

Research Enterprise

June 12, 2013

INSIDE THIS ISSUE:

- [Feature Story](#)
- [Announcements](#)
- [Center Spotlight](#)
- [Faculty Spotlight](#)
- [Student Spotlight](#)
- [Translational Research Impact](#)
- [Events and Workshops](#)
- [Recent External Funding Awards](#)
- [Current External Funding Opportunities](#)
- [Identifying Funding Opportunities](#)

FEATURE STORY

IUPUI Lands NASA Grant

The School of Engineering and Technology has received a 1-year \$200,000 grant from the NASA Aeronautics Research Institute (NARI) through its program of Leading Edge Aeronautics for NASA (LEARN). The grant funds a collaborative project by IUPUI, Purdue University, Tuskegee University and Rolls Royce Corporation that explores innovative concepts for future airplane engines. Responding to NASA's call for early-stage highly innovative ideas with the potential to meet national aeronautics needs, the research team proposed a novel hybrid electric engine that would combine electric battery and motor drive with a highly fuel-efficient and compact combustion turbine engine. Aircraft electrification could cut operating fuel cost and decrease the environmental impact by taking advantage of the shrinking size, weight, and cost of electric battery storage and motor drives.

Conventional turbine engines are designed to operate efficiently during cruise, but often burn fuel inefficiently during taxing and idling at congested airports. Electric propulsion could provide a more energy efficient solution for ground movements, just as electric cars are more efficient for city driving. To maximize fuel efficiency for medium-range aircraft, the benefits of electric propulsion would be combined with an innovative wave-rotor turbine engine invented at IUPUI. This engine merges the functions of a compressor, combustor, and turbine found on today's aircraft engines into a single rotating component, and offers significantly lower-fuel consumption and greenhouse gas emissions. The project is led by Professor Razi Nalim, who worked at NASA's Glenn Research Center before founding the combustion and propulsion research laboratory at IUPUI.

Dr. Nalim has continued his long-standing research collaboration with Rolls-Royce Corporation in Indianapolis. In the past decade, his team has demonstrated the design and operation of the novel wave rotor combustor, with funding from Rolls Royce, NASA, and other sponsors. The new NASA grant will fund research to evaluate the hybrid wave-rotor electric aero-propulsion (HyWREAP) system using computer models, with the assistance of Purdue University and Tuskegee University. Rolls-Royce engineers will provide advice and expertise in engine design. The HyWREAP target is a 90 percent reduction in fuel use for subsonic regional jets

The Office of the Vice Chancellor for Research (OVCR) publishes the RESEARCH ENTERPRISE to keep the academic community and the community at large informed about research activities, opportunities and development on the IUPUI campus.

Research Offices:

[Development Administration](#)
[Compliance](#)
[Enterprise Archive](#)

Editor:
Etta Ward

Layout:
Erik Scull

If you have a news item or recent noteworthy research-related achievement that you would like to share, please see the [Research Enterprise Submission Guidelines](#).

Please be aware that not all news items will be deemed appropriate or timely for publication, but each item will be carefully considered.

compared to current technology. The success of this technology will enable aircraft to be completely redesigned for electric propulsion. They would be recharged at airports with electricity, which could be generated from renewable sources, while carrying only a small amount of fuel.

"We are thrilled to have the opportunity to explore highly innovative ideas and further develop the HyWREAP program through proof-of-concept demonstrations," said Dr. Nalim. "HyWREAP technology could enable air transport to reach unprecedented fuel savings and emissions cuts by optimally combining two energy sources."

The Leading Edge Aeronautics Research for NASA (LEARN) grant will support innovative research through two phases of study. The Phase 1 award is for one-year efforts to explore the overall viability and advance the concepts. A follow-on Phase 2 proposal call will later be released to eligible recipients of Phase 1 awards, past and present, to further develop the most promising Phase 1 concepts and explore potential infusion options within NASA and beyond. Phase 2 award amounts can be larger than Phase 1 awards and are for a period of performance of 12-18 months.

ANNOUNCEMENTS

IUPUI's University Library Dean Named President of Academic Libraries of Indiana

David Lewis, dean of University Library, is now head of the statewide organization representing all academic libraries in nonprofit institutions of higher education.

Academic Libraries of Indiana installed Lewis as president during the organization's 10th annual meeting in early May. Established in 2003, Academic Libraries of Indiana is dedicated to improving Indiana's information infrastructure and supporting economic development by making the scholarly record accessible in support of grants, contracts, projects, entrepreneurial ventures and government initiatives.

One focus of Lewis' tenure as president will be to oversee a large-scale project to study print book use in Indiana academic libraries. The intent is to identify redundant and little-used titles that might be withdrawn to create space for other more important purposes, such as collaborative learning environments where students can consult with librarians and each other.

"As dean of the University Library at IUPUI, David Lewis has been on the leading edge of the transformation of libraries to improve their contribution to student success, faculty scholarship and community engagement," said Chancellor Charles R. Bantz. "He is nationally recognized and respected among academic librarians for leadership, innovation and collaboration."

