March 27, 2013

OUTPERFORM

Reason for report:

EARNINGS

Joseph P. Schwartz
(617) 918-4575
Joseph.Schwartz@Leerink.com

Michael Schmidt, Ph.D.
(617) 918-4588
Michael.Schmidt@Leerink.com

Paul Matteis
617-918-4585
Paul.Matteis@Leerink.com

LEERINK SWANN

HEALTHCARE EQUITY RESEARCH

KALOBIOS PHARMACEUTICALS, INC.

4Q:12 Recap – Multiple Clinical Readouts in the Works; Updating Model

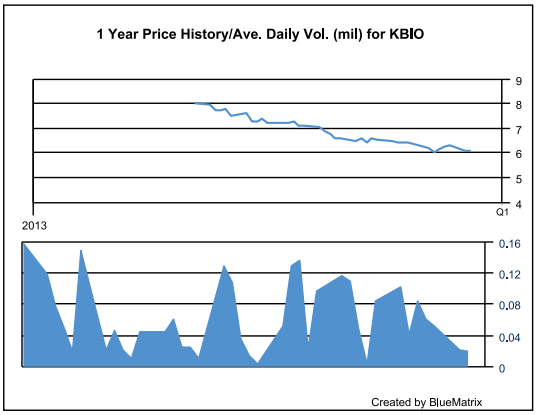
• **Bottom Line**: KBIO reported FY12 EPS of ($11.22) versus our estimate of ($10.54). In line with our estimates, contract revenue for 2012 was $6.1MM, derived from KBIO's collaborative agreement with SNY (OP) for the development of KB001-A for *Pseudomonas Aeruginosa* infections in hospitalized, ventilator-assisted patients *(Pa* VAP). We believe KBIO remains on track to report key safety and efficacy data for multiple promising monoclonal antibody (mAb) therapeutics in 1H:14. **Reiterate Outperform rating and $15 fair value estimate in 12 months.**

• **We believe KBIO ended 2012 with a strong, differentiated pipeline of mAbs, each of which operates via an attractive biochemical mechanism.** As stated in our initiation, we believe KBIO's "Humaneered" approach to generating monoclonal antibody therapeutics enables the production of mAbs with an exceptionally high degree of antigen specificity. Dosed in ~90 patients thus far, KBIO's mAbs have demonstrated minimal immunogenicity, which we believe is a key differentiator when compared to other monoclonal antibodies whose effects are limited by autoimmunity.

• **KBIO expects the Phase II KB003 trial in severe asthmatics will be fully enrolled in 3Q:13.** We are enthusiastic about KB003 (anti-GMCSF MAb), based on encouraging pilot study data and signs that its antigen is a key immunological regulator in the pathogenesis of both allergic and non-allergic asthma. Representing ~10% of the 300 million asthmatics worldwide, those afflicted by severe asthma are clinically nonresponsive to standard of care inhaled corticosteroids and beta agonists. We look forward to release of KB003 data in 1Q:14 and believe it holds potential to be a key value driver as the Street appreciates KBIO's potential to capitalize on a broad commercial opportunity. Xolair generated 2012 sales of ~$1.2B. KB003 is currently unpartnered; the company with U.S. rights to Xolair (Tanox) was acquired by Genentech for $919MM.

• **KBIO is also moving forward with the development of KB004.** KB004 targets the EphA3 receptor which is solely expressed during fetal development and on the surface of tumor cells in a variety of cancers. While KB004's commercial potential is unincorporated in our $15 valuation, we have spoken with MEDACorp KOLs who found KB004's mechanism of action intriguing as it holds the potential to disrupt a key tumor cell communicator. KBIO is currently testing KB004 in a Phase I study in subjects with hematologic malignancies, and we believe any positive data generated in this study would only increase KBIO shares' high degree of potential upside at their current price.

