GAAP Income Statement, \$000	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Revenues	0	0	0	6,694	50,266	98,053	137,039	162,598	175,622	171,230	158,309	146,169	136,848	129,841
Cost of Sales	0	0	0	3,083	17,593	34,318	47,964	56,909	61,468	59,930	55,408	51,159	47,897	45,444
Gross Profit	0	0	0	3,611	32,673	63,734	89,076	105,689	114,154	111,299	102,901	95,010	88,951	84,397
Research and development	75	2,846	10,378	9,867	10,016	10,167	10,322	10,482	10,646	20,548	17,414	14,617	13,685	12,984
General and administrative	45	710	1,142	13,437	17,040	18,046	18,918	19,649	20,228	39,383	37,994	35,081	32,844	31,162
Earnings from operations	(120)	(3,556)	(11,520)	(19,693)	5,618	35,522	59,835	75,558	83,280	51,369	47,493	45,312	42,423	40,251
Other (Income) / Deductions - Net	(0)	(12)	(209)	(165)	(133)	(198)	(345)	(531)	(746)	(937)	(1,070)	(1,193)	(1,309)	(1,420)
Income From Continuing Operations Before Provision for Taxes on Income	(120)	(3,544)	(11,311)	(19,528)	5,751	35,719	60,180	76,088	84,026	52,306	48,563	46,505	43,732	41,670
(Benefit) / Provision for Taxes on Income	0	0	0	0	0	0	12,036	16,739	21,006	15,692	14,569	13,952	13,120	12,501
Net Income/ (loss)	(\$120)	(\$3,544)	(\$11,311)	(\$19,528)	\$5,751	\$35,719	\$48,144	\$59,349	\$63,019	\$36,614	\$33,994	\$32,554	\$30,613	\$29,169
Earnings Per Share - Basic	(\$0.06)	(\$0.86)	(\$0.70)	(\$1.18)	\$0.34	\$2.12	\$2.82	\$3.45	\$3.64	\$2.10	\$1.94	\$1.85	\$1.73	\$1.64
Earnings Per Share - Diluted	(\$0.06)	(\$0.85)	(\$0.65)	(\$1.11)	\$0.32	\$1.99	\$2.65	\$3.24	\$3.42	\$1.98	\$1.82	\$1.74	\$1.63	\$1.55
Weighted-Average Shares - Basic	2,113	4,100	16,266	16,499	16,705	16,887	17,048	17,191	17,317	17,429	17,528	17,616	17,694	17,763
Weighted-Average Shares - Diluted	2,113	4,192	17,366	17,599	17,805	17,987	18,148	18,291	18,417	18,529	18,628	18,716	18,794	18,863
Dividend per Share	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Growth Rates (YOY)														
Revenues	NA	NA	NA	NA	651%	95%	40%	19%	8%	-3%	-8%	-8%	-6%	-5%
Gross Profit	NA	NA	NA	NA	805%	95%	40%	19%	8%	-3%	-8%	-8%	-6%	-5%
Operating Income (EBIT)	NA	2872%	224%	71%	-129%	532%	68%	26%	10%	-38%	-8%	-5%	-6%	-5%
Net Income	NA	2863%	219%	73%	-129%	521%	35%	23%	6%	-42%	-7%	-4%	-6%	-5%
EPS- Diluted	NA	1393%	-23%	70%	-129%	515%	34%	22%	5%	-42%	-8%	-5%	-6%	-5%
Margins														
Gross Profit	NA	NA	NA	54%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Operating Profit	NA	NA	NA	-294%	11%	36%	44%	46%	47%	30%	30%	31%	31%	31%
Net Income	NA	NA	NA	-292%	11%	36%	35%	37%	36%	21%	21%	22%	22%	22%

Source: Kindred Bioscienses SEC Filings, BMO Capital Markets Pharmaceuticals Research

## **Kindred Biosciences Balance Sheet**

Kindred Balance Sheet, \$000	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Assets														
Cash and cash equivalents	938	64,753	54,654	38,088	45,920	83,100	132,751	193,646	258,242	298,712	335,330	370,199	403,032	434,329
Prepaid expenses and other	1	468	818	1,850	1,949	2,033	2,108	2,173	2,228	3,942	3,607	3,252	3,060	2,917
Total current assets	938	65,221	55,472	39,938	47,869	85,133	134,859	195,819	260,469	302,654	338,937	373,451	406,092	437,246
Property and equipment, net	0	13	21	27	32	33	34	36	38	42	45	48	54	58
Total Assets	938	65,234	55,493	39,965	47,901	85,166	134,894	195,855	260,507	302,696	338,982	373,499	406,146	437,304
Liabilities and Equity														
Accounts payable	5	187	327	740	779	813	843	869	891	1,577	1,443	1,301	1,224	1,167
Due to related party	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Accrued expenses	60	748	766	2,023	2,139	2,241	2,333	2,413	2,480	4,372	4,027	3,648	3,432	3,272
Total current liabilities	70	940	1,098	2,768	2,923	3,059	3,180	3,287	3,376	5,953	5,475	4,954	4,661	4,443
Preferred Stock	987													
Total Equity	(119)	64,294	54,395	37,198	44,977	82,107	131,713	192,569	257,132	296,743	333,507	368,546	401,485	432,861
Total liabilities and equity	938	65,234	55,493	39,965	47,901	85,166	134,894	195,855	260,507	302,696	338,982	373,499	406,146	437,304

