

News Archives

IU researcher's lung cancer work may someday improve standard of care

INDIANAPOLIS -- (January 23, 2013) -- Lung cancer researchers at Indiana University Melvin and Bren Simon Cancer Center are developing new anti-cancer agents that may someday improve the current standard of care.

The IU researchers, led by John Turchi, Ph.D., professor of medicine and of biochemistry and molecular biology at the IU School of Medicine, have been at work developing new agents for the past five years. However, in the past 12 to 18 months, Dr. Turchi said they have made positive findings in their pre-clinical analysis.

“The targets that we are looking at are completely novel,” Dr. Turchi said. “If our theory proves to be correct, it opens up an entire class of pathways that can be targeted to platinum-resistant cancers.”

Currently, the majority of lung cancer patients undergo platinum-based chemotherapy treatments, which extend a patient’s life. Over time, however, the cancer begins to resist the platinum. Dr. Turchi said, “Our agents are designed to extend the amount of time that the drugs continue to work effectively.”

Those agents do so by targeting an entire class of proteins that make the platinum more effective, according to Dr. Turchi. “We’ve been able to do the biochemistry of how the molecule works and how it effectively kills cancer cells in conjunction with cisplatin.”

Cisplatin was used as part of the curative

treatment for testicular cancer developed by Lawrence Einhorn, M.D., Distinguished Professor of Medicine and Lance Armstrong Foundation Professor of Oncology at the IU School of Medicine.

Dr. Einhorn, who recruited Dr. Turchi to IU, revolutionized testicular cancer treatment. In the past, patients diagnosed with testicular cancer had approximately a 10 percent chance of survival when they developed metastatic disease. Dr. Einhorn drastically improved the survival rate when he first studied platinum combination chemotherapy in patients with metastatic testicular cancer. Today, the survival rate for all testicular cancer patients is 95 percent.

Based on work done by Dr. Einhorn, Dr. Turchi and colleagues have developed agents that are designed to work with cisplatin as part of an effective combination therapy for hard-to-treat cancers, such as lung, breast, ovarian, cervical, head and neck and platinum-resistant germ cell tumors.

That possibility led the National Institutes of Health to award two grants (CA165848, CA162648) to NERx BioSciences Inc. Dr. Turchi serves as a co-founder and chief scientific officer of NERx, a biopharmaceutical company that focuses on developing cancer therapeutics that target the Nucleotide Excision Repair platform.

The need for new therapies is great as lung cancer is an especially devastating cancer: 87 percent of those diagnosed with metastatic lung cancer will die within two years of their diagnosis since the disease typically is discovered after it has progressed.

CONTACT
Michael Schug

Communications Specialist
Indiana University Melvin and Bren Simon
Cancer Center
535 Barnhill Drive, Room 455F
Indianapolis, IN 46202
(317) 278-0953 
maschug@iupui.edu



January 2013

IU physician researcher uses novel surgical technique for uterine, cervical cancer patients

A technique initially used to spare breast tissue during surgery is being researched by an Indiana University School of Medicine physician researcher to improve prognosis, reduce complications and spare lymph nodes in women with gynecological cancer.

[Emma Rossi](#), MD, was the first to describe a novel technique for sentinel lymph node mapping in uterine and cervical cancer patients.

Dr. Rossi is testing a novel technique for sentinel node mapping in a study comparing the detection of metastatic disease to routine lymphadenectomy, a more invasive surgical procedure in which the lymph nodes are removed and a sample of tissue is checked under a microscope for signs of cancer.



Dr. Rossi

A dye, the fluorescing dye Indocyanine Green (ICG), is injected into study participants in the cervix or endometrium prior to their cancer staging surgery. Dr. Rossi then uses an endoscope and a robotic camera that is capable of detecting the dye. The dye clearly identifies the nodes which receive drainage of cancer cells from that patient's tumor.