Key Stats:	**(Symbol:KBIO)**
S&P 600 Health Care Index:	**933.13**
Price:	**$6.17**
52 Week High:	$8.25
52 Week Low:	$5.91
Shares Outstanding (mil):	24.1
Market Capitalization (mil):	$148.7
Book Value/Share:	$0.00
Cash Per Share:	$2.32
Dividend (ann):	$0.00
Dividend Yield:	0.0%
Valuation:	$15 on DCF analysis



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2012A	**$3.0**	**$3.0**	**$0.1**	**0.0**	**$6.1**	**$0.57**	**($1.01)**	**($4.05)**	**($5.40)**	**($11.22)**	**NM**
2013E - New	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**($0.67)**	**($0.51)**	**($0.55)**	**($0.59)**	**($2.29)**	**NM**
2013E - Old	0.0	0.0	0.0	0.0	0.0	($0.67)	($0.50)	($0.55)	($0.59)	($2.28)	NM
2014E - New	**--**	**--**	**--**	**--**	**$25.0**	**--**	**--**	**--**	**--**	**($1.19)**	**NM**
2014E - Old	--	--	--	--	$25.0	--	--	--	--	($1.20)	NM
2015E	--	--	--	--	0.0	--	--	--	--	($2.38)	NM

Source: Company Information and Leerink Swann LLC Research
Revenues in $MM.
GAAP EPS; IPO 1/10/13.

Please refer to pages 9 - 12 for Important Disclosures, Price Charts and Analyst Certification.

INVESTMENT THESIS

We believe that KBIO shares are poised to appreciate as clinical and commercial catalysts are realized for KBIO's three proprietary monoclonal antibody (mAb) therapeutics: KB001-A, KB003, and the early but intriguing KB004. We believe that KBIO's attractive clinical portfolio is differentiated by its proprietary Humaneering technology, which enables the generation of mAbs with low immunogenicity and enhanced sequence specificity. Our belief in the uniqueness of KBIO's technology has been corroborated by an investment from SNY (OP), which has agreed to fund the development and commercialization of KB001-A for ventilator-assisted patients (VAP) at risk for Pseudomonas Aeruginosa (Pa) induced pneumonia. Additionally, operating by the same attractive biochemical mechanism, KB001-A is enrolled in a Phase II study examining its ability to control Pa infections in cystic fibrosis patients, with clinical data expected in mid-2014. SNY has the ability to opt-in and partner with KBIO in developing KB001-A in this indication as well after Phase II data is released in 2Q:14. For KB003, KBIO is currently running a 150 patient Phase II trial in patients with severe asthma. We believe that KB003 may be broadly applicable to both allergic and non-allergic asthmatics, since its epitope is an inflammatory marker integral to multiple aspects of the disease cascade. Thus far, while the trials run for KBIO's mAbs (mainly performed on their precursor antibodies) were not powered for statistical significance, they nonetheless suggested that KBIO's therapeutics are non-immunogenic and will likely be able to produce a statistically significant clinical effect by interfering with pathogenic biological processes. Thus, our rating of Outperform reflects our confidence that as more clinical data for KBIO's mAb therapeutics are generated and crucial partnerships are cemented, KBIO shares will appreciate on the Street's enhanced view of the company's potential.

VALUATION

We estimate a risk-adjusted per share value for KBIO of $15 in 12 months. We use a sum-of-the-parts discounted cash flow (DCF) methodology, attributing ~$4 to KB001-A in Pa VAP, ~$4 to KB001-A in Pa CF, ~$5 to KB003 in asthma, and ~$2 to net cash. We use a 12% WACC as our discount rate since the risks involved with drug development and regulatory approval have already been handicapped by probability-weighting our revenues. Over the longer term, we assume a 5% terminal growth rate, which we believe is conservative, given that no generic mAbs have ever been approved and KBIO may expand its mAb pipeline and recognize revenues from therapeutics that are not yet in development. In probability weighting our projected revenue streams from each program, we risk-adjust all sales estimates at 50%, since KB001-A and KB003 have thus far only been examined in Phase I/II trials.

RISKS TO VALUATION

Risks include the potential for disappointing clinical data, regulatory setbacks, and commercial shortfalls. Since KBIO is presently unprofitable and only has products that have completed early-stage clinical trials, any of the possible aforementioned setbacks may impact the stock significantly.

