

Athersys Inc. (NASDAQ/ATHX)

March 17, 2020

BUY: Highly Relevant – ARDS: MultiStem Fast Track

The focus of the Athersys call was COVID-19 and ARDS or Acute Respiratory distress syndrome (ARDS). Athersys has been in talks with the U.S. government and possible other countries like Japan. We do see the possibility that Multistem could be utilized to treat ARDS patients which could, if successful, change the outcome and improve hospital capacity. We are adjusting our price target from \$11.00 to \$12.00.

Jason H. Kolbert
 Head of Healthcare Research
 646-465-6891
 jkolbert@dawsonjames.com

| | |
|---------------|---------|
| Current Price | \$1.18 |
| Price Target | \$12.00 |

Investment Highlights

We Review Multistem Program in ARDS. A few key observations, in our opinion, make this relevant today given the Coronavirus outbreak in China and the world.

1. The data released last month is impressive for a small study and suggests that Multistem has efficacy in ARDS.
2. Multistem works independent of the cause, albeit pneumonia or the coronavirus. As such, it has the potential to be an ideal, first-line defense for patients in respiratory distress.
3. ARDs has a high mortality rate. The treatment protocols are very complex, and one look at the numbers in China tells us the potential to overwhelm the system, any system be it the U.S. or China, is a great risk.
4. ARDS is likely the factor that tips most pneumonia (& likely Coronavirus) patients to a high risk, high mortality outcome.
5. A universal treatment that can limit ARDS could be a life-saver. All indications suggest that Athersys partner Healios is keenly interested. The Japanese media and government are focused on the coronavirus. It is the number one news story in Japan and has been for weeks.
6. Early data not only suggest better outcomes at 28 days but one-year follow-up also suggests that treated patients are more likely to reestablish the same quality of life versus control patients prior to ARDS.

Quality-of-Life (QOL) Out to a Year. Recall that Athersys announced follow-up results from the prior ARDS study of IV (intravenous) MultiStem. These participants were evaluated through 28 days for the primary clinical assessment and again at a one-year follow-up. Of note, the most severe patients seemed to do the best (20% mortality versus 50% on control).

Valuation. Our therapeutic models for MultiStem assume a probability of success (PoS) factor across the various 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 Some-Of-The-Parts (SOP) models. Our price target is derived from these three models, equally weighting and averaged to the nearest whole number. The result is a one-year price target of \$12.00 per share. We caution ourselves that models can't predict clinical trial outcomes, but we do suggest that upon success, the company is undervalued.

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

| Estimates | F2019A | F2020E | F2021E |
|--------------------------|-----------|-----------|-----------|
| Expenses (\$000s) | \$ 51,121 | \$ 53,500 | \$ 46,615 |
| 1Q March | \$ 14,705 | \$ 12,305 | \$ 10,721 |
| 2Q June | \$ 14,163 | \$ 12,840 | \$ 11,188 |
| 3Q September | \$ 11,981 | \$ 13,375 | \$ 11,654 |
| 4Q December | \$ 10,272 | \$ 14,980 | \$ 13,052 |

| | F2019A | F2020E | F2021E |
|----------------------|-----------|-----------|-----------|
| EPS (diluted) | \$ (0.29) | \$ (0.30) | \$ (0.23) |
| 1Q March | \$ (0.09) | \$ (0.08) | \$ (0.06) |
| 2Q June | \$ (0.06) | \$ (0.08) | \$ (0.06) |
| 3Q September | \$ (0.08) | \$ (0.07) | \$ (0.06) |
| 4Q December | \$ (0.06) | \$ (0.08) | \$ (0.06) |

| | | | |
|---------------|----------|----------|----------|
| EBITDA/Share | (\$0.29) | (\$0.30) | (\$0.23) |
| EV/EBITDA (x) | 478 | 462 | 600 |

| Stock Data | | | |
|---|-------------|---|--------|
| 52-Week Range | \$1.13 | - | \$2.03 |
| Shares Outstanding (mil.) | 156.7 | | |
| Market Capitalization (mil.) | \$185 | | |
| Enterprise Value (mil.) | \$141 | | |
| Debt to Capital | 0% | | |
| Book Value/Share | \$0.19 | | |
| Price/Book | 4.8 | | |
| Average Three Months Trading Volume (K) | 532 | | |
| Insider Ownership | 9.8% | | |
| Institutional Ownership | 22.4% | | |
| Short interest (mil.) | 6.9% | | |
| Dividend / Yield | \$0.00/0.0% | | |



