

Reason for report:

COMPANY UPDATE

KYTHERA BIOPHARMACEUTICALS, INC.

Buy Recent Weakness Ahead of ATX-101 Ph III Results

• **Bottom Line:** We would be buyers of KYTH shares following yesterday's weakness which appears to have been caused by a trading-related error. Feedback from KYTH management confirmed to us that yesterday's temporary 30% share decline was caused by a small number of erroneous trades. However, shares struggled to recover and remained weak throughout yesterday's trading. Recent checks with management and clinicians at the American Academy of Dermatology (AAD) as well as several follow-up conversations with a number of MEDACorp dermatology and plastic surgery KOLs continue to suggest strong enthusiasm for ATX-101's U.S. Ph III prospects, regulatory approval, and commercial opportunity.

• **Recent weakness presents attractive buying opportunity.** Despite what was ultimately determined to be a trading "glitch," KYTH shares still ended down 9% with shares now down >20% in March. Given various checks with key opinion leaders (KOLs) at major medical meetings and separately with MEDACorp KOLs in the U.S. and Europe, our enthusiasm for ATX-101 is unchanged as is our valuation of \$28/shr.

• **We have extremely high conviction in U.S. Ph III clinical & regulatory success.** KYTH has successfully completed Ph IIb U.S. and Ph III EU studies with convincing efficacy and safety. We and MEDACorp regulatory and clinical KOLs believe KYTH's U.S. Ph III studies are overpowered to deliver a positive outcome on the composite endpoint agreed upon with the FDA. KOLs see no hurdles to FDA approval should the U.S. studies replicate the Ph III EU results. Both studies are fully recruited with data likely in 3Q:13. In addition, results from Study ATX-101-11-26, an open-label, long-term study evaluating ATX-101 for the reduction of submental fat in 165 U.S. patients, is supportive of our thesis on the high probability of clinical success of the U.S. Phase III clinical trials, and the drop out rate of less than 10% in this study suggests good overall tolerability.

• **Our research suggests a compelling opportunity for ATX-101 with U.S. sales potential of \$500M.** Beyond recent feedback, our 3Q:12 survey of 62 U.S. MEDACorp cosmetic physician specialists (click [HERE](#)) suggests strong demand for ATX-101. Among dermatologists and plastic surgeons polled, most expect to use it, and over half will actively promote the procedure. On average, physicians predict rapid uptake among injectable-experienced patients with the expectation that ATX-101 will increase their overall patient volume with synergistic benefits on other injectable procedures. Finally, >40% of physicians surveyed expressed interest in using ATX-101 off-label. These results suggest our modeled peak sales forecast of >\$500M for treatment of submental fat reduction is achievable with potential upside from off-label use/new indications.



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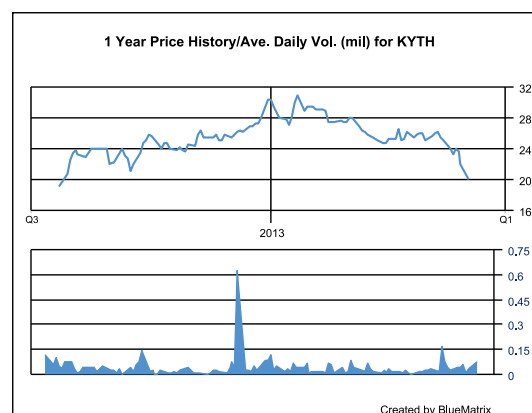
HEALTHCARE EQUITY RESEARCH

Key Stats:

(NASDAQ:KYTH)

S&P 600 Health Care Index:	926.18
Price:	\$20.01
52 Week High:	\$31.93
52 Week Low:	\$14.07
Shares Outstanding (mil):	20.6
Market Capitalization (mil):	\$412.2
Book Value/Share:	0.00
Cash Per Share:	\$4.85
Dividend (ann):	\$0.00
Dividend Yield:	0.0%
Est LT EPS Growth:	10%
P/E to LT EPS Growth (FY12):	NM
Valuation:	\$28 on DCF analysis

General: Est LT EPS Growth '17E-'25
Shares Outstanding (mil): Note: EPS calculation includes dilutive effect of ~3M warrants, options, and performance shares outstanding.



