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INITIATION REPORT

Toll-Free: 561-391-5555 ♦ www.DawsonJames.com ♦ 1 North Federal Highway - Suite 500 ♦ Boca Raton, FL 33432

Fortress Biotech (NASDAQ/FBIO)

August 26, 2019

BUY: Building Model T's- A Biotech Machine

Creating a launch pad for Biotechnology assets Fortress has and continues to acquire biotechnology and specialty pharma undervalued assets and add capital and development expertise to create value inflections for the parent.

Jason Kolbert
Healthcare Research
jkolbert@dawsonjames.com

Investment Highlights

A Unique Model That Manages Risk but Keeps the Upside. We have known the senior management of Fortress for more than a decade and have the highest respect for the track record of this team to create shareholder value while finding, developing to key inflection points and finally commercializing value-creating therapeutics. The platform value of the Fortress Machine should not be underestimated. We believe its value goes beyond just the sum of the parts of the therapeutics in its pipeline (there are many) and the multiple ownership stakes in its public companies such as Avenue Therapeutics (ATXI – Not Rated) where Fortress owns ~32% of this $100M MC company, but its real value is in the discovery, licensing, company infra-structure (access to a pool of CEO/CFO/CMO/CSO's and the right boards) as well as established vendors (CRO's, investment banks, regulatory expertise) to create the next company.

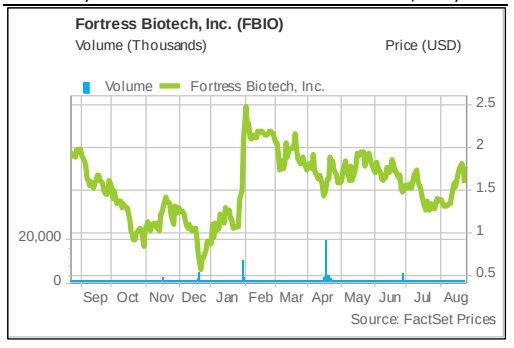
Tramadol & Avenue Therapeutics - Treating Post-Surgical Pain- There must be a better way. Current treatments for post-surgical pain include strong narcotics such as Schedule II (high potential for abuse) opioids, meant for those with severe pain. Much more mild treatments include IV acetaminophens and over the counter anti-inflammatory drugs (ex: ibuprofen), lacking a single product that treats more moderate pain without addictive qualities. IV Tramadol is a way to fill that gap, and approval would make it the only intravenous Schedule IV (low risk of abuse) opioid in the U.S. During two recently completed Phase 3 trials, Avenue achieved a statistically significant improvement in its primary endpoint(s), as well as all key secondary endpoints. FBIO stands to pick up a $55M milestone through its 32% ownership of the company.

Orphan Bubble Boys. Mustang (MBIO-Not Rated, $167MC) is Leveraging CAR-T and Going Pivotal. Mustang Bio is developing MB-107 for bubble boy disease using a first-in-class ex-vivo lentiviral gene therapy that has already shown great promise in two early-stage trials. Plans to start a pivotal trial in stem cell transplant naive patients under two years old in early 2020. FBIO owns ~ 30% of Mustang and is entitled to a 4.5% royalty in 107, as well as a 2.5% equity dividend annually. We see peak revenues for MBIO on just 107 alone in the $50M range, suggesting fair value at 4-5x revenues of $250M and that's w/o the rest of MBIO's pipeline. That equates to $75M in value back to FBIO just for the ownership stake, and adding in the royalty and dividend and we get closer to $100M mark.

Current Price	**$1.58**
Price Target	**$19.00**

Estimates	F2019E	F2020E	F2021E
Expenses ($000s)	$ 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
	F2019E	F2020E	F2021E
EPS (diluted)	$ (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)
EBITDA/Share	($1.49)	($0.07)	($1.11)
EV/EBITDA (x)	0.0	0.0	-1.1

Stock Data	
52-Week Range	$0.49 - $2.59
Shares Outstanding (mil.)	69.0
Market Capitalization (mil.)	$109
Enterprise Value (mil.)	$34
Debt to Capital	68%
Book Value/Share	$1.03
Price/Book	26.9
Average Three Months Trading Volume (K)	350
Insider Ownership	27.1%
Institutional Ownership	10.9%
Short interest (mil.)	2.1%
Dividend / Yield	$0.00/0.0%



Cancer Immunotherapy – Building a Better Mouse Trap (TKI & PD-L1). CheckPoint (CKPT) is developing an EGFR Tyrosine Kinase Inhibitor (TKI) known as CK-101 and has an anti-PD-L1 antibody (Cosibelimab). CK-101 is in early (Phase 1) development for EGFR positive lung cancer. The goal is here is to develop an improved TKI versus Tarceva, Iressa and or Tagrisso, efficacy, and adverse events profile. Recent data suggests a high tolerance of CK-101 across multiple dose groups with preliminary activity for treating the cancer. On the PD-L1 side, interim data shows substantial 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 the TKI could go pivotal in 2020 and the PD-L1 in 2021. 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 revenues 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.

Cyprium Therapeutics (private), 89% owned by Fortress - Menkes Disease. Cyprium is developing CUTX-101 for Menkes disease, a rare genetic disorder, affecting about 1 in 100,000 newborns. The disease may cause weak muscle and bone structure, a delay in normal development, seizures, neurodegeneration, and many other painful symptoms and ultimately death. Because of the intensity of the symptoms, infants diagnosed with Menkes disease rarely live past three years of age. CUTX – 101 showed a 28% reduction in mortality (early treatment) and improvements in neurodevelopment in a Phase 1-2 trial. A Phase 3 trial in now underway with an NDA filing in 2020 possible. Given the nature of this disease, a pediatric voucher is also possible. These vouchers are typically monetized at $50-$200M. We also note that Fortress receives a 4.5% royalty.

