

December 13, 2013

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HAPPY HOLIDAYS FROM THE OFFICE OF THE VICE CHANCELLOR FOR RESEARCH



Best wishes to you and yours for a wonderful holiday season and prosperous New Year!

FEATURE STORY

Informatics Research Team Awarded Grant for Clinical Effectiveness Research

The [Patient-Centered Outcomes Research Institute](#) -- created by the Affordable Care Act -- has awarded a \$2 million grant to a research team from the IU School of Informatics and Computing at Indiana University-Purdue University Indianapolis to conduct comparative clinical effectiveness research.

Headed by Dr. Brad Doebbeling, Department of BioHealth Informatics chair and a professor of informatics, medicine and biomedical engineering, the team is the first in Indiana to receive an institute grant designed to include patients in the discussion of how to improve and expedite medical care.

In the coming months, Dr. Doebbeling's team will work with community health centers around Indiana to understand how to provide better health care in a more timely fashion.

"We were funded to form a collaborative of community health centers from around the state of Indiana to gain a better understanding of how we can improve access to health care in Indiana," he said.



Bradley N. Doebbeling, M.D.

Dr. Doebbeling's team will examine how patients enter into clinic systems and engage patients, providers and staff in discussions about opportunities for change. They will study best practices and innovations that the community centers have discovered work for them on a physician, staff member or patient level to improve access to care.

"We're right at the tipping point in health care informatics and health system redesign, where we can effectively use the information and data to make better decisions about organization and to provide more efficient, higher-quality health care," Dr. Doebbeling said. "I'm excited; now is the time to solve those kinds of problems. Our country is embarking on a grand experiment to work within existing insurance plans and delivery systems to expand care to the uninsured.

"There is tremendous data and information available that we need to utilize to provide better, safer and more efficient and effective health care. This is exciting because it's a real partnership between patients, providers, staff, health systems and researchers all working together to solve problems with access to care."

ANNOUNCEMENTS

2014 IUPUI Research Day Save-the-Date

On April 11, 2014 the Office of the Vice Chancellor for Research will host the 2014 IUPUI Research Day. This open house celebrates the cutting-edge and multifaceted research and scholarly activities of IUPUI. This full day event will be held at the IUPUI Campus Center.

Research Day provides an opportunity for the IUPUI faculty, staff, and students, their academic, industrial, and governmental partners, and the broader community, to come together and learn more about the research enterprise at IUPUI, to explore new collaborations, and to lay the foundation for new partnerships.

More details will be announced in upcoming Research Enterprise issues.

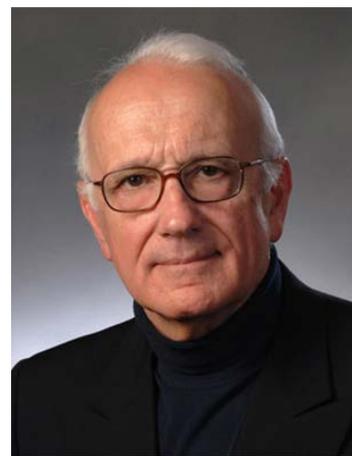
Bernardo Ghetti Named Fellow of the American Association for the Advancement of Science

Dr. Bernardino Ghetti, IUPUI Chancellor's Professor and Distinguished Professor of Pathology and Laboratory Medicine at the IU School of Medicine, is one of five IU faculty members who have been named a fellow of the [American Association for the Advancement of Science](#) in recognition of their distinguished efforts to advance science.

Jay L. Hess, M.D., Ph.D., dean of the IU School of Medicine and vice president for university clinical affairs at IU, called Ghetti a pioneer in his field who is respected by peers around the world.

"We are pleased that Dr. Ghetti has received this well-deserved recognition," Dr. Hess said, "and are all called to now work toward that same standard of excellence that the members of AAAS have recognized in him."

The additional AAAS fellows from IU are Olaf Sporns, Ph.D., of the IU Bloomington College of Arts and Sciences' Department of Psychological & Brain Sciences and Peter T. Cherbas, Ph.D., Elizabeth C. Raff, Ph.D., and Malcolm E. Winkler, Ph.D., all members of the College's Department of Biology.



Bernardino Ghetti, M.D.

IU President Michael A. McRobbie, Ph.D., congratulated the scholars on being recognized by an organization of peers that represents the largest general scientific society in the world, with 261 affiliated societies and academies of science that serve 10 million individuals.

"These five individuals have dedicated their lives to taking on intellectual challenges, the answers to which mean to address and resolve some of society's most vexing issues -- from understanding and combating Alzheimer's to advancing the field of genomics for the purpose of promoting public health," Dr. McRobbie said. "We are indebted to each of them for their long and distinguished service to both Indiana University

and to mankind.”