KBIO P&L ($MM)	2011	1Q12	2Q12	3Q12	4Q12	2012	1Q13E	2Q13E	3Q13E	4Q13E	2013E	2014E	2015E	2016E	2017E
Contract revenue (p/w)	20.3	3.0	3.0	0.1	-	6.1	-	-	-	-	-	25.0	-	30.0	42.5
Royalties (p/w)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Product sales (p/w)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue	**20.3**	**3.0**	**3.0**	**0.1**	**-**	**6.1**	**-**	**-**	**-**	**-**	**-**	**25.0**	**-**	**30.0**	**42.5**
COGS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R&D	18.5	3.2	4.2	6.8	10.3	24.5	7.5	8.0	8.5	9.0	33.0	40.0	46.3	53.8	56.4
SG&A	4.0	0.9	0.9	1.6	1.7	5.1	3.5	4.0	4.5	5.0	17.0	20.0	25.0	30.0	35.0
Operating expenses	22.5	4.2	5.1	8.4	12.0	29.6	11.0	12.0	13.0	14.0	50.0	60.0	71.3	83.8	91.4
Operating income	(2.3)	(1.1)	(2.1)	(8.3)	(12.0)	(23.5)	(11.0)	(12.0)	(13.0)	(14.0)	(50.0)	(35.0)	(71.3)	(53.8)	(48.9)
Interest income	0.0	0.0	0.0	0.0	-	0.0	0.1	0.1	0.1	0.0	0.2	0.2	0.4	0.1	0.3
Interest expense	-	-	-	-	0.1	0.1	0.3	0.3	0.3	0.3	1.2	1.2	1.2	0.6	-
Other income (expense)	(0.0)	0.0	0.0	(0.3)	0.4	0.1	-	-	-	-	-	-	-	-	-
EBT	(2.2)	(1.1)	(2.1)	(8.6)	(11.7)	(23.5)	(11.2)	(12.2)	(13.2)	(14.3)	(51.0)	(36.0)	(72.0)	(54.2)	(48.7)
Tax expense (benefit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net income (loss)	(2.2)	(1.1)	(2.1)	(8.6)	(11.7)	(23.5)	(11.2)	(12.2)	(13.2)	(14.3)	(51.0)	(36.0)	(72.0)	(54.2)	(48.7)
Diluted EPS	**(1.15)**	**0.57**	**(1.01)**	**(4.05)**	**(5.40)**	**(11.22)**	**(0.67)**	**(0.51)**	**(0.55)**	**(0.59)**	**(2.29)**	**(1.19)**	**(2.38)**	**(1.50)**	**(1.34)**
Basic shares outstanding	1.9	2.0	2.1	2.1	2.2	2.1	16.6	24.1	24.1	24.1	22.3	30.1	30.2	36.2	36.3
Diluted shares outstanding				18.8	20.9		20.0	27.5	27.5	27.5	25.6	33.5	33.6	39.6	39.7

Source: SEC filings and Leerink Swann Estimates

KBIO BS	2011	1Q12	2Q12	3Q12	4Q12	2012	1Q13E	2Q13E	3Q13E	4Q13E	2013E	2014E	2015E	2016E	2017E
Cash + MS	**17.8**		**27.5**	**24.7**	**20.3**	**20.3**	**73.6**	**62.3**	**50.1**	**37.0**	**37.0**	**88.7**	**20.5**	**52.4**	**13.8**
Debt	**-**	**-**	**-**	**4.8**	**9.8**	**9.8**	**9.8**	**9.8**	**9.8**	**9.8**	**9.8**	**9.8**	**9.8**	**-**	**-**
Term Loan (MidCap Financial)	-	-	-	4.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

KBIO CFS	2011	1Q12	2Q12	3Q12	4Q12	2012	1Q13E	2Q13E	3Q13E	4Q13E	2013E	2014E	2015E	2016E	2017E
Change in cash	**(5.6)**	-	6.6	(3.5)	(6.5)	**(3.4)**	53.3	(11.3)	(12.2)	(13.1)	**16.7**	**51.7**	**(68.2)**	**31.8**	**(38.5)**
Cash from operations	**(15.3)**		**(8.7)**	**(6.6)**	**(11.5)**	**(26.8)**	**(10.3)**	**(11.3)**	**(12.2)**	**(13.1)**	**(47.0)**	**(30.0)**	**(64.9)**	**(45.9)**	**(39.5)**
Net Income	(2.2)	(1.1)	(2.1)	(8.6)	(11.7)	(23.5)	(11.2)	(12.2)	(13.2)	(14.3)	(51.0)	(36.0)	(72.0)	(54.2)	(48.7)
Deferred revenue	(14.0)		(5.6)	-	-	(5.6)	-	-	-	-	-	-	-	-	-
SOE	0.2		0.1	0.5	0.2	0.8	0.9	1.0	1.0	1.1	4.0	6.0	7.1	8.4	9.1
	0.7	1.1	(1.2)	1.5	-	1.5	-	-	-	-	-	-	-	-	-
Cash from investing	**9.7**		**(3.0)**	**(0.8)**	**-**	**(3.8)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.0**	**1.0**
CapEx	(0.5)		-	0.2	-	0.2	-	-	-	-	-	-	-	1.0	1.0
Other	10.2	-	(3.0)	(1.0)	-	(4.0)	-	-	-	-	-	-	-	-	-
Cash from financing	**0.0**		**18.3**	**3.9**	**5.0**	**27.2**	**63.6**	**-**	**-**	**-**	**63.6**	**81.7**	**(3.3)**	**76.7**	**-**
Issuance (buyback) shares	-		18.8	-	-	18.8	63.6	-	-	-	63.6	85.0	-	80.0	-
Issuance (repay) debt	-		-	4.8	5.0	9.8	-		-	-	-	(3.3)	(3.3)	(3.3)	-
Other	0.0	-	(0.5)	(0.9)	-	(1.5)	-	-	-	-	-	-	-	-	-

