

## Fortress Biotech (NASDAQ/FBIO)

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### BUY: Journey and Checkpoint both on Track

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Fortress companies, Journey and Checkpoint, both continue to execute on their respective business plans with Journey providing upbeat revenue guidance and Checkpoint on track for a BLA with its PDL1, Cosibelimab.

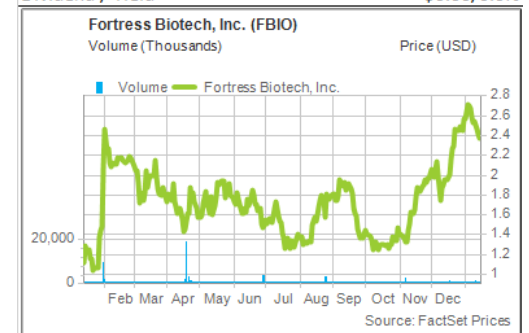
### Investment Highlights

**Journey Medical Provides an Upbeat Outlook.** Based on preliminary unaudited financial information, the company expects net revenue to range between \$9 million and \$12 million for the fourth quarter (2019), and (preliminary) full-year unaudited net revenue is expected to range between \$33 million and \$36 million, compared to full-year 2018 net revenue of \$23.4 million. Solid growth.

**Checkpoint (CKPT-Not Rated) but also party owned by Fortress...Announced confirmation of a registration path forward for Cosibelimab (anti-PD-L1) in Metastatic Cutaneous Squamous Cell Carcinoma.** Recall that we view Checkpoint as "Building a Better Mouse Trap" for both TKI & PD-L1 therapeutics. Checkpoint is developing an EGFR Tyrosine Kinase Inhibitor (TKI) known as CK-101 and has an anti-PD-L1 antibody (Cosibelimab), which now has a registrational path forward. According to Checkpoint's management, approximately one-third of target patient enrollment in the metastatic CSCC cohort is now reached, which should put the company in a position to complete the enrollment by year-end and, subject to meeting the trial's endpoints, submitting a BLA for cosibelimab in 2021. Recall that Cosibelimab interim data has shown efficacy in multiple tumor types with a well-tolerated safety profile. So how does FBIO benefit? CKPT is 32% owned by FBIO, gets a 4.5% royalty on sales of both programs above, and again, here too receives an annual 2.5% equity dividend. Clinical progression of both of Checkpoint's lead therapeutics; the TKI which could go pivotal this year and the PD-L1, as mentioned, could file a BLA next year. Since the TKI and PD-L1 space represents blockbuster opportunities if fully developed, the revenue potential is high, which means FBIO's 32% stake in CKPT, as well as the royalty, could prove quite valuable. For modeling purposes, if we assume just a 10% market share and a 30% probability of success, it still equates to over \$300M in revenues and \$15M in royalties. Double that for the PD-L1. This suggests Checkpoint could easily be worth 3-5x revenues or \$2B in market value (must be adjusted for NPV). 32% of which is owned by FBIO or \$640M in value, and again that is without the royalty or dividend valued.

**Valuation:** Valuation is a complex discussion as there are multiple ways to value a "platform therapeutics company" like Fortress that has significant ownership stakes in multiple public companies with the right to royalties and certain milestones, internal products that are generating revenues and internal private companies that have therapeutic pipeline candidates. We choose to model the key products as they exist (inside or outside the company) and project them, based on the ownership percentage, to the Fortress income statement. We separate royalties and milestones. We model internal products as well. We then assume the complete consolidated R&D, SG&A plus the Fortress current share count (dilution) to project 2030 revenues, expenses, and ultimately net income.

