March 19, 2015

OUTPERFORM

Reason for report:

EARNINGS

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LEERINK

ZAFGEN, INC.

4Q14 Recap: Stronger Balance Sheet Funding Beloranib Ph II & Ph III, PT to $61

• **Bottom Line:** Today after the close ZFGN reported 4Q14 EPS of ($0.48) which was better than our estimate of ($0.81). We are updating our model to reflect 4Q results, company cash burn guidance, and are increasing our PT to $61 (from $42) on an improved patent position and a decreased risk profile for beloranib now that additional Phase II data have been generated and the company raised enough capital to fund operations beyond 2015 and Phase III data in Prader-Willi Syndrome (PWS). **Reiterate OP on ZFGN.**

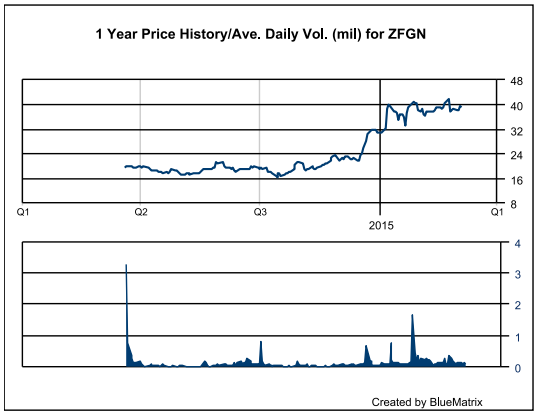
• **All 15 US sites in the Phase III beloranib BEST-PWS study are active and enrolling patients.** Recruitment has been slightly slower than expected, however, due to a longer-than-anticipated Institutional Review Board (IRB) approval process, leading to a slight delay in study results until early 2Q16. Recall that the sample size of the study was expanded by ~20 patients due to both high patient demand and to increase the trial's power. ZFGN will now enroll patients in the BMI of 27-30 range where it has observed similar magnitudes of weight loss reduction in the past. Encouragingly, the company has thus far observed fewer dropouts in the study than it assumed initially. Meanwhile, the ZFGN is on track to initiate ZAF-312 (the Phase III PWS study in Europe) in mid-2015, which will only evaluate the only 2.4mg dose of beloranib now that the data safety monitoring board in the US trial determined that this concentration has an acceptable safety/tolerability profile.

• **We believe the Phase III PWS program has been further de-risked by** recently announced robust beloranib data in Hypothalamic Injury-Associated Obesity (HIAO). Recall that in the Phase II placebo-controlled study beloranib treatment precipitated statistically significant weight loss of 3.4 kg and 6.2 kg after 4 and 8 weeks, respectively. ZFGN plans to move beloranib into a Phase III in HIAO, while the company's IND for Non-Alcoholic Steatohepatitis (NASH) will also become active in 2015.

• **Longer term, beloranib's potential in the broader severe obesity market could drive further upside to our valuation,** but currently comprises only ~$5/share of our $61 PT. In December 2014, ZFGN initiated its Phase II proof-of-concept study (NCT02324491) in obese pts with Type 2 Diabetes with primary endpoint of weight reduction expected in 4Q15. Label expansion to include such larger subtypes of an estimated total of ~16MM severe obesity patients in the US is likely to require larger late-stage trials and the generation of a robust safety database. In the meantime, we continue to believe that establishing broader proof of concept in orphan sub-populations such as PWS and HIAO offers a less risky and more rapid development path, and down the road could position ZFGN as a very attractive partnership or takeout target.

