



For Immediate Release

**OncoMed Pharmaceuticals Initiates Phase 1 Clinical Trial of
Anti-Cancer Stem Cell Therapeutic OMP-59R5**

Redwood City, CA – January 10, 2011 - OncoMed Pharmaceuticals, Inc., a company developing novel therapeutics that target cancer stem cells, today announced that patient dosing has commenced in a Phase 1 clinical trial of OMP-59R5 in patients with advanced solid tumor cancers.

OMP-59R5 is a monoclonal antibody that binds selected Notch receptors and is the first antibody to specifically block these targets to enter human studies. The Phase 1 clinical trial of OMP-59R5 is a single-agent study designed to evaluate the safety of escalating doses of OMP-59R5 in patients who have received prior treatment with standard chemotherapeutics. The study will also assess pharmacokinetics, biomarkers and initial indications of efficacy. The Phase 1 trial is being conducted at leading U.S. cancer treatment centers. Preclinical studies have demonstrated that OMP-59R5 decreases the frequency of tumor-initiating cells across a variety of tumor types.

“The advancement of our second antibody into the clinic represents an important milestone for OncoMed, demonstrating our robust and productive drug discovery capabilities and steady execution on our objectives for our programs,” said Paul Hastings, President and Chief Executive Officer of OncoMed Pharmaceuticals. “In just a few short years, we have established a rich pipeline of first-in-class anti-cancer stem cell therapeutics with the potential to dramatically transform cancer treatment by directly targeting tumor-initiating cells.”

OMP-59R5 is part of OncoMed’s collaboration with GlaxoSmithKline (GSK) and its advancement to the clinic triggers a milestone payment from GSK for the company. In December 2007, OncoMed and GSK entered into a strategic alliance valued at up to \$1.4 billion to develop cancer stem cell antibody therapeutics targeting the Notch signaling pathway. OncoMed is currently conducting Phase 1 single agent and Phase 1b combination studies of its first Notch-pathway candidate, OMP-21M18, in patients with a variety of advanced solid tumors. Preliminary results from OncoMed’s Phase 1 dose-escalating single-agent study of OMP-21M18 demonstrate positive indications of disease control and tumor responses as measured by RECIST criteria. In addition, biomarker measurements show that OMP-21M18 is a potent inhibitor of Notch signaling. Initial data from this ongoing study were presented at the 22nd

EORTC-NCI-AACR symposium on “Molecular Targets and Cancer Therapeutics” held November 16-19, 2010 in Berlin, Germany.

About Cancer Stem Cells

Cancer stem cells, a small, resilient subset of cells found in tumors, have the capacity to self-renew and differentiate, leading to tumor initiation and driving tumor growth, recurrence and metastasis. Also referred to as “tumor-initiating cells,” these cells were first discovered by OncoMed’s scientific founders in breast cancer and have subsequently been identified in many other types of solid tumor cancers, including cancer of head and neck, lung, prostate, pancreas and glioblastoma. Cancer stem cells appear to be preferentially resistant to both standard chemotherapy and radiotherapy. OncoMed’s strategy is to improve cancer treatment by specifically targeting the key biologic pathways which are thought to be critical to the activity and survival of cancer stem cells. OncoMed’s antibody therapeutics target cancer stem cell proteins and have the potential to be developed against a range of tumor types.

About OncoMed Pharmaceuticals

OncoMed Pharmaceuticals is a clinical-stage company that discovers and develops novel therapeutics targeting cancer stem cells, the cells believed to be capable of driving tumor growth, recurrence and metastasis. A leader in cancer stem cell research, the company has established a library of antibodies to cancer stem cell proteins for the treatment of solid tumors such as pancreatic, breast, colorectal and lung cancers. OncoMed has advanced two anti-cancer stem cell monoclonal antibodies into the clinic, OMP-21M18 and OMP-59R5, which both target the Notch signaling pathway. In addition, OncoMed’s pipeline includes several novel preclinical product candidates targeting multiple validated cancer stem cell pathways. OncoMed has formed strategic alliances with Bayer Schering Pharma and GlaxoSmithKline. Privately-held, OncoMed’s investors include: US Venture Partners, Latterell Venture Partners, The Vertical Group, Morgenthaler Ventures, Nomura Phase4 Ventures, Delphi Ventures, Adams Street Partners, De Novo Ventures, Bay Partners and GlaxoSmithKline. Additional information can be found at the company’s website: www.oncomed.com.

Contacts:

OncoMed Pharmaceuticals
Paul Hastings
President and Chief Executive Officer
William D. Waddill
Senior Vice President, Chief Financial
Officer
(650) 995-8200
phastings@oncomed.com
william.waddill@oncomed.com

BCC Partners
Karen L. Bergman or
Michelle Corral
(650) 575-1509 or (415) 794-8662
kbergman@bccpartners.com or
mcorral@bccpartners.com

###