Current Price	\$2.37		
Price Target	\$19.00		
<b>Estimates</b>	<b>F2019E</b>	<b>F2020E</b>	<b>F2021E</b>
<b>Expenses (\$000s)</b>	\$ 145,507	\$ 154,616	\$ 163,222
1Q March	\$ 39,085	\$ 36,705	\$ 38,707
2Q June	\$ 34,540	\$ 38,386	\$ 40,461
3Q September	\$ 34,346	\$ 38,351	\$ 40,567
4Q December	\$ 37,536	\$ 41,175	\$ 43,487
	<b>F2019E</b>	<b>F2020E</b>	<b>F2021E</b>
<b>EPS (diluted)</b>	\$ (1.16)	\$ (1.93)	\$ (1.11)
1Q March	\$ 0.09	\$ (0.54)	\$ (0.46)
2Q June	\$ (0.24)	\$ (0.45)	\$ 0.35
3Q September	\$ (0.47)	\$ (0.46)	\$ (0.49)
4Q December	\$ (0.53)	\$ (0.48)	\$ (0.51)
<b>EBITDA/Share</b>	<b>(\$1.49)</b>	<b>(\$0.07)</b>	<b>(\$1.11)</b>
<b>EV/EBITDA (x)</b>	<b>0.0</b>	<b>0.0</b>	<b>-1.1</b>
<b>Stock Data</b>			
52-Week Range	\$1.00	-	\$2.75
Shares Outstanding (mil.)	70.8		
Market Capitalization (mil.)	\$168		
Enterprise Value (mil.)	\$93		
Debt to Capital	44%		
Book Value/Share	\$1.03		
Price/Book	26.9		
Average Three Months Trading Volume (K)	35		
Insider Ownership	25.9%		
Institutional Ownership	12.7%		
Short interest (mil.)	1.5%		
Dividend / Yield	\$0.00/0.0%		



We recognize that the income statement, balance sheet, and cash flow statements need to be adjusted, (consolidated as they are, they do not paint the best picture of Fortress finances, which we believe is actually improved, when “de-consolidated”) to provide the best operational picture of the company.

We believe our model is conservative as we only partially count the revenues versus the consolidated expenses, based on the company’s controlling interest of the outside companies. For each product, we make certain assumptions about the timing and probability of success (POS) and apply these assumptions to our model. Our POS factor ranges from as low as just 30% to as high as 70% based on what we feel the data has shown, as well as the chances that the drug can be commercialized. On top of this, we then apply a risk rate of 15% in our Free Cash Flow to the Firm (FCFF), Discounted EPS (dEPS) and Sum of the Parts (SOP) models. We then average the result and round to the nearest whole number to derive our \$19.00- 12-month price target.

**Risk to our thesis, include the following:** (1) commercial; (2) regulatory; (3) clinical; (4) manufacturing; (5) financial; (6) liability; and (7) intellectual property. We review these and other risks in the risk section of this report.

**Model Assumptions**

1. We model five late-stage therapeutic products (below) and apply to each one its own probability of success factor.
2. Each model assumes launch timing, market share, and pricing.
3. Models are based on available statistics for prevalence and incidence of the target therapeutic indication.
4. Price is based on our understanding of the market and the duration of therapy annually.

**Exhibit 1. Product Models**

Avenue Therapeutics	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
IV Tramadol													
IV pain relievers market	10,000,000	10,010,000	10,020,010	10,030,030	10,040,060	10,050,100	10,060,150	10,070,210	10,080,281	10,090,361	10,100,451	10,110,552	10,120,662
Cost of Therapy				\$200	\$200	\$202	\$204	\$206	\$208	\$210	\$212	\$214	\$217
Price Change					1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Market share				1%	2%	4%	10%	20%	30%	35%	40%	45%	45%
Patients Treated with a Course				100,300	200,801	402,004	1,006,015	2,014,042	3,024,084	3,531,626	4,040,180	4,549,748	4,554,298
Revenues (000)				20,060	40,160	81,205	205,247	415,014	629,375	742,355	857,747	975,589	986,330
Probability of Success (Phase 3)				70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Adjusted Revenues (000)				\$ 14,042	\$ 28,112	\$ 56,843	\$ 143,673	\$ 290,510	\$ 440,562	\$ 519,648	\$ 600,423	\$ 682,912	\$ 690,431

Mustang Bio	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
MB-107 "Bubble Boy"													
Current "Reservoir" patients (U.S. and ex-U.S. markets)					1,050	1,125	900	600	500	575	475	375	275
New Cases a year (U.S. and ex-U.S. markets)					75	75	75	75	75	75	75	75	75
Market Share Prevalance					10%	20%	35%	55%	60%	65%	70%	75%	80%
Market Share New Cases					10%	20%	35%	55%	75%	85%	90%	90%	90%
Total patients treated					113	240	341	371	356	438	400	349	288
Cost of Therapy (one-time)					\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
Revenues (M)					168,750	360,000	511,875	556,875	534,375	656,250	600,000	523,125	431,250
Probability of Success (Phase 2/3)					30%	30%	30%	30%	30%	30%	30%	30%	30%
Adjusted Revenues (M)					\$ 50,625	\$ 108,000	\$ 153,563	\$ 167,063	\$ 160,313	\$ 196,875	\$ 180,000	\$ 156,938	\$ 129,375
Royalty assumed					4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Royalty revenue (000)					\$ 2,278	\$ 4,860	\$ 6,910	\$ 7,518	\$ 7,214	\$ 8,859	\$ 8,100	\$ 7,062	\$ 5,822

