

Research Enterprise

March 18, 2013

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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.

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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.

MESSAGE FROM THE VICE CHANCELLOR FOR RESEARCH

Dear Colleagues,

I would like to extend a personal invitation to each of you to join us at the [2013 IUPUI Research Day](#), on April 5th. Our theme this year is **Research and Creative Activity Matters @ IUPUI: Imagine the Future**. This daylong celebration of IUPUI research and creative activities will be held in the IUPUI Campus Center and will begin with a morning plenary session from 9:30 am to 10:50 am in the lower level theatre.

This morning session will include a special presentation about the exciting work of the IUPUI Arts and Humanities Institute, recognition of the 2013 Research Frontiers Trailblazer Award recipients, and the keynote presentation. The keynote speaker this year is Dr. Loren Field, presenting during the morning plenary session. In alignment with our theme, Dr. Field will present **"Regenerating the heart: what is known today and what will be possible tomorrow?"** He is internationally renowned for his work in genetics and cellular biology, including pioneering efforts in cardiac stem cell research. Research Day events also include two poster sessions in the afternoon that showcase the research of our students (graduate, professional and undergraduate) and faculty and a networking reception (11:00 am – 2:30 pm).

Research Day is a great way for IUPUI faculty, staff, and students, and their academic, industrial, governmental partners, along with the broader



Vice Chancellor Kody Varahramyan

community, to learn more about the research enterprise at IUPUI, explore new collaborations, and lay the foundation for new partnerships. This is truly a time to ***Imagine the Future!***

To obtain more information about Research Day, please go to <http://research.iupui.edu/events/researchday2013/>.

[Click here to register](#)

I look forward to seeing all of you at the April 5 Research Day!

Kody Varahramyan
Vice Chancellor for Research



Loren Field, Ph.D.
School of Medicine

FEATURE STORY

IUPUI Researchers Earn \$3.2 Million Grant to Develop, Improve Therapies for Pancreatic Cancer

Two IUPUI researchers have been awarded a multi-year, \$3.2 million grant to develop and improve therapies for pancreatic cancer, the fourth leading cause of cancer death in the United States.

Mark R. Kelley, Ph.D., Betty and Earl Herr Professor of Pediatric Oncology Research, and Melissa L. Fishel, Ph.D., assistant research professor of pediatrics, both at the IU [School of Medicine](#), were awarded a 5-year grant (CA167291) from the [National Cancer Institute](#) of the [National](#)



Dr. Melissa L. Fishel, Ph.D. and Dr. Mark R. Kelley, Ph.D.
School of Medicine

[Institutes of Health](#). The two [Indiana University Melvin and Bren Simon Cancer Center](#) researchers will focus on investigating the signaling pathways and molecular mechanisms that contribute to pancreatic tumor progression and resistance to therapy.

Signaling pathway describes a group of molecules in a cell that work together to control one or more cell functions, such as cell division or cell death. After the first molecule in a pathway receives a signal, it activates another molecule. This process is repeated until the last molecule is activated and the cell function is carried out. Abnormal activation of signaling pathways can lead to cancer.

In their laboratory research, Drs. Kelley and Fishel plan to block a protein, redox factor 1 (Ref-1), which is crucial to regulating pancreatic tumor growth and metastasis. They will use a protein inhibitor that Dr. Kelley and colleagues developed that has shown promise in the lab in blocking Ref-1.

"We will study a particular protein, Ref-1, that we believe is involved in signaling between the tumor and the tumor's environment," Dr. Fishel said. "We hope to better understand how this protein signals and functions in the tumor microenvironment as well as in the tumor cells. We're hoping that if we can inhibit the function of Ref-1, we can blunt the tumor's ability to live."

Researchers have been learning that a tumor's microenvironment plays a significant role in the life and death of a tumor.

"We're realizing that it's not just the tumor that has to be treated," Dr. Kelley added. "You have to treat the tumor and the surrounding support structure, its microenvironment. Because pancreatic cancer is hard to treat, we think Ref-1 is a viable target both in the tumor and the microenvironment. If we can hit it in both places, it's a double win."

This latest pancreatic cancer project builds on Dr. Kelley's ongoing research into using inhibitors to prevent cancer cells from repairing the damage caused by anti-cancer therapies.

Drs. Kelley and Fishel will collaborate with other IU Simon Cancer Center researchers, which Dr. Kelley referred to as an example of "team science." The others include internationally recognized cancer researcher Murray Korc, M.D., the Myles Brand Professor of Cancer Research at the IU School of Medicine and director of the Indiana University-Purdue University Indianapolis Pancreatic Cancer Signature Center. The signature center, an IUPUI designation that represents a research strength and focus in an area that is not commonly studied, brings together nearly 50 basic scientists and clinicians who work to improve outcomes for pancreatic cancer patients.

The research team also includes Theresa Guise, M.D., Jerry and Peggy Throgmartin Professor of Oncology, and Mircea Ivan, M.D., Ph.D., assistant professor of medicine, both at the IU School of Medicine. Dr. Guise is an expert on tumor microenvironment and metastatic disease, while Dr. Ivan is an expert in hypoxia, a condition in which there is a decrease in the oxygen supply. Pancreatic tumors are hypoxic, which makes them more aggressive and difficult to treat.

There is a need for new therapies for pancreatic cancer patients because current treatments typically only extend a person's life for six to 10 weeks. Only 6 percent of people with the disease survive more than five years after diagnosis. According to the National Cancer Institute, there will be an estimated 45,220 new cases of pancreatic cancer and 38,460 deaths from the disease in 2013.