The AAAS, founded in 1848, is the world’s largest general scientific society and publisher of the journal *Science*, as well as *Science Translational Medicine* and *Science Signaling*. *Science* has the largest paid circulation of any peer-reviewed general science journal in the world, with an estimated total readership of 1 million.

This year, AAAS has awarded this honor to 388 members because of their scientifically or socially distinguished efforts to advance science or its applications. New fellows will be presented with an official certificate and a gold and rosette pin Feb. 15 at the AAAS Fellows Forum during the [2014 AAAS Annual Meeting](#) in Chicago.

The announcement brings the total number of AAAS Fellows affiliated with IU to 86.

IU Simon Cancer Center Seeks High School, College Applicants for 2014 Summer Research Program

Students interested in gaining hands-on experiences in cancer research are encouraged to apply for the 2014 Summer Research Program at the Indiana University Melvin and Bren Simon Cancer Center.

The annual Summer Research Program held in partnership with the Indiana University-Purdue University Indianapolis [Center for Research and Learning](#), places students with a mentor physician or researcher for nine weeks, May 30 to July 25. Students work with faculty who are conducting studies in the most progressive areas of cancer research.



The program’s primary goal is to increase the number of underrepresented populations engaged in basic, clinical, and prevention and control cancer research by providing positive and meaningful first-hand exposure to those fields.

Each student receives a stipend of \$3,200. Students are responsible for their own housing and transportation arrangements.

The Summer Research Program provides students an opportunity to:

- Interact with any of the cancer center’s [research programs](#), [shared facilities](#) and more than 100 [world-renowned investigators](#).
- Gain exposure to a wide range of basic science, translational and clinical research activities.
- Continually interact with and learn from other students, clinical and postdoctoral fellows, and faculty.
- Attend weekly career development workshops related to gaining admission to graduate and professional programs of study.

Students are selected based on interest in biomedical or behavioral science, grades and personal interviews. High school students who participate must have completed at least their junior year and have maintained a grade-point average of at least 3.0 on a 4.0 scale. Undergraduates in the program must have completed 24 hours of college credit, be majoring in a biomedical or behavioral science, and have maintained a grade-point average of at least 3.2.

Additional information and an online application are available at www.cancer.iu.edu/srp. For more information, contact the IUPUI Center for Research and Learning at crlstaff@iupui.edu.

The application deadline is Feb. 21. Those students selected as finalists will be invited to campus for an interview in April.

CENTER SPOTLIGHT

Donation to Center for Ray Bradbury Studies at IUPUI Brings Author's Legacy Home to

the Midwest

IUPUI is the new home for the papers and office library of one of America's master storytellers.

Author Ray Bradbury's family and his longtime friend Donn Albright recently donated collections of Bradbury's manuscripts and letters, along with furniture and other items, to the Center for Ray Bradbury Studies in the IU School of Liberal Arts.

Ray Bradbury, 91, an Illinois native, passed away in June 2012 in Los Angeles, where he had lived since the 1930s. His work and influence span many aspects of modern American intellectual and popular culture, including mainstream literature, and the highly popular genre fields of science fiction, fantasy, horror and detective fiction.

Bradbury's novels and story collections include such perennial favorites as "The Martian Chronicles," "The Illustrated Man," "The Golden Apples of the Sun" and "Fahrenheit 451." Materials related to these and other books, as well as many film and television adaptations, are included in the donated collections.

The donations to the Bradbury center at IUPUI bring the creative author's legacy back to the Midwest, said Dr. Jonathan Eller, Chancellor's Professor of English at IUPUI and director of the Bradbury center.

"The gifts from the Bradbury family and Professor Albright reinforce the writer's abiding ties to the Midwest," Dr. Eller said. "We plan to reconstruct Mr. Bradbury's home office as it existed in the mid-1960s, at the height of his power as a creative writer and cultural visionary."

The writer left his manuscripts and author's copies of his books to Albright, his principal bibliographer and a Pratt Institute professor, according to Dr. Eller.

In turn, "Donn, a native Hoosier, has graciously donated most of these books and papers to the Bradbury center," Dr. Eller said.

Albright's gift, to be known as the Bradbury-Albright Collection, will be the centerpiece of the Bradbury Memorial Archive at the Center for Ray Bradbury Studies. The archive is being created with the gift from the Bradbury family that includes the furnishings, correspondence, awards and mementoes from Bradbury's home office.

Many awards and artifacts representing Bradbury's strong influence on America's space program are also included in the Bradbury family gift.