CheckPoint PD-L1 in NSCLC	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Cosibelimab (NSCLC)													
New cases of lung cancer/year		228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150
Patients - PDL1 Option		75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
Target patient population		171,113	171,113	171,113	171,113	171,113	171,113	171,113	171,113	171,113	171,113	171,113	171,113
Market share						1%	2%	4%	6%	8%	10%	12%	14%
Patients treated						1,711	3,422	6,845	10,267	13,689	17,111	20,534	23,956
Costs						\$ 35,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000
Revenues (000)						\$ 59,889	\$ 188,224	\$ 376,448	\$ 564,671	\$ 752,895	\$ 941,119	\$ 1,129,343	\$ 1,317,566
Probability of Success						50%	50%	50%	50%	50%	50%	50%	50%
Adjusted Revenues (M)						\$ 29,945	\$ 94,112	\$ 188,224	\$ 282,336	\$ 376,448	\$ 470,559	\$ 564,671	\$ 658,783
Royalty assumed		4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Royalty revenue (000)						\$ -	\$ -	\$ 1,348	\$ 4,235	\$ 8,470	\$ 12,705	\$ 16,940	\$ 21,175

CheckPoint TKI in NSCLC	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
CK-101 (EGFR mutation + LC)													
New cases of lung cancer/year		228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150	228,150
Total Lung Cancer Market size (M)		19,250,000	19,478,150	19,706,300	19,934,450	20,162,600	20,390,750	20,618,900	20,847,050	21,075,200	21,303,350	21,531,500	21,759,650
Total NSCLC lung cancer		16,362,500	16,556,428	16,750,355	16,944,283	17,138,210	17,332,138	17,526,065	17,719,993	17,913,920	18,107,848	18,301,775	18,495,703
% of patients with EGFR/NSCLC patients		26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%
Patients with EGFR/NSCLC patients						59,319	59,319	59,319	59,319	59,319	59,319	59,319	59,319
Market share						5%	10%	12%	14%	15%	16%	17%	18%
Treated patients (000)						2,966	5,932	7,118	8,305	8,898	9,491	10,084	10,677
Cost (competition=\$15,240/month)						\$ 182,880	\$ 182,880	\$ 182,880	\$ 182,880	\$ 182,880	\$ 182,880	\$ 182,880	\$ 182,880
Revenues (000)						\$ 542,413	\$ 1,084,826	\$ 1,301,791	\$ 1,518,756	\$ 1,627,239	\$ 1,735,721	\$ 1,844,204	\$ 1,952,687
Probability of Success						30%	30%	30%	30%	30%	30%	30%	30%
Adjusted Revenues (000)						\$ 162,724	\$ 325,448	\$ 390,537	\$ 455,627	\$ 488,172	\$ 520,716	\$ 553,261	\$ 585,806
Royalty assumed						4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Royalty revenue (000)						\$ 7,323	\$ 14,645	\$ 17,574	\$ 20,503	\$ 21,968	\$ 23,432	\$ 24,897	\$ 26,361

Cyprion Therapeutics (private)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
CUTX-101 (Menkes Disease)													
Prevalance (USA)	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720	2,720
Incidence annually (USA)	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Target patient population	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Market share		0%	0%	0%	10%	30%	50%	70%	80%	80%	80%	80%	80%
Patients treated					250	750	1,250	1,750	2,000	2,000	2,000	2,000	2,000
Price					\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Revenues (000)					75,000	225,000	375,000	525,000	600,000	600,000	600,000	600,000	600,000
Probability of Success					30%	30%	30%	30%	30%	30%	30%	30%	30%
Adjusted Revenues (M)					\$ 22,500	\$ 67,500	\$ 112,500	\$ 157,500	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000
Royalty assumed					4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Royalty revenue (000)					\$ -	\$ 1,013	\$ 3,038	\$ 5,063	\$ 7,088	\$ 8,100	\$ 8,100	\$ 8,100	\$ 8,100

