

ATHERSYS, INC / NEW  
Form 424B5  
January 13, 2014  
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**Filed Pursuant to Rule 424(b)(5)  
Registration No. 333-185991**

**PROSPECTUS SUPPLEMENT**

**(To Prospectus dated January 22, 2013)**

**5,000,000 Shares of Common Stock and  
Warrants to Purchase 1,500,000 Shares of Common Stock**

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering 5,000,000 shares of our common stock, par value \$0.001 per share, and warrants to purchase up to an additional 1,500,000 shares of our common stock. The shares and warrants will be sold in multiples of a fixed combination consisting of (i) one share of common stock and (ii) one immediately exercisable warrant to purchase 0.30 shares of common stock. The warrants will have an initial exercise price of \$4.50 per share. The warrants will be exercisable until July 15, 2016. The shares of common stock and the warrants will be issued separately but can only be purchased together in this offering. Each fixed combination will be sold to investors at a price of \$4.10. We refer to the shares of common stock issued or issuable hereunder upon exercise of the warrants and the warrants collectively as the securities. This prospectus supplement also relates to the offering of the shares of common stock issuable upon the exercise of the warrants issued in this offering.

Our common stock is listed on the NASDAQ Capital Market under the symbol ATHX. The last reported sale price of our common stock on the NASDAQ Capital Market on January 9, 2014 was \$4.05 per share.

We have retained Maxim Group LLC to act as our lead placement agent for this offering. Maxim Group LLC has retained First Analysis Securities Corporation to act as co-placement agent in connection with this offering. We have agreed to pay the placement agents the placement agent fee set forth in the table below, which assumes that we sell all of the securities we are offering. The placement agents are not required to arrange for the sale of any specific number of securities or dollar amount but will use reasonable best efforts to arrange for the sale of the securities.

**Investing in our securities involves significant risk. Please read carefully the section entitled Risk Factors beginning on page S-4 of this prospectus supplement.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

	<b>Per Fixed Combination</b>	<b>Maximum Offering Amount</b>
Offering Price	\$ 4.100	\$ 20,500,000
Placement Agent Fee	\$ 0.287	\$ 1,435,000
Proceeds to Us, Before Expenses	\$ 3.813	\$ 19,065,000

We estimate the total expenses of this offering, excluding the placement agent fee, will be approximately \$400,000. Because there is no minimum offering amount required as a condition to closing in this offering, the actual offering amount and net proceeds to us, if any, in this offering may be substantially less than the total maximum offering amounts set forth above. It is anticipated that the shares of common stock and the warrants will be delivered against payment thereon on or before January 15, 2014.

*Lead Placement Agent*

**Maxim Group LLC**

*Co-Placement Agent*

**First Analysis Securities Corporation**

**Prospectus supplement dated January 10, 2014**

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**ABOUT THIS PROSPECTUS SUPPLEMENT**

This document is in two parts. The first part is the prospectus supplement, which describes the terms of this offering. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. If the description of this offering varies between the prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement, which supersedes the information in the accompanying prospectus. This prospectus supplement contains information about the securities offered in this offering and may add, update or change information in the accompanying prospectus. Before you invest in any of the securities offered under this prospectus supplement, you should carefully read both this prospectus supplement and the accompanying prospectus together with additional information under the heading **Where You Can Find More Information** and **Information We Incorporate By Reference**.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and in the accompanying prospectus or any free writing prospectus that we may provide. We have not authorized anyone to provide you with different information. If anyone provides you with different or additional information, you should not rely on it. You should not assume that the information contained in this prospectus supplement, the accompanying prospectus, any free writing prospectus that we may provide or any document incorporated by reference is accurate as of any date other than the date mentioned on the cover page of these documents. We are not making offers to sell the securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

References in this prospectus supplement and the accompanying prospectus to the terms **we**, **us**, **Athersys** or **the Company** or other similar terms mean Athersys, Inc. and its consolidated subsidiaries, unless we state otherwise or the context indicates otherwise.

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**WHERE YOU CAN FIND MORE INFORMATION**

We are subject to the informational reporting requirements of the Securities Exchange Act of 1934. We file reports, proxy statements and other information with the SEC. Our SEC filings are available over the Internet at the SEC's website at <http://www.sec.gov>. You may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call 1-800-SEC-0330 for further information on the Public Reference Room.

