



• Research Development

Office of the Vice Chancellor for Research

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RESEARCH ENTERPRISE NEWSLETTER

February 27, 2017

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FEATURE STORY

IU-based startup commercializes software to improve quality of care for pediatric patients

Two members of the Indiana University School of Medicine have launched a startup to commercialize software targeting improvement in pediatric patient care.

The promise of information technology has been to improve quality, cut costs and increase patient satisfaction. By themselves, electronic health records, or EHRs, have failed to achieve those aims. Software that adds functionality to EHRs can assess patient risks, help physicians identify problems earlier and better document care quality. The result is earlier detection and treatment of problems and better health outcomes for children.



Dr. Stephen Downs

Dr. Stephen Downs, president, and Tammy Dugan, chief technology officer, founded [Digital Health Solutions LLC](#). The company's first software product is CHICA, or Child Health Improvement through Computer Automation. Dugan said the mission behind starting Digital Health Solutions was to make the software available beyond Indianapolis to improve the quality of care of children nationwide.

"It's a population that doesn't get as much attention because of the reimbursement structures in hospitals," Dugan said. "We have a great piece of software, and we have had a lot of interest from people over the years. We want to get it out there so kids can benefit from it."

"CHICA has been in use at Eskenazi Hospital clinics for over a dozen years for more than 50,000 visits," she said. "It is mature, production-level software."

Downs said health care providers, including pediatricians, struggle with managing the thousands of primary care guidelines and recommendations for each patient visit.

"CHICA addresses this challenge by screening families in the waiting room," he said.

"Families receive an electronic tablet upon arrival that asks 20 questions. Based on the family's responses, the software uses its prioritization process to select the most important issues for the physician to address during the visit. The family can provide information on a wide range of topics, including general preventive counseling, asthma, attention deficit hyperactivity disorder, autism, domestic violence, iron deficiency, lead exposure, maternal depression, tuberculosis and more. It also allows physicians to alert patients to problems that may otherwise be overlooked."



Tammy Dugan

"The integration is intuitive and requires little provider training," Dugan said. "When doctors access a patient's electronic health record, or EHR, an embedded link allows them to visit CHICA. Once the doctors have checked all the boxes, indicating how they responded to the alerts, the information is submitted as a block of text to EHR software that can then be incorporated into the provider's note, thereby streamlining clinical documentation."

"The underlying technology for CHICA can also be adapted for adult or specialty care areas," Downs said. "We are currently working to develop a new module for gastrointestinal specialists."

Along with improving patient quality of care, CHICA offers other benefits for health care providers.

"Payers of health care are looking for ways for providers to demonstrate superior-quality care," Downs said. "The system captures data that improves and demonstrates the quality of care, which could be used to improve reimbursement. It also collects patient-reported information that can't be captured any other way. My colleagues and I have conducted a number of research studies using the data."

"At various scientific meetings, I am routinely asked, 'How do we get CHICA?' Tammy and I launched Digital Health Solutions as a mechanism to distribute it to anyone who wants it."

Digital Health Solutions LLC licensed CHICA through the [Indiana University Research and Technology Corp.](#), which protects, markets and licenses intellectual property developed at Indiana University so it can be commercialized by industry. The company is also a member of IURTC's [Spin Up entrepreneurial program](#).

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ANNOUNCEMENTS

STEM Education Innovation & Research Institute Seed Grants (SSG) Request for Proposals

The STEM Education Innovation and Research Institute (SEIRI) at IUPUI is pleased to announce the 2017 SEIRI Seed Grant (SSG). The goal of this competition is to facilitate and support STEM education innovation and research by growing the body of Discipline-Based Education researchers at IUPUI.

Specifically, this opportunity provides faculty within science, technology, engineering, and mathematics (STEM) departments, with funding to develop, implement, and evaluate the impact of pedagogical innovations across multiple STEM courses at Indiana University Purdue University Indianapolis (IUPUI). As a long-term goal, this grant is intended to enable faculty competitiveness for external funding with agencies such as the National Science Foundation (NSF), Spencer Foundation, and the National Institute for Health (NIH), or other internal funding such as the IUCRG. As such, we strongly encourage that interested STEM faculty partner with an educational research or design expert within fields related to the learning sciences, such as (but not limited to) IUPUI's Department of Psychology or School of Education.

