Zafgen

Specialty Pharmaceuticals

US Equity Research
20 March 2015

BUY
unchanged

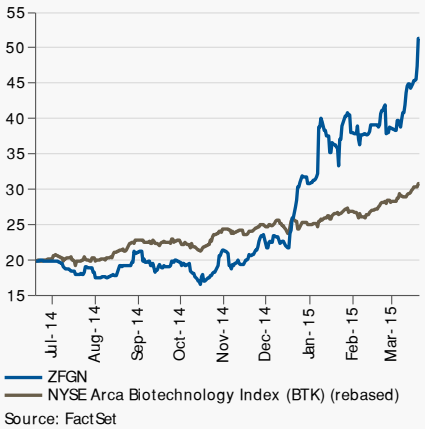
PRICE TARGET	US$58.00↑
from US$52.00	
Price (19-Mar)	US$51.34
Ticker	ZFGN-NASDAQ

52-Week Range (US$):	16.51 - 51.34
Avg Daily Vol (M) :	157.0
Shares Out. (M) :	22.7
Market Cap (US$M):	1,166
Enterprise Value (US$M):	388
Average Price Target (US$):	48.40
Cash (US$M):	244.96
Short Interest :	1,048,766
# of analysts :	5

FYE Dec	2014A	2015E	2016E
Sales (US$M)	0.0	0.0	0.0
EPS Adj&Dil (US$)	(3.00)↓	(3.00)↓	(2.85)↓
Previous	*(1.86)*	*(2.26)*	*(2.13)*

Quarterly Sales	Q1	Q2	Q3	Q4
2014A	0.0	0.0	0.0	0.0
2015E	0.0	0.0	0.0	0.0
2016E	0.0	0.0	0.0	0.0

Quarterly EPS Adj&Dil	Q1	Q2	Q3	Q4
2014A	(0.29)	(2.96)	(0.65)	(0.48)
2015E	(0.62)	(0.71)	(0.79)	(0.88)
2016E	-	-	-	-



Source: FactSet

Zafgen has identified a cutting edge mechanism and molecule for severe obesity disorders entering Phase 3, and could have efficacy rivaling surgical procedures.

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Estimates Revised

En-rolling slowly but surely

Investment recommendation

Yesterday, Zafgen reported a Q4 loss per share of ($0.48), ahead of our estimate of ($0.65). While the numbers mean little, the company ended the year with $115.5M in cash. But with the $130M raised in January there is ~$245M on the balance sheet now, which should be sufficient to fund operations for the next 18 months. R&D and SG&A should ramp significantly in 2015 given the ongoing trials. Although data from the Ph3 Prader-Willi Syndrome (PWS) trial and Ph2b ZAF-203 trial will now be delayed by a couple of months due to slower than expected enrollment, we're comfortable raising our price target from $52 to $58 given the market's positive sentiment on biotech. The BTK index is up ~23% YTD, and biotech multiples have risen in lockstep. Therefore in our target analysis, we raise our P/E multiple from 20x to 22.5x to reflect better sentiment in the peer group.

Investment highlights

Ph3 PWS data delayed until 2016. The delay is due to slower activation of some study sites and simply slower enrollment. Initiated last September, the study has enrolled two-thirds of its patients in six months, so the remaining one-third could finish enrollment by mid-year, and with a six-month endpoint and time to compile data, it puts a read-out in Q2 2016. To help accelerate the process, Zafgen has lowered the BMI requirement from 30kg/m^2 to 27kg/m^2 and opened access to Canadian patients. We don't see the slower enrollment as a red flag in this instance, but are always leery when we see examples of this.

A busy year ahead. The second PWS Phase 3 trial is still on track for a mid-2015 start in Europe, with only the higher dose of beloranib at 2.4mg being tested. Zafgen is also optimistic that the ZAF-203 Ph2b trial in severe diabetic patients will complete enrollment of all 150 patients by mid-2015 and have six-month interim data by late 2015 or early 2016.

