

# **INSTITUTIONAL RESEARCH Biotechnology UPDATE REPORT**

**Current Price** 

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## Lineage Cell Therapeutics (NYSE/LCTX)

## **BUY: Proof of Concept – Check That Box**

Lineage announced that the Company's facial aesthetics product, Renevia has been granted a Conformité Européenne (CE) Mark. We view this news as proof of execution, that the company is now commercially focused to develop products, knows how to interact with regulators and is on a viable commercial path.

## September 19, 2019

## Jason H. Kolbert

\$1.00

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Investment	Highlights

**Renevia Approved.** The drug received a Class III classification with an intended use in adults as a resorbable matrix for the delivery of autologous adipose tissue preparations to restore and/or augment facial volume after subcutaneous fat volume loss for the treatment of facial lipoatrophy. The company stated they intend to seek a commercial partner to monetize the asset.

Lineage Raises Non-dilutive Capital Too. Last week the company announced the pricing of the sale of 4M shares of common stock of OncoCyte (OCS – Not Rated) at a price to buyers of \$1.66 per share for gross proceeds of \$6.6M. Lineage now owns approximately 16% or 8.4M shares of OncoCyte which is close to \$14M in value. This compliments the 2Q19 closing cash balance of \$17M.

Catalysts Ahead: (adapted from the quarterly press release) :

- Complete patient enrollment in the United States with the Orbit SDS in the ongoing Phase 1/2a clinical study of OpRegen for the treatment of dry-AMD.
- Present new OpRegen data from the ongoing Phase 1/2a clinical study for the treatment of dry-AMD at the 2019 American Academy of Ophthalmology Annual Meeting in October (AAO 2019).
- Continue to tech transfer and advance the OPC1 program by introducing improvements to the manufacturing process.
- Strengthen existing partnerships with the National Institutes of Health, the Israel Innovation Authority, the California Institute for Regenerative Medicine and Cancer Research UK.
- 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.
- 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.
- Launch new corporate brand, website and social media presence.

Guidance. Lineage expects to spend \$14 to \$15M in the 2H19 and in 2020 is guiding to a \$24 to \$28M burn rate.

Price Target						\$6.00
Estimates	F20	)18A	F2(	019E	F2(	020E
Revenues (\$000s)	\$	4,908	\$	4,957	\$	5,007
1Q March	\$	701	\$	928	\$	1,152
2Q June	\$	2,547	\$	779	\$	1,202
3Q September	\$	982	\$	1,239	\$	1,252
4Q December	\$	678	\$	2,011	\$	1,402
	F20	18A	F2(	019E	F2(	020E
EPS (diluted)	\$	(0.44)	\$	(0.56)	\$	(0.14)
1Q March	\$	(0.51)		(0.30)	\$	(0.03)
2Q June	\$	(0.04)		(0.20)		(0.03)
3Q September	\$	0.53	\$	(0.04)		(0.03)
4Q December	\$	(0.41)	\$	(0.02)	\$	(0.04)
EBITDA/Share		\$0.00		(\$0.18)		(\$0.14)
EV/EBITDA (x)		-		731		955
Stock Data						
52-Week Range		\$0.66		-		\$2.63
Shares Outstanding (mil.)						149.6
Market Capitalization (mil	.)					\$150
Enterprise Value (mil.)						\$130
Debt to Capital						0%
Book Value/Share						\$1.28
Price/Book						1.2
Average Three Months Tra	adin	g Volum	e (I	<)		313
Insider Ownership						
Institutional Ownership						
Short interest (mil.)						0.1
Dividend / Yield				ç	50.0	0/0.0%
Lineage Cell Therape	utics	, Inc. (B1	Х)			
Volume (Thousands)				Price	(US	D)
Volume — Linead	ie Ce	I Therape	utics	Inc		2.6



### Please find Important Disclosures beginning on Page 8. Page 1 of 9

**Valuation**: Our valuation for Lineage 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.

We view Lineage 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. 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.

**Lineage'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 Phase1/2 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.