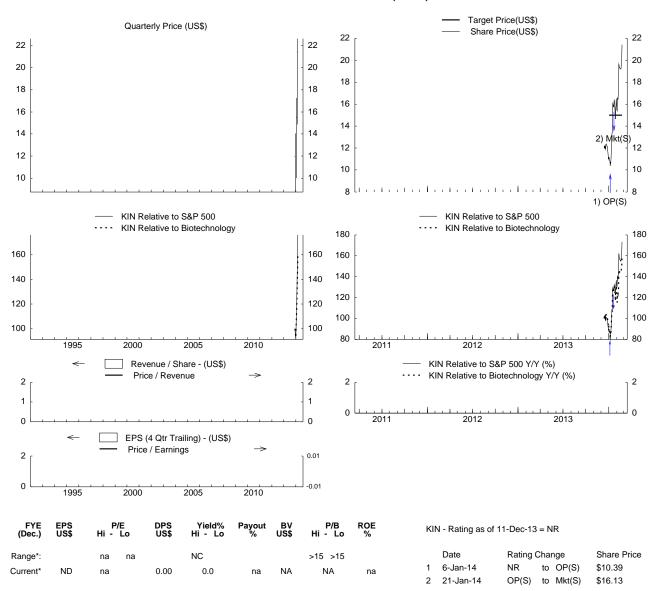
Source: Kindred Biosciences Form S-1, BMO Capital Markets Pharmaceuticals Research

### **Kindred Biosciences Statement of Cash Flow**

Kindred Statement of Cash	2012A	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Flows, \$000	ZUIZA	2013L	2014L	2013L	2010L	2017L	2010L	2019L	2020L	2021L	ZUZZL	2023L	2024L	2023L
Operating activities Net income/(loss) Adjustments:	(120)	(3,544)	(11,311)	(19,528)	5,751	35,719	48,144	59,349	63,019	36,614	33,994	32,554	30,613	29,169
Stock-based compensation expense	11	848	1,152	2,330	2,029	1,411	1,462	1,507	1,544	2,997	2,770	2,485	2,326	2,207
Depreciation expense Changes in operating assets and liabilities	0	2	4	6	9	12	13	14	16	18	20	20	19	22
Net cash provided by operating activities	(63)	(2,374)	(10,087)	(16,553)	7,845	37,193	49,665	60,910	64,614	40,492	36,641	34,892	32,858	31,323
Investing Activities Purchase of property and	0	(15)	(12)	(12)	(13)	(13)	(14)	(15)	(18)	(22)	(23)	(23)	(25)	(26)
equipment Net cash used in investing activities	0	(15)	(12)	(12)	(13)	(13)	(14)	(15)	(18)	(22)	(23)	(23)	(25)	(26)
Financing activities Proceeds from preferred stock issuance	990	11,097	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from note payable to related party	10	0	0	0	0	0	0	0	0	0	0	0	0	0
Exercise of stock options	0	11	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from sale of common stock	0	55,097	0	0	0	0	0	0	0	0	0	0	0	0
Net cash provided by/(used in) financing activities	1,000	66,205	0	0	0	0	0	0	0	0	0	0	0	0
Net increase/(decrease) in cash and cash equivalents	938	63,815	(10,098)	(16,566)	7,832	37,180	49,651	60,895	64,596	40,470	36,618	34,869	32,833	31,298
Cash and cash equivalents, as of beginning of year	0	938	64,753	54,654	38,088	45,920	83,100	132,751	193,646	258,242	298,712	335,330	370,199	403,032
Cash and cash equivalents, as of end of year	938	64,753	54,654	38,088	45,920	83,100	132,751	193,646	258,242	298,712	335,330	370,199	403,032	434,329

Source: Kindred Biosciences Form S-1, BMO Capital Markets Pharmaceuticals Research

