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Treatment With Aastrom's Ixmyelocel-T Shown to Reduce Incidence of Major Adverse Cardiovascular Events in Patients With Ischemic Dilated Cardiomyopathy

Results From Phase 2a IMPACT-DCM and Catheter-DCM Studies Published in Circulation Research

ANN ARBOR, Mich., Aug. 22, 2014 (GLOBE NEWSWIRE) -- Aastrom Biosciences, Inc. (Nasdaq:ASTM), the leading developer of patient-specific expanded cellular therapies for the treatment of severe diseases and conditions, today announced that results from the company's Phase 2a clinical studies of ixmyelocel-T for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy (DCM) were published in the peer-reviewed journal *Circulation Research.* In an article entitled "*Safety and Efficacy of Ixmyelocel-T: An Expanded, Autologous Multi-Cellular Therapy, in Dilated Cardiomyopathy,*" results showed that treatment with ixmyelocel-T reduced the incidence of major adverse cardiovascular events (MACE) in patients with ischemic DCM.

In two separate open-label studies, a total of 61 patients were randomized and 59 were treated or received standard of care. The combined results among ischemic DCM patients demonstrated that patients treated with ixmyelocel-T experienced fewer MACE events during follow up compared to control patients. Heart failure (HF) exacerbation was the most common MACE. Relative to the control patients, ischemic DCM patients treated with ixmyelocel-T also experienced an improvement in symptoms as measured by the New York Heart Association classification system, a six-minute walk test, and the Minnesota Living with Heart Failure Questionnaire. Similar benefits were not observed in the non-ischemic population.

"The publication of results from the two Phase 2a trials in a peer-reviewed journal is further validation that the available evidence supports continued development of ixmyelocel-T as a treatment for patients with ischemic dilated cardiomyopathy. We currently are enrolling a larger, Phase 2b trial and hope to replicate these very promising results. People living with ischemic DCM are often severely compromised and have very limited treatment options available, so these results are especially encouraging," said Dave Recker, M.D., Aastrom's chief medical officer.

Ixmyelocel-T is a patient-specific, expanded multicellular therapy manufactured from the patient's own bone marrow using Aastrom's proprietary, highly automated, fully closed cell-processing system. This process selectively expands the population of mesenchymal stromal cells and alternatively activated macrophages, which are responsible for production of anti-inflammatory and pro-angiogenic factors known to be important for repair of damaged tissue.

"Based upon these results, we see great promise in the use of ixmyelocel-T to treat dilated cardiomyopathy and are working aggressively to advance this development program to the final stages of clinical research and regulatory review," Dr. Recker added. "As recently announced, we are on pace to enroll 108 patients by year end in the Phase 2b ixCELL-DCM clinical trial of ixmyelocel-T for the treatment of advanced heart failure due to DCM."

About Aastrom Biosciences

Aastrom Biosciences is the leader in developing patient-specific expanded cellular therapies for use in the treatment of patients with severe diseases and conditions. Aastrom markets two autologous cell therapy products in the United States for the treatment of cartilage repair and skin replacement. Aastrom is also developing MACI™, a third-generation autologous chondrocyte implant for the treatment of cartilage defects in the knee, and ixmyelocel-T, a patient-specific multicellular therapy for the treatment of advanced heart failure due to ischemic dilated cardiomyopathy. For more information, please visit Aastrom's website at www.aastrom.com.

The Aastrom Biosciences, Inc. logo is available at http://www.globenewswire.com/newsroom/prs/?pkgid=3663

This document contains forward-looking statements, including, without limitation, statements concerning anticipated progress, objectives and expectations regarding the commercial potential of our products and growth in revenues, intended product development, clinical activity timing, and objectives and expectations regarding the business opportunity described herein, all of which involve certain risks and uncertainties. These statements are often, but are not always, made through the use of words or phrases such as "anticipates," "intends," "estimates," "plans," "expects," "we believe," "we intend," and similar words or phrases, or future or conditional verbs such as "will," "would," "should," "potential," "could," "may," or similar expressions. Actual results

may differ significantly from the expectations contained in the forward-looking statements. Among the factors that may result in differences are the inherent uncertainties associated with competitive developments, clinical trial and product development activities, regulatory approval requirements, the availability and allocation of resources among different potential uses, estimating the commercial potential of our products and product candidates and growth in revenues, market demand for our products, and our ability to supply or meet customer demand for our products. These and other significant factors are discussed in greater detail in Aastrom's Annual Report on Form 10-K for the year ended December 31, 2013, filed with the Securities and Exchange Commission ("SEC") on March 13, 2014, Quarterly Reports on Form 10-Q and other filings with the SEC. These forward-looking statements reflect management's current views and Aastrom does not undertake to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this release except as required by law.

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