C**aelum Biosciences (private), 43% owned by Fortress.** Alexion owns just under 20% ($30M investment) in Caelum. The lead program is CAEL-101 (partnered with Alexion). We note that Alexion is obligated to make a $30M payment based on certain milestones (such as 50% enrollment in the current Phase 2 trial combined with other elements, manufacturing, et al.). Alexion has the option to acquire Caelum (60 days post Phase 2 data) for $160M (upfront) up to a total value of $500M, (which translates into $60M value to Fortress). CAEL-1 is an amyloid fibril targeted therapy designed to reduce/eliminate amyloid deposits in patients with AL amyloidosis, a rare disorder that results in misfolded immunoglobulin light chain protein that builds up in tissues and organs, principally the kidneys and heart. The Phase 2 trial is expected to begin next year with data 12 months from the start. Again, based on Alexion's option, we place the value of Fortress position between $50 and $75M and we note that acquisition is triggered if Alexion is acquired.

Journey Medical Corporation – Internal Fortress Company. $23M in revenues from dermatology franchise in 2018. Targadox (doxycycline) is the lead product, indicated for acne. The company is cash-flow positive today and could contribute $5-10M in cash annually depending on the growth of the core franchise. Typically, we value top-line revenues at 3-5x, and free cash flow at 6-10x, so it's fair to equate value to this franchise. With that said, we expert Journey to continue to grow through product acquisition, making significantly higher top line and bottom line revenue contributions to Fortress over-time.

That's Not All. Fortress also has several additional internal private companies such as Aevitas Therapeutics Inc. (gene therapy), Cellvation Inc. (traumatic brain injury), Helocyte Inc. (CMV) and Tamid Bio Inc. (adeno-associated virus therapeutics). As these are earlier stage platforms, we do not for conservatism include their value in our assessment.

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. 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 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.

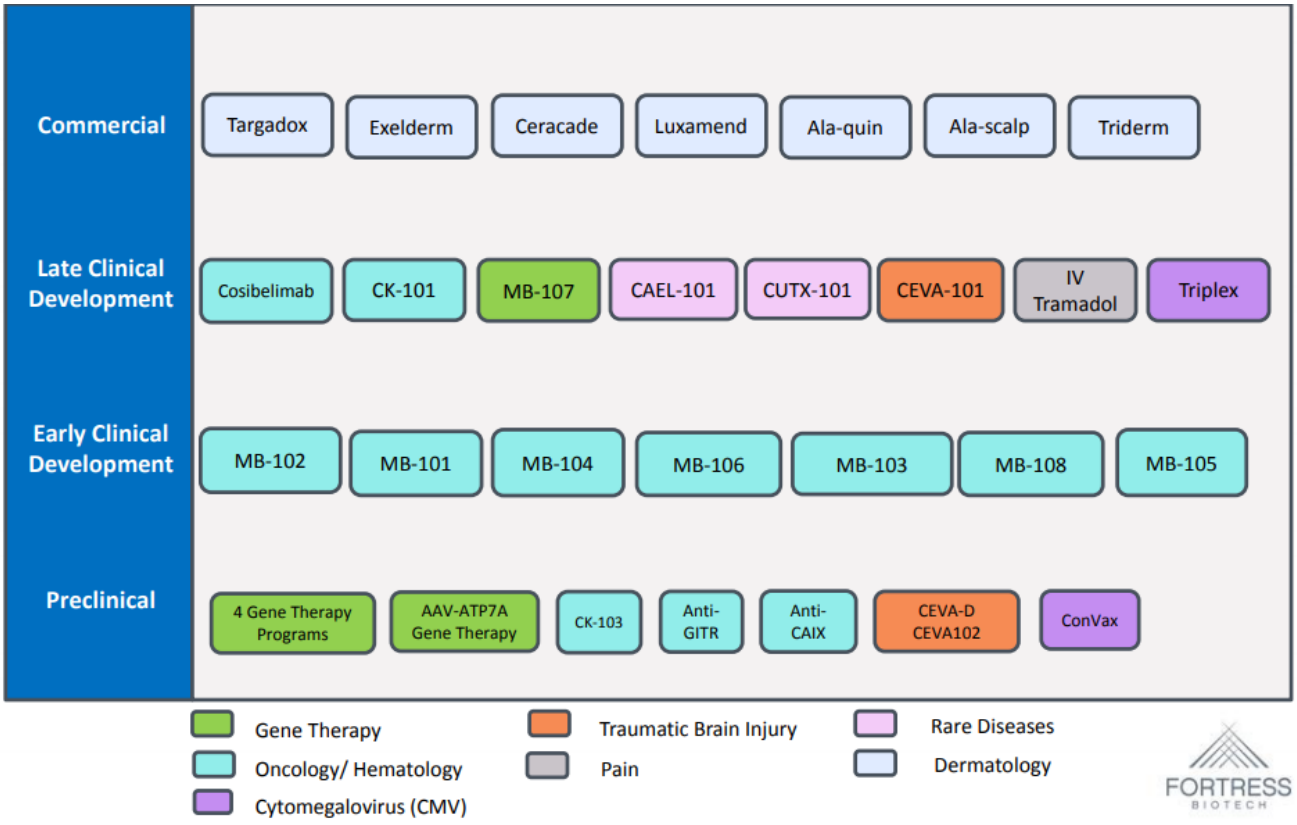
Company Overview

Fortress Biotech is a unique biopharmaceutical company with one of the most experienced management teams in the business. The company is proficient in everything from finding molecules to designing clinical trials and creating value inflection points towards the commercialization of its rich and diverse pipeline of therapeutics which include over 25 product candidates across six markets in development. These products are in development either at Fortress itself, its majority-owned subsidiaries or the "founded institutions" where Fortress holds a significant ownership position. Areas of development include oncology, rare diseases, gene therapy and several other large markets. We see the diversification as minimizing "risk," i.e., dependence on any particular asset. The company's strategic plan involves licensing agreements and partnerships with research and development centers, as well as comparable biopharmaceutical companies in order to maximize market opportunity and minimize time to commercialization. These partners include InvaGen Pharmaceuticalsand St. Jude Children's Research Hospital, as well as others.