Key Stats:	**(OTC Un:ZFGN)**
S&P 600 Health Care Index:	**1,646.56**
Price:	**$51.34**
Price Target:	$61.00 from $42.00
Methodology:	Probability-weighted DCF analysis, 11% discount rate
52 Week High:	$52.11
52 Week Low:	$16.01
Shares Outstanding (mil):	28.8
Market Capitalization (mil):	$1,478.6
Book Value/Share:	$0.00
Cash Per Share:	$7.44
Dividend (ann):	$0.00
Dividend Yield:	0.0%

Shares Outstanding (mil): Diluted; includes stock options
Cash Per Share: On a net basis as of 1Q15E



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2014A	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**($6.18)**	**($2.96)**	**($0.65)**	**($0.48)**	**($3.00)**	**NM**
2015E - New	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**($0.76)**	**($0.81)**	**($0.89)**	**($0.98)**	**($3.45)**	**NM**
2015E - Old	0.0	0.0	0.0	0.0	0.0	($0.86)	($0.90)	($0.95)	($1.00)	($3.71)	NM
2016E	--	--	--	--	0.0	--	--	--	--	($3.34)	NM

Source: Company Information and Leerink Partners LLC Research
GAAP EPS presented

INVESTMENT THESIS

We rate ZFGN Shares Outperform. Zafgen (NASDAQ: ZFGN) is a biopharmaceutical company dedicated to the development of medicines to address the unmet need in obesity, with an initial focus on two orphan diseases that offer a potentially streamlined development path and high margin business model. We believe that ZFGN has an experienced management team with an outstanding track record executing in the field of drug discovery and commercialization. ZFGN's lead asset, beloranib, is a MetAP2 inhibitor that has generated compelling Phase II data in Prader-Willi syndrome (PWS) and severe obesity on a number of clinically relevant endpoints, in our view, and and is now being studied in a registration-enabling Phase III PWS study expected to read out data by YE15. We project a 80% probability of PWS approval in 2017, and peak gross PWS sales of ~$700MM worldwide in 2029. Zafgen is also developing beloranib in hypothalamic-injury associated obesity (HIAO), where it also recently released positive proof-of-concept Phase IIa data and expects to initiate a registration-enabling study in HIAO in the near future. We project 60% probability of HIAO approval in 2018, and peak gross HIAO sales of ~$445MM worldwide in 2029. The commercial opportunity presented by severe obesity holds the potential to be orders of magnitude larger than PWS and HIAO, though ZFGN will likely need support from a larger partner to unlock its full potential. Thus, while severe obesity afflicts ~16MM Americans in the US, we only model ~$200MM in peak beloranib sales in non-PWS/HIAO patients, though in a partnership/acquisition (P&A) scenario, ZFGN is likely to receive considerably more value for beloranib in high prevalence indications. In the meantime, we believe that establishing broader proof-of-concept in orphan sub-populations offers a less risky and more rapid development path, and over the long term could position ZFGN as a very attractive partnership or takeout target. Likewise, a second generation MetAP2 inhibitor in preclinical development for general obesity, and a novel chemical class MetAP2 inhibitor in preclinical development for NASH/diabetes could provide significant upside to our price target as clinical catalysts are realized.

VALUATION

We derive a ~$61 per share value for ZFGN (from $42) using a 11% discount rate and a 2% terminal growth rate, representing a ~$1,740MM market capitalization. Our price target assumes a 80% and 60% probability of beloranib approval in PWS and HIAO, respectively, which leads to our peak net sales estimates of ~$560MM and ~$270MM in each indication. We only model ~$200MM in peak sales in severe obesity, which we believe holds the potential to be very conservative if/when ZFGN generates pivotal beloranib data in orphan indications.

RISKS TO VALUATION

Risks to our valuation include disappointing clinical data, regulatory setbacks, dilution risk from an additional equity offering, and commercial shortfalls. Because ZFGN has only one late stage product, the occurrence of any of these could impact the stock significantly.