Valuation/risks

We raise our target from $52 to $58 by raising our P/E multiple from 20x to 22.5x off our 2021 EPS of $7.64 and still discounting back at 20% over six years. Risks include: clinical trial recruitment continuing to be slow, hitting a weight loss "plateau" beyond 12 weeks like has been seen in other obesity drugs, and/or failure to gain FDA approval.

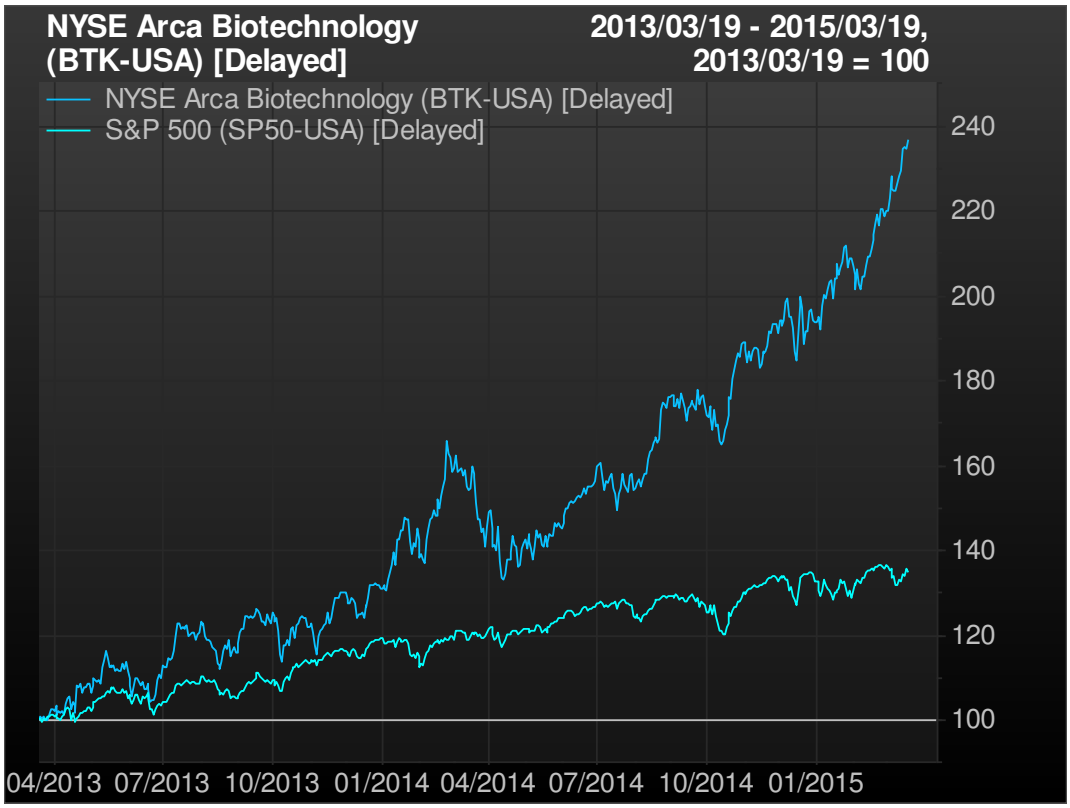
VALUATION

Figure 1: Zafgen discounted P/E multiple derives $58 target price

2021 EPS:	$7.64		Multiple					
Dis count Period:	6		17.5x	20.0x	22.5x	25.0x	27.5x	30.0x
		10.0%	$75	$86	$97	$108	$119	$129
		15.0%	$58	$66	$74	$83	$91	$99
	Dis count	20.0%	$45	$51	**$58**	$64	$70	$77
	Rate	22.5%	$40	$45	$51	$56	$62	$68
		30.0%	$28	$32	$36	$40	$44	$47
		35.0%	$22	$25	$28	$32	$35	$38
		40.0%	$18	$20	$23	$25	$28	$30

Source: Canaccord Genuity

Figure 2: BTK vs. S&P over the last two years



Source: FactSet
Past performance does not predict future results.