Key investments that the company holds in other companies include:

1. Mustang Bio (30%).
2. Checkpoint Therapeutics (32%).
3. Avenue Therapeutics (22% but 32% on sale).
4. Caelum Biosciences (43%).
5. Journey (100%).
6. Cyprium Therapeutics and other private companies (60% - 90%).
7. Aevitas, Cellvation, Helocyte and Tamid Bio., all are internal Fortress companies and represent early-stage options.

Exhibit 1. Fortress Biotech Programs. With seven commercialized products, eight late clinical products, and seven early clinical products, Fortress maintains a fully diversified portfolio. These products are across seven different markets.



Source: Fortress Biotech

Exhibit 2. Fortress Biotech Companies and Catalysts.

Product	Company	Event	Timeline	Impact
IV Tramadol	**Avenue Therapeutics**	Second Pivotal Phase 3 results	//	+
	32% Owned by Fortress	Open-label safety study	//	
	Milestones too ($55M)	File NDA/BLA	4Q19	+
	Indication: Pain	Potential US approval	4Q20	+
		Potential US launch	1Q21	
MB-107	**Mustang Bio**	Transfer of MB-107 IND from St. Jude to Mustang	4Q19	+
	30% Owned by Fortress	Registration trial results	2Q20	+
	4.5% Product Royalty	Begin First Pivotal trial	1Q20	
	2.5% annual equity dividend	Begin Second Pivotal trial	4Q20	
	Indication: Bubble Boy	First Pivotal trial results	2Q21	
		Second Pivotal trial results	4Q21	
		File NDA/BLA	3Q21	+
		Potential US approval	1Q22	
		Potential US launch	2Q22	+
CUTX-101	**Cyprium Therapeutics**	Phase 3 Data - **Menkes Disease**	4Q19	+
	89% Owned by Fortress	File NDA/BLA	2Q20	+
	4.5% Product Royalty	Potential US approval	2Q21	+
	2.5% annual equity dividend	Potential US launch	4Q21	
Cosibelimab	**CheckPoint Therapeutics**	NSCLC Data	2Q19	+
	32% Owned by Fortress	Registration-enabling expanion cohorts	1H20	+
	4.5% Product Royalty	File NDA/BLA	2Q21	
	2.5% annual equity dividend	Potential US approval	1Q22	
	PD-L1 MaB	Potential US launch	3Q22	+
CK-101	**CheckPoint Therapeutics**	Initiate registration trial	4Q19	
	TKI	Registration trial results	4Q21	
		File NDA/BLA	2Q22	+
		Potential US approval	1Q23	
		Potential US launch	3Q23	
		File NDA/BLA	2Q22	+
		Potential US approval	1Q23	
		Potential US launch	3Q23	
CAEL-101	**Caelum Biosciences**	Amyloid Fibroid Therapy partnered with Alexion	2H19	
	43% Owned by Fortress	Phase 1/2 Trial	2020	+
	20% owned Alexion for $30M	Phase 1/2 Data & $50M Milestone (Alexion to Caelum)	2021	
Dermatology	**Journey Medical**	Quarterly Revnues & Cash Flow Positive	Current	
	Internal Fortress company's	Aevitas, Cellvation, Helocyte, Tamid Bio	Current	

Stock Significance Scale: + of moderate importance; ++ higher level; +++ very important

Source: Dawson James

Financials. Fortress Biotech reported a cash position of ~$149 in 2Q19. Our model assumes multiple raises and is based on a fully diluted out-year share count in 2030. We note that Fortress Biotech has licensing agreements with nine other corporations, as well as other research centers. We have modeled a 4.5% royalty on all modeled products, with IV Tramadol being the only without a royalty stream (as royalties don't begin until revenues exceed $325M).

Bull Case. Dr. Lindsay Rosenwald is not just another CEO. He is a biotechnology entrepreneur with a 20 year plus track record of successfully developing therapeutics. As an analyst, I have worked with Lindsay on and off on multiple projects over this period and watched him learn and master the art of developing new drugs. In an age of CAR-T, Gene Therapy, Small molecule advances that result in enhanced versions of older drugs with better efficacy and safety, Lindsay is a buyer. This is evidenced by the Fortress machine he has built with his long-established partner, Michael Weiss. The intellectual capital assembled at Fortress includes former wall street analysts, doctors, industry experts and a who's who list of KOL's. It is impressive but for modeling purposed we need to apply quantitative metrics. Our approach is a bit unique. We evaluate the percentage of the external companies owned by Fortress and very roughly assess the revenue potential of the therapeutic in question, also considering the royalties. The annual stock dividend (ASD) is upside. In our assessment, we apply success probabilities. We then aggregate these revenues (based on the ownership percentages) as if they were reported on the Fortress income statement to help us assess what Fortress holdings would be worth in these companies. We do not include a platform value for Fortress, nor do we include the value for many of the Fortress early-stage internal companies. We don't really need to, as the value of Fortress ownership in the external companies along suggests a substantially higher valuation is possiblebased on our opinion, model and assumptions.

- Avenue Therapeutics – 32% Owned by Fortress. IV Tramadol, Pivotal drug with $55M milestone pending
- Mustang Bio – 30% Owned, 4.5% royalty (R), 2.5% annual stock dividend (ASD) – Bubble Boy Disease – Pivotal Program
- Cyprium Therapeutics – 89% owned, 4.5% R, 2.5% ASD – Menke's Disease – Pivotal Program
- CheckPoint Therapeutics – 32% owned, 4.5%R, 2.5% ASD – 1. Improved PDL1 & 2. Improved TKI (cancer) – Pivotal
- Caelum Bioscience – 43% owned, (20% by Alexion) – Amyloid Fibrosis (P1/2 trigger $50M milestone)
- Journey Medial – Fortress Internal (dermatology) Company - $25-$30M revenues, cash flow positive $5M
- Internal Fortress Companies: Aevitas, Cellvation, Helocyte, Tamid Bio all represent early-stage options.

Combined, Fortress' clinical phase products have a market opportunity in the billions. Projections assume growth in each of these markets, with opportunities for a newcomer with an improved drug (better efficacy, fewer side effects) to acquire market share. The diversification of the product lines and ownership in other companies, in our opinion, reduces the risk associated with any single product. We see multiple near term drivers for a higher valuation.

