

Agios Pharmaceuticals

Our Thoughts Post the 3Q Call

Agios reported a 3Q GAAP loss per share of \$0.47. Importantly, the company outlined its clinical development plans, highlighting multiple catalysts lined up for 2014. Specifically, the company offered updates on the phase 1 for AG-221 in IDH2-mutated hematologic malignancies, disclosing that initial clinical data are expected by YE14. The company also reaffirmed its plans to initiate clinical trials for its earlier stag pipeline assets (AG-120 and AG-348) in 2014. Beyond those updates, Agios disclosed it will present pre-clinical data for each of its lead programs at the upcoming American Society of Hematology (ASH; Dec 7-10, New Orleans). We continue to view the Agios' platform technology as being driven by strong science, and are encouraged by its focus on predictive metabolic biomarkers allowing targeting of genetically defined patient populations. Our Neutral rating balances strong science and potential of differentiated therapeutics with the early stage of the company.

- **AG-221 update.** The company disclosed that 4 clinical sites have opened for the phase 1 trial, and reviewed the key endpoints (i.e., safety, reductions in 2HG concentrations, and improved differentiation of the tumor) it will use to measure success of the study. Agios expects initial data from the phase 1 to be presented at a medical conference before YE14.
- **Other pipeline assets.** AG-120 (lead IDH1m inhibitor) – Reaffirmed timing (early 2014) of IND submission and phase 1 initiation in patients with solid tumors and hematologic malignancies carrying an IDH1 mutation. AG-348 (PKR activator) – Disclosed plans to submit an IND and initiate phase 1 trials in 2014 in healthy volunteers and patients with pyruvate kinase deficiency.
- **Adjusting estimates.** We are updating our model to reflect actual 3Q results and q/q trends. We have fine-tuned our operating expenses. Our 2013 EPS estimate has been lowered to -\$1.87 from -\$1.48. Our 2014 and 2015 EPS estimates are unchanged.
- **Reiterate Neutral rating.**

Neutral

AGIO, AGIO US

Price: \$22.00

Price Target: \$35.00

Biotechnology

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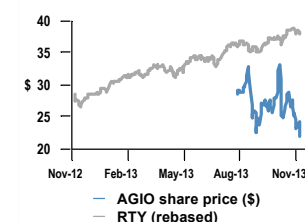
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Price Performance



Agios Pharmaceuticals (AGIO;AGIO US)

FYE Dec	2012A	2013E (Prev)	2013E (Curr)	2014E	2015E
Analyst Adjusted Diluted					
EPS (\$)					
Q1 (Mar)	-	(0.39)A	(0.39)A	-	-
Q2 (Jun)	-	(2.74)A	(2.74)A	-	-
Q3 (Sep)	-	(0.26)	(0.48)A	-	-
Q4 (Dec)	-	(0.27)	(0.30)	-	-
FY	(1.18)	(1.48)	(1.87)	(0.92)	(0.24)

Source: Company data, Bloomberg, J.P. Morgan estimates.

Company Data

Price (\$)	22.00
Date Of Price	06 Nov 13
52-week Range (\$)	33.59-18.00
Market Cap (\$ mn)	450.21
Fiscal Year End	Dec
Shares O/S (mn)	20
Price Target (\$)	35.00
Price Target End Date	30-Dec-14

See page 4 for analyst certification and important disclosures.

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Changes to Our Model

We are updating our model to reflect actual 3Q results and q/q trends. We have fine-tuned our operating expenses. Our 2013 EPS estimates has been lowered to -\$1.87 from -\$1.48. Our 2014 and 2015 EPS estimates are unchanged.

Table 1: Changes to Our Model

	2013E OLD	2013E NEW	2014E OLD	2014E NEW	2015E OLD	2015E NEW
Total Revenue	25.1	25.1	35.1	35.1	65.1	65.1
R&D	50.9	53.2	57.0	57.0	62.7	62.6
SG&A	7.7	8.2	8.5	9.0	8.9	9.5
Total Op Ex	58.6	61.4	65.5	66.0	71.6	72.1
Net income	-35.8	-38.3	-32.7	-32.8	-8.8	-9.0
GAAP EPS (\$)	-1.48	-1.87	-0.92	-0.92	-0.24	-0.24
Shares	24.1	20.5	35.7	35.7	36.7	36.7

Source: J.P. Morgan estimates.

Investment Thesis

Agios's core science focuses on identifying drug targets in deregulated metabolic pathways. In particular, with the use of high throughput mass spectrometry and the "flux biochemistry" approach, many drug targets have been identified that modulate critical biological pathways. The company's three lead assets are early stage: AG-221 (IDH2m inhibitor) and AG-120 (IDH1m inhibitor), both for oncology indications, and AG-348 (PKR activator), for an orphan disease known as pyruvate kinase deficiency. The scientific rationale appears very robust to us, but the company is only entering phase 1. Our Neutral rating balances strong science and potential of differentiated therapeutics with the early stage of the company.

Valuation

Our Dec 2014 price target of \$35 for AGIO is based on a comparable company analysis. For comparables we use select biotech companies with a focus on oncology and orphan diseases. Our comparable group has a mean market cap of ~\$1B and a firm value of ~\$900M. Since Agios is currently in preclinical development relative to our comparable companies in clinical development, we apply what we consider an appropriate ~10% discount.

Risks to Rating and Price Target

Upside risks include 1) faster than anticipated development of lead assets and 2) quicker path to market.

Downside risks include 1) failure to show differentiated therapeutic benefit of lead assets or trial failure, 2) FDA requires long development pathway, and 3) out-year financing risk.

