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**Onconova Therapeutics Begins Phase I Clinical Trial
of Anti-Cancer Agent**

JULY 26, 2004 – PRINCETON, NJ – Onconova Therapeutics, Inc., a privately-held company focused on cancer therapy, announced today that enrollment has started for the company's Phase I clinical trial of ON 01910.Na, an investigational anti-tumor agent with a novel mechanism of action. Discovered by a team led by Dr. E. Premkumar Reddy, a pioneer in cancer biology, ON 01910.Na is the first in a new class of non-ATP competitive kinase inhibitors that can discriminate between cancerous and normal cells by targeting specific checkpoints in the cell cycle. This study marks the agent's first use in humans and is designed to measure the safety of ON 01910.Na when administered intravenously to patients with advanced and metastatic cancers. The study will evaluate data from up to 28 patients.

"We have discovered several novel agents for cancer treatment and radiation protection based on new chemical entities (NCEs) that have a unique mechanism of interaction with validated cancer molecular targets known as kinases, involved in the regulation of cell-cycle and apoptotic pathways. ON 01910.Na is the first of these to enter the clinic and represents an important milestone for the company," stated Dr. E. Premkumar Reddy, scientific founder of the company and Director of the Fels Institute for Molecular Biology and Cancer Research, Temple University, Philadelphia, PA.

The Phase I study is being conducted at the Johns Hopkins Kimmel Cancer Center, Baltimore, MD, by Dr. Ross C. Donehower, Director, Division of Medical Oncology. The Johns Hopkins Kimmel Cancer Center is an internationally renowned National Cancer Institute (NCI) Comprehensive Cancer Center, a premier site for Phase I cancer drug clinical studies. Dr. Donehower did pioneering work in clinical studies of paclitaxel, one of the most successful chemotherapy drugs available today.

ON 01910.Na is a potent kinase inhibitor with a new spectrum and mode of activity against several molecular targets associated with malignancy. In pre-clinical animal studies, ON 01910.Na was active against most tumor types, including those resistant to standard chemotherapy, and did not exhibit common toxic effects of chemotherapy such as anemia or weight loss.

“We have been working with Onconova for more than two years and have evaluated ON 01910.Na in laboratory and animal models of human cancer. ON 01910.Na exhibited a high therapeutic index, was active against a variety of tumor types, and was highly effective in combination with standard chemotherapy,” said Dr. James Holland, Distinguished Professor of Neoplastic Diseases, Mount Sinai Medical Center, New York.

About Onconova

Onconova Therapeutics, Inc., discovers and develops drugs that employ novel approaches to combating cancer. In addition to ON 01910.Na, Onconova is developing Ex-RAD™, a radiation protecting agent in pre-clinical testing, and a bcr-abl kinase inhibitor aimed at Gleevec®-resistant cancer cells. For additional information on Onconova Therapeutics Inc., visit the company’s website at www.onconova.com.

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