

Hillstream BioPharma (HILS) – PK Fits

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Buy Rated: PK Data (HSB-1216) Supports the Development

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Hillstream Bio is an early-stage biotech company about to enter the clinic this year. The company is investigating ferroptosis, an emerging anti-cancer mechanism that produces iron-mediated cell death – IMCD. The company's most advanced product candidate is HSB-1216, an IMCD inducer targeting various solid tumors. Hillstream's goal is to submit an investigational new drug application to the FDA in 2023 in advance of a clinical study set to follow. While this company is "early", we find the technology promising and the valuation low.

Investment Thesis

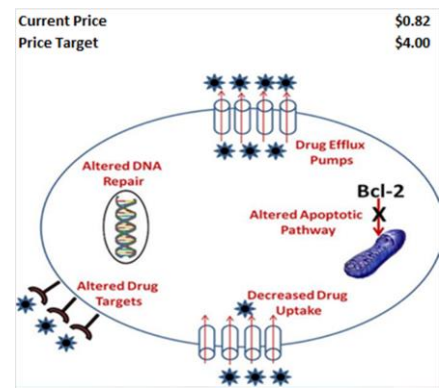
Preliminary safety and PK of HSB-1216 was evaluated in IND-enabling studies using rats and dogs showing the Quatramer bound HSB-1216 throughout a 48-hour exposure period prevented degradation in the systemic circulation until its targeted release at the tumor site. The data suggest Quatramer protects HSB-1216 from metabolic degradation until its release at the tumor site and is consistent with the promising efficacy data demonstrating effective reduction of tumor growth in pre-clinical studies.

Early but Promising: Ferroptosis, or iron-mediated cell death - IMCD, is an emerging regulated cell death process that decreases intracellular iron or the Labile Iron Pool LIP. Cancer cells increase the LIP leading to unregulated cell growth and metabolism. Decreasing the LIP induces iron-led ROS production and lipid peroxidation, two key hallmarks of ferroptosis/IMCD. HSB-1216 binds to iron in the cytoplasm of cancer cells and decreases the LIP, thereby inducing ferroptosis/IMCD, leading to regulated cell death. Areas of interest for the development of HSB-1216 are as a treatment of solid tumors, including TNBC, uveal melanoma, glioblastoma multiforme, head and neck squamous cell carcinoma, and other treatment-resistant cancers with high unmet needs.

Reaching the Tumor Microenvironment TME: Quatramer represents the company's delivery to reach the TME while sparing healthy tissue. This is accomplished by efficiently extending the circulation half-life, combined with targeted delivery to the tumor site; Quatramer traps drugs into the TME. This emerging orthogonal anti-cancer approach utilizes a fundamental recognized mechanism of iron-mediated tumor growth and metabolism.

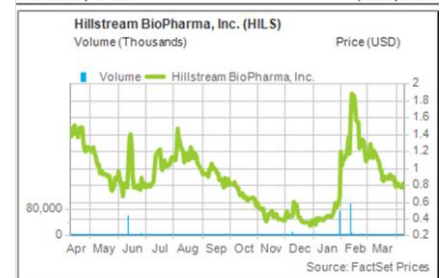
Valuation: We project our model out to 2033. We apply a 30% risk cut to our projected revenues in our product model in addition to our 30% risk rate applied in our Free Cash Flow to the Firm (FCFF), discounted EPS (dEPS), and Sum-of-the-Parts (SOP) models. We use a fully diluted out-year share count, assuming multiple raises. The result is equal-weighted, averaged, and rounded to the nearest whole number to derive our 12-month projected price target of \$4.0.

Risks to our thesis include: 1. Regulatory Approvals; 2. Clinical Science 3. Adoption Rates 4. The competitive landscape. 5. Intellectual Capital 6. Dilution.



Source: Hillstream

Stock Data	
52-Week Range	\$0.30 - \$2.65
Shares Outstanding (mil.)	11.5
Market Capitalization (mil.)	\$9
Enterprise Value (mil.)	\$3
Debt to Capital	0%
Book Value/Share	-
Price/Book	0.8
Average Three Months Trading Volume (K)	29
Insider Ownership	69.1%
Institutional Ownership	0.7%
Short interest (mil.)	1.0%
Dividend / Yield	\$0.00/0.0%



Valuation: This is an early-stage company that is working now to establish proof of concept data. How should we value a company without proof-of-concept data in man? One fact that we consider is the current valuation – a market capitalization of just ~\$18M and an enterprise value of just ~\$10M. Hillstream has an early-stage oncology product platform that has the potential to be competitive in the billion-dollar-plus oncology markets. We assume clinical success and discount the results back to a net present value. To adjust for these and other associated risks, we apply a 30% risk cut in our therapeutic models, which is in addition to a 30% risk rate. The subsequent revenues are then fed into our income statement. To the income statement metrics, we then model a target valuation. We assume the company does raise additional capital, and as such, our valuation math includes projected changes in shares. Our valuation models: Free Cash Flow to the Firm (FCFF), discounted EPS (dEPS), and Sum-of-the-Parts (SOP), and as previously stated, use a 30% discount rate which is in addition to the therapeutic risk rate. We select 30% for micro-capitalized growth companies, and this represents our highest risk rate. The result of these three models is then equal-weighted and averaged and rounded to the nearest whole number to provide a 12-month target price.