Key Data Points from the study:

- Previously observed lower mortality for MultiStem-treated subjects compared to placebo (particularly among the prospectively defined subset of more severe ARDS patients) persisted out to one-year of follow-up;
- Day-365 Quality of Life (QoL) outcomes, assessed by the EQ-5D, were meaningfully better among all survivors who received MultiStem treatment compared to those who received placebo;
- Within the prospectively defined group of patients with more severe ARDS, MultiStem treatment was associated with a markedly greater rate of survival and progression to functional independence at one year (i.e., self-care);
- As measured at day-28, MultiStem treatment was associated with a higher mean ventilator-free day (VFD) score of 12.9 vs. 9.2 in the placebo group, and a higher mean intensive care unit (ICU)-free day score of 10.3 vs. 8.1 in the placebo group;
- As measured at day-28, among more severe ARDS patients, mean VFD in the MultiStem subgroup was 14.6 vs. 8.0 in placebo subgroup. Mean ICU-free days were 11.4 vs. 5.9 for MultiStem and placebo recipients, respectively;
- Lower inflammatory cytokine levels at day-7 in the MultiStem group relative to the placebo group, including IFN γ , IL-6, and IL-1 β among others, suggest the potential for MultiStem treatment to abate the severe inflammatory response associated with ARDS; and
- MultiStem treatment was well tolerated in this very sick ARDS patient population, with no serious adverse events related to administration through one year of follow-up.

Exhibit 1. The Phase 2 ARDS Trial was a randomized, double-blind, placebo-controlled trial evaluating patients through 28-day clinical assessment with one year follow up.

| All Subjects | MultiStem | Placebo |
|--|-------------|------------|
| Number | 20 | 10 |
| Ventilator-free days (mean) | 12.9 | 9.2 |
| (median) | 18.5 | 6.5 |
| ICU-free days (mean) | 10.3 | 8.1 |
| (median) | 12.5 | 4.5 |
| Mortality (d28) | 25% | 40% |
| Patients w/ Low pulmonary function: PaO ₂ /FiO ₂ < 150 mm at baseline | MultiStem | Placebo |
| Number | 8 | 8 |
| Ventilator-free days (mean) | 14.6 | 8.0 |
| (median) | 18.5 | 3.5 |
| ICU-free days (mean) | 11.4 | 5.9 |
| (median) | 12.5 | 1 |
| Mortality (d28) | 25% | 50% |

Source: Athersys

Exhibit 2. The Post-hoc analysis of Pneumonia-Induced ARDS, Severe cases –PaO₂/FiO₂Ratios at Day 0, Pre-infusion < 150.
 Data for severe cases of pneumonia-induced ARDS shows an even greater difference in mortality rate, Vent-free, and ICU-free days between the subjects treated with MultiStem and the patients in the placebo-controlled group.

| | MultiStem | Placebo |
|--------------------------------------|------------------|----------------|
| Day-28 Mortality | 20% | 50% |
| Ventilator-free days (mean) | 14.8 | 7.5 |
| Ventilator-free days (median) | 18.0 | 3.5 |
| ICU-free days (mean) | 12.0 | 5.0 |
| ICU-free days (median) | 15.0 | 1.0 |

Source: Athersys

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 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) 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. But are also relatively in-line with other allogeneic cell therapies currently on the market, despite the other allogeneic cell therapies not being approved for the same targeted indications.
10. Our sum-of-the-parts model uses the same probabilities as the product models and the same discount rate as the FCFE. 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.
11. Discount rate. We use a 30% discount rate to account for the fact that Athersys is not yet a profitable company, with assets still in clinical development and several years from commercialization. For this reason, we add an additional risk premium to the calculated WACC to arrive at our 30% discount rate.