The Principal Investigator (PI) must be an IUPUI full-time faculty within the School of Science, the School of Engineering and Technology, or the School of Informatics and Computing (tenured, tenure track, and non-tenure track).

SEIRI will fund up to \$150,000 for 18 to 24 months. Teams can apply for up to \$30,000. Submit all application materials by 11:59PM EST on May 15, 2017.

Direct your SSG-related questions to seiri@iupui.edu, 317-278-0168, or by visiting SEIRI at room 1123 in the University Library. SEIRI will hold an information session prior to the submission deadline. To find dates and in order to register, check the SEIRI webpage (<http://www.seiri.iupui.edu>). This session will provide information about the SSG, including eligibility, guidelines, proposal writing expectations, and post-award expectations.

Submit the proposal and a letter of support from your department or program chair at https://iu.co1.qualtrics.com/SE/?SID=SV_1Y3BdVnMqyEYHwV by the deadline. Late submissions will not be considered.

2017 IUPUI Student Research Day

**Friday | April 7 | 10–2 p.m.
Hine Hall and University Tower**

All are invited to join us in celebration of student (faculty-mentored) research that is helping IUPUI fulfill the promise of endless possibilities through discovery, exploration and innovation. This day-long event will spotlight the rich, cutting-edge, and multifaceted research and creative activities that so many IUPUI students are conducting with faculty mentors.



For more information and to register, visit:
www.crl.iupui.edu.

Questions can be directed to:
Etta Ward at emward@iupui.edu or 317-278-8427.

REGISTRATION QR CODE



**OFFICE OF THE
VICE CHANCELLOR
FOR RESEARCH**

INDIANA UNIVERSITY–PURDUE UNIVERSITY
Indianapolis

Application Process Open for 2017-2018 Charles R. Bantz Fellowship

Application Deadline – March 6, 2017, 5:00 pm

Background: In 2015 in recognition of the leadership and contributions of Charles R. Bantz to the IUPUI campus and Indianapolis community IUPUI established the Charles R. Bantz Chancellor's Community Fellowship. This fellowship reflects Charles Bantz's dedication to research that creates university-community partnerships and results in community impact.

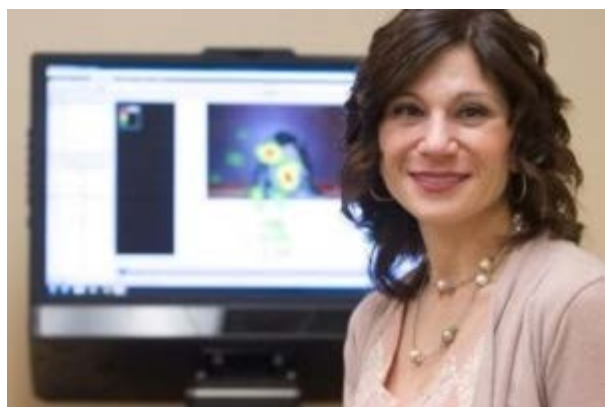
Eligibility: The Bantz Community Fellowship provides one year of support for a collaborative research team (i.e., faculty, student(s), community partner/members) to address a community issue in Central Indiana. To be eligible to serve as PI on a Bantz Community Fellowship team, the faculty member must have a full-time appointment (Tenured, Tenure-track, Clinical Faculty or Lecturer).

Awards: The Bantz Community Fellowship will be awarded through a competitive application process on an annual basis. Proposals may request up to \$50,000, with a required additional cash or in-kind match (minimum 20%) from the school, community partner, and/or other grants and partners.

To apply: Link to [Bantz Community Fellowship](#). Applicants to the Charles R. Bantz Chancellor's Community Fellowship must complete all sections of the application form. Applications are due by 5:00 pm, Monday, March 6, 2017.

