



March 2010

Dr. Patrick Loehrer named IU Simon Cancer Center director

Cancer physician and researcher **Patrick J. Loehrer Sr., MD**, has been named director of the IU Simon Cancer Center.

Dr. Loehrer also will serve as associate dean for cancer research and hold the title HH Gregg Professor of Oncology, pending approval by the board of trustees, at the Indiana University School of Medicine.

D. Craig Brater, M.D., dean of the IU School of Medicine, made the announcement March 1.

Cripe is named interim hem/onc director

Larry Cripe, MD, associate professor of medicine, has been named interim director of the IU School of Medicine's Division of Hematology/Oncology, which was most recently held by Dr. Loehrer. Dr. Cripe narrates Grace Notes on *Sound Medicine*. [Listen](#).



"I am very pleased to be able to name Pat Loehrer as the second director of the IU Simon Cancer Center," Dr. Brater said. "Pat is a great role model for our students and a compassionate caregiver to his patients. He has shown exceptional leadership qualities, progressive ideas and has been a dedicated member of the faculty for the past 20 years."

A. Thomas Look, MD, chair of the cancer center's external advisory board, added: "Pat

Loehrer is eminently qualified to lead the IU Simon Cancer Center in becoming one of the nation's preeminent cancer centers." Dr. Look is vice chair for research with the Department of Pediatric Oncology at Dana-Farber Cancer Institute and professor of pediatrics at Harvard Medical School.

Dr. Loehrer is the second person to lead the cancer center since its founding in 1992. He had been serving as interim director since February 2009 following the death of Stephen D. Williams, M.D., the founding director.

Dr. Loehrer, who joined the IU faculty in 1990, is an internationally recognized researcher and specialist in testicular cancer, gastrointestinal cancer and thymoma, and he is consistently named in "America's Top Doctors for Cancer."

One of the original four medical oncologists at the IU School of Medicine, Dr. Loehrer most recently was the Kenneth Wiseman Professor of Medicine and the director of the Division of Hematology-Oncology for the IU School of Medicine. He was associate director of clinical research at the medical school from 2002 to 2006 and deputy director of the IU Simon Cancer Center from 2006 to 2009.

For two decades, he served as the founding chair of the Hoosier Oncology Group, a statewide collaboration of academic and community oncologists that united for the purpose of conducting clinical trials in the community setting.

He is principal investigator at Indiana University for the Eastern Cooperative Oncology Group, one of the first and largest cooperative groups of researchers and health professionals focused on conducting multi-center cancer clinical trials. Dr. Loehrer has served on the board of directors of the American Board of Internal Medicine and was chair of the Medical Oncology Subcommittee. He was recently appointed to the Oncology Drug Advisory Committee of the Food and Drug Administration (FDA).

Dr. Loehrer earned his medical degree from Rush Medical College in Chicago in 1978. He completed an internship and residency in internal medicine at Rush-Presbyterian St. Luke's Medical Center prior to completing his medical oncology fellowship at Indiana University.

Dr. Loehrer and his wife, Deborah, reside in Indianapolis. They have three adult children.



One of the original four medical oncologists at the IU School of Medicine, Dr. Loehrer was named director of the IU Simon Cancer Center on March 1.



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IU researchers target vascular disease linked to cancer-causing gene mutation

Researchers have discovered how a genetic disease known mainly for its life-threatening tumors also can cause sudden death from cardiovascular disease in children and are mounting a clinical trial to develop treatments for the problem.

Scientists from the IU School of Medicine and the IU Simon Cancer Center found that the mutation that causes neurofibromatosis type 1 disease leads to arterial inflammation and damage that is similar to the long-term damage that can occur as people age. They reported their findings in the March issue of the [Journal of Clinical Investigation](#).

Neurofibromatosis results from mutations in a gene called NF1, which causes tumors to form in the cells that make up the protective sheaths around nerves. In humans, NF1 mutations resulting in neurofibromatosis occur in one in 3,500 births, making it the most common genetic disease in humans that results in a predisposition to cancer.

However, cardiovascular disease in children with neurofibromatosis is a significant but under-recognized

problem for which the patients are rarely tested, according to **David Ingram, MD**, principal investigator of the research team. "It's often a silent killer with no symptoms or warnings in advance of a catastrophic event -- the children present with a heart attack or stroke," he said.