Valuation. Our therapeutic models for MultiStem assume a probability of success (PoS) for all the forecast therapeutic indications. We project our model through the year 2030. For modeling purposes, we use a 30% risk rate (r) in our Free Cash Flow to the Firm (FCFF), discounted EPS, and Some-Of-The-Parts (SOP) models. Our price target is derived from these three models, equally weighting and averaged to the nearest whole number. The result is a one-year price target of \$12.00 per share.

Exhibit 9. FCFF Model.

| | | |
|--------------------|----|------|
| Average of Metrics | \$ | 12 |
| FCFF Price Target | \$ | 15 |
| Year | | 2020 |

DCF Valuation Using FCFF (mln):

| units ('000) | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
|-----------------------|------------|----------|----------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| EBIT | (45,488) | (53,484) | (46,598) | 345,916 | 762,717 | 1,369,395 | 1,983,922 | 2,656,212 | 3,257,395 | 3,893,659 | 4,569,761 | 5,291,113 |
| Tax Rate | 0% | 0% | 0% | 14% | 16% | 20% | 24% | 28% | 29% | 30% | 31% | 32% |
| EBIT(1-t) | (45,488) | (53,484) | (46,598) | 297,488 | 640,682 | 1,095,516 | 1,507,781 | 1,912,473 | 2,312,750 | 2,725,561 | 3,153,135 | 3,597,957 |
| CapEx | (1,685) | (1,854) | (2,039) | (2,243) | (2,467) | (2,714) | (2,985) | (3,284) | (3,612) | (3,974) | (4,371) | (4,808) |
| Depreciation | 941 | 1,035 | 1,138 | 1,252 | 1,377 | 1,515 | 1,666 | 1,833 | 2,016 | 2,218 | 2,439 | 2,683 |
| Change in NWC | (1,546) | - | - | - | - | - | - | - | - | - | - | - |
| FCFF | (44,687) | (54,303) | (47,500) | 296,496 | 639,592 | 1,094,316 | 1,506,462 | 1,911,021 | 2,311,154 | 2,723,805 | 3,151,204 | 3,595,832 |
| PV of FCFF | (58,093) | (54,303) | (36,538) | 175,442 | 291,120 | 383,151 | 405,734 | 395,918 | 368,320 | 333,910 | 297,157 | 260,835 |
| Discount Rate | 30% | | | | | | | | | | | |
| Long Term Growth Rate | 1% | | | | | | | | | | | |
| Terminal Cash Flow | 12,523,414 | | | | | | | | | | | |
| Terminal Value YE2030 | 908,425 | | | | | | | | | | | |
| NPV | 3,671,079 | | | | | | | | | | | |
| NPV-Debt | - | | | | | | | | | | | |
| Shares out ('000) | 245,858 | | | | | | | | | | | |
| NPV Per Share | \$ 15 | | | | | | | | | | | |

Source: Dawson James estimates.

Exhibit 10. Discounted EPS Model.

| | |
|-------------------|---------|
| Current Year | 2020 |
| Year of EPS | 2030 |
| Earnings Multiple | 15 |
| Discount Factor | 30% |
| Selected Year EPS | \$ 8.88 |
| NPV | \$ 9.66 |

| Discount Rate and Earnings Multiple Varies, Year is Constant | | | | | | | |
|--|-----|---------|---------|---------|---------|---------|---------|
| 2030 EPS | | | | | | | |
| | 9.7 | 20% | 25% | 30% | 35% | 40% | 45% |
| Earnings Multiple | 10 | \$14.34 | \$9.54 | \$6.44 | \$4.42 | \$3.07 | \$ 2.16 |
| | 15 | \$21.52 | \$14.31 | \$9.66 | \$6.63 | \$4.61 | \$ 3.24 |
| | 20 | \$28.69 | \$19.07 | \$12.89 | \$8.83 | \$6.14 | \$ 4.32 |
| | 25 | \$35.86 | \$23.84 | \$16.11 | \$11.04 | \$7.68 | \$ 5.40 |
| | 30 | \$43.03 | \$28.61 | \$19.33 | \$13.25 | \$9.21 | \$ 6.49 |
| | 35 | \$50.21 | \$33.38 | \$22.55 | \$15.46 | \$10.75 | \$ 7.57 |
| | 40 | \$57.38 | \$38.15 | \$25.77 | \$17.67 | \$12.28 | \$ 8.65 |
| | 45 | \$64.55 | \$42.92 | \$28.99 | \$19.88 | \$13.82 | \$ 9.73 |

Source: Dawson James estimates.