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2012E	0.0A	0.0A	0.0	0.0	0.0	(0.69)A	(1.02)A	(1.01)	(0.69)	(3.32)	NM
2013E	--	--	--	--	0.0	--	--	--	--	(2.46)	NM

Source: Company Information and Leerink Swann LLC Research



INVESTMENT THESIS

We rate shares of Kythera Outperform. We recommend purchase of KYTH based on (1) compelling prospects for clinical and regulatory success in the U.S. and Europe for a first-in-class product (ATX-101) for the treatment of submental (double chin) fat reduction, (2) evidence of strong physician demand for ATX-101 that supports U.S. peak sales prospects of >\$500M and will capitalize on the rapidly growing facial aesthetics market, (3) a deep management team with experience across pharma/biotech and cosmetic dermatology, (4) tiered royalties and regulatory and commercial milestones from partner Bayer Dermatology on OUS sales of ATX-101, (5) and upside to our revenue estimates for off-label use or new ATX-101 indications in other areas of the body. We believe these positive factors substantially outweigh the risks of (1) economic sensitivity of self-pay products, (2) regulatory risk, (3) a slower-than-expected launch of ATX-101 in North American and European markets, and (3) disappointing North American Phase III data for ATX-101. Our DCF valuation is \$28/share excluding any potential new indications or off label use outside of the initial indication for treatment of submental fat.

VALUATION

We value KYTH shares at \$28/share based on our DCF valuation which calculates cash flows through 2025E, applies a 12% discount rate and assume a 0% growth rate on the terminal value of KYTH cash flow in 2025E.

RISKS TO VALUATION

Key risks/uncertainties are: (1) economic sensitivity of self-pay products; (2) regulatory risk; (3) a slower-than-expected launch of ATX-101 in North American and European markets; and (3) disappointing North American Phase III data for ATX-101.

Kythera - Income Statement Analysis 2011-2025E

(\$ in Millions, Except EPS)

(Year Ended December 31)	2011	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	CAGR 17E-25E
ATX-101	0.0	0.0	0.0	0.0	12.0	100.8	264.8	351.0	421.5	466.0	500.1	511.9	518.7	511.3	496.4	8%
ATX-101 Bayer Royalty	0.0	0.0	0.0	1.1	6.9	17.4	33.6	36.4	37.0	37.0	35.2	33.0	30.1	27.0	24.4	-4%
Total Revenue	0.0	0.0	0.0	1.1	18.8	118.1	298.4	387.3	458.5	503.0	535.3	544.9	548.7	538.3	520.8	7%
Sublicense Expense	1.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM
COGS	0.0	0.0	0.0	0.0	1.4	18.6	49.0	64.9	78.0	86.2	92.5	94.7	96.0	94.6	91.8	8%
% of Sales	NM	NM	NM	0.0%	7.2%	15.8%	16.4%	16.8%	17.0%	17.1%	17.3%	17.4%	17.5%	17.6%	17.6%	1%
Gross Profit	(1.2)	(2.0)	0.0	1.1	17.5	99.5	249.4	322.4	380.5	416.8	442.8	450.2	452.8	443.7	429.0	7%
% of Sales	NM	NM	NM	NM	NM	84.2%	83.6%	83.2%	83.0%	82.9%	82.7%	82.6%	82.5%	82.4%	82.4%	0%
R&D	15.8	36.0	40.0	35.0	35.0	35.0	36.0	38.7	45.8	50.3	53.5	54.5	54.9	53.8	52.1	5%
% of Sales	NM	NM	NM	NM	NM	29.6%	12.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	-2%
SG&A	6.9	10.7	13.0	17.0	43.0	70.0	119.4	139.4	146.7	161.0	163.3	163.5	164.6	161.5	156.2	3%
% of Sales	NM	NM	NM	NM	NM	59.3%	40.0%	36.0%	32.0%	32.0%	30.5%	30.0%	30.0%	30.0%	30.0%	-4%
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM
Operating Income	(23.8)	(48.6)	(53.0)	(50.9)	(60.5)	(5.5)	94.1	144.2	187.9	205.5	226.0	232.3	233.3	228.4	220.6	11%
% of Sales	NM	NM	NM	NM	NM	-4.7%	31.5%	37.2%	41.0%	40.9%	42.2%	42.6%	42.5%	42.4%	42.4%	4%
Interest Income	0.0	0.2	0.5	0.2	0.7	0.3	0.1	0.1	0.4	0.9	1.5	2.1	2.9	3.6	4.4	NM
Warrant and Other Interest Exp/Inc, Net	(0.3)	(0.8)	(0.4)	(0.4)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM
Other Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM
Non-Operating Items	(0.3)	(0.7)	0.0	(0.2)	0.5	0.3	0.1	0.1	0.4	0.9	1.5	2.1	2.9	3.6	4.4	NM
Pre-tax Income	(24.1)	(49.4)	(53.0)	(51.1)	(60.0)	(5.2)	94.2	144.3	188.4	206.4	227.5	234.4	236.2	232.0	225.0	12%
% of Sales	NM	NM	NM	NM	NM	-4.4%	31.6%	37.3%	41.1%	41.0%	42.5%	43.0%	43.0%	43.1%	43.2%	4%
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.0%	28.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	3%
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	26.4	40.4	65.9	72.2	79.6	82.0	82.7	81.2	78.8	15%
Net Income	(24.1)	(49.4)	(53.0)	(51.1)	(60.0)	(5.2)	67.8	103.9	122.4	134.2	147.9	152.3	153.5	150.8	146.3	10%
% of Sales	NM	NM	NM	NM	NM	-4.4%	22.7%	26.8%	26.7%	26.7%	27.6%	28.0%	28.0%	28.0%	28.1%	3%
Average Shares Outstanding	11.1	14.9	21.6	25.6	26.6	27.6	28.6	28.6	28.7	28.7	28.8	28.8	28.9	28.9	29.0	0%
Operating EPS	(\$2.17)	(\$3.32)	(\$2.46)	(\$2.00)	(\$2.26)	(\$0.19)	\$2.37	\$3.63	\$4.27	\$4.67	\$5.14	\$5.29	\$5.32	\$5.22	\$5.05	10%

