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Athersys Inc. (NASDAQ/ATHX); Buy Rated

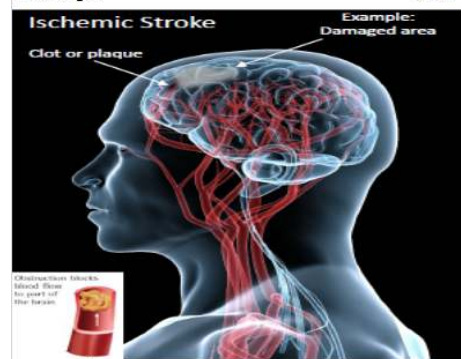
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Healios Fails to Meet its Primary Endpoint in the Japan Stroke Trial; Is Age a Confounding Factor? Maybe.
Jason Kolbert
 Managing Director & Senior Analyst

jkolbert@dawsonjames.com

Athersys partner Healios announced results from their stroke trial in Japan. Unfortunately the trial failed to demonstrate a statically significant difference between the active and control (placebo) arms for the primary endpoint: "Excellent Outcome" measure. Management suggested (on the call) that the "miss" may be a result of the age of patients in the Japan trial as the median patient was 78 vs. the U.S. study of 63. We are concerned that the company's cash balance is now \$21.8M (end of 1Q22) and the company reported a \$22M loss in the same period. Athersys CFO did state we should expect to see a spending reduction. We assume the company may use its ATM facility in the short term while management seeks a B.D. Partnership and or another opportunity to raise capital. As a result of these factors, mainly an anticipated increase in the share count, our price target drops from \$7.0 to \$5.0. Look's like we're going to have to "wait & see" the U.S. study results.

Current Price	\$0.29
Price Target	\$5.00



Source: Athersys

Stock Data		
52-Week Range	\$0.46 -	\$1.81
Shares Outstanding (mil.)		244.0
Market Capitalization (mil.)		\$71
Enterprise Value (mil.)		\$27
Debt to Capital		0%
Book Value/Share		\$0.19
Price/Book		13.4
Average Three Months Trading Volume (K)		1,176
Insider Ownership		8.3%
Institutional Ownership		22.9%
Short interest (mil.)		8.7%
Dividend / Yield		\$0.00/0.0%



Source: FactSet Prices

Highlights

Healios (Athersys partner) reported results from the Japan. As one can see in the table below, the data around the primary endpoint was n.s. or not statistically significant.

Athersys management pointed out the following: "The results below, from the TREASURE study patients with the most relevance for the MASTERS-2 study, suggest that MASTERS-2 would be expected to have a high probability of achieving success on the primary endpoint, especially when taking into account the larger MASTERS-2 sample size. Moreover, this does not account for the expected positive contribution to the results from younger patients in MASTERS-2, when compared to the representative TREASURE sample described below". The table below was taken from Athersys press release.

One Year	MultiStem	Placebo	*
Excellent Outcome	15.4%	10.8%	n.s.
Global Recovery	27.9%	15.7%	p<0.05
Barthel Index >=95	35.6%	22.5%	p=0.05

Excellent Outcome = mRS<=1, NIHSS<=1 and Barthel Index>=95

Global Recovery = mRS<=2, NIHSS Δ >=75% and Barthel Index>=95

* Covariance adjustment based on stratification factors

Valuation. Our therapeutic models assume a probability of success (PoS) factor across the various other indications. In addition to this, we also apply a 30% risk rate (r) in our Free Cash Flow to the Firm (FCFF), discounted EPS, and Sum-Of-The-Parts (SOP) models. Our price target is derived from these three models, equally weighted and averaged to the nearest whole number. The result is a one-year price target of \$5.00 per share. We caution that models can't predict clinical trial outcomes, but we do suggest that upon success, the company is undervalued.

Risks to our thesis include: (1) clinical trial; (2) commercial; (3) employee; (4) financial; (5) intellectual property; (6) partnership; and (7) regulatory.