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FACULTY SPOTLIGHT



Dawn Neumann, PhD

IU researchers develop new therapy to help brain injury patients with emotion processing

Researchers at [Indiana University School of Medicine](#) are developing a potential treatment for people who have problems processing their emotions after a traumatic brain injury. This promising treatment incorporates a short series of lessons and exercises.

The researchers said their newly developed intervention is the first, to their knowledge, to show benefits for people with such traumatic brain injury-induced problems. Currently there are no standard treatments for such emotion processing problems.

The results of the small phase 1 trial merit additional larger studies, they said. The research was a collaboration of the school and EmotEd LLC, a startup company developing emotional rehabilitation products.

The phase I trial, led by Dawn Neumann, PhD, assistant professor of physical medicine and rehabilitation and founder of EmotEd, was published online, ahead of print in the [Journal of Head Trauma Rehabilitation](#). This article will be appearing in a special topic issue on treatments for emotional deficits after traumatic brain injuries that is scheduled to be published in the summer of 2017.

Emotional self-awareness is critical for emotional regulation and successful interpersonal interactions. Poor emotional self-awareness – called alexithymia – is seen in 30 to 60 percent of people with a traumatic brain injury. This emotional disconnect can make it difficult for people to recognize, label, and differentiate their own emotional responses, which can be damaging to relationships.

A few earlier studies targeting alexithymia have drawn subjects from the general population, whereas Dr. Neumann developed the treatment to address people with traumatic brain injuries, who are several times more likely to develop alexithymia.

The intervention included eight lessons with interactive discussion. The first four taught the participants how to identify and label emotions.

The last four lessons were scenario based, allowing participants to process an emotional response to certain events simulated through first person perspective videos, such as being yelled at by their boss in front of their colleagues. Throughout the intervention, participants learned how to recognize, label, and differentiate how they felt in response to emotional events.

“This trial’s primary focus was more on establishing emotional awareness and an emotional vocabulary rather than emotional control, and past studies have shown that emotional responses are better regulated when one is able to label emotions using specific words,” said Dr. Neumann.

Initially, study participants underwent testing to measure alexithymia, emotional awareness, anger, anxiety, depression, affect and overall emotion regulation. Participants were tested again after the eight-session intervention.

After the intervention, 62 percent of participants were classified in a less severe category of alexithymia. Six participants were reclassified to normal, and five of those six remained in that category at the two-month follow-up. Forty-six percent of participants showed a clinical change in emotional awareness immediately after the treatment, and 62 percent of participants exhibited a clinical change at the two-month follow-up. Anxiety, anger, positive affect, and overall emotion dysregulation assessments also showed improvements, however the improvements in anger did not appear in the follow up. Researchers found that the intervention had no significant impact on depression.

Dr. Neumann and her team expect to proceed to a phase II trial, based on the positive results of the phase I trial. The phase II trial would include more participants and a control group.

Support for the research was provided by a National Institutes of Health Small Business Technology Transfer Phase I grant, 1R41HD077967-01A1, to EmotEd, and by the Indiana University Funding Opportunities for Research Commercialization and Economic Success program.

Dr. Neumann, founder of EmotEd, was financially compensated for efforts pertaining to this research and has a commercial interest in the training program described in the research. Co-authors James Malec, PhD, research director of physical medicine and rehabilitation, and Flora Hammond, MD, chair of the [Department of Physical Medicine and Rehabilitation](#), received funds through Indiana University’s subcontract with the business for their work on this project.

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TRANSLATIONAL RESEARCH IMPACT



Martin Lake, LaGrange County, Indiana | Photo by Broxton Bird, School of Science
Martin Lake, LaGrange County, Indiana | Photo by Broxton Bird, School of Science

IUPUI study: Climate change drove population decline in New World before Europeans arrived

What caused the rapid disappearance of a vibrant Native American agrarian culture that lived in urban settlements from

the Ohio River Valley to the Mississippi River Valley in the two centuries preceding the European settlement of North America? In a new study, IUPUI researchers reconstructed and analyzed 2,100 years of temperature and precipitation data -- and point the finger at climate change.