Source: Leerink Swann and Company Reports

% Change	2011	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Total Revenue		NM	NM	NM	1549.3%	527.4%	152.6%	29.8%	18.4%	9.7%	6.4%	1.8%	0.7%	-1.9%	-3.2%
Sublicense Expense		65.7%	-100.0%	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
COGS		NM	NM	NM	NM	1266.5%	162.7%	32.6%	20.1%	10.5%	7.3%	2.4%	1.3%	-1.4%	-2.9%
Gross Profit		65.7%	-100.0%	NM	1429.8%	469.7%	150.7%	29.3%	18.0%	9.5%	6.2%	1.7%	0.6%	-2.0%	-3.3%
R&D		128.3%	11.1%	-12.5%	0.0%	0.0%	2.9%	7.6%	18.4%	9.7%	6.4%	1.8%	0.7%	-1.9%	-3.2%
SG&A		55.5%	21.5%	30.8%	152.9%	62.8%	70.5%	16.8%	5.2%	9.7%	1.4%	0.1%	0.7%	-1.9%	-3.2%
Others		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Operating Income		104.1%	9.0%	-4.0%	19.0%	-90.9%	-1808.9%	53.3%	30.3%	9.4%	10.0%	2.8%	0.4%	-2.1%	-3.4%
Non-Operating Items		141.2%	-106.3%	-554.0%	-351.2%	-35.6%	-71.2%	9.3%	301.9%	106.7%	64.6%	45.5%	34.6%	26.3%	21.3%
Pre-tax Income		104.5%	7.3%	-3.6%	17.5%	-91.4%	-1922.9%	53.3%	30.5%	9.6%	10.2%	3.0%	0.8%	-1.8%	-3.0%
Tax Rate		NM	NM	NM	NM	NM	NM	0.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taxes		NM	NM	NM	NM	NM	NM	53.3%	63.1%	9.6%	10.2%	3.0%	0.8%	-1.8%	-3.0%
Net Income		104.5%	7.3%	-3.6%	17.5%	-91.4%	-1412.5%	53.3%	17.8%	9.6%	10.2%	3.0%	0.8%	-1.8%	-3.0%
Average Shares Outstanding		33.2%	45.2%	18.5%	3.9%	3.8%	3.6%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Operating EPS		53.5%	-26.1%	-18.7%	13.1%	-91.7%	-1366.5%	53.0%	17.6%	9.4%	10.0%	2.9%	0.6%	-1.9%	-3.2%