ZFGN P&L ($MM) GAAP	2013	1Q14	2Q14	3Q14	4Q14	2014	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Beloranib PWS	-	-	-	-	-	-	-	-	-	-	-	-	4.6	53.2	144.7	221.3	284.8	344.4	395.3	437.4	470.6	499.3	523.6	543.2
Beloranib HIAO	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0	34.4	72.5	105.2	141.6	175.5	195.1	211.9	229.0	246.4	264.1
Beloranib Severe Obesity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97.5	121.5	142.7	158.1	170.6	182.1	192.5	201.8
Total Revenue (p/w)	-	-	-	-	-	-	-	-	-	-	-	-	**4.6**	**63.2**	**179.1**	**293.8**	**487.5**	**607.4**	**713.5**	**790.7**	**853.1**	**910.3**	**962.5**	**1,009.1**
COGS	-	-	-	-	-	-	-	-	-	-	-	-	0.5	6.3	17.9	29.4	48.8	60.7	71.3	79.1	85.3	91.0	96.2	100.9
R&D	9.6	3.3	4.7	12.1	7.3	27.4	16.0	18.0	20.0	22.0	76.0	76.0	68.4	61.6	62.7	88.1	97.5	109.3	107.0	79.1	85.3	91.0	96.2	100.9
SG&A	4.2	1.2	1.3	2.3	3.3	8.1	3.6	4.0	4.3	5.0	16.9	23.7	30.0	44.2	62.7	82.3	117.0	133.6	157.0	173.9	187.7	200.3	211.7	222.0
Operating Expenses	13.8	4.5	6.0	14.4	10.7	35.5	19.6	22.0	24.3	27.0	92.9	99.7	98.9	112.1	143.3	199.8	263.3	303.7	335.3	332.1	358.3	382.3	404.2	423.8
Operating Income	(13.8)	(4.5)	(6.0)	(14.4)	(10.7)	(35.5)	(19.6)	(22.0)	(24.3)	(27.0)	(92.9)	(99.7)	(94.2)	(48.9)	35.8	94.0	224.3	303.7	378.1	458.6	494.8	528.0	558.2	585.3
Interest Income (Expense)	-	(0.0)	(0.4)	(0.2)	(0.2)	(0.8)	(0.2)	(0.2)	(0.2)	(0.2)	(0.8)	(0.4)	(0.3)	-	-	-	-	-	-	-	-	-	-	-
FX Gains/Losses	(0.2)	0.1	0.0	(0.1)	(0.1)	(0.1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Income (expense)	(0.2)	0.1	(0.4)	(0.3)	(0.3)	(0.9)	-	-	-	-	-	(0.4)	(0.3)	-	-	-	-	-	-	-	-	-	-	-
EBT	(14.0)	(4.5)	(6.4)	(14.7)	(10.9)	(36.5)	(19.6)	(22.0)	(24.3)	(27.0)	(92.9)	(100.0)	(94.5)	(48.9)	35.8	94.0	224.3	303.7	378.1	458.6	494.8	528.0	558.2	585.3
Tax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.4	60.7	113.4	137.6	148.4	158.4	167.5	175.6
Net Income (Loss)	**(14.2)**	**(4.5)**	**(6.4)**	**(14.7)**	**(10.9)**	**(36.6)**	**(19.6)**	**(22.0)**	**(24.3)**	**(27.0)**	**(92.9)**	**(100.0)**	**(94.5)**	**(48.9)**	**35.8**	**94.0**	**201.8**	**243.0**	**264.7**	**321.0**	**346.4**	**369.6**	**390.8**	**409.7**
Diluted EPS	**$ (19.53)**	**$ (6.18)**	**$ (2.96)**	**$ (0.65)**	**$ (0.48)**	**$ (3.00)**	**$ (0.76)**	**$ (0.81)**	**$ (0.89)**	**$ (0.98)**	**$ (3.45)**	**$ (3.34)**	**$ (2.91)**	**$ (1.46)**	**$ 1.04**	**$ 2.65**	**$ 5.54**	**$ 6.49**	**$ 6.88**	**$ 8.14**	**$ 8.56**	**$ 8.92**	**$ 9.20**	**$ 9.43**
Basic Shares Outstanding	0.7	0.7	2.2	22.7	22.8	12.2	25.7	27.3	27.4	27.5	27.0	30.0	32.5	33.5	34.5	35.5	36.5	37.5	38.5	39.5	40.5	41.5	42.5	43.5
Diluted Shares Oustanding	0.7	0.7	2.2	22.7	22.8	12.2	25.7	27.3	27.4	27.5	27.0	30.0	32.5	33.5	34.5	35.5	36.5	37.5	38.5	39.5	40.5	41.5	42.5	43.5

