



Source: Thomson Reuters, Morgan Stanley Research

Bull, Base And Bear Case

Price Target: \$28

Our PT is derived From A DCF That Uses A 15% Discount Rate And A 1% Terminal Growth Rate Beyond 2032E.

BULL
\$78

BASE
\$28

BEAR
\$6

DCF

The LCA10 therapy proves successful, but additional therapies obtain modest success. The LCA10 therapy launches in 2024E in the US and EU, and treats and cures ~70-80% of the addressable LCA10 population to generate ~\$85M in peak sales in the US and ~\$79M in EU (2028E). While Editas is able to develop successful therapies for CAR-T, hematology, DMD, and CF, it achieves lower market share for total additional annual revenues of ~\$2.5B by 2032E.

Investment Thesis

- We are Equal-weight Editas Medicine. The CRISPR gene editing platform has been derisked from an operational standpoint, and can be geared towards numerous disease targets. However, the delivery and long-term safety of administering clinically relevant doses in humans needs to be proven.
- Editas has a systemic, modular approach that may allow for differentiation over competitors
- The first disease being targeted (LCA10, an inherited retinal dystrophy) lowers the initial risk of proving that gene editing can work in humans, as the eye is immune privileged and provides a small, contained area in which sufficient quantities of vector can be delivered safely
- Overall, we see significant long-term potential for Editas, but remain Equal-weight while initial therapies are derisked in the clinic and the IP battle plays out over the next 1-2 years.

Key Value Drivers

- Resolution to IP interference proceedings
- Progressing the LCA10 program into the clinic
- Advancing current discovery stage programs into the clinic, such as for hematologic diseases and genetic diseases of the lung & liver.

Risks To Achieving Price Target

- IP outcome that limits Editas' freedom to operate
- Development risk associated with early nature of pipeline, and the timeline is long to initial data (first data in humans is expected from the LCA10 PhI study in 2018)

- Competitors that could influence investor perception of the stock

Catalyst Calendar

Exhibit 78: Editas Catalyst Calendar

Drug	Type	Milestone	Timing
CRISPR/Cas9	Business update	Potential new business development	2018
CRISPR/Cas9	Regulatory update	Potential interference proceedings and updates	2018
CRISPR/Cas9	PhI Start	Additional therapies enter the clinic	2018
CRISPR/Cas9	PhI Start	File IND and initiate PhI LCA10 study	mid-2018
CRISPR/Cas9	Business update	End of Juno Collaboration	2020

Source: Company Data, Morgan Stanley Research

Income Statement

Exhibit 79: Editas Income Statement

Editas Medicine Income Statement (\$M)	2015	2016	1Q17A	2Q17A	3Q17A	4Q17E	2017E	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	
Total Revenue	1.6	6.1	0.7	3.1	6.3	6.3	16.3	9.8	9.8	9.8	9.8	39.0	39.0	7.5	9.4	11.8	14.7	66.3	319.5	606.3	883.7	1,182.8	1,501.0	1,850.2	2,260.9	2,735.8	
Collaboration Revenue	1.6	6.1	0.7	3.1	6.3	6.3	16.3	9.8	9.8	9.8	9.8	39.0	39.0	7.5	9.4	11.8	14.7	18.4	23.0	28.7	35.9	44.9	56.1	70.2	87.7	109.6	
LCA10 Product Revenue (WW)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47.9	92.7	146.1	160.6	163.7	147.5	118.4	95.5	
LCA10 Product Revenue (US)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29.1	56.4	78.0	84.9	85.0	74.7	58.2	45.6	
LCA10 Product Revenue (EU)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.8	36.3	68.1	75.7	78.6	72.8	60.2	49.9	
Additional Product Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	203.8	431.5	687.1	974.3	1,297.4	1,661.6	2,077.7	2,548.8	
Consensus Revenue																											
Costs and expenses																											
Cost of sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	50.4	98.2	144.1	193.4	245.6	302.6	369.4	446.5	
Research and development	16.5	44.3	15.4	14.2	17.5	17.9	65.0	19.9	19.9	19.9	19.9	79.6	91.6	100.7	110.8	121.9	131.0	140.8	151.4	162.8	175.0	188.1	202.2	212.3	222.9	234.1	
R&D yearly increase	228.4%	169.0%	-	-	-	-	46.6%	-	-	-	-	22.9%	15.0%	10.0%	10.0%	10.0%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	5.0%	5.0%	5.0%	
General and administrative	16.9	42.0	10.1	10.0	9.7	10.2	40.0	11.0	11.0	11.0	11.0	44.0	48.4	53.2	63.9	76.7	92.0	110.4	121.4	133.6	143.6	154.4	165.9	174.2	183.0	192.1	
SG&A yearly increase	121.5%	148.0%	-	-	-	-	-4.8%	-	-	-	-	10.0%	10.0%	10.0%	20.0%	20.0%	20.0%	20.0%	10.0%	10.0%	7.5%	7.5%	7.5%	5.0%	5.0%	5.0%	
Operating Income (Loss)	(31.8)	(80.3)	(24.8)	(21.1)	(20.9)	(21.8)	(88.7)	(21.1)	(21.1)	(21.1)	(21.1)	(84.6)	(100.9)	(146.4)	(165.3)	(186.8)	(208.3)	(193.1)	(3.8)	211.8	421.0	646.9	887.2	1,161.0	1,485.6	1,863.2	
Other expense / Income	(37.4)	(0.1)	0.1	0.1	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	
Interest income	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Interest expense	(0.1)	-	(0.6)	(0.4)	(0.0)	-	(1.1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pretax Income (Loss)	(69.4)	(80.3)	(25.3)	(21.4)	(20.8)	(21.6)	(89.1)	(21.0)	(21.0)	(21.0)	(21.0)	(83.9)	(100.2)	(145.6)	(164.4)	(185.9)	(207.4)	(192.1)	(2.7)	212.9	422.1	648.1	888.5	1,162.3	1,486.9	1,864.6	
Income Taxes (expense) benefit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(74.5)	(147.7)	(226.8)	(311.0)	(406.8)	(520.4)	(652.6)	
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	
Net Income (Loss) before preferred stock and convertible preferred stock	(69.4)	(80.3)	(25.3)	(21.4)	(20.8)	(21.6)	(89.1)	(21.0)	(21.0)	(21.0)	(21.0)	(83.9)	(100.2)	(145.6)	(164.4)	(185.9)	(207.4)	(192.1)	(2.7)	138.4	274.4	421.3	577.5	755.5	966.5	1,212.0	
Convertible preferred stock preferences and commissions	(0.4)	(0.0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Net Income (Loss), non-GAAP	(69.8)	(80.3)	(25.3)	(21.4)	(20.8)	(21.6)	(89.1)	(21.0)	(21.0)	(21.0)	(21.0)	(83.9)	(100.2)	(145.6)	(164.4)	(185.9)	(207.4)	(192.1)	(2.7)	138.4	274.4	421.3	577.5	755.5	966.5	1,212.0	
Non-GAAP EPS (excluding options)	(\$27.18)	(\$2.49)	(\$0.69)	(\$0.52)	(\$0.50)	(\$0.52)	(\$2.23)	(\$0.49)	(\$0.49)	(\$0.49)	(\$0.49)	(\$1.96)	(\$2.15)	(\$2.86)	(\$2.96)	(\$3.14)	(\$3.23)	(\$2.77)	(\$0.04)	\$1.76	\$3.50	\$5.37	\$7.36	\$9.63	\$12.32	\$15.44	
Consensus EPS																											
Options Expense	3.5	16.9	5.8	5.0	5.6	6.0	22.4	6.2	6.2	6.2	6.2	24.6	27.1	29.8	32.8	36.0	39.6	43.6	48.0	52.8	58.0	63.9	70.2	77.3	85.0	93.5	
% of operating expense	10.5%	19.5%	22.8%	20.7%	20.6%	21.2%	21.3%	19.9%	19.9%	19.9%	19.9%	19.9%	19.3%	19.3%	18.8%	18.2%	17.8%	16.8%	14.8%	13.4%	12.5%	11.9%	11.4%	11.2%	11.0%	10.7%	
Tax impact	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Net Income (non-GAAP, incl option exp)	(73.3)	(97.2)	(31.1)	(26.4)	(26.4)	(27.5)	(111.4)	(27.1)	(27.1)	(27.1)	(27.1)	(108.5)	(127.2)	(175.4)	(197.2)	(221.9)	(247.0)	(235.7)	(50.7)	85.6	216.3	357.4	507.3	678.3	861.5	1,118.5	
EPS, diluted (non-GAAP, incl option exp)	(\$28.55)	(\$3.02)	(\$0.85)	(\$0.65)	(\$0.64)	(\$0.67)	(\$2.79)	(\$0.64)	(\$0.64)	(\$0.64)	(\$0.64)	(\$2.54)	(\$2.74)	(\$3.44)	(\$3.55)	(\$3.75)	(\$3.84)	(\$3.40)	(\$0.69)	\$1.09	\$2.76	\$4.55	\$6.46	\$8.64	\$11.23	\$14.25	
Basic Shares Outstanding	2.6	32.2	36.5	40.8	41.3	41.3	40.0	42.7	42.7	42.7	42.7	42.7	46.5	51.0	55.5	59.2	64.2	69.2	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	
Diluted Shares Outstanding	2.6	32.2	36.5	40.8	41.3	41.3	40.0	45.9	45.9	45.9	42.7	45.9	50.0	54.8	59.7	63.7	69.1	74.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5	78.5	

Source: Company Data, Morgan Stanley Research

Balance Sheet

Exhibit 80: Editas Balance Sheet

Editas Medicine Balance Sheet (\$Ms)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Cash and ST Investments:	143.2	185.3	180.7	251.0	105.4	230.5	68.7	131.3	11.6	90.4	39.0	172.3	370.4	748.5	1,270.6	1,956.3	2,837.7	3,947.3
Cash and cash equivalents	143.2	185.3	180.7	251.0	105.4	230.5	68.7	131.3	11.6	90.4	39.0	172.3	370.4	748.5	1,270.6	1,956.3	2,837.7	3,947.3
Accounts receivables	1.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Prepaid expenses	0.8	1.8	4.9	7.8	7.8	1.5	1.9	2.4	2.9	6.6	31.9	30.3	44.2	59.1	75.1	92.5	113.0	136.8
Preferred stock tranche asset	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total current assets	145.0	187.2	185.7	258.9	113.3	232.1	70.7	133.8	14.6	97.1	71.0	202.7	414.6	807.7	1,345.7	2,048.9	2,950.8	4,084.2
Property and equipment, net	2.1	40.4	46.4	61.0	74.8	75.6	76.9	79.0	81.9	85.3	113.1	137.7	217.3	264.0	323.3	395.9	483.8	589.3
Other non-current assets	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Restricted cash	-	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Total Assets	149.4	229.2	233.8	321.6	189.7	309.3	149.2	214.4	98.2	184.1	185.7	342.0	633.5	1,073.4	1,670.6	2,446.4	3,436.3	4,675.1
Current liabilities:																		
Accounts payable	1.4	4.6	4.3	5.1	5.8	6.4	7.2	8.2	9.2	10.4	13.6	14.8	15.9	17.1	18.4	19.3	20.3	21.3
Accrued expenses	5.5	17.4	17.1	20.2	22.8	25.1	28.5	32.4	36.4	41.0	27.3	29.6	31.9	34.2	36.8	38.7	40.6	42.6
Notes Payable	-	10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred rent, current portion	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Anti-dilution protection liability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preferred stock tranche liability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment loan, current portion, net of discount	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other current liabilities	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total current liabilities	6.9	33.1	21.5	25.3	28.6	31.5	35.7	40.6	45.6	51.4	40.9	44.5	47.8	51.4	55.2	58.0	60.9	63.9
Deferred rent, net of current portion	-	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Equipment loan, net of current portion and discount	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deferred revenue	25.3	26.0	81.0	45.9	10.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
Warrant liability	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction financing lease obligation, net of current portion	-	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1	35.1
Other long-term liabilities	0.0	0.0	0.3	0.6	0.6	0.1	0.2	0.2	0.2	1.1	16.0	30.3	44.2	59.1	75.1	92.5	113.0	136.8
Total liabilities	32.6	94.6	138.2	107.4	75.7	73.0	77.2	82.2	87.2	93.8	98.3	116.1	133.3	151.9	171.6	191.9	215.3	242.1
Stockholders' equity:																		
Redeemable convertible preferred stock	199.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Share capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Additional paid-in capital	5.2	320.1	392.5	619.7	646.8	944.5	977.2	1,259.4	1,385.2	1,700.2	1,748.2	1,800.9	1,859.0	1,922.8	1,993.1	2,070.3	2,155.3	2,248.8
Accumulated deficit	(88.3)	(185.5)	(297.0)	(405.4)	(532.7)	(708.1)	(905.3)	(1,127.2)	(1,374.2)	(1,610.0)	(1,660.7)	(1,575.1)	(1,358.8)	(1,001.3)	(494.1)	184.2	1,065.7	2,184.3
Total stockholders' equity	116.8	134.6	95.6	214.2	114.1	236.4	71.9	132.2	11.0	90.2	87.5	225.8	500.2	921.5	1,499.0	2,254.5	3,221.0	4,433.0
Total Liabilities and Stockholders' Equity	149.4	229.2	233.8	321.6	189.7	309.3	149.2	214.4	98.2	184.1	185.7	342.0	633.5	1,073.4	1,670.6	2,446.4	3,436.3	4,675.1