Students at schools and colleges across Indiana learn how to identify, access, evaluate and apply information through their libraries. This type of learning, sometimes called "information literacy," is a key program area for Academic Libraries of Indiana and prepares students for democratic citizenship and success in



David Lewis

the workplace.

IUPUI University Library is engaged in most programs of the Academic Libraries of Indiana, whose activities include developing collaborative strategies for resource sharing and the cooperative acquisition of electronic resources.

"Academic Libraries of Indiana is a great collaboration of all of Indiana's academic libraries," Lewis said. "All academic institutions from Ivy Tech to colleges to research institutions are represented, and we all pull together to make what libraries do for students and faculty better. The result is improved service and a better value for all of Indiana's colleges and universities.

Lewis came to IUPUI in 1993 from the University of Connecticut, where he was head of Research and Information Services. He became dean of the University Library in 2000. In 2009, Lewis accepted the additional responsibility of assistant vice president for digital scholarly communications. His role is to advance Indiana University's programs in digital scholarship and advocate for improved forms of scholarly communication that make academic research more open and accessible; he has also worked on IU's e-textbook initiative.

Located at 755 W. Michigan Ave. on the IUPUI campus, the University Library is a public library, serving nearly 1 million visitors a year, 10 percent of them community users. University Library supports students and faculty across all of IUPUI's more than 200 degree programs with research expertise and a wide array of resources. Resources include signature collections like the Joseph and Matthew Payton Philanthropic Studies Library, the Ruth Lilly Special Collections and Archives, the Herron Art Library and over 60 digital collections.

IUPUI to Host Regional Tech Event

More than 200 Midwestern university technology managers, researchers and administrators will gather in Indianapolis this summer at a meeting that could have an impact on economic development in Indiana's thriving life sciences and information technology industries.



These professionals are members of the central region of the Association of University Technology Managers who work to bring discoveries at universities and other nonprofits to the marketplace, unlocking the discoveries' potential to create new companies and jobs, and benefit individuals and the economy as a whole.

Association members include Indiana University Research & Technology Corporation officials; technology transfer and research directors and staff at other universities in Indiana and the Midwest; representatives from industry and government organizations; patent attorneys and accountants who place a value on technology; and other support professionals.



Research & Technology Corp.

The AUTM 2013 Central Region Meeting, July 17 to 19, will take place at the Hyatt Regency in downtown Indianapolis. Its theme is "Raising the Game."

"The meeting enables colleagues to come together and share best practices and discuss where things are going in the technology transfer field," said Tony Armstrong, president and CEO of the IU

At its core, technology transfer is about how best to take technologies and put

them into the marketplace in some way, Armstrong said. "Sometimes that is licensing it to an existing company, and sometimes that means creating a company around the technology to help move it along. That is a big part of the discourse at the AUTM meeting as well."

IU Research & Technology Corp has worked with IU faculty and students to develop more than 1,800 inventions, about 500 patents and more than three dozen start-up companies.

Association of University Technology Managers meetings attract venture capitalists and other capital providers to see what technologies are available, Armstrong said. "The meeting in July is focused on professional development, but it offers opportunities for deal making, and I would not be surprised if that occurs. It's a chance for companies that are potential licensees to be involved, to hear what's happening and to interact with people who are managing technology."

Because the Association of University Technology Managers Central Region meeting is in Indianapolis, it also offers the opportunity to showcase what's occurring at IUPUI, including new construction that's related to research, Armstrong said. "All that activity surprises people, particularly if they are visiting the city for the first time. Every time you have a chance to showcase the city and the campus, it's a great opportunity."

For more information and to register, go here: [Event Registration](#)

CENTER SPOTLIGHT

IU and Regenrief Receive PCORI Award to Improve Health Care Access for Underinsured

The Patient-Centered Outcomes Research Institute has approved a three-year research award of more than \$2 million to the Indiana University Center for Health Services and Outcomes Research and the Regenrief Institute Inc. to study ways to improve health care access for the underinsured.

[Regenrief Institute](#) investigator Dr. Bradley N. Doebbeling, professor of medicine in the [Indiana University School of Medicine](#) and adjunct professor in the [School of Informatics](#) at Indiana University-Purdue University Indianapolis, will lead the research project on behalf of the Indiana Access Collaborative. The project will focus on developing procedures to help underinsured people efficiently and effectively get the care they need for common health problems.



Bradley N. Doebbeling, M.D.

The research, which will be conducted in seven [Indiana Community Health Centers](#), builds upon longtime work by Dr. Doebbeling, Tammy Toscos, Ph.D., of Indiana University-Purdue University Fort Wayne, and Ayten Turkcan, Ph.D., of Northeastern University. Community health centers are a major component of America's health care safety net, providing primary care to low-income citizens, the uninsured and other vulnerable populations. Partners include the Indiana Primary Health Care Association and MDwise, Inc. as well as the community health centers and their patients. Drs. Toscos and Turkcan are co-investigators on the PCORI contract.

