



October 2009

Researchers to study goals, end of life decisions in advanced cancer patients

Imagine being told you have an advanced form of cancer that threatens to end your life. What goals would you set for yourself, how might those goals influence what kind of health care you want, and would the health care you receive match those goals?

Kevin Rand, PhD, and Larry Cripe, MD, have launched a

two-year, \$330,000 American Cancer Society-funded study -- "Goal-related Thoughts and End-of-life Decisions in Advanced Cancer Patients" -- to examine those questions.



Cripe

The focus of the study will be some 60 patients who have been diagnosed with advanced lung or gastrointestinal cancer, Rand said. The median life expectancy of these patients is less than a year.

"We are interested in understanding how these patients make treatment decisions as they go through their care and how their thoughts about the goals they have for their life and for their health care change over the course of their illness and how these goals predict treatment decisions, especially as they get close to the end of their lives," Rand said. "Do they choose to enroll in hospice, or get aggressive treatments such as chemotherapy even though they may have been told it is unlikely to benefit them? What do their goals predict as to their health care choices? Are they getting health care in line with their goals?"

Patients will be interviewed twice, three or four months apart. Each time, they will be asked to list their life goals and treatment goals.

Among the questions: What are your most important goals? Patients will also be asked how they would invest their time and energy in pursuing those goals.

"We want to see if the goals of the patients change over time and if those changes relate to the progress of their disease or treatment," Rand said.

Whether patients are making decisions and then receiving treatment that is in line with their goals isn't really known,

Rand explained. "If the answer is yes, that's great. But if not, we want to know why not. There are lots of reasons why that might not happen. Health care providers may not be aware of the goals as well as they should be, or the goals may be so dynamic and changing that it would be hard for the treatment they receive to be in line with the goals because they are in flux."

The study itself has an ultimate goal. "We want to design an intervention for health care providers so that everyone understands what the goals of the patient are and to help ensure patient care is in line with those goals," Rand said.

According to Rand, the study will demonstrate the feasibility of gathering necessary information from patients who may be near the end of their lives. The next step would be to engage in a longer term study involving a larger number of patients.

--Rich Schneider



October 2009

IU establishes faculty chair in memory of President Myles Brand

Indiana University President Michael A. McRobbie announced on Oct. 28 a campaign to create an endowed faculty chair in cancer research in commemoration of the late Myles Brand, the university's 16th president.

The announcement was made at Conseco Fieldhouse during a public tribute for Brand jointly sponsored by IU and the National Collegiate Athletic Association (NCAA).

McRobbie told the assembled crowd that the university is establishing a permanent Myles Brand Chair in Cancer Research at the IU School of Medicine, Indianapolis. Funding for the chair will support a world-class biomedical researcher scientist, with expertise in pancreatic and other gastrointestinal cancers.

Brand, who served as IU's 16th president from 1994 to 2002, had been president of the NCAA from January 2003 until his death on Sept. 16 after a nine-month fight against pancreatic cancer. He was 67.

"Myles was a transformative leader and visionary president at Indiana University, where his impact will be felt for generations," McRobbie said. "Through the generosity of many who admired his integrity, particularly as he fought the disease that eventually claimed him, Myles' legacy will grow and provide hope to the nearly 1.5 million Americans who are diagnosed with cancer each year, as well as their families who also are touched by it."

Support for the Brand Chair thus far includes nearly 145 individual gifts and pledges totaling more than \$1.1 million. During the final months of Brand's life, he -- at the urging of friends -- made the decision to lend his name to raise funds to support cancer research at IU. The Myles Brand Chair in Cancer Research is the only memorial campaign that bears his name. IU is adding a \$1 million match to the endowment.

Many other friends and colleagues of Brand's join his family in hoping that resulting research at the Indiana University Melvin and Bren Simon Cancer Center will lead to an improved understanding of cancer and contribute to efforts to find a cure.

"I am indebted to close friends and family, both here and around the country, who have volunteered enormous time and effort to work in conjunction with the IU School of Medicine to raise awareness and funding for the chair in Myles' name," said his widow, Peg Brand, an associate professor in the departments of philosophy and women's studies at Indiana University-Purdue University Indianapolis. "Thank you to Indiana University for future cancer research that will benefit generations to come."

Josh Brand noted how meaningful the chair was to his father.

"In the months following his diagnosis, my father received numerous awards and honors, all of which I believe helped him keep his fighting spirit," he said in a letter in support of the chair. "One of the most meaningful honors was the recent announcement by the IU School of Medicine to create the Myles Brand Chair in Cancer Research."