Modeling Assumptions

1. The MultiStem program is the main platform for the company, and we view it as the driver of the company's success. We assume Athersys continues developing the MultiStem program in neurological, cardiovascular, and inflammation, and immunological disease areas and that these programs, like the MultiStem platform itself, are prioritized.
2. For the stroke (neurological) indication, we model approximately 800,000 stroke patients in the U.S. and 340,000 in Japan, with 87% of those classified as ischemic, growing at a rate of 0.1% annually since 2017. By factoring in mortality risk, cortical stroke prevalence, and the effective therapeutic treatment window, we arrive at an addressable market population.
3. Hemorrhagic stroke. Success in ischemic stroke sets the stage for Athersys to develop MultiStem in the small side of the stroke market, Hemorrhagic strokes. Here too, the inflammatory response contributes to additional secondary damage. While the complexities of ischemic stroke are challenging, hemorrhagic can be even more complex and with even fewer options for patients. As such, it makes sense to develop for this indication only after the ischemic market is realized.
4. For the ADRS (immune) indication, we model the addressable population based on the NHLI estimate figure of 70 per 100,000 in the U.S., denoting an approximate 230,000 patients in 2017, growing at 3.1% annually.
5. For the AMI (cardiovascular) indication, we only model for new heart attacks as we believe they are more likely to be amenable to the trophic and anti-inflammatory effects of MultiStem. We anticipate the annual growth rate and mortality rate quoted by the American Heart Association continue to be high, at 11.1% and 15.5%, respectively, a reflection of the increasing obesity epidemic in the U.S. Considering the lengthy nature of cardiovascular trials, we do not begin to model sales until 2022, and we currently anticipate relatively low (8-10%) peak market penetration as cell therapy is not currently a standard of care in hospitals for treating AMI.
6. For the trauma (inflammatory) indication, we model the treatable population based on a reported 2.5 million trauma-related emergency room visits. Approximately 13% of those visits are due to debilitating ailments, leading to hospitalization. The estimation brings us to over 300,000 addressable patients growing at a rate of 3.1% annually.
7. For the GVHD (inflammatory) indication, we do not currently assume any revenues in our model, but we show the model as we believe, with additional resources, Athersys may "down the road" re-visit development plans. The population of total U.S. allogeneic stem cell transplants based on 4,265 related and 4,972 unrelated transplants (2017 data) is growing at a rate of 3.1% annually. We estimate 90% of that population to desire prophylactic treatment for GVHD.
8. We model a price for MultiStem at \$25,000 initially, growing at 1% per year. Academic literature estimates that therapies such as tPA in stroke should be priced at \$45,800 based on the quality-adjusted life years (QALY) provided to patients. In this instance, should a therapy allow for successful treatment beyond the three- to six-hour therapeutic time window, the literature estimates this therapy should command a higher price. We therefore believe our pricing estimates are conservative, considering our belief in the upside therapeutic potential of MultiStem. We have seen examples of other cell (for example, CAR-T) and gene therapies command prices anywhere between \$100k and \$2.5M; given the blockbuster size of the stroke market, we recognize the therapy must be affordable for the market size.
9. Our sum-of-the-parts model uses the same probabilities as the product models and the same discount rate as the FCFF. We apply a risk factor of 70% for the trauma and AMI clinical programs as they are in earlier stages (neither beyond Phase 2) and have only been tested in a limited number of patients. We anticipate reducing this risk factor should the trials meet our assumptions of producing data in the next year. For royalties and partnerships, we also use 50% because they are dependent on a third party, Healios, and therefore do not provide transparency in terms of timing of cash flows to Athersys. Lastly, the stroke and ARDS indications have a 50% risk factor as a result of the inherent variability associated with stroke and the fact that the current pivotal programs are based on a post-hoc analysis.