Source: Dawson James

**Valuation:** As we previously mentioned, Valuation is a complex discussion for Fortress. Fortress as the controlling entity reports consolidated statements. There are multiple ways to value a "platform therapeutics company" like Fortress that has majority ownership in multiple public companies with the rights to royalties and milestones, plus the company has its own internal products that are generating revenues and internal private companies that have their own therapeutic pipeline candidates. We choose to model the key products as they exist (inside and outside the company) and project them based on the ownership percentage to the Fortress income statement. We recognize that this is "a model." It is a method to forecast a future value. i.e., reporting the revenues of outside companies based on the percentage ownership, (not as a 100% consolidated entity) but we do show the consolidated expenses as they are currently reported by Fortress. We view our method as doubly conservative, that is, we cut the revenues but not the expenses. One might argue we need to assess each outside company, determine net-income, and apply valuation metrics, based on the projected value of the external company. We leave that for "others" to do, as our purpose is to determine, is their upside to Fortress based on the value of the holding in the external companies, the product royalties, the annual stock dividend, and the internal companies and P&L metrics of Fortress itself? We clearly conclude, Yes. In our model, we do separate and show our projected revenues, royalties and milestones. We model external and internal products. We then assume R&D, SG&A based on the current consolidated numbers. We project the share count as well as revenues, expenses, and ultimately net-income out to 2030. For each individual product, we make certain assumptions about timing and probability of success and apply these assumptions to our model. We apply a probability of success in our therapeutic models. This ranges from as low as just 30% to as high as 70% based on what we feel is the therapeutic risk that the product will advance. In addition to the success factor, we apply a 15% discount rate (r) in our Free Cash Flow to the Firm (FCFF), Discounted EPS (dEPS) and Sum of the Parts (SOP) models. We then average the result and round to the nearest whole number to derive our \$19.00 - 12 month price target.

## Exhibit 2. Free Cash Flow Model

Average	19
Price Target	21
Year	2020

### DCF Valuation Using FCF (mln):

units ('000)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBIT	(94,843)	(122,173)	(74,545)	(93,497)	42,813	204,593	349,827	489,468	573,567	639,929	704,893	741,081
Tax Rate	0%	0%	0%	0%	0%	10%	15%	18%	20%	21%	21%	21%
EBIT (1-t)	(94,843)	(122,173)	(74,545)	(93,497)	42,813	184,134	297,353	401,364	458,854	505,544	556,865	585,454
CapEx												
Depreciation												
Change in NWC												
FCF	(94,843)	(122,173)	(74,545)	(93,497)	42,813	184,134	297,353	401,364	458,854	505,544	556,865	585,454
PV of FCF	(109,069)	(122,173)	(64,822)	(70,697)	28,150	105,279	147,837	173,521	172,500	165,263	158,296	144,715
Discount Rate	15%											
Long Term Growth Rate	1%											
Terminal Cash Flow	4,223,632											
Terminal Value YE2030	1,044,017											
NPV	1,881,887											
NPV-Debt	9,396											
Shares out ('000)	89,807	2030E										
NPV Per Share	21											

Source: Dawson James

## Exhibit 3. Discounted-EPS Model

Current Year	2020
Year of EPS	2030
Earnings Multiple	10
Discount Factor	15%
Selected Year EPS	\$ 6.19
NPV	15

		Discount Rate and Earnings Multiple Varies, Year is Constant					
		5%	10%	15%	20%	25%	30%
Earnings Multiple	1	3.80	2.39	1.53	1.00	0.66	0.45
	5	19.00	11.93	7.65	5.00	3.32	2.24
	10	37.99	23.86	15.30	9.99	6.64	4.49
	15	56.99	35.79	22.95	14.99	9.97	6.73
	20	75.99	47.72	30.59	19.99	13.29	8.98
	25	94.98	59.65	38.24	24.99	16.61	11.22
	30	113.98	71.58	45.89	29.98	19.93	13.47
	35	132.97	83.51	53.54	34.98	23.26	15.71

