



Agency Sponsored Research Projects

Organization: Stanford University Cancer Center
Lead Researcher: Dr. Heather Wakelee
Project Title: Expanding the use of bevacizumab in lung cancer therapy

Project Summary:

Lung cancer is the deadliest form of cancer, with less than half of its victims living more than one year after their diagnosis. To combat this deadly disease, researchers at Stanford University have developed a strong clinical lung cancer research program to test new applications of one of the most promising lung cancer drugs now available.

This project will explore new applications of bevacizumab, a cancer drug developed by Genentech and commonly known as Avastin. The drug, which works by blocking new blood vessel formation in tumors, has been the first to provide a significant survival advantage for patients with advanced lung cancer when added to traditional chemotherapy. However, nearly half of the patients with lung cancer are ineligible to receive treatment because of potential side effects such as bleeding.

Dr. Wakelee's team will use clinical trials to explore the use of bevacizumab among three lung cancer populations that are currently ineligible to receive bevacizumab:

- Patients whose cancer has spread to the brain.
- Patients who are receiving an alternative pair of chemotherapy drugs (carboplatin and gemcitabine) that is often better tolerated than the standard regimen of carboplatin and paclitaxel.
- Patients in the early stages of the disease who have had lung cancer surgery.

If shown to be safe and effective for these new populations, Bevacizumab has the potential to increase survival rates among these lung cancer populations and avoid many common side effects caused by other forms of treatment.

About the Lead Researcher:

Dr. Heather Wakelee is an Assistant Professor of Medicine at Stanford University in the Division of Oncology where she is the co-leader of the lung cancer disease management group. She attended Princeton University as an undergraduate with a major in molecular biology. She stayed on the East Coast for medical school at Johns Hopkins before returning to her native California for internal medicine residency and fellowship training in medical oncology at Stanford University. Dr. Wakelee's focus is in clinical research in lung cancer patients. She has a particular interest in anti-angiogenesis agents. She is the principal investigator of the ongoing international lung cancer intergroup trial E1505 that is investigating the potential role of

bevacizumab in addition to adjuvant chemotherapy for resected early stage non-small cell lung cancer. As part of the developmental therapeutics group at Stanford she is involved in phase I trials of many exciting compounds, with an eye towards further development of them in lung cancer. Additionally, she has research interests in sex differences in lung cancer and the issue of lung cancer in never smokers.