

## BioTime Inc. (NYSE/BTX)

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### BUY: Focus on Macular Degeneration & Spine

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Biotime (BTX) ended 1Q19 with \$27M in cash and equivalents. The company reported R&D spend of \$4.9M and G&A of \$8.6M but we see these figures as inflated as a result of merger related activities and project a more normalized burn rate closer to \$5M per quarter and BTX's ownership in Oncocyte is est. > \$65M.

### Investment Highlights

**The Financials.** While BioTime closed 1Q19 with just over \$27M in cash the company does have other assets, which combined with cash are estimated to be greater than \$100M. BioTime profiled the details in the quarter's press release which provide a detailed assessment asset by asset.

BioTime lays out the catalysts (from the press release) in 2019:

- Pursuant to an exclusive collaboration with Orbit, initiate dosing of the first patient with the Orbit device and a new thaw and inject formulation in the ongoing Phase I/IIa clinical study of OpRegen for the treatment of dry-AMD, anticipated in the second quarter of 2019.
- Announce decision on BioTime's CE Mark application for Renevia, an investigational medical device being developed as an alternative for whole adipose tissue transfer procedures, now expected in the second quarter of 2019.
- Continue advancement of the OPC1 program and meet with the U.S. Food and Drug Administration (FDA) to discuss plans for next steps in the clinical development of the program, anticipated by year end 2019.
- Strengthen and expand existing partnerships with the California Institute for Regenerative Medicine and Cancer Research UK for the ongoing support of the development of the OPC1 and VAC2 programs.
- Complete patient enrollment in the ongoing Phase I/IIa clinical study of OpRegen for the treatment of dry-AMD, anticipated by year end 2019.
- Evaluate the development of OPC1 as a candidate for the potential treatment of multiple sclerosis (MS) and ischemic stroke through ongoing research collaborations with major universities.
- Increase presence and engagement within the patient, physician, and advocacy communities.

Current Price	\$1.08
Price Target	\$6.00

Estimates	F2018A	F2019E	F2020E
<b>Revenues (\$000s)</b>	\$ 4,988	\$ 5,038	\$ 5,088
1Q March	\$ 701	\$ 928	\$ 1,170
2Q June	\$ 2,547	\$ 1,209	\$ 1,221
3Q September	\$ 982	\$ 1,259	\$ 1,272
4Q December	\$ 758	\$ 1,641	\$ 1,425

	F2018A	F2019E	F2020E
<b>EPS (diluted)</b>	\$ (0.44)	\$ (0.36)	\$ (0.08)
1Q March	\$ (0.51)	\$ (0.30)	\$ (0.02)
2Q June	\$ (0.04)	\$ (0.03)	\$ (0.02)
3Q September	\$ 0.53	\$ (0.03)	\$ (0.02)
4Q December	\$ (0.41)	\$ (0.00)	\$ (0.02)

EBITDA/Share	\$0.00	(\$0.10)	(\$0.08)
EV/EBITDA (x)	-	1,424	1,876

Stock Data	
52-Week Range	\$0.66 - \$2.81
Shares Outstanding (mil.)	149.6
Market Capitalization (mil.)	\$162
Enterprise Value (mil.)	\$142
Debt to Capital	0%
Book Value/Share	\$1.28
Price/Book	1.2
Average Three Months Trading Volume (K)	691
Insider Ownership	1.3%
Institutional Ownership	49.8%
Short interest (mil.)	0.1
Dividend / Yield	\$0.00/0.0%



Update - May 28, 2019 - Buy - Price Target \$6.00

**We view BioTime as a new company invigorated by a new management team and a focused vision on how to walk forward.** The two leading programs, Age-related Macular Degeneration (AMD) and Spinal Cord Injury (SCI) are primed to advance. The acquisition of Asterias (AST: Not Rated) is expected to close in 1Q19 bringing the SCI program back to BioTime. These lead programs (AMD and SCI) involve the application of allogeneic cells to treat the disease and acute injury. We see the lead product and the performance driver for the company as OpRegen for Macular Degeneration, as this indication is a multi-billion-dollar market opportunity.