Source: SEC Filings and Leerink Partners Research

ZFGN BS & CFS ($MM) GAAP	2013	1Q14	2Q14	3Q14	4Q14	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Net Cash	**35.5**	**31.1**	**126.9**	**119.6**	**102.4**	**102.4**	**213.9**	**193.7**	**170.3**	**143.5**	**143.5**	**151.4**	**162.6**	**128.1**	**178.9**	**293.4**	**520.9**	**793.1**	**1,089.5**	**1,440.8**	**1,819.9**	**2,224.5**	**2,652.2**	**3,100.7**
Cash & Equivalents	35.5	38.5	134.2	127.0	115.5	115.5	225.9	204.7	180.3	152.4	152.4	156.1	166.3	128.1	178.9	293.4	520.9	793.1	1,089.5	1,440.8	1,819.9	2,224.5	2,652.2	3,100.7
Debt	-	7.4	7.4	7.4	13.1	13.1	12.0	11.0	10.0	8.9	8.9	4.7	3.7	-	-									
Change in Cash	**25.6**	**3.0**	**95.8**	**(7.2)**	**(11.5)**	**80.0**	**110.4**	**(21.3)**	**(24.4)**	**(27.9)**	**36.9**	**3.8**	**10.2**	**(38.3)**	**50.9**	**114.5**	**227.6**	**272.1**	**296.4**	**351.4**	**379.1**	**404.6**	**427.7**	**448.5**
Operating Cash Flow	**(15.0)**	**(4.0)**	**(6.9)**	**(6.7)**	**(17.2)**	**(34.9)**	**(18.0)**	**(20.2)**	**(22.4)**	**(24.8)**	**(85.5)**	**(87.1)**	**(79.1)**	**(28.3)**	**60.9**	**124.5**	**237.6**	**282.1**	**306.4**	**361.4**	**389.1**	**414.6**	**437.7**	**458.5**
Net Income (Loss)	(14.0)	(4.5)	(6.4)	(14.7)	(10.9)	(36.5)	(19.6)	(22.0)	(24.3)	(27.0)	(92.9)	(100.0)	(94.5)	(48.9)	35.8	94.0	201.8	243.0	264.7	321.0	346.4	369.6	390.8	409.7
SOE	0.4	0.2	0.4	0.9	0.6	2.0	1.6	1.8	1.9	2.2	7.4	9.0	9.8	11.6	15.0	20.4	25.7	29.2	31.7	30.4	32.8	35.0	37.0	38.8
D&A	0.0	0.0	-	-	-	0.0	-	-	-	-	-	4.0	5.6	9.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Other	(1.4)	0.3	(0.9)	7.1	(6.9)	(0.4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Investing Cash Flow	**(0.0)**	**(0.0)**	**-**	**-**	**-**	**(0.0)**	**-**	**-**	**(1.0)**	**(2.0)**	**(3.0)**	**(5.0)**	**(7.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**	**(10.0)**
CapEx	(0.0)	(0.0)	-	-	-	(0.0)	-	-	(1.0)	(2.0)	(3.0)	(5.0)	(7.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
Other	-	-	-	-	-	-	-	-	-	-	-	-												
Financing Cash flow	**40.6**	**7.0**	**102.7**	**(0.5)**	**5.7**	**114.9**	**128.5**	**(1.0)**	**(1.0)**	**(1.0)**	**125.3**	**95.8**	**96.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Equity Issuance (Buyback)	40.8	0.4	102.7	-	-	103.1	129.5	-	-	-	129.5	100.0	100.0	-	-	-	-	-	-	-	-	-	-	-
Debt Issuance (Retirement)	-	7.4	-	(0.5)	5.7	12.6	(1.0)	(1.0)	(1.0)	(1.0)	(4.2)	(4.2)	(3.7)	-	-	-	-	-	-	-	-	-	-	-
Other	(0.2)	(0.8)	-	-	-	(0.8)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: SEC Filings and Leerink Partners Research