- Avenue Therapeutics' IV Tramadol anticipates filing by the end of 2019, with an anticipated launching of 1Q21. Due to the fact that oral tramadol is already an approved drug within the market, we view IV Tramadol as a low-risk approval. A deal made with InvaGen has established an obligation for the company to buy Fortress' 32% stake in Avenue Therapeutics, given the meeting of four criteria. These criteria are on track to be achieved, and the deal could result in $55M for Fortress.
- Mustang Bio. Bubble Boy disease. Registrational trial data is expected by late 2020.
- Cyprium is developing CUTX-101 for Menkes Disease. We could see an NDA filed by 2H20.
- Checkpoint Therapeutics (CKPT): Two Products, a better PD-L1, and an improved TKI both initially in NSCLC. Checkpoint's ~$100+ M market cap today suggests that Fortress' 32% stake is with $32M, but we believe on clinical progress those values can go substantially higher.
- Caelum is developing CAEL-101 for Amyloid Fibroid and is partnered with Alexion; Phase1 -2 data can drive a $60M milestone. Total milestones equal $215M.
- Journey Medical – Quarterly revenues supporting cash flow positive contribution to the parent.

The list goes on. To value Fortress, we have critically assessed the pipeline products of the company and the companies where Fortress has an equity position. We see multiple catalysts across the diversified pipeline that upon success should drive a substantially higher valuation.

Ok, So what's the Bear Case Confusion? Fortress is a complex company that has achieved an amazing amount of progress in an incredibly short time. We blinked. In just a few short years, the company has amassed twenty-five plus products across several therapeutic areas. Analysts can easily be overwhelmed as following the company requires broad expertise, and in today's world of immediate gratifications, tweets and soundbites, few have the time to do the work and really understand the company. As a result, we believe that Fortress is not well understood by "the street". We see Fortress in a unique position to benefit from outside ownership in the companies above, generate royalties and pick-up milestones all while continuing to acquire new molecules and set up new companies. In fact, Fortress now has seven products that are already on the market (dermatology) generating revenues and free cash flow back to the parent. The portfolio diversification of the company leads to our conclusion that the risk is strongly diminished. The shots at blockbuster markets such as cancer could translate into significant revenues and therefore a significant value inflection for the companies behind them. We also believe as Fortress matures deal terms to commercialize products will only become more favorable to Fortress. i.e., Fortress is not going to give away the next commercial blockbuster.

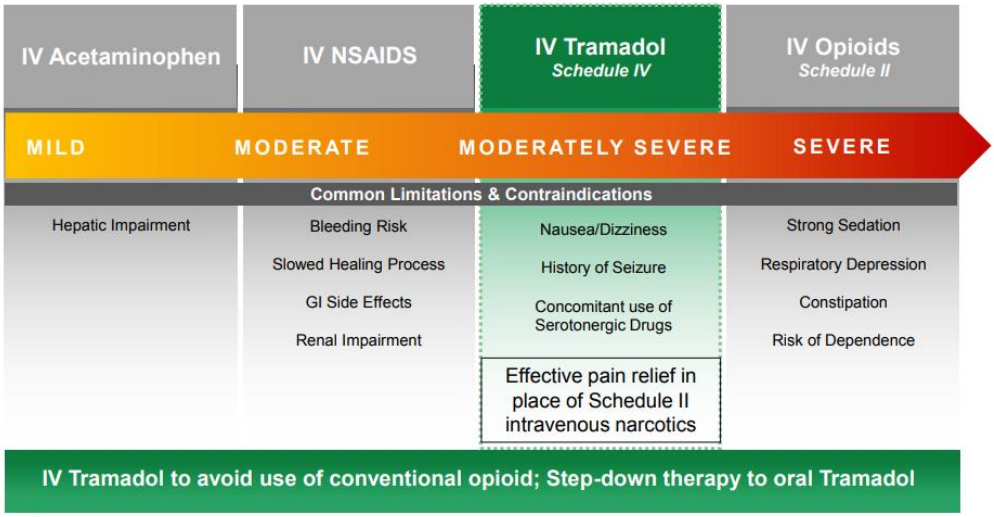
Avenue Therapeutics- IV Tramadol

Avenue Therapeutics (ATXI) is one of ~ ten companies that contribute to the overall valuation of Fortress Biotech. It is perhaps one of the most important, as it is the company developing IV Tramadol (their near-term revenue driver). With a 32% percent stake in ATXI, their developments have a strong influence on the success of Fortress.

Current Agreement with (InvaGen). Fortress Biotech currently has an agreement with InvaGen, stating that InvaGen will buyout the 32% stake in ATXI given four-tier criteria. This includes approval of IV Tramadol by May 30, 2021, Schedule IV designation by DEA, general post-surgical labeling, and no REMS program. This buyout would result in $55M to FBIO, as well as continuing royalties. Assuming this deal follows through, we anticipate completion in 3Q20.

Potential Success of IV Tramadol. Filing of IV Tramadol is expected to complete by 4Q19, with anticipation of launching in 1Q21. Given sales eventually exceed $325M, a royalty to Fortress could be instilled and further drive the value of the company. Oral tramadol is an already approved drug, generally prescribed for more mild pain. Because of this, we anticipate the approval of IV Tramadol due to the comparability of the two products as well as the efficacy and safety of Avenue Therapeutics' drug.

Exhibit 3. Future Post-OP Pain Management Paradigm. Avenue Therapeutics hopes to fill the gap currently found within the pain relief market. Currently, no treatment exists for treating moderately severe pain without risk of drug dependence.