**What is OpRegen?** It's a suspension of retinal pigment epithelial (RPE) cells that are derived from pluripotent stem cells. RPE cells form the back lining of the retina and support the function of photoreceptors (rods and cones). RPE cells can be damaged and lost in various forms of retinal degeneration. The OpRegen approach is to replace damaged or lost RPE cells and possibly slow disease progression and/or preserve or restore visual function. It is currently in a Phase 2/2a clinical trial for the treatment of the dry form of AMD. AMD affects approximately 1.6 million newly diagnosed people annually in the U.S. and is the leading cause of blindness in people over the age of 60. Approximately 90 percent of AMD patients suffer from the dry form (dry-AMD), for which there are no FDA-approved therapies.

**Does the current data suggest it works?** A Phase 1/2a study is being conducted in 24 patients, across four groups with 12 in the first three groups and 12 in the last group. The early data suggests disease stabilization and engraftment of the cells. Bottom line: The early data from patients with earlier-stage dry-AMD with geographic atrophy (GA) is encouraging.

**BioTime's second lead products is OPC1 for spinal cord injury.** This is an oligodendrocyte progenitor cell population derived from pluripotent stem cells that is currently in a Phase 2 clinical trial for spinal cord injuries (SCI) with support from the California Institute for Regenerative Medicine (CIRM). The Phase 1/2 study is in 25 patients who are set to receive up to 20M cells. Thus far the therapy has shown a good safety profile, evidence of durable cell engraftment and promising motor recovery.

**Renevia. A non-dilutive financing opportunity.** This is a BioTime product that is now applying for a European CE mark. Renevia has been developed for facial lipoatrophy. Renevia uses a unique combination of HyStem (a patented biomaterial that acts as an extracellular matrix). HyStem hydrogel is injected with a needle where its needed. Renevia combines the matrix with adipose derived stem cells.

**Valuation:** Our valuation for BioTime is principally driven by the opportunity in Dry-AMD, narrowed down further by a sub-set of patients with GA. Our model does include modest revenues from the SCI product and from Renevia, but as previously stated, the majority of the valuation is driven by OpRegen. We assume just a 30% probability of success, in Dry-AMD and SCI, which drives our \$6.00 target.

**Exhibit 1. Geographic Dry-AMD market model.**

Age-Related Macular Degeneration	2016A	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
Prevalence of AMD	30,000,000	31,600,000	33,200,000	34,800,000	36,400,000	38,000,000	39,600,000	41,200,000	42,800,000	44,400,000	46,000,000	47,600,000	49,200,000	49,200,000
Growth Rate	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
25% of Patients diagnosed with specific geographic atrophy	7,500,000	7,900,000	8,300,000	8,700,000	9,100,000	9,500,000	9,900,000	10,300,000	10,700,000	11,100,000	11,500,000	11,900,000	12,300,000	12,300,000
75% Patients eligibility, with insurance who have access	5,625,000	5,925,000	6,225,000	6,525,000	6,825,000	7,125,000	7,425,000	7,725,000	8,025,000	8,325,000	8,625,000	8,925,000	9,225,000	9,225,000
Market Share	0%	0%	0%	0%	0%	0%	0%	2%	3%	4%	5%	6%	7%	8%
Total Patients for therapy	-	-	-	-	-	-	-	154,500	240,750	333,000	431,250	535,500	645,750	738,000
cost of therapy	-	-	-	-	-	7,500	7,425	7,277	7,131	6,988	6,849	6,712	6,712	6,712
change in cost of therapy	1.00%	1.0%	1.0%	1.0%	1.0%	-1.0%	-1.0%	-2.0%	-2.0%	-2.0%	-2.0%	-2.0%	0.0%	0.0%
number of treatments per patient	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Probability of Success	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>Total Revenues (millions)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 675</b>	<b>\$ 1,030</b>	<b>\$ 1,396</b>	<b>\$ 1,772</b>	<b>\$ 2,156</b>	<b>\$ 2,600</b>	<b>\$ 2,972</b>

Source: Dawson James.