"Our hope and goal is to change the standard of care because it's not working," Dr. Fishel said. "Our hope is to bring a new therapy -- or a new one that would be used in conjunction with a current therapy -- to make inroads against this disease. Even if a new therapy doesn't kill the tumor, if it can penetrate the microenvironment to help other drugs get to the tumor, that would be beneficial."

» [Read more...](#)

ANNOUNCEMENTS

IUPUI Professors Promoted to Distinguished Professor Rank

Dr. David Burr, professor of anatomy and cell biology, and Dr. Mervin C. Yoder, Richard and Pauline Klingler professor of pediatrics, have been promoted to the distinguished professor rank. Drs. Burr and Yoder are both from the IU School of Medicine.

The rank of distinguished professor, the most prestigious academic appointment Indiana University can bestow upon its faculty, was created by the IU Board of Trustees in 1967. The title is conferred by the university president with approval of the board.

"A world-class research university begins with a world-class faculty who push the boundaries of knowledge and discovery through path-breaking scholarship and

research," said IU President Michael A. McRobbie. "Indiana University's distinguished professors, including our five newest inductees, are recognized as national and international leaders by their peers and have made outstanding and fundamental contributions in their disciplines that have been widely recognized and applauded."

The distinguished professorship typically recognizes faculty who have pioneered or substantially transformed their field, garnering international recognition for their work. Nominations are made each year by faculty, alumni and students, among others, identifying outstanding scholarship, artistic or literary distinction, or other achievements that have won significant recognition by peers.

Nomination materials are reviewed by the University Distinguished Ranks Committee, whose members forward up to five candidates to the president. Upon review and agreement, the president sends the names to the trustees for official action.

The new distinguished professors will be recognized formally at an event this April - along with other university teaching award winners yet to be announced -- as part of the festivities marking the anniversary of IU's founding in 1820. President McRobbie will preside over the faculty recognition banquet, which includes a reception, musical entertainment and a dinner for honored faculty and their guests.

Brief biographies of Drs. Burr and Yoder follow. Brief biographies of all five new distinguished professors are found at <http://newsinfo.iu.edu/news/page/normal/23819.html>.

Dr. David Burr is described by a Fellow of the Royal Society of London as "the world's leading authority on the relationship between bone structure and function and its relation to physiology and disease." He is widely acclaimed for two broad areas of investigation: the significance of skeletal micro-damage to bone health and metabolism and the adverse effects (fragility and fracture) of current treatments for osteoporosis. His research was instrumental in the 2011 decision by the FDA to require



David Burr, Ph.D.

warning labels on products shown to result in atypical fractures, has redefined what is taught to future scientists about cellular communication in bone, and has alerted physicians to debilitating side effects, changing how therapies are performed.

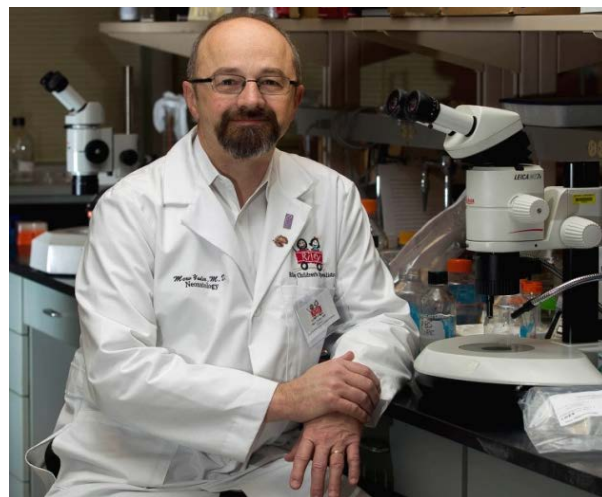
One letter attested that, "Dave's paradigm has emerged as the scientific consensus," and another wrote that his contributions "have changed the way the scientific community views skeletal health and disease."

His work drives the reputation of IU as a world-class center of excellence in musculoskeletal biology. Burr, who joined the IU School of Medicine faculty in 1990, has attracted more than \$16 million in extramural funding during his time at IU and has amassed the "strongest bone research group -- unsurpassed in breadth and depth -- of any institution in the United States." Burr (B.A., '73, Beloit College; M.A., '74, University of Colorado; Ph.D., '77, University of Colorado) is an adjunct professor of anthropology and professor of biomedical engineering at IUPUI.

Dr. Mervin C. Yoder's research has yielded new insight into the way stem cells are generated, fundamentally changing the way researchers think within the field. A secondary research area led to the discovery of a hierarchy of another type of rare cell,

which affected the way researchers think about cell analysis for cardiovascular and other diseases.

He joined the IU School of Medicine as assistant professor of pediatrics in 1985 and is now professor of pediatrics and biochemistry and molecular biology. Yoder is also director of the Herman B Wells Center



Mervin C. Yoder, M.D.

for Pediatric Research, associate chairman for basic research within the Department of Pediatrics and, since 2011, has served as assistant dean for entrepreneurial research at the school as well as associate director for entrepreneurship at the Indiana Clinical and Translational Sciences Institute.

Dr. Yoder (B.A., '75, Malone College; M.A., '76, Indiana State University; M.D., '80, IU School of Medicine) has published hundreds of refereed publications, review articles and book chapters, and has mentored postdoctoral fellows, graduate students and undergraduate research students. He owns one patent and founded biotechnology firm EndGenitor Technologies Inc.