"The Ray Bradbury items are a tremendous addition to the Center for Ray Bradbury Studies, one of five scholarly editions that are part of the Institute for American Thought at IUPUI," Chancellor Charles R. Bantz said. "Recently named an IUPUI Signature Center, the Institute for American Thought is internationally recognized for the work of the faculty and staff to preserve, research and publish authoritative texts by important American writers. Being able to display the Ray Bradbury artifacts from his office library will present Bradbury in a compelling way for countless readers and students of his work."

The School of Liberal Arts will catalog and store most of the items until the Bradbury center is able to expand its space to accommodate the new holdings. A few items will be on display in the center offices until then.

"Ray Bradbury's influence and stature come not only from the impact of his own writing but from the many authors and other creative people he inspired," said Dr. William Blomquist, dean of the IU School of Liberal Arts. "We are honored and extremely pleased to be able to preserve and showcase his work and materials, as one more dimension of the excellent scholarship about his work that already flourishes here."

The Center for Ray Bradbury Studies is a research component within the Institute for American Thought in the IU School of Liberal Arts at IUPUI. The center opened in 2007 with the goal of providing an archive for Bradbury's writings and a library of related reference books in the fields of fantasy and science fiction.

The new donations will be invaluable to the center's ongoing work of publishing Bradbury's early stories in their original forms. "The Collected Stories of Ray Bradbury — A Critical Edition: Volume 1, 1938-1943" was



Center for Ray Bradbury Studies Director Jonathan Eller, Ph.D., with science fiction and fantasy magazines with Ray Bradbury stories, part of the Bradbury-Albright Collection.

published in 2011; Volume 2, comprising Bradbury's stories of the 1943-44 period, is in the works at Kent State University Press.

"The outreach potential of these gifts is exciting," Dr. Eller said. "We already have a good presence throughout the Indianapolis Public Library system, and we hope to use the displays and the resources of the center to reach further into the school communities and general readership of Indiana."

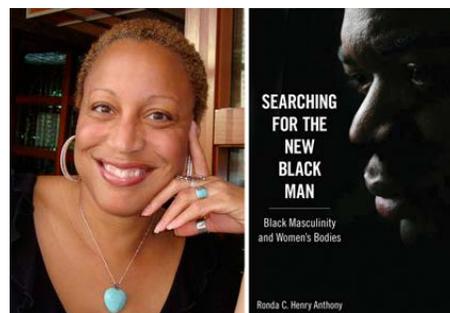
University students and faculty researchers in Indiana and beyond will also benefit, the director said. Shipment of the Bradbury items to the IUPUI campus this month coincided with a shipment of Bradbury's home library and related materials to the Waukegan Public Library in Illinois, a donation representing the author's wish to leave his hometown with a significant portion of his literary legacy. Waukegan Library staff and the IUPUI center worked closely throughout the summer to coordinate the shipments from Bradbury's Los Angeles home.

FACULTY SPOTLIGHT

IUPUI Professor Explores Evolution of Black Masculinity in New Book

Dr. Bryan Schneider, a physician scientist at the IU School of Medicine, has been named the Vera Bradley Investigator in Oncology.

Dr. Schneider is a breast cancer physician scientist who joined the school's faculty in 2005 and conducts research in the Vera Bradley Foundation for Breast Cancer Research Laboratories at the [Indiana University Melvin and Bren Simon Cancer Center](#). He is one of nearly 40 members of the IU Simon Cancer Center's breast cancer program, which is recognized for excellence in research by the National Cancer Institute.



Rhonda Henry Anthony, Ph.D.

"Bryan Schneider is the obvious choice to hold the Vera Bradley title. Through his collaborative spirit, passion for the work and pure brilliance, he personifies what makes the whole team great," said Catherine Hill, executive director of the [Vera Bradley Foundation for Breast Cancer](#).

Dr. Schneider's research focuses on personalized medicine: giving the right medicine to the right patient at the right time based on genetic and other factors. With past Vera Bradley support, he has developed a first-of-its-kind clinical study for women diagnosed with triple negative breast cancer, a very aggressive form of the disease.

Through a controlled scientific study, Dr. Schneider will test whether the use of DNA sequencing to identify specific disease drivers and to select treatments for women based on these genetic markers actually improves survival rates. And it will move the timing of Phase I clinical trials from the metastatic setting -- when all other options have failed -- to earlier in the disease process when there is the potential to cure women.

Dr. Schneider -- an associate professor of medicine and of medical and molecular genetics at the IU School of Medicine, a researcher at the IU Simon Cancer Center and associate director of the [Indiana Institute for Personalized Medicine](#) -- has already made a significant impact in the world of breast cancer research. In 2011, just six years into his career at the IU School of Medicine, his research was recognized as one of the top clinical cancer research advances that year by the [American Society of Clinical Oncology](#), the largest and most prestigious organization of its kind in the world. Also in 2011, the Conquer Cancer Foundation of the American Society of Clinical Oncology named Dr. Schneider the recipient of the Advanced Clinical Research Award in Breast Cancer. Recipients are selected based on their unique patient-oriented approaches to research. He also is a recipient of the Conquer Cancer Foundation's 2006 Career Development Award and 2002 and 2003 Merit Awards.

