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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
FY10E Rev (mil)	--	\$0.0
FY11E Rev (mil)	--	\$0.0
FY10E EPS	--	(\$1.72)
FY11E EPS	--	(\$1.44)
Price:		\$4.85
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

Includes recent PIPE

Market Cap. (mil):	\$159.1
Avg Daily Vol (000):	105
Book Value/Share:	\$2.14
Net Cash Per Share:	\$2.23
Debt to Total Capital:	0%
Est LT EPS Growth:	NA
P/E to LT EPS Growth (FY11):	NA
Est Next Rep Date:	02/01/2011
Fiscal Year End:	Dec

Rev (mil)	2009A	2010E	2011E
Mar	\$0.0A	\$0.0A	\$0.0E
Jun	\$0.0A	\$0.0A	\$0.0E
Sep	\$0.0A	\$0.0A	\$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	2009A	2010E	2011E
Mar	(\$2.57)A	(\$0.83)A	(\$0.42)E
Jun	(\$2.22)A	(\$0.36)A	(\$0.36)E
Sep	(\$2.40)A	(\$0.36)A	(\$0.30)E
Dec	<u>(\$0.98)A</u>	<u>(\$0.36)E</u>	<u>(\$0.36)E</u>
FY	(\$8.06)A	(\$1.72)E	(\$1.44)E
CY	(\$8.06)A	(\$1.72)E	(\$1.44)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 - \$4.85) Overweight

PEARL-SC Enrollment Update; Should Reinitiate Study in January

CONCLUSION:

Anthera management provided an update on the status of the halted Phase IIb PEARL-SC trial of A-623 in lupus patients. The company has identified the likely cause of the vial cracking and expects to reinitiate the study in January. Importantly, Anthera plans to bring on additional sites and geographies and should still complete enrollment by late 3Q:11/early 4Q:11. We continue to see Anthera as an attractive investment with two late-stage, potential blockbuster opportunities.

- **Update on PEARL-SC Trial Halt.** Anthera has identified the likely cause of the vial cracking and implemented a full QA plan and to salvage clinical supply. As a result, the company expects to reinitiate the study in January. Importantly, Anthera plans to bring on additional sites and geographies and should still complete enrollment by late 3Q:11/early 4Q:11. Prior to study halting, PEARL had dosed 12 and screened 39 lupus patients. The company will begin an open-label extension study earlier than expected in order to keep the first 12 patients on drug and generate safety data. We see the 39 screened patients as backlog for January.

- **Additional PEARL-SC Trial Details.** In order to increase powering, PEARL will now randomize up to 540 systemic lupus erythmatosus (SLE) patients to 3 sub-cutaneous doses of A-623 (either 200mg once monthly or 100mg or 200mg once weekly) or placebo for 24 weeks on top of standard background therapy. The primary endpoint is the SLE responder index used by HGS in the *Benlysta* BLISS studies. The larger patient number could provide powering for inter arm comparability. Early feedback from investigators indicates that sub-Q dosing is very attractive to patients versus intravenous dosing of Benlysta.

- **Merck BioManufacturing to Supply A-623.** As expected, Anthera also announced that Merck BioManufacturing Network will supply large scale GMP clinical and pre-commercial supply of A-623. This agreement ensures the supply of A-623 up to launch of the drug.

- **VISTA-16 Enrolling Patients.** Anthera is also actively enrolling in the pivotal VISTA-16 trial of varespladib. An analysis of the first 1,000 patients is on track for 1Q:11 and we expect final data by early 2012.

- **Cash to Reach Value Driving Data.** Anthera ended 3Q:10 with a strong cash balance of \$73 million, which we forecast should last into 2012. By this time Anthera should have reported top-line PEARL-SC and VISTA-16 data.

Note: price reflects close on December 14, 2010.

INVESTMENT RECOMMENDATION:

Overweight rating and \$9 price target. We value varespladib at \$288 million and add mid'11E net cash and assuming exercise of the warrants. Anthera holds no debt.

