

Agius Pharmaceuticals

Our Thoughts Post the 1Q Call

Agius reported a 1Q GAAP loss per share of \$0.39. Overall, there were incremental updates on the call. We have been impressed with the progress Agios has made across key programs – AG-221, AG-120, and AG-348 – as all are now in the clinic. Particularly, we were impressed with early AG-221 data at AACR last month and anticipate updated data at EHA in June will continue to support the robust clinical profile of the agent (see details below). We continue to view Agios' clinical programs and technology platform as de-risked following phase 1 AG-221 data (see our post AACR upgrade note [here](#)). Hence, we are reiterating our Overweight rating on AGIO shares.

- **AG-221:** Updated phase 1 data will be presented at EHA (6/12-6/15; Milan, Italy), and we expect that data will continue to support the robust profile that was observed at AACR in April. Recall, data at AACR showed 6/7 patients had a response, with 3 CRs and 2 CRs with incomplete platelet recovery, as well as a clean safety profile. Of note, expansion cohorts are on track to begin by YE14. Interestingly, on the call, it was noted that the dose taken forward in the expansion cohorts may not necessarily be the MTD which is established in phase 1.
- **AG-120 / AG-348:** Data from both AG-120 and AG-348 are expected in 2015, though we would not be surprised if data is presented at ASH 2014. AG-120 – Enrollment solid and hematologic tumors continues. While AG-120 targets IDH1, we believe the AG-221 (IDH2) data do provide some proof-of-concept for program. AG-348 – A phase 1 single ascending healthy volunteers study has been initiated, and a multi-dose healthy volunteers study will start mid-2014. Of note, there is also a Natural History study ongoing.
- **Adjusting estimates:** Based on 1Q results and YE cash guidance, we are making adjustments to our model. Of note, the company expects to end-2014 with \$200M+ in cash, following a 2Q offering. Our 2014-2015 GAAP loss per share estimates change to \$1.71 and 0.84, respectively, from \$1.33 and 0.51.
- **Maintain Overweight rating.**

Overweight

AGIO, AGIO US

Price: \$40.78

Price Target: \$55.00

Biotechnology

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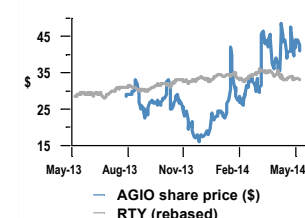
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Price Performance



Agius Pharmaceuticals (AGIO;AGIO US)

FYE Dec	2013A	2014E (Prev)	2014E (Curr)	2015E (Prev)	2015E (Curr)
Analyst Adjusted Diluted					
EPS (\$)					
Q1 (Mar)	(0.39)	(0.28)	(0.39)A	-	-
Q2 (Jun)	(2.74)	(0.32)	(0.39)	-	-
Q3 (Sep)	(0.48)	(0.36)	(0.45)	-	-
Q4 (Dec)	(0.40)	(0.37)	(0.49)	-	-
FY	(2.83)	(1.33)	(1.71)	(0.51)	(0.84)

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

Company Data

Price (\$)	40.78
Date Of Price	07 May 14
52-week Range (\$)	49.79-15.77
Market Cap (\$ mn)	611.37
Fiscal Year End	Dec
Shares O/S (mn)	15
Price Target (\$)	55.00
Price Target End Date	30-Dec-14

See page 5 for analyst certification and important disclosures.

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Changes to Our Model

Based on 1Q results and YE cash guidance, we are making adjustments to our model. Of note, the company expects to end-2014 with \$200M+ in cash, following a 2Q offering. Our 2014-2015 GAAP loss per share estimates change to \$1.70 and 0.84, respectively, from \$1.33 and 0.51.

Table 1: Changes To Our Model

	2014E OLD	2014E NEW	2015E OLD	2015E NEW
Total Revenue	35.2	34.8	65.5	65.5
R&D	67.2	79.1	70.6	81.4
SG&A	12.7	13.4	13.3	13.8
Total Op Ex	79.9	92.5	83.9	95.3
Net income	-44.7	-57.0	-17.7	-29.1
GAAP EPS (\$)	-1.33	-1.71	-0.51	-0.84
Shares	33.7	33.5	34.7	34.7

Source: J.P. Morgan estimates.

Investment Thesis, Valuation and Risks

Agios Pharmaceuticals (Overweight; Price Target: \$55.00)

Investment Thesis

Agios's core science focuses on identifying drug targets in dysregulated 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. Indeed, the science appears very strong to us. 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. Importantly, positive early data at AACR 2014 for AG-221 de-risk not only this asset but also AG-120, as well as the broader technology platform, in our view. Our Overweight rating is based on strong science that has now been translated to the clinic.

Valuation

Our \$55 December 2014 price target for AGIO is based on our sum-of-the-parts analysis of AG-221, AG-120, the platform technology/IP and cash. We project sales for AG-221 and AG-120 through to 2027, assume no terminal value, and an 8% discount rate. We further assume a 70% probability of success for AG-221 and 50% for AG-120. We believe these estimates accurately reflect the data reported at AACR, the company's innovative science, with the relatively early stage of the company's pipeline. We derive a value of \$7/sh for AG-221, \$15/sh for the US rights to AG-120, and \$3/sh for the OUS rights (assuming Celgene exercises its opt-in). These valuations, taken in combination with \$26/sh for the technology platform and net cash of \$4/sh, support our December 2014 PT of \$55.

Risks to Rating and Price Target

Downside risks include 1) failure to show differentiated therapeutic benefit of lead assets or trial failure in later-stage trials (AG-221, AG-120, and AG-348), 2) FDA requires long development pathway, 3) while in the out-years, limited market uptake, and 4) out-year financing risk.