A native of Jasper, Indiana, Dr. Schneider graduated summa cum laude from the University of Evansville. He then graduated from the IU School of Medicine, completing a residency in internal medicine and an extended fellowship in oncology that allowed him to concentrate his time in the research laboratory.

"It is a privilege and a great honor to hold the title of Vera Bradley Investigator," Dr. Schneider said. "The enthusiasm and passion that Vera Bradley Foundation volunteers and professionals have for curing this

disease inspires me as I work to help women live longer, healthier lives after a diagnosis of breast cancer.”

STUDENT SPOTLIGHT

A Myriad of Research Experiences Fuels Student’s Passion to Explore the World of Physics

Qurat-ul-Ann “Anna” Mirza isn’t afraid to explore unfamiliar areas in research. She can be described as a dedicated, tenacious and incredibly driven student. Pursuing a bachelor of science in physics, Anna believes that the most important thing in life is education and wants to become the first female in her family to earn a Ph.D. Her goal is to become a research scientist searching for dark matter using X-rays, investigating the high-energy end of the spectrum and studying the fundamental physics of the universe.

While attending Speedway High School, she discovered her interest in physics. In her first such class she became fascinated with gravitational force, the motion of our universe, the bending of light, and sound waves. “It provided me with answers to things that I always wondered about,” Anna said. “The explanations to these questions were so elegant that I had to pursue a career where I could expand on my understanding of nature and the properties of energy and matter.”

Anna’s research experience began with the Louis Stokes Alliances for Minority Participation (LSAMP) program in the summer of 2011. She then became a Diversity Scholars Research Program (DSRP) fellow, which allowed her to continue her research through the academic year. She also has participated in the Summer Diversity Scholars Research Program, has been an Undergraduate Research Opportunities Program (UROP) grantee and has served as a research assistant, her position funded by the Institute of Mathematical Modeling and Computational Science at the School of Science. This past summer she worked on a Multidisciplinary Undergraduate Research Institute (MURI) team, and she has given numerous presentations on her research. In addition, her *Minimal Hodgkin-Huxley Model: DC Stimulus* was published in February on the Wolfram Demonstration Project website. In March, she received honorable mention at Posters on the Hill, presented annually at the U.S. Capitol by the Council on Undergraduate Research (CUR).

Anna’s mentor, Yogesh N. Joglekar, Ph.D., an associate professor of physics, observed, “Over the past two years, Anna’s research has elucidated the similarities and differences between semiconductor thin-film memristors and ion channels in biological membranes. Her continuous dedication and tenacity in the face of challenging research questions and her overarching desire to put her results in broader context show that she has internalized the essence of life in research.”

This past spring Anna received the Bowling-Jones-Russo Memorial Undergraduate Research Award. This prestigious honor is presented annually to a continuing IUPUI student who has demonstrated outstanding research in any discipline. Dynamic students like Anna Mirza are one reason why IUPUI has emerged as a leader in research.



Qurat-ul-Ann “Anna” Mirza

TRANSLATIONAL RESEARCH IMPACT

Researcher Finds Current Practices Expose 90 percent of Patients to High Risk for Sensitive Endoscopic Procedure

An IU researcher is the first author on a new paper that finds that patients who seek treatment from physicians who more frequently perform a high-risk endoscopic procedure used to diagnose and treat conditions of the bile and

pancreatic ducts are less likely to be admitted to the hospital or require a repeat procedure.

Unfortunately, 90 percent of physicians who perform these highly complex procedures -- called an endoscopic retrograde cholangiopancreatography procedure, or ERCP -- don't do it very often.

"The rate of immediate hospitalizations nearly doubled" -- to 28 percent -- "when ERCP was performed by a physician in the low-volume group as compared to a rate of 15 percent when performed by a physician in the high-volume group," said Gregory A. Coté, M.D., assistant professor of medicine at the IU School of Medicine, who led the [study](#) which found that nearly 90 percent of all physicians who perform this procedure fail during the first attempt.



Gregory A. Coté, M.D.

About 500,000 ERCPs are performed in the United States each year to diagnose or treat conditions such as gallstones, acute and chronic pancreatitis with a blockage or obstructions from malignant tumors, such as pancreatic cancer. The procedure is usually performed under general anesthesia.