"By using this technique, we only have to remove the sentinel nodes. Therefore, there is less cutting and potentially fewer complications," said Dr. Rossi, who is the principal investigator for the IU study. "And we hope this technique will lead to an increased detection of cancer and save lives."

The IU Simon Cancer Center is one of three sites in which the study is being conducted. The other sites are the University of North Carolina at Chapel Hill and Summerlin Hospital Medical Center, Las Vegas. Dr. Rossi said the sites will enroll 1,000 patients over the next two to three years.



January 2013

News briefs

IU Simon Cancer Center seeks high school, college applicants for 2013 Summer Research Program; application deadline is Feb. 15

High school and college students from underrepresented populations interested in cancer research careers can gain hands-on experiences during the 2013 Indiana University Melvin and Bren Simon Cancer Center Summer Research Program.

[more](#) 

Annual Report to the Nation on the Status of Cancer shows overall cancer death rates continue to decline

The Annual Report to the Nation on the Status of Cancer, 1975–2009, shows that overall cancer death rates continued to decline in the United States among both men and women, among all major racial and ethnic groups, and for all of the most common cancer sites, including lung, colon and rectum, female breast, and prostate. However, the report also shows that death rates continued to increase during the latest time period (2000 through 2009) for melanoma of the skin (among men only) and for cancers of the liver, pancreas, and uterus.

[more](#) 

Reminders

• **IUSCC's Cancer Center Support Grant due in fall 2013**

In September 2013, the IU Simon Cancer Center's National Cancer Institute Cancer Center Support Grant (CCSG) will be due. Consequently, the cancer center's executive committee and research program leaders are currently undertaking a critical review of the program and its membership, as well as finalizing program themes, goals, and aims. All members are encouraged to assist their program leaders as they begin working on their respective narratives. The program leaders will need assistance from their members on compiling research highlights for those narratives. Program leaders are also planning retreats and participation among members is important. The CCSG is an important source of funding for the cancer center's shared facilities. This support, along with IU Simon Cancer Center funding, assures that cancer center members have access to the highest quality technology for their research.

A Cancer Center Designated by the National Cancer Institute

• **Membership changes**

Membership criteria into the IU Simon Cancer Center has changed to include full-time faculty of any Indiana university who contribute on some level to the cancer center's mission of research, education, patient care and community outreach. Full membership criteria is [here](#).

- **Researchers: Share your news**

Is your research about to be published in a journal? Are you about to present your research at a professional meeting? Have you received national funding for your research? Share your news with [Michael Schug](#), IUSCC communications manager.

- **Funding opportunities**

For the latest funding opportunities, visit <http://www.cancer.iu.edu/research/funding/>.

Cancer center members in the news

- **Timothy Corson**, PhD, has been selected as one of two 2012 Outrun the Sun Melanoma Research Scholars. Corson is the first Indiana University researcher to receive this distinction. Dr. Corson, whose research interests include ocular melanoma, will receive \$10,000 from Indianapolis-based [Outrun the Sun Inc.](#), a nonprofit organization supporting skin cancer education and melanoma research. “This award will help fund our ongoing studies into blocking a signaling pathway that is hyperactive in ocular melanoma cells. We hope that we can eventually develop molecular therapies for this melanoma subtype that causes not only loss of vision but also deadly metastases in half of patients,” Dr. Corson said. The research scholar program is designed to provide seed funding for investigators whose studies show great promise and demonstrate the potential to make substantial contributions to the field of melanoma research.



Corson

- **Kim Ziner**, RN, PhD, has been selected by the board of directors of the Central Indiana Affiliate of Susan G. Komen for the Cure as the recipient of its Individual Achievement Award for her work in clinical and behavioral research of breast cancer survivors. Each year, the local Komen affiliate honors a corporation and an individual who has served as a leader in the community to enhance awareness of breast health, contributed to scientific advancements toward finding a cure or improved the quality of care for breast cancer patients or the quality of life for survivors. Dr. Ziner will be honored during the annual Pink Tie Ball Feb. 23 at the Scottish Rite Cathedral.