Source: Dawson James

**Exhibit 4. Sum-of-the-Parts Model**

<b>Fortress Biotech</b>	LT Gr	Discount Rate	Yrs to Peak	% Success	Peak Sales (MM's)	Term Val
<b>Avenue Tramadol IV (Pain)</b>	1%	15%	4	70%	\$986	\$7,045
NPV						\$9.5
<b>Mustang MB-107 (bubble Boy)</b>	1%	15%	3	70%	\$431	\$3,080
NPV						\$4.8
<b>Cyprium CUTX-101 (Menke's Disease)</b>	1%	30%	4	70%	\$600	\$2,069
NPV						\$2
<b>CheckPoint Cosibelimab (PD-L1)</b>	1%	30%	4	70%	\$1,318	\$4,543
NPV						\$4
<b>CheckPoint CK-101 (TRK)</b>	1%	30%	4	70%	\$1,953	\$6,733
NPV						\$5.6
Net Margin (Products)						30%
MM Shrs OS (2030E)						89
<b>Product Total NPV</b>						\$20
<b>Product Royalties NPV</b>	1%	15%	4	70%	\$132	\$944
NPV						\$1.3
NPV - Royalties & Products						\$21.1
<b>Milestones</b>	1%	15%	4	70%	\$50	\$357
NPV						\$0.5
NPV - Royalties & Products & Milestones						\$21.6