Physicians in the so-called "low volume" group practiced ERCPs less than twice a week. Moreover, Coté said that nearly 10 percent of patients treated by physicians in this group required a second procedure within seven days -- a situation defined in the study as a "failure" rate, as it's unlikely a patient should require a second procedure in such a short time frame barring a failure or complication from the initial procedure.

Repeat procedures expose patients to risks such as tearing of the intestinal wall, pancreatitis, internal hemorrhage, complications from anesthesia, and infections.

"Risks of the procedure are essentially doubled with a second ERCP," Dr. Coté said. "Having two interventions in such a short time span induces substantial anxiety for patients and their loved ones, and the implications on health care costs are clear."

Yet, he added, "in a fee-for-service reimbursement structure, there is little incentive to minimize or eliminate these repeat procedures."

Results in the high-volume group, which included physicians who performed more than 117 ERCPs per year, were rosier. Even after accounting for the fact that ERCPs performed by these providers were typically for more complex indications, there was a 6 percent incidence of repeat procedures within seven days of the initial procedure. The data showed that as the number of procedures performed by a physician increased, the failure rate decreased. Physicians who perform more than 117 ERCPs per year had similar failure rates, suggesting this as an approximate threshold for a provider to maintain technical proficiency.

"The bottom line in this study is that we have established and quantified a correlation between provider volume and outcomes from ERCP," Dr. Coté said. "This is the most complex endoscopic procedure performed by gastroenterologists, yet it is the minority of ERCP providers who do the procedure frequently -- and their outcomes are superior to low-volume providers. This has critical implications for health care system costs, medical quality and patient advocacy."

The study's authors' recommendations include the creation of more stringent credentialing processes and quality improvement guidelines for ERCP -- similar to those established for colonoscopy and some surgical procedures, which have resulted in better outcomes for patients and lower health care costs. Systematic reporting of outcomes at the hospital and provider level -- including failure and complication rates -- will help inform patients of the best environments in which to undergo ERCP.

The Regenstrief Institute, where Dr. Coté also serves as an investigator, helped track data for the study, which was based upon the results of 16,968 ERCPs performed by 130 physicians in the Indiana Network for Patient Care from 2001 to 2011.

Co-authors include Stuart Sherman, M.D., and Timothy D. Imler, M.D., from the IU Division of Gastroenterology and Hepatology; Thomas F. Imperiale, M.D., from the IU Division of Gastroenterology and Hepatology, the Regenstrief Institute and the Center of Excellence on Implementing Evidence-Based Practice at the Roudebush VA Medical Center; Huiping Xu, Ph.D., IU School of Medicine Department of Biostatistics; Marc B. Rosenman, M.D., Regenstrief Institute and IU School of Medicine Department of Pediatrics; Siu L.

Hui, Ph.D., Regenstrief Institute and IU School of Medicine Department of Biostatistics; Jeffrey Wilson, Ph.D., Department of Geography at Indiana University-Purdue University Indianapolis; and Dustin D. French, Ph.D., Northwestern University Feinberg School of Medicine Department of Ophthalmology and Center for Healthcare Studies, and the VA Center of Excellence. This research was supported by National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health.

OVCR EVENTS AND WORKSHOPS

How to Extract Data from KC

When: Friday, January 24, 2014 | 10:30am - 12:00pm

Where: University Library, Lilly Auditorium

Steve Martin and Jim Becker from the Office of Research Administration will demonstrate how to extract data from KC and other resources

Register: <https://crm.iu.edu/CRMEvents/KCData/>

Ins and Outs of Applying for NSF Funding

When: Friday, February 14, 2014 | 8:30am - 12:00pm

Where: University Library, Lilly Auditorium

How to prepare and submit grant proposals to the National Science Foundation (NSF) is the focus for this interactive discussion by representatives of the Office of the Vice Chancellor for Research. Topics to be covered will include the identification of the different types of funding mechanisms and those most appropriate for your career stage, a description of the content of excellent proposals, a presentation of resources available within the University to support proposal development, and an intensive look at the peer review process. Highlighting the event is a panel discussion by current and previous NSF awardees and study section participants who will provide an in-depth look into the review process and a presentation by staff from the Office of Research Administration.

Register: <https://crm.iu.edu/CRMEvents/NSFProposals/>

RECENT EXTERNAL FUNDING AWARDS

The Office of the Vice Chancellor for Research recognizes and congratulates all IUPUI faculty and researchers for recent awards they have received and that help to advance the IUPUI research enterprise. The following table highlights those receiving \$100,000 or more in external grants.

