SPORE Update:

LUNG CANCER | PROSTATE CANCER

By Kim Irwin

n the years since UCLA was designated by the National Cancer Institute as Specialized Program of Research Excellence (SPORE) sites for lung and prostate cancer research, scientists and oncologists have been able to provide new, leading-edge therapies to patients.

SPORE grants are designed to promote collaboration among the best scientific minds and bring together researchers who might not otherwise have had a chance to work together. The NCI also mandated that translational research—bringing advances from the lab bench to the bedside—be a priority for SPORE sites.

Researchers in UCLA's lung and prostate cancer programs have been able to fulfill both missions.

"We're addressing critical questions in a broad-based effort to understand the biology of lung cancer and develop more effective methods for prevention, diagnosis, and treatment," said Dr. Steven Dubinett, a professor of pulmonary and critical care medicine and director of the lung cancer SPORE. "This grant has made it possible for us to bring new ideas to patients via unique clinical trials that would not otherwise be possible."

- * A study of dendritic cell-based immunotherapy in lung cancer that uses a gene modified to over-express immune stimulating genes to help the body fight lung cancer.
- * A therapy targeting the epidermal growth factor receptor combined with COX-2 inhibition. Early studies of the therapy showed promising results.
- * Awarding of 14 career development grants to up and coming lung cancer researchers.

Highlights of the prostate cancer SPORE include:

- * Completion of a clinical trial for men with high-risk prostate cancer testing a molecularly targeted experimental drug that may interrupt the signal driving their cancer.
- * A new study to evaluate the effects of dietary interventions on tissue in men with prostate cancer. Men will be randomly assigned to a balanced Western diet group versus a low-fat group with fish oil supplements.
- * Research to develop an antibody to prostate stem cell antigen (PSCA), a cell surface marker over-expressed in prostate cancer.



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Dr. Jean deKernion, director of the prostate cancer SPORE, said his team of researchers also has been very successful in translating basic science advances into new therapies.

"We've done extremely well in the area of translational research," said deKernion, chairman of the urology department and the Clark Urology Center and director of the prostate cancer SPORE. "We've also been able to bring new scientists into the field of research in this organ site because of this grant."

The lung cancer SPORE grant of \$13.9 million was awarded in April 2001 and Dubinett recently submitted a renewal application. UCLA received the \$11.5 million prostate cancer SPORE grant in October 2002 and deKernion currently is working on the grant renewal application.

Highlights of the lung cancer SPORE include:

- * A study focusing on the genetics of lung cancer in nonsmokers, an aspect that has not been adequately addressed previously and may lead to important clues for the detection of genetic defects leading to lung cancer.
- * A new clinical trial in collaboration with another lung cancer SPORE site to study estrogen inhibition in combination with epidermal growth factor inhibition.

- * Development of a gene therapy clinical trial for prostate cancer.
- * Planned studies next year of Insulin-like growth factor in men with prostate cancer.
- * Awarding of 14 career development grants to up and coming prostate cancer researchers.

Without the SPORE grant, deKernion said, there would not have been as much progress as has been made in prostate cancer research at UCLA

"And it would not have happened so quickly," he said.
"We're conducting some very important trials that could have a large impact on prostate cancer. Without question, we have been successful in accomplishing what the SPORE grant mandated."

Dubinett agrees the SPORE grant had sped research progress in lung cancer at UCLA.

"The SPORE program brings laboratory scientists together with clinical researchers in a highly organized system that moves the best concepts forward for evaluation in patients," he said. "The program will help us to better understand the biology of lung cancer and we're working to develop more effective methods for prevention, detection and treatment."