Agios Pharmaceuticals: Summary of Financials

Income Statement - Annual	FY13A	FY14E	FY15E	FY16E	Income Statement - Quarterly	1Q14A	2Q14E	3Q14E	4Q14E
Revenues	26	36	66	31	Revenues	8A	9	9	9
Cost of products sold	0	0	0	0	Cost of products sold	0A	0	0	0
Gross profit	-	-	-	-	Gross profit	-	-	-	-
SG&A	(10)	(13)	(14)	(14)	SG&A	(3)A	(3)	(3)	(4)
R&D	(55)	(79)	(81)	(84)	R&D	(17)A	(19)	(21)	(22)
Operating income	(39)	(57)	(30)	(67)	Operating income	(12)A	(13)	(15)	(17)
EBITDA	(39)	(57)	(30)	(67)	EBITDA	(12)A	(13)	(15)	(17)
Net interest (income) / expense	(4)	(0)	1	1	Net interest (income) / expense	0A	0	(0)	(0)
Other income / (expense)	-	-	-	-	Other income / (expense)	-	-	-	-
Income taxes	0	0	0	0	Income taxes	0A	0	0	0
Net income - GAAP	(42)	(57)	(29)	(66)	Net income - GAAP	(12)A	(13)	(15)	(17)
Net income - recurring	(42)	(57)	(29)	(66)	Net income - recurring	(12)A	(13)	(15)	(17)
Diluted shares outstanding	15	33	35	36	Diluted shares outstanding	31A	34	34	35
EPS - excluding non-recurring	(2.83)	(1.71)	(0.84)	(1.85)	EPS - excluding non-recurring	(0.39)A	(0.39)	(0.45)	(0.49)
EPS - recurring	(2.83)	(1.71)	(0.84)	(1.85)	EPS - recurring	(0.39)A	(0.39)	(0.45)	(0.49)
Balance Sheet and Cash Flow Data	FY13A	FY14E	FY15E	FY16E	Ratio Analysis	FY13A	FY14E	FY15E	FY16E
Cash and cash equivalents	180	213	185	-	Sales growth	1.8%	39.1%	84.4%	(52.2%)
Accounts receivable	-	-	-	-	EBIT growth	69.1%	46.4%	(47.8%)	124.9%
Inventories	-	-	-	-	EPS growth - recurring	139.9%	(39.6%)	(51.0%)	121.3%
Other current assets	2	1	2	-	Gross margin	-	-	-	-
Current assets	219	251	223	-	EBIT margin	(152.2%)	(160.2%)	(45.3%)	(213.5%)
PP&E	4	4	5	-	EBITDA margin	(152.2%)	(160.2%)	(45.3%)	(213.5%)
Total assets	226	256	229	-	Tax rate	(0.9%)	0.0%	0.0%	0.0%
Total debt	-	-	-	-	Net margin	(166.1%)	(161.2%)	(44.3%)	(211.4%)
Total liabilities	93	88	88	-	Net Debt / EBITDA	-	-	-	-
Shareholders' equity	133	168	140	-	Net Debt / Capital (book)	-	-	-	-
Net income (including charges)	(42)	(57)	(29)	-	Return on assets (ROA)	(23.3%)	(23.7%)	(12.0%)	(57.9%)
D&A	1	1	2	-	Return on equity (ROE)	(47.9%)	(38.0%)	(18.9%)	(94.3%)
Change in working capital	0	(5)	0	-	Enterprise value / sales	-	-	-	-
Other	8	1	1	-	Enterprise value / EBITDA	-	-	-	-
Cash flow from operations	(33)	(59)	(26)	-	Free cash flow yield	(5.1%)	(4.4%)	(2.0%)	(0.0%)
Capex	(2)	(2)	(2)	-					
Free cash flow	(31)	(61)	(29)	(1)					
Cash flow from investing activities	122	92	(2)	-					
Cash flow from financing activities	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

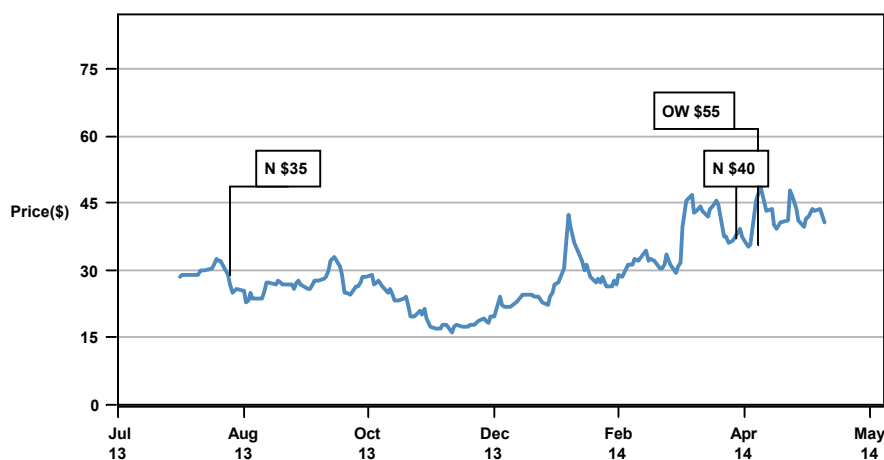
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Agios Pharmaceuticals (AGIO, AGIO US) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
19-Aug-13	N	29.11	35.00
28-Mar-14	N	37.02	40.00
07-Apr-14	OW	35.48	55.00

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

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