Source: SEC filings and Leerink Swann Estimates

DCF	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	TV
EBITDA	(47)	(30)	(65)	(46)	(40)	(66)	(87)	(48)	8	67	109	178	214	179	208	239	271	136
CapEx	-	-	-	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-
FCF	(47)	(30)	(65)	(47)	(41)	(67)	(88)	(49)	7	66	108	177	213	178	208	239	271	136
Discount periods	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Discount Rate	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*
PV FCF	(47)	(27)	(52)	(33)	(26)	(38)	(44)	(22)	3	24	35	51	55	41	43	44	44	296
NPV	**345**																	

TG	5%
DR	12%
Shares Outstanding 2Q13E	27.5
NPV/Share	12.55

SOTP DCF	NPV	**val/shr**
KB001-A *Pa* VAP	109	$ 4
KB001-A *Pa* CF	101	$ 4
KB003 asthma	136	$ 5
Net Cash	64	$ 2
VALUATION	409	$ 15

Source: Company reports and Leerink Swann LLC estimates

KB001-A for *Pa* VAP	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
U.S. (Pop: 312MM)												
MVP Prevalence	899,685	908,322	917,042	925,845	934,733	943,707	952,766	961,913	971,147	980,470	989,883	999,386
Pa colonization prevalence (30% MVP < 4 days): 2%	5,398	5,450	5,502	5,555	5,608	5,662	5,717	5,771	5,827	5,883	5,939	5,996
Pa colonization prevalence (70% MVP >= 4 days): 7%	44,085	44,508	44,935	45,366	45,802	46,242	46,686	47,134	47,586	48,043	48,504	48,970
Total patients	49,483	49,958	50,437	50,921	51,410	51,904	52,402	52,905	53,413	53,926	54,444	54,966
Mkt Penetration	*2.5%*	*5.0%*	*7.5%*	*10.0%*	*12.5%*	*15.0%*	*17.5%*	*20.0%*	*22.5%*	*25.0%*	*27.5%*	*30.0%*
Patients on drug	1237	2498	3783	5092	6426	7786	9170	10581	12018	13481	14972	16490
Price ('000)	30	30	30	30	30	30	30	30	30	30	30	30
Sales ($MM)	**37**	**75**	**113**	**153**	**193**	**234**	**275**	**317**	**361**	**404**	**449**	**495**
ROW (mainly EU + Japan)												
Sales ($MM)	**9**	**28**	**57**	**115**	**193**	**292**	**344**	**397**	**451**	**506**	**561**	**618**
Worldwide												
Potential sales ($MM)	**46**	**103**	**170**	**267**	**386**	**526**	**619**	**714**	**811**	**910**	**1011**	**1113**
Royalty Rate	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*
Approval prob	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*
Probability adjusted WW Sales ($MM)	**3**	**8**	**13**	**20**	**29**	**39**	**46**	**54**	**61**	**68**	**76**	**83**