"Data show that 2 in 10 adults report that they either delayed or did not receive

needed health care due to financial or insurance reasons. And they may confront many other barriers," Dr. Doebbeling said. "Despite recent changes to policy and efforts to improve efficiencies, there are still widespread problems with accessing health care. In this newly funded research project, we will identify and address the challenges underinsured people in Indiana face in overcoming barriers to gaining access to care.

"Understanding challenges and systems redesign is part of the solution to reining in the large proportion -- estimated at 30 to 40 percent of national health care costs - - that is wasteful or inefficient. In any population, such as the group of Indiana Community Health Centers and their patients, there are some who have figured out the best way to practice. Our study will learn from the experiences of patients, providers and staff members to help prioritize care access strategies and implement them."

In addition to Dr. Doebbeling's Regenstrief and IU appointments, he is a senior scientist with the VA Health Services Research & Development Center of Excellence in Indianapolis and a professor of mechanical engineering at Purdue University's Weldon School of Biomedical Engineering.

The study is part of a portfolio of patient-centered research that addresses PCORI's national research priorities and will provide patients with information that will help them make more informed decisions about their care.

"This project reflects [PCORI](#)'s commitment to support patient-centered comparative effectiveness research, a new approach to health research that emphasizes the inclusion of patients and caregivers at all stages of the study process," said PCORI Executive Director Joe Selby, M.D., MPH. "The research will provide patients and those who care for them better information about the health care decisions they face."

The Indiana University and Regenstrief Institute study is one of 51 projects totaling \$88.6 million approved for funding by PCORI's Board of Governors on May 6. All were selected through a highly competitive review process in which scientists, patients, caregivers and other stakeholders helped to evaluate more than 400 applications for funding.

Proposals were evaluated on the basis of scientific merit, how well they engage patients and other stakeholders, their methodological rigor, how well they fit within PCORI's national research priorities, and their likelihood of having an important impact on care. This award is the first to investigators in Indiana.

The awards are part of PCORI's second cycle of primary research funding. This new round of funding follows PCORI's initial approval of \$40.7 million in support for 25 projects under the institute's national research priorities. All awards in this most recent round of funding were approved pending completion of a business and programmatic review by PCORI staff and issuance of a formal award contract.

PCORI is an independent, nonprofit organization authorized by Congress in 2010. Its mission is to fund research that will provide patients, their caregivers and clinicians with the evidence-based information needed to make better-informed health care decisions. PCORI is committed to seeking input continuously from a broad range of stakeholders to guide its work.

FACULTY SPOTLIGHT

Professor Studies Team Dynamics in the ER

In an emergency room, teamwork can mean the

difference between life and death. The unique dynamics among team members is what attracted Christopher O.L.H. Porter, Kelley School of Business associate professor of management and Randall L. Tobias Faculty Fellow of Leadership Excellence, to research emergency room teams at local hospitals.

"The teams in the emergency room are action teams," says Dr. Porter, who will teach practicing physicians in Kelley's new Business of Medicine MBA program.



Christopher Porter, Ph.D.

"You see incredible displays of leadership and teamwork in those teams on a daily basis. It has been fascinating for me to observe those teams as they work together because the stakes are different in a hospital setting. You see lots of examples of nurses jumping in to do something that they're not formally required to do that ultimately helps a patient," he says. "The other interesting thing that happens here is there is a joint focus on performance and learning at the same time and balancing those two can be a challenge for those in leadership positions."

Observing various emergency room shifts at local hospitals, Porter is studying how doctors, nurses and other medical staff work together in a coordinated, urgent effort.

"Many times with such teams, you have lots of people who come together quickly. They have a sense of what the problem is, but the problem changes over the course of time the team is working together," Porter explains. "Emergency room personnel are often together for short periods of time and then they disperse. So they've got to learn how to get up to speed quickly. Leadership and teamwork become essential."

In fact, leadership and teamwork are at the core of Porter's research background. An expert in teams and team development, Porter has observed team dynamics in tactical organizations such as the U.S. Secret Service and the Bureau of Alcohol, Tobacco, Firearms and Explosives. He has studied leadership and teamwork among teams working on a tactical decision-making task designed by the Department of Defense and is currently studying teams at the United States Naval Academy. "Tactical teams are unique because they have to make decisions and perform under time pressure and threat, using specialized expertise that has to be coordinated in such a way to help the team be effective as a unit," he says. "People on tactical teams usually have limited information, yet they have to perform at high levels. You also see tactical teams operating in hospital settings, whether you're talking about teams of physicians, teams of nurses or trauma teams."

In his research, Porter will link leadership and teamwork to performance within an emergency room and validate or challenge theories he brings with him from the business world.

"During the time I've spent in the ER, it's become incredibly apparent that no amount of specialized expertise will help a team be effective if that team isn't led effectively. And that's what we can potentially bring from the business perspective," says Porter. "A team is a team, whether we're talking about a top management team or a board of directors. I think there are insights that can be gained from the emergency room that can be applied to those settings."

