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Reason for Report:

Change in Earnings Forecast

Changes	Previous	Current
Rating	--	Overweight
Price Tgt	--	\$12.00
FY10E Rev (mil)	--	\$0.0
FY11E Rev (mil)	--	\$0.0
FY10E EPS	(\$1.76)	(\$2.20)
FY11E EPS	(\$1.97)	(\$2.10)

Price:	\$5.47
52 Week High:	\$8.55
52 Week Low:	\$3.76
12-Month Price Target:	\$12.00

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

Shares Out (mil):	22.2
Market Cap. (mil):	\$121.4
Avg Daily Vol (000):	22
Book Value/Share:	\$2.20
Cash Per Share:	\$2.29
Debt to Total Capital:	0%
Est LT EPS Growth:	NA
P/E to LT EPS Growth (FY10):	NA
Est Next Rep Date:	11/01/2010
Fiscal Year End:	Dec

Rev (mil)	2009A	2010E	2011E
Mar	\$0.0A	\$0.0A	\$0.0E
Jun	\$0.0A	\$0.0E	\$0.0E
Sep	\$0.0A	\$0.0E	\$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	(\$0.62)E
Jun	(\$2.22)A	(\$0.36)A	(\$0.53)E
Sep	(\$2.40)A	(\$0.46)E	(\$0.44)E
Dec	(\$0.98)A	(\$0.67)E	(\$0.52)E
FY	(\$8.06)A	(\$2.20)E	(\$2.10)E
CY	(\$8.06)A	(\$2.20)E	(\$2.10)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 - \$5.47) Overweight

VISTA-16 and PEARL SC Trials Both Underway; Valuation Compelling

CONCLUSION:

Anthera ended 2Q:10 with cash of \$51 million, sufficient to progress the ongoing the 6,500-patient Phase III varespladib VISTA-16 study in ACS and the upsized Phase IIb PEARL SC study of A-623 in lupus. We maintain our Overweight rating and \$12 price target ahead of interim study results from both studies in 1H:11.

- **Ends 2Q:10 with Sufficient Cash to Progress Ongoing Studies.** Anthera ended 2Q:10 with cash of \$51 million, sufficient to progress the ongoing VISTA-16 pivotal study of varespladib in acute coronary syndrome (ACS) and Phase IIb PEARL SC study of A-623 in lupus. We expect Anthera to either partner A-623 or varespladib oversea or raise additional capital in order to complete the studies.
- **VISTA-16 Started on Schedule.** In July, Anthera began enrolling patients in the pivotal VISTA-16 trial of varespladib. Anthera has a Special Protocol Assessment (SPA) agreement with the FDA for a single Phase III ACS study comparing 500mg once-daily (QD) Varespladib to placebo on top of *Lipitor* for 16 weeks. VISTA-16 will enroll up to 6,500 ACS patients yielding an expected 385 events powered to show a 25% improvement in MACE. A safety analysis will be performed after the first 1000 patients are treated, likely by mid-2011, and we expect final VISTA-16 data by early 2012.
- **Larger and Longer A-623 Lupus Study.** Also in July, Anthera began the Phase IIb PEARL SC trial of A-623 for the treatment of lupus. PEARL-SC will randomize up to 600 SLE patients to one of three doses of A-623 or placebo for 24 weeks. The primary endpoint will be the approvable SLE responder index used by HGS in the *Benlysta* studies. Anthera will also measure several secondary endpoints including safety, SLEDAI and BILAG scores, fatigue, steroid utilization and time to flare. A blinded interim biomarker analysis likely in 2Q:11 will measure B-cells and potentially remove any inactive arm(s). PEARL SC is both larger (600 vs. 120 SLE patients) and longer (6 vs. 4 months) than envisioned at the time of the IPO in our view dramatically increasing the likelihood of success.

INVESTMENT RECOMMENDATION:

We reiterate our Overweight rating and \$12 price target. We value varespladib at \$288 million by applying a standard 5x multiple to 2015E U.S. sales of \$307 million discounted back at 45% annually. From this we subtract mid'11E net debt. At present, we assign no value for European varespladib sales or A-623 in lupus providing potential upside.