Employing proxies of prehistoric temperature and precipitation preserved in finely layered lake sediments, somewhat analogous to tree-ring records used to reconstruct drought and temperature, the scientists have reported on the dramatic environmental changes that occurred as the Native Americans -- known as Mississippians -- flourished and then vanished from the Midwestern United States. The researchers theorize that the catastrophic climate change they observed, which doomed food production, was a primary cause of the disappearance.

"Abrupt climate change can impose conditions like drought. If these conditions are severe and sustained, as we have determined that they became for the Mississippians, it is virtually impossible for societies, especially those based on agriculture, to survive," said paleoclimatologist [Broxton Bird](#), corresponding author of the new study. "From the lake records, we saw that the abundant rainfall and consistent good weather -- which supported Mississippian society as it grew -- changed, making agriculture unsustainable." Bird is an assistant professor of earth sciences in the School of Science.

This failure of their principal food source likely destabilized the sociopolitical system that supported Mississippian society, according to archaeologist [Jeremy Wilson](#), a study co-author. He is an associate professor of anthropology in the School of Liberal Arts.

"Archaeologists have recognized that from 1300 onward, Mississippian villages started disappearing one after the other, almost like lightbulbs in a string, but the question has always been 'why?'" Wilson said. "Dr. Bird and his students have shown from the lake-sediment evidence that during the period known as the Little Ice Age, from 1300 to 1800, there was a profound change in climate to colder and drier conditions, which would have negatively impacted the growing of maize in and around Mississippian villages.

"It's important for us to understand how past civilizations coped with climate change as we encounter things like changing precipitation patterns and temperatures that appear to be rising around the world today."

As the Mississippians' culture waned, the IUPUI researchers found, there were lower temperatures and significantly less summer rainfall than during its rise. They attribute these changes to more El Niño-like conditions in the Pacific Ocean and cooling during the Little Ice Age, which altered atmospheric circulation such that moisture delivered to the Midwest was derived from the northwestern U.S. (Pacific and Arctic) instead of the Gulf of Mexico, as was the case during the Mississippians' rise. The longer transport distance of Pacific air masses during the Little Ice Age left less moisture available for rainfall in the Midwest, resulting in drought conditions that undermined agricultural production.

"Climate change had been previously postulated as one of the factors responsible for the disappearance of the Mississippians," Bird said. "What our research did was develop the highest-resolution record yet produced of rainfall in the midcontinental U.S. for the last 2,100 years, including the time frame from the beginning of the Mississippian period -- about 1,000 years ago -- to 500 years ago, when much of the lower Midwest was totally abandoned by these people. Our results strongly support climate change -- drought, specifically -- as a significant cause of the disappearance of Mississippians from the midcontinent through its impact on their ability to farm and produce food surpluses.

"Mississippians did not have irrigation and relied on rainfall to grow their crops. Modern agriculture in the Midwest corn belt likewise relies on rainfall with very little irrigation infrastructure, making us similarly vulnerable to drought," he continued.

"[Midcontinental Native American Population Dynamics and Late Holocene Hydroclimate Extremes](#)" is published in Scientific Reports, an open access, peer-reviewed Nature research journal.

The sediment studied was from Martin Lake in northeast Indiana. Bird and Wilson are continuing their research at additional lakes, especially those adjacent to archaeological sites, throughout the midcontinent.

Authors of the study, in addition to Bird and Wilson, are IUPUI assistant professor of earth sciences William P. Gilhooly III, former IUPUI graduate student Lucas Stamps, and University of Minnesota Duluth paleoclimatologist and paleolimnologist Byron A. Steinman.

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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. Apply to this program through the [InfoReady portal](#). Download the Guidelines and Application. Applications are to be submitted as one pdf file.