Ingram

A 2001 analysis of death certificates by Jan Friedman, MD, PhD, of the University of British Columbia in Vancouver, found that the median age of death of NF1 patients was 15 years younger than the general population. NF1 patients who died at age 30 or younger were more than seven times as likely as normal patients to have been diagnosed with a cardiovascular problem.

Using genetic experiments in mice, Dr. Ingram and his team were able to narrow the cause of the cardiovascular problems down to the inflammatory cells delivered to the site of the damaged blood vessel, ruling out potential effects from NF1 gene mutations in the blood vessel muscle cells

and the cells that line the inside of the blood vessels.

In addition, they compared blood samples from a small group of human patients with and without the NF1 mutation and found that the neurofibromatosis patients had significant levels of inflammatory cells and other compounds that pose a higher risk of cardiovascular disease.

The IU researchers, in collaboration with Dr. Friedman in Vancouver, have begun a pilot clinical trial to evaluate potential diagnostic tests, including blood pressure monitoring and ultrasound tests of carotid arteries that might enable physicians to discover and treat neurofibromatosis patients who are developing cardiovascular problems.

"We think that if we can demonstrate this association with vascular effects and the ability to diagnose them, we could proceed to an intervention clinical trial. Statins have anti-inflammatory effects and there are other agents that could potentially be used," Dr. Ingram said.

In addition to Ingram, the team included **Cynthia Hingtgen**, MD, PhD; **Mary Dinaur**, MD, PhD; **Reuben Kapur**, PhD; and **Simon Conway**, PhD.

The clinical trial protocols used in this research were developed with the assistance of the Indiana Clinical and Translational Sciences Institute. Funding for the research was provided by grants from the National Institutes of Health and the Department of Defense.

--Eric Schoch



March 2010

IUSCC implements new e-mail policy

In an effort to streamline the amount of e-mail messages that you receive from the IU Simon Cancer Center, we are implementing the following policy:

- Messages that announce grants will be sent out only once a month, unless the deadline for a grant falls before the next month's scheduled e-mail.
- Messages that announce IU Simon Cancer Center seminars and Grand Rounds will be sent one week prior to the event and the day of the event. A link also will be provided in the message to the event listing on the Web. For those not interested in receiving these announcements, they can select the unsubscribe option within the e-mail message. **Note:** the IU Simon Cancer Center will NOT distribute or forward e-mail messages about other events hosted by other departments or centers (exceptions will be made for those seminars directly linked to cancer and joint recruitment seminars involving a department and the cancer center). If the cancer center receives these requests ahead of time, announcements will be included in the monthly *IUSCC Research News*.
- Messages that announce cancer center news and events -- such as Cancer Research Day, pilot projects, awards, request for information on cancer center grants reports/renewal, etc. -- will be sent to all members. The cancer center's e-letter, *IUSCC Research News*, will be sent to all members on a monthly basis.
- Messages that focus on looking for research agents will be sent only to lab-based research recipients upon request. Send your request(s) [here](#).

I realize that each of you has a busy schedule, and I hope these measures will keep you informed with fewer messages in your inbox.

Thank you.

Sincerely,

Patrick J. Loehrer, Sr., MD
Director, IU Simon Cancer Center



March 2010

Core Spotlight

Flow Cytometry Resource Facility

The [Flow Cytometry Resource Facility](#) provides essential and varied flow cytometric services to IU Simon Cancer Center members at a reduced rate.

Flow cytometry is a method of simultaneously measuring multiple parameters of individual cells in solution. These parameters include certain characteristics of cells such as size, shape, and the presence of specific biological molecules found inside the cell or on the cell surface. Data is generated that quantifies the percentage of cells in the sample which have these markers.

Samples usually consist of mouse or human bone marrow, peripheral blood, or tumor. The cells can be labeled with one or more monoclonal antibodies, placed in a fluid, and passed in a stream through one or more lasers. Each antibody is conjugated to a different fluorescent molecule which is excited by the laser to fluoresce a specific color.

The measurements are based on how many of the cells have all, some, or none of the colors. This correlates to the presence or absence of those specific molecules on the cells. Populations of cells may then be collected or sorted away from the other cells present to give the researcher a pure population of a unique cell to study. Up to four different cell populations may be collected at the same time on a sample.

Overall, the core's personnel provides consultation, technical advice, and collaboration, which promotes cutting-edge science and serves as a central common area for IU Simon Cancer Center investigators to interact and exchange scientific information.