Source: Company reports and Leerink Swann LLC estimates

KB001-A for Cystic Fibrosis	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
U.S. (Pop: 312MM)															
CF Prevalence	30,872	31,169	31,468	31,770	32,075	32,383	32,694	33,008	33,325	33,644	33,967	34,294	34,623	34,955	35,291
Infants Pa prevalence (< 2): 25%	413	417	421	425	429	433	437	441	446	450	454	458	463	467	472
Children Pa (2-10): 35%	2,311	2,333	2,356	2,379	2,401	2,424	2,448	2,471	2,495	2,519	2,543	2,567	2,592	2,617	2,642
Adolescents Pa (10-20): 60%	4,953	5,000	5,048	5,097	5,146	5,195	5,245	5,295	5,346	5,398	5,449	5,502	5,554	5,608	5,662
Adults Pa (20-37.4): 80%	11,490	11,601	11,712	11,825	11,938	12,053	12,168	12,285	12,403	12,522	12,642	12,764	12,886	13,010	13,135
Total patients	19,167	19,351	19,537	19,725	19,914	20,105	20,298	20,493	20,690	20,888	21,089	21,291	21,496	21,702	21,910
Mkt Penetration	*0.0%*	*0.0%*	*0.0%*	*2.5%*	*5.0%*	*7.5%*	*10.0%*	*12.5%*	*15.0%*	*17.5%*	*20.0%*	*22.5%*	*25.0%*	*27.5%*	*30.0%*
Patients on drug	-	-	-	794	996	1,508	2,030	2,562	3,103	3,655	4,218	4,791	5,374	5,968	6,573
Price ('000)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Sales ($MM)	**-**	**-**	**-**	**40**	**50**	**75**	**101**	**128**	**155**	**183**	**211**	**240**	**269**	**298**	**329**
ROW (mainly EU + Japan)															
Sales ($MM)	**-**	**-**	**-**	**10**	**17**	**34**	**56**	**83**	**116**	**155**	**211**	**252**	**309**	**373**	**411**
WW sales	**-**	**-**	**-**	**50**	**67**	**109**	**157**	**211**	**272**	**338**	**422**	**491**	**578**	**671**	**739**

Source: Company reports and Leerink Swann LLC estimates

Scenario 1: SNY Opt-in; WW license w/ US copromote	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
US sales	-	-	-	40	50	75	101	128	155	183	211	240	269	298	329
ROW sales	-	-	-	10	17	34	56	83	116	155	211	252	309	373	411
Royalties on ROW sales (18%)	-	-	-	2	3	6	10	15	21	28	38	45	56	67	74
R&D expenses after opt-in	10	30	30	20	10	5	-	-	-	-	-	-	-	-	-
R&D expenses paid by KBIO (25%)	3	8	8	5	3	1	-	-	-	-	-	-	-	-	-
US Profit share															
COGS	-	-	-	6	7	11	13	15	17	18	21	24	27	30	33
SG&A	-	-	-	25	27	29	32	35	38	41	44	48	52	57	61
US profit	-	-	-	9	15	35	56	78	101	124	146	168	190	212	234
KBIO US Profit share (50%)	-	-	-	4	8	18	28	39	50	62	73	84	95	106	117
Total KBIO Income	**(3)**	**(8)**	**(8)**	**1**	**8**	**23**	**38**	**54**	**71**	**90**	**111**	**129**	**150**	**173**	**191**

Scenario 2: SNY Opt-in; Ex-US only license	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
US sales	-	-	-	26	32	49	66	83	101	119	137	156	175	194	214
ROW sales	-	-	-	7	12	24	39	58	81	109	148	176	216	261	288
Royalties on ROW sales (18%)	-	-	-	1	2	4	7	10	15	20	27	32	39	47	52
R&D expenses after opt-in	10	30	30	20	10	5	-	-	-	-	-	-	-	-	-
R&D expenses paid by KBIO (50%)	5	15	15	10	5	3	-	-	-	-	-	-	-	-	-
US Profit share															
COGS	-	-	-	4	5	7	9	10	11	12	14	16	17	19	21
SG&A	-	-	-	25	27	29	32	35	38	41	44	48	52	57	61
US profit	-	-	-	(3)	0	13	25	39	52	66	79	92	105	118	131
KBIO US Profit share (100%)	-	-	-	(3)	0	13	25	39	52	66	79	92	105	118	131
Total KBIO Income	**(5)**	**(15)**	**(15)**	**(12)**	**(2)**	**14**	**32**	**49**	**67**	**86**	**106**	**124**	**144**	**165**	**183**

Scenario 3: go it alone; no SNY license	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
US sales	-	-	-	20	25	38	51	64	78	91	105	120	134	149	164
ROW sales	-	-	-	5	9	17	28	42	58	78	105	126	155	187	205
Royalties on ROW sales (15%)	-	-	-	1	1	3	4	6	9	12	16	19	23	28	31
R&D expenses after Phase II	10	30	30	20	10	5	-	-	-	-	-	-	-	-	-
R&D expenses paid by KBIO (100%)	10	30	30	20	10	5	-	-	-	-	-	-	-	-	-
US Profit share															
COGS	-	-	-	3	4	5	7	8	9	9	11	12	13	15	16
SG&A	-	-	-	25	27	29	32	35	38	41	44	48	52	57	61
US profit	-	-	-	(8)	(6)	3	12	22	31	41	51	60	69	78	87
KBIO US Profit share (100%)	-	-	-	(8)	(6)	3	12	22	31	41	51	60	69	78	87
Total KBIO Income	**(10)**	**(30)**	**(30)**	**(27)**	**(15)**	**1**	**16**	**28**	**40**	**53**	**66**	**79**	**92**	**106**	**117**