Source: Company Data, Morgan Stanley Research

Cash Flow Statement

Exhibit 81: Editas Cash Flow

Edits Medicine Cash Flow Statement (\$M)	2015	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Cash Flows From Operating Activities																		
Net profit (loss)	(72.9)	(97.2)	(111.4)	(108.5)	(127.2)	(175.4)	(197.2)	(221.9)	(247.0)	(235.7)	(50.7)	85.6	216.3	357.4	507.3	678.3	881.5	1,118.5
Adjustments to reconcile net loss to net cash used in operating activities:																		
Stock-based compensation	3.5	16.9	22.4	24.6	27.1	29.8	32.8	36.0	39.6	43.6	48.0	52.8	58.0	63.9	70.2	77.3	85.0	93.5
Depreciation	0.5	1.2	0.5	1.0	1.8	2.3	2.4	2.7	2.9	3.2	4.2	5.8	8.7	12.4	15.8	19.9	25.1	31.3
Non-cash research and development expenses	-	10.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-cash interest expense	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-cash loss on debt extinguishment	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other non-cash items, net	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changes in fair value of warrant liability	0.2	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest related to facility lease obligation	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in fair value of preferred stock tranche asset or li	35.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changes in fair value of anti-dilutive protection liability	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changes in deferred rent	(0.1)	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changes in operating assets and liabilities:																		
Accounts receivable	(1.0)	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prepaid expenses	(0.4)	(1.0)	(3.1)	(2.9)	-	6.3	(0.4)	(0.5)	(0.6)	(3.7)	(25.3)	1.6	(13.9)	(15.0)	(15.9)	(17.5)	(20.5)	(23.7)
Other non-current assets	0.0	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounts payable	(1.4)	3.3	(0.3)	0.8	0.7	0.6	0.9	1.0	1.0	1.2	3.3	1.2	1.1	1.2	1.3	0.9	1.0	1.0
Accrued expenses	3.5	11.8	(0.3)	3.0	2.7	2.3	3.4	3.9	4.0	4.6	(13.7)	2.3	2.2	2.4	2.6	1.8	1.9	2.0
Other liabilities	-	0.9	(11.0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Upfront payments from collaborations	25.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in Deferred Revenue	-	-	55.0	(35.0)	(35.0)	(5.0)	-	-	-	-	-	-	-	-	-	-	-	-
Net cash used in operating activities	(5.4)	(49.9)	(48.3)	(117.0)	(130.0)	(139.2)	(158.1)	(178.8)	(200.0)	(186.8)	(34.3)	149.3	272.6	422.3	581.2	760.8	974.0	1,222.6
Cash Flows From Investing Activities																		
Purchase of property, plant, and equipment	(1.4)	(3.5)	(6.5)	(15.6)	(15.6)	(3.0)	(3.8)	(4.7)	(5.9)	(6.6)	(31.9)	(30.3)	(88.4)	(59.1)	(75.1)	(92.5)	(113.0)	(136.8)
Proceeds from the sale of equipment	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in restricted cash	-	(1.6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net cash used in investing activities	(1.4)	(5.1)	(6.5)	(15.6)	(15.6)	(3.0)	(3.8)	(4.7)	(5.9)	(6.6)	(31.9)	(30.3)	(88.4)	(59.1)	(75.1)	(92.5)	(113.0)	(136.8)
Cash Flows From Financing Activities																		
Proceeds from equipment loan, net of issuance costs	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from the issuance of redeemable convertible pr	141.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payments of equipment loan principal	(2.0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from the issuance of common stock and restric	0.0	97.5	50.0	202.5	0.0	267.9	0.0	246.1	86.1	271.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other liabilities	(1.8)	(0.3)	0.3	0.4	-	(0.5)	0.0	0.0	0.0	0.9	14.9	14.3	13.9	15.0	15.9	17.5	20.5	23.7
Net cash provided by financing activities	139.4	97.2	50.3	202.9	0.0	267.4	0.0	246.2	86.2	272.2	14.9	14.3	13.9	15.0	15.9	17.5	20.5	23.7
Effect of exchange rate changes on cash and cash equiv:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net (decrease) increase in cash and cash equivalents	132.6	42.1	(4.6)	70.3	(145.7)	125.2	(161.9)	62.7	(119.7)	78.8	(51.4)	133.3	198.1	378.1	522.1	685.7	881.5	1,109.6
Cash and cash equivalents at beginning of period	10.6	143.2	185.3	180.7	251.0	105.4	230.5	68.7	131.3	11.6	90.4	39.0	172.3	370.4	748.5	1,270.6	1,956.3	2,837.7
Cash and cash equivalents at end of period	143.2	185.3	180.7	251.0	105.4	230.5	68.7	131.3	11.6	90.4	39.0	172.3	370.4	748.5	1,270.6	1,956.3	2,837.7	3,947.3

Source: Company Data, Morgan Stanley Research

25 Galapagos Risk Reward

Filgotinib in RA and Crohn's; CF Pipeline Drive Risk-Reward



Source: Thomson Reuters, Morgan Stanley Research

Bull, Base And Bear Case

Price Target: \$127

We derive our PT from a discounted cash flow analysis that uses a WACC of 12.5% with cash flow forecasts through the 2030E expiration of the filgotinib patents. The main drivers are filgotinib royalties/milestones and CF program royalties/milestones.

BULL
\$177

BASE
\$127

BEAR
\$23

DCF

Filgotinib and CF assets drive our forecast, with strong contribution from AD and IPF pipeline assets. We assume: 1) ~\$875M in royalties/profit share on sales of filgotinib in RA and ~\$200M in royalties on sales of filgotinib in Crohn's by 2030E ; 2) Total filgotinib development/commercial milestones of ~\$1.75B; 3) CF program royalties of ~\$400M by 2030E; 4) CF program development/commercial milestones of \$600M; 5) MOR106 in AD generates peak POS adjusted global sales of ~\$900M; 6) GLPG1690 for IPF generates peak POS adjusted global sales of ~\$550M.

Investment Thesis

- We are Overweight Galapagos as we believe that filgotinib and the CF pipeline are differentiated and can take share.
- Filgotinib has a differentiated profile versus its oral competitors - both Xeljanz and baracitinib. We believe it has best in class efficacy with a cleaner safety profile, especially on anemia. With additional positive data generated in Crohn's, we model peak filgotinib sales in RA and Crohn's of ~\$4.5B by 2030E.
- The CF franchise has a competitive emerging profile with preclinical data suggesting CFTR restoration rates above Kalydeco. We believe there is significant unmet need for new CFTR modulators/potentiators, but acknowledge competition exists from more advanced triple combinations from Vertex. We account for competition in our model.
- Early data from pipeline assets MOR106 for AD and GLPG1690 for IPF have been encouraging enough for us to incorporate probability adjusted estimates for these molecules into our valuation. We await more mature data.

Key Value Drivers

- The main drivers are advancement of filgotinib in RA and Crohn's and the CF pipeline.

Risks To Achieving Price Target

- Development Risk: Phase III RA studies take significant time and the Phase II profile does not assure unknown side-effects in the larger Phase III program. Further, the CF assets are still relatively early stage, so safety/efficacy are not well understood.
- Approval Risk: Regulatory approval is not assured and there is potential for failure to gain approval in one or more geographies.
- Commercial Risk: The RA and CF markets are competitive with a number of marketed agents along with agents in development.

Catalyst Calendar

Exhibit 82: Galapagos Catalyst Calendar

Drug	Type	Milestone	Timing
GLPG2938	PhI launch	Initiate PhI study in IPF	2H17
GLPG2534	PhI launch	Initiate PhI study in atopic dermatitis	2H17
CF triple combination	Trial update	Initiate study of first triple combination ('2451 + '2222 + '2737) in patients	1Q18
CF dual combination	Trial update	Initiate study of GLPG3067 + GLPG2222 in CF patients	4Q17
CF triple combination	Trial update	Initiate study of GLPG3067 + GLPG2222 + GLPG2737 in CF patients	1Q18
GLPG2737	Trial update	Data from study of GLPG2737 as add-on to Orkambi in CF patients	1H18
CF triple combination	Trial update	Data from triple combination (GLPG2451 + GLPG2222 + GLPG2737) in CF patients	Mid-2018
CF triple combination	Trial update	Initiate study of GLPG3067 + GLPG2222 + GLPG3221 in CF patients	2H18
CF triple combination	Trial update	Data from triple combination (GLPG3067 + GLPG2222 + GLPG2737) in CF patients	2H18
CF triple combination	Trial update	Data from triple combination (GLPG3067 + GLPG2222 + GLPG3221) in CF patients	Early 2019

Source: Company Data

Income Statement

Exhibit 83: Galapagos Income Statement

Income Statement, Thousands of Euro	2012	2013	2014	2015	2016	1Q17A	2Q17A	3Q17A	4Q17E	2017	1Q18	2Q18	3Q18	4Q18	2018	2019	2020	2021	2022	2023	2024	2025
Revenues	74,504	76,625	69,368	39,563	129,519	33,992	26,933	26,945	27,130	115,000	0	0	0	0	0	32,338	87,551	203,952	385,112	633,211	899,863	1,135,004
Other income (including milestones)	17,722	19,947	20,653	21,017	22,093	5,871	6,235	6,378	12,537	31,021	35,000	43,750	54,688	71,468	204,905	174,733	148,871	21,552	150,862	21,552	183,966	21,552
Net revenues	92,226	96,572	90,021	60,580	151,612	39,863	33,168	33,323	39,667	146,021	35,000	43,750	54,688	71,468	204,905	207,071	236,421	225,504	535,974	654,763	1,093,828	1,156,555
Cost of sales	5,584			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
R&D expenses	80,259	99,380	111,110	127,196	134,056	43,419	46,011	53,949	61,623	205,000	47,355	51,660	55,965	60,270	215,250	226,013	231,663	220,080	198,072	196,091	194,130	192,189
SG&A expenses	13,403	13,817	14,867	17,791	18,012	4,648	4,889	4,297	5,705	19,537	11,500	12,075	12,679	14,136	50,389	61,284	72,848	81,803	85,933	90,187	94,697	99,431
G&A expenses	12,118	12,353	13,875	16,609	16,227	4,092	4,355	3,489	5,104	17,038	4,000	4,200	4,410	5,280	17,890	18,785	19,724	20,710	21,746	22,833	23,975	25,173
Sales & marketing expenses	1,285	1,464	992	1,182	1,785	556	534	808	601	2,499	7,500	7,875	8,269	8,855	32,499	42,499	53,124	61,092	64,147	67,354	70,722	74,258
Restructuring and integration costs	2,506	290	669	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating income (loss)	(9,526)	(16,915)	(36,625)	(84,407)	(456)	(8,203)	(17,731)	(24,922)	(27,660)	(76,516)	(23,855)	(19,985)	(13,956)	(2,938)	(60,734)	(80,225)	(68,089)	(76,379)	252,009	368,484	805,001	864,935
Profit/loss from financial investments	1,927	780	1,424	448	8,258	(2,380)	(13,874)	(6,885)	0	(23,142)	0	0	0	0	0	0	0	0	0	0	0	0
Fair value re-measurement of share subscription agreement	0	0	0	(30,632)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pretax income (loss)	(7,599)	(16,135)	(35,201)	(114,591)	7,802	(10,583)	(31,605)	(31,810)	(27,660)	(101,658)	(23,855)	(19,985)	(13,956)	(2,938)	(60,734)	(80,225)	(68,089)	(76,379)	252,009	368,484	805,001	864,935
Taxes	164	(676)	(2,103)	1,218	(235)	0	(92)	(69)	0	(161)	0	0	0	0	0	0	0	0	0	0	0	0
Tax rate	NM	NM	NM	NM	-3%	NM	NM	NM	0%	NM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Net income (loss) from continuing operations	(7,435)	(16,811)	(37,304)	(113,373)	7,567	(10,583)	(31,697)	(31,879)	(27,660)	(101,819)	(23,855)	(19,985)	(13,956)	(2,938)	(60,734)	(80,225)	(68,089)	(76,379)	252,009	368,484	805,001	864,935
Net income from discontinued operations	1,714	8,732	70,514	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net income (loss)	(€ 5,721)	(€ 8,079)	€ 33,210	(€ 113,373)	€ 7,567	(€ 10,583)	(€ 31,697)	(€ 31,879)	(€ 27,660)	(€ 101,819)	(€ 23,855)	(€ 19,985)	(€ 13,956)	(€ 2,938)	(€ 60,734)	(€ 80,225)	(€ 68,089)	(€ 76,379)	€ 252,009	€ 368,484	€ 805,001	€ 864,935
Owners of parent	(5,721)	(8,079)	33,211																			
Basic and diluted income/loss per share	(€ 0.22)	(€ 0.28)	€ 1.10	(€ 3.18)	€ 0.16	(€ 0.23)	(€ 0.64)	(€ 0.63)	(€ 0.54)	(€ 2.06)	(€ 0.47)	(€ 0.40)	(€ 0.28)	(€ 0.06)	(€ 1.20)	(€ 1.56)	(€ 1.32)	(€ 1.48)	€ 4.90	€ 7.16	€ 15.64	€ 16.80
Basic and diluted loss per share from continuing operations	(€ 0.28)	(€ 0.58)	(€ 1.24)	(€ 3.18)	€ 0.16	(€ 0.23)	(€ 0.64)	(€ 0.63)	(€ 0.54)	(€ 2.06)	(€ 0.47)	(€ 0.40)	(€ 0.28)	(€ 0.06)	(€ 1.20)	(€ 1.56)	(€ 1.32)	(€ 1.48)	€ 4.90	€ 7.16	€ 15.64	€ 16.80
Net income (non-GAAP, incl option exp)	(7,435)	(16,811)	(37,304)	(118,409)	(3,467)	(13,606)	(35,642)	(36,608)	(35,273)	(121,129)	(27,180)	(24,325)	(19,158)	(11,311)	(81,974)	(103,590)	(93,790)	(104,650)	220,911	334,276	767,373	823,543
EPS, diluted (non-GAAP, incl option exp)	(0.28)	(0.58)	(1.24)	(3.32)	(0.08)	(0.29)	(0.72)	(0.72)	(0.69)	(2.45)	(0.54)	(0.48)	(0.38)	(0.22)	(1.62)	(2.01)	(1.82)	(2.03)	4.29	6.49	14.91	16.00
Basic shares outstanding	26,545	28,787	30,108	35,700	45,696	46,256	49,830	50,902	50,902	49,473	50,471	50,471	50,471	50,471	50,471	51,471	51,471	51,471	51,471	51,471	51,471	51,471
Diluted shares outstanding	26,545	28,787	30,108	35,700	47,308	48,330	49,830	50,902	50,902	49,991	50,471	50,471	50,471	50,471	50,471	51,471	51,471	51,471	51,471	51,471	51,471	51,471
Diluted shares outstanding - ModelWare	26,545	28,787	30,108	35,700	47,308	48,330	49,830	50,902	50,902	49,991	50,471	50,471	50,471	50,471	50,471	51,471	51,471	51,471	51,471	51,471	51,471	51,471
GAAP net income	(5,721)	(8,079)	33,210	(118,409)	54,012	(13,606)	(35,642)	(36,608)	(35,273)	(121,129)	(27,180)	(24,325)	(19,158)	(11,311)	(81,974)	(103,590)	(93,790)	(104,650)	220,911	334,276	767,373	823,543
EPS, diluted (GAAP)	(0.22)	(0.28)	1.10	(3.32)	1.14	(0.28)	(0.72)	(0.72)	(0.69)	(2.42)	(0.54)	(0.48)	(0.38)	(0.22)	(1.62)	(2.01)	(1.82)	(2.03)	4.29	6.49	14.91	16.00