ZFGN DCF Analysis	2014	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	TV
Cash Flow From Operations ($MM)	(35)	(85)	(87)	(79)	(28)	61	124	238	282	306	361	389	415	438	458	468	353	202	
Cash Flow From Investing ($MM)	(0)	(3)	(5)	(7)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	
Net Borrowing (Repayment) ($MM)	5	(4)	(4)	(4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Free Cash Flow ($MM)	(30)	(93)	(96)	(90)	(38)	51	114	228	272	296	351	379	405	428	448	458	343	192	2181
Discount Periods	-	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
NPV FCF ($MM)	-	(69)	(89)	(75)	(29)	34	70	125	135	132	141	137	132	125	119	109	74	37	422

Sum NPV FCF ($MM)	1529
Net Cash 1Q15E	214
Implied ZFGN Mkt Cap ($MM)	**$ 1,743**
ZFGN Per Share Value	**$ 60.57**

Cost of Equity	11%
TG Rate	2%
Diluted Shares Oustanding	28.8

Source: Leerink Partners Research

Prader Willi Syndrome Revenue Model	2014	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
PWS Patients in the US	7,500	7,568	7,636	7,704	7,774	7,844	7,914	7,985	8,057	8,130	8,203	8,277	8,351	8,426	8,502	8,579	8,656	8,734
% >12 years old	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
US PWS Patients >12 yr/old	3,750	3,784	3,818	3,852	3,887	3,922	3,957	3,993	4,029	4,065	4,102	4,138	4,176	4,213	4,251	4,289	4,328	4,367
% treated with Beloranib	0.0%	0.0%	0.0%	1.0%	8.0%	16.0%	21.0%	25.0%	28.0%	30.0%	32.0%	33.0%	34.0%	35.0%	35.0%	35.0%	28.0%	14.0%
PWS Patients on Beloranib	-	-	-	39	311	627	831	998	1,128	1,219	1,312	1,366	1,420	1,475	1,488	1,501	1,212	611
Annual Cost of Therapy	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
Gross Revenues ($MM)	$0.0	$0.0	$0.0	$5.8	$46.6	$94.1	$124.6	$149.7	$169.2	$182.9	$196.9	$204.9	$213.0	$221.2	$223.2	$225.2	$181.8	$91.7
%<12 years old	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
US PWS Patients <12 yr/old	3,750	3,784	3,818	3,852	3,887	3,922	3,957	3,993	4,029	4,065	4,102	4,138	4,176	4,213	4,251	4,289	4,328	4,367
% treated with Beloranib	0.0%	0.0%	0.0%	0.0%	1.0%	8.5%	16.0%	21.0%	25.0%	28.0%	30.0%	32.0%	33.0%	34.0%	35.0%	35.0%	24.5%	12.3%
PWS Patients on Beloranib	-	-	-	-	39	333	633	838	1,007	1,138	1,230	1,324	1,378	1,433	1,488	1,501	1,060	535
Annual Cost of Therapy	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
Gross Revenues ($MM)	$0.0	$0.0	$0.0	$0.0	$5.8	$50.0	$95.0	$125.8	$151.1	$170.7	$184.6	$198.6	$206.7	$214.9	$223.2	$225.2	$159.1	$80.2
Approval Probability	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