IUPUI Ideas Solving Social and Economic Challenges Student 'Pitch' Competition Winners Announced

The Office of the Vice Chancellor for Research recently announced the winners of the second annual [Ideas Solving Social and Economic Challenges](#) student "pitch" competition.

The competition encourages IUPUI students to come up with innovative ideas to solve real-world problems through new approaches, products, services or ventures.

The 2013 ISSEC winners and their schools, degree programs, and innovative solutions are:

First place, \$2,500: Brittney Parker, School of Informatics, Media Arts & Science

Penny Saver: Shopping Budget App: A smartphone application that allows people to track their total at the grocery store while scanning items in to their carts.



Brittney Parker

Second place, \$1,000: Rishi Chandra, School of Business, Business

Recycle to Earn: Idea for development of a machine and a system that would award students points for recycling on campus.

3rd Place, \$500: Dominic Rigsby (also **Audience Award** winner, \$1,000), School of Informatics, Human-Computer Interaction

Map-ivate: A community-driven mobile application that allows a user's phone to adapt to surroundings and social environments using GPS and Fields with little to no



interaction from the user.

The competition's structure allows students three minutes to present to judges their concept or solution, without the benefit of slides or other props. According to Karen White, Office of the Vice Chancellor for Research, research development and commercialization facilitator and competition moderator, this "elevator pitch" format teaches students to tell their story, in a concise and persuasive manner, at a moment's notice.

"This experience was an amazing opportunity and feeling," Parker said. "I pitched my idea to many family and friends but of course they will be encouraging and say it's amazing. But to actually be able to tell a bunch of people that had never heard my idea and get the feedback I did was amazing. After I pitched my idea I actually had someone find me on LinkedIn to talk about it. I actually have better goals to get this idea off the ground and running."

A panel of expert judges from the IUPUI campus selected winning pitches to receive the awards.

"I was surprised by and delighted with the scope of ideas presented, inspired by the passion of the presenters and impressed with the preparation opportunity of ISSEC," said Ann Wilson, a judge for the competition. "The process of the competition, start to finish, provides every participant with tools they will need to effectively present their ideas to potential funders and investors."

Derrick Braziel, a local entrepreneur who also served as a judge, said, "I expected for many of the ideas to be under-developed, and unrealistic, but many of the ideas were not only shovel ready but had the capacity to change the world. I hope that one day I can say that I had a part in the success in many of these projects."

The pitches from 12 finalists included a wide range of potential products, new ventures or nonprofit projects.

"We had a great group of students presenting their interesting ideas, and a lot of good will be resulting from this effort," said Kody Varahramyan, IUPUI Vice Chancellor for Research.

For more information, contact Karen White at kfwhite@iupui.edu or 317-274-1083



Dominic Rigsby

IUPUI Faculty Selected for Installation at Indianapolis International Airport



Assistant professor Anila Agha was recently selected to install a piece of her

art, *Rights of Passage*, at the Indianapolis International Airport. Her work will be on display through the end of April 2013. The work, funded by a grant from the IUPUI Arts and Humanities Institute, is at the entrance to the departure area, behind the ticketing section on the right side in a large glass case. For more information on Anila Agha's work, see [her website](#).

Call for AY 2013-2014 Multidisciplinary Undergraduate Research Institute (MURI) Proposals

The Center for Research and Learning welcomes proposals for the [AY 2013-2014 Multidisciplinary Undergraduate Research Institute \(MURI\) at IUPUI](#). Proposals should represent two or more disciplines and should offer undergraduate students the opportunity to engage in a substantive research experience focused on a significant research problem.

This is a unique opportunity provided to IUPUI faculty and researchers for mentoring students while conducting pilot projects or testing new techniques and designs.

Some key points regarding this year's program are as follows:

- Faculty writing proposals are encouraged to review the document entitled [MURI FAQs for Faculty Submitting Proposals](#).
- Proposals must be submitted by using the current version of the [MURI Project Proposal Form](#).
- The MURI Review Committee will review the submitted proposals using the [MURI Proposal Evaluation Form](#) (log in with IUPUI username and password).
- Graduate students and post-doctoral trainees may also serve as co-mentors on a team.
- Proposals are due by midnight on March 22, 2013, to the following address: CRLGrant@iupui.edu
- The Proposal Review Committee Meeting is currently scheduled for April 12, 2013.
- The announcement regarding funded proposals is currently scheduled for April 16, 2013.
- Students may apply to MURI and rank their project choices beginning April 30, 2013 with a deadline of September 10, 2013.
- The Academic Year program begins on October 4, 2013, and continues through April 30, 2014.

MURI is jointly funded by the Center for Research and Learning, a division of the Office of the Vice Chancellor for Research, and the School of Engineering and Technology.

Project proposals from [all disciplines](#) on the IUPUI campus are encouraged. For more information contact Elizabeth Rubens erubens@iupui.edu

National Collegiate Inventors and Innovators Alliance's E-Team Program

The IUPUI Office of the Vice Chancellor for Research will host the second annual "pitch" competition that rewards IUPUI students for innovative solutions to what ails society.

The 2013 Ideas Solving Social and Economic Challenges competition

takes place from 3:00 p.m. to 5:30 p.m., Tuesday, Feb. 26, 2013, in the IUPUI Campus Center Theater, 420 University Blvd.

The ISSEC competition challenges IUPUI students -- individuals or teams -- to propose original, even

groundbreaking, solutions to pressing social and economic challenges facing Indiana, the nation and the world. It is designed to encourage IUPUI students to provide ideas by presenting cash awards for the most innovative ideas.

