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Piper Jaffray & Co.

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Reason for Report:

Company Update

Changes	Previous	Current
Rating	--	Overweight
Price Tgt	--	\$9.00
FY11E Rev (mil)	--	\$0.0
FY12E Rev (mil)	--	\$0.0
FY11E EPS	--	(\$1.44)
FY12E EPS	--	(\$1.60)

Price:	\$6.27
52 Week High:	\$8.55
52 Week Low:	\$2.82
12-Month Price Target:	\$9.00

Proj EV of \$288M + mid'11E cash

Shares Out (mil):	32.8
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Shares out includes recent PIPE

Market Cap. (mil):	\$205.7
Avg Daily Vol (000):	73
Book Value/Share:	\$1.74
Net Cash Per Share:	\$1.96
Debt to Total Capital:	0%
Est LT EPS Growth:	NA
P/E to LT EPS Growth (FY11):	NA
Est Next Rep Date:	05/01/2011
Fiscal Year End:	Dec

Rev (mil)	2010A	2011E	2012E
Mar	\$0.0A	\$0.0E	\$0.0E
Jun	\$0.0A	\$0.0E	\$0.0E
Sep	\$0.0A	\$0.0E	\$0.0E
Dec	<u>\$0.0A</u>	<u>\$0.0E</u>	<u>\$0.0E</u>
FY	\$0.0A	\$0.0E	\$0.0E
CY	\$0.0A	\$0.0E	\$0.0E
FY RM	NM	NM	NM
CY RM	NM	NM	NM

EPS	2010A	2011E	2012E
Mar	(\$0.83)A	(\$0.42)E	NA
Jun	(\$0.36)A	(\$0.36)E	NA
Sep	(\$0.36)A	(\$0.30)E	NA
Dec	<u>(\$0.40)A</u>	<u>(\$0.36)E</u>	<u>NA</u>
FY	(\$1.76)A	(\$1.44)E	(\$1.60)E
CY	(\$1.76)A	(\$1.44)E	(\$1.60)E

FY P/E	NM	NM	NM
CY P/E	NM	NM	NM

Quarterly EPS does not add to full year result

Anthera Pharmaceuticals (ANTH - \$6.27) Overweight

Anthera is Best Derivative Call on Benlysta Approval

CONCLUSION:

We see shares of ANTH as the best derivative call on the approval of HGSI's Benlysta for the treatment of patients with active, autoantibody-positive systemic lupus erythematosus (SLE). The annual price of \$35,000 was in-line with Piper Jaffray Analysts' expectations, but above Street's \$30,000 supporting peak WW sales of \$3 billion. We believe this approval is a positive for Anthera's A-623 currently in a potentially pivotal Phase IIb SLE study. We view shares of ANTH as inexpensive based on either varespladib or A-623 alone, let alone both drugs.

- **FDA Approval of Benlysta is Positive for ANTH.** The FDA approved Benlysta for treatment of patients with active, autoantibody-positive SLE receiving standard therapy without major restrictions or a black box warning and a limited REMS program. Approval and the annual price of \$35,000 was in-line with Piper Jaffray Analysts' expectations, but above Street's \$30,000 supporting peak WW sales of \$3 billion. We believe this approval is a positive for Anthera's A-623 currently in a potentially pivotal Phase IIb PEARL-SC study. Anthera remains on track to complete enrollment by late 3Q:11/early 4Q:11. We understand that patient interest in participating in the study is high due to the subcutaneous dosing of A-623. A-623 remains wholly-owned by Anthera.
- **VISTA-16 Biomarker Futility Update.** Anthera intends to report the anticipated biomarker futility analysis on the first 1,000 ACS patients in the ongoing VISTA-16 trial by the end of 1Q:11 or early April. The DSMB will conduct another safety review and a blinded, independent statistician will evaluate changes in SPLA2, LDL cholesterol, C-Reactive Protein (CRP), IL-6 and a composite measure of LDLc <70mg/dL and CRP <1mg/dL. All 5 measures must show a positive trend in favor of varespladib and 4/5 including either CRP or IL-6 must meet statistical significance for VISTA-16 to continue. We view this biomarker futility analysis as a high hurdle and success would increase our confidence in VISTA-16 going forward.
- **Cash to Reach Value Driving Data.** Anthera ended 2010 with cash of \$64 million, which should last to top-line VISTA-16 and PEARL-SC data.

INVESTMENT RECOMMENDATION:

We reiterate our Overweight rating and \$9 target valuing varespladib at \$288 million. We add mid'11E cash with exercise of warrants. Anthera has no debt. We see potential upside from A-623 in lupus.

RISKS TO ACHIEVEMENT OF TARGET PRICE:

Risks include clinical, regulatory and commercial. Varespladib and/or A-623 may fail in the clinic. Anthera may require additional cash from the capital markets.

COMPANY DESCRIPTION:

Anthera is a biopharmaceutical company developing varespladib and A-623.