Likewise, Porter believes his relationship with emergency room teams will be mutually beneficial.

"There's much to learn from seeing how the teams in medical settings operate," he says. "Ideally, I can challenge some of the models we currently have and see to what extent they're effective."

To learn more about Kelley's new Business of Medicine program, visit <http://kelley.iupui.edu/degrees/medicine/>.

STUDENT SPOTLIGHT

IUPUI Researcher and Nursing Student Hasn't Followed a Straight Line

Dana Hines must feel at times like she was born for a career in health care.

After all, she's been in nursing since picking up her bachelor's degree from the University of Evansville, her hometown, in 1998, adding a master's degree from the School of Nursing in 2006, and has worked in hospitals, public and community health organizations, and for pharmaceutical giant Eli Lilly & Co. in the years since.



Dana Hines

Hines' route through those years may not have been a straight line, but she knows she has picked up valuable experience in health-care facilities. She also has built a wealth of public health knowledge and a foundation in community health planning. And she has gained experience as a teacher and researcher as a Ph.D. student in the School of Nursing, knowledge she plans to pass on to younger men and women through both practice and theory in a career at a research-minded university.

"I've found my calling," said Hines, the mother of a 12-year-old daughter and a 4½-month-old son. "I really want to help prepare future generations of nurses to handle the care patients need and to do research that will make a difference in the years to come," she added.

Hines believes the variety of job experience she has gained have given her insights that will inspire students the way she herself was inspired by her instructors. And she is certain that she'll have plenty of enthusiastic young minds to prepare. "There are lots of different opportunities in nursing, thanks to the nursing shortage. People know that nursing is recession-proof," Hines said.

Hines considers herself "a high-octane, high-energy" person, and it's hard to dispute that, given that she launched her pursuit of a Ph.D. when daughter Imani was nine years old, then was pregnant last summer and fall, giving birth to son Reid in late 2012 -- and promptly picked up where she left off.

Each step along her path has refined her goals, as well. She quickly knew that her passion and her career goals would take her into research, and almost as certainly into public health-based research focused on groups of people who are normally underserved or otherwise marginalized by society.

That's one of the reasons she works part time for the Ryan White Organization, named for the Hoosier native and one of the early victims of AIDS. That organization's work with HIV patients inspired her, and led her to focus her Ph.D. dissertation on transgender women (born male), who "are doubly stigmatized" by being affected by HIV and outside social norms for gender identity, and who often face obstacles in accessing the existing health-care system.

Her work in the field earned her a Ruth L. Kirschstein National Research Fellow Award from the National Institute of Nursing Research, and also earned her a fellowship in the Center for Population Health Research, in the Lesbian, Gay, Bisexual and Transgender Health's Pre-doctoral Mentoring Program, based in the

Fenway Institute in Boston.

She is intrigued by links between relationships in the social network and the quality of health-care encounters, and how those ties influence utilization of health services. If that utilization grows, as she suspects, it will create increasing demands for all aspects of the care-giving system, including nurses.

"One of my missions is to help nurses prepare for that need in clinics and other community-care settings," said Hines, whose work with the Marion County Health Department, for example, reinforced the value of blending research with community-based care.

"What I plan to do is build a research program connected to community health, to meet those needs," Hines added. She is encouraged by trends in health care and public health toward identifying areas of needs like HIV and AIDS, overlooked populations, and more. Those trends "have a major impact on researchers like me, who are trying to look for broader solutions."

IUPUI's tradition of interdisciplinary work is another positive market, Hines said. "Many illnesses are so complex that we need this interdisciplinary approach," she said, and likened it to the way many hospitals function. "We have to collaborate the same way on a research level." Her own team, she noted, has a psychologist, public health students and a medical sociologist to attack potential problems and solutions from different directions.

Hines chuckles when she describes her career arc, admitting that she didn't always see connections at work, nor did she envision herself ever becoming a researcher, when she was an undergraduate nursing student.

But as she finds herself calling on different skills and different knowledge bases on a regular basis, she realizes that "I can call on all my experiences -- care in a hospital setting, in clinical settings, in research work, in understanding drug interactions, in public health settings -- to make a difference in people's lives."

TRANSLATIONAL RESEARCH IMPACT

Art Partnerships Shaping Community Health Thanks to Herron School of Art and Design Professor

Artists often use their work to shine a spotlight on society and its issues. But Professor Helen Sanematsu is taking that concept one step further: the Herron School of Art and Design professor uses her area of expertise, Visual Communication Design, to help community groups tackle some of today's most vexing health-related issues.

Professor Sanematsu is one of IUPUI's translational researchers and had a successful career before joining Herron, working as an art director at Martha Stewart Living magazine and leading design projects for major corporations and the United Nations.



Helen Sanematsu is one of IUPUI's celebrated translational researchers.

But it wasn't until she got to Herron that she found "opportunities to marry my drive for equity and social justice in a truly substantial way," Professor Sanematsu said. One such partnership is her connection to the [Indiana Clinical and Translational Sciences Institute Community Health Engagement Project](#) (CHEP).