Grants and Awards - November 2013

PI	Agency	Project Title	School	Department	Total
Shekhar, Anantha	NATIONAL CENTER FOR ADVANCING TRANSLATION SCIENCE	Indiana Clinical and Translational Sciences Institute - K program	MEDICINE	CLINICAL TRANSLAT SCI (CTSI)	\$3,167,268
Boulton, Michael E	NATIONAL EYE INSTITUTE	Optimizing systemic stem/progenitor cell therapy for AMD	MEDICINE	OPHTHALMOLOGY	\$2,668,602
Duke, Jon David	REGENSTRIEF INSTITUTE, INC.	Merck/Regenstrief Collaboration	MEDICINE	GENERAL INTERNAL MEDICINE	\$2,335,747
Shekhar, Anantha	NATIONAL CENTER FOR ADVANCING TRANSLATION SCIENCE	Indiana Clinical and Translational Sciences Institute - T program	MEDICINE	CLINICAL TRANSLAT SCI (CTSI)	\$2,116,940
Turchi, John J	NATIONAL CANCER INSTITUTE	Targeting nucleotide excision repair in combination cancer therapy	MEDICINE	HEMATOLOGY/ONCOLOGY	\$1,618,500

Flockhart, David A	NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES	Indiana University Comprehensive Training in Clinical Pharmacology	MEDICINE	CLINICAL PHARMACOLOGY	\$1,350,050
Broome, Marion E	RANCHO SANTA FE FOUNDATION	Indiana University School of Nursing Woltman Family Communication Program	NURSING	NURSING	\$770,000
Duke, Jon David	NATIONAL SCIENCE FOUNDATION	SCH: EXP: From Critique to Collaboration: A Fundamental Rethinking of Computerized Clinical Alerts	MEDICINE	GENERAL INTERNAL MEDICINE	\$589,572
Bodenhamer, David J	INDIANA DEPARTMENT OF HOMELAND SECURITY	Indiana State Hazard Mitigation Plan	LIBERAL ARTS	POLIS CENTER	\$297,000
Dixon, Brian Edward	THE ROBERT WOOD JOHNSON FOUNDATION	Leveraging Integrated Electronic Data Sources to Improve Population Health Assessment at Local Levels	INFORMATICS	BIOHEALTH INFORMATICS	\$200,000
Howenstine, Michelle S	CYSTIC FIBROSIS FOUNDATION	IN-182/182 - Riley Hospital for Children Indiana University Medical Center (Howenstine, Michelle)	MEDICINE	PED-PULM CRITICAL CARE/ALLERGY	\$159,620
Fife, Rose S.	PFIZER, INC	Improving Outpatient Management of Hispanics with Rheumatoid Arthritis in an Urban Clinic Using a Telephonic Intervention	MEDICINE	RHEUMATOLOGY	\$150,000
Eugster, Erica A.	INDIANA STATE DEPARTMENT OF HEALTH	Indiana Congenital Hypothyroidism and Congenital Adrenal Hyperplasia Follow-up Programs (ICHFP & ICAHFP)	MEDICINE	PED-ENDOCRINOLOGY/DIABETOLOGY	\$120,000

CURRENT EXTERNAL FUNDING OPPORTUNITIES

Funding opportunities in this section include selected current grant announcements from federal agencies for new initiatives and changes to existing programs. Announcements with limited scope are not listed here but are, instead, sent directly to IUPUI School Deans. For comprehensive coverage of funding opportunities please use the on-line search tools listed below.

AGENCY for HEALTHCARE RESEARCH and QUALITY (AHRQ)

Advances in Patient Safety through Simulation Research: This R18 program is interested in a diverse set of projects that develop, test and evaluate various simulation approaches aimed at improving the safe delivery of healthcare. Simulation in healthcare serves multiple purposes. As a training technique, it exposes individuals and teams to realistic clinical challenges through the use of mannequins, task trainers, virtual reality, or standardized patients, and allows participants to experience in real-time the consequences of their decisions and actions. The principal advantage of simulation is that it provides a safe environment for healthcare practitioners to acquire valuable experience without putting patients at risk. Simulation also can be used as a test-bed to improve clinical processes and to identify failure modes or other areas of concern in new procedures and technologies that might otherwise be unanticipated and serve as threats to patient safety. Yet another application of simulation focuses on the establishment of valid and reliable measures of clinical performance competency and their potential use for credentialing and certification purposes. Applications that address a variety of simulation techniques, clinical settings, provider groups, priority populations, patient conditions, and threats to safety are welcomed. *Deadlines: May 25 and September 25, 2014.*