**Exhibit 2. OPC1 SCI market model.**

Spinal Paralysis (OPC1)	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
Acute spinal cord injury (C4-C7 ASIA A-C)	6,000	6,060	6,121	6,182	6,244	6,306	6,369	6,433	6,497	6,562	6,628	6,694	6,761	6,829
Growth Rate of incidence	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Market Share (%): SCI Patients	0%	0%	0%	0%	0%	0%	2%	4%	6%	10%	15%	30%	40%	40%
Target Patient Population	0	0	0	0	0	6,306	6,369	6,433	6,497	6,562	6,628	6,694	6,761	6,829
Patients who have access, insurance- 75%	0	0	0	0	0	4,730	4,777	4,825	4,873	4,922	4,971	5,021	5,071	5,121
Unit Cost of Therapy					\$ 100,000	\$ 100,000	\$ 101,000	\$ 102,010	\$ 103,030	\$ 104,060	\$ 105,101	\$ 106,152	\$ 106,152	\$ 106,152
Change in Cost of Therapy	1%	1%	1%	1%	1%	0%	0%	1%	1%	1%	1%	1%	1%	1%
Treated Patients						-	96	193	292	492	746	1,506	2,028	2,049
Number of Units per Patient	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Probability of Success	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>Total Revenues (Millions)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3</b>	<b>\$ 12</b>	<b>\$ 18</b>	<b>\$ 30</b>	<b>\$ 47</b>	<b>\$ 95</b>	<b>\$ 129</b>	<b>\$ 130</b>

Source: Dawson James.

**Exhibit 3. Renevia market model. We expect BioTime to out-license this product.**

Renevia (EU) Estimates	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
HIV Prevalence	2,000,000	1,980,000	1,960,200	1,940,598	1,921,192	1,901,980	1,882,960	1,864,131	1,845,489	1,827,034	1,808,764	1,790,677	1,772,770	1,755,042
Growth Rate of incidence	1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Patients in HEART or Other Regimens	1,500,000	1,485,000	1,470,150	1,455,449	1,440,894	1,426,485	1,412,220	1,398,098	1,384,117	1,370,276	1,356,573	1,343,007	1,329,577	1,316,282
Patients with HIV associated Lipid Dysmetabolism	150,000	148,500	147,015	145,545	144,089	142,649	141,222	139,810	138,412	137,028	135,657	134,301	132,958	131,628
Market Share (%)	0%	0%	0%	0%	2%	3%	5%	10%	12%	14%	15%	15%	15%	15%
Target Patient Population	0	0	0	0	2,882	4,279	7,061	13,981	16,609	19,184	20,349	20,145	19,944	19,744
Patients who have access, viable & insurance- 75%	0	0	0	0	1,441	3,210	5,296	10,486	12,457	14,388	15,261	15,109	14,958	14,808
Unit Cost of Therapy					\$ 7,500	\$ 7,575	\$ 7,651	\$ 7,727	\$ 7,803	\$ 7,883	\$ 7,961	\$ 8,041	\$ 8,041	\$ 8,041
Change in Cost of Therapy	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Treated Patients						96	265	1,049	1,495	2,014	2,289	2,266	2,244	2,221
Number of Units per Patient	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Probability of Success	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%	75%
<b>Total Revenues (Millions)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1</b>	<b>\$ 2</b>	<b>\$ 12</b>	<b>\$ 17</b>	<b>\$ 24</b>	<b>\$ 27</b>	<b>\$ 27</b>	<b>\$ 27</b>	<b>\$ 27</b>

Source: Dawson James.