We make available, free of charge, on our website at <http://www.athersys.com>, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports and statements as soon as reasonably practicable after they are filed with the SEC. The contents of our website are not part of this prospectus supplement or the accompanying prospectus, and the reference to our website does not constitute incorporation by reference into this prospectus supplement or the accompanying prospectus of the information contained at that site, other than documents we file with the SEC that are incorporated by reference into this prospectus supplement and the accompanying prospectus.

**INFORMATION WE INCORPORATE BY REFERENCE**

The SEC allows us to incorporate by reference into this prospectus supplement and the accompanying prospectus the information in documents we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. Any statement contained in any document incorporated or deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus shall be deemed to be modified or superseded to the extent that a statement contained in or omitted from this prospectus supplement or the accompanying prospectus, or in any other subsequently filed document that also is or is deemed to be incorporated by reference, modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement or the accompanying prospectus.

We incorporate by reference the documents listed below and any future documents that we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement:

our annual report on Form 10-K for the year ended December 31, 2012;

our quarterly reports on Form 10-Q for the quarters ended March 31, 2013, June 30, 2013 and September 30, 2013;

our current reports on Form 8-K filed on January 8, 2013, February 28, 2013, June 18, 2013, June 20, 2013, September 20, 2013, October 23, 2013, November 29, 2013 and December 3, 2013; and

the description of our common stock set forth in the registration statement on Form 8-A filed on December 6, 2007, and all amendments and reports filed for the purpose of updating that description.

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We will not, however, incorporate by reference in this prospectus supplement or the accompanying prospectus any documents or portions thereof that are not deemed filed with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of our current reports on Form 8-K unless, and except to the extent, specified in such current reports.

We will provide you with a copy of any of these filings (other than an exhibit to these filings, unless the exhibit is specifically incorporated by reference into the filing requested) at no cost if you submit a request to us by writing or telephoning us at the following address and telephone number:

Athersys, Inc.

3201 Carnegie Avenue

Cleveland, Ohio 44115-2634

(216) 367-9495

Attn: Secretary

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**DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties. These forward-looking statements relate to, among other things, the expected timetable for development of our product candidates, our growth strategy and our future financial performance, including our operations, economic performance, financial condition, prospects and other future events. We have attempted to identify forward-looking statements by using such words as anticipates, believes, can, continue, could, estimate, expects, intends, may, plans, potential, should, suggest, will or other similar expressions. These forward-looking statements are only predictions and are largely based on our current expectations. These forward-looking statements appear in a number of places in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference.

In addition, a number of known and unknown risks, uncertainties and other factors could affect the accuracy of these statements. Some of the more significant known risks that we face that could cause actual results to differ materially from those implied by forward-looking statements are the risks and uncertainties inherent in the process of discovering, developing and commercializing products that are safe and effective for use as human therapeutics, such as the uncertainty regarding market acceptance of our product candidates and our ability to generate revenues, including MultiStem<sup>®</sup> for the treatment of inflammatory bowel disease, acute myocardial infarction, stroke and other disease indications, including traumatic brain injury, and the prevention of graft-versus-host disease. These risks may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

Other important factors to consider in evaluating our forward-looking statements include:

our ability to raise additional capital;

the timing of the results of Pfizer, Inc. s, or Pfizer, Phase II clinical study involving MultiStem<sup>®</sup> cell therapy to ulcerative colitis patients;

final results from our clinical trials evaluating MultiStem<sup>®</sup> cell therapy in ulcerative colitis and ischemic stroke;

the possibility of delays in, adverse results of, and excessive costs of the development process;

our ability to successfully initiate and complete clinical trials;

changes in external market factors;

changes in our industry s overall performance;

changes in our business strategy;

our ability to protect and defend our intellectual property and related business operations, including the successful prosecution of our patent applications and enforcement of our patent rights, and operate our business in an environment of rapid technology and intellectual property development;

our possible inability to realize commercially valuable discoveries in our collaborations with pharmaceutical and other biotechnology companies;

our ability to meet milestones under our collaboration agreements;

our collaborators' ability to continue to fulfill their obligations under the terms of our collaboration agreements;

the success of our efforts to enter into new strategic partnerships and advance our programs, including, without limitation, in Japan;

our possible inability to execute our strategy due to changes in our industry or the economy generally;

changes in productivity and reliability of suppliers; and

the success of our competitors and the emergence of new competitors.