"My father was a great supporter of the IU School of Medicine and was instrumental in its rise to prominence as one of the nation's leading cancer programs while he served as president of Indiana University," Brand added. "He was treated at the IU Simon Cancer Center, where he received wonderful care."

As IU's president, Brand led the university through a period of remarkable growth, including record enrollments and national leadership in information technology and the life sciences, leaving a legacy impacting many Hoosiers beyond the university's eight campuses.

Donations for the Brand Chair can be made online at <http://medicine.iu.edu/body.cfm?id=8897&oTopID=2702> or by contacting the Office of Gift Development at the IU School of Medicine, 1110 W. Michigan St., LO 506, Indianapolis, IN, 46202 or (317) 274-3270.

Honorary chairs for the Brand Chair campaign are McRobbie; U.S. Sens. Evan Bayh and Richard Lugar; Indiana Gov. Mitch Daniels; NBA Commissioner David Stern; George Bodenheimer, president of ESPN Inc. and ABC Sports; William Cook, Cook Group founder; Daniel F. Evans Jr., president and chief executive officer, Clarian Health; Stephen L. Ferguson, chairman of the board of Cook Group and a member of the IU Board of Trustees; and Sean McManus, president of CBS News and Sports.



October 2009

News briefs

PARC develops mass spec-based assays

IU School of Medicine's Protein Analysis Research Center (PARC) (or academic component of Monarch LifeSciences) has developed mass spec-based new assays for biomarker development. In a case study presented by the center's scientists at Cambridge Healthtech Institute's Biomarker World Congress earlier this year, procollagen-1 N-terminal propeptide (P1NP) was detected in rat plasma by selected-reaction-monitoring (SRM) method, a technique that measures the abundance of a target molecule based on peptide fragments from a trypsin digest. P1NP is an indicator of bone growth or other bone-related changes and has recently been implicated in some other diseases and conditions.

A critical part of assay development is establishing a linear working range for protein concentration. For example, for P1NP, the effective working range was from about 2 nM to 200 nM, which covers the effective physiologic range of the protein. By changing individual amino acids in the peptide targeted by mass spec, the assay can follow a therapeutic program from preclinical to clinical stages, progressing from rat, through dog and monkey, to human subjects.

Efforts are ongoing at PARC to expand the effective dynamic range of its assays. In spite of this drawback, the mass spectrometry-based approach has some major advantages over immunoassay-based methods, not least of which is that there is no need for antibodies and the development time can be as short as a few weeks instead of months to years.

PARC is located in the Indiana University Emerging Technologies Center, 351 W. 10 St., Suite 350. For more information, contact Dr. Wang at 274-1446.

Discovery of genetic defect may lead to better treatments for common gut diseases

New findings related to an uncommon genetic disorder may impact the diagnosis and treatment of inflammatory bowel disease (IBD), the most common chronic gastrointestinal illness in children and teens. Two million Americans have IBD, which involves inflammation of the gastrointestinal tract.

Researchers from the United States and Canada have identified a genetic defect not

previously known to be a cause of chronic granulomatous disease (CGD), an inherited disorder with recurrent bacterial and fungal infections. Some patients also develop gastrointestinal inflammation, as occurred in the patient in whom the new gene defect was discovered. CGD, which occurs in 1 in 200,000, is usually diagnosed in childhood.

In addition to providing insight into CGD, a condition in which an enzyme defect prevents white blood cells in the body from killing invading bacteria, the new findings highlight how abnormal white blood cell function can predispose individuals to IBD, and may help provide insight into why IBD develops. Crohn's disease and ulcerative colitis are the most common forms of IBD.



Dinauer

The research was led by **Mary Dinauer**, MD, PhD, and Nicola Wright, MD, and colleagues at the Alberta Children's Hospital and the University of Calgary, and William Nauseef, MD, of the University of Iowa.

The new findings were reported in the Oct. 8 print edition of the journal *Blood*.

ACS Institutional Research Grant call for proposals is open

The IU Simon Cancer Center is pleased to announce the availability of funds for new pilot projects to assist new investigators who hold the rank of assistant professor, research assistant professor, or assistant scientist.

These funds are from the American Cancer Society Institutional Research Grant (ACSIRG), which provides support for beginning investigators to enable them to initiate their independent research program. Funds are available for four to five pilot projects, beginning Jan. 1, 2010, in amounts up to \$25,000. Special funds also are available for one pilot study in the amount of \$30,000 within the special topic of cancer disparities focused on underserved populations.