Exhibit 1. Athersys Product Models

	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Ischemic Stroke (U.S.)														
No. of Annual Strokes	696,000	696,696	697,393	698,090	698,788	699,487	700,186	700,887	701,588	702,289	702,991	703,694	704,398	705,102
Market Size Growth	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Associated Mortality	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
Ischemic Strokes Survivors	582,552	583,135	583,718	584,301	584,886	585,471	586,056	586,642	587,229	587,816	588,404	588,992	589,581	590,171
Total cortical ischemic stroke patients (35%)	203,893	204,097	204,301	204,505	204,710	204,915	205,120	205,325	205,530	205,736	205,941	206,147	206,353	206,560
Market Share Penetration	0%	0%	0%	0%	0%	0%	0%	5%	10%	15%	20%	25%	30%	35%
Number of Patients Procedures	-	-	-	-	-	-	-	29,332	58,723	88,172	117,681	147,248	176,874	206,560
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk Factor	-	-	-	-	-	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 366,651	\$ 734,036	\$ 1,102,155	\$ 1,471,010	\$ 1,840,601	\$ 2,210,930	\$ 2,581,997
Ischemic Stroke (Japan)														
No. of Annual Strokes	295,800	296,096	296,392	296,688	296,985	297,282	297,579	297,877	298,175	298,473	298,771	299,070	299,369	299,669
Market Size Growth	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Associated Mortality	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
Ischemic Strokes Survivors	247,585	247,832	248,080	248,328	248,576	248,825	249,074	249,323	249,572	249,822	250,072	250,322	250,572	250,823
Total cortical ischemic stroke patients (35%)	86,655	86,741	86,828	86,915	87,002	87,089	87,176	87,263	87,350	87,438	87,525	87,613	87,700	87,788
Market Share Penetration	0%	0%	0%	0%	0%	0%	0%	5%	10%	15%	20%	25%	30%	35%
Number of Patients Procedures	-	-	-	-	-	-	-	12,466	24,957	37,473	50,014	62,580	75,172	87,788
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk Factor	-	-	-	-	-	50%	50%	50%	50%	50%	50%	50%	50%	50%
Japan Annual Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 155,827	\$ 311,965	\$ 468,416	\$ 625,179	\$ 782,255	\$ 939,645	\$ 1,097,349
Royalty to Athersys	-	-	-	-	-	8%	10%	12%	14%	15%	15%	15%	15%	15%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,699	\$ 43,675	\$ 70,262	\$ 93,777	\$ 117,338	\$ 140,947	\$ 164,602
Hemorrhagic Stroke (U.S.)														
No. of Annual Hem. Strokes (13% of total)	90,480	90,570	90,661	90,752	90,842	90,933	91,024	91,115	91,206	91,298	91,389	91,480	91,572	91,663
Market Size Growth	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Associated Mortality	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Hemorrhagic Strokes Survivors	63,336	63,399	63,463	63,526	63,590	63,653	63,717	63,781	63,844	63,908	63,972	64,036	64,100	64,164
Market Share Penetration	0%	0%	0%	0%	0%	0%	0%	0%	15%	30%	35%	40%	45%	50%
Number of Patients Procedures	-	-	-	-	-	-	-	-	9,577	19,172	22,390	25,614	28,845	32,082
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk Factor	-	-	-	-	-	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 119,708	\$ 239,656	\$ 279,878	\$ 320,181	\$ 360,564	\$ 401,027
Prevention GI GVHD (U.S.)														
US Allogeneic Stem Cell Transplants	9,237	9,523	9,819	10,123	10,437	10,760	11,094	11,438	11,792	12,158	12,535	12,923	13,324	13,737
Market Size Growth	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
% of GVHD Market where Prophylaxis is Desirable	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Target Market Prevention GI GVHD	8,313	8,571	8,837	9,111	9,393	9,684	9,984	10,294	10,613	10,942	11,281	11,631	11,992	12,363
Market Share Penetration	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Number of Patients Procedures	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk Factor	-	-	-	-	-	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Acute Respiratory Distress Syndrome (U.S.)														
No. of Annual Cases	228,900	235,996	243,312	250,854	258,631	266,648	274,915	283,437	292,223	301,282	310,622	320,251	330,179	340,415
Market Size Growth	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
Market Share Penetration	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Number of Patients Procedures	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk adjustment	-	-	-	-	-	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Acute Myocardial Infarction (U.S.)														
No. of Annual Heart Attacks	720,000	799,920	888,711	987,358	1,096,955	1,218,717	1,353,994	1,504,288	1,671,264	1,856,774	2,062,876	2,291,855	2,546,251	2,828,885
Market Size Growth	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%
Associated Mortality	-	-	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%
AMI Survivors	-	750,961	834,318	926,927	1,029,816	1,144,125	1,271,123	1,412,218	1,568,974	1,743,130	1,936,618	2,151,582	2,390,408	2,650,000
Market Share Penetration	-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Number of Patients Procedures	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk adjustment	-	-	-	-	-	70%	70%	70%	70%	70%	70%	70%	70%	70%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Trauma (U.S.)														
Trauma Prevalence	2,500,000	2,577,500	2,657,403	2,739,782	2,824,715	2,912,281	3,002,562	3,095,642	3,191,606	3,290,548	3,392,553	3,497,722	3,606,152	3,717,942
Market Size Growth	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%	3.1%
% of Patients Hospitalized	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Treatable Population	312,500	322,188	332,175	342,473	353,089	364,035	375,320	386,955	398,951	411,318	424,069	437,215	450,769	464,743
Market Share Penetration	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Number of Patients Procedures	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of Therapy	-	-	-	-	-	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Risk adjustment	-	-	-	-	-	70%	70%	70%	70%	70%	70%	70%	70%	70%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Source: Dawson James Forecasts and Company reports