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OTHER INTERNAL GRANT DEADLINES

The Vera Bradley Foundation for Breast Cancer / Indiana University Melvin and Bren Simon Cancer Center Collaborative Pilot Funding Opportunity

Believing that knowledge of normal breast biology is key to understanding the earliest steps in malignancy, the Indiana University Melvin and Bren Simon Cancer Center's Breast Cancer research program (BCP) initiated and maintains what is now the Susan G. Komen Tissue Bank at the IU Simon Cancer Center (KTB), the only biorepository of normal breast tissue of its kind in the world. With support from the Vera Bradley Foundation for Breast Cancer (VBF), the IU Simon Cancer Center breast cancer program invites applications for a collaborative research award to support investigations using the resources (tissue and annotation) of the KTB. Potential applicants are encouraged to visit komentissuebank.iu.edu to learn more about the tissue bank's samples and ongoing research projects.

Since 1993, a portion of Vera Bradley's profits have been committed to funding [breast cancer research](#), ultimately leading to the establishment of the Vera Bradley Foundation for Breast Cancer in 1998. (Learn more at verabradley.org.) Both Vera Bradley Foundation and the IU Simon Cancer Center value collaboration. Partnership with a member(s) of the cancer center's breast cancer program, who will provide substantial intellectual and experimental input, is strongly encouraged but is not strictly required. You can learn more about our breast cancer researchers here: <http://www.cancer.iu.edu/researchers>.

Application requirements:

- Lay abstract: 500 words maximum.
- Research proposal: 3 pages maximum.
- Impact statement: 500 words maximum. Please describe how data from this project could impact patient care and/or prevention. Immediate impact isn't expected or required but steps from the proposed research to impact should be delineated.
- References: No limit.
- NIH biosketch with current funding.
- Budget with justification: \$100,000 maximum (PI's salary support and indirect cost are not allowed). Funds should be split between the institutions as needed to accomplish the work proposed.
- If the proposed work will use samples from the KTB, please provide assurance that the samples needed are available within the tissue bank.
- Future plans: Please describe how the work proposed will foster ongoing collaboration and support multi-institutional extramural funding (500 words).

Applications will be reviewed by scientific leaders from the IU Simon Cancer Center and local breast cancer advocates. Final funding decisions will be made based on the review evaluations and rankings. Criteria for review include scientific merit, innovation, strength of collaboration, and potential for subsequent external funding.

The timetable is:

Completed application due: March 17, 2017
Awards announced: April 28, 2017
Start date: June 5, 2017

A completed application in PDF format should be sent to Liz Parsons at eparsons@iupui.edu.

Questions? Please contact IU Simon Cancer Center breast cancer program co-leaders, Drs. H. Nakshatri at hakshat@iupui.edu or K. Miller at kathmill@iu.edu. You may also contact Dr. A. M. Storniolo, executive director of the Komen Tissue Bank, at astornio@iu.edu.

Indiana CTSI accepting proposals for equipment funding

Funding for research equipment is now available from the Indiana Clinical and Translational Sciences Institute (CTSI). CTSI is currently accepting proposals from CTSI-designated, IU School of Medicine-based cores requesting support for the purchase of equipment to enhance the research environment and contribute to the research mission of the school and the CTSI. Up to \$100,000 is available, and proposals requesting \$5,000-\$100,000 will be accepted. Requests for equipment costing more than \$100,000 will be entertained if matching funds to cover the balance are identified.

Proposals must be submitted by Friday, March 24. For more information, view [Core Equipment Grant Program guidelines](#) [□](#).

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OVCR EVENTS AND WORKSHOPS

Proposal Development and Submission for Humanities Scholars

This series of three presentations addresses the value of funded research for career development for faculty working in the humanities. The presentations should give participants a basic understanding of the principles of preparing and submitting funding proposals and will culminate in the start of an actual proposal. Participants are urged to attend all three workshops, and we anticipate that the series will be repeated during fall semester 2017. This series is sponsored by OVCR and the IUPUI School of Liberal Arts.

