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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:	\$5.11
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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Includes recent PIPE

Market Cap. (mil):	\$167.6
Avg Daily Vol (000):	99
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	\$0.0A	\$0.0E	\$0.0E
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	(\$0.98)A	(\$0.36)E	(\$0.36)E
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 - \$5.11) Overweight

Anthera Resumes PEARL-SC Study

CONCLUSION:

Anthera has resumed patient screening in the Phase IIb PEARL-SC lupus trial of A-623 and should recommence dosing this month. The study was halted in November due to breakage of clinical supply vials. Importantly, Anthera should still complete enrollment of the upsized 540-patient study by late 3Q:11/early 4Q:11 with top-line data by 2Q:12. We now anticipate the first 1000-patient biomarker futility analysis in the pivotal VISTA-16 trial of varespladib by April with top-line data early next year. Anthera ended 3Q:10 with \$73 million, sufficient to reach these data points.

- **PEARL-SC Trial Resumed.** Anthera has resumed patient screening in the Phase IIb PEARL-SC lupus trial of A-623. Dosing of patients should recommence by the end of the month. The study was suspended in November due to vial cracking caused by shipment on dry ice. Anthera plans to bring on additional sites and geographies (Korea and Singapore), thus should still complete enrollment by late 3Q:11/early 4Q:11. Prior to study halting, PEARL had dosed 12 lupus patients and screened an additional 45-50, in our view demonstrating interest in the study. Anthera will begin an open-label extension study to keep the first 12 patients on drug and generate safety data.

- **Additional PEARL-SC Trial Details.** In order to increase powering, Anthera will now randomize up to 540 lupus patients to 3 sub-cutaneous doses of either 200mg once monthly or 100mg or 200mg once weekly A-623 or placebo for 24 weeks on top of standard background therapy. The primary endpoint is the SLE responder index used in the *Benlysta* BLISS studies. The larger patient number could provide powering for inter-arm comparability. Anthera also recently announced that Merck BioManufacturing 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 Enrollment On-Track.** Anthera is also actively enrolling Acute Coronary Syndrome (ACS) patients in the pivotal VISTA-16 trial of varespladib. A biomarker futility analysis of the first 1,000 patients is on track by April and we expect final data in early 2012.

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

INVESTMENT RECOMMENDATION:

We reiterate our Overweight rating and \$9 price target. We value varespladib at \$288 million. We add mid'11E net cash and assume the 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

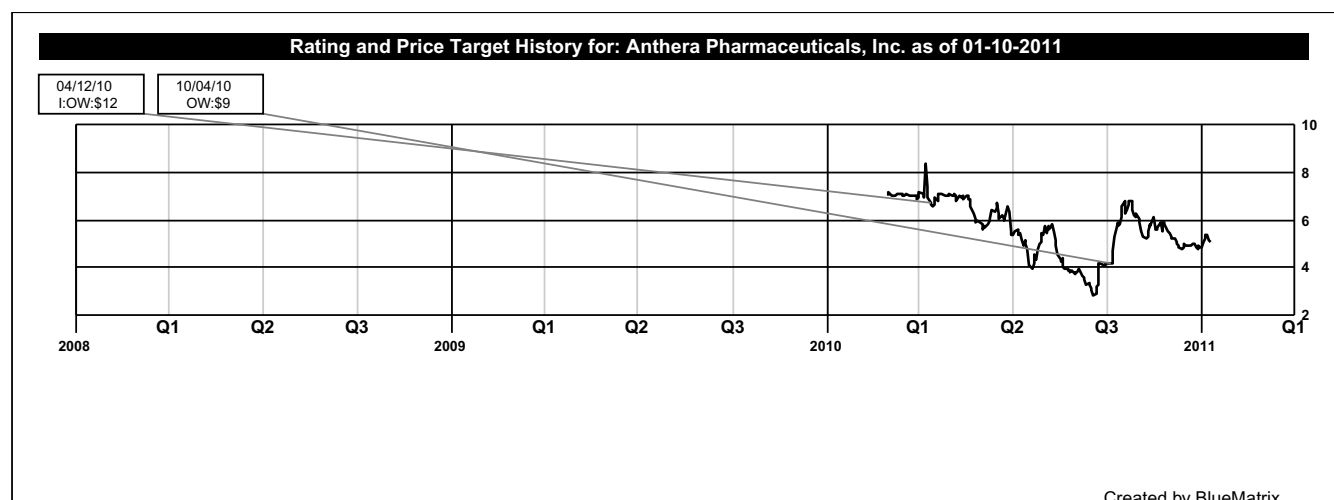
Source: Company reports and Piper Jaffray estimates.

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.

Current disclosure information for this company can be found at <http://www.piperjaffray.com/researchdisclosures>.

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R: Resuming Coverage

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OW: Overweight

N: Neutral

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B: Buy (Piper Jaffray discontinued use of the B, N, and S ratings on June 30, 2009)

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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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