The deadline for application submission for the American Cancer Society Institutional Research Grant pilot study funding is Nov. 23, 2009. Application guidelines and forms may be obtained from:

Elizabeth Parsons
Phone: (317) 278-0078
eparsons@iupui.edu

The purpose of the ACSIRG program is to attract new investigators from Indiana University into cancer research and to provide support for new pilot studies that will provide preliminary data for the investigator to develop into studies that will compete successfully for external, national funds from both federal and private sources. Faculty from the School of Medicine and its regional campuses, schools of nursing, dentistry, optometry, public and environmental affairs, health and rehabilitation sciences, liberal arts, law, science, and informatics are especially encouraged to apply.

Eligibility: Applications are invited from faculty with ranks of assistant professor, research assistant professor, or assistant scientist. Proposals MUST describe new pilot studies in cancer research. ACS guidelines specify that applicants with prior funding from the ACSIRG or with significant funding from other sources are NOT eligible to apply. APPLICANTS MUST BE U.S. CITIZENS OR SUBMIT PROOF OF APPROVAL FOR A GREEN CARD. Applications from research assistant professors and assistant scientists require a letter from the department chair certifying that the research proposal is independent of the research program of the laboratory PI.

The funding period is from Jan. 1, 2010, to Dec. 31, 2010.

The body of the proposal must not exceed six pages. Appendices may not be more than four pages. Proposals must follow formatting guidelines of fonts of Helvetica or Arial, font size 11 point or larger, and ½ inch margins. An electronic copy in .pdf format should be submitted to:

Elizabeth Parsons
Grants Coordinator
eparsons@iupui.edu

Proposals which exceed the page numbers or fail to follow the formatting guidelines will be returned to the investigator without review.





Cancer center members in the news

- IU President Michael McRobbie presented Distinguished Professor **Lawrence Einhorn, MD**, with a Thomas Hart Benton Mural Medallion in recognition of his prominent achievement and dedicated service. "Dr. Einhorn, this university is very proud of you," President McRobbie said while honoring Dr. Einhorn during the dedication ceremony of Walther Hall on Oct. 8. "As an alumnus of Indiana University, and as a faculty member of the School of Medicine since 1973, you have contributed more than three decades of world-renowned work to this great institution." Dr. Einhorn is widely recognized for developing in 1974 a chemotherapy regimen for testicular cancer that revolutionized therapy and is responsible for a dramatic improvement in the cure rate of what previously had been a devastating and rapidly fatal disease. Today, more than 95 percent of all patients with this disease now survive.
- **Theresa Guise, MD**, recently was named a Legacy Laureate at the University of Pittsburgh for her outstanding personal and professional accomplishments. A Pitt graduate, Guise has made significant contributions to the understanding of metabolic bone disease, with an emphasis on skeletal complications of malignancy and the effect of cancer treatments on bone.
- In the October issue of the *Journal of Thoracic Oncology*, **Nasser Hanna, MD**, and colleagues wrote about their study that evaluated the safety and efficacy of the combination of Pemetrexed, the standard treatment against recurrent non-small cell lung cancer (NSCLC), and cetuximab, which has single agent activity against NSCLC. The combination regimen does not seem to improve time to disease progression compared with historical controls of either single agent, according to the researchers. [Read the journal article.](#)
- **Reuben Kapur, PhD**, has been named the program leader for the Hematologic Malignancies and Stem Cell Biology Research Group in the Herman B Wells Center for Pediatric Research at



Hanna

the IU School of Medicine, effective Nov. 1. Dr. Kapur has distinguished himself as an outstanding scientist in the area of hematologic malignancies and hematopoietic stem cell biology and has established a national and international reputation in this field. He serves on the American Society of Hematology and the International Society for Experimental Hematology, and he was recently named as a member of the National Institutes of Health Hematopoiesis Study Section.

New grants

- Susan Clare, MD, PhD
"Development of a Molecular Encyclopedia of the Normal Human Breast"
Breast Cancer Research Foundation
- Kenneth Cornetta, MD
"New Faculty Recruitment to the Indiana University Gene Therapy Program"
NIH
- Jamie Renbarger, MD
"Developing a Prediction Model for Vincristine-induced Peripheral Neuropathy"
NIH
- Hongmiao Sheng, MD
"Targeting Myofibroblast for Intestinal Epithelial Regeneration"
NIH
- Todd Skaar, PhD
"Regulation of Drug Metabolizing Enzymes by miRNAs"
NIH

New member

Jingwu Xie, PhD
Department of Pharmacology and Toxicology
Member, Tumor Biology and Microenvironment & Experimental and Developmental
Therapeutics