Session 1: Preliminary Considerations in Obtaining Funding for Work in the Humanities

Target Audience: IUPUI and IUPUC faculty and librarians working in the humanities

Friday, January 27, 2017

11:00am – 12:30pm

Cavanaugh Hall Room 438

This session is devoted to preliminary considerations in seeking and applying for external funding to support research and scholarship in the humanities. Topics to be discussed include motivations for applying for grant funding, defining research and scholarship goals, matching research and scholarship goals to specific funding agencies, understanding how funding agencies operate, and basic procedures for applying for funding. The session will consist of a brief presentation followed by an open discussion with a panel of faculty members who have been successful in receiving grants to support their research and scholarship in the humanities. Participants are welcome to bring a lunch to the session.

[Click here to register](#)

Session 2: Top 10 Success and Blunders in Proposal Development and Submission

Target Audience: IUPUI and IUPUC faculty and librarians working in the humanities

Friday, February 17, 2017

1:00pm - 2:30pm

Cavanaugh Hall Room 508

This session will cover best practices for developing a proposal whose components—administrative and technical—

build a cohesive and persuasive case for funding, and the role played by the SLA Office of Research and the IUPUI Office of Research Administration in the submission process. We'll focus on the administrative documents, including budget and budget narrative, and their role in answering all the questions reviewers may have so your proposal goes straight to the "Let's Fund This One!" stack. We'll have a look at common blunders too, to help prevent your proposal from ending up in the "Do Not Review" or "Do Not Fund" group. Participants will leave with tools to facilitate the preparation process and meeting the routing and submission deadlines.

[Click here to register](#)

Session 3: Developing Your Grant Proposal: Turning Ideas into Funding

Target Audience: IUPUI and IUPUC faculty and librarians working in the humanities

Friday, March 24, 2017

1:00pm - 2:30pm

Cavanaugh Hall Room 508

Designed for humanities scholars seeking assistance with writing grants, this workshop will introduce participants to key grant writing concepts and provide them with the opportunity to develop a one-page statement of significance and intent. Along with the workshop, participants will have the opportunity to engage with a series of online resources, including presentations, exemplar successful grants, and podcasts that will position them to be successful in their grant-writing. A combination of discussion and writing exercises, the workshop will result in a map for attendees to follow to complete their first (or improve their existing) grant proposal.

[Click here to register](#)

NSF CAREER Program

The Faculty Early Career Development (CAREER) Program is a National Science Foundation-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 expected to be July 19, 20, and 21, 2017, depending on discipline. If you are interested in applying and would like assistance by OVCR staff, be sure to attend the following sessions. These sessions are sponsored by the following OVCR units: Proposal Development Services and the STEM Education and Innovation Research Institute.

Session 1: General Information and Eligibility

Target Audience: IUPUI and IUPUC Assistant professors in disciplines funded by NSF

Friday, February 24, 2017

11:30am - 1:30pm

University Library Room 1126

An overview of the guidelines and eligibility requirements will be presented. Participants will also learn what resources are available to support development of a competitive proposal to the National Science Foundation CAREER program. Participants are welcome to bring a lunch to the session.

[Click here to register](#)

Session 2: Panel of Successful Applicants Target Audience: IUPUI and IUPUC Assistant professors in disciplines funded by NSF

Thursday, March 23, 2017

10:00am - 12:00pm

University Library Room 1126

As a follow-up to the initial introductory session in February, recent NSF CAREER award recipients will share insights into securing funding through this program and address questions from session participants.

[Click here to register](#)

2017 JagStart Pitch Competition

Target Audience: faculty, staff, students, community members
Friday, March 3, 2017
1:30pm - 3:30pm
University Library Lilly Auditorium

[JagStart](#) is an annual event that pits contestants against the clock to pitch their original ideas to a panel of judges. Students enter the competition to showcase their ideas for innovative new products, new business ventures, or compelling solutions to social challenges. JagStart rewards those who have the best ideas—and the best pitches—with cash prizes!