Source: Dawson James estimates

Risk Analysis

Clinical Risk: Athersys is an early-stage biotechnology company currently operating with high expenditures and no product revenues. A significant element of the company's valuation is associated with its lead clinical candidate, MultiStem. As such, clinical progress with this stem cell product represents the key risk for the company and shareholders.

Commercial Risk: There can be no assurances that the pipeline products will be commercialized, and if they receive regulatory approval, there is a risk that Athersys will not be able to reach the projected market share potential.

Employee Risk: Athersys has an experienced management team, which plans to ideally bring MultiStem to market within the next three years. The success of the company may depend on the expertise, abilities, and continued services of its senior officers, sales staff, and key scientific personnel.

Financial Risk: Athersys has a high burn rate and is currently not a profitable company. The company might face multiple dilutions in the future to raise capital to fund its operations.

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 upon or will be held as valid if challenged, and the company may infringe on third parties' patents.

Partnership Risk: The potential benefits from the partnership with Healios are subject to certain milestones, which, if not achieved, may delay commercialization in Japan and fail to provide payments to Athersys.

Regulatory Risk: There are no assurances that Athersys's products will be approved in the U.S., Japan, Europe, or other markets.

Exhibit 2. Income Statement

Athersys, Inc. Income Statement (\$ '000)	2018A	2019A	2020A	2021A	1Q22A	2Q22E	3Q22E	4Q22E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
ATHX: YE Dec. 31																	
Product Revenue (000's)																	
MultiStem Ischemic Stroke (U.S.)										-	366,651	734,036	1,102,155	1,471,010	1,840,601	2,210,930	2,581,997
% Chg																	
MultiStem Ischemic Stroke (Japan) - Royalty										-	18,699	43,675	70,262	93,777	117,338	140,947	164,602
% Chg																	
MultiStem Hemorrhagic Stroke (U.S.)										-	-	119,708	239,656	279,878	320,181	360,564	401,027
% Chg																	
MultiStem ARDS										-	-	-	-	-	-	-	-
% Chg																	
MultiStem AMI										-	-	-	-	-	-	-	-
% Chg																	
MultiStem Trauma										-	-	-	-	-	-	-	-
% Chg																	
Total Revenues (Product Sales, Grants & Milestones)	-	-	-	-	-	-	-	-	-	-	385,351	897,419	1,412,074	1,844,665	2,278,120	2,712,440	3,147,627
Contract revenues from Healios	22,276	5,517	1,432	5,514	2,912												
% Chg																	
License Fees - Contract revenues	1,461	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Chg																	
Grant Revenues	554	116	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Chg																	