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These factors and the other risk factors described in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in any of our forward-looking statements. Other unknown or unpredictable factors also could harm our results. Consequently, there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to or effects on us. We cannot guarantee that any forward-looking statement will be realized, although we believe we have been prudent in our plans and assumptions. Achievement of future results is subject to risks, uncertainties and inaccurate assumptions.

We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. You are advised, however, to consult any further disclosures we make on related subjects in our reports on Forms 10-K, 10-Q and 8-K filed with the SEC.

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**PROSPECTUS SUPPLEMENT SUMMARY**

*This summary highlights information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary may not contain all of the information that you should consider before investing in our securities. We urge you to read this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference carefully, including the section entitled Risk Factors and the financial statements and other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus.*

**The Company**

We are an international biotechnology company that is focused primarily in the field of regenerative medicine. We are committed to the discovery and development of best-in-class therapies designed to extend and enhance the quality of human life. We have established a portfolio of therapeutic product development programs to address significant unmet medical needs in multiple disease areas. We are developing the MultiStem<sup>®</sup> cell therapy, our lead platform product, a patented and proprietary allogeneic stem cell product that has been evaluated in two completed Phase I clinical trials and is currently being evaluated in two ongoing Phase II clinical trials. Our current clinical development programs are focused on treating inflammatory & immune disorders, neurological conditions, cardiovascular disease and other conditions. These represent major areas of clinical need, as well as substantial commercial opportunities.

We believe MultiStem<sup>®</sup> cell therapy represents a breakthrough in the field of regenerative medicine and stem cell therapy and could be used to treat a range of disease indications. MultiStem<sup>®</sup> is a patented and proprietary cell therapy that enhances tissue repair and healing in multiple ways, including reducing inflammatory damage, protecting tissue that is at risk following acute or ischemic injury, and promoting formation of new blood vessels in regions of ischemic injury. The MultiStem<sup>®</sup> cells appear to be responsive to the environment in which they are administered, homing to sites of injury and active disease response and producing proteins that may provide benefit in acute or chronic conditions. In contrast to traditional pharmaceutical products or biologics that generally act through a single biological mechanism of action, the MultiStem<sup>®</sup> product can enhance healing and tissue repair through multiple distinct mechanisms acting simultaneously, by producing a range of therapeutic factors and dynamically responding to the needs of the body resulting in a more effective therapeutic response.

The MultiStem<sup>®</sup> product is unique among regenerative medicine approaches, because it can be manufactured on a large scale, may be administered in an off-the-shelf manner with minimal processing, and can augment healing in multiple ways, providing biological potency other cell therapy approaches cannot. Additionally, the MultiStem<sup>®</sup> product has demonstrated a consistent safety profile in both preclinical and clinical studies. Like drugs and biologics, the product is cleared from the body over time, enhancing product safety relative to other types of stem cell therapy. While the product does not permanently engraft in the patient, the therapeutic effects of treatment with MultiStem<sup>®</sup> cells appear to be quite durable.

We believe the therapeutic and commercial potential for MultiStem<sup>®</sup> to be very broad, applying to many areas of significant unmet medical need. We are pursuing opportunities in several potential multi-billion dollar markets. While traditional pharmaceuticals or biologic therapies typically may be used to treat only a single disease or narrowly defined set of related conditions, the MultiStem<sup>®</sup> product appears to have far broader potential and could be developed in different formulations and with different delivery approaches to efficiently treat a range of disease indications.

We have already evaluated the use of MultiStem<sup>®</sup> cells as a potential treatment for a range of disease indications. Working with an international network of leading investigators and prominent research and clinical institutions, and through our own internal efforts, we have explored the potential for MultiStem<sup>®</sup> cells to be used in acute and chronic

forms of inflammatory & immune disorders, neurological conditions, cardiovascular disease, certain pulmonary conditions and other areas.