Scenario 4: negative P3 data	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
US sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ROW sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royalties on ROW sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R&D expenses after opt-in	10	30	30	-	-	-	-	-	-	-	-	-	-	-	-
R&D expenses paid by KBIO	10	30	30	-	-	-	-	-	-	-	-	-	-	-	-
US Profit share															
COGS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SG&A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US profit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KBIO US Profit share	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total KBIO Income	**(10)**	**(30)**	**(30)**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Source: Company reports and Leerink Swann LLC estimates

KB003 for Asthma	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
US patients with asthma (MM)	27	27	27	28	28	28	28	29	29	29	30
% severe asthma	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
US patients with asthma (1000s)	1,340	1,354	1,367	1,381	1,395	1,409	1,423	1,437	1,451	1,466	1,480
% treated with KB003	0.1%	0.5%	0.9%	1.3%	1.7%	2.1%	2.2%	2.4%	2.5%	2.6%	2.8%
US patients treated with KB003	1,667	6,472	12,568	18,303	23,693	29,731	31,752	33,910	36,214	38,675	41,304
Avg annual sales/patient ($)	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159
US sales	**25**	**100**	**200**	**300**	**400**	**517**	**569**	**626**	**688**	**757**	**833**
approval probability	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*
Probability adjusted US Sales ($MM)	**13**	**50**	**100**	**150**	**200**	**259**	**284**	**313**	**344**	**378**	**416**

Ex-US sales	**13**	**50**	**100**	**150**	**200**	**259**	**284**	**313**	**344**	**378**	**416**
approval probability	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*	*50%*
Probability adjusted Ex-US Sales ($MM)	6	25	50	75	100	129	142	156	172	189	208
Royalty on Ex-US Sales	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*
Probability adjusted Ex-US Royalty ($MM)	**1**	**4**	**8**	**11**	**15**	**19**	**21**	**23**	**26**	**28**	**31**

Source: Company reports and Leerink Swann LLC estimates

Program	Status	Expected Next Step(s)	Screen	Responsible Party
KB001-A (Anti-PcrV of *Pa*)				
Prevention of *Pa* VAP	Phase 1/2 complete with KB001; high dose Phase 1 with KB001-A ongoing	Sanofi to initiate Phase 2b post-CMC development in late 2014	*Pa* colonization	Sanofi
CF Patients Infected with *Pa*	Phase 1/2 complete with KB001; Phase 2 with KB001-A ongoing	Phase 2 data expected by mid-2014	*Pa* infection	KaloBios subject to Sanofi option
KB003 (Anti-GM-CSF)				
Severe Asthma	Phase 1/2 complete with KB002; Phase 2 with KB003 ongoing	Phase 2 data expected by early 2014	Reversibility	KaloBios
KB004 (Anti-EphA3)				
Hematologic Malignancies	Phase 1 ongoing	Initiate expansion phase in third quarter of 2013	EphA3 expression	KaloBios

Source: Company reports and Leerink Swann LLC estimates

Drug	Indication	Event	Timing
KB001A (SNY)	VAP	High dose Phase I ongoing (IV)	
		Phase I data	1H14
		Initiate Phase IIb/III	4Q14
		Phase IIb/III data	4Q16
		EMA/FDA approved	1Q18
		Commercial launch	2H18
KB001A	CF	Phase II ongoing since Jan. 2013 (IV)	
		Phase II data (IV)	**mid-14**
		SNY opt-in	2H14
		Initiate IV-SQ bridging study	2014
		IV-SQ bridging data	2015
		Initiate 2 Phase IIIs (SQ)	4Q15
		Phase III data (SQ)	4Q16
		EU/FDA approved	4Q17
		Commercial launch	1H18
KB003	Asthma	Phase II ongoing since Aug. 2012 (IV)	
		Initiate IV-SQ bridging study	2013
		IV-SQ bridging data	2014
		Phase II data (IV)	**1H14**
		Ex-US partnership	2H14
		Initiate 2 Phase IIIs (SQ)	2H15
		Phase III data (SQ)	2H17
		EU/FDA approved	2H18
		Commercial launch	1H19
KB004	Cancer	Initiate Phase I expansion phase	3Q13