Source: Dawson James

**Exhibit 5. Income Statement**

	1Q19A	2Q19A	3Q19A	4Q19E	2019E	1Q20E	2Q20E	3Q20E	4Q20E	2020E	2021E	2022E	2023E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
<b>Probability Revenue Forecast: ('000)</b>																								
Avenue Therapeutics (IV Tramadol) end use sales											\$ 14,042	\$ 28,112	\$ 56,843	\$ 33,045	\$ 38,792	\$ 31,808	\$ 40,228	\$ 143,673	\$ 290,510	\$ 440,562	\$ 519,648	\$ 600,423	\$ 682,912	\$ 690,431
Percent Owned by Fortress	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%
Revenues Attributed back to Fortress	-	-	-	-	-	-	-	-	-	-	4,493	8,996	18,190	10,574	12,413	10,115	12,873	45,975	92,963	140,980	166,288	192,135	218,532	220,938
Mustang Bio - Bubble Boy (MB-107)											\$ 50,825	\$ 108,000	\$ 35,319	\$ 41,462	\$ 33,784	\$ 42,998	\$ 153,563	\$ 167,063	\$ 160,313	\$ 196,875	\$ 180,000	\$ 156,938	\$ 129,375	
Percent Owned by Fortress	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Revenues Attributed back to Fortress	0	0	0	0	0	0	0	0	0	0	15,188	32,400	10,596	12,439	10,135	12,899	46,069	50,119	48,094	59,063	54,000	47,091	38,813	
Cyprum - CUTX-101 - Menkes Disease											\$ 22,500	\$ 67,500	\$ 25,875	\$ 30,375	\$ 24,750	\$ 31,500	\$ 112,500	\$ 157,500	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000
Percent Owned by Fortress	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%	89%
Revenues Attributed back to Fortress	0	0	0	0	0	0	0	0	0	0	20,025	60,075	23,029	27,034	22,028	28,035	100,125	140,175	160,200	160,200	160,200	160,200	160,200	160,200
CheckPoint (Cosbelimab PD-L1)											\$ 29,945	\$ 21,646	\$ 25,410	\$ 20,705	\$ 26,351	\$ 94,112	\$ 188,224	\$ 282,336	\$ 376,448	\$ 470,559	\$ 564,671	\$ 658,783		
Percent Owned by Fortress	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%
Revenues Attributed back to Fortress	-	-	-	-	-	-	-	-	-	-	9,582	6,927	8,131	6,625	8,432	30,116	60,232	90,347	120,463	150,579	180,695	210,811		
CK-101 end use sales											\$ 162,724	\$ 74,853	\$ 87,874	\$ 71,599	\$ 91,125	\$ 325,448	\$ 390,537	\$ 455,627	\$ 488,172	\$ 520,716	\$ 553,261	\$ 585,806		
Percent Owned by Fortress	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%	32%
Revenues Attributed back to Fortress	-	-	-	-	-	-	-	-	-	-	52,072	23,953	28,119	22,912	29,160	104,143	124,972	145,801	156,215	166,629	177,044	187,458		
Journey Medical Corporation (Dermatology)	6,477	6,477	8,000	12,000	32,954	9,095	10,282	9,491	10,677	39,545	35,590	39,149	43,064	10,895	12,316	11,369	12,790	47,371	52,108	57,319	63,050	69,355	76,291	83,920
Percent Owned by Fortress	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Revenues Attributed back to Fortress	6,477	6,477	8,000	12,000	32,954	9,095	10,282	9,491	10,677	39,545	35,590	39,149	43,064	10,895	12,316	11,369	12,790	47,371	52,108	57,319	63,050	69,355	76,291	83,920
Other Revenue Back to Fortress																								
Fortress Revenues	6,477	9,250	9,702	13,000	38,430	9,792	11,008	10,248	11,525	42,572	43,414	87,019	219,411	86,993	101,515	84,291	105,431	378,229	525,442	648,101	731,176	790,386	866,978	909,988
Avenue Therapeutic (IV Tramadol) Royalties (4.5% on sales > \$325M)											\$ 55,000													
Associate Milestones																								
Mustang Bio - Bubble Boy (MB-107) Prob. Adj. Royalties - 4.5%											\$ 2,278	\$ 4,860	\$ 1,589	\$ 1,866	\$ 1,520	\$ 1,935	\$ 6,910.31	\$ 7,518	\$ 7,214	\$ 8,859	\$ 8,100	\$ 7,062	\$ 5,822	
Associate Milestones																								
Cyprum - CUTX-101 Menke's Disease - Prob. Adj. Royalties - 4.5%											\$ 1,013	\$ 3,038	\$ 1,164	\$ 1,367	\$ 1,114	\$ 1,418	\$ 5,063	\$ 7,088	\$ 8,100	\$ 8,100	\$ 8,100	\$ 8,100	\$ 8,100	\$ 8,100
Associate Milestones																								
CheckPoint (Cosbelimab PD-L1) - Prob. Adj. Royalties - 4.5%											\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,348	\$ 4,235	\$ 8,470	\$ 12,705	\$ 16,940	\$ 21,175
Associate Milestones																								
CheckPoint (CK-101 - TKI) - Prob. Adj. Royalties - 4.5%											\$ 7,323	\$ 3,368	\$ 3,954	\$ 3,222	\$ 4,101	\$ 14,645	\$ 17,574	\$ 20,503	\$ 21,968	\$ 23,432	\$ 24,897	\$ 26,361		
Associate Milestones																								
<b>Total Royalties &amp; Milestones</b>	-	-	-	-	-	-	-	-	-	-	55,000	3,291	15,220	6,122	7,187	5,856	7,453	26,618	33,527	40,052	47,397	52,337	56,999	61,458
<b>Expenses:</b>																								