The emphasis of the competition is on providing answers to real-world problems, through new approaches, products, services or ventures. Contestants have three minutes to pitch their proposals to judges without the use of slides or other props.

The time constraint of the competition's "elevator pitch" format challenges the competitors to present themselves, and their idea, in a concise and persuasive manner. This provides participants with invaluable experience in a fundamental skill for professional success – presenting an idea in a short but effective format, to a potential investor, partner or supporter at a moment's notice.

The event is open to the public. Audience members will also have a chance to cast a ballot for their own favorite idea or team in an "Audience Choice" category.

For additional information, go to <http://www.crl.iupui.edu/issec/>. Questions can be directed to Karen White at kfwhite@iupui.edu or (317) 274-1083.

Next E-Team Stage 1 Deadline: May 10, 2013

[Click here](#) to see Fall Stage 1 E-Teams

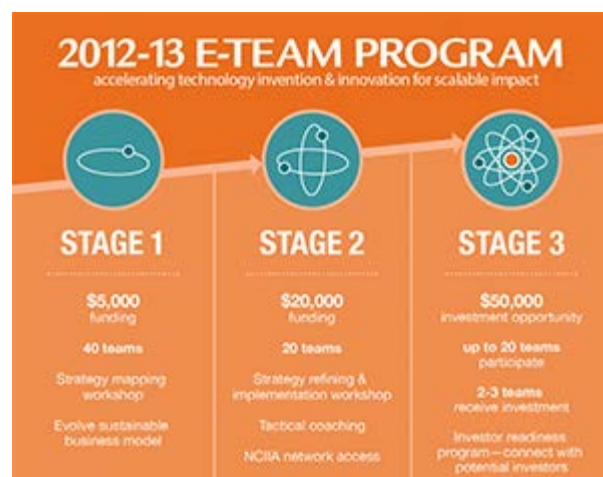
NCIIA is pleased to announce a NEW E-Team Program, launched in fall 2012. The program provides early-stage support and funding of up to \$75,000 for collegiate entrepreneurs working on market-based technology inventions.

Since 1995, our E-Team grants have been funding collegiate student and student/faculty teams to move ideas out of the lab and classroom and into the marketplace. The 2012-13 E-Team Program enhances this opportunity by providing expert entrepreneurial and venture coaching, experiential workshops, and a potential investment opportunity to help realize the commercial success of the technology inventions and innovations that come through our organization. Selected E-Team Program participants may also be invited to exhibit their technologies at [Open Minds](#), the annual showcase of breakthrough technologies from NCIIA's top student teams. The 2013 Open Minds exhibition will be held March 22-23 in Washington, DC at the [Smithsonian's National Museum of American History](#), hosted by its [Lemelson Center for the Study of Invention and Innovation](#).

E-Team Program stages

Stage 1 provides funding of up to \$5,000 to attend a three-day strategy mapping workshop. The intensive hands-on workshop is based on NCIIA's successful [VentureLab](#) format. The focus of Stage One is to evolve a sustainable business strategy and create milestones.

Stage 2 provides additional funding of up to \$20,000. A required, intensive workshop based on the [VentureLab](#) format helps teams further refine business



strategy. Tactical coaching from NCIIA follows the workshop, guiding the team to successful completion of milestones.

[Click here](#) to view a video on the VentureLab workshops.

Stage 3 Eligible Stage 2 teams may be invited to participate in Stage 3 - NCIIA's [VentureWell program](#). VentureWell focuses on helping teams develop a "lens of the investor" perspective and culminates in a venture forum to present to potential investors. NCIIA will invest up to \$50,000 in two to three Stage 3 teams per year. At this time the VentureWell program is designed for for-profit ventures only. Two sector-specific sections will be offered each year: one in the winter for teams working on cleantech devices, and one in the summer for teams working on biomedical and/or health-related devices.

What's an E-Team?

NCIIA defines an E-Team as a multidisciplinary group of students, faculty, and industry mentors working together to bring a technology-based invention (product or service) to market. The "E" stands for entrepreneurship.

Next E-Team Program submission deadline:

May 10, 2013

To learn more about this opportunity and how to apply, go to http://nciia.org/eteam_program. Questions can be sent to grants@nciia.org or call 413-587-2172.

CENTER SPOTLIGHT

Bradbury Center Director Headlines Ray Bradbury Weekend Events, March 22-23

Dr. Jon Eller, professor of English, director of the Center for Ray Bradbury Studies, and senior textual editor of the Institute for American Thought in the IU School of Liberal Arts at Indiana University-Purdue University Indianapolis, will be the featured speaker during a weekend-long celebration of Ray Bradbury. All events are free and open to the public.

Ray Bradbury Weekend kicks off at 7 p.m., Friday, March 22, at Indy Reads Books, 911 Massachusetts Ave., in downtown Indianapolis, where Eller will discuss Bradbury's 1950 breakthrough book, *The Martian Chronicles*.

The weekend celebration of Ray Bradbury continues with three events on Saturday, March 23 at the Indianapolis Public Library-Irvington Branch, 5625 E. Washington St. At 10:30 a.m., Dr. Eller will speak on the subject "A Miracle of Rare Device: The Center for Ray Bradbury Studies." Dr. Eller will also lead a discussion of *Fahrenheit 451* at 2 p.m. The Irvington Branch will screen the film *Fahrenheit 451* at 5:30 p.m. with a short introduction from Dr. Eller. The library will also feature a display of Bradbury memorabilia courtesy of the Center for Ray Bradbury Studies.