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)

3-Nov-10

	1QA	2QA	3QA	4QA	2009A	1QA ¹	2QA	3QA	4QE	2010E	1QE	2QE	3QE	4QE	2011E
Total Revenues	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Expenses:															
R&D Expense	2,915	2,286	2,526	688	8,415	\$5,242	\$6,438	6,885	10,000	28,565	12,000	10,000	8,000	10,000	40,000
SG&A Expense	846	999	885	695	3,425	1,224	1,510	1,510	2,000	6,244	2,000	2,000	2,000	2,000	8,000
Total Operating Expenses	\$3,761	\$3,286	\$3,411	\$1,383	11,841	\$6,466	\$7,948	\$8,395	\$12,000	34,809	\$14,000	\$12,000	\$10,000	\$12,000	48,000
Operating Loss	(\$3,761)	(\$3,286)	(\$3,411)	(\$1,383)	(\$11,841)	(\$6,466)	(\$7,948)	(\$8,395)	(\$12,000)	(\$34,809)	(\$14,000)	(\$12,000)	(\$10,000)	(\$12,000)	(\$48,000)
Interest and Other Income	13	9	(0)	2	24	3	\$12	62	65	142	55	45	40	35	175
Interest Expense	(37)	(59)	(193)	(96)	(385)	(4,641)	0	0	0	(4,641)	0	0	30	20	50
Total Other Income (Expense)	(24)	(50)	(193)	(94)	(362)	(4,638)	12	62	65	(4,500)	55	45	70	55	225
Pre-Tax Loss	(\$3,785)	(\$3,336)	(\$3,604)	(\$1,477)	(\$12,203)	(\$11,104)	(\$7,936)	(\$8,334)	(\$11,935)	(\$39,309)	(\$13,945)	(\$11,955)	(\$9,930)	(\$11,945)	(\$47,775)
Income Tax Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Loss	(\$3,785)	(\$3,336)	(\$3,604)	(\$1,477)	(\$12,203)	(\$11,104)	(\$7,936)	(\$8,334)	(\$11,935)	(\$39,309)	(\$13,945)	(\$11,955)	(\$9,930)	(\$11,945)	(\$47,775)
Net Loss per Share	(\$2.57)	(\$2.22)	(\$2.40)	(\$0.98)	(\$8.06)	(\$0.83)	(\$0.36)	(\$0.36)	(\$0.36)	(\$1.72)	(\$0.42)	(\$0.36)	(\$0.30)	(\$0.36)	(\$1.44)
Shares Outstanding	1,471	1,500	1,500	1,500	1,514	13,344	22,224	22,964	33,000	22,883	33,100	33,200	33,300	33,500	33,275

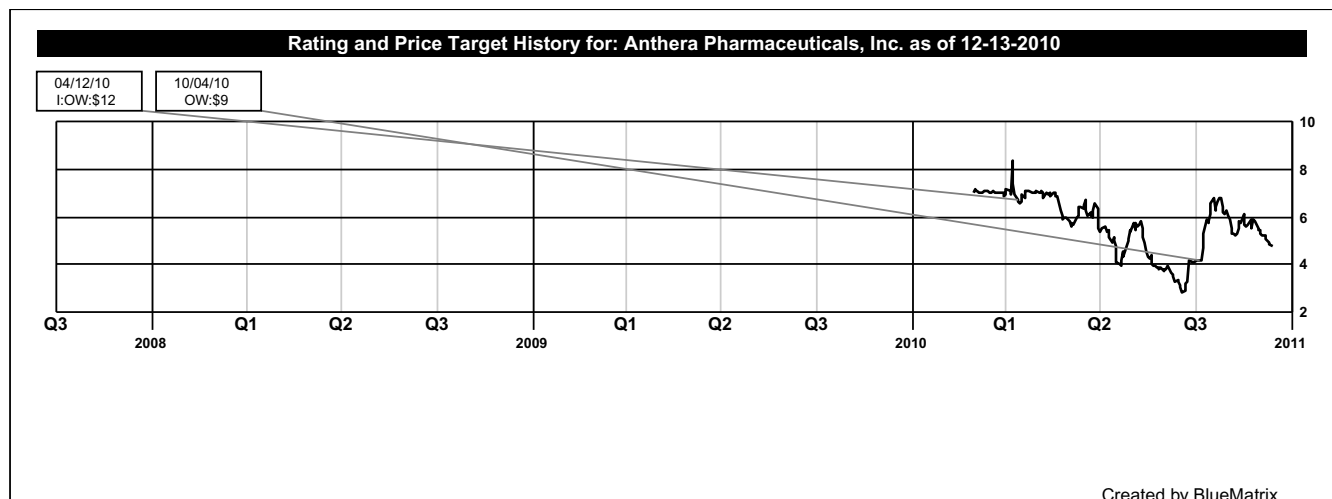
Source: Company reports and Piper Jaffray estimates.

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

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