To date, we have successfully advanced MultiStem® product candidates into five clinical stage programs, each of which addresses a significant area of medical need and represents a large commercial market opportunity. MultiStem® has been evaluated in two completed clinical trials, one exploring the potential to treat patients that have suffered a heart attack, and the other evaluating the potential to reduce graft versus host disease, or GvHD, as well as

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other complications, and to provide supportive care to patients being treated for leukemia or related conditions. MultiStem® is currently being evaluated in two additional clinical programs in the inflammatory & immune disease and neurological areas. In one study, which is being conducted with our partner Pfizer, MultiStem® is being administered to patients with inflammatory bowel disease. In another ongoing study, we are evaluating the potential to treat patients that have suffered neurological damage from a stroke. In addition, a leading clinical center in Europe, and a research collaborator, has recently received authorization to conduct an initial clinical trial evaluating administration of MultiStem® in patients that have received a solid organ transplant.

In addition to our MultiStem® programs, we have applied our pharmaceutical discovery capabilities to identify and develop novel pharmaceuticals to treat obesity, related metabolic conditions such as diabetes, and certain neurological indications, such as schizophrenia, as well as small molecule compounds that may be used to enhance the production or therapeutic effectiveness of MultiStem® or related products, increase the product's biological potency for certain indications and lead to second or third generation products in the regenerative medicine area. Our 5HT2c agonist program for obesity works by the same mechanism as Lorcaserin, which was recently approved by the Food and Drug Administration for the treatment of obesity, and we believe our compounds may have the potential for providing superior weight loss performance, while also achieving a superior safety and tolerability profile. Certain compounds that we have developed may also have relevance in other disease areas, such as the treatment of schizophrenia.

## **Company Information**

We were incorporated in Delaware on October 24, 1995. On June 8, 2007, we merged with a wholly owned subsidiary of BTHC VI, Inc., a Delaware corporation, and, on August 31, 2007, BTHC VI, Inc. changed its name to Athersys, Inc. Our headquarters are located at 3201 Carnegie Avenue, Cleveland, Ohio 44115. Our telephone number is (216) 431-9900. Our website is <http://www.athersys.com>. The information contained on or accessible through our website is not part of this prospectus supplement or the accompanying prospectus, other than documents that we file with the SEC that are incorporated by reference into this prospectus supplement and the accompanying prospectus.

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**The Offering**

Common stock offered by us	5,000,000 shares.
	1,500,000 shares issuable upon the exercise of warrants.
Warrants	Each purchaser will receive one immediately exercisable warrant to purchase 0.30 shares of common stock. The warrants will have an initial exercise price of \$4.50 per share. The warrants will be exercisable until July 15, 2016.
Price per fixed combination	\$4.10.
Common stock to be outstanding immediately after this offering(1)	76,298,757 shares (assuming that we sell the maximum number of shares of common stock in this offering).
Use of proceeds	We currently expect to use the net proceeds from this offering for working capital and general corporate purposes. See Use of Proceeds.
Risk factors	You should carefully read and consider the information set forth in Risk Factors beginning on page S-4 of this prospectus supplement before investing in our securities.
NASDAQ Capital Market symbol	ATHX. There is no established public trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange.

(1) The number of shares of common stock to be outstanding after the offering is based on 71,298,757 shares of common stock outstanding as of January 9, 2014 and excludes:

shares of common stock reserved for issuance upon the exercise of options and restricted stock units granted under our equity compensation plans;

shares of common stock that may be issued upon exercise of outstanding warrants;

1,500,000 shares of common stock issuable upon exercise of the warrants to be issued to the investors in this offering; and

shares of common stock that we may issue to Aspire Capital Fund LLC, which we refer to as Aspire Capital, pursuant to a common stock purchase agreement we entered into on October 22, 2013, which we refer to as the Aspire Purchase Agreement.



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**RISK FACTORS**

*Investing in our securities involves significant risk. Prior to making a decision about investing in our securities, you should carefully consider the specific risk factors included below, as well as the risk factors discussed under the heading Risk Factors in our most recent annual report on Form 10-K and in our quarterly reports on Form 10-Q filed subsequently thereto, which are incorporated by reference in this prospectus supplement and the accompanying prospectus and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we may face. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also affect our operations. If any of these risks actually occurs, our business, results of operations and financial condition could suffer. In that case, the trading price of our securities could decline, and you could lose all or a part of your investment.*

***You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.***

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on an assumed offering price of \$4.10 per fixed combination of securities, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of approximately (\$3.45) per share in the net tangible book value of the common stock. See the section entitled Dilution in this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

***There is no public market for the warrants to purchase common stock in this offering.***

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing the warrants on any securities exchange or for quotation on the NASDAQ Capital Market. Without an active market, the liquidity of the warrants will be limited.

