# Aastrom Biosciences Awarded NIH Grant to Develop Immunotherapy for the Treatment of Malignant Melanoma

## -- Aastrom's Proprietary Technology Used to Produce Therapeutic Quantities of T-Cells --

**Ann Arbor, Michigan, April 22, 2004** -- Aastrom Biosciences, Inc. (NasdaqSC: ASTM) today announced that it has received a Phase I Small Business Innovation Research (SBIR) grant from the National Institutes of Health (NIH) National Cancer Institute to develop an immunotherapeutic treatment of malignant melanoma utilizing its AastromReplicell™ System cell production technology. The $124,000, 8-month study is designed to demonstrate the feasibility and advantages of using Aastrom's proprietary technology to expand T-lymphocytes, or T-cells, from patients' tumors or peripheral blood for a treatment against malignant melanoma.

Currently, there are limited effective therapies for late-stage malignant melanoma cancer. However, recent studies conducted by Drs. Mark Dudley and Steven Rosenberg, and colleagues at the National Cancer Institute, have demonstrated that T-cells derived from the patient's own immune system and expanded in culture can specifically recognize and destroy malignant tumor cells. (Science, Volume 298, October 25, 2002, pgs. 850-854) An emerging therapeutic strategy known as "adoptive immunotherapy" involves large-scale T-cell expansion in culture outside the body to increase the number of tumor-specific T-cells, followed by infusion or "adoptive transfer" of these activated autologous lymphocytes back to the patient. Adoptive T-cell therapy has been shown in small-scale clinical studies to cause measurable reduction of melanoma tumors, including patients with late-stage disease after metastasis to multiple organs.

In this grant-funded study, Aastrom's automated cell production system is intended to fulfill an unmet clinical need for consistent, reliable and reproducible T-cell production under stringent regulatory conditions with potentially improved immunological and therapeutic potency for immunotherapy of cancer. The Company's patented, core technologies consisting of closed-system automation and single-pass medium perfusion may enable more widespread evaluation and delivery of these important cellular therapies.

"We have previously shown that our technologies are effective for the production of human T-cell lymphocytes, and may provide a viable method for producing more active T-cells intended for use in immunotherapies, as well as clinical-scale production," said R. Douglas Armstrong, Ph.D., Chairman, President and Chief Executive Officer of Aastrom. "This NIH grant gives Aastrom the opportunity to explore a new and important therapeutic direction utilizing our established proprietary technology to develop novel cell-based treatments for cancer."

### About Malignant Melanoma

Malignant melanoma is a malignant neoplasm derived from cells that are capable of forming melanin, which may occur in the skin of any part of the body, in the eye, or rarely, in the mucous membranes of other sites. Melanomas occur most often in adults, and frequently metastasize to the regional lymph nodes, liver, lungs and brain. The incidence of malignant skin melanomas is rising rapidly in all parts of the world.

### About Aastrom Biosciences, Inc.

Aastrom Biosciences, Inc. (NasdaqSC: ASTM) is a late-stage development company focused on human cell-based therapies. The AastromReplicell™ System - a patented, integrated system of instrumentation and single-use consumable kits for the production of patient-specific cells - is the Company's core technology for its Prescription Cell Products (PCP) business and its Cell Production Products (CPP) business. The principal focus of the PCP business is the repair or regeneration of tissue intended for large markets such as bone grafting and vascular systems. Aastrom is currently engaged in clinical trials of its bone graft product in both the U.S. and Europe. The CPP business markets the AastromReplicell™ System to researchers and companies for their production of cells for clinical trials. These two businesses are intended to enable Aastrom to generate multiple paths to revenue. The initial commercial phase of the CPP business for dendritic cell production products is underway in Europe and the United States. For more information, visit Aastrom's website at www.aastrom.com.

This document contains forward-looking statements, including without limitation, statements regarding the potential results of research studies, product development objectives, and potential advantages and applications of the AastromReplicellTM System, which involve certain risks and uncertainties. The forward-looking statements are also identified through use of the words "intended," "may," "potentially," "can," and other words of similar meaning. Actual results may differ significantly from the expectations contained in the forward-looking statements. Among the factors that may result in differences are the results

obtained from research and development activities, and the availability of resources. These and other significant factors are discussed in greater detail in Aastrom's Annual Report on Form 10-K and other filings with the Securities and Exchange Commission.

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