Q4 RESULTS –CHANGES TO OUR ESTIMATES

Figure 3: Changes to our estimates

($ in millions, except for EPS)	2015E			2016E			2017E		
Year End: December	OLD	NEW	VARIANCE	OLD	NEW	VARIANCE	OLD	NEW	VARIANCE
Beloranib	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Son of Beloranib	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Revenue	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**
SG&A	$12.0	$22.0	10.0	$15.0	$25.0	10.0	$20.0	$30.0	10.0
R&D	40.0	46.0	6.0	45.0	55.0	10.0	65.0	65.0	0.0
Tax Rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Adj. Net Income	(51.9)	(68.6)	-16.7	(59.9)	(79.9)	-20.0	(84.9)	(94.9)	-10.0
Net Margin	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Adj. EPS	**($2.26)**	**($3.00)**	**($0.74)**	**($2.13)**	**($2.85)**	**($0.72)**	**($2.54)**	**($2.85)**	**($0.31)**
Shares Out. (MM)	22.9	22.8	(0.1)	28.2	28.1	(0.1)	33.4	33.3	(0.1)

Source: Canaccord Genuity estimates

Figure 4: Zafgen summary P&L

($ In millions, except per share amount)

Year End: December 31	2012	2013	2014	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
Beloranib										$0.0	$121.8	$365.2	$474.9	$562.5	$660.1
Total Revenue										**$0.0**	**$121.8**	**$365.2**	**$669.3**	**$978.9**	**$1,329.1**
Gross Profit										$0.0	$109.6	$328.7	$602.4	$881.0	$1,196.2
Gross Margin										*0.0%*	*90.0%*	*90.0%*	*90.0%*	*90.0%*	*90.0%*
SG&A	$2.2	$4.2	$8.1	$4.0	$5.0	$6.0	$7.0	$22.0	$25.0	$30.0	$35.0	$75.0	$200.0	$250.0	$275.0
R&D	$11.5	$9.6	$27.4	$10.0	$11.0	$12.0	$13.0	$46.0	$55.0	$65.0	$100.0	$150.0	$165.0	$140.3	$126.2
Adj. Operating Income	**(13.8)**	**(13.8)**	**(35.5)**	**(14.0)**	**(16.0)**	**(18.0)**	**(20.0)**	**(68.0)**	**(80.0)**	**(95.0)**	**(25.4)**	**103.7**	**237.4**	**490.8**	**795.0**
Adj. Operating Margin												*28.4%*	*35.5%*	*50.1%*	*59.8%*
Non-Op	(0.1)	(0.2)	(1.0)	(0.2)	(0.2)	(0.1)	(0.1)	(0.6)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tax Rate														38.0%	38.0%
GAAP Net Income	(13.9)	(14.0)	(36.6)	(14.2)	(16.2)	(18.1)	(20.1)	(68.6)	(79.9)	(94.9)	(25.3)	103.7	237.5	304.3	492.9
Adj. Net Income	(13.8)	(13.6)	(36.6)	(14.2)	(16.2)	(18.1)	(20.1)	(68.6)	(79.9)	(94.9)	(25.3)	103.7	237.5	304.3	492.9
Net Margin												*28.4%*	*35.5%*	*31.1%*	*37.1%*
GAAP EPS (diluted)	($3.11)	($3.06)	($3.00)	($0.62)	($0.71)	($0.79)	($0.88)	($3.00)	($2.85)	($2.85)	($0.66)	$2.65	$6.02	$7.64	$12.25
Adjusted EPS (diluted)	**($3.09)**	**($2.98)**	**($3.00)**	**($0.62)**	**($0.71)**	**($0.79)**	**($0.88)**	**($3.00)**	**($2.85)**	**($2.85)**	**($0.66)**	**$2.65**	**$6.02**	**$7.64**	**$12.25**
Diluted Shares (M)	4.5	4.6	12.2	22.8	22.8	22.9	22.9	22.8	28.1	33.3	38.7	39.1	39.5	39.9	40.3
Year-over-Year Growth															
Beloranib												200%	30%	18%	17%
Total Revenue												**200%**	**83%**	**46%**	**36%**
Gross Profit												*0%*	*200%*	83%	46%	36%
SG&A			*93%*	*28%*	*0%*	*0%*	*0%*	*170%*	*14%*	*20%*	*17%*	*114%*	167%	25%	10%
R&D			*186%*	*0%*	*0%*	*28%*	*0%*	*68%*	*20%*	*18%*	*54%*	*50%*	10%	-15%	-10%
Operating Income													129%	107%	62%
Net Income													129%	28%	62%
Adj. EPS													***127%***	***27%***	***60%***

Source: Company reports, Canaccord Genuity estimates

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Zafgen - ZFGN

We use a discounted P/E model to derive our $52 target; we apply a 20x multiple to our 2021 EPS estimate of $7.75 discounted at 20% for 6 years.

