

## SUMMARY

When too much uric acid enters the joints of an arthritis patient, gout develops. Chronic refractory gout is treated with immunosuppressive drugs. Unfortunately, 92% of patients treated develop an immunogenic reaction to the drugs and discontinue treatment. As a result, the efficacy of current treatment is limited.

Selecta Biosciences designed SEL-212 as a combination of pegylated uricase and rapamycin, an immunosuppressive drug. However, Selecta added ImmTOR to rapamycin to overcome the immunogenic reactions of gout patients. ImmTOR (immune tolerance) is a biodegradable, nanoparticle, encapsulating technology. SEL-212 demonstrated in clinical studies it mitigates the formation of anti-drug antibodies, which prevent patients from continuing treatment.

After a phase II dose selection trial, Selecta decided to test SEL-212 in a head-to-head phase II trial against KRYSTEXXA (pegloticase), a leading immunosuppressive drug marketed by Horizon Therapeutics (NASDAQ:HZPN). *SanaCurrents* assigns **an advantageous sentiment** that SEL-212 will be superior to pegloticase in the comparison trial.

Reducing serum uric acid (SUA) is the key marker in managing the onset of severe gout, which can last between 7 and 14 days. Selecta designed the phase II comparison trial with the primary endpoint of superiority for an SUA level less than 6 mg/dl after six months. Other secondary endpoints include frequency of flares and quality of life.

In a previous, dose-selection phase II trial of 152 patients, Selecta reported 66% (21 out of 32) of patients in three cohorts of the trial experienced a **reduction in SUA** of less than 6 mg/dl after five months. The three cohorts were the only groups among the 152 patients to receive both pegylated uricase and ImmTOR-formulated rapamycin continuously during the entire trial.

Overall, there was a 9-fold reduction in the number of flares patients experienced in the five months of the trial. Only 4% of the flares were considered serious, while 64% were mild and 32% were moderate.

Chronic refractory gout afflicts 160,000 people annually in the US. Selecta estimates the market size at more than \$1 billion. KRYSTEXXA (pegloticase) recorded approximately \$260 million in sales in 2018.

## THE EDGE

Selecta's ImmTOR technology can be applied broadly in other biologics and gene therapy drugs. In fact, the company has gene therapy programs in its pipeline for Hemophilia A and Pompe disease. Yet it chose SEL-212 as its lead program for ImmTOR.

In deciding to test SEL-212 in a serious but not necessarily life-threatening indication, Selecta chose a good target to demonstrate how ImmTOR can tamp down the immune system response. The data from the dose-selecting phase II trial appears strong enough to improve upon existing immunosuppressive

## PROBABILITY SENTIMENT



### Key Catalyst(s)

- Topline data from SEL-212 comparison trial in chronic refractory gout

### Key Catalyst Date(s)

- mid-2020

### Insider & Institutional Holdings

**31.50%** % of Shares Held by All Insider

**92.28%** % of Shares Held by Institutions

**134.71%** % of Float Held by Institutions

**50** Number of Institutions Holding Shares

### Key Executives

**Dr. Carsten Brunn**, CEO, Pres & Director

**Mr. Stephen Smolinski**, Chief Commercial Officer

**Dr. Ulrich H. von Andrian-Werburg**, Co-Founder and Co-Chair of the Scientific Advisory Board

**Mr. Bradford D. Dahms**, CFO, Principal Financial Officer & Principal Accounting Officer

**Dr. Lloyd Johnston**, COO and Sr. VP of R&D

### Location

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617-923-1400

<http://selectabio.com>

### General Guidelines for SanaCurrents Strategy

Based on SanaCurrents' analytical model, Superior and Pivotal sentiments reflect a probability score of at least 60% that the company will announce a positive result to the specified catalyst. In our experience, a positive result typically increases the company's share price. An Advantageous sentiment reflects a score of less than 60%. **See more on SanaCurrents' actions on page 2.**

## Selecta Biosciences (NASDAQ:SELB)

### THE EDGE cont'd

treatments, such as pegloticase.