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

ge-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% Paitients 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%	89
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%
atal Revenues (millions)	\$ -	\$ - :	\$-\$	; - :	s - s		5 - 5	\$ 675 <b>\$</b>	\$ 1,030 \$	1,396 \$	\$ 1,772 \$	2,156 \$	2,600 \$	2,972

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 Sahre (%): 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
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%
Total Revenues (Millions)	\$ - \$	- \$	- \$	- \$	- \$	- \$	3\$	12 \$	18 \$	30 \$	47 \$	95 \$	129 \$	130

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 Prevalance	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 Rgimens	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 Dystrophy	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 \$	7,805 \$	7,883 \$	7,961 \$	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%
Total Revenues (Millions)	\$-	\$-\$	; _ \$	; - \$	- \$	1\$	2\$	12 \$	17 \$	24 \$	27 \$	27 \$	27 \$	27

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 FCFF, 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.

#### 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 NPV-Debt			1,639,242											
Shares out ('000)			- 280,278	2029E										
NPV Per Share			280,278	2029E										
INF V FEI SHAIE			5.6											

Source: Dawson James.

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

Current Year	2019	Discount Rate and Earnings Multiple Varies, Year is Constan										
Year of EPS	2029				-							
Earnings Multiple	10			5%	10%	15%	20%	25%	30%			
Discount Factor	30%	Earnings	2	8.63	5.68	3.81	2.60	1.80	1.26			
Selected Year EPS	7.30	Multiple	5	21.58	14.20	9.52	6.49	4.49	3.16			
NPV	5.3		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
Spinal Cod Paralysis	1%	30%	3	30%	\$222	\$765
NPV						\$0.26
Dry Macular Degeneration	1%	30%	3	30%	\$5,052	\$17,421
NPV						\$5.94
Renevia	1%	30%	2	50%	\$40	\$139
NPV						\$0.10
Net Margin						70%
Shares Outstanding (M) in 2029E						280
Total						\$6.3

Source: Dawson James.



#### **Risk Analysis**

**Clinical and regulatory risk.** Lineage 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.** Lineage 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.