US P(w) Beloranib PWS Revenues	**$0.0**	**$0.0**	**$0.0**	**$4.6**	**$42.0**	**$115.3**	**$175.7**	**$220.4**	**$256.2**	**$282.9**	**$305.2**	**$322.8**	**$335.7**	**$348.9**	**$357.1**	**$360.3**	**$272.7**	**$137.6**
PWS Patients in the EU	12,000	12,108	12,217	12,327	12,438	12,550	12,663	12,777	12,892	13,008	13,125	13,243	13,362	13,482	13,604	13,726	13,850	13,974
% >12 years old	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
EU PWS Patients >12 yr/old	6,000	6,054	6,108	6,163	6,219	6,275	6,331	6,388	6,446	6,504	6,562	6,621	6,681	6,741	6,802	6,863	6,925	6,987
% treated with Beloranib	0.0%	0.0%	0.0%	0.0%	2.5%	4.0%	6.0%	8.0%	11.0%	13.0%	15.0%	16.0%	17.0%	18.0%	19.0%	20.0%	16.0%	8.0%
PWS Patients on Beloranib	-	-	-	-	155	251	380	511	709	846	984	1,059	1,136	1,213	1,292	1,373	1,108	559
Annual Cost of Therapy	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000
Gross Revenues	$0.0	$0.0	$0.0	$0.0	$14.0	$22.6	$34.2	$46.0	$63.8	$76.1	$88.6	$95.3	$102.2	$109.2	$116.3	$123.5	$99.7	$50.3
%<12 years old	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
US PWS Patients <12 yr/old	6,000	6,054	6,108	6,163	6,219	6,275	6,331	6,388	6,446	6,504	6,562	6,621	6,681	6,741	6,802	6,863	6,925	6,987
% treated with Beloranib	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	4.0%	6.0%	8.0%	11.0%	13.0%	15.0%	17.0%	18.0%	19.0%	20.0%	10.0%	4.0%
PWS Patients on Beloranib	-	-	-	-	-	157	253	383	516	715	853	993	1,136	1,213	1,292	1,373	692	279
Annual Cost of Therapy	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000	$90,000
Gross Revenues ($MM)	$0.0	$0.0	$0.0	$0.0	$0.0	$14.1	$22.8	$34.5	$46.4	$64.4	$76.8	$89.4	$102.2	$109.2	$116.3	$123.5	$62.3	$25.2
Approval Probability	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
EU P(w) Beloranib PWS Revenues	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$11.2**	**$29.4**	**$45.6**	**$64.4**	**$88.2**	**$112.4**	**$132.3**	**$147.8**	**$163.6**	**$174.7**	**$186.1**	**$197.7**	**$129.6**	**$60.4**
WW Beloranib Gross Sales	$0.0	$0.0	$0.0	$5.8	$66.5	$180.8	$276.6	$356.0	$430.5	$494.1	$546.8	$588.2	$624.1	$654.5	$679.0	$697.5	$502.9	$247.4
WW Beloranib P(w) Sales	**$0.0**	**$0.0**	**$0.0**	**$4.6**	**$53.2**	**$144.7**	**$221.3**	**$284.8**	**$344.4**	**$395.3**	**$437.4**	**$470.6**	**$499.3**	**$523.6**	**$543.2**	**$558.0**	**$402.3**	**$197.9**

Assumptions	
Beloranib US Cost	$150,000
Beloranib EU Cost	$90,000
Probability of Approval	80%