**Modeling Assumptions:**

1. OpRegen: We assume a 30% probability of success for OpRegen in Dry-Age related Macular degeneration. We model the market as targeting patients with geographic atrophy (25% of the dry-AMD market). Additionally, we assume 75% of the market has access (insurance and represent other-wise viable candidates). We assume two doses of therapy (each eye) with a price of just \$7,500 per unit. We assume the product based on an abbreviated Phase 2/3 study could reach the market by 2023. Our model is U.S. based. The opportunity in Europe is equal to, or greater than, the U.S. opportunity. Europe is excluded for conservatism.
2. OPC1: We assume a 30% probability of success for OPC1 in Spinal Cord Injury (SCI) and a \$100k price. While the SCI market is estimated in the U.S. to be close to 15,000 injuries a year, we narrow the market to C4-C7 injuries, ASIA-A through C, for 6,000 annually. We assume the product based on an abbreviated Phase 2/3 study could reach the market by 2023. We assign a 30% probability of success to our therapeutic model for OPC1 in spinal cord injury in the U.S.
3. Renevia: We include Renevia in our model. However we note that it is likely this product is divested. One way to consider its value is as a non-dilutive financing. For valuation purposes, our analysis of the market assumes 150,000 target patients, a price of \$7,500 per unit. With modest market penetration (15%) this could be \$25M annual product in Europe.
4. We have not included any other product values in our model for BioTime. This includes VAC2 currently in development by Asterias for non-small cell lung cancer. VAC2 is an allogenic dendritic cell designed to stimulate an immune response to an antigen present in 85% plus of cancers. We assume BioTime upon closing of the merger will divest this program (versus keeping it and investing limited resources).
5. We do not place any value in our model on AgeX, and Oncocyte minority-owned positions.

**Valuation.** It is difficult to predict probabilities of success from phase 1/2a data. As such, we use a low probability of success for OpRegen and OPC1 of just 30%. We model OPGEN in dry macular degeneration with geographic atrophy, as well as OPC1 in SCI, although the real driver is dry-AMD as a result of the large market size. We do not model any revenues from these programs until 2022. Our models also factor in funding (dilution) using a 2029 share count of 280M shares versus the last reported share count of 126M.

We triangulate FCF, discounted EPS, and sum-of-the-parts models and select a 30% discount rate across these three models. The 30% discount is based on the early nature of the company's products. For companies with high visibility and positive cash flow we typically use a discount rate of 10%, for companies with products generating revenues, approaching cash flow break even or better, we typically use a 15% discount rate. We then average and equally weight each model, rounded to the nearest whole number, to derive a net present value, which is where we set our target price. Investors should recognize that this modeling exercise, which is projected ten years forward is based on the current (limited) data and estimates. As such our ability to predict a 12-month target is strained. The price of the stock is likely to be driven in the near term by factors such as news flow, early trial data, and cyclic concerns of financings (dilution). One possible catalyst may be the approval of Renevia in Europe which could lead to an out-license deal that could bring in additional capital to the company. We also see value in the ownership stakes of Oncocyte and AgeX, but we exclude this from our valuation metrics. For modeling purposes, we assume Asterias and BioTime are one company.

#### Exhibit 4. Free Cash Flow Model.

Average	6.0
Price Target	5.8
Year	2019

#### DCF Valuation Using FCF (mln):

Units ('000)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
EBIT	84,398	(26,551)	(20,163)	(30,702)	(55,684)	427,718	709,311	1,006,516	1,412,368	2,263,992	2,238,938	2,554,614
Tax Rate	0%	0%	0%	0%	0%	0%	0%	10%	15%	20%	25%	28%
EBIT (1-t)	84,398	(26,551)	(20,163)	(30,702)	(55,684)	427,718	709,311	905,864	1,200,513	1,811,194	1,679,203	1,839,322
CapEx	(9,704)	-	-	-	-	-	-	-	-	-	-	-
Depreciation	(762)	-	-	-	-	-	-	-	-	-	-	-
Change in NWC	-	-	-	-	-	-	-	-	-	-	-	-
FCF	73,932	(26,551)	(20,163)	(30,702)	(55,684)	427,718	709,311	905,864	1,200,513	1,811,194	1,679,203	1,839,322
PV of FCF	73,932	(26,551)	(15,510)	(18,167)	(25,346)	149,756	191,038	187,673	191,321	222,033	158,348	133,421
Discount Rate	30%											
Long Term Growth Rate	1%											
Terminal Cash Flow	6,405,914											
Terminal Value YE2027	464,673											
NPV	1,639,242											
NPV-Debt	-											
Shares out ('000)	280,278											2029E
NPV Per Share	5.8											

Source: Dawson James.