[Click here to register](#)

Developing Complex, Multi-Investigator, Multi-Institutional Proposals

Target Audience: IUPUI and IUPUC senior faculty with previous or current external funding; Signature Center directors
Thursday, March 30, 2017
4:00pm - 5:30pm
University Library Room 1126

The current funding environment favors large, complex, multi-institutional, multi-investigator projects. However, organizing a successful submission takes a great deal of planning and teamwork. This session will focus on exploring the distinctions between “standard” and “complex” submissions, navigating through issues of building and organizing the research team, intra- and inter-institutional collaboration, and preparing a successful proposal. Participants will also find out what assistance is available from the staff of Proposal Development Services in the Office of the Vice Chancellor for Research. (Limited to 20 registrants.)

[Click here to register](#)

NSF Research Experiences for Undergraduates

Target Audience: IUPUI and IUPUC Faculty interested in mentoring undergraduate researchers
Friday, April 14, 2017
11:30am - 1:30pm
University Library Room 1126

This session will focus on the NSF Research Experiences for Undergraduates (REU) program, which supports active participation by undergraduate students in any of the areas of research funded by the National Science Foundation. The next submission deadline is expected to be August 23, 2017. Proposals for REU Sites are for independent projects that engage several undergraduate students in research on a well-defined common theme. Proposals for REU Supplements are for support of one or two undergraduate students to participate in research under the auspices of a new or ongoing NSF-funded project. Discussion will cover proposal strategies, campus resources, and budgetary considerations. Participants are welcome to bring a lunch to the session.

[Click here to register](#)

NSF Graduate Research Fellowship Program

Target Audience: IUPUI and IUPUC First-year graduate students in STEM and STEM education, undergraduate juniors and seniors planning to enroll in STEM or STEM education graduate programs
Friday, April 21, 2017
1:00pm – 2:30pm
University Library Room 1126

This session will introduce interested students to the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP). The GRFP is an NSF-wide program that provides fellowships to students in the earliest stages of their graduate careers to pursue non-medical research in science, technology, engineering, or mathematics (STEM) or in STEM education. Topics to be discussed include details of the support provided by the fellowship, eligibility requirements, application requirements and procedures, and strategies for developing strong proposals. Submission deadlines for fellowship applications will be the week of October 23, 2017, the specific day dependent on discipline. NOTE: Eligibility for the NSF GRFP is limited to students who are U.S. citizens, nationals, and permanent residents.

This session is sponsored by the following OVCR units: Proposal Development Services and the STEM Education Innovation and Research Institute.

[Click here to register](#)

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OTHER EVENTS AND WORKSHOPS



The Ethics, Values, and Practices of Public Art in Urban Contexts Seminar Series: What is Public Art?

Date: 9 March 2017

Time: 4:00-5:30 PM

Location: IUPUI Arts & Humanities Institute; University Library Room 4115P; 755 W. Michigan St.

Free Registration: <https://www.eventbrite.com/e/what-is-public-art-tickets-32064296173>

The Ethics, Values, and Practices of Public Art in Urban Contexts Seminar Series

Cities across the US are grappling with major transformations that expose the many tensions inherent to historical disparities in economics, education, safety, and political access brought on by inequalities based in race and class. Midwest cities have responded to these challenges with a variety of approaches. This seminar series is concerned with addressing one of them: the role of culture in reshaping cities – specifically through public art.

In the discourse and practice of urban design, public art has increasingly been seen as a key tool in redeveloping our cities – from making cities more livable and safe to encouraging economic development and educational achievement. Using art as a tool to address urban design challenges goes by a variety of different names: creative placemaking, civic art, and tactical urbanism, to name a few. These approaches are fundamentally tied to ethical frameworks and notions of value.

Seminar meetings will discuss the intersections of ethics, public art, and urban design through shared readings, guest speakers, and conversation. We invite you to join us as we host six meetings in Spring and Fall 2017 to discuss the following topics.