Exhibit 1. Free Cash Flow Model

DCF Valuation Using FCF (mln):

units ('000)	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
EBIT	(8,757)	(7,702)	(4,815)	(4,863)	(4,912)	(8,000)	(3,000)	22,000	60,000	104,850	397,199	944,545
Tax Rate	0%	0%	0%	0%	0%	0%	0%	5%	10%	24%	33%	35%
EBIT(1-t)	(8,757)	(7,702)	(4,815)	(4,863)	(4,912)	(8,000)	(3,000)	20,900	54,000	79,896	264,852	613,577
CapEx												
Depreciation												
Change in NWC												
FCF	(8,757)	(7,702)	(4,815)	(4,863)	(4,912)	(8,000)	(3,000)	20,900	54,000	79,896	264,852	613,577
PV of FCF	(11,384)	(7,702)	(3,704)	(2,878)	(2,236)	(2,801)	(808)	4,330	8,606	9,794	24,975	44,508
Discount Rate	30%											
Long Term Growth Rate	1%											
Terminal Cash Flow	2,136,940											
Terminal Value YE2033	155,010											
NPV	215,711											
NPV-Debt	-											
Shares out (thousands)	68,661 2033E											
NPV Per Share	\$ 3.14											

Source: Dawson James estimates

Exhibit 2. Discounted EPS Model

Current Year	2023
Year of EPS	2033
Earnings Multiple	10
Discount Factor	30%
Selected Year EPS	\$ 8.94
NPV	\$ 6.48

Source: Dawson James estimates

Discount Rate and Earnings Multiple Varies, Year is Constant							
2033 EPS							
Earnings Multiple	6.5	5%	10%	15%	20%	25%	30%
5		\$27.43	\$17.23	\$11.05	\$7.22	\$4.80	\$ 3.24
10		\$54.86	\$34.46	\$22.09	\$14.43	\$9.60	\$ 6.48
15		\$82.30	\$51.68	\$33.14	\$21.65	\$14.39	\$ 9.72
20		\$109.73	\$68.91	\$44.18	\$28.87	\$19.19	\$ 12.97
25		\$137.16	\$86.14	\$55.23	\$36.08	\$23.99	\$ 16.21
30		\$164.59	\$103.37	\$66.27	\$43.30	\$28.79	\$ 19.45
35		\$192.03	\$120.59	\$77.32	\$50.52	\$33.59	\$ 22.69
40		\$219.46	\$137.82	\$88.36	\$57.73	\$38.38	\$ 25.93

Source: Dawson James estimates

Exhibit 3. Sum-of-the-Parts Model

Hillstream BioPharma	LT Gr	Discount Rate	Yrs. to Mkt Peak	% Success	Peak Sales MMs	Term Val
Cancer-1	1%	30%	8	70%	\$1,000	\$3,448
NPV						\$3.45
Cancer-2	1%	30%	10	70%	\$400	\$1,379
NPV						\$0.82
Net Margin						80%
MM Shrs OS (2030E)						69
Total						\$3.45

Source: Dawson James estimates

Risks to our thesis include 1. Regulatory Approvals; 2. Clinical Science 3. Adoption Rates 4. The competitive landscape 5. Intellectual Capital 6. Dilution

- **Regulatory Approvals.** The company's products require regulatory approvals, and there can be no assurances that the requirements to achieve these approvals can be met.
- **Clinical Science:** The company will need to demonstrate the products work.
- **Adoption Rates:** There are no assurances that the oncology products once developed will be competitive on the complex oncology landscape.
- **The Competitive Landscape & IP.** The company plans to operate in the highly competitive oncology landscape where well financed "big pharma" dominates the field. The company does have intellectual property however there are no assurances that IP will not be challenged.
- **Dilution:** The company is likely to incur losses for the foreseeable future until it is able to generate sufficient revenue from product sales. Our model assumes a rising share count during this period. There can be no assurances that the company can successfully raise the capital required to execute its business strategy.