Source: Company reports and Leerink Swann LLC estimates

LEERINK SWANN

Disclosures Appendix

Analyst Certification

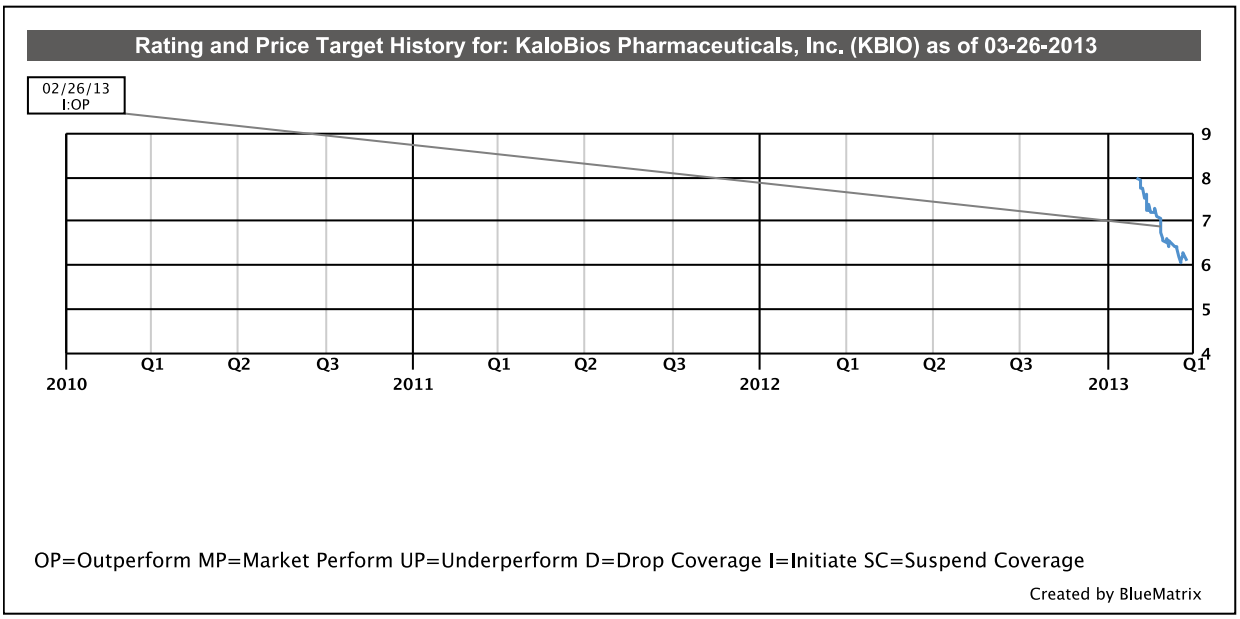
I, Joseph P. Schwartz, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

Valuation

We estimate a risk-adjusted per share value for KBIO of $15 in 12 months. We use a sum-of-the-parts discounted cash flow (DCF) methodology, attributing ~$4 to KB001-A in Pa VAP, ~$4 to KB001-A in Pa CF, ~$5 to KB003 in asthma, and ~$2 to net cash. We use a 12% WACC as our discount rate since the risks involved with drug development and regulatory approval have already been handicapped by probability-weighting our revenues. Over the longer term, we assume a 5% terminal growth rate, which we believe is conservative, given that no generic mAbs have ever been approved and KBIO may expand its mAb pipeline and recognize revenues from therapeutics that are not yet in development. In probability weighting our projected revenue streams from each program, we risk-adjust all sales estimates at 50%, since KB001-A and KB003 have thus far only been examined in Phase I/II trials.

Risks to Valuation

Risks include the potential for disappointing clinical data, regulatory setbacks, and commercial shortfalls. Since KBIO is presently unprofitable and only has products that have completed early-stage clinical trials, any of the possible aforementioned setbacks may impact the stock significantly.



LEERINK SWANN

Rating and Price Target History for: Sanofi (SAN FP) as of 03-26-2013

Leerink Swann initiated coverage of SAN FP with an Outperform rating on February 26, 2010.

