



For Immediate Release

The New England Journal of Medicine Publishes Study Identifying A Tumorigenic Cancer Cell Gene Signature That Appears Predictive Of Clinical Outcomes

MOUNTAIN VIEW, Calif., Jan. 17 /PRNewswire/ -- OncoMed Pharmaceuticals, a company developing novel therapeutics that target cancer stem cells, today announced the publication in the New England Journal of Medicine of the discovery of a novel gene expression signature associated with tumorigenic breast cancer cells, also known as cancer stem cells. Cancer stem cells, a small subset of cells found in solid tumors, have the capacity to self-renew and differentiate, initiate tumors and drive tumor growth, recurrence and metastasis. Researchers found that the gene expression signature is highly correlated with clinical outcomes in patients with breast cancer and certain other types of solid tumors. The study, titled "The Prognostic Role of a Gene Signature from Tumorigenic Breast Cancer Cells," was conducted collaboratively by researchers at OncoMed Pharmaceuticals, the University of Michigan and Stanford University, including the lab of OncoMed co-founder Michael Clarke, MD, currently Deputy Director of the Stanford Institute for Stem Cell Biology and Regenerative Medicine.

The data published today describes a set of 186 specific genes, dubbed, the "invasiveness" gene signature or IGS, that are differentially expressed in tumorigenic cells relative to normal breast tissue. Using breast cancer patient information from the Netherlands Cancer Institute and the Erasmus Medical Center, two large published gene expression and clinical databases, study authors evaluated the relationship between the IGS and patient outcomes. Researchers found that among patients whose tumor gene expression profiles correlated to the IGS, there was a statistically significant increase in risks of breast cancer metastasis and reduced survival rates. The predictive power of the IGS was independent of established clinical and pathological criteria, such as tumor size, lymph node status, histologic grade and estrogen receptor status. In addition, researchers found that the IGS was also predictive of clinical outcomes in individuals with prostate cancer, lung cancer and medulloblastoma. These findings suggest that this cancer stem cell gene signature may be used to identify patients at the highest risk for disease recurrence and metastasis. A series of patent applications were filed by OncoMed and the University of Michigan covering this discovery and its potential applications and are owned by or licensed to OncoMed.

"We are excited about these data and their potential application to the diagnosis and treatment of cancer. The newly identified 186 cancer stem cell gene signature was

observed to be highly predictive of breast cancer, independent of other factors typically used to forecast a patient's prognosis," said John Lewicki, PhD, Senior Vice President Research and Development of OncoMed Pharmaceuticals. "Interestingly, we found that the gene signature appeared to correlate to the risk of death and metastasis for multiple tumor types, demonstrating the central importance of cancer stem cells in the recurrence and progression of solid tumors."

"This study published in today's New England Journal of Medicine further adds to the substantial body of data establishing the central role of cancer stem cells in tumor growth, recurrence and metastases," said Paul Hastings, OncoMed's President and Chief Executive Officer. "We believe the discovery of a novel tumorigenic gene expression signature may prove important in identifying patients at highest risk and selecting those individuals most likely to respond to therapies, including cancer stem cell-directed treatments."

In another aspect of the work reported today, when the tumorigenic stem cell signature was combined with a 512-gene wound response signature previously published by Stanford University investigators, the resulting data were even more significant in predicting a patient's outcome, thus pointing to a potential dependency between cancer stem cells and their surrounding tumor environment.

About OncoMed Pharmaceuticals

OncoMed Pharmaceuticals is discovering and developing new treatments targeting cancer stem cells, a recently discovered type of cell believed to seed the growth of cancers and underlie cancer's ability to metastasize. In its brief history, the company has become a leader in the research of cancer stem cells and the identification of novel targets on the cancer stem cell.

OncoMed is funded by leading venture capital firms, including Laterell Venture Partners, US Venture Partners, Morgenthaler Ventures and the Vertical Group. Information can also be found at the company's website www.oncomed.com.

OncoMed Pharmaceuticals

CONTACT: Paul Hastings, President and CEO of OncoMed Pharmaceuticals, +1-650-938-9400, or Paul.hastings@oncomed.com; or Karen Bergman, +1-415-575-1509, or kbergman@bccpartners.com, or Nan Foster, +1-415-307-6955, or nfoster@bccpartners.com, both of BCC Partners, for OncoMed Pharmaceuticals