

PRESS RELEASE

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XCYTE THERAPIES, INC., BEGINS CONSTRUCTION OF NEW FACILITY TO MANUFACTURE XCELLERATED T CELLS

Seattle, WA-April 29, 2004 - Xcyte Therapies, Inc., (Nasdaq: XCYT) announced today that it has begun construction of a manufacturing facility intended for the eventual commercial production of its most advanced product, Xcellerated T Cells. The initial phase of construction is planned to create sufficient capacity for Xcyte to conduct pivotal trials of Xcellerated T Cells beginning in 2005. The facility is located in Bothell, Washington.

"Xcyte has devoted considerable effort to the development of a commercially feasible process for the manufacture of Xcellerated T Cells," said Stewart Craig, Ph.D., Chief Operating Officer and Vice President of Xcyte Therapies. "With the projected completion of this facility later this year, we expect to manufacture Xcellerated T Cells for pivotal trials in the same facility we plan to use for initial commercial manufacture, if Xcellerated T Cells and the facility receive FDA approval."

Following completion of the first phase of construction, the facility will be able to manufacture Xcellerated T Cells to meet Xcyte's current and projected needs for clinical trials. Subsequent phases will increase this capacity to approximately 18,000 patients per year. Capital expenses for the first phase of construction are expected to be approximately \$4 million in 2004.

"Xcyte is using the funds raised in the recent initial public offering of our stock to advance our clinical trials of Xcellerated T Cells in chronic lymphocytic leukemia, non-Hodgkin's lymphoma, and multiple myeloma," said Ron Berenson, President and Chief Executive Officer of Xcyte Therapies. "Our goal is to initiate pivotal trials in one or more of these diseases in 2005, and construction of this facility is an important step in reaching that goal."

Xcyte Therapies is developing novel therapies that harness the power of the immune system to treat cancer and other serious illnesses. Xcyte derives its therapeutic products from a patient's own T cells, which are cells of the immune system that orchestrate immune responses and can detect and eliminate cancer cells and infected cells in the body. Xcyte uses its patented and proprietary Xcellerate Technology to generate activated T cells, called Xcellerated T Cells, from blood that is collected from the patient. Activated T cells are T cells that have been stimulated to carry out immune functions. The Xcellerate Technology is designed to rapidly activate and expand the number of the patient's T cells outside of the body. These Xcellerated T Cells are then administered to the patient.

Note: Certain of the statements made in this press release are forward-looking, such as those, among others, relating to the timing of pivotal trials of Xcellerated T Cells, the possible regulatory approval of Xcellerated T Cells, the adequacy of our funding to achieve our goal of reaching pivotal trials in 2005, and the costs of building of the manufacturing facility. Actual results or developments may differ materially from those projected or implied in these forward-looking statements. Factors that may cause such a difference include risks related to adverse clinical results as our product candidates move into and advance in clinical trials, risks inherent in early-stage development, unexpected expenses and failure by Xcyte Therapies to secure or maintain relationships with collaborators. More information about the risks and uncertainties faced by Xcyte Therapies is contained in our filings with the Securities and Exchange



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