DEPARTMENT OF ENERGY

Clean Energy Manufacturing Innovation Institute: The objective of this announcement is to establish a Clean Energy Manufacturing Innovation Institute to support U.S. prosperity and security; and that will contribute to the creation of the National Network for Manufacturing Innovation (NNMI). The primary goals of the Institute are to revitalize American manufacturing and support domestic manufacturing competitiveness by driving innovation, and developing and accelerating adoption of next generation manufacturing technologies that will increase energy productivity, improve product quality, reduce cost, waste or pollution leading to increased domestic production capacity, jobs for American workers and regional economic development. The Institute established through this FOA will focus on wide band gap (WBG) semiconductors for power electronic devices. *Deadlines: Letter of Intent, July, 11, 2014; Submission, August 29, 2014.*

NOTE: All faculty, researchers, and scientists on continuing contracts at IU interested in applying for Department of Defense funding are eligible for assistance by the consulting firm--Cornerstone Government Affairs-- arranged by the Vice President for Research. Those interested in securing assistance from

Cornerstone must submit a 2 page summary of their research project and a CV or biosketch to the VP for Research Office at vpr@iu.edu . Prior to submission, the IUPUI Office of the Vice Chancellor for Research is offering assistance with the 2 page summaries. For more information, contact Ann Kratz akratz@iupui.edu.

NATIONAL INSTITUTES OF HEALTH

Animal and Biological Material Resource Centers (P40): This program focuses on national Animal Model, and Animal and Biological Material Resource Centers. These Centers provide support for special colonies of laboratory animals, as well as other resources such as reagents, cultures (cells, tissues, and organs) and genetic stocks that serve the biomedical research community. The resource centers for Animal and Biological Materials collect, maintain, characterize, and distribute defined strains of animals and/or related biological materials to biomedical investigators in a variety of research areas on a local, regional, national and international basis. This funding opportunity is designed to both support continuation of existing resources, and to develop new ones when appropriate. Prior to preparing an application, all applicants are strongly encouraged to consult with Program staff to be advised on appropriateness of the intended resource plans for this program, competitiveness of a potential application and ORIP's program priorities. *Deadline: May 25, 2014.*

Basic & Applied Biomedical Research on Minority Health & Health Disparities: The overall goal is to enhance our understanding of fundamental biological mechanisms involved in disease conditions that disproportionately affect health disparity populations and develop therapies or interventions that can directly or demonstrably contribute to the reduction or elimination of health disparities. This R01 solicits applications to conduct the following: 1. Biological and genetic research to explore disease mechanisms or pathways that influence health outcomes in minority and health disparity populations. 2. Clinical and translational research linking basic science discovery with effective treatment or clinical practice to improve health outcomes in minority and health disparity populations. Projects investigating the etiology, physiology, genetic risk factors, molecular pathways, gene-environmental interactions, pharmacogenomics and personalized medicine in health disparity populations are particularly encouraged. Sponsor ID: RFA-MD-13-008. *Deadlines: Letter of Intent, October 26, 2014; Submission, November 26, 2014.*

Research to Understand and Inform Interventions that Promote the Research Careers of Students in Biomedical and Behavioral Sciences (R01): This Funding Opportunity Announcement (FOA) solicits applications that propose research designed to test assumptions and hypotheses on the role of social and behavioral factors in interventions intended to increase interest, motivation and preparedness for careers in biomedical and behavioral research. These research findings should guide the design and implementation of potential interventions. *Deadlines: Letter of Intent, September 19, 2014; Submission, October 18, 2014.*

NATIONAL SCIENCE FOUNDATION

Ceramics: This program supports fundamental research including combined experiment and theory projects in ceramics (e.g., oxides, carbides, nitrides, and borides), glasses, ceramic-based composites and inorganic carbon-based materials. The objective is to increase fundamental understanding and to develop predictive capabilities for relating synthesis, processing, and microstructure of these materials to their properties and ultimate performance in various environments and applications. Development of new experimental techniques or novel approaches to carry out projects is encouraged. Topics supported include basic processes and mechanisms associated with nucleation and growth of thin films; bulk crystal growth; phase transformations and equilibria; morphology; surface modification; corrosion, interfaces and grain boundary structure; and defects. The microstructures investigated range from crystalline, polycrystalline, and amorphous to composite and nanostructured materials. PIs are encouraged to include all anticipated broader impact activities in their initial proposals, rather than planning on supplemental requests. *Deadline: October 31, 2014.*

Science of Organizations: This program funds basic research that yields scientific evidence for improving the design and emergence, development and deployment, and management of all kinds of organizations. Successful submissions will use scientific methods to develop and refine theories, to empirically test theories and frameworks, and to develop new measures and methods. Funded research is aimed at yielding generalizable insights that are of value to the business practitioner, policy-maker and research communities.