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	2Q19A	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
											674 500	1 020 060	1 200 272	4 770 074	0.450.444	2 600 444	0.074.000
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
Net revenue									-	2,866	686.226	1,047,963	1.426.697	1,818,625	2.790.530	2.729.598	3,102,378
Grant Revenues		3,572	749	529	902	1,428	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		312	86	140	79	10	315	318	321	325	328	331	335	338	341	345	348
Subscription & Advertisement Revenues		691			174	523	698	705	712	719	726	734	741	748	756	763	771
Sales of Research Products & Services		333	93	110	84	49	336	340	343	347	350	353	357	361	364	368	372
Total Revenue		4.908	928	779	1.239	2,011	4,957	5,007	5,057	7,973	691,385	1,053,173	1,431,959	1.823.939	2.795.898	2.735.019	3.107.853
Cost of Goods (sales)		(302)	(68)	(107)	-	-	(175)	-	-	(831)	(192,143)	(261,991)	(342,407)	(327,352)	(446,485)	(409,440)	(465,357)
,		( )	()	( - )			( - )			29%	28%	25%	24%	18%	16%	15%	15%
Research & Development		(20,955)	(4,961)	(5,235)	(3,600)	(2,500)	(16,296)	(13,037)	(13,298)	(17,287)	(25,930)	(36,302)	(37,028)	(37,769)	(38,524)	(39,295)	(40,081)
Acquired in Process Research & Development		(20,000)	(1,001)	(0,200)	(0,000)	(2,000)	(10,200)	(10,001)	(10,200)	(,=0.)	(20,000)	(00,002)	(01,020)	(01,100)	(00,02.)	(00,200)	(10,001)
General & Adminastrative		(24,726)	(8,660)	(6,258)	(4,300)	(3,500)	(22,718)	(18,174)	(32,714)	(65,427.84)	(66,082)	(66,743)	(67,410)	(68,084)	(68,765)	(69,453)	(70,148)
ochoral a Automastrative		(24,720)	(0,000)	(0,200)	(4,500)	(0,000)	(22,710)	(10,174)	(52,714)	(00,427.04)	(00,002)	(00,743)	(07,410)	(00,004)	(00,703)	(03,433)	(70,140)
Total Expenses		(46,481)	(13,689)	(11,493)	(7,900)	(6,000)	(39,082)	(31,211)	(46,011)	(83,546)	(284,156)	(365,036)	(446,846)	(433,206)	(553,774)	(518,187)	(575,585)
Loss from Operation		(41,795)	(12,761)	(10,821)	(6,661)	(3,989)	(34,232)	(26,205)	(40,955)	(75,572)	407,229	688,137	985,113	1,390,734	2,242,123	2,216,832	2,532,268
Interest Income (expense)		711	442	437		( , ,	,	,	,	,							
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	(21,425)													
Loss on Equity (Asterias)		(35,449)		( , , ,													
Unrealized Gain on marketable equity securities		(4,181)	37	(607)													
Other Income (expenses) net		1,158	806	1.116													
Total other income (expense), net		(1,315)	000	1,110													
Pretax Income		(47,130)	34.912	(31,300)	(6.661)	(3.989)	(7.038)	(26.205)	(40.955)	(75,572)	407.229	688.137	985.113	1.390.734	2.242.123	2.216.832	2.532.268
Tax Benefit		(,	4,384	(1,248)	(0,001)	(0,000)	(1,000)	(,)	(10,000)	(* 0,0* 2)				.,,	_, ,		_,,
Net loss attributable to non-controling interest		794	14	(1,210)			14				-						
Taxes		346	14				14						98,511	208,610	448,425	554,208	709,035
Tax Rate		040											10%	15%	20%	25%	28%
GAAP Net Income (Loss)		(45,990)	(39.310)	(30.052)	(6.661)	(3.989)	(80.012)	(26,205)	(40.955)	(75.572)	407.229	688.137	886.602	1.182.124	1.793.699	1.662.624	1.823.233
		(43,330)	(59,510)	(30,032)	(0,001)	(3,303)	(00,012)	(20,203)	(40,933)	(13,312)	407,229	000,137	000,002	1,102,124	1,795,099	1,002,024	1,023,233
Total comprehensive loss		(45,990)	(39,310)	(30,052)	(6,661)	(3,989)	(80,012)	(26,205)	(40,955)	(75,572)	407,229	688,137	886,602	1,182,124	1,793,699	1,662,624	1,823,233
GAAP-EPS		(0.36)	(0.30)	(0.20)	(0.04)	(0.03)	(0.56)	(0.12)	(0.19)	(0.35)	1.87	3.15	4.04	5.36	8.10	7.48	8.17
GAAP-EPS (Dil)		(0.44)	(0.30)	(0.20)	(0.04)	(0.02)	(0.56)	(0.14)	(0.23)	(0.17)	(0.04)	0.08	0.32	0.60	0.87	1.12	1.12
Watd Avg Shrs (Bas)	1	126,903	132,865	149,582	156,078	157,639	149,041	212,374	216,094	216,960	217,829	218,701	219,577	220,457	221,340	222,227	223,117
Watd Avg Shrs (Dil)	1	126,926	132,865	149,582	161.078	162.689	151,553	192.174	195.540	196,323	197.110	197,899	198.692	199,488	200.287	201.090	201,895
Source: Dawson James		120,020	102,000	13,502	101,070	102,009	101,000	132,174	100,040	130,023	137,110	131,033	130,032	100,700	200,207	201,030	201,033

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 Updated – August 12, 2019 – Price Target \$6.00 Updated – September 19, 2019 – Price Target \$6.00

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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;
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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 Co	overage	Investment Banking				
<b>Ratings Distribution</b>	# of Companies	% of Total	# of Companies	% of Totals			
Market Outperform (Buy)	28	85%	5	18%			
Market Perform (Neutral)	5	15%	0	0%			
Market Underperform (Sell)	0	0%	0	0%			
Total	33	100%	5	15%			

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