Source: Avenue Therapeutics

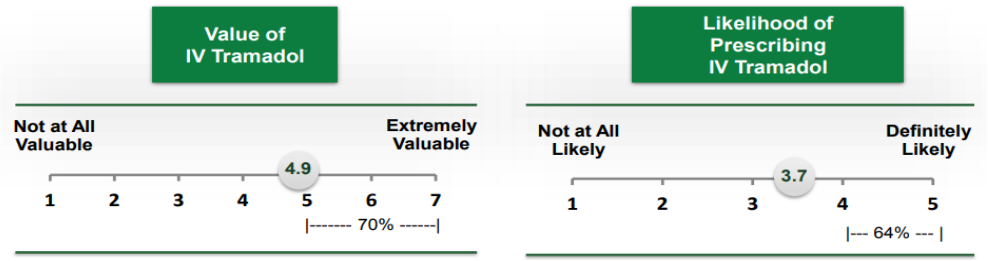
Exhibit 4. Physician Excitement for IV Tramadol Product Profile. During a study of 201 practitioners (orthopedic surgeons, general surgeons, anesthesiologists, emergency medicine physicians), 70% rate IV Tramadol a "5 or higher" on the Value Scale. Almost two-thirds have expressed that they were "probably-definitely" likely to prescribe IV Tramadol.

70% of physicians rated IV Tramadol "5 or higher" on the Value Scale (1-7)

- 80% of orthopedic surgeons and 76% of general surgeons rated IV Tramadol "*5 or higher*"

Strong interest in prescribing IV Tramadol

- Almost two-thirds (64%) were "*probably-definitely*" likely to prescribe;
- Orthopedic surgeons displayed the highest prescribing intent (74% - "*probably-definitely*")



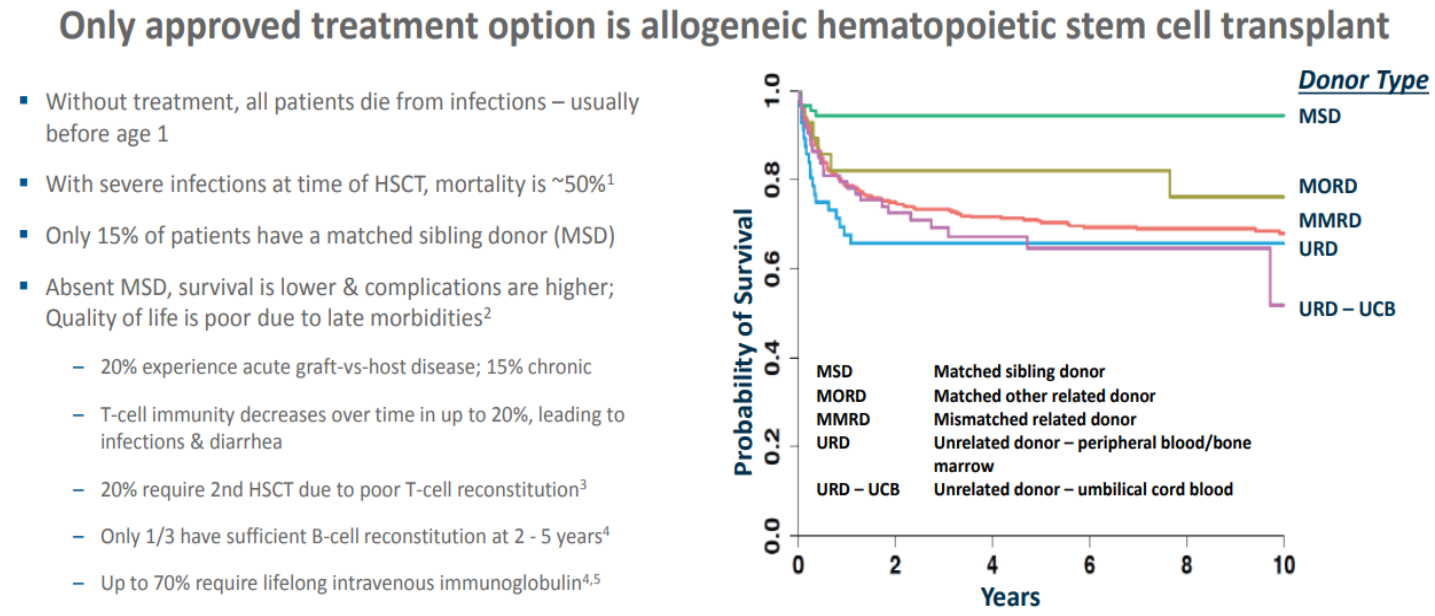
Source: Avenue Therapeutics

Mustang Bio- MB-107

Mustang Bio (MBIO) organically in-licensed MB-107 from St. Jude Children's Research Hospital. Now they manage the development of the drug themselves. Generally, they are a gene and cell therapy company with several other product lines in development. Currently Fortress owns ~30% of the company, with a ~$50M value of their shares.

MB-107 advantages. The current treatment for XSCID patients includes allogeneic hematopoietic stem cell transplants (HSCT). This paradigm proves difficult to achieve, as only 15% of patients have a matched donor that will allow them to conduct the procedure. After all of this, there is still a 50% mortality rate after the treatment. The recent St. Jude's trial included ten infants who were born with XSCID. With data published in the New England Journal of Medicine, they described the significant clinical success of these patients. All patients had multilineage immune reconstitution, and 8/10 had previous infections cleared and stronger development of T cells.

Exhibit 5. Clinical Course of XSCID Patients Treated with HSCT. Current treatments with the highest probability of survival are HSCTs from a matched sibling donor (MSD). However, only 15% of patients actually have an MSD. The lowest rate of survival includes unrelated donors or the use of umbilical cord blood.