"As a designer, CHEP is all about looking at things through the eyes of the

community," she said. "We focus on how the university can better match its strengths to community needs, and vice versa. There is an area between those two things, and we have to be a bridge builder. We incorporate the community's values and perspectives -- we really are translators! When it comes to health, we really are all in this together."

One collaboration facilitated through the Indiana CTSI involved using engaging visual design and communications techniques to drive enrollment in [a project](#) that used GPS data from cell phones to correlate risk factors among girls age 14 to 17 with their physical environment. The participation of 50 teens from the west side of Indianapolis transformed the project into a true success story.

"Helen really brought an entirely different perspective to the table," said Dr. Sarah Wiehe, primary investigator on the project and associate professor of pediatrics at the IU School of Medicine. "She really gets how to engage the community in research with visual communication."

Professor Sanematsu has become a familiar face in the community through these sorts of projects, which use her insights into images and messaging to help gather information about the way people behave and how they use knowledge, and then use what's been learned to help people and neighborhoods make more informed decisions.

Issues of community health are ingrained in Professor Sanematsu. Growing up in California, she experienced first-hand the problems that families of limited means can face.

"I was a real sickly kid, always going to the doctor," she said. "I knew it was expensive, so I was always worried about how it affected my family. That's how I connect to health -- through my family's experience. It has an impact on you for the rest of your life."

Professor Sanematsu also uses her community ties to train her students in the field of Visual Communication, providing them with experiential learning.

Some of the connections offer students classroom credit for practice working with clients. Other relationships help recent Herron graduates get established professionally, working closely with Professor Sanematsu, with the community groups, and with on-campus health groups that share the professor's passion.

"My mission is to get as much help as possible for the community from the university," she said. "My goal is to make the university a meaningful resource for both sides. IUPUI is a nexus for innovation and a frontier for knowledge in areas like medicine, health care and health communication. What we need to do now is pivot and apply that knowledge so it makes a difference in people's lives. We have a ton of capacity to help those in our community."

EVENTS AND WORKSHOPS

Write Winning Grant Proposals

Wednesday, June 19th

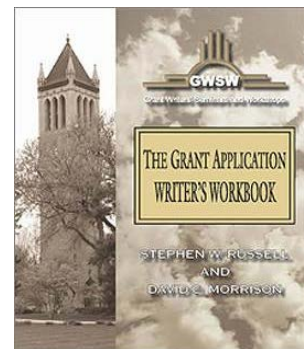
8am-5pm

Van Nuys Medical Science Building (MS), Room 326

Register:

faculty.medicine.iu.edu/registration/indexDirect.asp?id=982

About the Workshop



This seminar comprehensively addresses both conceptual and practical aspects that are associated with the grant writing process, often called "grantsmanship." This program is appropriate for faculty members who are contemplating a competitive application to federal or state agencies and foundations in either basic science or clinical research.

Emphasis is given to such things as idea development, identification of the most appropriate granting agency, how to write for reviewers, and tips and strategies that are of proven value in presenting an applicant's case to reviewers.

It is stressed that applicants are writing for two different audiences – the assigned reviewers, who have read the application in its entirety, and non-assigned reviewers who may have read little, or nothing, of the proposal before the meeting of the review panel. Strategies designed to merit a fundable priority score are emphasized.

All participants will receive light breakfast, boxed lunch, and a copy of *The Grant Application Writer's Workbook*. This event is free and open to all IUSM and IUPUI faculty and learners.

Presenter: [John Robertson, Ph.D.](#) is an associate with Grant Writers' Seminars and Workshops, LLC. He has been the recipient of competitive extramural funding from both the NIH and non-federal sources. He is the author of 27 peer-reviewed journal articles and three book chapters. Dr. Robertson has been a member of grant review panels, a reviewer for a number of biomedical journals, and served on editorial boards.

This event is sponsored by the IU School of Medicine Office of Faculty Affairs and Professional Development and the IUPUI Office of the Vice Chancellor for Research

Scientific Writing from the Reader's Perspective

Presented by Dr. George Gopen

As competition for external funding becomes more challenging, getting one's scholarly work successfully published is more important than ever. Dr. George Gopen's approach is based on a single idea: learning to write for the reader allows the writer to control what readers learn.



This year, Dr. Gopen will present this workshop in a **SINGLE DAY format**. **To register for the Tuesday, July 9th or the Wednesday, July 10th session, please visit faculty.medicine.iu.edu.**

As in past years, Dr. Gopen will also conduct hour-long, individualized consultations. **ONLY** faculty members who participate in the day-long event will have access to the individual consultation registration. Instructions will be sent to participants after their registration for the workshop is complete. More about Dr. Gopen's original approach to scientific writing can be found in his article, [The Science of Scientific Writing](#).

About the Presenter

George D. Gopen is a Duke University Professor of the Practice of Rhetoric. He is also Senior Lecturing Fellow, Department of English and Senior Lecturing Fellow, School of Law. Professor Gopen received both his J.D. and his Ph.D. in English from Harvard University. Dr. Gopen is a pioneer in the mastery of scientific writing. His scientific clients have included the NIH, the FDA, Bristol-Myers Squibb, Bayer, and Duke University School of Medicine.