Jon Eller, Ph.D.
Director, Center for Ray Bradbury Studies
School of Liberal Arts

"Since *Fahrenheit 451* is one of my favorite books of all time, I was thrilled to learn

about Jon's work at the center and to have the opportunity to help share the love of Bradbury through the events of the Ray Bradbury weekend," says Kathleen Angelone, a co-organizer of the weekend series and owner of the Indianapolis bookstore Bookmamas.

Dr. Eller co-founded the Bradbury Center within the Institute for American Thought in 2007, and became the center's director in August 2011. He first met Ray Bradbury in 1989, eventually developing a working relationship that lasted until Bradbury's death in June 2012. Since 2000 Dr. Eller has edited or co-edited several limited-press editions of Bradbury's works, including *The Halloween Tree* (2005), *Dandelion Wine* (2007), and two collections of stories and precursors related to Bradbury's 1953 publication of *Fahrenheit 451: Match to Flame* (2006) and *A Pleasure to Burn* (2010)

Dr. Eller's most recent book, *Becoming Ray Bradbury* (2011, University of Illinois Press), centers on Bradbury's early life and development as a writer through the 1953 publication of *Fahrenheit 451*. He recently completed *Bradbury Unbound*, a companion volume focusing on the middle decades of Bradbury's career and his rise to cultural prominence. Professor Eller is also working on Simon & Schuster's 60th anniversary edition of *Fahrenheit 451*, scheduled for publication in 2013.

"The Bradbury Center has an ongoing archival and publishing function, including *The Collected Stories of Ray Bradbury* book series and *The New Ray Bradbury Review*, both published by Kent State University Press," said Dr. Eller, "but the Bradbury Weekend events will provide one of the first opportunities for the center to connect with the local Indianapolis community. Much of Bradbury's work reflects his Midwest roots, and this event provides the perfect opportunity to bring his legacy back to the Heartland."

The weekend is a collaboration of Indy Reads Books, the Indianapolis Public Library-Irvington Branch, Bookmamas and the Center for Ray Bradbury Studies.

For additional information on Ray Bradbury Weekend, please contact Bookmamas by [email](#) or by calling (317) 375-3715. To contact the Indy Reads Books, please call (317) 384-1496. To contact the Irvington Branch, please call (317) 275-4450.

For additional information on the Bradbury Center, please check the center's [website](#).

FACULTY SPOTLIGHT

Researcher Stresses Experience as Vital to Education



Brenda Blacklock, Ph.D.
Department of Chemistry
School of Science

As an undergraduate science student in Canada, Dr. Brenda Blacklock looked at her research work outside the classroom as equally important as anything she would ever learn in a textbook.

She held research positions in a brewery, a pharmaceutical company and Agriculture Canada, and each opportunity offered her real-life experience and insight that she now tries to pass on to undergraduate students in the School of Science. The mentoring she received on the job also helped to hone her skills as a teacher and an accomplished researcher.

"By having that opportunity to go out and work in industry and government labs and work in a research environment, I learned how important it is to work well with people who have varying levels of knowledge and experience," said Dr. Blacklock, a biochemist and senior lecturer in the Department of Chemistry and Chemical Biology.

Now several years later, Dr. Blacklock helps to coordinate [the IUPUI Undergraduate Research Mentoring Program](#) (URM) in Biological Sciences, which offers rich and challenging research experiences to top students across a wide array of science specialties.

The URM program, now in its third year, provides students from under-represented groups a \$15,000 annual stipend and the opportunity to work for two years under the mentorship of researchers at IUPUI. Fellows in the program also receive training and guidance to get into graduate programs.



Dr. Blacklock also works directly with students in her laboratory, where she specializes in the study of lipid and protein biochemistry as well as biosignaling, the process by which cells communicate with one another and respond to their environment.

"IUPUI students have many more opportunities to do meaningful research than their peers at larger universities," she said. "Because of the culture in the School and character of IUPUI, faculty are much more open to taking undergrads into their labs."

"I really enjoy this environment at IUPUI, where there is a real philosophy about the importance of research at the undergraduate level," Dr. Blacklock added.

While many students advance tremendously through their work in the lab—learning the technical side of conducting meaningful research as well as the critical thinking skills needed to understand outcomes—others may get a clearer sense of what areas of science they want to specialize.

"These students get in the lab, and it really helps them decide if that's the type of work they want to do for their careers," Dr. Blacklock said.

URM students benefit from "seeing people from various disciplines work together on a research effort, so they get to experience the different approaches and different points of view—all of which is very helpful when they begin to explore career options," Blacklock said.

This collaborative effort across departments and schools, one of the hallmarks of an IUPUI education, serves as a major advantage for IUPUI students, she said. The university, and especially the School of Science, now has a reputation as an innovative learning environment.

Although Dr. Blacklock is rarely far from her research or the School of Science (her husband is IUPUI Associate Professor of chemistry Robert Minto), she does have

interests outside of science. The pair and their 10-year-old son enjoy a host of outdoor activities, especially orienteering, a sport where individuals are timed in how quickly they can navigate from one point to another using maps and a compass. The family also returns to Canada regularly to take extended canoe trips in the backcountry of Algonquin Park.