#### Exhibit 5. Discounted-EPS Model.

Current Year	2019
Year of EPS	2029
Earnings Multiple	10
Discount Factor	30%
Selected Year EPS	7.30
NPV	5.3

		Discount Rate and Earnings Multiple Varies, Year is Constant					
		5%	10%	15%	20%	25%	30%
Earnings Multiple	2	8.63	5.68	3.81	2.60	1.80	1.26
	5	21.58	14.20	9.52	6.49	4.49	3.16
	10	43.16	28.40	19.03	12.98	8.99	6.31
	15	64.74	42.59	28.55	19.47	13.48	9.47
	20	86.32	56.79	38.07	25.95	17.97	12.63
	25	107.90	70.99	47.58	32.44	22.47	15.79
	30	129.48	85.19	57.10	38.93	26.96	18.94
	35	151.07	99.39	66.62	45.42	31.45	22.10

Source: Dawson James.

#### Exhibit 6. Sum-of-the-Parts Model.

	LT Gr	Discount Rate	Yrs to Mkt	% Success	Peak Sales (M)	NPV
<b>Spinal Cord Paralysis</b>	1%	30%	3	30%	\$222	\$765
NPV						\$0.26
<b>Dry Macular Degeneration</b>	1%	30%	3	30%	\$5,052	\$17,421
NPV						\$5.94
<b>Renevia</b>	1%	30%	2	50%	\$40	\$139
NPV						\$0.10
Net Margin						70%
Shares Outstanding (M) in 2029E						280
<b>Total</b>						<b>\$6.3</b>

Source: Dawson James.

## Risk Analysis

**Clinical and regulatory risk.** BioTime is currently in a Phase 1/2a clinical trial in both of its pipeline products focused on spinal cord injury and macular degeneration. There is no assurance that either product will be approved for any additional indications and even if approved, will be reimbursed by insurance or successfully commercialized.

**Commercial risk.** The focus of the company is on successfully developing their products and eventually bringing them to the mass market. It is important to note that the market opportunity in macular degeneration is large and may take precedence over that of spinal cord injury opportunity. We can make no assurances that the company will be able to achieve a critical level of market share to become profitable in this indication and or in additional planned indications.

**Employee risk.** BioTime management is new, with a new CEO and CFO. BioTime's success of the company will depend, to a great extent, upon the experience, abilities and continued services of its senior officers, sales staff, and key scientific personnel.

**Financial risk.** The company may need to raise capital in the marketplace relatively soon, and there can be no assurances that the company will be able to successfully raise capital and do so on favorable terms.

**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 the company may infringe on third party's patents.

**Merger Risk.** We assume the acquisition of Asterias will close. This may fail to happen.

**Reimbursement and insurance payment risk.** Insurance payment for products may be an additional hurdle for adoption.

**Subsidiary Risk.** We assume there is value in the ownership of AGEX and Oncycte, but we are not forecasting or modeling the value of these minority-owned companies.