This event is sponsored by the IU School of Medicine Office of Faculty Affairs and Professional Development, the Department of Emergency Medicine, the IUPUI Office of the Vice Chancellor for Research and the IUPUI Center for Teaching and Learning.

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 - April 2013

PI	Agency	Project Title	School	Department	Total
Gangaraju, Rajashekhar	NATIONAL EYE INSTITUTE	Vascular and Neuronal Repair with Adipose Stromal cells in Retinopathy	MEDICINE	OPHTHALMOLOGY	\$1,928,194.00
White, Kenneth E.	NATIONAL INSTITUTE OF DIABETES, DIGESTIVE & KIDNEY	Control of FGF23 Bioactivity via Circulating alpha-Klotho	MEDICINE	MEDICAL & MOLECULAR GENETICS	\$1,696,500.00
Basile, David Patrick	NATIONAL INSTITUTE OF DIABETES, DIGESTIVE & KIDNEY	Long-term effects of acute renal failure	MEDICINE	CELLULAR & INTEGRATIVE PHYSIO	\$1,357,200.00
Fang, Shiao fen	U.S. ARMY MEDICAL RESEARCH AND MATERIEL COMMAND	Health-Terrain: Visualizing Large Scale Health Data	SCIENCE	COMPUTER SCIENCE	\$661,035.00
Dundar, Mehmet Murat	NATIONAL SCIENCE FOUNDATION	CAREER: Self-adjusting Models as a New Direction in Machine Learning	SCIENCE	COMPUTER SCIENCE	\$499,998.00
Nephew, Kenneth P	ASTEX PHARMACEUTICALS	DNA Methylation Analysis	MEDICINE	MEDICAL SCIENCES PROGRAM	\$361,108.00
Saykin, Andrew J	NORTHERN CALIFORNIA INSTITUTE FOR RESEARCH & EDU	Effects of traumatic brain injury (TBI) and post traumatic stress disorder (PTSD) on Alzheimer's disease (AD) in veterans using imaging and biomarkers in the Alzheimer's Disease Neuroimaging Initiative (ADNI)	MEDICINE	RADIOLOGY & IMAGING SCIENCES	\$222,134.00
Roodman, G David	UNIVERSITY OF PITTSBURGH	GF11 and Osteoblast Supression in Multiple Myeloma	MEDICINE	HEMATOLOGY/ONCOLOGY	\$178,164.00
Wright, Eric R.	INDIANA PROFESSIONAL LICENSING AGENCY	Indiana PMP Enhancement -- INSPECT, BJA FY12 Harold Rogers Prescription Drug Monitoring Program, Indiana Professional Licensing Agency Subcontract	PUBLIC HEALTH	CENTER FOR HEALTH POLICY	\$175,130.00
Leech, Tamara G.J.	INDIANA STATE DEPARTMENT OF HEALTH	Indiana Adult Tobacco Survey 2013	LIBERAL ARTS	INST FOR RESEARCH ON SOC ISSUE	\$159,094.00
Bae, Taeok	NATIONAL ACADEMY OF AGRICULTURAL SCIENCE	Virulence related gene expression of Staphylococcus aureus on agricultural products	MEDICINE	IUSM-NORTHWEST	\$100,000.00

Grants and Awards - May 2013

PI	Agency	Project Title	School	Department	Total
Paczesny, Sophie	NATIONAL CANCER INSTITUTE	Translating Novel Drug-Targetable Biomarkers to Treat Graft versus Host Disease	MEDICINE	PED-HEME/ONC BASIC RESEARCH	\$1,567,009.00
Einterz, Robert M	ABBVIE INC.	Academic Model Providing Access to Healthcare (AMPATH) 2013 for HCT and CDSS	MEDICINE	GENERAL INTERNAL MEDICINE	\$550,000.00
Einterz, Robert M	ABBOTT FUND	Academic Model Providing Access to Healthcare (AMPATH) 2013 for Diabetes and Chronic Disease Care	MEDICINE	GENERAL INTERNAL MEDICINE	\$250,000.00
Yen, Jimmy	AMERICAN HEART ASSOCIATION INCORPORATED	IFNbeta modulates inflammatory responses in cerebral ischemia	MEDICINE	IUSM-FORT WAYNE	\$231,000.00
Paris, Leela Louise	AMERICAN ASSN FOR STUDY OF LIVER DISEASE	The study of SIRP1? and ASGR1 in platelet phagocytosis by the porcine liver	MEDICINE	TRANSPLANT SURGERY	\$225,000.00
Boustani, Malaz A	PRESS GANEY ASSOCIATES, INC.	State of Indiana Medicaid Certified Nursing Facility Satisfaction Surveys	MEDICINE	GENERAL INTERNAL MEDICINE	\$147,515.00
Terza, Joseph Vincent	UNIVERSITY OF IOWA	Interpreting IV Estimates with Treatment Effect Heterogeneity: ACE/ARBs and Race	LIBERAL ARTS	ECONOMICS	\$137,159.00
Li, Feng	PURDUE UNIVERSITY	MovingCloud: Create Moving-target Defense in Cloud by Learning from Botnets	E&T	COMPUTER TECHNOLOGY	\$107,224.00
Stigler, Kimberly Ann	SYNAPDX	SynapDX Autism Spectrum Disorder Gene Expression Analysis (STORY) Study	MEDICINE	PSYCHIATRY	\$105,567.00
Dunnington, Gary L	INDIANA UNIVERSITY HEALTH	Personal Best Surgery Program	MEDICINE	SURGERY-CHAIRMAN'S OFFICE	\$100,000.00
Guisse, Theresa Ann	INDIANA UNIVERSITY HEALTH	Muscle dysfunction associated with androgen deficiency	MEDICINE	ENDOCRINOLOGY	\$100,000.00
Bennett, William E.	INDIANA UNIVERSITY HEALTH	Computerized Decision Support in Pediatric Gastroenterology	MEDICINE	PED-GASTROINTESTINAL DISEASES	\$100,000.00
Rossi, Emma C	INDIANA UNIVERSITY HEALTH	Determining the Sensitivity of Sentinel Lymph Nodes Identified with Robotic Fluorescence Imaging for Detecting Metastatic Endometrial and Cervical Cancer	MEDICINE	OBSTETRICS AND GYNECOLOGY	\$100,000.00