STUDENT SPOTLIGHT

PH.D. Student Studies Connections between Cardiovascular Disease, Insomnia, and Depression

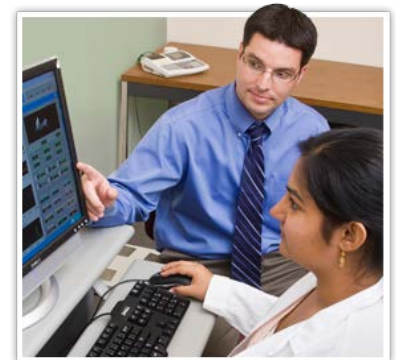


Tasneem Khambaty - Ph.D. Student, Psychology

Growing up in Pakistan, Tasneem Khambaty had an early interest in the brain, but explains that, "In the 90s, in Pakistan, you couldn't really study psychology." In 2001, Khambaty and her family immigrated to the United States with hopes of finding greater opportunities for higher education. After earning her undergraduate degree from the University of Ohio, Khambaty knew she wanted to pursue her doctorate degree — but not just anywhere.

Finding the right program at the right school was of utmost importance in her search: "My primary concern was finding a program where faculty research interests aligned with my own. Professors and researchers were extremely important criteria."

As it turns out, the right school was IUPUI. Khambaty is now a third-year psychology Ph.D. student studying under Dr. Jesse Stewart, whose primary research is cardiovascular behavioral medicine. Dr. Stewart says of Khambaty: "Tasneem is a talented and driven graduate student. Although she has been a member of my lab for only a short time, she has already identified key unanswered questions in the literature and has begun designing a study to address these issues."



While her background is in depressive disorders, Khambaty plans to study the relationship between cardiovascular disease, insomnia, and depression. She hopes to discover connections between these three afflictions — is there a cause and effect relationship and, if so, which is the cause and which is the effect?

In the future, Khambaty would like to continue research in an academic setting. She believes there is great potential in the field of health psychology: "Previously, psychology and physical health were dichotomous. By looking at the mind and body together, health psychology may bridge that gap, and ultimately help a lot of

people."

TRANSLATIONAL RESEARCH IMPACT

IUPUI Translating Research Into Practice (TRIP) Keynote Address by Dr. Pearl Dykstra 'Supporting Seniors & Families: Helping the Lonely'

When: 5 p.m., March 26, 2013.

Where: Room 450A, IUPUI Campus Center, 420 University Boulevard.



Pearl Dykstra, Ph.D.

This annual address features Dr. Pearl Dykstra, translational researcher in kinship, intergenerational issues, and families, who will present "Alleviating loneliness among older adults: What works and what does not work?" Dr. Dykstra is chair of Empirical Sociology at Erasmus University Rotterdam and is an internationally regarded specialist on intergenerational solidarity, family change, aging and the life course, aging societies, and loneliness. For more information, visit <http://www.trip.iupui.edu/events/> or contact the Center for Translating Research Into Practice at or 317-278-4690. [Register now.](#)

A brown bag (bring your own) lunch meeting has also been scheduled for Monday, March 25th in the Campus Center Room 305 from 11:30 pm to 1:00 pm. This lunch meeting will allow faculty, staff and community partners a more casual opportunity to talk with Dr. Dykstra about research and program ideas. Anyone interested in attending the brown bag (bring your own) lunch session, should contact Stephan Viehweg at sviehweg@iupui.edu. Space is limited.

OVCR INTERNAL GRANT DEADLINES

RESEARCH SUPPORT FUNDS GRANT (RSFG): The Research Support Funds Grant (RSFG) program is designed to enhance the research mission of IUPUI by supporting research projects and scholarly activities that are sustainable through external funding. The next RSFG application deadline is **April 15, 2013**. For grant guidelines and application forms, go to <http://research.iupui.edu/funding/>.

OTHER INTERNAL GRANT DEADLINES

Collaboration in Translation Research (CTR) Pilot Grant Program

Applications are due Monday April 1st 5:00 pm.

The aim of this grant program is to foster and encourage collaboration across the Indiana CTSI partner institutions of Indiana University (including IUPUI, IU Bloomington and the IU School of Medicine), Purdue University and the University of Notre Dame, and to initiate or continue translational research projects that have very strong and immediate potential to develop into larger, externally funded research programs, or generate novel intellectual property.

Faculty from IU, Purdue, and Notre Dame are eligible to apply. For complete application information, including eligibility guidelines, submission forms and a proposals presentation checklist, visit www.indianactsi.org/grants. (Log in using your institutional username and password, and select "Collaboration in Translational Research Pilot Grant Program -- 2013.04.")

OVCR EVENTS AND WORKSHOPS

National Science Foundation Faculty Early Career Development Program

The Faculty Early Career Development (CAREER) Program is an NSF-wide activity offering prestigious awards in support of junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations.

The NSF deadlines for submission of proposals are July 22, 23, and 24, 2013, depending on discipline. If you are interested in applying and would like assistance by OVCR staff, be sure to **register for and attend all of the following sessions**.

Note: Faculty who submit an NSF CAREER proposal in 2013 are eligible to be considered for an OVCR CAREER Project Seed Grant related to that submission. Up to three awards may be made.

» Commitment and Match Day for Faculty and OVCR Staff

When: Friday, April 12, 2013 | 10:00 AM-12:00 PM

Where: University Library, Room 1140P

The Office of the Vice Chancellor for Research Proposal Development team will provide one-to-one support for developing and submitting NSF CAREER proposals. Attendees at this session will present their proposal concepts and be matched with an experienced professional writer/editor who will work with them through submission.