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Anthera Pharmaceuticals
Quarterly Earnings Estimates
(\$ in thousands except per share)

23-Feb-11

	<u>2009A</u>	<u>1QA</u> ¹	<u>2QA</u>	<u>3QA</u>	<u>4QA</u>	<u>2010E</u>	<u>1QE</u>	<u>2QE</u>	<u>3QE</u>	<u>4QE</u>	<u>2011E</u>	<u>2012E</u>
Total Revenues	0	0	0	0	0	0	0	0	0	0	0	0
Operating Expenses:												
R&D Expense	8,415	\$5,242	\$6,438	6,885	10,892	29,457	12,000	10,000	8,000	10,000	40,000	45,000
SG&A Expense	<u>3,425</u>	<u>1,224</u>	<u>1,510</u>	<u>1,510</u>	<u>2,057</u>	<u>6,301</u>	<u>2,000</u>	<u>2,000</u>	<u>2,000</u>	<u>2,000</u>	<u>8,000</u>	<u>9,000</u>
Total Operating Expenses	11,841	\$6,466	\$7,948	\$8,395	\$12,949	35,758	\$14,000	\$12,000	\$10,000	\$12,000	48,000	54,000
Operating Loss	(\$11,841)	(\$6,466)	(\$7,948)	(\$8,395)	(\$12,949)	(\$35,758)	(\$14,000)	(\$12,000)	(\$10,000)	(\$12,000)	(\$48,000)	(\$54,000)
Total Other Income (Expense)	(362)	(4,638)	12	62	(92)	(4,656)	55	45	30	20	150	15
Pre-Tax Loss	(\$12,203)	(\$11,104)	(\$7,936)	(\$8,334)	(\$13,040)	(\$40,414)	(\$13,945)	(\$11,955)	(\$9,970)	(\$11,980)	(\$47,850)	(\$53,985)
Income Tax Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Loss	(\$12,203)	(\$11,104)	(\$7,936)	(\$8,334)	(\$13,040)	(\$40,414)	(\$13,945)	(\$11,955)	(\$9,970)	(\$11,980)	(\$47,850)	(\$53,985)
Net Loss per Share	(\$8.06)	(\$0.83)	(\$0.36)	(\$0.36)	(\$0.40)	(\$1.76)	(\$0.42)	(\$0.36)	(\$0.30)	(\$0.36)	(\$1.44)	(\$1.60)
Shares Outstanding	1,514	13,344	22,224	22,964	32,829	22,910	33,000	33,100	33,200	33,400	33,175	33,650

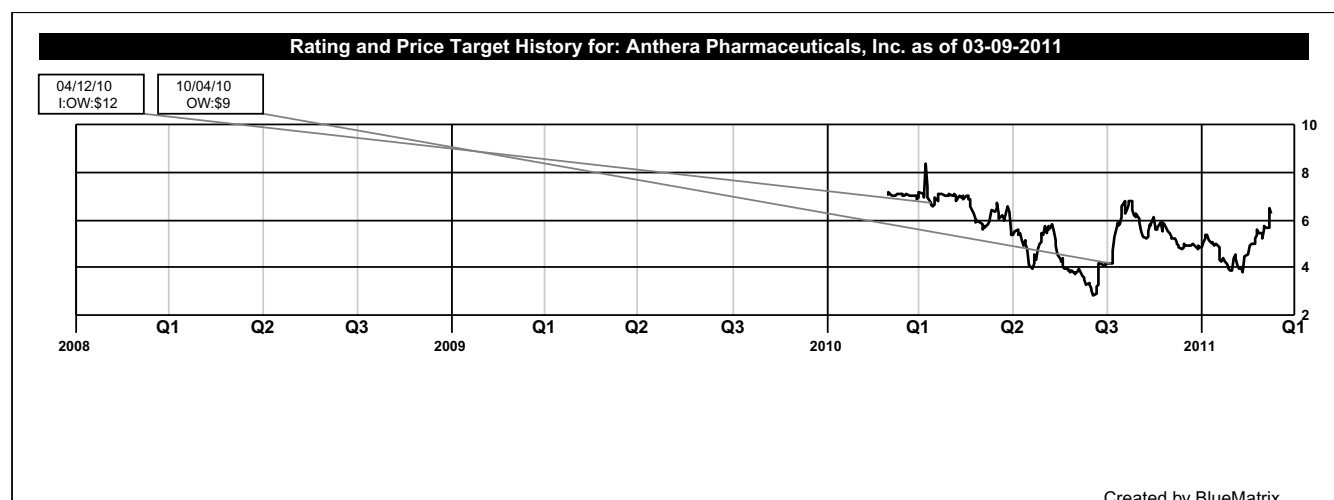
Source: Company reports and Piper Jaffray estimates.

Note: CY:09A results include adjusted primary share count excluding preferred stock. As a result, quarterly EPS does not add to full year result.

1. 1Q:10 R&D expense includes \$3.5 million non-cash milestone payment in IPO stock to Lilly and Shinogi.

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T: Transferring Coverage

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S: Suspending Coverage

OW: Overweight

N: Neutral

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Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OW]	315	50.30	65	20.63
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SELL [UW]	47	7.50	2	4.26

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Analyst Certification — Edward A. Tenthoff, Sr Research Analyst — Chad J. Messer, Ph.D., Research Analyst

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