Source: Leerink Swann and Company Reports

(Year Ended December 31)	2011	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Credit Facility \$15MM															
Senior Loan \$5MM - 8/1/12 to 12/31/21		5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Rate		11.5%	8.5%	8.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Interest Expense		0.24	0.44	0.43	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Source: Leerink Swann and Company Reports															



Disclosures Appendix

Analyst Certification

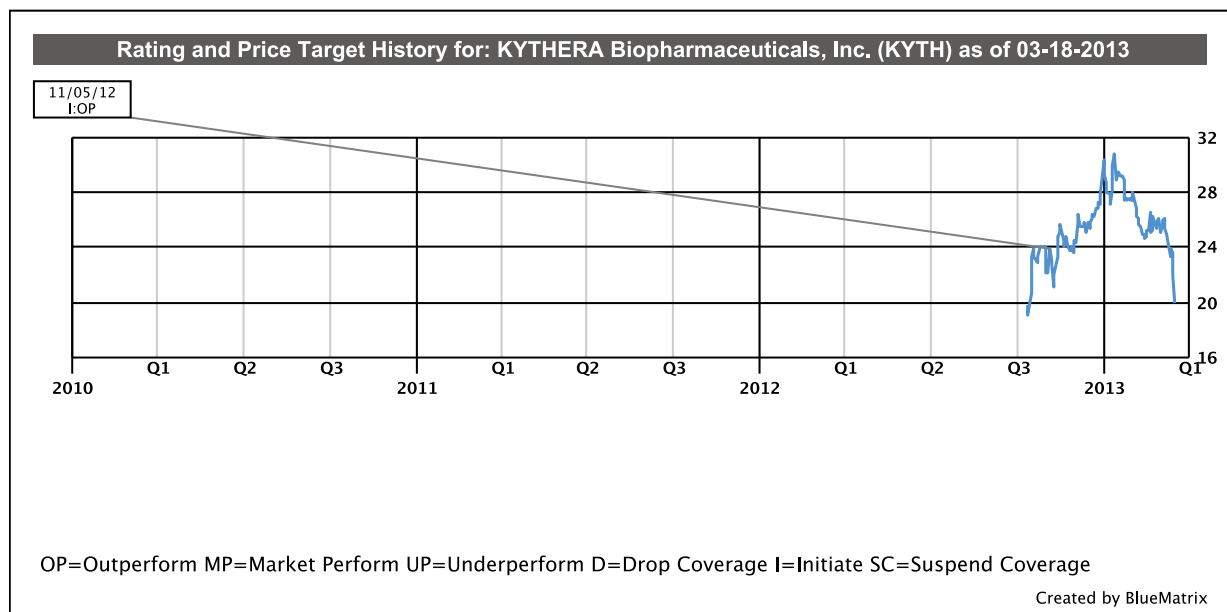
I, Seamus Fernandez, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

Valuation

We value KYTH shares at \$28/share based on our DCF valuation which calculates cash flows through 2025E, applies a 12% discount rate and assume a 0% growth rate on the terminal value of KYTH cash flow in 2025E.

Risks to Valuation

Key risks/uncertainties are: (1) economic sensitivity of self-pay products; (2) regulatory risk; (3) a slower-than-expected launch of ATX-101 in North American and European markets; and (3) disappointing North American Phase III data for ATX-101.





Distribution of Ratings/Investment Banking Services (IB) as of 12/31/12				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			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.

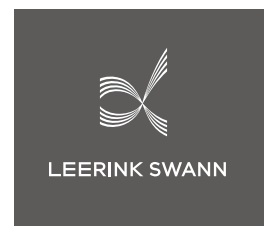
Definitions of Leerink Swann Ratings prior to October 1, 2006 are shown below:

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

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

Leerink Swann LLC makes a market in KYTHERA Biopharmaceuticals, Inc.

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

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