Source: Company Data, Morgan Stanley Research

Balance Sheet

Exhibit 84: Galapagos Balance Sheet

Balance Sheet, Thousands of Euro	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Goodwill	37,667	39,239	0	0	0	0	0	0	0	0	0	0	0	0
Intangible assets	9,424	7,832	2,015	1,550	1,023	1,023	1,023	1,023	1,023	1,023	1,023	1,023	1,023	1,023
Property, plant and equipment	18,099	19,525	10,091	13,782	14,961	19,556	25,306	31,369	37,528	42,976	47,122	49,184	50,661	51,557
Deferred tax assets	1,705	4,558	294	1,726	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957	1,957
Non-current R&D incentives receivables	35,288	39,347	43,944	49,384	54,188	54,188	54,188	54,188	54,188	54,188	54,188	54,188	54,188	54,188
Non-current restricted cash	278	3,306	306	1,046	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098	1,098
Other non-current assets	419	220	215	557	2,880	8,761	4,098	4,141	4,728	4,510	10,719	13,095	21,877	23,131
Non-current assets	102,880	114,027	56,865	68,044	76,107	86,583	87,670	93,776	100,522	105,752	116,107	120,545	130,803	132,954
Inventories	204	249	281	325	300	2,920	2,049	2,071	2,364	2,255	5,360	6,548	10,938	11,566
Trade and other receivables	32,494	19,207	3,211	3,931	9,728	11,682	13,114	13,253	15,131	14,432	34,302	41,905	70,005	74,020
Current R&D incentives receivables	188	10,625	7,351	9,161	10,154	10,154	10,154	10,154	10,154	10,154	10,154	10,154	10,154	10,154
Cash and cash equivalents	94,369	138,175	187,712	340,314	973,241	1,178,276	1,216,465	1,062,667	916,920	835,813	1,044,699	1,380,005	2,133,084	2,989,583
Current restricted cash	0	0	10,422	6,857	6,570	6,570	6,570	6,570	6,570	6,570	6,570	6,570	6,570	6,570
Other current assets	5,194	5,091	4,625	13,883	7,239	11,682	4,098	4,141	4,728	4,510	10,719	13,095	21,877	23,131
Current assets	132,449	173,347	213,602	374,470	1,007,232	1,221,283	1,252,450	1,098,856	955,868	873,734	1,111,805	1,458,276	2,252,627	3,115,023
Total assets	235,329	287,374	270,467	442,514	1,083,338	1,307,867	1,340,120	1,192,631	1,056,390	979,486	1,227,911	1,578,821	2,383,430	3,247,977
Share capital	139,347	154,542	157,274	185,399	223,928	592,582	764,570	787,935	813,636	841,907	873,005	907,213	944,842	986,233
Share premium account	72,876	112,484	114,182	357,402	649,135	649,135	649,135	649,135	649,135	649,135	649,135	649,135	649,135	649,135
Other reserves	0	47	(220)	(18)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Translation differences	994	170	(1,157)	(467)	(1,090)	(1,090)	(1,090)	(1,090)	(1,090)	(1,090)	(1,090)	(1,090)	(1,090)	(1,090)
Accumulated losses	(94,770)	(100,107)	(63,944)	(177,317)	(112,272)	(233,401)	(315,375)	(418,965)	(512,755)	(617,404)	(396,493)	(62,217)	705,155	1,528,699
Total equity	118,447	167,136	206,135	364,999	758,701	1,006,226	1,096,240	1,016,015	947,926	871,547	1,123,557	1,492,041	2,297,042	3,161,977
Pension liabilities	2,035	2,189	2,865	2,693	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520
Provisions	676	668	72	55	63	63	63	63	63	63	63	63	63	63
Deferred tax liabilities	2,624	2,192	0	0	0	0	0	0	0	0	0	0	0	0
Finance lease liabilities	165	167	115	63	9	9	9	9	9	9	9	9	9	9
Other non-current liabilities	2,367	2,462	923	2,291	2,469	2,469	2,469	2,469	2,469	2,469	2,469	2,469	2,469	2,469
Non-current deferred income	0	0	0	0	214,785	214,785	143,190	71,595	0	0	0	0	0	0
Non-current liabilities	7,867	7,678	3,975	5,102	220,846	220,846	149,251	77,656	6,061	6,061	6,061	6,061	6,061	6,061
Provisions	176	81	105	0	0	0	0	0	0	0	0	0	0	0
Finance lease liabilities	240	226	52	52	54	54	54	54	54	54	54	54	54	54
Trade and other payables	22,093	29,365	30,007	29,482	31,269	39,294	53,128	57,459	60,902	60,376	56,793	39,218	38,826	38,438
Current tax payable	3	50	2,582	2,583	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022	1,022
Accrued charges	2,893	3,858	585	490	619	619	619	619	619	619	619	619	619	619
Deferred income	83,608	78,979	27,026	39,806	70,827	39,806	39,806	39,806	39,806	39,806	39,806	39,806	39,806	39,806
Current liabilities	109,013	112,559	60,357	72,413	103,791	80,795	94,629	98,960	102,403	101,877	98,294	80,719	80,327	79,939
Total liabilities	116,880	120,237	64,332	77,515	324,637	301,641	243,880	176,616	108,464	107,938	104,355	86,780	86,388	86,000
Total equity and liabilities	235,327	287,373	270,467	442,514	1,083,338	1,307,867	1,340,120	1,192,631	1,056,390	979,486	1,227,911	1,578,821	2,383,430	3,247,977

Source: Company Data, Morgan Stanley Research

Cash Flow Statement

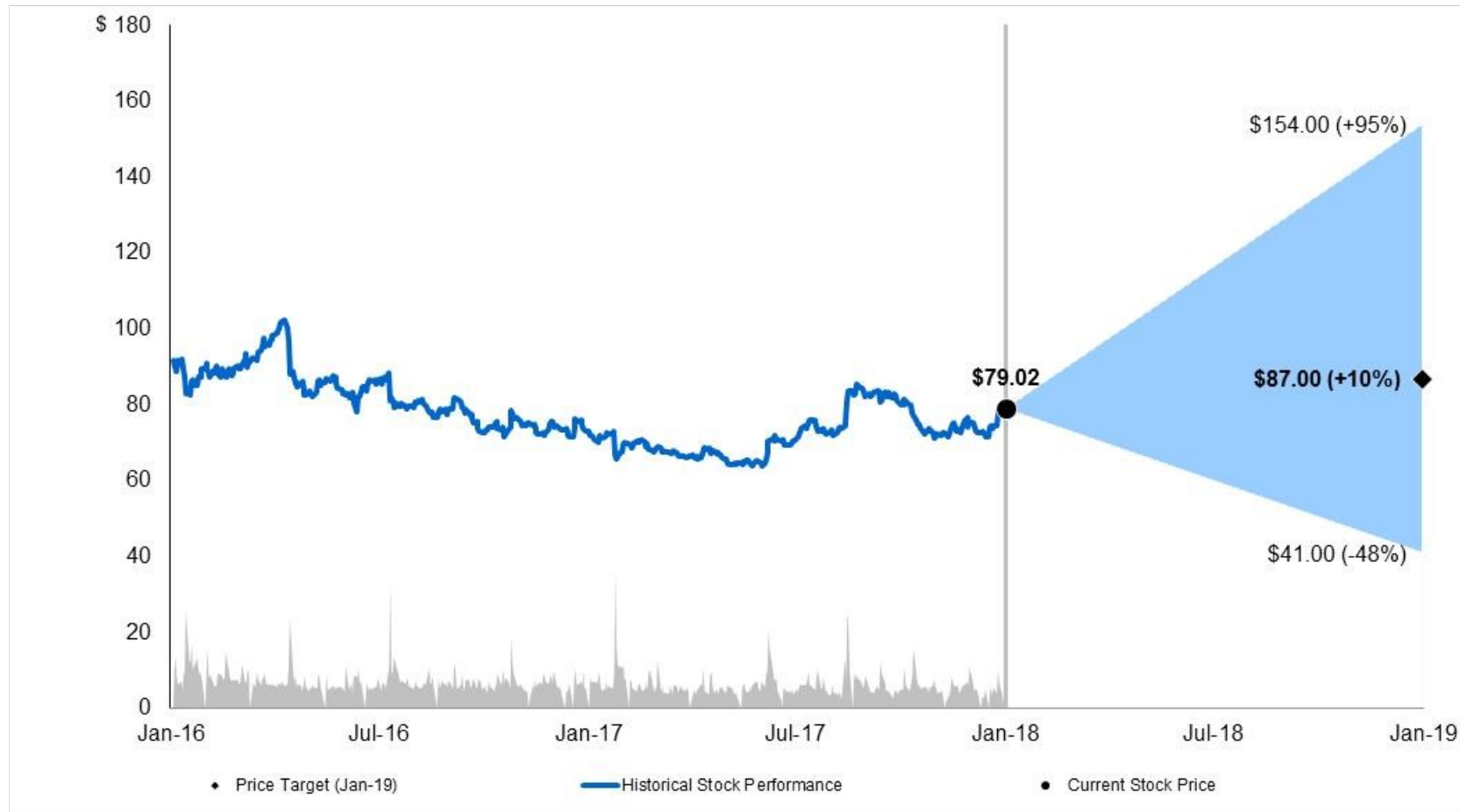
Exhibit 85: Galapagos Cash Flow Statement

Statement of Cash Flows, Thousands of Euro	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cash and cash equivalents at beginning of year	32,277	94,369	138,175	187,712	340,314	973,241	1,178,276	1,216,465	1,062,667	916,920	835,813	1,044,699	1,380,005	2,133,084
Net income/loss	(5,721)	(8,079)	33,211	(118,410)	54,012	(121,129)	(81,974)	(103,590)	(93,790)	(104,650)	220,911	334,276	767,373	823,543
Tax income/expense	569	(3,115)	2,337	(1,218)	235	0	0	0	0	0	0	0	0	0
Financial income/expense	(1,458)	174	(1,841)	(448)	(8,258)	0	0	0	0	0	0	0	0	0
Fair value re-measurement of share subscription agreement	0	0	0	30,632	(51,419)	0	0	0	0	0	0	0	0	0
Depreciation of property, plant & equipment	6,884	6,036	3,582	2,372	3,322	4,386	4,876	5,429	6,021	6,627	7,213	7,742	8,230	8,713
Amortization of intangible fixed assets	2,125	2,118	1,067	1,030	860	0	0	0	0	0	0	0	0	0
Net realized loss of foreign exchange transactions	426	(2,078)	(261)	(398)	1,229	0	0	0	0	0	0	0	0	0
Share based compensation	2,086	2,742	2,952	5,036	11,034	19,310	21,240	23,364	25,701	28,271	31,098	34,208	37,629	41,392
Increase/decrease in provisions	(359)	(88)	27	(125)	7	0	0	0	0	0	0	0	0	0
Increase in pension liabilities	609	154	409	30	244	0	0	0	0	0	0	0	0	0
Loss on liquidation of subsidiaries	3,004	0	0	0	0	0	0	0	0	0	0	0	0	0
Gain on disposal of fixed assets	(17)	0	0	(62)	(14)	0	0	0	0	0	0	0	0	0
Gain on sale of service division	0	0	(67,508)	0	0	0	0	0	0	0	0	0	0	0
Operating cash flows before movements in working capital	8,148	(2,136)	(26,025)	(81,561)	5,192	(97,433)	(55,858)	(74,796)	(62,068)	(69,751)	259,222	376,226	813,231	873,648
Increase in inventories	291	(39)	(32)	(44)	25	(2,620)	871	(22)	(294)	109	(3,105)	(1,188)	(4,391)	(627)
Increase/decrease in receivables	(16,876)	1,069	(10,110)	(7,220)	(12,978)	(12,278)	10,814	(225)	(3,052)	1,135	(32,289)	(12,354)	(45,663)	(6,524)
Increase/decrease in payables	73,592	2,242	(40,311)	(26,728)	2,102	8,025	13,834	4,331	3,443	(526)	(3,584)	(17,575)	(392)	(388)
Increase in deferred income	0	0	0	0	245,806	(31,021)	(71,595)	(71,595)	(71,595)	0	0	0	0	0
Cash generated/used from operations	65,155	1,136	(76,478)	(115,553)	240,148	(135,328)	(101,933)	(142,306)	(133,566)	(69,032)	220,245	345,110	762,786	866,109
Interest paid	(150)	(164)	(113)	(49)	(47)	0	0	0	0	0	0	0	0	0
Interest received	1,022	959	951	1,106	1,066	0	0	0	0	0	0	0	0	0
Income taxes paid/received	(153)	(85)	86	(94)	(1,763)	0	0	0	0	0	0	0	0	0
Net cash flows generated/used in operating activities	65,874	1,846	(75,554)	(114,590)	239,403	(135,328)	(101,933)	(142,306)	(133,566)	(69,032)	220,245	345,110	762,786	866,109
Purchase of property, plant and equipment	(5,896)	(7,328)	(2,061)	(6,100)	(4,458)	(8,981)	(10,626)	(11,492)	(12,180)	(12,075)	(11,359)	(9,805)	(9,707)	(9,609)
Purchase of and expenditure in intangible fixed asset	(940)	(545)	(743)	(565)	(332)	0	0	0	0	0	0	0	0	0
Proceeds from disposal of intangible assets	20	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from disposal of property, plant and property	379	65	45	110	18	0	0	0	0	0	0	0	0	0
Acquisitions of subsidiaries, net of cash acquired	0	(1,152)	0	0	0	0	0	0	0	0	0	0	0	0
Disposals of subsidiaries, net of cash disposed	0	0	130,787	0	0	0	0	0	0	0	0	0	0	0
Increased in restricted cash	0	(3,028)	(7,422)	2,258	235	0	0	0	0	0	0	0	0	0
Acquisition of available-for-sale financial assets	0	0	0	0	(2,750)	0	0	0	0	0	0	0	0	0
Net cash flows generated/used in investing activities	(6,437)	(11,988)	120,606	(4,296)	(7,287)	(8,981)	(10,626)	(11,492)	(12,180)	(12,075)	(11,359)	(9,805)	(9,707)	(9,609)
Repayment of obligations under finance leases and other debts	(477)	(308)	(216)	(43)	(49)	0	0	0	0	0	0	0	0	0
Proceeds from capital and share premium increases, net of issue costs	2,742	54,803	4,430	271,413	396,045	349,344	150,748	0	0	0	0	0	0	0
Tax benefit from Stock Options	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash flows generated in financing activities	2,265	54,495	4,214	271,370	395,996	349,344	150,748	0	0	0	0	0	0	0
Effect of exchange rate differences on cash and cash equivalents	391	(548)	271	118	4,816	0	0	0	0	0	0	0	0	0
Increase in cash and cash equivalents	62,093	43,805	49,537	152,602	632,927	205,035	38,190	(153,798)	(145,747)	(81,108)	208,887	335,305	753,079	856,499
Cash and cash equivalents at end of year	94,370	138,174	187,712	340,314	973,241	1,178,276	1,216,465	1,062,667	916,920	835,813	1,044,699	1,380,005	2,133,084	2,989,583

Source: Company Data, Morgan Stanley Research

26 Gilead Risk Reward

Sovaldi/Harvoni/Epclusa/Vosevi peak, Duration of HCV sales, HIV patent expirations, and CAR-T drive Risk-Reward



Source: Thomson Reuters, Morgan Stanley Research

Bull, Base And Bear Case

Price Target: \$87

We Derive Our PT From A Discounted Cash Flow Analysis That Uses A WACC Of 10% And A 2.0% Terminal Growth Rate.

