Changing Lives Through Research

Jonathan Brody, PhD

George C. Prendergast, PhD

Janet Sawicki, PhD

Jefferson and Lankenau Institute of Medical Research Collaborate on Cancer Research

Located along Philadelphia's Main Line in Wynnewood, Pa., the Lankenau Institute for Medical Research (LIMR) aims to advance health and well-being through research to improve the detection and treatment of disease; the rapid transfer of new technology to the clinic; and the training of the next generation of scientists and physicians.

Founded in 1927, LIMR now has a team of 120 – including 20 resident faculty members – working to advance its mission. Those investigators include LIMR President and CEO George C. Prendergast, PhD, who also serves as editor in chief of Cancer Research, the most highly cited journal in the field, and Janet Sawicki, PhD, Professor, whose work focuses on cancer nanotherapy and related technologies.

In recent years, Drs. Prendergast and Sawicki have been collaborating successfully with the Jefferson Department of Surgery on research related to diagnosis and treatment of pancreatic and ovarian cancers. As Jonathan Brody, PhD, Director of the Division of Surgical Research recalls, the relationship took root in 2007, when Dr. Sawicki delivered a presentation on cancer nanotherapy at the monthly Surgical Research Seminar hosted by the Division.

Since then, Jefferson and LIMR have co-authored multiple publications and secured four nationally recognized grants (including from NIH and the American Cancer Society) worth roughly a million dollars.

The grants have funded research on predicting and optimizing the effect of gemcitabine therapy in ovarian and pancreatic cancers; using the HuR stress response gene to enhance Gemcitabine therapy; using HuR to combat chemotherapeutic resistance in ovarian cancer; and IDO2 targeting for pancreatic cancer treatment. Early work seeding the IDO2 collaboration was published initially by the Jefferson-LIMR team in the Journal of the American College of Surgery in 2009.

"Both these collaborations are unique and allow us to attack these tumors with different strategies," Dr. Brody says. "Drs. Prendergast and Sawicki are the only people in the world I could do this particular work with, and luckily, they are in our backyard."

The collaboration has been beneficial to the researchers at LIMR, as well: "I met Dr. Brody not long after he moved to Jefferson from Johns Hopkins with Dr. Charlie Yeo's team, when we were each just beginning to become interested in how IDO2 may affect cancer," recalls Dr. Prendergast. "We had discovered this gene as a result of our work in cancer immunotherapy, but its connections to pancreatic cancer would not have been made so soon without Dr. Brody's initial observation that brought us together."

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Dr. Sawicki feels similarly about the interactions that started with the seminar at Jefferson: "Jonathan and I quickly identified a few high-impact questions of common interest where our research programs could readily benefit from collaborative work," she said. "We were fortunate that the multidisciplinary synergies in the work we started were welcomed so readily by the grant review committees who have made its development possible.

"For me, the ability to benefit from access to clinical specimens and linked databases was critical, given that few groups have assembled such a valuable foundation to enable research into the questions I wished to pursue."

Jefferson and LIMR are currently preparing two grants for roughly $1.25 million each from the NIH Research Project Grant Program (R01). If awarded, these grants will fund research targeting HuR and IDO molecules for the treatment of pancreatic cancer and ovarian cancers – which all three investigators hope will be translated to the clinic within the next few years.

*For more information about the Division of Surgical Research visit: **www.jefferson.edu/surgery***

On the Job

Chuck Rowland, MSN, CRNP

Chuck Rowland, MSN, CRNP, first came to Jefferson in 1986 as a newly graduated clinical perfusionist. Over the next 25 years, he worked in several states and returned to Jefferson as a perfusionist before pursuing a career in nursing. In 2007, he completed his BSN in Villanova University's accelerated nursing program and continued his studies to earn his MSN as an Adult Nurse Practitioner in 2010.

Since April 2011, Rowland has been supporting Jefferson's Division of Cardiothoracic Surgery as an outpatient nurse practitioner. More recently, he assumed additional responsibilities as director of the Smoking Cessation, Counseling and Therapy (SCCT) Program, for which he became a Certified Tobacco Treatment Specialist.

What is the SCCT Program?
The SCCT Program is a relatively new endeavor that began with the progressive ideas and support of Scott Cowan, MD, FACS, one of our thoracic surgeons. The program's goal is to jumpstart smoking cessation prior to surgery. During the appointment process, we screen all patients for smoking. If the patient agrees, we schedule him or her for a separate appointment for smoking cessation planning.

We've designed the SCCT Program to provide one-on-one counseling tailored to individual patient needs. Each smoking cessation plan of care is formulated with patient input. For most patients, the goal is to quit smoking over a period of a few weeks – and then sustain that success over the long term.

What is your philosophy of patient care?
Patients are multidimensional. When they come to us with physical issues, they also bring social, cultural and spiritual dimensions. I believe it's important to formulate a plan of care that incorporates and adapts to these needs.

What most energizes you about your career?
I'm energized by the ability to help patients navigate through their journey with cardiothoracic surgery and/or smoking cessation, which for most is a very stressful time. I always strive to help patients and their families truly understand what's happening – from admission through final discharge and even weeks after surgery.

*Learn more at: **www.jeffersonhospital.org/SCCT***

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