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.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Digital Humanities Start-Up Grants: These grants are modeled, in part, on the "high risk/high reward" paradigm used by funding agencies in the sciences. Digital Humanities Start-Up Grants should result in plans, prototypes or proofs of concept for long-term digital humanities projects prior to implementation. Two levels of awards will be made in this program. Level I awards are small grants designed to fund brainstorming sessions, workshops, early alpha-level prototypes, and initial planning. Level II awards are larger grants that can be used for more fully-formed projects that are ready to begin implementation or the creation of working prototypes. These grants may involve: 1) research that brings new approaches or documents best practices in the study of the digital humanities; 2) planning and developing prototypes of new digital tools for preserving, analyzing, and making accessible digital resources; 3) scholarship focusing on history, criticism and

philosophy of digital culture and its societal impact; 4) scholarship or studies that examine the philosophical or practical implications and impact of the use of emerging technologies in specific fields of the humanities; 5) innovative uses of technology for public programming and education utilizing both traditional and new media; and 6) new digital modes of publication that facilitate the dissemination of humanities scholarship in advanced academic as well as informal or formal educational settings at all academic levels. Innovation is a hallmark of this grant category. Sponsor ID: 20130912-HD. The deadline is September 12, 2013.

<http://www.neh.gov/grants/guidelines/digitalhumanitiesstartup.html>

NATIONAL INSTITUTES OF HEALTH

Methodologies and Formative Work for Combination HIV Prevention

Approaches (R01): This FOA invites applications to advance science that is needed for optimal HIV combination prevention intervention approaches. Recent advances in biomedical interventions with critical behavioral aspects (e.g., Pre-exposure Prophylaxis [PrEP], Treatment as Prevention) have changed how HIV prevention and treatment are conceptualized. Significant local, city, state and federally funded efforts are shifting towards community-level interventions to reduce HIV incidence, and these efforts are informed by recent advances regarding: the importance of treatment uptake and retention in care; the effectiveness of combined behavioral and biomedical interventions; and the need to implement interventions community-wide for optimal public health impact. Reductions in HIV incidence will only be achieved through implementation of combinations of interventions that include biomedical and behavioral interventions, as well as components that address social, economic and other structural factors that influence HIV prevention and transmission. However, combined prevention intervention approaches rely on synergies of multiple elements that can be challenging to design, implement, and evaluate. This initiative will support methodological, formative and implementation research designed to better understand the processes and outcomes of combination intervention efforts and that will enhance the implementation of these interventions. *Sponsor ID: RFA-MH-14-182; deadline is September 3, 2013 (letter of intent due by August 3, 2013).* <http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-14-180.html>

Biobehavioral Research Awards for Innovative New Scientists (R01): The Biobehavioral Research Awards for Innovative New Scientists (BRAINS) award is intended to support the research and research career development of outstanding scientists who are in the early, formative stages of their careers and who plan to make a long term career commitment to research in specific mission areas of the NIMH. This award seeks to assist these individuals in launching an innovative clinical, translational, basic or services research program that holds the potential to profoundly transform the understanding, diagnosis, treatment or prevention of mental disorders. Each year the BRAINS program will focus on a specific area of research and/or research career development need. For FY 2013 and FY 2014, the BRAINS program will focus on the research priorities and gap areas identified in the NIMH Strategic Plan and the Research Domain Criteria (RDoC) project. *Sponsor ID: RFA-MH-13-110; deadline is October 23, 2013 with a letter of Intent due Sept. 23, 2013.* <http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-13-110.html>