Exhibit 11. Sum of the Parts Model.

| Athersys Sum of the Parts | LT Gr | Discount Rate | Yrs. to Mkt | % Success | Peak Sales | Term Val |
|-------------------------------------|-------|---------------|-------------|-----------|------------|----------|
| MultiStem Ischemic Stroke (U.S.) | 1% | 30% | 3 | 50% | \$4,742 | \$16,353 |
| NPV | | | | | | \$6.06 |
| MultiStem Hemorrhagic Stroke (U.S.) | 1% | 30% | 3 | 50% | \$1,123 | \$3,872 |
| NPV | | | | | | \$1.43 |
| MultiStem GI GVHD | 1% | 30% | 3 | 50% | \$0 | \$0 |
| NPV | | | | | | \$0.00 |
| MultiStem ARDS | 1% | 30% | 6 | 50% | \$766 | \$2,641 |
| NPV | | | | | | \$0.45 |
| MultiStem AML | 1% | 30% | 5 | 30% | \$5,378 | \$18,546 |
| NPV | | | | | | \$2.44 |
| MultiStem Trauma | 1% | 30% | 6 | 30% | \$1,743 | \$6,010 |
| NPV | | | | | | \$0.61 |
| Net Margin | | | | | | 40% |
| MuslitiStem-Japan Royalties | 1% | 30% | 3 | 50% | \$423 | \$1,460 |
| NPV | | | | | | \$1.35 |
| MM Shrs OS | | | | | | 246 |
| | | | | | | \$12.33 |

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 party's 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' products will be approved in the U.S., Japan, Europe, or other markets.

Exhibit 12. Income Statement.

