

## Cancer Advances: Personalized Cancer Vaccines May Provide Future Benefits for Lung Cancer Patients

From the February 15, 2003 issue of the *Journal of Clinical Oncology* [Read the Study \[1\]](#) Scientists have known for several years that the body's immune system can attack certain types of cancer cells. Based on this knowledge, researchers are working to develop "therapeutic cancer vaccines" that boost the immune system's response to cancer and help patients fight the disease. Now, scientists have found a new way to create cancer vaccines that may eventually help some patients with lung cancer, the leading cause of cancer death among both men and women. In a recent study led by Dr. Glenn Dranoff, of the Dana-Farber Cancer Institute, researchers used a genetically engineered virus and patients' own tumor cells to create personalized vaccines against non-small cell lung cancer. After taking tissue from patients' tumors, the researchers infected the cells with the engineered virus in a laboratory. This generally harmless virus causes the cells to produce a protein that stimulates the immune system. When the treated cells were injected back into the patients' bodies, the researchers found evidence of immune responses against the cancer in most of the patients who were treated. The procedure also appeared to be very safe, causing no serious side effects. **What Does This Mean For Patients?** Dr. Dranoff cautioned that the study included a small number of patients and was only designed to make sure that the new vaccination approach was safe and practical. As a result, it is not yet clear whether the approach will be an effective treatment for patients with lung cancer. However, larger trials are underway to provide researchers with more information. Patients who are interested in clinical trials of this or other potential therapies should speak with their doctor.

**Links:**

[1] <http://www.jco.org/cgi/content/abstract/21/4/624>