"If the investigator needs help setting up their experiment, we can advise them on the best way to utilize flow cytometry, the antibodies to choose, and the fluorochromes (any of a group of fluorescent dyes conjugated to antibodies used to label biological specimens) that the machines read to distinguish the different type of cells," Susan Rice, BA, MT(ASCP), the core's manager, said. "We're here to help them get their sorting and their cell analysis done."

Specifically, the core offers:

- Multiparameter (4, 5 or 6-color) immunofluorescence analysis and cell sorting
- DNA content and cell cycle analysis
- Simultaneous immunofluorescence and cell cycle analysis
- Single cell sorting
- Cell sorting (bulk or single cells) based on position of cells in cell cycle
- Apoptosis analysis (Annexin V/PI, Caspase, TUNEL and other assays)
- BrdU incorporation
- Viability assays
- Chromosome analysis (univariate and bivariate)
- Receptor - ligand interactions
- Kinetic analyses
- Off-line data analysis

The core's instruments include:

Analyzers:

- BD FACScan 1 laser (488nm)
2 light scatter parameters
3 colors
- BD FACSCalibur APC 2 lasers (488, 630nm)
2 light scatter parameters
4 colors
- BD FACSCalibur no APC 1 laser (488nm)
2 light scatter parameters
3 colors
- BD LSR II 407nm laser 3 lasers (488, 630, 407nm)
2 light scatter parameters
9 colors
- BD LSR II 561nm laser 3 lasers (488, 630, 561nm)
2 light scatter parameters
10 colors

Sorters:

- BD FACSVantage 3 lasers (488, 630nm, UV)
2 light scatter parameters
6 colors
- BD FACSAria 3 lasers (407, 488, 630nm)
2 light scatter parameters
10 colors
- iCyt Reflection Two sorting units (HAPS)
3 lasers (488, 630nm, UV)
9 colors

The Flow Cytometry Research Facility is located in Walther Hall, Room C360. Rice can be reached at 274-7587. Edward Srour, PhD, is the core's director.



March 2010

News briefs

IUSCC, HOG event offers CME credits April 10

The IU Simon Cancer and Hoosier Oncology Group (HOG) present "State of the Art Cancer Care: An Educational Symposium" on Saturday, April 10 at University Place Conference Center and Hotel in conjunction with the 25th anniversary of HOG.

The IU School of Medicine designates this educational activity for a maximum of 3.5 AMA PRA Category 1 Credits.

The keynote speaker is Christopher Sweeney, MBBS, who is now with the Lank Center for Genitourinary Oncology at Dana-Farber Cancer Institute. Sweeney was formerly with the IU Simon Cancer Center.

For additional information and to register, visit the [CME Web site](#).

Later that evening, HOG celebrates its silver anniversary during a gala at the Scottish Rite Cathedral. The event will recognize HOG founders Drs. Rafat Ansari, Larry Einhorn, Bill Fisher, Patrick Loehrer, Prasad Mantravadi, and Ken Pennington.

Merril Hoge -- former NFL player, ESPN commentator, and cancer survivor -- is the keynote speaker. Visit the [25th anniversary page](#) for more information.

Cancer Research Day abstracts due April 16

The IU Simon Cancer Center is now accepting abstracts for posters to be presented at Cancer Research Day on Wednesday, May 5. [Read the full details](#).

Midwest Blood Club Symposium set for May 6-7; abstracts due April 2

The Midwest Blood Club will hold its 8th Annual Symposium in Indianapolis May 6-7, featuring keynote speakers Ken Kaushansky, MD, of the University of California, San Diego, and Giuseppina Nucifora, PhD, of the University of Illinois, Chicago.

Since 2003, the annual Midwest Blood Club Symposium has fostered greater communication among hematology/oncology investigators in Indiana and nearby states by creating a forum

where researchers can meet and share ideas and data on stem cell biology, transplantation, cell/gene therapy, leukemogenesis, and immunotherapy.

For the full schedule, a registration form, an abstract submission form, and other information go to the [Midwest Blood Club Symposium Web site](#). Oral and poster presentations will be selected from the abstracts, which are due by April 2. For further information, contact Linda Henson at 278-2807 or lhenson@iupui.edu.

Sponsors of the symposium are the IU Simon Cancer Center, the IUSM Department of Microbiology and Immunology, the IUSM Division of Neonatology, the IUSM Department of Pediatrics, the Indiana University Office of the Vice Chancellor for Research, the Herman B Wells Center for Pediatric Research, Lilly USA, LLC, and Promega.