Agios Pharmaceuticals: Summary of Financials

Income Statement - Annual	FY12A	FY13E	FY14E	FY15E	Income Statement - Quarterly	1Q13A	2Q13A	3Q13A	4Q13E
Revenues	25	25	35	65	Revenues	6A	6A	6A	6
Cost of products sold	0	0	0	0	Cost of products sold	0A	0A	0A	0
Gross profit	-	-	-	-	Gross profit	-	-	-	-
SG&A	(7)	(8)	(9)	(9)	SG&A	(2)A	(2)A	(3)A	(2)
R&D	(41)	(53)	(57)	(63)	R&D	(11)A	(13)A	(15)A	(14)
Operating income	(23)	(36)	(31)	(7)	Operating income	(7)A	(9)A	(11)A	(10)
EBITDA	(23)	(36)	(31)	(7)	EBITDA	(7)A	(9)A	(11)A	(10)
Net interest (income) / expense	(4)	(2)	(2)	(2)	Net interest (income) / expense	(2)A	0A	0A	0
Other income / (expense)	-	-	-	-	Other income / (expense)	-	-	-	-
Income taxes	0	0	0	0	Income taxes	0A	(2)A	0A	0
Net income - GAAP	(27)	(38)	(33)	(9)	Net income - GAAP	(9)A	(10)A	(11)A	(10)
Net income - recurring	(27)	(38)	(33)	(9)	Net income - recurring	(9)A	(10)A	(11)A	(10)
Diluted shares outstanding	23	20	36	37	Diluted shares outstanding	23A	4A	23A	32
EPS - excluding non-recurring	(1.18)	(1.87)	(0.92)	(0.24)	EPS - excluding non-recurring	(0.39)A	(2.74)A	(0.48)A	(0.30)
EPS - recurring	(1.18)	(1.87)	(0.92)	(0.24)	EPS - recurring	(0.39)A	(2.74)A	(0.48)A	(0.30)
Balance Sheet and Cash Flow Data	FY12A	FY13E	FY14E	FY15E	Ratio Analysis	FY12A	FY13E	FY14E	FY15E
Cash and cash equivalents	91	184	148	139	Sales growth	15.0%	(0.0%)	39.8%	85.5%
Accounts receivable	-	-	-	-	EBIT growth	38.3%	58.0%	(15.0%)	(77.2%)
Inventories	-	-	-	-	EPS growth - recurring	(86.7%)	58.6%	(50.8%)	(73.4%)
Other current assets	2	2	1	2	Gross margin	-	-	-	-
Current assets	130	223	186	178	EBIT margin	(91.6%)	(144.8%)	(88.0%)	(10.8%)
PP&E	4	4	4	5	EBITDA margin	(91.6%)	(144.8%)	(88.0%)	(10.8%)
Total assets	137	231	190	183	Tax rate	0.0%	0.0%	0.0%	0.0%
Total debt	-	-	-	-	Net margin	(108.7%)	(152.5%)	(93.6%)	(13.8%)
Total liabilities	93	93	88	88	Net Debt / EBITDA	-	-	-	-
Shareholders' equity	44	138	102	95	Net Debt / Capital (book)	-	-	-	-
Net income (including charges)	(20)	(38)	(33)	(9)	Return on assets (ROA)	(16.5%)	(20.8%)	(15.6%)	(4.8%)
D&A	1	1	1	2	Return on equity (ROE)	(51.0%)	(42.2%)	(27.4%)	(9.1%)
Change in working capital	(38)	0	(5)	0	Enterprise value / sales	-	-	-	-
Other	8	8	1	1	Enterprise value / EBITDA	-	-	-	-
Cash flow from operations	(50)	(29)	(35)	(6)	Free cash flow yield	(9.2%)	(6.4%)	(4.4%)	(0.8%)
Capex	(1)	(2)	(2)	(2)					
Free cash flow	(47)	(29)	(35)	(6)					
Cash flow from investing activities	23	122	(2)	(2)					
Cash flow from financing activities	0	0	0	0					
Dividends	-	-	-	-					
Dividend yield	-	-	-	-					

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec

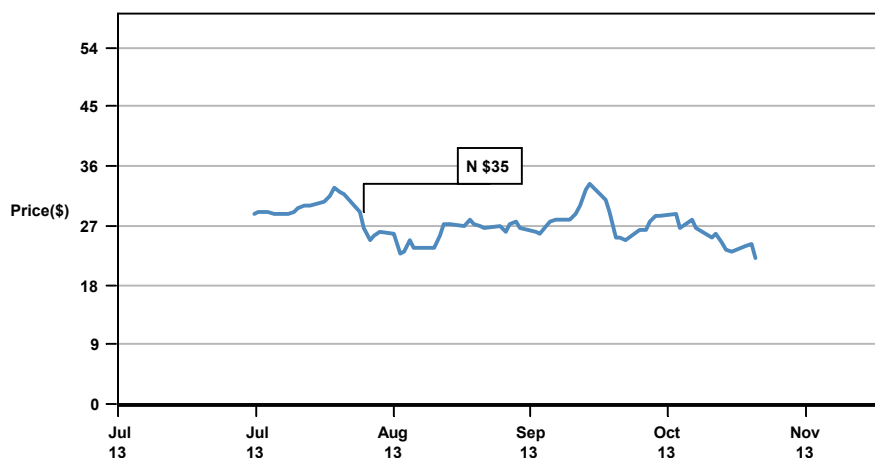
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Agios Pharmaceuticals (AGIO, AGIO US) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
19-Aug-13	N	29.11	35.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.
Initiated coverage Aug 19, 2013.

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