| Athersys, Inc. Income Statement (\$ '000) | BI | BN | | | | BS | BX | CC | CH | CM | CR | CW | DB | DG | DL | DQ | |
|--|-----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| ATHX: YE Dec. 31 | 2018A | 1Q19A | 2Q19A | 3Q19A | 4Q19A | 2019A | 2020E | 2021E | 2022E | 2023E | 2024E | 2025E | 2026E | 2027E | 2028E | 2029E | 2030E |
| Product Revenue (000's) | | | | | | | | | | | | | | | | | |
| MultiStem Ischemic Stroke (U.S.) | | | | | | | | | 365,919 | 732,570 | 1,099,954 | 1,468,072 | 1,836,925 | 2,206,514 | 2,576,841 | 2,947,906 | 3,319,711 |
| % Chg | | | | | | | | | | | | | | | | | |
| MultiStem Ischemic Stroke (Japan) - Royalty | | | | | | | | | 12,441 | 31,134 | 56,098 | 87,350 | 117,104 | 140,665 | 164,274 | 187,929 | 211,632 |
| % Chg | | | | | | | | | | | | | | | | | |
| MultiStem Hemorrhagic Stroke (U.S.) | | | | | | | | | - | - | 119,589 | 239,417 | 399,427 | 439,809 | 480,271 | 520,814 | 561,438 |
| % Chg | | | | | | | | | | | | | | | | | |
| MultiStem ARDS | | | | | | | | | 33,331 | 68,729 | 106,289 | 146,112 | 188,302 | 232,967 | 280,220 | 330,179 | 382,967 |
| % Chg | | | | | | | | | | | | | | | | | |
| MultiStem AMI | | | | | | | | | 77,236 | 171,619 | 286,003 | 423,665 | 588,365 | 784,409 | 1,016,724 | 1,290,949 | 1,613,525 |
| % Chg | | | | | | | | | | | | | | | | | |
| MultiStem Trauma | | | | | | | | | 28,149 | 87,065 | 149,607 | 215,942 | 286,247 | 360,703 | 439,500 | 522,836 | |
| % Chg | | | | | | | | | | | | | | | | | |
| Total Revenues (Product Sales, Grants & Milestones) | - | - | - | - | - | - | - | - | 488,928 | 1,004,052 | 1,754,997 | 2,514,223 | 3,346,065 | 4,090,610 | 4,879,033 | 5,717,278 | 6,612,108 |
| Contract revenues from Healios | 22,276 | 1,441 | 4,193 | (368) | 251 | 5,517 | - | - | - | - | - | - | - | - | - | - | - |
| % Chg | | | | | | | | | | | | | | | | | |
| License Fees - Contract revenues | 1,461 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| % Chg | | | | | | | | | | | | | | | | | |
| Grant Revenues | 554 | 4 | 69 | 7 | 36 | 116 | 16 | 17 | 17 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 18 |
| % Chg | | | | | | | | | | | | | | | | | |
| Pfizer Milestones | | | | | | | | | | | | | | | | | |
| % Chg | | | | | | | | | | | | | | | | | |
| Total Revenues (Product Sales, Grants & Milestones) | 24,291 | 1,445 | 4,262 | (361) | 287 | 5,633 | 16 | 17 | 488,944 | 1,004,069 | 1,755,014 | 2,514,240 | 3,346,082 | 4,090,628 | 4,879,051 | 5,717,296 | 6,612,126 |
| Expenses | | | | | | | | | | | | | | | | | |
| COGS (excludes royalties) | - | - | - | - | - | - | - | - | 95,297 | 194,584 | 339,780 | 485,374 | 645,792 | 789,989 | 942,952 | 1,105,870 | 1,280,095 |
| COGS % Product Sales | | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% |
| R&D | 38,656 | 11,415 | 11,139 | 8,856 | 7,634 | 39,044 | 42,000 | 35,000 | 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 | 3,106 | 2,867 | 2,958 | 2,448 | 11,379 | 11,500 | 11,615 | 11,731 | 11,848 | 11,967 | 12,087 | 12,207 | 12,330 | 12,453 | 12,577 | 12,703 |
| G&A % Revs | | | | | | | | | | | | | | | | | |
| Other (depreciation) | 855 | 184 | 157 | 167 | 190 | 941 | | | | | | | | | | | |
| Total expenses | 49,953 | 14,705 | 14,163 | 11,981 | 10,272 | 51,121 | 53,500 | 46,615 | 143,028 | 241,352 | 385,619 | 530,317 | 689,870 | 833,233 | 985,392 | 1,147,534 | 1,321,013 |
| Oper. Inc. (Loss) | (25,662) | (13,260) | (9,901) | (12,342) | (9,985) | (45,488) | (53,484) | (46,598) | 345,916 | 762,717 | 1,369,395 | 1,983,922 | 2,656,212 | 3,257,395 | 3,893,659 | 4,569,761 | 5,291,113 |
| Gain from sale of insurance proceeds, net | 617 | | | | | | | | | | | | | | | | |
| Oper. Inc. (Loss) | (25,045) | | | | | | | | | | | | | | | | |
| Oper Margin | NM | NM | NM | NM | NM | NM | NM | NM | 71% | 76% | 78% | 79% | 79% | 80% | 80% | 80% | 80% |
| Other Income Expense (net) | 762 | 304 | 213 | 327 | 62 | 906 | | | | | | | | | | | |
| Other Income (loss of unconsolidated affiliate) | | | | | | | | | | | | | | | | | |
| 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) | (12,956) | (9,688) | (12,015) | (9,923) | (44,582) | (53,484) | (46,598) | 345,916 | 762,717 | 1,369,395 | 1,983,922 | 2,656,212 | 3,257,395 | 3,893,659 | 4,569,761 | 5,291,113 |
| Taxes | - | - | - | - | - | - | - | - | 48,428 | 122,035 | 273,879 | 476,141 | 743,739 | 944,645 | 1,168,098 | 1,416,626 | 1,693,156 |
| Tax Rate | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 14% | 16% | 20% | 24% | 28% | 29% | 30% | 31% | 32% |
| Net Income | (24,283) | (12,956) | (9,688) | (12,015) | (9,923) | (44,582) | (53,484) | (46,598) | 297,488 | 640,682 | 1,095,516 | 1,507,781 | 1,912,473 | 2,312,750 | 2,725,561 | 3,153,135 | 3,597,957 |
| Net Margin | NM | NM | NM | NM | NM | NM | NM | NM | 61% | 64% | 62% | 60% | 57% | 57% | 56% | 55% | 54% |
| EPS | (0.18) | (0.09) | (0.06) | (0.08) | (0.06) | (0.29) | (0.30) | (0.23) | 1.38 | 2.75 | 4.34 | 5.52 | 6.47 | 7.23 | 7.87 | 8.41 | 8.87 |
| Non GAAP EPS (dil) | (0.16) | (0.08) | (0.06) | (0.07) | (0.06) | (0.27) | (0.28) | (0.22) | 1.40 | 2.77 | 4.36 | 5.54 | 6.49 | 7.24 | 7.89 | 8.43 | 8.88 |
| Wgtd Avg Shrs (Bas) - '000s | 136,641 | 145,964 | 150,163 | 153,096 | 157,421 | 151,661 | 173,364 | 187,893 | 193,591 | 199,462 | 205,511 | 211,743 | 218,165 | 224,781 | 231,598 | 238,621 | 245,858 |
| Wgtd Avg Shrs (Dil) - '000s | 136,641 | 145,964 | 150,163 | 153,096 | 157,421 | 151,661 | 175,889 | 198,699 | 215,078 | 232,807 | 251,998 | 272,771 | 295,256 | 319,594 | 345,939 | 374,456 | 405,323 |