BULL
\$154

BASE
\$87

BEAR
\$41

DCF

US treated HCV patients decline modestly post 2017E, around half of HIV sales are transitioned to new regimens. We assume: 1) ~\$20B in 2020E antiviral sales, of which ~\$4.1B is from HCV, 2) US HCV patients peaked at ~250K/yr and then decline ~5-10%/yr in 2019+ to a baseline of ~80k/year, 3) HCV gross-to-net increasing to ~55% from 31% in 2015, 4) Gilead maintains 65% HCV market share, and 5) CAR-T achieves modest penetration.

Investment Thesis

- We are Equal-weight Gilead as we believe that while GILD offers significant absolute upside, near-term catalysts from our Overweight-rated stocks offer greater near-term upside relative to Gilead.
- Significant near-term cash generation, significant returns of capital through share repurchase and a low forward P/E multiple offer downside protection in GILD.
- HCV (Sovaldi/Harvoni/Epclusa/Vosevi): We believe HCV peaked in 2015/2016 in the US and will continue to decline modestly. However, we believe cash flow generation will be robust. Further, we believe ROW HCV is a durable long-term asset.
- HIV: Gilead has done a good job of switching naïve patients to the new STRs (Stribild, Complera, Genvoya), but Truvada/Atripla still hold ~20% of the market right now, which means a significant number still need to be switched. However, given time and solid TAF switching data we believe at least half of the market can be switched.
- CAR-T: Gilead's acquisition of Kite provides a potential for renewed long term revenue growth.

Key Value Drivers

- The main drivers are the HIV franchise, the HCV franchise, and the CAR-T franchise. CAR-T approval, pipeline, and capital deployment represent other key drivers.

Risks To Achieving Price Target

- 1) A longer peak to HCV sales
- 2) A higher peak of HCV sales followed by a rapid decline
- 3) Unexpected toxicity or competition in HCV

- 4) Unexpected competition in HIV
- 5) Failure of CAR-T approval or failure of CAR-T to achieve significant market penetration

Catalyst Calendar

Exhibit 86: Gilead Catalyst Calendar

Drug	Type	Event	Timing
GS-4997	PhIII update	Complete enrollment of STELLAR 4 PhIII study in NASH	Early 2018
Bictegravir/F/TAF	Regulatory event	PDUFA date	2/12/2018
GS-9674	PhII data	Primary endpoint analysis in PSC	1Q18
GS-9674	PhII data	Complete PhII study in NASH	1Q18
GS-5745	PhII data	Complete PhII study with nivolumab for gastric cancer	1Q18
GS-5745	PhIII update	Interim analysis from PhIII study in gastric cancer	1Q18
Entospletinib	PhII update	Interim analysis from PhII study in cGVHD	1Q18
Presatovir/GS5806	PhII data	Complete PhII study in adults with infection in upper respiratory tract	2Q18
GS-4997	PhII update	Complete PhII study in Alcoholic Hepatitis	2Q18
Filgotinib	PhII data	Complete PhII study in ankylosing spondylitis	2Q18
Filgotinib	PhII data	Complete PhII study in psoriatic arthritis	2Q18
Yescarta	Regulatory event	Potential EU Approval	1H18
Axi-Cel	Regulatory event	EU approval for aggressive NHL	1H18
Filgotinib	PhIII data	Interim analysis from PhIII study in UC	1H18
GS-4997	PhIII update	Complete enrollment of STELLAR 3 PhIII study in NASH	1H18
Bictegravir/F/TAF	Regulatory event	Potential EU Approval	3Q18
Descovy	PhIII data	Complete PhIII study in PrEP	3Q18
GS-4059	PhII data	Achieve 24wk endpoint in PhII combination studies in R/R CLL	2H18
GS-5734	PhII data	Complete PhII study in ebola survivors	2H18
GS-9876	PhII data	Complete PhII study in Sjogren's syndrome and cutaneous lupus erythematosus	2H18
Filgotinib	PhIII data	FINCH-2 study of biologic-inadequate responders for RA anticipated	2H18

Source: Company Data, Morgan Stanley Research

Income Statement

Exhibit 87: Gilead Income Statement

	2015A	2016A	2017E				2018E				2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E		
			1Q17A	2Q17A	3Q17A	4Q17E	1Q18E	2Q18E	3Q18E	4Q18E														
Gilead Income Statement																								
Product Sales	32,151	29,953	6,377	7,046	6,402	5,920	4,668	5,277	5,332	5,631	20,908	21,292	22,372	21,898	22,502	23,315	24,251	18,297	16,694	16,552	16,479	13,634	12,433	
			Co. Guidance \$24.5-25.5B																					
Royalty, contract and other revenues	488	437	128	95	110	109	442	130	101	107	109	448	453	459	464	470	476	482	488	494	501	507	514	520
Total Revenue	22,639	20,390	6,505	7,141	6,512	6,029	5,108	5,378	5,439	5,740	21,056	21,745	22,831	22,362	23,072	23,784	24,727	18,785	17,188	17,053	16,993	14,148	12,953	
Consensus Revenue			6,393	6,998	6,393	5,998	5,334	5,527	5,510	5,574	22,103	21,713	22,530											
COGS	3,175	3,414	743	892	821	873	3,329	735	816	885	982	3,418	3,629	3,920	3,832	3,862	3,987	4,138	2,828	2,476	2,440	2,420	2,004	1,933
Gross Profit	29,464	26,976	5,762	6,249	5,691	5,157	22,859	4,063	4,563	4,554	4,759	17,938	18,116	18,910	18,530	19,110	19,804	20,595	15,957	14,713	14,613	14,566	12,144	11,021
R&D	2,845	3,749	889	812	745	854	3,300	951	800	797	852	3,400	3,400	3,400	3,485	3,572	3,572	3,572	3,572	3,572	3,572	1,786	447	45
			Co. Guidance \$3.3-3.4B																					
Clinical studies and outside services																								
Personnel expenses																								
Facilities, IT and other costs																								
IPR&D impairment charges																								
SG&A	3,224	3,194	807	827	806	860	3,300	840	840	800	870	3,350	3,266	3,185	3,105	3,027	2,952	2,878	2,950	3,024	3,099	3,177	794	79
			Co. Guidance \$3.3-3.4B																					
Operating Income	23,395	20,033	4,066	4,610	4,140	3,443	16,259	2,271	2,923	2,957	3,037	11,188	11,450	12,326	11,940	12,511	13,280	14,145	9,435	8,117	7,942	9,603	10,903	10,897
Interest expense	-688	-964	-261	-269	-273	-234	-1,037	-261	-261	-261	-261	-1,042	-994	-931	-931	-790	-771	-707	-646	-545	-508	-508	-508	-508
Other income (expense), net	155	431	111	130	150	138	529	128	128	128	128	511	570	573	535	526	519	517	574	617	634	661	698	728
Pretax Income	22,862	19,500	3,916	4,471	4,017	3,346	15,750	2,139	2,790	2,824	2,904	10,657	11,026	11,967	11,543	12,247	13,028	13,955	9,363	8,189	8,067	9,756	11,093	11,116
Taxes	3,691	3,800	970	1,103	1,033	989	4,095	492	642	649	668	2,451	2,536	2,752	2,655	2,817	2,996	3,210	2,154	1,883	1,855	2,244	2,551	2,557
Tax Rate	17%	19%	25%	25%	26.0%	29.6%	26.0%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
			Co. Guidance 25-27%																					
Net Income (non-gaap)	19,171	15,700	2,946	3,368	2,984	2,357	11,655	1,647	2,148	2,174	2,236	8,206	8,490	9,214	8,888	9,430	10,032	10,746	7,210	6,305	6,212	7,512	8,541	8,559
Net loss from noncontrolling interest	-2	-15	-3	-4	-6	0	-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net income to Gilead (Non-GAAP)	19,173	15,715	2,949	3,372	2,990	2,357	11,668	1,647	2,148	2,174	2,236	8,206	8,490	9,214	8,888	9,430	10,032	10,746	7,210	6,305	6,212	7,512	8,541	8,559
Non-GAAP EPS (excl. options)	\$12.81	\$11.57	\$2.23	\$2.56	\$2.27	\$1.77	\$8.83	\$1.26	\$1.65	\$1.67	\$1.71	\$6.29	\$6.64	\$7.56	\$7.68	\$8.51	\$9.47	\$10.43	\$7.06	\$6.23	\$6.19	\$7.56	\$8.68	\$8.78
Consensus EPS			2.13	1.88	1.88	1.68	8.88	1.19	1.74	1.72	1.73	6.77	6.72	6.89										
Non-gaap EPS (incl. options)	\$12.40	\$11.34	\$2.18	\$2.50	\$2.20	\$1.71	\$8.59	\$1.19	\$1.58	\$1.60	\$1.65	\$6.02	\$6.24	\$7.11	\$7.15	\$7.90	\$8.77	\$9.64	\$6.18	\$5.26	\$5.11	\$6.36	\$7.34	\$7.30
GAAP EPS (incl. options)	\$11.91	\$9.94	\$2.05	\$2.33	\$2.00	\$1.68	\$8.51	\$1.17	\$1.56	\$1.58	\$1.63	\$5.94	\$6.24	\$7.11	\$7.15	\$7.90	\$8.77	\$9.64	\$6.18	\$5.26	\$5.11	\$6.36	\$7.34	\$7.30
Basic Shares - GAAP	1,464	1,339	1,308	1,307	1,306	1,319	1,310	1,293	1,293	1,293	1,293	1,293	1,267	1,207	1,147	1,098	1,050	1,021	1,012	1,003	994	985	976	966
Diluted Shares - GAAP	1,521	1,358	1,320	1,317	1,319	1,332	1,322	1,305	1,305	1,305	1,305	1,305	1,279	1,218	1,157	1,108	1,059	1,030	1,021	1,012	1,003	994	985	975
Diluted Shares - non-GAAP	1,521	1,358	1,320	1,317	1,319	1,332	1,322	1,305	1,305	1,305	1,305	1,305	1,279	1,218	1,157	1,108	1,059	1,030	1,021	1,012	1,003	994	985	975

Source: Company Data, Morgan Stanley Research

Revenues

Exhibit 88: Gilead Revenues

Product Revenue	2015A	2016A	2017E				2018E				2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	
			1Q17A	2Q17A	3Q17A	4Q17E	1Q18E	2Q18E	3Q18E	4Q18E													
Atripla (efavirenz / emtricitabine / TDF)	3,134	2,605	452	475	439	347	1,713	251	268	254	229	1,002	690	489	50	5	1	0	0	0	0	0	0
US (2021 Expiration)	2,222	1,898	316	334	324	300	1,274	229	242	234	217	922	668	485	49	5	1	0	0	0	0	0	0
EU (7/2017 Expiration)	694	520	94	86	79	12	271	10	9	9	1	29	10	1	0	0	0	0	0	0	0	0	0
ROW	218	187	42	55	36	35	168	13	17	11	11	50	13	3	1	0	0	0	0	0	0	0	0
Truvada (emtricitabine / TDF)	3,459	3,566	714	812	811	768	3,105	447	534	557	548	2,086	1,642	1,229	134	9	4	2	1	0	0	0	0
US (2021 Expiration)	2,057	2,384	464	567	604	600	2,235	392	479	510	507	1,889	1,556	1,194	118	1	0	0	0	0	0	0	0
EU (7/2017 Expiration)	1,118	913	189	184	154	118	645	20	20	17	13	70	23	3	1	0	0	0	0	0	0	0	0
ROW	284	269	61	61	53	50	225	35	35	30	28	127	64	32	16	8	4	2	1	0	0	0	0
Viread (TDF)	1,108	1,186	260	300	274	128	962	59	70	68	32	229	38	5	1	0	0	0	0	0	0	0	0
US (Teva settlement, Dec 15, 2017)	541	591	117	141	137	65	480	41	50	48	23	162	17	2	0	0	0	0	0	0	0	0	0
EU (July 2017 Expiration)	310	302	71	76	55	24	226	2	2	2	1	7	3	1	1	0	0	0	0	0	0	0	0
ROW	257	293	72	83	82	39	276	16	18	18	8	60	18	2	0	0	0	0	0	0	0	0	0
Complera/Eviplera (emtricitabine / rilpivirine / TDF)	1,427	1,457	253	254	237	215	959	197	198	188	170	753	653	607	584	128	34	12	1	0	0	0	0
US (2023 Expiration)	796	821	112	112	91	84	399	68	68	55	51	243	150	108	89	73	27	11	1	0	0	0	0
EU (2022 Expiration)	576	580	125																				