Biomarkers for Diabetes, Digestive, Kidney and Urologic Diseases Using Biosamples from the NIDDK Repository (R01): This grant provides support for assays (and associated data analysis) of repository-held samples for studies focused on an NIDDK-relevant disease. The review of applications to this FOA will consider both access to repository-held samples and funding for assays using the samples. These studies are expected to generate scientific discoveries on disease mechanisms, disease pathogenic processes, disease progression, or clinical responses. Projects that make good use of the associated data from the clinical trials and studies, the original intent of the clinical study and/or trial are highly encouraged. Exploratory studies and discovery research are encouraged especially

when samples are not severely limited, the work is justified, and the goal is consistent with the original intent of the clinical research. *Sponsor ID: PAR-13-228; deadline is October 5, 2013, with a letter of intent due September 4, 2013.* <http://grants.nih.gov/grants/guide/pa-files/PAR-13-228.html>

NATIONAL SCIENCE FOUNDATION

Experimental Gravitational Physics: The program supports research at the frontiers of science aimed towards answering questions about the nature of space and time, the gravitational attraction at atomically small and cosmological large distances and the use of gravitational waves to explore the universe. The program supports research that includes tests on the inverse distance square law of gravitational attraction, Lorentz invariance and Equivalence Principle as well as the direct detection of gravitational waves. This program oversees the management of the construction, commissioning, and operation of the Laser Interferometer Gravity Wave Observatory (LIGO), and provides support for LIGO users and other experimental investigations in gravitational physics and related areas. This includes tasks that range from instrument science, data analysis and detector characterization to source population calculations and the connection between the gravitational waves and the electromagnetic and neutrino signatures of astrophysical events. The program supports infrastructure activities such as visitor programs, workshops, and research centers involving the participation of external scientists from universities, national laboratories, and industry, as well as graduate students and postdoctoral fellows. *Sponsor ID: PD 13-1243. The deadline is October 30, 2013.* http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5628

Dynamics of Coupled Natural and Human Systems (CNH): The program supports basic research and related activities that enhance fundamental understanding of the complex interactions within and among natural and human systems. CNH focuses on the complex interactions among human and natural systems at diverse spatial, temporal, and organizational scales. CNH seeks to advance basic knowledge about the system **dynamics** -- the processes through which systems function and interact with other systems. CNH-supported projects must examine relevant **natural AND human systems**. Proposals cannot focus solely or largely on either human systems or on natural systems. Projects also must examine the full range of **coupled** interactions and feedbacks among relevant systems. The arrows in the accompanying figure symbolize these relationships. *Sponsor ID: PD NSF 10-612. The deadline is November 19, 2013.* http://www.nsf.gov/pubs/2010/nsf10612/nsf10612.htm#pgm_desc_txt

THE POLLOCK-KRASNER FOUNDATION

Artistic Pursuit Grants, Visual Artists: The Foundation's dual criteria for grants are recognizable artistic merit and demonstrable financial need, whether professional, personal or both. The Foundation's mission is to aid, internationally, those individuals who have worked as professional artists over a significant period of time. *Open(continuous) deadline.* <http://www.pkf.org/grant.html>

U.S. DEPARTMENT OF ENERGY

Crosscutting Research: Development of Novel Architecture for Optimization of Advanced Energy Systems: The objective of this activity is to competitively solicit projects in novel technologies under the Crosscutting Research Program Area to support DOE Strategic Goals. The U.S. DOE National Energy Technology Laboratory is seeking innovative research and development of novel sensor and control systems for use in advanced power generation systems. New sensor and control technology will contribute the goals of high efficiency, near zero emission and effective carbon capture for the next generation power generation technologies. These technologies include advanced combustion, gasification, turbines, fuel cells,

gas cleaning and separation technologies, and carbon dioxide separation and capture technologies. The inclusion of transformational power generation and emission control technology will enable high process efficiency and integration to achieve performance goals at reasonable cost. Integration of new technology will introduce unprecedented levels of complexity and process conditions that must be addressed by improved sensor and control technology. To manage complexity and achieve performance goals, advances in the capability and architecture of instrumentation, sensors and process controls are vital in assuring integrated unit operations, predictive on-line maintenance, and continuous life cycle monitoring and real time process optimization. Innovations in these areas aim at bridging the gap between the basic sciences and applied research as it relates to Advanced Power Systems that utilize domestic resources. Long range transitional type research is needed to support the identification and growth of novel concepts that will lead to scientific breakthroughs and early adoption of innovative concepts into applications for power generation. Goals for the research include enabling, improving and protecting power systems through the application of innovative sensor and control technology with specific application to Advanced Power Systems. *Sponsor ID: DE-FOA-0000864; deadline is March 14, 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.

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](#)

Office of the Vice Chancellor for Research - ovcr@iupui.edu
Indiana University Purdue University Indianapolis
755 West Michigan Street, UL1140, Indianapolis, IN 46202-2896
Phone: (317) 278-8427

[Subscribe](#) or [Unsubscribe](#)