Risks to achieving Target Price / Valuation:

Zafgen - ZFGN

Delays in any of its three main programs due to regulatory concerns or logistical hurdles. Failure of beloranib in the Prader-Willi Syndrome Phase 3 program (due Q4 2015), the Phase 2 craniopharyngioma program (due Q1 2015), or the severe obesity P2b program (due Q4 2015). Failure to ultimately obtain FDA approval for beloranib in one or more of the three indications. Unforeseen safety signals that pop up due to beloranib's not-fully-understood mechanism and pleiotropic effects that create the potential for off-target interactions leading to unpredictable side effects. Failure to properly manufacture a more commercially viable injection presentation than the form currently used in clinical trials. Failure to obtain additional funding to finish development and commercialize beloranib.

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Global Stock Ratings (as of 03/20/15)

Rating	Coverage Universe		IB Clients
	#	%	%
Buy	571	57.91%	33.45%
Hold	326	33.06%	17.48%
Sell	40	4.06%	0%
Speculative Buy	49	4.97%	57.14%
	986*	100.0%	

*Total includes stocks that are Under Review

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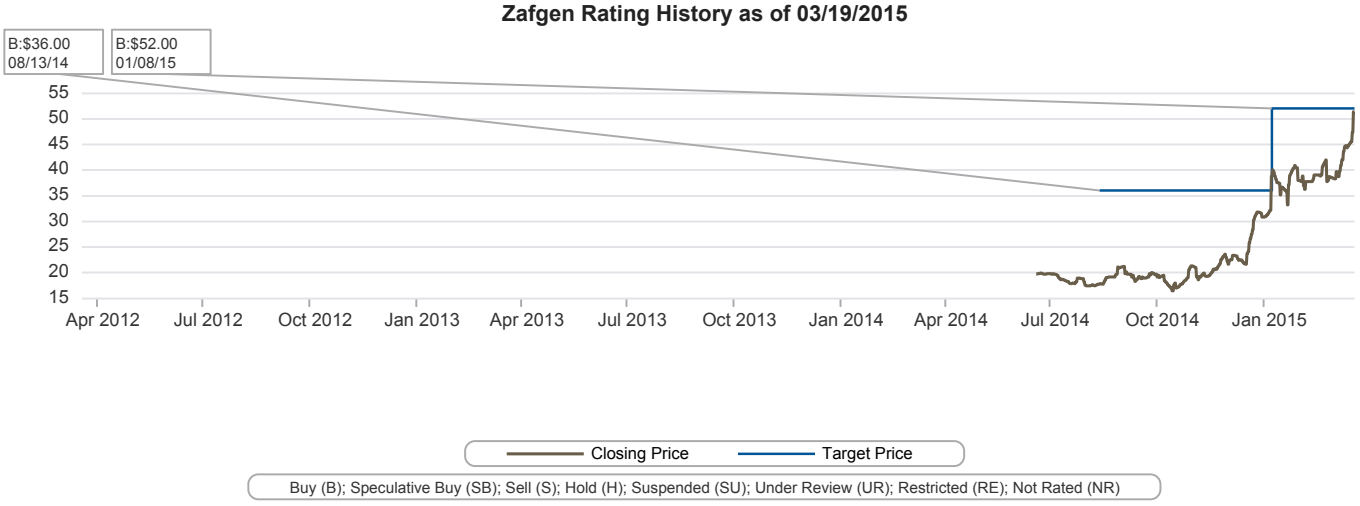
Zafgen Rating History as of 03/19/2015



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