In considering a project, applicants should note the following: 1. Perspectives may involve organizational theory, behavior, sociology or economics, business policy and strategy, communication sciences, entrepreneurship, human resource management, information sciences, cognition, operations management, public administration, psychology, and technology and innovation management. 2. Phenomena studied may include structures, routines, effectiveness, competitiveness, innovation, dynamics, change and evolution. 3. Levels of analysis may include organizational, cross-organizational collaborations or relationships, and can address individuals, groups or teams. 4. Research methods may be qualitative and quantitative and may include archival or network analyses, surveys, simulation studies, experiments, and comparative case studies. Projects that aim to implement and evaluate particular organizational training, effectiveness or change programs, rather than to advance fundamental, generalizable knowledge, are not appropriate. *Deadlines: September 3, 2014*

Cognitive Behavioral Program: The Cognitive Neuroscience program seeks highly innovative proposals aimed at advancing a rigorous understanding of how the human brain supports thought, perception, affect, action, social processes, and other aspects of cognition and behavior. Topics may bear on core functions such as sensory, learning, language, reasoning, emotion, and executive processes, or more specialized processes such as empathy, creativity, representation of self and other, or intentionality, among many other possibilities. The program is particularly interested in supporting the development of new techniques and technologies for recording, analyzing, and modeling complex brain activity. Such projects should include a plan for sharing new software and other technologies with the research community at large. The emphasis must be to advance basic scientific understanding of neural mechanisms, and not disease etiology, diagnosis, or treatment. The program also intends to foster projects that integrate perspectives across disciplines. For example, projects that involve collaborations among individuals with expertise in one of the cognitive sciences, neuroimaging, neural microcircuitry, and modeling complex systems are strongly encouraged. *Deadline: August 27, 2014.*

IDENTIFYING FUNDING OPPORTUNITIES

On-line search tools are available to IUPUI investigators who are interested in identifying funding opportunities in their areas of interest.

Community of Science (COS): COS is a primary on-line search tool for identifying funding opportunities. To take advantage of this tool, register at <http://www.cos.com/login/join.shtml>. Once you have completed the short registration process, you can personalize your search by selecting the option entitled "launch your workbench". You can access federal, local, corporate, foundation, nonprofit and other funding opportunities using key terms and save the results of up to 20 searches and have them delivered to you weekly via email.

National Institutes of Health (NIH) "NIH Guide": To take advantage of this search tool, register at <http://grants.nih.gov/grants/guide/listserv.htm>. It allows you to receive discipline specific funding opportunities that are delivered to you weekly via email.

National Science Foundation (NSF) "MyNSF": To take advantage of this search tool, register at http://service.govdelivery.com/service/multi_subscribe.html?code=USNSF&custom_id=823. It allows you to receive discipline specific funding opportunities that are delivered to you weekly via email.

Federal Business Opportunities "FedBizOpps": FedBizOpps is the single government point-of-entry for Federal government procurement opportunities over \$25,000. To take advantage of this search tool, visit <https://www.fbo.gov>. Opportunities found at this site include, but are not limited to, presolicitations and special notices for research and service contracts for specific projects and some national centers and surveys that would not be found in Grants.gov and may not be found in the Community of Science.

Limited Submission Funding Opportunities:

Many federal agencies and foundations offer grants, awards and fellowships that limit the number of applications that can come from one institution or require special handling. In order to comply with agency and foundation guidelines and increase the chances of Indiana University (IU) succeeding in such limited submissions and special handling opportunities, IU policies and procedures are in place and are utilized by the Office of the Vice Chancellor for Research and other IU research offices to facilitate internal coordination

and competitions.

Individuals interested in responding to limited submission opportunities must inform the Office of the Vice Chancellor for Research about their intent to apply to a given limited submission opportunity, such that they can be included in the internal review and selection process. Failure to do so may disqualify individuals from consideration for submission to the funding opportunity.

Individuals interested in a limited submission opportunity or have any questions about the internal coordination process, contact Etta Ward at emward@iupui.edu or 317-278-8427. For a description of upcoming limited submission funding opportunities, as well as guidelines and application forms, go to: http://research.iu.edu/limited_sub.shtml. Please note that this is not a comprehensive list, and that any external funding opportunity that imposes any type of submission limitation is subject to the IU limited submission policy and procedures.

The Special Handling list was created in order to communicate donor restrictions and/or preferences for managing solicitation requests from Indiana University. The list reflects special relationships that exist between donors and the university and includes corporations and foundations that the President's office wishes to review prior to submission in order to coordinate Indiana University's requests to these donors.

The Special Handling List was compiled and is maintained by the Indiana University Foundation office of Corporate and Foundation Relations. Please contact [Dee Metaj](#) at 317-278-5644 if you have any questions regarding this list.

IU Authentication is required to view the following attachments:

[IUF Special Handling List and Principal Gifts Review Template](#)

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