More important, pegloticase and other immunosuppressive drugs are inducing patient reactions to the drugs. SEL-212 has demonstrated a low incidence of anti-drug antibodies (ADAs) as well as SUA reduction in the previous phase II trial. The low incidence of ADAs likely tipped Selecta toward deciding on a head-to-head trial with pegloticase. Not only should SEL-212 demonstrate a reduction in SUA, it likely will establish a lower ADA level than pegloticase. The two improvements should impress clinicians and regulators, and move SEL-212 faster to the market.

KRYSTEXXA (pegloticase) also has a checkered past in the market. The drug was developed originally by Savient Pharmaceuticals, which went bankrupt after attempting to sell the drug for \$14,000 per year. A private equity company bought Savient, repositioned the drug and sold it to Horizon in 2015 for \$510 million.

The annual price of KRYSTEXXA (pegloticase) ranges between \$3,000 and \$5,000 per year. Even though the drug is not exclusively used for gout, the price is steep for a drug that induces immunogenic reactions and subsequent complications in treatment. An option such as SEL-212 will win over payers, clinicians and regulators, provided SEL-212 repeats the superiority to pegloticase it exhibited in previous studies

### General Guidelines for SanaCurrents Strategy cont'd

In most situations, SanaCurrents partners take a position in a stock (or buy shares) shortly after a report on a catalyst is published. This is particularly true if the catalyst is within 90 days of the published report. For catalysts with horizons of 6-9 months, or longer, SanaCurrents anticipates the biopharma and device stocks from which it selects catalysts can rise or fall 20-30% in the months following the date of the published report. While buying at a dip, naturally, is preferred, SanaCurrents does not forecast or model in swings in share price prior to the catalyst. SanaCurrents' analytics score models the probability a compelling catalyst will be positive. SanaCurrents expects a positive announcement regarding a catalyst will drive a company's stock to higher level than the price on the date of the report, based on the company's value and capital structure when the report was published. That said, subscribers should exercise their preferred, individual discipline when timing trades, buy or sell, regarding the catalyst forecast.