Source: Company Presentations and Leerink Partners Research

HIAO Revenue Model	2014	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
HIAO Patients in the US	6,260	6,316	6,373	6,431	6,488	6,547	6,606	6,665	6,725	6,786	6,847	6,908	6,971	7,033	7,097	7,160	7,225	7,290
% with post-treatment hypothalamic dysfunction	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
beloranib HIAO candidates	3,130	3,158	3,187	3,215	3,244	3,273	3,303	3,333	3,363	3,393	3,423	3,454	3,485	3,517	3,548	3,580	3,612	3,645
% treated with Beloranib	0.0%	0.0%	0.0%	0.0%	2.0%	6.0%	13.0%	18.0%	24.0%	29.0%	32.0%	34.0%	36.0%	38.0%	40.0%	40.0%	32.0%	16.0%
Patients on Beloranib	-	-	-	-	65	196	429	600	807	984	1,095	1,174	1,255	1,336	1,419	1,432	1,156	583
Annual Cost of Therapy	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
Gross Revenues ($MM)	$0.0	$0.0	$0.0	$0.0	$9.7	$29.5	$64.4	$90.0	$121.1	$147.6	$164.3	$176.2	$188.2	$200.4	$212.9	$214.8	$173.4	$87.5
Approval Probability	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
US P(w) Beloranib HIAO Revenues	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$5.8**	**$17.7**	**$38.6**	**$54.0**	**$72.6**	**$88.6**	**$98.6**	**$105.7**	**$112.9**	**$120.3**	**$127.7**	**$128.9**	**$104.0**	**$52.5**
HIAO Patients in the EU	14,850	14,984	15,119	15,255	15,392	15,530	15,670	15,811	15,953	16,097	16,242	16,388	16,536	16,684	16,835	16,986	17,139	17,293
% with post-treatment hypothalamic dysfunction	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
beloranib HIAO candidates	7,425	7,492	7,559	7,627	7,696	7,765	7,835	7,906	7,977	8,049	8,121	8,194	8,268	8,342	8,417	8,493	8,569	8,647
% treated with Beloranib	0.0%	0.0%	0.0%	0.0%	1.0%	4.0%	8.0%	12.0%	16.0%	20.0%	22.0%	24.0%	26.0%	28.0%	30.0%	30.0%	24.0%	12.0%
Patients on Beloranib	-	-	-	-	77	311	627	949	1,276	1,610	1,787	1,967	2,150	2,336	2,525	2,548	2,057	1,038
Annual Cost of Therapy	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Gross Revenues ($MM)	$0.0	$0.0	$0.0	$0.0	$6.9	$28.0	$56.4	$85.4	$114.9	$144.9	$160.8	$177.0	$193.5	$210.2	$227.3	$229.3	$185.1	$93.4
Approval Probability	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
EU P(w) Beloranib HIAO Revenues	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$4.2**	**$16.8**	**$33.8**	**$51.2**	**$68.9**	**$86.9**	**$96.5**	**$106.2**	**$116.1**	**$126.1**	**$136.4**	**$137.6**	**$111.1**	**$56.0**
WW Gross Beloranib HIAO Revenues	$0.0	$0.0	$0.0	$0.0	$16.7	$57.4	$120.8	$175.4	$235.9	$292.5	$325.1	$353.2	$381.7	$410.7	$440.2	$444.1	$358.5	$180.9
WW P(w) Beloranib HIAO Revenues	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$10.0**	**$34.4**	**$72.5**	**$105.2**	**$141.6**	**$175.5**	**$195.1**	**$211.9**	**$229.0**	**$246.4**	**$264.1**	**$266.5**	**$215.1**	**$108.5**

Assumptions	
Beloranib US Cost	$150,000
Beloranib EU Cost	$90,000
Probability of Approval	60%

Source: Company Presentations and Leerink Partners Research

Product	Event	Timing
Beloranib	Initiate US Phase III PWS Trial	3Q14
Beloranib	Initiate Phase IIb Severe Obesity Trial	4Q14
Beloranib	Phase IIa HIAO Data	1Q15
ZGN-839	File NASH/Type II Diabetes IND	2015
Beloranib	6 Month Interim Severe Obesity Data	4Q15
Beloranib	Initiate Phase III HIAO Study	2015
Beloranib	6 Mo. Phase III PWS Data	2Q16