OP=Outperform MP=Market Perform UP=Underperform D=Drop Coverage I=Initiate SC=Suspend Coverage

Created by BlueMatrix

Distribution of Ratings/Investment Banking Services (IB) as of 12/31/12				
			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OP]	105	61.76	32	30.48
HOLD [MP]	64	37.65	2	3.12
SELL [UP]	1	0.59	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.

From October 1, 2006 through January 8, 2009, the relevant benchmarks for the above definitions were the Russell 2000® 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.

Definitions of Leerink Swann Ratings prior to October 1, 2006 are shown below:

Outperform (Buy): We expect this stock to outperform its benchmark by more than 10 percentage points over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform within a range of plus or minus 10 percentage points of its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark by more than 10 percentage points over the next 12 months.

For the purposes of these definitions, the relevant benchmark were the Russell 2000® Health Care Index for issuers with a market capitalization of less than $2 billion and the S&P 500® Index for issuers with a market capitalization over $2 billion.

Important Disclosures

This information (including, but not limited to, prices, quotes and statistics) has been obtained from sources that we believe reliable, but we do not represent that it is accurate or complete and it should not be relied upon as such. All information is subject to change without notice. This is provided for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any product to which this information relates. The Firm, its officers, directors, employees, proprietary accounts and affiliates may have a position, long or short, in the securities referred to in this report, and/or other related securities, and from time to time may increase or decrease the position or express a view that is contrary to that contained in this report. The Firm's salespeople, traders and other professionals may provide oral or written market commentary or trading strategies that are contrary to opinions expressed in this report. The Firm's asset management group and proprietary accounts may make investment decisions that are inconsistent with the opinions expressed in this report. The past performance of securities does not guarantee or predict future performance. Transaction strategies described herein may not be suitable for all investors. Additional information is available upon request by contacting the Publishing Department at One Federal Street, 37th Floor, Boston, MA 02110.

Like all Firm employees, analysts receive compensation that is impacted by, among other factors, overall firm profitability, which includes revenues from, among other business units, the Private Client Division, Institutional Equities, and Investment Banking. Analysts, however, are not compensated for a specific investment banking services transaction.

Leerink Swann Consulting LLC, an affiliate of Leerink Swann LLC, is a provider of evidence-based strategy and consulting to the healthcare industry.

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

Leerink Swann LLC makes a market in KaloBios Pharmaceuticals, Inc.

Leerink Swann LLC is willing to sell to, or buy from, clients the common stock of Sanofi on a principal basis.

Leerink Swann LLC has acted as the manager for a public offering of KaloBios Pharmaceuticals, Inc. in the past 12 months.

Leerink Swann 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
	Marko Kozul, M.D.	(415) 905-7221	marko.kozul@leerink.com
	Michael Schmidt, Ph.D.	(617) 918-4588	michael.schmidt@leerink.com
	Irene Lau	(415) 905-7256	irene.lau@leerink.com
	Rene Shen	(212) 277-6074	rene.shen@leerink.com
	Gena Wang, Ph.D.	(212) 277-6073	gena.wang@leerink.com
Life Science Tools and Diagnostics	**Dan Leonard**	(212) 277-6116	dan.leonard@leerink.com
	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
	Justin Bowers, CFA	(212) 277-6066	justin.bowers@leerink.com
Pharmaceuticals/Major	**Seamus Fernandez**	(617) 918-4011	seamus.fernandez@leerink.com
	Swati Kumar	(617) 918-4576	swati.kumar@leerink.com
Specialty Pharmaceuticals, Generics	**Jason M. Gerberry, JD**	(617) 918-4549	jason.gerberry@leerink.com
	Christopher W. Kuehnle, JD	(617) 918-4851	chris.kuehnle@leerink.com
Medical Devices, Cardiology & Orthopedics	**Danielle Antalffy**	(212) 277-6044	danielle.antalffy@leerink.com
	Richard Newitter	(212) 277-6088	richard.newitter@leerink.com
	Robert Marcus, CFA	(212) 277-6084	robert.marcus@leerink.com
Healthcare Services			
	Jason Twizell	(212) 277-6049	jason.twizell@leerink.com
	George Villarina	(212) 277-6012	george.villarina@leerink.com
Healthcare Technology & Distribution	**David Larsen, CFA**	(617) 918-4502	david.larsen@leerink.com
	Christopher Abbott	(617) 918-4010	chris.abbott@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
Research Assistant	Paul Matteis	(617) 918-4585	paul.matteis@leerink.com

New York
1251 Avenue of Americas, 22nd Floor
New York, NY 10020
(888) 347-2342

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