[Click here to register](#)

National Science Foundation Research Experiences for Undergraduates

The NSF REU opportunity includes grant proposals designed specifically to initiate and conduct projects that engage a number of undergraduate students in your ongoing research in meaningful ways as well as supplemental proposals to add undergraduate researchers to currently funded NSF projects. The NSF deadline for submission of proposals is August 28, 2013. If you are interested in applying and would like assistance by OVCR staff, be sure to **register for and attend all of the following sessions**.

» Information Session

When: Wednesday, March 27, 2013 | 2:30 PM-4:00 PM

Where: University Library, Room 1126

A brief overview of the guidelines will be presented. Attendees will also learn what resources are available to support development of a competitive proposal to the National Science Foundation REU program.

[Click here to register](#)

» Panel of Successful NSF REU Applicants

When: Wednesday, May 8, 2013 | 2:30 PM-4:00 PM

Where: University Library, Room 1126

As a follow-up to the initial introductory session in March, recent NSF REU investigators will share tips on securing funding through this program and answer questions from attendees.

[Click here to register](#)

» Commitment and Match Day for Faculty and OVCR Staff

When: Wednesday, June 5, 2013 | 2:30 PM-4:00 PM
Where: University Library, Room 1126

The Office of the Vice Chancellor for Research Proposal Development team will provide one-to-one support for developing and submitting your NSF REU proposal. Attendees at this session will present their proposal concepts and be matched with an experienced professional writer/editor who will work with them through submission.

[Click here to register](#)

Working with Industry on Applied Research & Creative Activity

When: Wednesday, April 24, 2013 | 1:00 PM -2:30 PM
Where: University Library, Room 1126

This session will provide participants with an overview of services provided by the Office of the Vice Chancellor for Research that help link faculty researchers to industry partners and collaborations. Although this information session is geared toward new to mid-career faculty/researchers with a desire to work with industry, all faculty are welcome to attend. The following topics will be discussed.

- Research vs. applied research
- Benefits of collaboration
- How much industry research is currently being conducted at IUPUI
- What industry looks for in applied research
- What industry looks for in an applied researcher

[Click here to register](#)

OTHER EVENTS AND WORKSHOPS

IUPUI Arts and Humanities Institute (IAHI) Announces Spring Events Lineup

James Reeves, Author of the Road to Somewhere

James Reeves is a writer, designer, educator, and self-proclaimed motorist. Reeves, who attended the University of Michigan in the film and design program and the Pratt Institute in Brooklyn, New York, has held many different occupations in his search for happiness in life (23 part time jobs to be exact). After graduating, he taught classes at the Pratt Institute and the Parson's School of Design, developed a K-12 design program in Brooklyn, and also taught elementary, middle, and high school. Reeve's most recent publication, *The Road to Somewhere: An American Memoir*, has been hailed by Andre Dubus III (author of *House of Sand and Fog*) as, "a tantalizing 21st century cross between



JAMES REEVES
Author of *The Road to Somewhere: An American Memoir*

March 21
7-8 pm
IUPUI LE 105

James Agee's *Let Us Now Praise Famous Men* and Jack Kerouac's *On the Road*, and he regards Reeves as a "new and important American voice." His book, which is based on his experiences as a traveler across America and his search for a meaningful adult life, reveals an America that hides under the surface. James Reeves is currently a partner at the Civic Center in New Orleans, which is also where he currently resides. The Civic Center is a creative studio that was designed to aid in the retransformation of public spaces into creative, interactive places. For more information on Reeves, visit his website at <http://bigamericannight.com/>.

Free tickets available are at <http://www.eventbrite.com/event/5742477906>. This event is co-sponsored by [We Are City](#)

Oliver Blank

Oliver Blank is a composer who currently resides in New Orleans, Louisiana. Blank builds what he terms "sound toys", creates public installations, and symphonic cinematic music. He is a partner at the Civic Center in New Orleans, where individuals strive to reconfigure public spaces into creative outlets for the arts and to give ordinary places a new



sense of creativity and wonder. Blank is a graduate of Goldsmiths College's Master of Music Programme. His compositions have been featured at London's Design Museum, Victoria & Albert Museum, the Tate Gallery, and Helsinki's Taidehalli. For more information, visit Oliver Blank's website at <http://mroliverblank.com>. Free tickets are available at <http://www.eventbrite.com/event/5744291330>. This event is co-sponsored by [We Are City](#)

Peter Bailey-Roller Skates to Ragtime: Americans and Americanisation in Victorian Britain

April 11, 2013, 7-8 pm
IUPUI Campus Center, CE 405
(Yale Pratt Meeting Room)

Peter Bailey is a historian, writer, and jazz musician. An Emeritus Professor at the University of Manitoba, Bailey is currently based in Bloomington, Indiana. His area of specialty is the social and cultural history of modern Britain, especially the history of the Victorian music hall, jazz, and stage. He is the author of many articles and books including *Leisure and Class in Victorian England*, *Popular Culture and Performance in the Victorian City*, *Music Hall: The Business of Pleasure*. Free tickets are available at <http://www.eventbrite.com/event/5744403666>



at <http://www.eventbrite.com/event/5744403666>

About the IAHI

Established in 2011, the IUPUI Arts and Humanities Institute supports campus-wide attainment of excellence in research and creative activity in arts and humanities. Its mission includes showcasing and promoting the major intellectual and scholarly contributions that IUPUI faculty members from across disciplines are making in the arts and humanities. The IUPUI Arts and Humanities Institute supports individual faculty members, groups, and interdisciplinary teams in their pursuit of research and creative activity through grant programs and promoting educational

experiences in the arts and humanities in academic curricula across campus. In addition, the IAHI serves as a liaison between IUPUI and the community, fostering ongoing partnerships and ventures that advance arts and humanities endeavors.