Source: Dawson James estimates.

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

Dawson James Securities, Inc. (the “Firm”) is a member of the Financial Industry Regulatory Authority (“FINRA”) and the Securities Investor Protection Corporation (“SIPC”).

The Firm does not make a market in the securities of the subject company(s). The Firm has NOT engaged in investment banking relationships with ATHX in the prior twelve months, as a manager or co-manager of a public offering and has NOT received compensation resulting from those relationships. The Firm may seek compensation for investment banking services in the future from the subject company(s). The Firm has received other compensation from the subject company(s) in the last 12 months for services unrelated to managing or co-managing of a public offering.

Neither the research analyst(s) whose name appears on this report nor any member of his (their) household is an officer, director or advisory board member of these companies. The Firm and/or its directors and employees may own securities of the company(s) in this report and may increase or decrease holdings in the future. As of February 29, 2020 the Firm as a whole did not beneficially own 1% or more of any class of common equity securities of the subject company(s) of this report. The Firm, its officers, directors, analysts or employees may affect transactions in and have long or short positions in the securities (or options or warrants related to those securities) of the company(s) subject to this report. The Firm may affect transactions as principal or agent in those securities.

Analysts receive no direct compensation in connection with the Firm’s investment banking business. All Firm employees, including the analyst(s) responsible for preparing this report, may be eligible to receive non-product or service-specific monetary bonus compensation that is based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

Although the statements in this report have been obtained from and are based upon recognized statistical services, issuer reports or communications, or other sources that the Firm believes to be reliable, we cannot guarantee their accuracy. All opinions and estimates included in this report constitute the analyst’s judgment as of the date of this report and are subject to change without notice.

Information about valuation methods and risks can be found in the “STOCK VALUATION” and “RISK ANALYSIS” sections of this report.

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. This report is offered for informational purposes only and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. Additional information is available upon request.

Rating Definitions:

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

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

| Ratings Distribution | Company Coverage | | Investment Banking | |
|----------------------------|------------------|-------------|--------------------|-------------|
| | # of Companies | % of Total | # of Companies | % of Totals |
| Market Outperform (Buy) | 22 | 85% | 3 | 14% |
| Market Perform (Neutral) | 4 | 15% | 1 | 25% |
| Market Underperform (Sell) | 0 | 0% | 0 | 0% |
| Total | 26 | 100% | 4 | 15% |

Analyst Certification:

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