Pfizer Milestones																	
% Chg																	
Total Revenues (Product Sales, Grants & Milestones)	24,291	5,633	1,440	5,514	2,912	-	-	-	-	-	385,351	897,419	1,412,074	1,844,665	2,278,120	2,712,440	3,147,627
Expenses																	
COGS (excludes royalties)	-	-	-	-	-	-	-	-	-	-	73,330	170,749	268,362	350,178	432,156	514,299	596,605
COGS % Product Sales		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
R&D	38,856	39,045	62,994	71,080	4,099	8,640	9,000	14,261	36,000	34,920	33,872	32,856	31,871	30,914	29,987	29,087	28,215
R&D % Revs																	
G&A	10,442	11,378	15,888	20,065	20,944	4,864	5,066	(10,609)	20,266	20,468	20,673	20,880	21,089	21,299	21,512	21,728	21,945
G&A % Revs																	
Other (depreciation)	855	698	890	1,427	247												
Total expenses	49,953	51,121	79,772	92,572	25,290	13,504	14,066	3,652	56,513	55,388	127,876	224,485	321,321	402,391	483,656	565,114	646,764
Oper. Inc. (Loss)	(25,662)	(45,488)	(78,332)	(87,058)	(22,378)	(13,504)	(14,066)	(3,652)	(53,601)	(55,388)	257,475	672,935	1,090,752	1,442,273	1,794,464	2,147,326	2,500,862
Gain from sale of insurance proceeds, net	617																
Oper. Inc. (Loss)	(25,045)																
Oper Margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	67%	75%	77%	78%	79%	79%	79%
Other Income Expense (net)	762	906	(433)	(18)													
Other Income (loss of unconsolidated affiliate)				121	162												
Equity Earnings (loss) of unconsolidated affiliate																	
Expense from change in fair value of warrants, net																	
Preferred Stock Dividends																	
Change in Warrant valuation																	
Deemed dividend resulting from induced conversion of convert p.stock																	
Pre-tax income	(24,283)	(44,582)	(78,765)	(86,955)	(22,216)	(13,504)	(14,066)	(3,652)	(53,439)	(55,388)	257,475	672,935	1,090,752	1,442,273	1,794,464	2,147,326	2,500,862
Taxes	-	-	-	-		(1,891)	(1,969)	(511)	(4,371)	(8,862)	51,495	161,504	305,411	418,259	538,339	665,671	800,276
Tax Rate	0%	0%	0%	0%	14%	14%	14%	14%	14%	16%	20%	24%	28%	29%	30%	31%	32%
Net Income	(24,283)	(44,582)	(78,765)	(86,955)	(22,216)	(11,613)	(12,097)	(3,141)	(49,067)	(46,528)	205,980	511,430	785,342	1,024,014	1,256,125	1,481,655	1,700,586
Net Margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	53%	57%	56%	56%	55%	55%	54%
EPS	(0.18)	(0.29)	(0.42)	(0.39)	(0.09)	(0.05)	(0.03)	(0.01)	(0.17)	(0.10)	0.41	0.98	1.49	2.02	2.67	3.37	4.16
Non GAAP EPS (dil)	(0.16)	(0.27)	(0.40)	(0.37)	(0.09)	(0.04)	(0.02)	(0.00)	(0.16)	(0.09)	0.41	0.99	1.50	2.03	2.68	3.39	4.17
Wgtd Avg Shrs (Bas) - '000s	136,641	151,696	187,472	224,274	244,197	246,639	350,000	351,750	298,146	359,280	370,176	381,402	384,732	369,610	344,395	320,901	299,009
Wgtd Avg Shrs (Dil) - '000s	136,641	151,696	187,472	224,274	244,197	249,081	450,000	459,000	350,569	482,414	507,472	522,862	527,428	506,697	472,130	439,921	409,910