Balance Sheet

Exhibit 89: Gilead Balance Sheet

	2009	2010	2011	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Current assets																						
Cash and Equivalents	1,273	908	9,884	1,804	2,113	10,027	12,851	8,229	6,376	12,113	12,255	8,402	7,382	6,682	6,381	11,981	16,252	17,888	20,513	24,239	27,137	31,001
Marketable Securities	384	1,191	16	59	19	101	1,756	3,666	3,799	3,919	4,028	4,125	4,212	4,291	4,362	4,426	4,483	4,535	4,581	4,623	4,661	4,695
Trade Receivables, net	1,390	1,622	1,951	1,751	2,100	4,635	5,854	4,514	4,761	3,883	3,954	4,151	4,066	4,177	4,326	4,497	3,415	3,125	3,101	3,088	2,572	2,355
Inventories	1,052	1,204	1,390	1,745	2,056	1,386	1,955	1,587	1,664	1,709	1,814	1,960	1,916	1,931	1,994	2,069	1,414	1,238	1,220	1,210	1,002	967
Deferred Taxes, Net	295	279	208	263	331	508	828	857	857	857	857	857	857	857	857	857	857	857	857	857	857	857
Prepaid Expenses & Taxes	352	388	342	535	564	585	1,519	1,592	1,372	1,119	1,139	1,196	1,171	1,203	1,246	1,296	984	900	893	890	741	679
Other Current Assets	67	116	127	0	92	472	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total current assets	4,813	5,708	13,919	6,156	7,274	17,714	24,763	20,445	18,830	23,600	24,047	20,691	19,604	19,141	19,166	25,125	27,406	28,544	31,165	34,907	36,971	40,553
Property, Plant & Equipment, Net	700	701	774	1,100	1,166	1,674	2,276	2,865	3,277	3,566	3,871	4,212	4,537	4,877	5,237	5,620	5,721	5,729	5,710	5,663	5,439	5,124
Non-Current Portion of Prepaid Royalties	226	204	175	176	199	466	400	423	447	473	500	529	559	592	626	662	700	740	782	827	875	925
Non-Current Deferred Tax Asset	101	153	144	131	155	236	324	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402
Intangible Assets, net	1,062	893	2,067	11,736	11,900	11,073	10,247	8,971	10,965	9,984	9,003	8,022	7,041	6,060	5,079	4,098	3,117	2,136	1,155	174	174	174
Long Term Marketable Securities	2,248	3,219	64	720	439	1,598	11,601	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485	20,485
Goodwill	463	533	0	1,061	1,169	1,172	1,172	1,172	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097	10,097
Other Assets	86	181	161	159	195	731	1,056	2,214	1,908	1,556	348	365	358	368	381	396	301	275	273	272	226	207
Total assets	9,699	11,593	17,303	21,240	22,497	34,664	51,839	56,977	66,411	70,162	68,753	64,803	63,083	62,021	61,472	66,884	68,228	68,408	70,069	72,827	74,669	77,967
Current liabilities																						
Accounts Payable	811	803	1,206	1,327	1,256	955	1,178	1,206	1,176	1,207	1,282	1,385	1,354	1,364	1,409	1,462	999	875	862	855	708	683
Accrued Expenses/Comp & Employee Ben.	132	148	173	237	244	316	3,172	2,790	2,404	1,961	1,996	2,096	2,053	2,109	2,184	2,271	1,725	1,578	1,566	1,559	1,299	1,189
Accrued Liabilities	800	765	1,059	1,433	2,018	3,873	4,118	5,021	3,630	3,713	3,666	3,622	3,624	3,630	3,588	3,548	3,587	3,628	3,669	2,729	682	68
Deferred Revenue	123	103	75	103	111	134	440	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202
Current Portion of Long Term Debt	6	646	2	1,169	2,697	483	983	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total current liabilities	1,872	2,465	2,515	4,270	6,325	5,761	9,891	9,219	7,412	7,082	7,147	7,304	7,233	7,305	7,383	7,482	6,513	6,282	6,299	5,346	2,891	2,142
Deferred Tax Liabilities	87	107	136	116	162	562	1,243	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753
Long-Term Debt	1,155	2,839	7,606	7,055	3,939	11,921	21,195	26,346	29,373	27,623	24,653	22,153	19,914	18,417	17,673	15,932	14,182	11,432	10,189	10,189	10,189	10,189
Long-Term Deferred Revenue	43	33	32	21	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other long-term obligations	36	27	148	228	304	601	397	296	607	607	607	607	607	607	607	607	607	607	607	607	607	607
Total liabilities	3,193	5,471	10,436	11,689	10,752	18,845	32,726	37,614	39,145	37,065	34,160	31,817	29,507	28,082	27,416	25,774	23,055	20,074	18,848	17,895	15,440	14,691
Minority Interest	138	258	128	241	375	393	579	476	463	463	463	463	463	463	463	463	463	463	463	463	463	463
Preferred Stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Common Stock	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Additional paid-in capital	4,377	4,648	4,903	5,650	5,387	2,391	444	454	-745	-1,111	-6,002	-14,536	-20,566	-27,209	-34,525	-35,415	-36,403	-37,499	-38,713	-40,058	-41,545	-43,191
(Accumulated Deficit) Retained Earnings	1,995	1,184	1,777	3,705	6,105	12,732	18,001	18,154	27,269	33,466	39,853	46,780	53,401	60,406	67,839	75,784	80,835	85,091	89,193	94,248	100,032	105,724
Accumulated Other Comprehensive Income	-6	31	58	-46	-124	301	88	278	278	278	278	278	278	278	278	278	278	278	278	278	278	278
Total stockholders' equity	6,367	5,864	6,739	9,310	11,369	15,426	18,534	18,887	26,803	32,634	34,130	32,523	33,113	33,476	33,593	40,647	44,710	47,870	50,758	54,469	58,765	62,813
Total Liabilities and equity	9,699	11,593	17,303	21,240	22,497	34,664	51,839	56,977	66,411	70,162	68,753	64,803	63,083	62,021	61,472	66,884	68,228	68,408	70,069	72,827	74,669	77,967

Source: Company Data, Morgan Stanley Research

Cash Flow Statement

Exhibit 90: Gilead Cash Flow

Biotechnology: Quick 4Q17 Preview

	2009	2010	2011	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Net Income (Loss)	2,626	2,890	2,789	2,574	3,057	12,059	18,106	13,488	11,237	7,746	7,984	8,658	8,276	8,757	9,291	9,931	6,314	5,320	5,128	6,319	7,230	7,116
Depreciation & Amortization	213	265	302	278	345	1,050	1,098	1,158	1,280	1,324	1,374	1,430	1,486	1,551	1,623	1,702	1,765	1,826	1,889	1,955	1,032	1,087
Stock-based compensation expense	100	118	152	209	252	360	382	380	418	460	506	556	612	673	741	815	896	986	1,084	1,193	1,312	1,443
In-process research and development impairment charges		136	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tax Benefits Related to Employee Stock Options	88	82	37	-2	6	2	1	-8														
Deferred Income Taxes	-42	12	64	-39	-98	-236	-393	-119	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amortization of Bond Discount					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	64	10	48	-2	106	101	-24	-24														
Changes in operating assets and liabilities:																						
Accounts receivable, net	-330	-349	-310	130	-310	-2,310	-1,391	1,194	-241	013	-11	-191	60	-111	-149	-111	1,061	230	20	14	310	211
Inventories	-75	-161	-201	-350	-343	143	-855	-488	-77	-44	-105	-146	44	-15	-63	-75	655	176	18	10	208	36
Prepaid Expenses	-66	-70	-14	-129	-170	-371	-90	-520	196	227	-48	-86	-6	-64	-77	-85	274	43	-35	-41	101	12
Accounts Payable	204	-4	429	117	-98	-289	226	47	-30	31	74	103	-31	10	44	53	-463	-124	-13	-7	-147	-25
Accrued Liabilities and taxes payable	275	-66	411	318	342	2,546	2,901	1,435	-1,777	-361	-10	55	-40	61	34	46	-506	-106	29	-946	-2,308	-724
Deferred Revenue	49	-30	-29	23	22	31	374	-304	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash provided by (used in) operating activities	3,080	2,834	3,639	3,195	3,105	12,818	20,329	16,669	10,999	10,262	9,704	10,374	10,427	10,863	11,444	12,214	10,015	8,411	8,125	8,495	7,944	9,162
Cash Flows from Investing Activities																						
Purchases Of Marketable Securities	-2,614	-5,503	-5,128	-1,245	-257	-2,107	-17,239	-25,619	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Proceeds From Sales Of Marketable Securities	1,441	3,034	8,650	528	494	807	4,792	13,039	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500
Proceeds From Maturities Of Marketable Securities	436	684	788	45	78	52	719	1,700	367	380	392	403	412	421	429	436	443	448	453	458	462	466
Acquisitions, Net Of Cash	-1,248	-91	-589	-10,752	-379	0	0	0	-11,900	0	0	0	0	0	0	0	0	0	0	0	0	0
Purchases of PP&E	-230	-62	-132	-397	-191	-557	-747	-746	-710	-632	-698	-790	-830	-910	-1,002	-1,103	-865	-853	-889	-928	-808	-772
Other																						
Net cash used in investing activities	-2,216	-1,938	3,590	-11,846	-254	-1,823	-12,475	-11,985	-12,437	-400	402	-905	-910	-999	-1,086	-1,182	-847	-879	-933	-968	-800	-787
Cash Flows from Financing Activities																						
Proceeds from issuances of common stock (for ESO)	223	221	212	466	313	331	319	208	116	103	91	48	48	48	48	48	48	48	48	48	47	47
Excess tax benefits from stock-based compensation	80	82	41	114	279	482	585		106	83	74	39	39	39	39	39	39	39	39	39	38	38
Proceeds from sale of (payments to settle) warrants		155			-1,040	-4,093	-3,865	-469														
Proceeds/(purchases) of convertible note hedges		-363		214	2,774	2,517	784	956														
Proceeds from credit facility	400	500					5,293		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repayments of credit facility	-400	-500					-1,981		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Issuance/(Repayments) of Convertible Senior Notes, Net		2,463	4,661	2,145	0	7,932	9,902		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Issuance/(Repayments) Of Long-Term Debt	-311	-6	-652	-1,839	-4,440	-4,779	-997		3,338	-1,750	-2,970	-2,500	-2,239	-1,497	-744	-1,741	-1,750	-2,750	-1,243	0	0	0
Proceeds from/(repayments) of debt financing	-311	2,457	4,009	305	-4,440	3,153	8,905	3,312	3,338	-1,750	-2,970	-2,500	-2,239	-1,497	-744	-1,741	-1,750	-2,750	-1,243	0	0	0
Contributions from (distributions to) noncontrolling interest	-45	132	-115	131	152	35	188	-90														
Repurchases of common stock	-998	-4,023	-2,383	-667	-582	-5,349	-10,002	-11,001	-1,839	-1,011	-5,562	-9,178	-6,730	-7,403	-8,144	-1,792	-1,971	-2,168	-2,385	-2,623	-2,885	-3,174
Dividends paid					0	-1,874	-2,455	-2,135	-1,549	-1,597	-1,732	-1,655	-1,751	-1,858	-1,986	-1,263	-1,064	-1,026	-1,264	-1,446	-1,423	
Other					0	-101	-3	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash provided by financing activities	-1,051	-1,339	1,764	563	-2,544	-3,025	-4,963	-9,347	-414	-4,125	-9,964	-13,321	-10,537	-10,564	-10,659	-5,432	-4,897	-5,895	-4,567	-3,801	-4,245	-4,512
Effect of Exchange Rate Changes on Cash	1	77	-17	8	2	-56	-67	41														
Change in cash	-186	-365	8,976	-8,080	309	7,914	2,824	-4,622	-1,853	5,737	142	-3,853	-1,020	-700	-301	5,600	4,271	1,636	2,625	3,726	2,898	3,864
Cash at beginning of year	1,459	1,273	908	9,884	1,804	10,027	12,851	8,229	6,376	12,113	12,258	8,402	7,382	6,882	6,381	11,961	16,252	17,888	20,513	24,239	27,137	31,001
Cash at end of year	1,273	908	9,884	1,804	2,113	10,027	12,851	8,229	6,376	12,113	12,258	8,402	7,382	6,882	6,381	11,961	16,252	17,888	20,513	24,239	27,137	31,001

Source: Company Data, Morgan Stanley Research

27 Global Blood Therapeutics Risk Reward

Clinical success and market penetration of GBT440 drive risk/reward



Source: Thomson Reuters, Morgan Stanley Research

Bull, Base And Bear Case

Price Target: \$58

Our PT Is Based On A DCF Of Our Base Case Forecast For GBT440 Until Patent Expiration (2032 + 1 Year Extension) At A 15% Discount Rate. We Assume 0% Terminal Growth On 2034+ Cash Flows.

BULL
\$132

BASE
\$58

BEAR
\$6

DCF

35% peak penetration of GBT440: We assume clinical success of GBT440, but comparable success of gene therapy. GBT440 and gene therapy split the patient population.

Investment Thesis

- Sickle Cell Disease represents a large (~\$5B) market with significant unmet medical need: GBT440's oral dosing and potentially disease modifying therapy position it well to compete in the market with no new therapies in decades. Our ~35% market share suggests ~\$1.5B in US peak sales potential.
- Early GBT440 data is compelling: Initial data has demonstrated a reduction in sickle cells and improvement in red blood cell markers (hemoglobin, reticulocytes, and LDH). We believe this data could translate into clinical outcomes including reductions in sickle crises, pain and thrombotic events.
- Market assumptions leave room for competition: We currently model only ~33% peak penetration in HbSS, leaving room for gene therapy. While we believe oral dosing could be preferred, gene therapy could offer a 1x curative therapy which could be preferred by some patients.