Source: Company Presentations and Leerink Partners Research

Disclosures Appendix

Analyst Certification

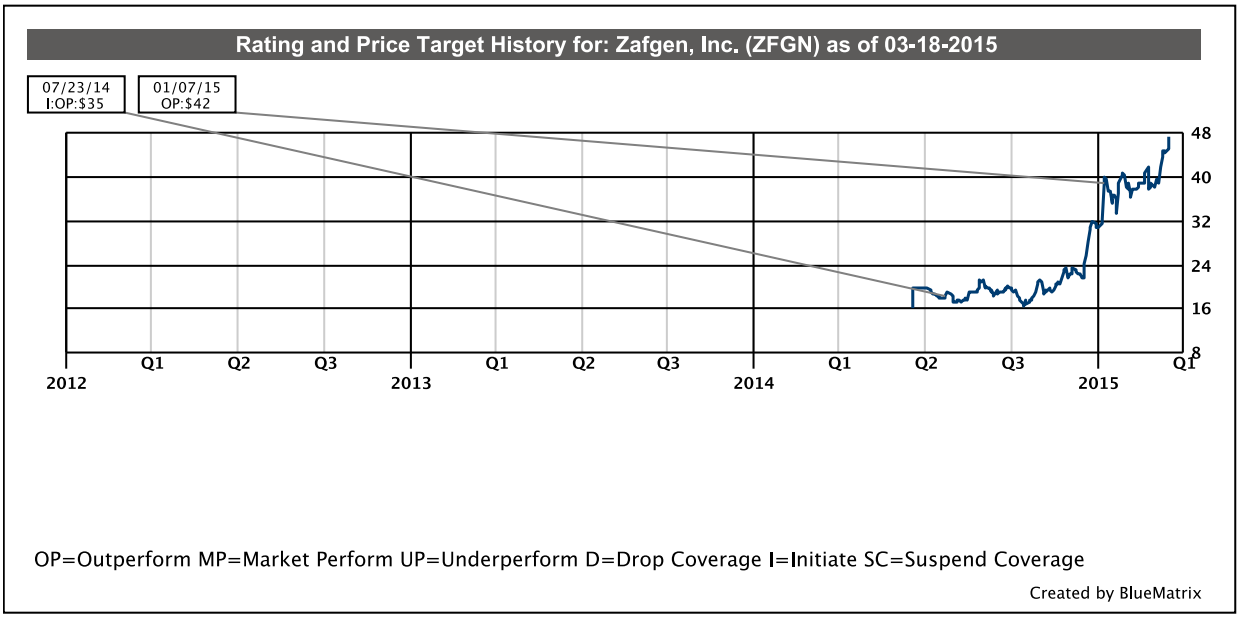
I, Joseph P. Schwartz, certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

Valuation

We derive a ~$61 per share value for ZFGN (from $42) using a 11% discount rate and a 2% terminal growth rate, representing a ~$1,740MM market capitalization. Our price target assumes a 80% and 60% probability of beloranib approval in PWS and HIAO, respectively, which leads to our peak net sales estimates of ~$560MM and ~$270MM in each indication. We only model ~$200MM in peak sales in severe obesity, which we believe holds the potential to be very conservative if/when ZFGN generates pivotal beloranib data in orphan indications.

Risks to Valuation

Risks to our valuation include disappointing clinical data, regulatory setbacks, dilution risk from an additional equity offering, and commercial shortfalls. Because ZFGN has only one late stage product, the occurrence of any of these could impact the stock significantly.



Distribution of Ratings/Investment Banking Services (IB) as of 12/31/14				
			IB Serv./Past 12 Mos.	
Rating	Count	Percent	Count	Percent
BUY [OP]	150	70.00	60	40.00
HOLD [MP]	64	30.00	1	2.00
SELL [UP]	0	0.00	0	0.00

Explanation of Ratings

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.
Market Perform (Hold/Neutral): We expect this stock to perform in line with its benchmark over the next 12 months.
Underperform (Sell): We expect this stock to underperform its benchmark over the next 12 months.The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.
For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than $2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over $2 billion.

Important Disclosures

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