Source: Dawson James Forecasts and Company reports

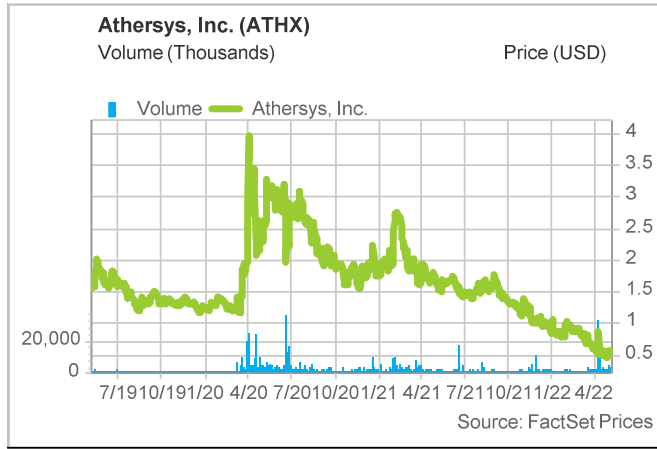
Source: Dawson James estimates, company reports

Companies mentioned in this report:

Healios (TYO-4593: Not Rated)

Important Disclosures:

Price Chart:



Price target and rating changes over the past three years:

- Initiated – Buy – August 26, 2019 – Price Target \$11.00
- Update – Buy – November 7, 2019 – Price Target \$11.00
- Update – Buy – January 14, 2020 – Price Target \$11.00
- Update – Buy – February 11, 2020 – Price Target \$11.00
- Update – Price Target Change – March 17, 2020 – Price Target from \$11.00 to \$12.00
- Update – Buy – March 23, 2020 – Price Target \$12.00
- Update – Buy – April 9, 2020 – Price Target \$12.00
- Update – Buy – April 13, 2020 – Price Target \$12.00
- Update – Buy – April 15, 2020 – Price Target \$12.00
- Update – Buy – May 1, 2020 – Price Target \$12.00
- Update – Buy – May 5, 2020 – Price Target \$12.00
- Update – Buy – May 8, 2020 – Price Target \$12.00
- Update – Buy – June 22, 2020 – Price Target \$12.00
- Price Target Change - Buy – August 11, 2020 – Price Target \$7.00
- Update – Buy – September 23, 2020 – Price Target \$7.00
- Update – Buy – November 10, 2020 – Price Target \$7.00
- Update – Buy – November 18, 2020 – Price Target \$7.00
- Update – Buy – November 24, 2020 – Price Target \$7.00
- Update – Buy – December 21, 2020 – Price Target \$7.00
- Update – Buy – February 17, 2021 – Price Target \$7.00
- Update – Buy – March 26, 2021 – Price Target \$7.00
- Update – Buy – March 31, 2021 – Price Target \$7.00
- Update – Buy – May 7, 2021 – Price Target \$7.00
- Update – Buy – August 10, 2021 – Price Target \$7.00
- Update – Buy – November 12, 2021 – Price Target \$7.00
- Update – Buy – November 16, 2021 – Price Target \$7.00
- Update – Buy – December 31, 2021 – Price Target \$7.00
- Update – Buy – March 16, 2022 – Price Target \$7.00
- Update – Buy – April 4, 2022 – Price Target \$7.00
- Update – Buy – May 6, 2022 – Price Target \$7.00
- Update – Buy – May 20, 2022 – Price Target \$5.00

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Rating Definitions:

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

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

Current as of 16-May-22

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	31	72%	4	13%
Market Perform (Neutral)	12	28%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	43	100%	4	9%

Analyst Certification:

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