Key Value Drivers

- Data from GBT440 and competitor programs.
- Advancement of GBT440 into Part B of the HOPE study
- New pipeline candidates.

Risks To Achieving Price Target

- 1) Clinical failure of GBT440
- 2) Greater success of competitor molecules such as gene therapy
- 3) Unexpected safety or tolerability issues with GBT440
- 4) Low patient compliance or high discounts due to the significant Medicaid population

Catalyst Calendar

Exhibit 91: Global Blood Catalyst Calendar

Drug	Type	Milestone	Timing
GBT440	PhIII data	Top-line data from the Part A of the HOPE study	1H18
GBT440	PhIIa	900mg HOPE-KIDS 1 study complete data	1H18
GBT440	PhIIa	1500mg HOPE-KIDS 1 study top-line data	2H18
GBT440	PhIII data	Top-line data from the Part B of the HOPE study	1H19
GBT440	Launch	Potential Launch	2019

Source: Company Data, Morgan Stanley Research

Income Statement

Exhibit 92: Global Blood Income Statement

Global Blood Therapeutics, Inc.	2015	2016A	1Q17A	2Q17A	3Q17A	4Q17E	2017E	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	
Product sales	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.8	286.6	615.7	968.6	1,213.7	1,390.5	1,521.3	1,594.8	1,661.9	1,664.9	1,664.6	1,675.6	1,695.0	1,722.8	
Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.8	286.6	615.7	968.6	1,213.7	1,390.5	1,521.3	1,594.8	1,661.9	1,664.9	1,664.6	1,675.6	1,695.0	1,722.8	
Costs and expenses																												
Cost of sales	0.0	0.0					0.0					0.0	0.0	11.3	32.9	69.4	106.9	131.2	149.1	162.4	169.5	176.5	176.0	176.0	177.3	179.5	182.5	
Research and development	36.7	61.2	17.3	18.3	21.0	33.5	90.0	30.0	30.0	30.0	30.0	120.0	130.0	128.7	127.4	126.1	124.9	123.6	122.4	121.2	120.0	118.8	117.6	116.4	115.2	114.1	112.9	
SG&A	9.7	21.9	6.4	6.2	8.2	9.2	30.0	10.0	10.0	10.0	10.0	40.0	44.0	75.0	112.5	140.6	161.7	186.0	187.8	189.7	191.6	193.5	195.5	197.4	199.4	201.4	203.4	
Legal expenses																												
Related Party Expenses	0.1																											
Total operating expenses	46.4	83.1	23.7	24.4	29.2	42.7	120.0	40.0	40.0	40.0	40.0	160.0	174.0	203.7	239.9	266.8	286.6	309.6	310.2	310.9	311.6	312.3	313.0	313.8	314.6	315.5	316.3	
Operating income (Loss)	(46.4)	(83.1)	(23.7)	(24.4)	(29.2)	(42.7)	(120.0)	(40.0)	(40.0)	(40.0)	(40.0)	(160.0)	(174.0)	(121.2)	13.8	279.5	575.1	772.8	931.1	1,048.0	1,113.8	1,173.0	1,175.9	1,174.8	1,183.7	1,200.1	1,224.0	
Change in fair value of Series A redeemable convertible preferred stock liability																												
Interest income	0.0	0.7	0.4	0.7	0.7	(0.8)	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other income (expense)	0.0	0.0	0.0	(0.1)	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income (loss) and comprehensive loss	(46.4)	(82.5)	(23.3)	(23.9)	(28.6)	(43.5)	(119.0)	(40.0)	(40.0)	(40.0)	(40.0)	(160.0)	(174.0)	(121.2)	13.8	279.5	575.1	772.8	931.1	1,048.0	1,113.8	1,173.0	1,175.9	1,174.8	1,183.7	1,200.1	1,224.0	
Income Taxes (expense) benefit	-	-					-					-	-	(4.8)	(97.8)	(201.3)	(270.5)	(325.9)	(366.8)	(389.8)	(410.6)	(411.6)	(411.2)	(414.3)	(420.0)	(428.4)		
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	
Net Income (Loss) comprehensive	(46)	(82.5)	(23.3)	(23.9)	(28.6)	(43.5)	(119.0)	(40.0)	(40.0)	(40.0)	(40.0)	(160.0)	(174.0)	(121.2)	9.0	181.7	373.8	502.3	605.2	681.2	724.0	762.5	764.3	763.6	769.4	780.1	795.6	
Net loss attributable to common stockholders:																												
Net loss and comprehensive loss	(46.4)	(82.5)	(23.3)	(23.9)	(28.6)	(43.5)	(119.0)	(40.0)	(40.0)	(40.0)	(40.0)	(160.0)	(174.0)	(121.2)	9.0	181.7	373.8	502.3	605.2	681.2	724.0	762.5	764.3	763.6	769.4	780.1	795.6	
Deemed dividends upon issuance of convertible	(4.18)																											
Net loss attributable to common stockholders	(50.5)	(82.5)	(23.3)	(23.9)	(28.6)	(43.5)	(119.0)	(40.0)	(40.0)	(40.0)	(40.0)	(160.0)	(174.0)	(121.2)	9.0	181.7	373.8	502.3	605.2	681.2	724.0	762.5	764.3	763.6	769.4	780.1	795.6	
GAAP EPS	(\$3.95)	(\$2.48)	(\$0.60)	(\$0.55)	(\$0.66)	(\$1.00)	(\$2.82)	(\$0.83)	(\$0.83)	(\$0.83)	(\$0.83)	(\$3.32)	(\$3.28)	(\$2.17)	\$0.15	\$2.98	\$5.97	\$7.80	\$9.14	\$10.00	\$10.32	\$10.54	\$10.24	\$9.91	\$9.67	\$9.48	\$9.35	
Basic Shares Outstanding	12.8	33.2	39.1	43.1	43.3	43.3	42.2	48.2	48.2	48.2	48.2	48.2	53.1	55.7	55.9	56.0	56.2	56.3	56.4	56.5	56.7	56.8	56.9	57.0	57.1	57.1	57.2	
Diluted Shares Outstanding	12.8	33.2	39.1	43.1	43.3	43.3	42.2	48.2	48.2	48.2	48.2	48.2	53.1	55.7	55.9	56.0	56.2	56.3	56.4	56.5	56.7	56.8	56.9	57.0	57.1	57.1	57.2	

Source: Company Data, Morgan Stanley Research

Balance Sheet

Exhibit 93: Global Blood Balance Sheet

Global Blood Therapeutics, Inc.	2015	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash and ST Investments:	148.5	147.3	276.3	289.0	334.2	221.2	223.2	372.7	709.3	1,196.6	1,795.5	2,481.2	3,222.6	4,006.6	4,807.4	5,611.7	6,438.6	7,297.4	8,197.5
Cash	148.5	92.1	221.1	283.8	329.0	216.0	218.0	367.5	704.1	1,191.4	1,790.3	2,476.0	3,217.4	4,001.4	4,802.2	5,606.5	6,433.4	7,292.2	8,192.3
Marketable securities	-	55.2	55.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Accounts receivable, net	-	-	-	-	-	9.4	28.7	61.6	96.9	121.4	139.1	152.1	159.5	166.2	166.5	166.5	167.6	169.5	172.3
Inventories	-	-	-	-	-	0.8	2.5	5.2	8.0	9.8	11.2	12.2	12.7	13.2	13.2	13.2	13.3	13.5	13.7
Prepaid expenses and other current assets	2.3	2.5	2.3	2.3	2.3	4.7	14.3	30.8	48.4	60.7	69.5	76.1	79.7	83.1	83.2	83.2	83.8	84.8	86.1
Total current assets	150.8	149.8	278.6	291.3	336.5	236.2	268.7	470.2	862.6	1,388.5	2,015.3	2,721.5	3,474.5	4,269.2	5,070.3	5,874.5	6,703.2	7,565.1	8,469.6
Property and equipment, net	2.1	2.4	18.8	22.2	24.4	25.4	24.8	24.7	25.6	26.7	27.8	28.9	30.2	31.5	33.0	34.5	39.7	48.9	62.0
Restricted Cash	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Long-term marketable securities	-	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1	50.1
Fair value of convertible preferred stock option	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other assets	-	-	-	-	-	1.9	5.7	12.3	19.4	24.3	27.8	30.4	31.9	33.2	33.3	33.3	33.5	33.9	34.5
Total Assets	153.1	202.4	347.7	363.8	411.2	313.6	349.5	557.4	957.8	1,489.6	2,121.1	2,831.1	3,586.8	4,384.1	5,186.8	5,992.6	6,826.7	7,698.1	8,616.3
Current liabilities:																			
Accounts payable	3.4	4.3	12.0	16.0	17.4	20.4	24.0	26.7	28.7	31.0	31.0	31.1	31.2	31.2	31.3	31.4	31.5	31.5	31.6
Payable due to related party	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accrued liabilities	6.6	10.3	13.2	20.8	26.1	30.6	36.0	40.0	43.0	46.4	46.5	46.6	46.7	46.8	47.0	47.1	47.2	47.3	47.5
Series A redeemable convertible preferred stock liability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other current liabilities	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Total current liabilities	10.7	15.5	26.1	37.7	44.4	51.8	60.9	67.6	72.6	78.3	78.5	78.6	78.8	79.0	79.2	79.4	79.6	79.8	80.0
Other long-term liabilities	1.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Total liabilities	12.3	16.1	26.7	38.3	45.0	52.4	61.5	68.2	73.1	78.9	79.0	79.2	79.4	79.5	79.7	79.9	80.1	80.3	80.6
Stockholders' equity:																			
Convertible preferred stock	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additional paid-in capital	239.2	367.4	621.0	785.6	1,000.2	1,016.4	1,034.2	1,053.8	1,075.4	1,099.1	1,125.2	1,153.9	1,185.4	1,220.1	1,258.2	1,300.2	1,364.7	1,455.9	1,578.2
Accumulated other comprehensive income(loss)	-	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Accumulated deficit	(98.5)	(180.9)	(299.9)	(459.9)	(633.9)	(755.1)	(746.1)	(564.4)	(190.6)	311.7	917.0	1,598.2	2,322.1	3,084.6	3,849.0	4,612.6	5,381.9	6,162.0	6,957.6
Total stockholders' equity	140.8	186.3	321.0	325.5	366.2	261.2	288.0	489.3	884.7	1,410.7	2,042.0	2,751.9	3,507.4	4,304.6	5,107.1	5,912.6	6,746.5	7,617.7	8,535.7
Total Liabilities and Stockholders' Equity	153.1	202.4	347.7	363.8	411.2	313.6	349.5	557.4	957.8	1,489.6	2,121.1	2,831.1	3,586.8	4,384.1	5,186.8	5,992.6	6,826.7	7,698.1	8,616.3

