Breakthrough Drug Evaluated By UCLA Scientist Approved As Alternative To Chemotherapy For Lung Cancer Patients

Pembrolizumab, an immunotherapy drug that was extensively evaluated by UCLA cancer researcher Dr. Edward Garon, has been approved by the U.S. Food & Drug Administration as first-line treatment for non-small cell lung cancer (NSCLC). The first-line designation means that some patients will have access to the drug without first having to receive other treatments such as chemotherapy.

The FDA also expanded the approval of pembrolizumab to treat the majority of people with NSCLC who had received previous chemotherapy, greatly increasing the patient population that can benefit from the treatment.

“It’s exciting to have an expanded group of patients who are now eligible for this drug,” said Garon, whose clinical studies helped lead to FDA approval. “What is particularly encouraging is that we are now able to select, based on features in the tumor, approximately a quarter of advanced lung cancer patients who can receive immunotherapy as their initial treatment. This will allow them to live longer while delaying and in some cases potentially avoiding, the side effects of traditional chemotherapy.”

Garon is a member of the UCLA Jonsson Comprehensive Cancer and an associate clinical professor of hematology and oncology.

Pembrolizumab, marketed under the brand name Keytruda, works by turning off the immune system’s brakes, allowing its T cells to recognize and attack cancer cells. It originally received accelerated approval by the FDA in 2015 as a treatment for NSCLC. Until FDA approval, however, the drug was only given to patients after prior chemotherapy who expressed a biomarker known as PD-L1 on at least half of their cancer cells. Now, patients with PD-L1 expression on at least half of their cancer cells can receive pembrolizumab before standard chemotherapy.