Coach Hep Cancer Challenge is May 1

You can join the fight against cancer during the third annual Coach Hep Indiana Cancer Challenge in memory of IU Football

Coach Terry Hoepfner on Saturday, May

1. The event includes a 2K-walk and a 5K-run as well as a 25/50K- and 100K-cycling course. To register and for further details, visit

CoachHepCancerChallenge.org. All funds benefit the IU Simon Cancer Center and Olcott Center for Cancer Education.



Cancer center members in the news

- **Victoria Champion**, DNS, RN, FAAN; **Thomas Imperiale**, MD; and **Anna Maria Storniolo**, MD are members of a panel discussion on breast cancer screenings during the 10th Annual Doris H. Merritt, MD, Lectureship in Women's Health on April 28.
- **Darron Brown**, MD, and colleagues wrote in the Feb. 5 online edition of the [Journal of the National Cancer Institute](#) that high-coverage HPV vaccination programs among adolescents and young women may result in a rapid reduction of genital warts, cervical cytological abnormalities, and diagnostic and therapeutic procedures. In the longer term,



substantial reductions in the rates of cervical, vulvar, and vaginal cancers may follow.

Brown

- **Kathy Miller**, MD, presented "Mechanisms of Resistance to Antiangiogenic Agents" and "Predictive Markers of Response to Preoperative Therapy: Does It Affect Decision Making?" at the recent 27th Annual Miami Breast Cancer Conference.
- **Nasser Hanna**, MD, is a presenter for prIME Oncology's Virtual Expert Practice, which uses interactive video for the presentation of case-based discussions. Hanna presents "Tools and Guidance in Therapy Selection: Clinical and Molecular biomarkers" and "Evaluating the Next Generation of Targeted Therapies" in the Concepts and Clinical Approaches to Non-Small Cell Lung Cancer modules. Also, Hanna and colleagues examined the rates and risk factors for radiation pneumonitis (RP) in non-small-cell lung cancer (NSCLC) patients treated with chemoradiotherapy. The study appears in the March issue of the [International Journal of Radiation Oncology Biology Physics](#).
- **Lisa Hess**, PhD, is the PI of "A Prospective Study of Cognitive Function During Chemotherapy for Front-Line Treatment of Ovarian, Primary Peritoneal or Fallopian Tube Cancer." The trial, set to begin in April, will study changes in brain function in patients with newly diagnosed stage I, stage II, stage III, or stage IV ovarian, primary peritoneal, or fallopian tube cancer who receive chemotherapy.
- **Theodore Logan**, MD, was the lead author of the poster entitled "A Phase 1/2 Study of AGS-003, a Personalized Immunotherapeutic Evaluated in Newly Diagnosed Metastatic Renal Cell Carcinoma (mRCC) Subjects." Data was presented in a poster session at the ASCO Genitourinary Cancers Symposium. According to the study's results, AGS-003 induced a tumor-specific immune response, performed better than interferon- α on a measure of progression-free survival, and was well tolerated.
- **Robert Hickey**, PhD, is a scientific adviser board member for BIT Life Sciences' third annual World

Cancer Congress held June 22-25 in Singapore.

- **Harikrishna Nakshatri**, BVSc, PhD; **Sunil Badve**, MBBS, MD, FRCPath; and **Kenneth Nephew**, PhD, concluded in the Jan. 15, 2010, issue of [Cancer Research](#): T-bet expression in primary tumors and circulating insulin levels may serve as surrogate biomarkers to identify estrogen receptor α -positive breast cancers with a dysfunctional hormonal network, enhanced growth factor signaling, and resistance to hormonal therapy.
- Indiana now has a chapter of the Head and Neck Cancer Alliance (HNCA) thanks to efforts spearheaded by **Michael Moore**, MD. The HNCA was established in 2008 to create a coalition in the fight against head and neck cancer. Formerly the Yul Brynner Head and Neck Cancer Foundation, HNCA expands on existing strengths to enhance the overall effort in prevention, detection, treatment, and rehabilitation. Moore and others are offering [free oral head and neck cancer screenings](#) on April 14 in conjunction with Oral, Head & Neck Cancer Awareness Week (April 12-18).

Grants available to researchers

For the latest grant opportunities, visit the [Funding Opportunities](#) page on the IUSCC Web site.

New members

Karen Pollok, PhD
Pediatrics, Pharmacology & Toxicology
Full member, TBM