## Kindred Biosciences (KIN)

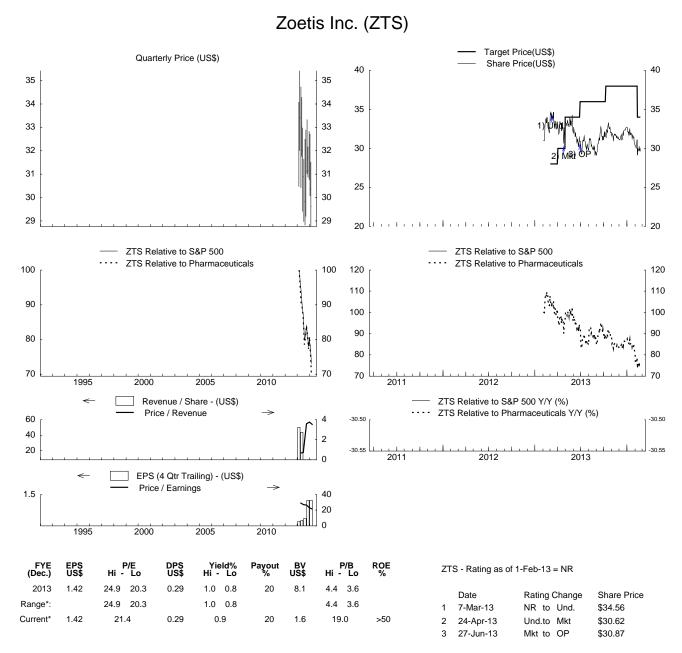


Last Price (February 21, 2014): \$21.42 Sources: IHS Global Insight, Thomson Reuters, BMO Capital Markets.

<sup>\*</sup> Current EPS is the 4 Quarter Trailing to Q3/2013.

\* Valuation metrics are based on high and low for the fiscal year.

\* Range indicates the valuation range for the period presented above.

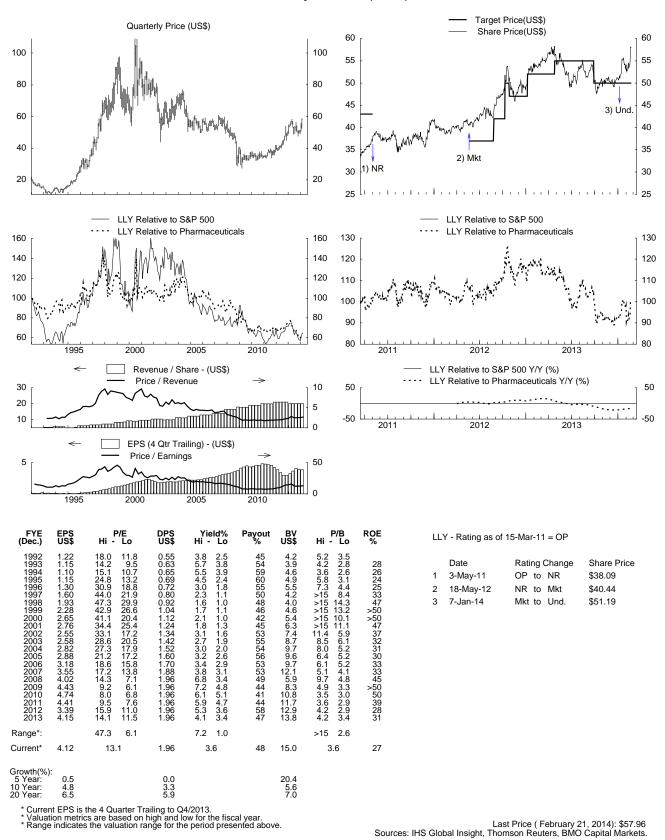


Last Price ( February 21, 2014): \$29.61 Sources: IHS Global Insight, Thomson Reuters, BMO Capital Markets.



<sup>\*</sup> Current EPS is the 4 Quarter Trailing to Q4/2013.
\* Valuation metrics are based on high and low for the fiscal year.
\* Range indicates the valuation range for the period presented above.

## Eli Lilly & Co. (LLY)





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#### Methodology and Risks to Price Target/Valuation

Methodology: DCF and P/E Multiple

Risks: Success of pipeline assets, particularly CereKin

#### Company specific disclosures for Zoetis

#### Methodology and Risks to Our Price Target

Methodology: DCF and P/E Multiple

Risks: Demand for animal health products could fluctuate and there are relatively low barriers to entry for competitors.

#### Company specific disclosures for Eli Lilly

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#### Methodology and Risks to Our Price Target

Methodology: DCF: Free Cash Flow To Equity and multiple of sales.

Risks: Uncertainty of Phase 3 Pipeline.

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Rating		BMOCM US	BMOCM US	BMOCM US	BMOCM	BMOCM	Starmine
Category	BMO Rating	Universe*	IB Clients**	IB Clients***	Universe****	IB Clients****	Universe
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Hold	Market Perform	56.1%	13.8%	49.0%	54.0%	46.5%	41.8%
Sell	Underperform	5.8%	5.6%	2.0%	7.2%	3.1%	5.7%

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