**Exhibit 7. Income Statement.**

Biotime: Income Statement (\$000)																	
YE December 31	2017A	2018A	1Q19A	2Q19E	3Q19E	4Q19E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
Spinal Cord Injury Therapy								-	-	2,866	11,695	17,895	30,424	46,554	94,979	129,184	130,476
Dry Macular Degeneration											674,532	1,030,069	1,396,272	1,772,071	2,156,441	2,600,414	2,971,902
Renevia									542	1,504	12,034	17,327	23,581	27,067	27,065	27,062	26,791
<b>Net revenue</b>										<b>2,866</b>	<b>686,226</b>	<b>1,047,963</b>	<b>1,426,697</b>	<b>1,818,625</b>	<b>2,790,530</b>	<b>2,729,598</b>	<b>3,102,378</b>
<b>Grant Revenues</b>		3,572	749	866	902	1,091	3,608	3,644	3,680	3,717	3,754	3,792	3,830	3,868	3,907	3,946	3,985
Royalties from Product Sales and license fees		392	86	95	99	116	396	400	404	408	412	416	420	424	429	433	437
Subscription & Advertisement Revenues		691		167	174	356	698	705	712	719	726	734	741	748	756	763	771
Sales of Research Products & Services		333	93	81	84	79	336	340	343	347	350	353	357	361	364	368	372
<b>Total Revenue</b>		<b>4,988</b>	<b>928</b>	<b>1,209</b>	<b>1,259</b>	<b>1,641</b>	<b>5,038</b>	<b>5,088</b>	<b>5,139</b>	<b>8,057</b>	<b>691,469</b>	<b>1,053,258</b>	<b>1,432,045</b>	<b>1,824,026</b>	<b>2,795,985</b>	<b>2,735,108</b>	<b>3,107,942</b>
Cost of Goods (sales)		(302)	(68)	-	-	-	(68)	-	-	(831)	(192,143)	(261,991)	(342,407)	(327,352)	(446,485)	(409,440)	(465,357)
Research & Development		(20,955)	(4,961)	(3,520)	(3,667)	(2,520)	(14,669)	(11,735)	(11,969)	(15,560)	(23,341)	(32,677)	(33,330)	(33,997)	(34,677)	(35,370)	(36,078)
Acquired in Process Research & Development		(800)															
General & Administrative		(24,726)	(8,660)	(4,154)	(4,327)	(167)	(17,308)	(13,847)	(24,924)	(49,847.62)	(50,346)	(50,850)	(51,358)	(51,872)	(52,390)	(52,914)	(53,443)
<b>Total Expenses</b>		<b>(46,481)</b>	<b>(13,689)</b>	<b>(7,674)</b>	<b>(7,994)</b>	<b>(2,687)</b>	<b>(32,045)</b>	<b>(25,581)</b>	<b>(36,893)</b>	<b>(66,239)</b>	<b>(265,830)</b>	<b>(345,517)</b>	<b>(427,096)</b>	<b>(413,224)</b>	<b>(533,552)</b>	<b>(497,724)</b>	<b>(554,878)</b>
Loss from Operation		(41,795)	(12,761)	(6,465)	(6,735)	(1,046)	(27,007)	(20,493)	(31,754)	(58,182)	425,639	707,741	1,004,949	1,410,805	2,262,433	2,237,384	2,553,065
Interest Income (expense)		711	442														
Gain on AgeX shares and deconsolidation of AgeX		81,726	37,713														
Gain on Sale equity method in Ascendance			6,744														
Gain / Loss Oncocyte		(47,985)	1,931														
Loss on Equity (Asterias)		(35,449)															
Unrealized Gain on marketable equity securities		(4,181)	37														
Other Income (expenses) net		1,158	806														
Total other income (expense), net		(1,315)															
<b>Pretax Income</b>		<b>(47,130)</b>	<b>34,912</b>	<b>(6,465)</b>	<b>(6,735)</b>	<b>(1,046)</b>	<b>20,666</b>	<b>(20,493)</b>	<b>(31,754)</b>	<b>(58,182)</b>	<b>425,639</b>	<b>707,741</b>	<b>1,004,949</b>	<b>1,410,805</b>	<b>2,262,433</b>	<b>2,237,384</b>	<b>2,553,065</b>
Tax Benefit			4,384														
Net loss attributable to non-controlling interest		794	14				14	-	-	-	-	-	-	-	-	-	-
Taxes		346											100,495	211,621	452,487	559,346	714,858
<b>Tax Rate</b>													<b>10%</b>	<b>15%</b>	<b>20%</b>	<b>25%</b>	<b>28%</b>
<b>GAAP Net Income (Loss)</b>		<b>(45,990)</b>	<b>(39,310)</b>	<b>(6,465)</b>	<b>(6,735)</b>	<b>(1,046)</b>	<b>(53,556)</b>	<b>(20,493)</b>	<b>(31,754)</b>	<b>(58,182)</b>	<b>425,639</b>	<b>707,741</b>	<b>904,454</b>	<b>1,199,184</b>	<b>1,809,947</b>	<b>1,678,038</b>	<b>1,838,207</b>
<b>Total comprehensive loss</b>		<b>(45,990)</b>	<b>(39,310)</b>	<b>(6,465)</b>	<b>(6,735)</b>	<b>(1,046)</b>	<b>(53,556)</b>	<b>(20,493)</b>	<b>(31,754)</b>	<b>(58,182)</b>	<b>425,639</b>	<b>707,741</b>	<b>904,454</b>	<b>1,199,184</b>	<b>1,809,947</b>	<b>1,678,038</b>	<b>1,838,207</b>
<b>GAAP-EPS</b>		<b>(0.36)</b>	<b>(0.30)</b>	<b>(0.04)</b>	<b>(0.04)</b>	<b>(0.01)</b>	<b>(0.37)</b>	<b>(0.08)</b>	<b>(0.12)</b>	<b>(0.23)</b>	<b>1.70</b>	<b>2.82</b>	<b>3.59</b>	<b>4.75</b>	<b>7.13</b>	<b>6.59</b>	<b>7.19</b>
GAAP-EPS (Dil)		(0.44)	(0.30)	(0.03)	(0.03)	(0.00)	(0.36)	(0.08)	(0.23)	(0.17)	(0.04)	0.08	0.32	0.60	0.87	1.12	1.12
Wgtd Avg Shrs (Bas)		126,903	132,865	184,194	186,036	187,896	172,748	243,396	247,659	248,651	249,647	250,647	251,651	252,659	253,671	254,687	255,708
Wgtd Avg Shrs (Dil)		126,926	132,865	234,194	236,536	238,901	210,624	270,311	275,045	276,147	277,253	278,364	279,479	280,599	281,723	282,852	283,985