<b>Fortress</b>																								
Costs of Goods Sold (Journey Medical)	1,884	2,386	2,702	2,000	6,431	1,819	2,056	1,898	2,135	7,909	7,118	7,830	8,613	2,179	2,463	2,274	2,558	9,474	10,422	11,464	12,610	13,871	15,258	16,784
%COGS	29%	26%	34%	17%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Research and Development	23,273	18,511	14,571	18,000	74,355	17,957	18,737	20,299	21,080	78,073	81,976	86,075	90,379	21,827	22,775	24,673	25,622	94,898	99,643	104,625	109,856	115,349	121,116	127,172
Research and Development- licenses acquired	450	200	700	2,903	4,253	1,840	1,920	2,080	2,160	8,000	12,000	16,000	16,000	4,057	4,234	4,586	4,763	17,640	18,522	19,448	20,421	21,442	22,514	23,639
General and Administrative	13,478	13,443	14,339	14,780	56,040	14,290	14,862	13,147	14,862	57,160	58,304	59,470	60,659	15,468	16,087	14,231	16,087	61,872	63,110	64,372	65,659	66,972	68,312	69,678
<b>Total Operating expenses</b>	39,085	34,540	32,312	37,682	141,078	35,906	37,575	37,424	40,237	151,142	159,398	169,375	176,451	43,531	45,559	45,764	49,030	183,884	191,696	199,909	208,546	217,634	227,200	237,274
<b>Operating Income (Loss)</b>	<b>(29,835)</b>	<b>(25,290)</b>	<b>(22,610)</b>	<b>(24,682)</b>	<b>(102,416)</b>	<b>(26,114)</b>	<b>(26,567)</b>	<b>(27,176)</b>	<b>(28,712)</b>	<b>(108,570)</b>	<b>(60,984)</b>	<b>(79,065)</b>	<b>58,180</b>	<b>49,584</b>	<b>63,143</b>	<b>44,382</b>	<b>63,854</b>	<b>220,963</b>	<b>367,273</b>	<b>488,245</b>	<b>570,027</b>	<b>634,089</b>	<b>696,777</b>	<b>734,173</b>
Interest income (expense), net	438	779	738		1,955	472	493	534	554	2,053	2,155	2,263	2,376	574	599	649	674	2,495	2,620	2,751	2,888	3,033	3,184	3,344
Interest expense and financing fee	(2,469)	(3,106)	(3,168)		(8,743)	(2,111)	(2,203)	(2,387)	(2,479)	(9,180)	(9,639)	(10,121)	(10,627)	(2,566)	(2,678)	(2,901)	(3,013)	(11,159)	(11,716)	(12,302)	(12,917)	(13,563)	(14,241)	(14,953)
Change in FV of derivative liability																								
Change in FV of subsidiary convertible note																								
Change in FV of investments																								
Gain on deconsolidation of Caelum	18,384	137			18,521																			
<b>Total Other Income</b>	<b>16,353</b>	<b>(2,190)</b>	<b>(2,430)</b>	<b>-</b>	<b>11,733</b>	<b>(1,639)</b>	<b>(1,711)</b>	<b>(1,853)</b>	<b>(1,924)</b>	<b>(7,127)</b>	<b>(7,484)</b>	<b>(7,858)</b>	<b>(8,251)</b>	<b>(1,993)</b>	<b>(2,079)</b>	<b>(2,252)</b>	<b>(2,339)</b>	<b>(8,663)</b>	<b>(9,097)</b>	<b>(9,551)</b>	<b>(10,029)</b>	<b>(10,530)</b>	<b>(11,057)</b>	<b>(11,610)</b>
<b>Pre-tax Income (loss from continuing operations)</b>	<b>(13,482)</b>	<b>(27,480)</b>	<b>(25,040)</b>	<b>(24,682)</b>	<b>(90,683)</b>	<b>(27,754)</b>	<b>(28,278)</b>	<b>(29,029)</b>	<b>(30,636)</b>	<b>(115,697)</b>	<b>(68,468)</b>	<b>(86,923)</b>	<b>49,929</b>	<b>42,832</b>	<b>54,957</b>	<b>37,917</b>	<b>55,363</b>	<b>191,070</b>	<b>304,450</b>	<b>392,529</b>	<b>447,998</b>	<b>492,611</b>	<b>528,004</b>	<b>541,922</b>
Income Tax Benefit (Provision)																								
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	10%	10%	10%	15%	18%	20%	21%	23%	25%
<b>GAAP Net Income (Loss)</b>	<b>(13,482)</b>	<b>(27,480)</b>	<b>(25,040)</b>	<b>(24,682)</b>	<b>(90,683)</b>	<b>(27,754)</b>	<b>(28,278)</b>	<b>(29,029)</b>	<b>(30,636)</b>	<b>(115,697)</b>	<b>(68,468)</b>	<b>(86,923)</b>	<b>49,929</b>	<b>42,832</b>	<b>54,957</b>	<b>37,917</b>	<b>55,363</b>	<b>191,070</b>	<b>304,450</b>	<b>392,529</b>	<b>447,998</b>	<b>492,611</b>	<b>528,004</b>	<b>541,922</b>
Less: net loss attributable to non-controlling interests	17,647	14,382	12,208		44,237	(27,754)	(28,278)	(29,029)	(30,636)	(115,697)	(68,468)	(86,923)	49,929	42,832	54,957	37,917	55,363	191,070	304,450	392,529	447,998	492,611	528,004	541,922
<b>Net Income (loss) attributable to common stockholders</b>	<b>4,165</b>	<b>(13,098)</b>	<b>(12,832)</b>	<b>(24,682)</b>	<b>(46,446)</b>	<b>(27,754)</b>	<b>(28,278)</b>	<b>(29,029)</b>	<b>(30,636)</b>	<b>(115,697)</b>	<b>(68,468)</b>	<b>(86,923)</b>	<b>49,929</b>	<b>42,832</b>	<b>54,957</b>	<b>37,917</b>	<b>55,363</b>	<b>191,070</b>	<b>304,450</b>	<b>392,529</b>	<b>447,998</b>	<b>492,611</b>	<b>528,004</b>	<b>541,922</b>
GAAP-EPS	0.09	(0.24)	(0.23)	(0.43)	(0.82)	(0.49)	(0.40)	(0.41)	(0.44)	(1.74)	(0.97)	(1.23)	0.70	0.60	0.77	0.53	0.78	2.68	4.26	5.47	6.22	6.81	7.27	7.43
GAAP-EPS (Dil)	0.07	(0.20)	(0.19)	(0.37)	(0.70)	(0.42)	(																	