Exhibit 4. Income Statement

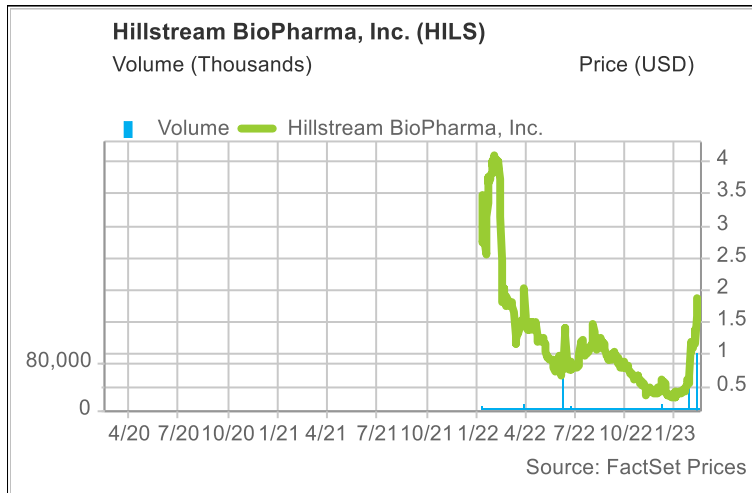
Hillstream BioPharma: Income Statement																
000 - YE December 31	2022A	1Q23E	2Q23E	3Q23E	4Q23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Product sales																
Product 1 - Oncology											10,000	50,000	100,000	160,000	350,000	700,000
Product 2 - Oncology															200,000	500,000
Total Product Sales	-	-	-	-	-	-	-	-	-	-	10,000	50,000	100,000	160,000	550,000	1,200,000
Expenses																
COGS											3,000	14,000	25,000	40,000	137,500	240,000
COGS %		0%	0%	0%	0%						30%	28%	25%	25%	25%	20%
Research and Development	2,278	656	684	684	711	2,734	3,281	3,937	6,500	5,200	5,252	5,777	6,933	8,319	9,983	11,980
General and Administrative	4,604	1,116	1,162	1,162	1,209	4,650	4,696	4,743	4,790	8,000	10,000	14,000	15,000	15,150	15,302	15,455
Total Operating Expenses	6,882	1,772	1,846	1,846	1,920	7,384	4,696	4,743	4,790	8,000	13,000	28,000	40,000	55,150	152,802	255,455
Loss from Operations	(6,882)	(1,772)	(1,846)	(1,846)	(1,920)	(7,384)	(4,696)	(4,743)	(4,790)	(8,000)	(3,000)	22,000	60,000	104,850	397,199	944,545
Other Expense																
Interest Expense	(1,591)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in Redemption Value																
Total Other Expense	(1,591)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Loss	(8,473)	(1,772)	(1,846)	(1,846)	(1,920)	(7,384)	(4,696)	(4,743)	(4,790)	(8,000)	(3,000)	22,000	60,000	104,850	397,199	944,545
	-	-	-	-	-	-	-	-	-	-	-	1,100	6,000	24,954	132,347	330,969
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	10%	24%	33%	35%
GAAP Net Income (loss)	(8,473)	(1,772)	(1,846)	(1,846)	(1,920)	(7,384)	(4,696)	(4,743)	(4,790)	(8,000)	(3,000)	20,900	54,000	79,896	264,852	613,577
GAAP-EPS	(0.75)	(0.15)	(0.15)	(0.07)	(0.07)	(0.44)	(0.17)	(0.11)	(0.07)	(0.09)	(0.03)	0.21	0.52	0.74	4.01	8.94
GAAP EPS (dil)	(0.75)	(0.15)	(0.15)	(0.06)	(0.06)	(0.33)	(0.11)	(0.09)	(0.05)	(0.06)	(0.02)	0.14	0.35	0.74	4.01	8.94
Wgtd Avg Shrs (Bas) '000	11,316	12,048	12,169	27,291	27,563	19,768	35,309	43,438	73,143	87,279	95,948	99,844	103,898	108,117	65,982	68,661
Wgtd Avg Shrs (Dil) '000	11,316	12,048	12,169	32,291	32,613	22,280	42,910	53,654	93,924	128,191	141,085	146,814	152,775	158,978	65,982	68,661

Source: Dawson James estimates, company reports

Companies mentioned in this report:

Important Disclosures:

Price Chart:



Price target and ratings changes over the past three years:

Initiated – Buy – February 22, 2023 – Price Target \$4.0
 Update Report – Buy – March 20, 2023 – Price Target \$4.0
 Update Report – Buy – April 11, 2023 – Price Target \$4.0

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Current as of 17-Mar-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	25	69%	1	3%
Market Perform (Neutral)	11	31%	2	6%
Market Underperform (Sell)	0	0%	0	0%
Total	36	100%	3	9%

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