# Selecta Biosciences (NASDAQ:SELB)

## Advanced Tear Sheet

Selecta Biosciences Inc		USD 4.22 -0.06 -1.17%					
Country	United States of America	Next FQ/FH End Date	Dec 31, 2019				
Exchange	NASDAQ Stock Market	Next FY End Date	Dec 31, 2019				
GICS Sector	Health Care	Next earnings Date	Mar 15, 2020				
GICS Industry	Biotechnology	Latest earnings Date	Nov 05, 2019				
Currency	USD						
<b>General Information</b> <small>*in millions USD, except per share data</small>							
Price (Previous Close)	4.22	Div. Yield, Last year (FY0)					
Price - 52 Week High	4.85	Shares Outstanding	22.5 Mln				
Price - Current vs 52wk High	-12.63%	Short Interest Shares	0.8 Mln				
Price - 52 Week Low	1.26	SI % of O/S	3.55%				
Price - Current vs 52wk Low	229.88%	Market Capitalization	233				
Beta - Sampling last 1y, Daily	0.95 vs. S&P 500	Net Debt	16				
		Enterprise Value	190				
<b>Estimates revision momentum</b> <small>*in millions USD, except EPS</small>							
Last reported FY	Current Year: FY1			Next Year: FY2			
	5mth ago	3mth ago	Today	5mth ago	3mth ago	Today	
Consensus date	8/22/2019	11/22/2019	2/22/2020	8/22/2019	11/22/2019	2/22/2020	
Revenue	0	0	0	0	0	0	
% diff to today	-16.7%	0.0%		100.0%	100.0%		
Gross Profit	0	0	0				
% diff to today	-16.7%	0.0%		114	114		
EBIT	-59	-53	-53	-73	-58	-80	
% diff to today	-10.9%	-0.5%		-21.7%	0.5%		
EBITDA	-60			-68			
% diff to today	9%	19%		19%	19%		
EPS	-2.92	-1.28	-1.28	-1.33	-0.92	-0.81	
% diff to today	-15.3%	-0.8%		-8.3%	-11.7%		
<b>Consolidated Income Statement</b> <small>*in millions USD, except diluted EPS (adj.) and common shares</small>							
Period end date	FY-5	FY-4	FY-3	FY-2	FY-1	FY0	5yr-CAGR
		12/31/2015	12/31/2016	12/31/2017	12/31/2018		
Sales	3	6	8	8	0	1	-28.2%
Gross Income	3	6	8	8	0	1	-28.2%
EBITDA (adj.)	-16	-24	-34	-34	-63	-64	44.2%
EBIT (adj.)	-15	-25	-35	-44	-45	-45	43.5%
Earnings Before Tax (adj.)	-13	-25	-41	-45	-45	-45	60.3%
Net Income (adj.)	-13	-41	-41	-48	-48	-48	60.3%
Diluted EPS (adj.)	-1.57	-3.88	-3.20	-3.20	-3.82	-3.82	16.8%
Common Shares	8	8	18	22	23		28.1%
<b>Margins &amp; Profitability Ratios</b>							
Period end date	FY-5	FY-4	FY-3	FY-2	FY-1	FY0	vs. last 5yr average (% pts)
		12/31/2015	12/31/2016	12/31/2017	12/31/2018		
Gross Margin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
R&D % of Sales	344.5%	382.3%	377.5%	2181.83%	5261.0%		
SG&A % of Sales	261.5%	139.7%	161.5%	3084.7%	2019.7%		
EBITDA Margin (adj.)	-428.1%	-402.0%	-419.0%	-30461.2%	-7082.7%		
EBIT Margin (adj.)	-506.5%	-421.0%	-408.5%	-30813.5%	-7200.7%		
Net Margin	-400.8%		-514.5%	-21556.0%	-7236.4%		
Tax Rate	0.0%			0.0%			
ROA			-61.7%	-66.6%	-89.5%		-24.5pp
ROE			-107.4%	-122.4%	-261.5%		-166.8pp
<b>Per Share Metrics</b> <small>*in USD</small>							
	FY-2	FY-1	FY0	FY1			
Book Value	2.98	3.32	4.24	4.56			
Free Cash Flow	-1.10	-2.36	-2.67				
Dividend	0.00			0.00			
Earnings (EPS)	-1.88	-3.20	-2.60	-1.08			
<b>Valuation ratios</b>							
	LTM	NTM	FY1	FY2			
EV/Sales	206.2 x	47530.4 x	3804.1 x	190081.8 x			
EV/EBITDA							
P/E							
PE to Growth (PEG)							
EV/FCF							
P/Sales	216.9 x	63347.2 x	10189.4 x	202388.8 x			
P/BV	47.9 x						
P/Tangible BV	67.9 x						
<b>Consolidated Balance Sheet</b> <small>*in millions USD</small>							
Period end date	FY-2	FY-1	FY0				
	12/31/2016	12/31/2017	12/31/2018				
Cash & ST Investments	64	87	37				
Inventory							
<b>Total Assets</b>	89	881	44				
Current Liabilities	14	11	25				
Total Debt	12	21	21				
<b>Total Liabilities</b>	34	49	50				
<b>Total Shareholders Equity</b>	55	52	5				
<b>Consolidated Cash Flow Statement</b> <small>*in millions USD</small>							
Period end date	FY-2	FY-1	FY0				
	12/31/2016	12/31/2017	12/31/2018				
Net Income	-41	-65	-65				
D&A	1	1	1				
Change in WC	13	7	-1				
<b>Cash From Operations</b>	26	32	-9				
Capital Expenditures	-1	-1	-1				
<b>Cash From Investments</b>	-22	-2	25				
Share Repurchased							
<b>Cash From Financing</b>	68	66	8				
<b>Cash &amp; Cash Eq - Period end</b>	59	71	37				



## Selecta Biosciences (NASDAQ:SELB)

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