Follow the IUPUI Arts and Humanities Institute on Facebook, Twitter, or join our email list at www.iahi.iupui.edu. Questions can be directed to Dr. Jason M. Kelly (IAHI Director) at iahi@iupui.edu.

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

Advances in Patient Safety Through Simulation Research (R18): The AHRQ is interested in funding a diverse set of projects that develop, test and evaluate various simulation approaches for the purpose of improving the safe delivery of health care. Simulation in health care predominately is a training technique that exposes individuals and teams to realistic clinical challenges through the use of mannequins, task trainers, virtual reality, standardized patients or other forms, 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 health care 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. Applications that address a variety of simulation techniques, clinical settings, provider groups, priority populations, patient conditions, and threats to safety are welcomed. *Application deadline is May 25, 2013.* Funding Opportunity: PAR-11-024.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Bridging Cultures Through Film: The Bridging Cultures through Film: International Topics program supports documentary films that examine international and transnational themes in the humanities. These projects are meant to spark Americans' engagement with the broader world by exploring one or more countries and cultures outside of the United States. Proposed documentaries must be analytical and deeply grounded in humanities scholarship. The Division of Public Programs encourages the exploration of innovative nonfiction storytelling that presents multiple points of view in creative formats. The proposed film should range in length from a standard broadcast length of thirty minutes to a feature-length documentary. NEH invites a wide range of approaches to international and transnational topics and themes, such as 1) an examination of a critical issue in ethics, religion, or history, viewed through an international lens; 2) an exploration of a topic that transcends a single nation-state, with the topic being explored across borders; 3) a biography of a foreign leader, writer, artist, or historical figure; or 4) an exploration of the history and culture(s) of a specific region, country, or community outside of the United States. *Application deadline is June 12, 2013.* Sponsor ID: 20120627-TW.

NATIONAL INSTITUTES OF HEALTH

Genetic High-End Instrumentation Grant Program (S10): The ORIP High-End

Instrumentation Grant (HEI) program encourages applications from groups of NIH-supported investigators to purchase a single major item of equipment to be used for biomedical research that costs at least \$750K. The maximum award is \$2M. Instruments in this category include, but are not limited to, biomedical imaging systems, NMR spectrometers, mass spectrometers, electron microscopes and supercomputers. *Application deadline: September 13, 2013.* Funding opportunity: PAR-13-101.

NATIONAL SCIENCE FOUNDATION

Centers for Chemical Innovation: The Centers for Chemical Innovation (CCI) Program supports research centers focused on major, long-term fundamental chemical research challenges. CCIs that address these challenges will produce transformative research, lead to innovation, and attract broad scientific and public interest. CCIs are agile structures that can respond rapidly to emerging opportunities and make full use of cyberinfrastructure to enhance collaborations. CCIs may partner with researchers from industry, government laboratories and international organizations. CCIs integrate research, innovation, education, and informal science communication and include a plan to broaden participation of underrepresented groups. Phase I awards will be standard grants. Phase II awards will be cooperative agreements. Estimated number of Phase I awards is up to four, each award is \$1.75M over 3 years. *Application deadline: March 26, 2013;* Sponsor opportunity ID: NSF 12-572.

Dimensions of Biodiversity: Despite centuries of discovery, most of our planet's biodiversity remains unknown. The scale of the unknown diversity on Earth is especially troubling given the rapid and permanent loss of biodiversity across the globe. With this loss, humanity is losing links in the web of life that provide ecosystem services, forfeiting an understanding of the history and future of the living world, and losing opportunities for future beneficial discoveries in the domains of food, fiber, fuel, pharmaceuticals, and bio-inspired innovation. This campaign seeks to characterize biodiversity on Earth by using integrative, innovative approaches to fill the most substantial gaps in our understanding of the diversity of life on Earth. It takes a broad view of biodiversity, and currently focuses on the integration of genetic, taxonomic/phylogenetic, and functional dimensions of biodiversity. Successful proposals should integrate these three dimensions to understand interactions and feedbacks among them. While this focus complements several core NSF programs, it differs by requiring that multiple dimensions of biodiversity be addressed simultaneously, in innovative or novel ways, to understand their synergistic roles in critical ecological and evolutionary processes. *Application deadline: May 6, 2013;* Sponsor opportunity ID: NSF 13-536.

U.S. DEPARTMENT OF ENERGY

Multidisciplinary University Research Initiative: High Operating Temperature Fluids: This FOA seeks to fund revolutionary, exploratory research to create highly disruptive concentrating solar power (CSP) technologies that will meet the SunShot installed system cost target of 6 cents per kilowatt-hour (6¢/kWh) or lower by the end of this decade. The Multidisciplinary University Research Initiative (MURI): High Operating Temperature Fluids ("HOT Fluids") Funding Opportunity Announcement (FOA) intends to support research into fluid materials development that will enable CSP systems to integrate with energy conversion devices capable of thermal to electric conversion efficiencies greater than 50%.e award supports new ideas that represent innovative approaches to prostate cancer research and have the potential to make an important contribution to eliminating death and suffering from prostate cancer. Although groundbreaking research often involves a degree of risk, applications should be based on a sound scientific rationale that is established through logical reasoning and/or critical review and analysis of the literature. PIs do not have to be U.S. citizens. *Pre-proposals due by April 24, 2013; full proposals*

due by August 9, 2013. Funding opportunity: W81XWH-12-PCRP-IDA (Grants.gov).

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](#)

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