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**USE OF PROCEEDS**

We expect to receive net proceeds from this offering of approximately \$18.7 million after deducting the placement agent fee and our estimated offering expenses, assuming that we sell 5,000,000 shares of common stock in this offering. Because there is no minimum offering amount required as a condition to the closing of this offering, the actual number of shares of common stock sold, placement agent fee and proceeds to us are not presently determinable and may be substantially less than the maximum amount set forth above.

We currently intend to use the net proceeds from this offering for working capital and general corporate purposes, including the funding of our ongoing and planned clinical trials and potential expansion of certain clinical trials to take advantage of emerging international regulatory initiatives designed to accelerate the development and commercialization of regenerative medicine therapies, and certain process development and manufacturing initiatives.

Pending the application of the net proceeds as described above, we may invest the net proceeds from this offering in short-term, investment grade, interest-bearing securities.



**Table of Contents****DILUTION**

Investors in shares of our common stock offered in this offering will experience an immediate dilution in the net tangible book value of their common stock from the public offering price of the common stock. The net tangible book value of our common stock as of September 30, 2013 was approximately \$11.5 million, or approximately \$0.19 per share of common stock. Net tangible book value per share of our common stock is calculated by subtracting our total liabilities from our total tangible assets, which is equal to total assets less intangible assets, and dividing this amount by the number of shares of common stock outstanding.

Dilution per share represents the difference between the public offering price per share of our common stock and the adjusted net tangible book value per share of our common stock included in this offering after giving effect to this offering. After giving effect to (i) the sale of all of the securities offered in this offering at the offering price of \$4.10 per fixed combination of securities, (ii) shares of common stock sold by us under the Aspire Purchase Agreement since September 30, 2013, (iii) 10,000,000 shares of common stock sold by us in December 2013, (iv) the issuance of 615,277 shares of common stock pursuant to the exercise of outstanding warrants and (v) the vesting of restricted stock units and corresponding issuances of common stock since September 2013, and after deducting the applicable placement agent fees and our estimated offering expenses in connection with this offering and the December 2013 offering, our net tangible book value as of September 30, 2013 would have been approximately \$49.6 million, or approximately \$0.65 per share of common stock. This change represents an immediate increase in the net tangible book value of \$0.46 per share of common stock to our existing stockholders and an immediate and substantial dilution in net tangible book value of \$3.45 per share of common stock to new investors. The following table illustrates this per share dilution:

Offering price per fixed combination	\$ 4.10
Net tangible book value per share as of September 30, 2013	\$ 0.19
Increase in net tangible book value per share attributable to new investors	\$ 0.46
Net tangible book value per share after this offering	\$ 0.65
Dilution per share to new investors	\$ 3.45

The above information excludes:

shares of common stock reserved for issuance upon the exercise of options and restricted stock units granted under our equity compensation plans;

shares of common stock that may be issued upon exercise of outstanding warrants;

1,500,000 shares of common stock issuable upon exercise of the warrants to be issued to the investors in this offering; and

shares of common stock that we may issue in the future to Aspire Capital pursuant to the Aspire Purchase Agreement.

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The following table shows our cash and cash equivalents and capitalization as of September 30, 2013:

on an actual basis;

on a pro forma basis to reflect the sale of 10,000,000 shares of our common stock in December 2013, after deducting the applicable placement agent fee and our estimated expenses in connection with that offering; and

on a pro forma as adjusted basis to reflect the sale of 5,000,000 shares of our common stock offered in this offering and 10,000,000 shares of our common stock in December 2013, after deducting the applicable placement agent fees and our estimated expenses in connection with both offerings.

This table should be read in conjunction with our financial statements and the accompanying notes and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in the annual, quarterly and other reports filed by us with the SEC, which are incorporated by reference in this prospectus supplement and the accompanying prospectus.