Source: Mustang Bio

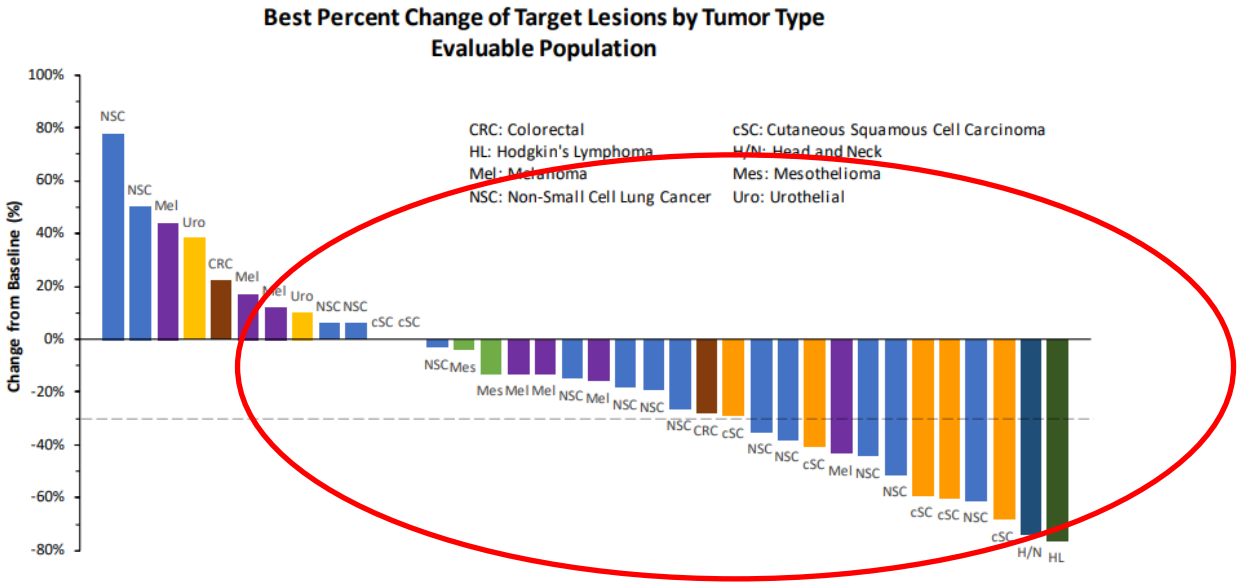
MB-107 pathway to regulation. Mustang Bio anticipates regulatory agreement on the filing strategy in 3Q19, with pivotal efficacy data from St. Jude. They also anticipate supportive data from the Mustang IND trial. Until the end of 2019, Mustang and St. Jude will work with the FDA in requesting Regenerative Medicine Advanced Therapy Designation, Orphan Drug Designation, and Rare Pediatric Disease Designation. Approval across these three filings would bring the product to the next stage of development and one step closer to potential launch.

Checkpoint Therapeutics- Cosibelimab & CK-101

Checkpoint Therapeutics focuses on immuno-oncology agents and more specifically, solid tumors. Checkpoint has a relatively small market cap of about $118M, with 32% ($38M value) of its shares owned by Fortress.

Cosibelimab is currently in their Phase 1 trial, with interim data supporting a positive safety profile for the drug.

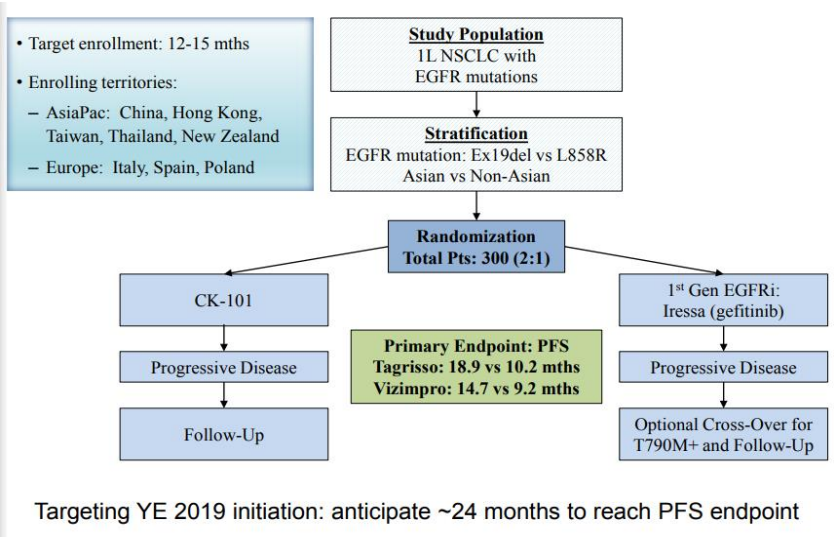
Exhibit 6. Cosibelimab's Phase 1 Interim Data Anti-Tumor Activity in a Variety of Cancers. 67% (24/36) of response evaluable patients experienced target lesion reductions versus the baseline.



Source: Checkpoint Therapeutics

CK-101 is for patients who have epithelial growth factor receptor (EGFR) mutation-positive non-small cell lung cancer (NSCLC). NSCLC accounts for ~85% of all lung cancers, and 26% of NSCLC patients are EGFR mutation-positive. EGFR is a protein found on cancer cells and normal cells that instructs cells to grow and divide. It is a necessary protein, however it can prove dangerous when active on cancer cells, especially when mutations are present. These mutations lead to the overactivation of these proteins, causing continuous cell division and growth. CK-101 is an EGFR inhibitor that hopes to prevent the activation of these mutated proteins.

Exhibit 7. CK-101 Planned Phase 3 Study Design. Checkpoint's Phase 3 study is similar to that as used by Tagrisso. Utilizing 300 patients with EDGR mutations, they anticipate initiation in YE19.