Source: Company Data, Morgan Stanley Research

Cash Flow Statement

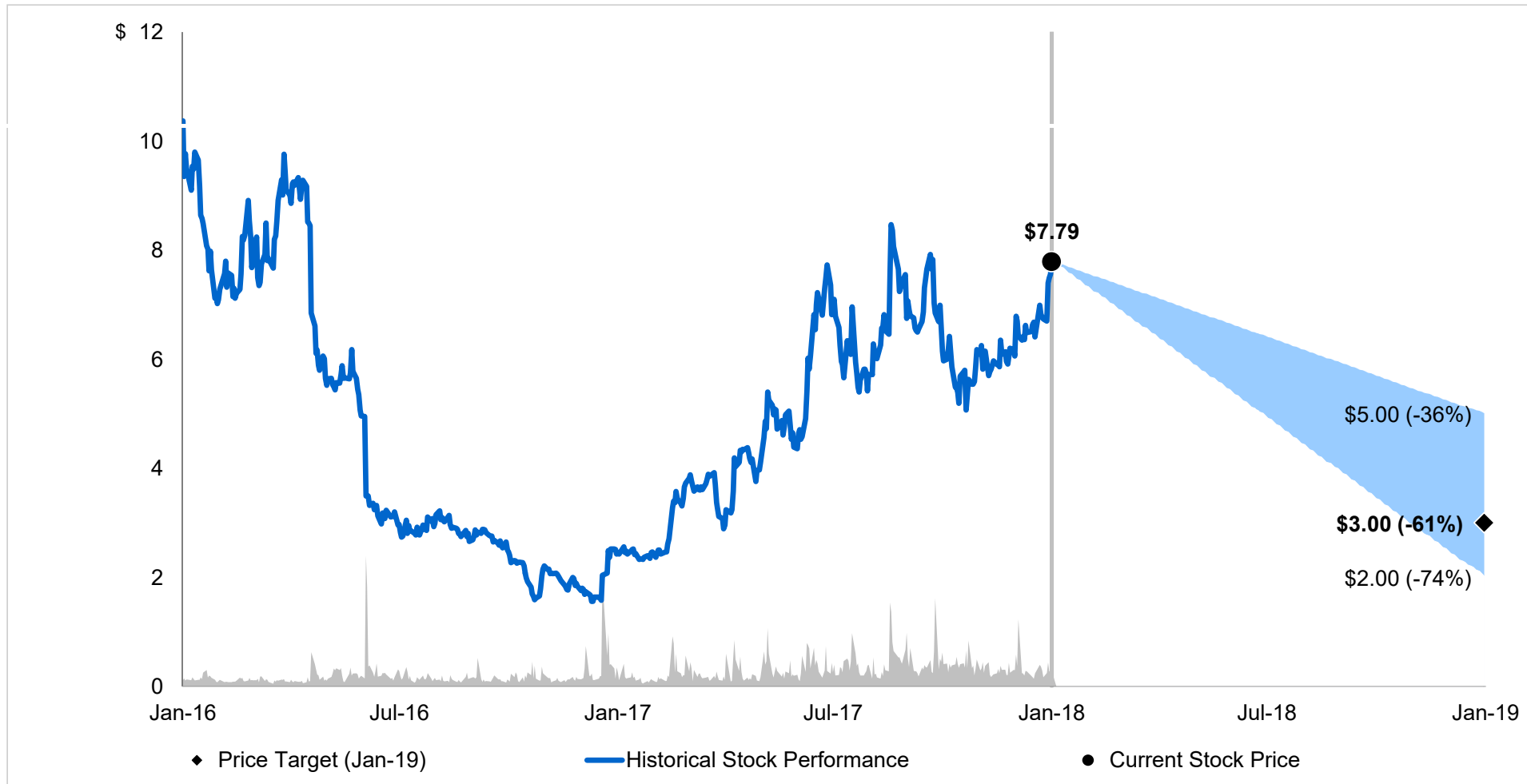
Exhibit 94: Global Blood Cash Flow

Global Blood Therapeutics, Inc.	2015	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash Flows From Operating Activities																			
Net loss	(46.4)	(82.5)	(119.0)	(160.0)	(174.0)	(121.2)	9.0	181.7	373.8	502.3	605.2	681.2	724.0	762.5	764.3	763.6	769.4	780.1	795.6
Adjustments to reconcile net loss to net cash used in operating activities:																			
Depreciation and Amortization	0.9	1.2	3.6	6.6	8.3	10.1	12.1	12.3	11.8	12.4	13.0	13.6	14.3	14.9	15.7	16.4	13.6	10.7	7.6
Loss of disposal of fixed assets	0.0																		
Share-based compensation	3.2	9.2	10.2	11.2	12.3	13.5	14.9	16.4	18.0	19.8	21.8	24.0	26.3	29.0	31.9	35.1	38.6	42.4	46.7
Non-cash expense in connection with equity issuances	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remeasurement of Series A redeemable convertible preferred stock li	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fair value of stock issued for license	4.5																		
Changes in operating assets and liabilities:																			
Accounts receivable, net	-	-	-	-	-	(9.4)	(19.3)	(32.9)	(35.3)	(24.5)	(17.7)	(13.1)	(7.4)	(6.7)	(0.3)	0.0	(1.1)	(1.9)	(2.8)
Inventories	-	-	-	-	-	(0.8)	(1.6)	(2.7)	(2.8)	(1.8)	(1.3)	(1.0)	(0.5)	(0.5)	0.0	(0.0)	(0.1)	(0.2)	(0.2)
Prepaid expenses and other assets	(0.1)	(1.3)	0.2	-	-	(4.2)	(13.5)	(23.0)	(24.7)	(17.2)	(12.4)	(9.2)	(5.1)	(4.7)	(0.2)	0.0	(0.8)	(1.4)	(1.9)
Accounts payable	2.7	1.1	7.7	4.0	1.4	3.0	3.6	2.7	2.0	2.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Payable due to related party	(0.0)																		
Accrued expenses	2.8	1.8	2.9	7.6	5.3	4.5	5.4	4.0	3.0	3.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Accrued compensation	1.4	2.7																	
Other current liabilities	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other noncurrent liabilities	(0.0)	(0.1)																	
Net cash used in operating activities	(30.9)	(67.7)	(94.5)	(130.7)	(146.7)	(104.6)	10.6	158.4	345.8	496.8	608.7	695.7	751.7	794.6	811.6	815.3	819.8	829.9	845.1
Cash Flows From Investing Activities																			
Purchase of marketable securities	-	(105.5)	-	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchase of cost-method investment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Increase in restricted cash																			
Purchases of property and equipment	(1.0)	(1.4)	(20.0)	(10.0)	(10.5)	(11.0)	(11.6)	(12.2)	(12.8)	(13.4)	(14.1)	(14.8)	(15.5)	(16.3)	(17.1)	(18.0)	(18.9)	(19.8)	(20.8)
Net cash used in investing activities	(1.0)	(106.9)	(20.0)	40.0	(10.5)	(11.0)	(11.6)	(12.2)	(12.8)	(13.4)	(14.1)	(14.8)	(15.5)	(16.3)	(17.1)	(18.0)	(18.9)	(19.8)	(20.8)
Cash Flows From Financing Activities																			
Proceeds from issuance of common stock	126.2	117.0	238.9	150.0	200.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from issuance of convertible preferred stock, ne	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from issuance of restricted stock awards	2.0	(0.1)																	
Tax benefit from options	-		4.0	2.8	2.0	2.3	2.5	2.8	3.0	3.3	3.7	4.0	4.4	4.9	5.3	5.9	24.8	47.5	74.3
Proceeds from exercise of stock options, warrants	0.0	1.2	0.7	0.5	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.4
Net cash provided by financing activities	128.3	118.1	243.5	153.3	202.4	2.7	3.0	3.2	3.6	3.9	4.3	4.7	5.2	5.7	6.3	6.9	25.9	48.7	75.7
Net (decrease) increase in cash and cash equivalents	96.4	(56.4)	129.1	62.7	45.2	(113.0)	2.0	149.5	336.6	487.3	599.0	685.6	741.4	784.1	800.8	804.3	826.9	858.8	900.1
Cash and cash equivalents at beginning of period	52.1	148.5	92.1	221.1	283.8	329.0	216.0	218.0	367.5	704.1	1,191.4	1,790.3	2,476.0	3,217.4	4,001.4	4,802.2	5,606.5	6,433.4	7,292.2
Cash and cash equivalents at end of period	148.5	92.1	221.1	283.8	329.0	216.0	218.0	367.5	704.1	1,191.4	1,790.3	2,476.0	3,217.4	4,001.4	4,802.2	5,606.5	6,433.4	7,292.2	8,192.3

Source: Company Data, Morgan Stanley Research

28 Immunogen Risk Reward

Proprietary and Partnered Pipeline Drive Risk-Reward



Source: Thomson Reuters, Morgan Stanley Research

Bull, Base And Bear Case

Price Target: \$3

We Derive Our PT From A Discounted Cash Flow Analysis That Uses A WACC Of 10%. We Use A 15% WACC For The Early Stage Proprietary Pipeline. We Use A 0% Terminal Growth Rate For The Proprietary Pipeline.

BULL
\$5

BASE
\$3

BEAR
\$2

DCF

Proprietary pipeline sales of ~\$300M. We assume: 1) Peak proprietary pipeline sales of ~\$300M. 2) Flat to modest increasing R&D spend.

Investment Thesis

- We are Underweight ImmunoGen given that Kadcyra is removed from valuation given the royalty deal and that the proprietary pipeline is the key driver of valuation where we see risk to the IMG853 clinical development plan. We assume IMG853 can make it to market in resistant ovarian cancer and assume some optionality for the other pipeline programs in 2019.
- Proprietary pipeline: We model \$300M in peak sales offset by R&D and SG&A spending. For IMG853 we see the clinical development pathway as long, the trial design as complicated and the potential to beat chemo as low. We view the proprietary pipeline as high risk given the toxicities seen in each of the compounds and the lack of significant clinical activity.
- Partnered pipeline: We have attributed no value to the partnered pipeline.

Key Value Drivers

- The main drivers are the advancement of the proprietary pipeline and other partnered pipeline assets.

Risks To Achieving Price Target

- 1) Better or worse than expected results from the proprietary pipeline. Specifically, better duration of response for IMG853 and lower toxicity versus a re-emergence of ocular toxicity and a duration of response in line with chemotherapy.
- 2) Competition from other companies developing similar drug. Key competition includes MEK inhibitors and immunotherapy in ovarian cancer.
- 3) Unexpected toxicity from the proprietary pipeline. ImmunoGen's pipeline has a history of toxicity, especially eye toxicity. Thus, increased toxicity could be a downside driver.

Catalyst Calendar

Exhibit 95: Immunogen Catalyst Calendar

Drug	Type	Event	Timing
Mirvetuximab soravtansine	Trial Update	Futility Analysis for FORWARD-I	1Q18
Mirvetuximab soravtansine	Trial Update	Complete enrollment for FORWARD-I by June end	mid-2018
Triplet	Trial Initiation	Initiate Forward-II triple	1Q18
Mirvetuximab soravtansine	PhI	Forward II efficacy data for Keytruda dose-escalation	1Q18
Mirvetuximab soravtansine	PhI	Forward II Avastin cohort data	2Q18
Mirvetuximab soravtansine	PhI	Forward II Keytruda cohort data	2H18
Mirvetuximab soravtansine	PhIII data	Forward I top-line data	1H19

Source: Company Data, Morgan Stanley Research

Income Statement

Exhibit 96: Immunogen Income Statement

IMMUNOGEN, INC. (NSDQ: IMGN)	2009	F2010	F2011	F2012	F2013	F2014	F2015	F2016	C2016 stub	C1Q17A	C2Q17A	C3Q17E	C4Q17E	C2017E	1Q18E	2Q18E	3Q18E	4Q18E	C2018E	C2019E	C2020E
License and milestone fees	15.1	5.7	6.4	9.2	24.2	39.5	57.8	26.9	5.2	18.7	31.1	0.1	58.8	108.7	9.0	10.6	8.1	22.0	49.7	64.5	40.3
Research and development support	7.6	5.4	7.3	4.5	7.9	7.2	2.8	4.0	2.8	1.7	0.9	0.7	14.0	17.2	1.7	4.1	3.7	7.8	17.2	17.2	17.2
Clinical materials revenue	5.3	2.9	5.7	2.7	2.8	2.9	5.5	3.6	0.7	0.7	0.6	1.2	(0.2)	2.3	0.8	0.5	0.4	1.0	2.8	3.3	4.0
Royalty Revenue	0.0	0.0	0.0	0.0	0.6	10.3	19.4														
Non-cash royalty revenue								25.3	12.9	7.6	6.4	6.5	6.6	27.2	6.0	4.6	4.9	9.5	25.0	25.3	30.8
Product Sales						0.0		0.0													50.0
Total Revenue	\$28.0	\$13.9	\$19.3	\$16.4	\$35.5	\$9.9	\$85.5	\$60.0	\$21.506	\$28.7	\$39.0	\$8.5	\$79.3	\$155.4	\$17.5	\$19.7	\$17.2	\$40.3	\$94.7	\$110.4	\$142.4
														Co. Guidance		\$115-120M					
Consensus Revenue																					
Bull							131.0	146.9						168.2					185.0	194.2	194.2
Base							131.0	146.9						140.2					143.7	147.2	150.9
Bear							131.0	146.9						102.0					102.0	102.0	102.0
R&D	45.9	50.3	63.5	69.2	87.1	107.0	111.8	146.9	66.6	33.1	35.3	31.7	40.1	140.2	35.0	38.0	33.7	36.9	143.7	147.2	150.9
SG&A	13.9	14.9	16.0	20.4	21.5	24.5	28.2	36.9	18.0	8.1	8.8	7.9	14.4	39.3	9.0	8.1	7.5	15.5	40.1	40.9	111.7
Cost of Goods Sold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5
Restructuring Charge									4.4	0.4											
Operating Income (Loss)	(\$31.8)	(\$51.2)	(\$60.2)	(\$73.3)	(\$73.0)	(\$71.5)	(\$54.5)	(\$123.8)	(67.5)	(12.9)	(5.1)	(31.1)	24.8	(\$24.0)	(26.5)	(26.4)	(23.9)	(12.2)	(\$89.0)	(\$77.8)	(\$127.8)
Non-cash interest expense on liability related to sale of future royalty								(20.1)	(8.7)	(3.6)	(3.5)	(3.4)	(6.6)	(17.1)	(6.5)	(6.3)	(6.0)	(6.26)	(25.0)	(25.3)	(30.8)
Other income (expense), net	(0.2)	0.1	1.9	(0.1)	0.2	0.2	(6.3)	0.3	(2.7)	(0.9)	(0.23)	(22.18)	21.10	(2.2)	0.2	0.2	0.2	0.22	0.9	1.0	0.8
Pretax Income (Loss)	(32.0)	(51.2)	(58.3)	(73.3)	(72.8)	(71.4)	(60.7)	(143.7)	(78.9)	(17.3)	(8.9)	(56.7)	39.2	(43.3)	(32.8)	(32.4)	(29.7)	(18.2)	(113.2)	(102.1)	(157.8)
Income Taxes expense (benefit)	(0.1)	(0.3)	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tax Rate	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Income (GAAP)	(31.9)	(50.9)	(58.3)	(73.3)	(72.8)	(71.4)	(60.7)	(143.7)	(78.9)	(17.3)	(8.9)	(56.7)	39.2	(43.3)	(32.8)	(32.4)	(29.7)	(18.2)	(113.2)	(102.1)	(157.8)
EPS, diluted (GAAP)	(\$0.63)	(\$0.87)	(\$0.85)	(\$0.95)	(\$0.87)	(\$0.83)	(\$0.71)	(\$1.65)	(\$0.91)	(\$0.20)	(\$0.10)	(\$0.61)	\$0.30	(\$0.33)	(\$0.22)	(\$0.22)	(\$0.20)	(\$0.12)	(\$0.77)	(\$0.68)	(\$1.04)
Consensus EPS																					
Basic Shares Outstanding	51.1	58.8	68.9	76.8	84.1	85.5	86.0	87.0	87.1	87.2	87.2	93.0	132.3	132.3	147.9	147.9	147.9	147.9	147.9	149.5	151.1
Diluted Shares Outstanding	51.1	58.8	68.9	76.8	84.1	85.5	86.0	87.0	87.1	87.2	87.2	93.0	132.3	132.3	147.9	147.9	147.9	147.9	147.9	149.5	151.1