**Risk Analysis**

In addition to the typical risks associated with development stage specialty pharmaceutical companies, potential risks specific to Fortress Biotech are as follows:

**Financial risk.** The company may need to raise capital in the marketplace in order to successfully push their products into the next phase, and there can be no assurances that the company will be able to successfully raise capital and or do so, on favorable terms.

**Clinical and regulatory risk.** Lead products must start and complete clinical trials. Trials may not produce results sufficient for regulatory approval.

**Partnership risk.** Fortress Biotech may seek partnerships for clinical development support and commercialization. We have no specific knowledge of any discussions with possible partners today, and there can be no assurances that the company will be able to secure a favorable partnership.

**Commercial risk.** There are no assurances that the company will be able to secure favorable pricing, commercially launch products, and achieve significant market share to become profitable.

**Legal and intellectual property risk.** The company may have to defend its patents and technical know-how, and there can be no assurances that the patents will not be infringed or will be held as valid if challenged, and or that the company may infringe on third party's patents.

Companies mentioned in this report:

Checkpoint Therapeutics (CKPT/NASDAQ) – Not covered.

Companies working with Fortress:

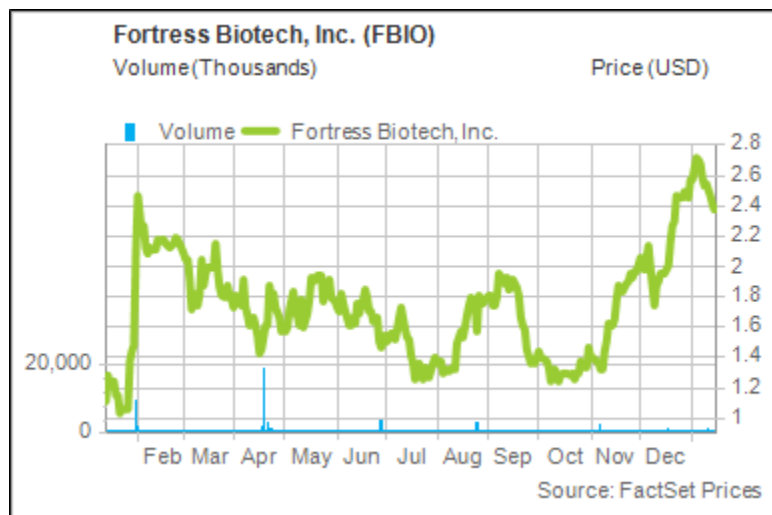
Journey Medical Corporation (internal Fortress company).



**Important Disclosures:**

**Price Chart:**

Price target and rating changes over the past three years:



- Initiated – Buy August 26, 2019 Price Target \$19.00
- Update – Buy September 17, 2019 Price Target \$19.00
- Update – Buy November 4, 2019 Price Target \$19.00
- Update – Buy December 11, 2019 Price Target \$19.00
- Update – Buy December 23, 2019 Price Target \$19.00
- Update – Buy January 15, 2020 Price Target \$19.00

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**Rating Definitions:**

- 1) **Buy:** the analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
- 2) **Neutral:** the analyst believes the price of the stock is fairly valued for the next 12-18 months;
- 3) **Sell:** the analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	25	86%	2	8%
Market Perform (Neutral)	4	14%	1	25%
Market Underperform (Sell)	0	0%	0	0%
Total	29	100%	3	10%

**Analyst Certification:**

The analyst(s) whose name appears on this research report certifies that 1) all of the views expressed in this report accurately reflect his (their) personal views about any and all of the subject securities or issuers discussed; and 2) no part of the research analyst’s compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst in this research report; and 3) all Dawson James employees, including the analyst(s) responsible for preparing this research report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of Dawson James and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.