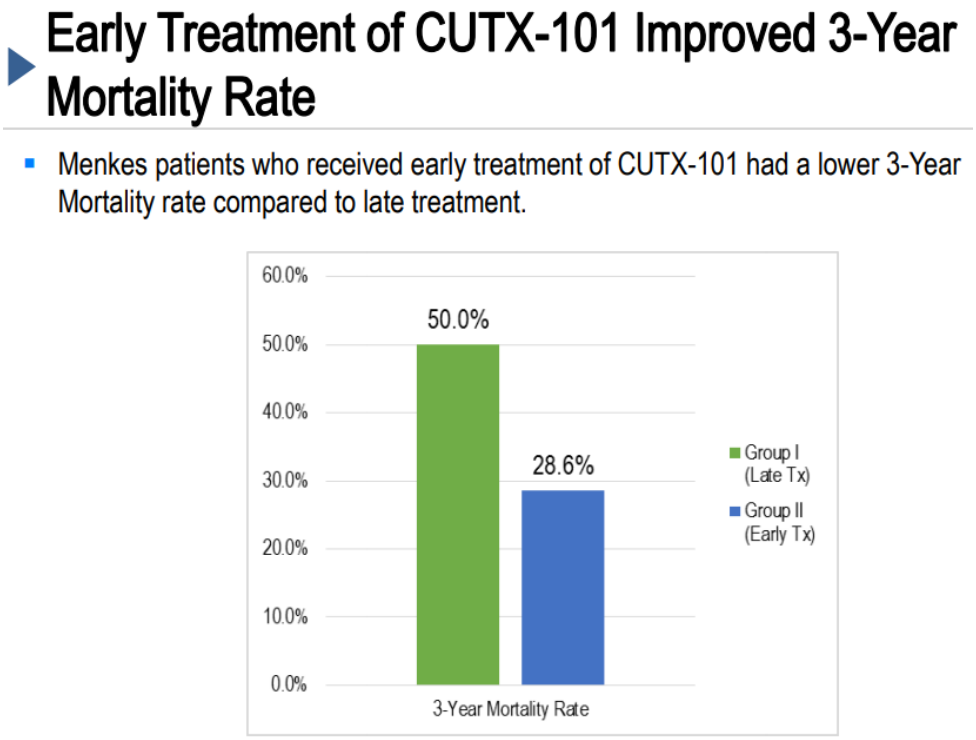
Source: Checkpoint Therapeutics

Cyprium Therapeutics- CUTX-101

Cyprium Therapeutics is focusing on the development of new therapies for treating Menkes disease. Fortress Biotech currently has 89% stake in the company, leading to the conclusion that the breakthrough success of their drug would greatly benefit FBIO.

CUTX-101 is the major value driver for Cyprium Therapeutics and is currently in the execution stage of its Phase 3 trial. After completing their Phase 1/2 trial, results proved very successful. They were able to improve gross motor function, fine motor/adaptive function, personal-social abilities and language abilities. These patients also had a 28.6% 3-year mortality rate in comparison to the 50% mortality rate of those without the treatment. If successful, CUTX-101 would be the first FDA-approved treatment for Menkes Disease. The drug has already received Orphan Drug and Fast Track Designation by the FDA, leading to hopeful expectations for its approval. The company hopes to complete NDA filing in 1H20.

Exhibit 8. Results of CUTX-101 Phase ½ Trial.



Source: Cyprium Therapeutics

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 9. 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%*	*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

Cyprium 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 annualy (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%*	*4.5%*
Royalty revenue (000)				$ -	$ 1,013	$ 3,038	$ 5,063	$ 7,088	$ 8,100	$ 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 consolidates 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 10. 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
NPV Per Share	21

2030E

Source: Dawson James

Exhibit 11. 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 12. Sum-of-the-Parts Model