Source: Company Data, Morgan Stanley Research

Balance Sheet

Exhibit 97: Immunogen Balance Sheet

IMMUNOGEN, INC. (NSDQ: IMGN)	2009	2010	2011	2012	2013	2014	2015	2016	2016 stub	2016x	2017E	2018E	2019E	2020E
Current assets:														
Cash and cash equivalents	69.6	109.2	191.2	160.9	195.0	142.3	278.1	245.0	160.0	160.0	202.1	221.1	183.0	113.5
Marketable securities	1.5	1.1	-	-	-	-	-	-	-	-	-	-	-	-
Accounts receivable	1.7	1.8	4.7	0.1	-	1.9	5.1	0.9	2.0	2.0	-	-	-	-
Unbilled revenue	0.6	1.6	1.5	1.2	2.1	1.3	0.7	1.4	6.8	6.8	6.2	3.3	3.3	4.3
Inventory	1.8	1.2	0.5	1.3	0.7	3.0	2.9	0.9	2.2	2.2	1.1	1.1	1.1	1.6
Restricted cash	0.4	0.6	1.0	0.3	0.3	-	-	-	-	-	-	-	-	-
Current Portion of Deferred Financing Costs							1.2	1.7						
Prepaid and other current assets	1.2	1.6	2.7	2.4	2.6	2.3	4.2	4.9	5.4	5.4	8.5	4.7	5.0	5.7
Total current assets	76.9	117.1	201.5	166.3	200.7	150.8	292.2	254.8	176.3	176.3	218.0	230.3	192.4	125.0
Property and equipment, net	19.7	16.3	13.4	11.6	10.8	14.3	16.3	22.7	19.5	19.5	20.2	21.1	22.0	22.5
Deferred financing costs, net of current portion							4.4	6.2						
Long-term restricted cash	4.1	3.6	2.5	2.2	1.9	-	-	-	-	-	-	-	-	-
Other assets	0.0	0.2	0.2	0.2	0.2	0.2	1.0	3.4	3.0	3.0	3.0	3.0	3.0	3.0
Total Assets	100.7	137.2	217.6	180.3	213.6	165.3	313.8	287.1	198.9	198.9	241.2	254.3	217.4	150.5
Current liabilities:														
Accounts payable	1.2	3.1	3.2	3.4	4.5	4.8	8.1	11.5	7.9	7.9	7.2	7.3	7.5	10.5
Accrued compensation	4.1	4.2	4.7	4.9	6.2	6.9	8.3	10.7	6.9	6.9	10.8	11.0	11.3	15.8
Other accrued liabilities	1.6	2.4	3.3	4.6	6.0	6.7	10.4	9.7	11.2	11.2	10.8	11.0	11.3	15.8
Current portion of deferred lease incentive	1.0	1.0	1.0	1.0	1.0	0.5	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Current portion of liability related to sale of future royalties							7.9	15.1	14.5	14.5				
Current portion of deferred revenue	3.2	3.2	2.3	2.3	1.5	2.4	0.3	13.6	14.5	14.5	25.2	10.7	10.7	10.7
Total current liabilities	11.1	13.8	14.6	16.3	19.2	21.3	35.8	61.4	55.8	55.8	54.7	40.9	41.6	53.5
Deferred lease incentive, net of current portion	9.5	8.6	7.6	6.6	5.6	5.7	6.3	6.2	5.9	5.9	5.9	5.9	5.9	5.9
Deferred revenue, net of current portion	9.5	8.5	51.5	69.8	63.4	59.0	40.9	19.3	19.1	19.1	68.8	58.1	47.4	36.7
Debt associate with Kadcyła royalty							191.8	178.2	169.9	169.9	169.9	169.9	169.9	169.9
4.5% Convertible Senior Notes								100.0	97.0	97.0	12.1	12.1	12.1	12.1
Other long-term liabilities	3.6	4.3	4.0	3.8	3.6	3.7	4.0	4.2	4.1	4.1	4.1	4.1	4.1	4.1
Total liabilities	33.8	35.2	77.7	96.4	91.7	89.6	278.7	369.4	351.7	351.7	315.5	291.0	281.0	282.2
Stockholders' Equity:														
Preferred stock	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common stock	0.6	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Additional paid-in capital	387.9	473.5	569.8	587.1	697.8	723.0	743.1	770.5	778.8	778.8	900.6	1,051.5	1,126.6	1,216.4
Accumulated deficit	(321.5)	(372.4)	(430.6)	(504.0)	(576.8)	(648.1)	(708.9)	(853.7)	(932.6)	(932.6)	(975.8)	(1,089.0)	(1,191.1)	(1,348.9)
Accumulated other comprehensive income	(0.2)	0.3	-	-	-	-	-	-	-	-	-	-	-	-
Total Stockholders' Equity	66.9	102.0	140.0	83.9	121.8	75.7	35.1	(82.3)	(152.9)	(152.9)	(74.3)	(36.6)	(63.6)	(131.6)
Total Liabilities and Stockholders' Equity	100.7	137.2	217.6	180.3	213.6	165.3	313.8	287.1	198.9	198.9	241.2	254.3	217.4	150.5

Source: Company Data, Morgan Stanley Research

Cash Flow Statement

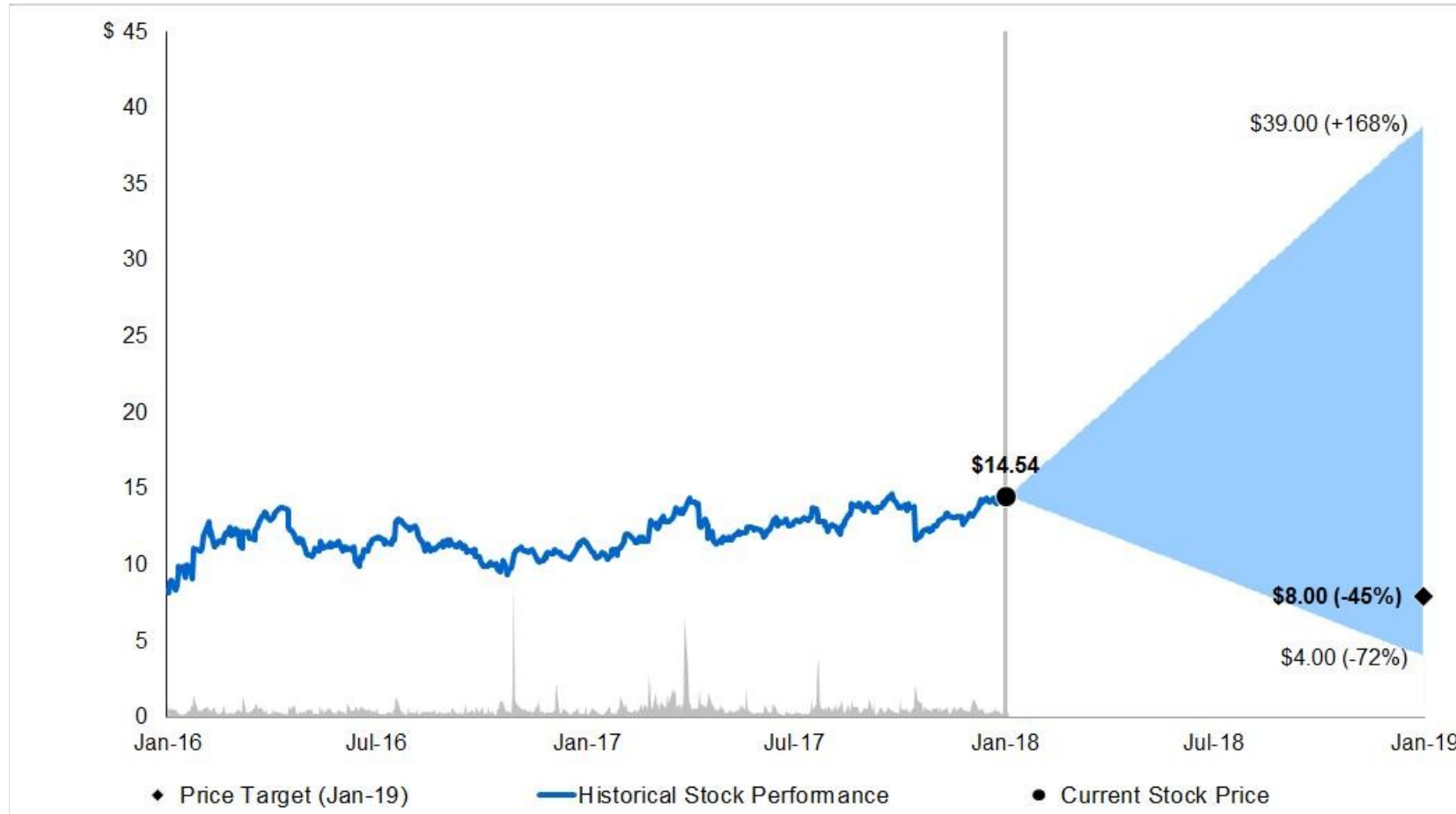
Exhibit 98: Immunogen Cash Flow

IMMUNOGEN, INC. (NSDQ: IMGN)	2009	2010	2011	2012	2013	2014	2015	2016	C2016/stub	2016x	2017E	2018E	2019E	2020E
Cash Flows From Operating Activities														
Net loss	(31.9)	(50.9)	(58.3)	(73.3)	(72.8)	(71.4)	(60.7)	(144.8)	(79)	(223.7)	(43.3)	(113.2)	(102.1)	(157.8)
Adjustments to reconcile net loss to net cash used in operating activities:														
Non-cash royalty revenue related to sale of future royalties							(5.5)	(25.3)	(12.894)	(38.2)				
non-cash interest expense on liability related to sale of future royalties							5.4	20.1	8.665	28.8				
Depreciation and amortization	5.0	4.8	4.9	4.6	4.6	4.6	5.5	5.3	3.074	8.4	6.8	7.2	7.6	8.0
(Gain) Loss on sale/disposal of fixed assets	0.0	0.0	0.0	0.1	(0.0)	0.0	0.0	(0.0)	1.1	1.1	-	-	-	-
Amortization of deferred lease incentive obligation	(1.0)	(1.0)	(1.0)	-	-	-	-	-	-	-	-	-	-	-
Gain on sale of marketable securities	0.0	-	(0.3)	-	-	-	-	-	-	-	-	-	-	-
Other-than-temporary impairment of investments	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
(Gain) Loss on forward contracts	0.2	0.2	(0.2)	0.2	(0.2)	(0.0)	-	-	-	-	-	-	-	-
Non-cash licensing fee	-	-	-	-	-	12.8	-	-	-	-	-	-	-	-
Stock and deferred share unit compensation	4.2	4.6	5.8	10.3	12.8	16.1	15.7	22.2	8.3	30.6	17.7	18.1	18.5	25.9
Deferred rent	1.5	0.1	(0.0)	(0.1)	(0.1)	0.3	0.2	0.2	0.1	0.2	-	-	-	-
Changes in operating assets and liabilities:														
Accounts receivable	(1.4)	(0.0)	(2.9)	4.5	0.1	(1.9)	(3.2)	4.2	(1.1)	3.1	2.0	-	-	-
Unbilled revenue	2.9	(1.0)	0.1	0.3	(0.9)	0.8	0.6	(0.7)	(5.4)	(6.1)	0.6	2.9	0.0	(1.0)
Inventory	0.3	0.6	0.8	(0.8)	0.6	(2.2)	0.0	2.0	(1.3)	0.7	1.1	(0.0)	(0.0)	(0.4)
Prepaid and other current assets	0.3	(0.4)	(1.0)	0.3	(0.2)	0.6	(1.9)	(0.7)	(0.5)	(1.2)	(3.2)	3.8	(0.2)	(0.7)
Restricted cash	0.4	0.4	0.6	1.0	0.3	2.2	-	-	-	-	-	-	-	-
Other assets	0.0	(0.2)	0.0	(0.0)	(0.0)	0.0	(0.8)	(2.5)	0.4	(2.1)	-	-	-	-
Accounts payable	(0.2)	1.8	0.1	0.2	1.1	0.3	3.3	2.6	(3.2)	(0.6)	(0.7)	0.2	0.2	3.0
Accrued compensation	3.0	0.1	0.5	0.2	1.2	0.7	1.5	2.4	(3.8)	(1.4)	3.8	0.3	0.3	4.5
Other accrued liabilities	(2.9)	1.4	0.6	0.1	0.5	(0.4)	3.2	(1.4)	1.0	(0.5)	(0.4)	0.3	0.3	4.5
Deferred revenue	4.9	(1.1)	42.2	18.2	(7.2)	(16.7)	(20.2)	(8.3)	0.7	(7.6)	60.5	(25.2)	(10.7)	(10.7)
Other	0.8	-	-	-	-	0.5	1.4	0.1	0.0	0.2	(14.5)	-	-	-
Net cash used in operating activities	(13.3)	(40.6)	(8.0)	(34.3)	(60.3)	(53.7)	(55.3)	(124.5)	(83.656)	(208.1)	30.5	(105.7)	(86.2)	(124.8)
Cash Flows From Investing Activities														
Proceeds from maturities or sales of marketable securities	14.2	0.8	1.2	-	-	-	-	-	-	-	-	-	-	-
Purchases of marketable securities	(0.0)	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchases of property and equipment, net	(1.9)	(1.5)	(2.0)	(2.9)	(3.8)	(8.2)	(7.4)	(10.4)	(1.4)	(11.8)	(7.5)	(8.0)	(8.5)	(8.5)
Proceeds (payments) from settlement of forward contracts	(0.3)	(0.2)	0.2	(0.1)	0.1	(0.0)	-	-	-	-	-	-	-	-
Net cash used in investing activities	12.0	(0.9)	(0.7)	(3.0)	(3.7)	(8.2)	(7.4)	(10.4)	(1.4)	(11.8)	(7.5)	(8.0)	(8.5)	(8.5)
Cash Flows From Financing Activities														
Proceeds from stock options exercised	1.3	3.5	2.7	7.0	4.0	9.1	4.4	5.2	-	5.2	7.2	9.0	11.2	14.0
Proceeds from sale of future royalties, net of \$5,865 of transaction costs							194.1	-	-	-	-	-	-	-
Proceeds From Issuance of Long-Term Debt								96.6	-	96.6	-	-	-	-
Repayments Of Long-Term Debt											(84.9)	-	-	-
Proceeds from common stock issuance, net	38.0	77.5	88.0	-	94.0	-	-	-	-	-	96.9	123.8	45.4	49.9
Net cash provided by financing activities	39.4	81.0	90.7	7.0	98.0	9.1	198.6	101.8	-	101.8	19.2	132.7	56.6	63.9
Effect of exchange rate changes on cash and cash equivalents	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changes in cash due to restatement														
Net (decrease) increase in cash and cash equivalents	38.0	39.5	82.1	(30.3)	34.0	(52.7)	135.8	(33.1)	(85.1)	(118.1)	42.2	19.0	(38.1)	(69.5)
Cash and cash equivalents at beginning of period	31.6	69.6	109.2	191.2	160.9	195.0	142.3	278.1	245.026	278.1	160.0	202.1	221.1	183.0
Cash and cash equivalents at end of period	69.6	109.2	191.2	160.9	195.0	142.3	278.1	245.0	159.964	160.0	202.1	221.1	183.0	113.5

Source: Company Data, Morgan Stanley Research

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Source: Thomson Reuters, Morgan Stanley Research