	<b>As of September 30, 2013</b>		
	<b>Actual</b>	<b>Pro Forma</b>	<b>Pro Forma As Adjusted</b>
	<b>(in thousands, except share data)</b>		
Cash and cash equivalents	\$ 17,814	\$ 36,264	\$ 54,929
Warrant liabilities and note payable(1)	\$ 4,841	\$ 4,841	\$ 4,841
<b>Stockholders' equity:</b>			
Preferred stock, at stated value; 10,000,000 shares authorized, and no shares issued and outstanding at September 30, 2013, actual, pro forma and pro forma as adjusted			
Common stock, \$0.001 par value; 150,000,000 shares authorized, and 59,890,877 shares issued and outstanding at September 30, 2013, actual, 69,890,877 shares issued and outstanding at September 30, 2013, pro forma, and 74,890,877 shares issued and outstanding at September 30, 2013, pro forma as adjusted	60	70	75
Additional paid-in capital(1)	266,077	284,517	303,177
Accumulated deficit	(254,643)	(254,643)	(254,643)
Total stockholders' equity	11,494	29,944	48,609
<b>Total capitalization</b>	<b>\$ 16,335</b>	<b>\$ 34,785</b>	<b>\$ 53,450</b>

- (1) The warrants issued in connection with this offering and the December 2013 offering may be accounted for as warrant liabilities, which would increase warrant liabilities and decrease additional paid-in capital on a pro forma and pro forma as adjusted basis, but would not impact total capitalization.

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Our common stock is listed on the NASDAQ Capital Market under the symbol ATHX. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock as reported on the NASDAQ Capital Market.

	<b>High</b>	<b>Low</b>
<b>Year ending December 31, 2014</b>		
First Quarter (through January 9, 2014)	\$ 4.33	\$ 2.51
<b>Year ending December 31, 2013</b>		
Fourth Quarter	\$ 2.52	\$ 1.52
Third Quarter	\$ 1.99	\$ 1.47
Second Quarter	\$ 2.42	\$ 1.54
First Quarter	\$ 1.89	\$ 1.07
<b>Year ending December 31, 2012</b>		
Fourth Quarter	\$ 1.47	\$ 0.95
Third Quarter	\$ 1.75	\$ 1.35
Second Quarter	\$ 1.71	\$ 1.25
First Quarter	\$ 2.33	\$ 1.49

The last reported sale price of our common stock on the NASDAQ Capital Market on January 9, 2014 was \$4.05 per share.

 **Holders**

As of January 9, 2014, there were approximately 543 holders of record of our common stock. Additionally, shares of common stock are held by financial institutions as nominees for beneficial owners that are deposited into participant accounts at DTC, which are considered to be held of record by Cede & Co. and are included in the holders of record as one stockholder.

 **Dividend Policy**

We would have to rely upon dividends and other payments from our wholly-owned subsidiary, ABT Holding Company, to generate the funds necessary to make dividend payments, if any, on our common stock. ABT Holding Company, however, is legally distinct from us and has no obligation to pay amounts to us. The ability of ABT Holding Company to make dividend and other payments to us is subject to, among other things, the availability of funds and applicable state laws. However, there are no restrictions such as government regulations or material contractual arrangements that restrict the ability of ABT Holding Company to make dividend and other payments to us. We did not pay cash dividends on our common stock during the past three years ended December 31, 2012. We do not anticipate that we will pay any dividends on our common stock in the foreseeable future. Rather, we anticipate that we will retain earnings, if any, for use in the development of our business.

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**DESCRIPTION OF SECURITIES WE ARE OFFERING**

*The shares of common stock and warrants and the shares of common stock issuable upon exercise of the warrants offered in this offering will be issued pursuant to a securities purchase agreement between each of the investors and us. We urge you to review the securities purchase agreement and the form of warrant, which are included as exhibits to a current report on Form 8-K filed with the SEC in connection with this offering, for a complete description of the terms and conditions applicable to the securities. The following brief summary of the material terms and provisions of the warrants is subject to, and qualified in its entirety by, the form of warrant. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon exercise, if any, of the warrants issued to the investors in this offering. The securities will be sold in multiples of a fixed combination consisting of (i) one share of common stock and (ii) one immediately exercisable warrant to purchase 0.30 shares of common stock. We are offering the fixed combination at a negotiated price of \$4.10 per fixed combination.*

**Common Stock**

The following description of our common stock is a summary. It is not complete and is subject to and qualified in its entirety by our certificate of incorporation and bylaws, as amended, a copy of each of which has been incorporated as an exhibit to the registration statement of which this prospectus supplement forms a part.

As of the date of this prospectus supplement, our certificate of incorporation authorizes us to issue 150,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share.