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

Source: Dawson James

Exhibit 13. Income Statement

	1Q19A	2Q19A	3Q19E	4Q19E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Probability Revenue Forecast: ('000)																
Avenue Therapeutics: IV Tramadol end use sales							$ 14,042	$ 28,112	$ 56,843	$ 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%
Revenues Atributed back to Fortress	-	-	-	-	-	-	4,493	8,996	18,190	45,975	92,963	140,980	166,288	192,135	218,532	220,938
Mustang Bio - Bubble Boy (MB-107)								$ 50,625	$ 108,000	$ 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%
Revenues Atributed back to Fortress	0	0	0	0	0	0	-	15,188	32,400	46,069	50,119	48,094	59,063	54,000	47,081	38,813
Cyprium -CUTX-101 - Menkes Disease							$ -	$ 22,500	$ 67,500	$ 112,500	$ 157,500	$ 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%
Revenues Atributed back to Fortress	0	0	0	0	1	1	1	20,025	60,075	100,125	140,175	160,200	160,200	160,200	160,200	160,200
CheckPoint (Cosibelimab PD-L1)								$ -	$ 29,945	$ 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%
Revenues Atributed back to Fortress	-	-	-	-	-	-	-	-	9,582	30,116	60,232	90,347	120,463	150,579	180,695	210,811
CK-101 end use sales									$ 162,724	$ 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%
Revenues Atributed back to Fortress	-	-	-	-	-	-	-	-	52,072	104,143	124,972	145,801	156,215	166,629	177,044	187,458
Journey Medical Corporation (Dermatology)	6,477	6,477	6,452	8,645	28,051	33,661	30,295	33,325	36,657	40,323	44,355	48,791	53,670	59,037	64,941	71,435
Percent Owned by Fortress	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Revenues Atributed back to Fortress	6,477	8,199	8,000	8,000	30,676	33,661	30,295	33,325	36,657	40,323	44,355	48,791	53,670	59,037	64,941	71,435
Other Revenue Back to Fortress		1,051	1,000	1,000	3,051	3,356	3,692	4,061	4,467	4,914	5,405	5,946	6,540	7,194	7,914	8,705
Fortress Revenues (consolidated)	6,477	9,250	9,000	9,000	33,728	37,019	38,482	81,594	213,443	371,665	518,221	640,158	722,438	789,775	856,406	898,359
Avenue Therapeutic (IV Tramadol) Royalties (4.5% on sales > $325M)												$ 19,825	$ 23,384	$ 27,019	$ 30,731	$ 31,069
Associate Milestones							$ 55,000									
Mustang Bio - Bubble Boy (MB-107) Prob. Adj. Royalties - 4.5%								$ 2,278	$ 4,860	$ 6,910.31	$ 7,518	$ 7,214	$ 8,859	$ 8,100	$ 7,062	$ 5,822
Associate Milestones																
Cyprium - CUTX-101 Menke's Disease - Prob. Adj. Royalties - 4.5%								$ 1,013	$ 3,038	$ 5,063	$ 7,088	$ 8,100	$ 8,100	$ 8,100	$ 8,100	$ 8,100
Associate Milestones																
CheckPoint (Cosibelmab 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	$ 14,645	$ 17,574	$ 20,503	$ 21,968	$ 23,432	$ 24,897	$ 26,361
Associate Milestones																
Total Royalties & Milestones	-	-	-	-	-	-	55,000	3,291	15,220	26,618	33,527	59,878	70,781	79,356	87,730	92,528
Expenses:																
Fortress																
Costs of Goods Sold (Journey Medical)	1,884	2,386	1,479	682	6,431	6,732	6,059	6,665	7,331	8,065	8,871	9,758	10,734	11,807	12,988	14,287
%COGS	29%	26%	23%	8%	23%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Research and Development	23,273	18,511	19,000	18,000	78,784	82,723	86,859	91,202	95,762	100,551	105,578	110,857	116,400	122,220	128,331	134,747
Research and Development- licenses acquired	450	200	978	2,624	4,253	8,000	12,000	16,000	16,800	17,640	18,522	19,448	20,421	21,442	22,514	23,639
General and Administrative	13,478	13,443	12,889	16,229	56,040	57,160	58,304	59,470	60,659	61,872	63,110	64,372	65,659	66,972	68,312	69,678
Total Operating expenses (consolidated)	39,085	34,540	34,346	37,536	145,507	154,616	163,222	173,337	180,553	188,127	196,081	204,435	213,214	222,441	232,144	242,352
Operating Income (Loss)	**(29,835)**	**(25,290)**	**(25,346)**	**(28,536)**	**(109,006)**	**(117,597)**	**(69,740)**	**(88,452)**	**48,110**	**210,156**	**355,667**	**495,601**	**580,006**	**646,690**	**711,991**	**748,535**
Interest income (expense), net	438	779			1,217	1,278	1,342	1,409	1,479	1,553	1,631	1,712	1,798	1,888	1,982	2,081
Interest expense and financing fee	(2,469)	(3,106)			(5,575)	(5,854)	(6,146)	(6,454)	(6,776)	(7,115)	(7,471)	(7,845)	(8,237)	(8,649)	(9,081)	(9,535)
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											
Total Other Income	**16,353**	**(2,190)**	**-**	**-**	14,163	(4,576)	(4,805)	(5,045)	(5,297)	(5,562)	(5,840)	(6,132)	(6,439)	(6,761)	(7,099)	(7,454)
Pretax Income (loss from continuing operations)	(13,482)	(27,480)	(25,346)	(28,536)	(94,843)	(122,173)	(74,545)	(93,497)	42,813	204,593	349,827	489,468	573,567	639,929	704,893	741,081
Income Tax Benefit (Provision)								-	-	20,459	52,474	88,104	114,713	134,385	162,125	185,270
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	15%	18%	20%	21%	23%	25%
GAAP Net Income (Loss)	(13,482)	(27,480)	(25,346)	(28,536)	(94,843)	(122,173)	(74,545)	(93,497)	42,813	184,134	297,353	401,364	458,854	505,544	542,767	555,811
Less: net loss attributable to non-controlling interests	17,647	14,382			32,029	-	-	-	-	-	-	-	-	-	-	-
Net Income (loss) attributable to common stockholders	4,165	(13,098)	(25,346)	(28,536)	(62,814)	(122,173)	(74,545)	(93,497)	42,813	184,134	297,353	401,364	458,854	505,544	542,767	555,811
GAAP-EPS	0.09	(0.24)	(0.47)	(0.53)	(1.16)	(1.91)	(1.00)	(1.25)	0.57	2.45	3.94	5.30	6.03	6.62	7.08	7.22
GAAP-EPS (Dil)	0.07	(0.20)	(0.38)	(0.43)	(0.95)	(1.60)	(0.86)	(1.07)	0.49	2.10	3.38	4.54	5.17	5.67	6.07	6.19
Wgtd Avg Shrs (Bas) - '000s	48,507	53,726	53,780	53,834	52,462	63,983	74,255	74,552	74,851	75,151	75,452	75,754	76,057	76,362	76,668	76,975
Wgtd Avg Shrs (Dil) - '000s	63,811	66,000	66,066	66,132	65,502	76,313	86,633	86,980	87,329	87,679	88,030	88,383	88,737	89,092	89,449	89,807

Source: Dawson James

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:

Alexion (ALXN/NASDAQ)-Not covered.

InvaGen Pharmaceuticals – (Private).

St. Jude Children's Research Hospital (Private).

Mustang Bio (MBIO/NASDAQ) – Not covered.

Checkpoint Therapeutics (CKPT/NASDAQ) – Not covered.

Avenue Therapeutics (ATXI/ NASDAQ) – Not covered.

Caelum Biosciences (Private).

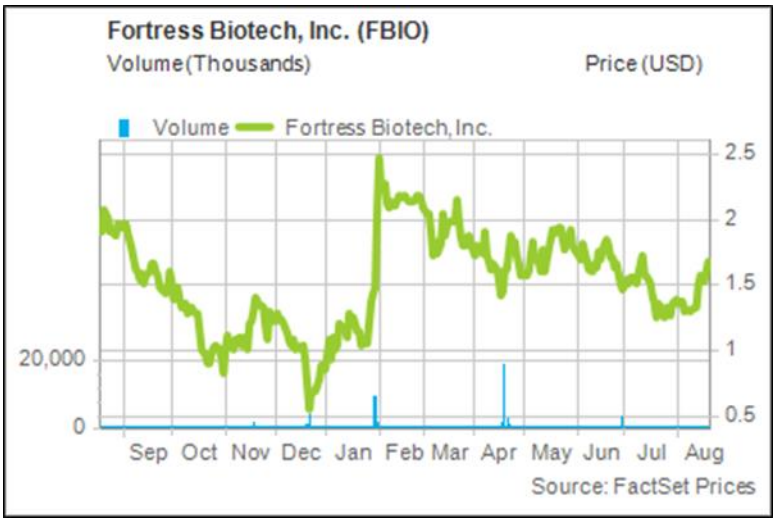
Journey Medical Corporation (internal Fortress company).

Cyprium Therapeutics (Private).

Important Disclosures:

Price Chart:

Price target and rating changes over the past three years:



Initiated – Buy August 26, 2019 Price Target $19.00

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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) **Neutra**l: the analyst believes the price of the stock is fairly valued for the next 12-18 months;
3) **Sel**l: 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.

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	45	85%	13	29%
Market Perform (Neutral)	8	15%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	53	100%	13	25%

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