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)

4-Aug-10

	1QA	2QA	3QA	4QA	2009A	1QA ¹	2QA	3QE	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	8,500	13,000	33,180	12,000	10,000	8,000	10,000	40,000
SG&A Expense	846	999	885	695	3,425	1,224	1,510	1,800	2,000	6,534	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	\$10,300	\$15,000	39,714	\$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)	(\$10,300)	(\$15,000)	(\$39,714)	(\$14,000)	(\$12,000)	(\$10,000)	(\$12,000)	(\$48,000)
Interest and Other Income	13	9	(0)	2	24	3	\$12	45	35	95	45	50	40	35	170
Interest Expense	(37)	(59)	(193)	(96)	(385)	(4,641)	0	0	0	(4,641)	0	0	0	0	0
Total Other Income (Expense)	(24)	(50)	(193)	(94)	(362)	(4,638)	12	45	35	(4,546)	45	50	40	35	170
Pre-Tax Loss	(\$3,785)	(\$3,336)	(\$3,604)	(\$1,477)	(\$12,203)	(\$11,104)	(\$7,936)	(\$10,255)	(\$14,965)	(\$44,260)	(\$13,955)	(\$11,950)	(\$9,960)	(\$11,965)	(\$47,830)
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)	(\$10,255)	(\$14,965)	(\$44,260)	(\$13,955)	(\$11,950)	(\$9,960)	(\$11,965)	(\$47,830)
Net Loss per Share	(\$2.57)	(\$2.22)	(\$2.40)	(\$0.98)	(\$8.06)	(\$0.83)	(\$0.36)	(\$0.46)	(\$0.67)	(\$2.20)	(\$0.62)	(\$0.53)	(\$0.44)	(\$0.52)	(\$2.10)
Shares Outstanding	1,471	1,500	1,500	1,500	1,514	13,344	22,224	22,400	22,500	20,117	22,600	22,700	22,800	23,000	22,775

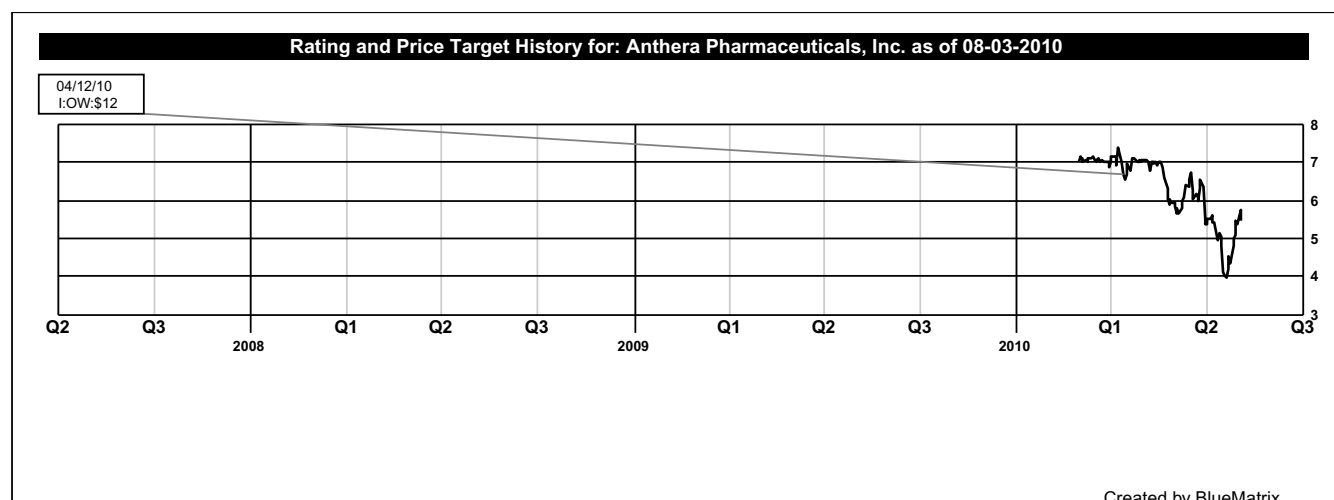
Source: Company reports and Piper Jaffray estimates.

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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			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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