A description of the general terms and provisions of our common stock and each other class of our securities that qualifies or limits our common stock is set forth under the caption **Description of Common Stock** on page 7 of the accompanying prospectus.

**Warrants**

The warrants offered in this offering will be issued in registered form pursuant to a securities purchase agreement between each of the investors and us. You should review a copy of the securities purchase agreement, and the form of warrant, which have been filed as exhibits to a current report on Form 8-K filed with the SEC in connection with this offering, for a complete description of the terms and conditions applicable to the warrants. The following is a brief summary of the warrants and is subject in all respects to the provisions contained in the warrants.

*Exercisability.* The warrants are exercisable at any time on or after the original date of issuance and expire on July 15, 2016. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). The number of warrant shares that may be acquired by any holder upon any exercise of the warrant will be limited to the extent necessary to insure that, following such exercise (or other issuance), the total number of shares of common stock then beneficially owned by such holder and its affiliates and any other persons whose beneficial ownership of common stock would be aggregated with the holder's for purposes of Section 13(d) of the Exchange Act does not exceed either 4.99% or 9.99%, depending on the holder's initial election, of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such exercise). We refer to this as the beneficial ownership limitation. The holder may elect to increase or decrease this beneficial ownership limitation to any other percentage, but not in excess of 9.99% of the total number of issued and outstanding shares of common stock (including for such purpose the shares of common stock issuable upon such exercise), provided that any such increase or decrease will not be effective until 61 days after such written notice is delivered.

*Cashless Exercise.* If at any time during the warrant exercisability period there is no effective registration statement registering, or the prospectus contained in any registration statement is not available for, the issuance of the shares of common stock issuable upon exercise of the warrants, the warrants may be exercised by means of a cashless exercise in which a warrant holder will be entitled to surrender a portion of the shares of common stock subject to the warrant in lieu of cash for the exercise price.

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*Exercise Price.* The exercise price of the warrants is \$4.50. The exercise price is subject to appropriate adjustment in the event of stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

*Transferability.* Subject to applicable securities laws, the warrants may be transferred at the option of the holders upon surrender of the warrants to us together with the appropriate instruments of transfer.

*Listing.* There is no established public trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange.

*Fundamental Transactions.* If, while any warrants are outstanding, we consummate any fundamental transaction, as described in the warrants and generally including any consolidation or merger into another corporation, the consummation of a transaction whereby another entity acquires more than 50% of our outstanding voting stock, or the sale, lease, license, assignment, transfer, conveyance or other disposition of substantially all of our assets, the holder of any outstanding warrants will receive upon exercise of the warrants, the securities or other consideration to which a holder of the number of shares of common stock then deliverable upon the exercise of such warrants would have been entitled upon the fundamental transaction. Furthermore, we cannot enter into a fundamental transaction unless the successor entity assumes in writing all of our obligations to the warrant holders.

*Rights as a Stockholder.* Except as otherwise provided in the warrants or by virtue of a holder's ownership of shares of our common stock, the holders of the warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their warrants.

*Waivers and Amendments.* Any term of the warrants may be amended or waived with our written consent and the written consent of the holders of warrants.



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Pursuant to a placement agency agreement between us and Maxim Group LLC, we have engaged Maxim Group LLC as the lead placement agent in connection with this offering. Maxim Group LLC has retained First Analysis Securities Corporation to act as co-placement agents in connection with this offering. The placement agents are not purchasing or selling any of the securities we are offering, and are not required to arrange the purchase or sale of any specific number of securities or dollar amount, but the placement agents have agreed to use reasonable best efforts to arrange for the sale of the securities.

The placement agency agreement provides that the obligations of the placement agents are subject to certain conditions precedent, including, among other things, the absence of any material adverse change in our business and the receipt of customary opinions and closing certificates.

The placement agents propose to arrange for the sale of the securities we are offering pursuant to this prospectus supplement to one or more investors through securities purchase agreements directly between the purchasers and us. All of the securities will be sold at the same price and, we expect, at a single closing. We established the price following negotiations with prospective investors and with reference to the prevailing market price of our common stock, recent trends in such price and other factors. It is possible that not all of the securities we are offering pursuant to this prospectus supplement will be sold at the closing, in which case our net proceeds would be reduced. We expect that the sale of the securities will be completed on the date indicated on the cover page of this prospectus supplement.