Source: Dawson James.

Source: Dawson James estimates.

Companies mentioned in this report:

Asterias (AST)

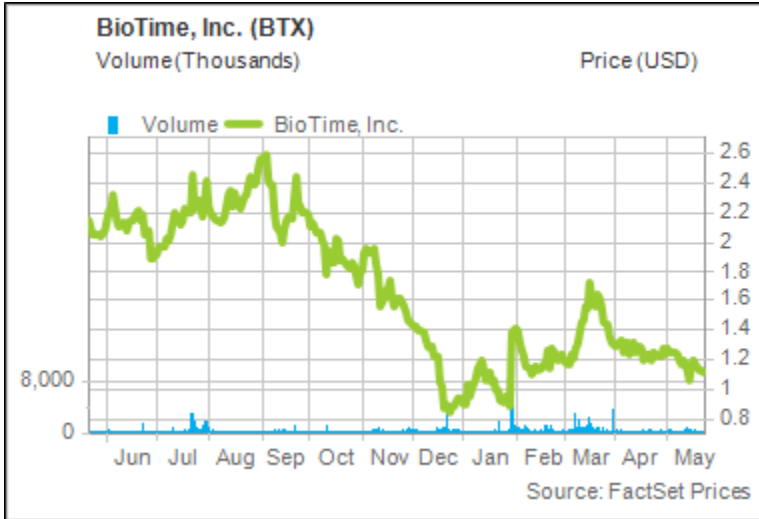
AgeX (AGX)

Oncocyte (OCS)

Juvenescence (private)

**Important Disclosures:**

**Price Chart:**



Price target and ratings changes over the past three years:

Initiated – Buy – February 7, 2019 – Price Target \$6.00

Updated – May 28, 2019 – Price Target \$6.00

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Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	37	86%	10	27%
Market Perform (Neutral)	6	14%	0	0%
Market Underperform (Sell)	0	0%	0	0%
<b>Total</b>	<b>43</b>	<b>100%</b>	<b>10</b>	<b>23%</b>

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