**Commissions and Expenses**

We will pay the placement agents a placement agent fee equal to 7.0% of the gross proceeds of this offering. The following table shows the per share and total placement agent fee we will pay to the placement agents in connection with the sale of the securities, assuming the purchase of all of the securities we are offering.

Per fixed combination	\$ 0.287
Total	\$ 1,435,000

WBB Securities, LLC, or WBB, has acted as our financial advisor, and will be paid a fee of \$100,000, in connection with this offering. WBB is not acting as a placement agent in connection with this offering, and, accordingly, WBB is not offering any shares of our common stock in connection with this offering.

We estimate the total expenses of this offering, which will be payable by us, excluding the placement agent fee, will be approximately \$400,000. The maximum fees to be received by any member of the Financial Industry Regulatory Association, or FINRA, or independent broker-dealer may not be greater than eight percent (8%) of the initial gross proceeds from the sale of any shares of common stock being offered hereby. After deducting the placement agent fee due to the placement agents and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$18.7 million.

We have agreed to indemnify the placement agents against certain liabilities, including liabilities under the Securities Act of 1933. We have also agreed to contribute to payments the placement agents may be required to make in respect to such liabilities.

We, along with our executive officers and directors, have agreed to certain lock-up provisions with regard to future sales of our common stock for a period of 90 days after the offering. See **No Sales of Similar Securities**.

The placement agency agreement is included as Exhibit 1.1 to our Current Report on Form 8-K filed with the SEC in connection with this offering.

**No Sales of Similar Securities**

We and our executive officers and directors have agreed, subject to certain exceptions, not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, other than the securities that we may sell in this offering, for 90 days after the date of this prospectus supplement. Specifically, we and these other individuals have agreed, as applicable, not to directly or indirectly offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise)), including the filing (or participation in the filing) of a registration statement with the SEC in respect of, or establish or increase a put equivalent position or liquidate or

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decrease a call equivalent position within the meaning of Section 16 of the Exchange Act with respect to, any shares of common stock or any of our or our subsidiaries' securities that would entitle the holder thereof to acquire at any time common stock beneficially owned, held or hereafter acquired by such holder.

The foregoing restrictions with respect to our officers and directors do not apply to:

transfers as a bona fide gift or gifts, provided that the donee or donees thereof agree to be bound in writing by the restrictions set forth above;

transfers to any trust for the direct or indirect benefit of such holder or the immediate family of such holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth above, and provided further that any such transfer shall not involve a disposition for value;

with the prior written consent of the investors, the acquisition or exercise of an option or warrant to purchase shares of, or any other equity award for, common stock (or any securities convertible into or exercisable or exchangeable for common stock), including the sale of a portion of stock to be issued in connection with such exercise to finance a cashless exercise, provided that any such shares issued upon exercise of such option or warrant (or any securities convertible into or exercisable or exchangeable for common stock) shall continue to be subject to the applicable restrictions set forth above;

the purchase or sale of our securities pursuant to a plan, contract or instruction that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) of the Exchange Act that was in effect prior to the date hereof; or

the disposition of shares of common stock to satisfy any tax withholding obligations upon the vesting of shares of restricted common stock or other equity award held by such holder.

The foregoing restrictions with respect to us do not apply to:

securities offered in this offering, including upon conversion of the warrants;

any shares of common stock issued upon the exercise of an option or warrant or the conversion of a security outstanding on the date of this prospectus supplement;

any shares of common stock issued or options to purchase common stock granted to employees, directors and/or consultants pursuant to our equity compensation plans; and

any shares of common stock issued as consideration for mergers, acquisitions, other business combinations, or strategic alliances.

## **Listing**

Our common stock is listed on the Nasdaq Capital Market under the symbol ATHX. There is no established public trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange.

## **Electronic Distribution**

This prospectus supplement and the accompanying prospectus may be made available in electronic format on websites or through other online services maintained by the placement agents, or by their respective affiliates. Other than this prospectus supplement and the accompanying prospectus in electronic format, the information on the placement agents' websites and any information contained in any other websites maintained by the placement agents is not part of this prospectus supplement or the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus forms a part, has not been approved and/or endorsed by us or the placement agents, and should not be relied upon by investors.

The foregoing does not purport to be a complete statement of the terms and conditions of the placement agency agreement and s