- What is Public Art?
- Histories of Public Art and the Common Good
- Patronage, Philanthropy, and Policy in Public Art
- Public Art: Theories and Methods
- Emergent Best Practices
- Futures of Public Art

For more information, contact the organizers: Jason M. Kelly (jaskelly@iupui.edu) or Pamela Napier (pcnapier@iupui.edu).

The Ethics, Values, and Practices of Public Art in Urban Contexts Seminar Series is supported by The Consortium for the Study of Religion, Ethics and Society at Indiana University and the IUPUI Arts and Humanities Institute.

Parking: If you are coming from off campus, there is visitor parking just across the street from the IUPUI Library: North St. Garage ([819 W. North St.](#)) or Sports Complex Garage ([875 W. New York St.](#)).

SAVE THE DATE

21st Great Century Conversations *in Neuroscience, Art, and Related Therapeutics*

April 8th (9:00 AM - 5:00 PM) and 9th (9:00 AM - 12:00 PM)

Registration details forthcoming

ART ENGINEERING HEALTH & REHABILITATION SCIENCES INFORMATICS LIBERAL ARTS MEDICINE
NURSING

KEYNOTE SPEAKERS

Anjan Chatterjee, MD
Neuroaesthetics

Arne Dietrich, PhD
Creativity
& Consciousness

Klaus Gramann, PhD
Mobile
Brain-Body
Imaging

HINE HALL AUDITORIUM, 875 W NORTH ST., INDIANAPOLIS, IN 46202

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Neuroscience
Center



INDIANA UNIVERSITY
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HERRON SCHOOL
OF ART + DESIGN



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RECENT EXTERNAL FUNDING AWARDS

Grants and Awards – January 2017

PI	Agency	Project Title	School	Department	Total
		Medicaid Directorship-			

Downs, Stephen M	INDIANA FAMILY AND SOCIAL SERVICES ADMINISTRATION	Medical Advisory Services to the Office of Medicaid Policy and Planning	MEDICINE	PED-HEALTH SERVICES RESEARCH	\$2,191,616
Dave, Utpal	NATIONAL CANCER INSTITUTE	The Role of LMO2 in the Pathogenesis of T- cell Leukemia	MEDICINE	HEMATOLOGY/ONCOLOGY	\$1,812,755
Einterz, Robert Michael	ABBVIE FOUNDATION	Academic Model Providing Access to Healthcare (AMPATH) 2016 - 2017	MEDICINE	GENERAL INTERNAL MEDICINE	\$1,100,000
Nephew, Kenneth P	OVARIAN CANCER RESEARCH FUND ALLIANCE	Epigenetic Vulnerabilities of Ovarian Cancer Stem Cells	MEDICINE	MEDICAL SCIENCES PROGRAM	\$900,000
Cullen, Theresa	JSI RESEARCH AND TRAINING INSTITUTE INC	Ethiopia Data Use Partnership	MEDICINE	FAMILY MEDICINE	\$524,316

Payne, R. Mark	NEW ENGLAND RESEARCH INSTITUTE	Pediatric Heart Network (PHN) DCC	MEDICINE	PED-CARDIOLOGY	\$216,021
Sullivan, William J.	UNIVERSITY SOUTH FLORIDA	Developmental switches regulating tissue cyst formatio	MEDICINE	PHARMACOLOGY & TOXICOLOGY	\$123,993
Gladden, James M	PACERS SPORTS & ENTERTAINMENT	Economic Contributions of Pacers Sports and Entertainment	HPER	PHYSICAL ED	\$102,000

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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 instead are sent directly to IUPUI School Deans. For comprehensive coverage of funding opportunities, please use the links below to search online tools.

NATIONAL INSTITUTES OF HEALTH

NEH-Mellon Fellowships for Digital Publication: This opportunity jointly supports individual scholars pursuing interpretive research projects that require digital expression and digital publication. To be eligible, an applicant's plans for digital publication must be essential to the project's research goals. That is, the project must be conceived as digital because the nature of the research and the topics being addressed demand presentation beyond traditional print publication. Successful projects will likely incorporate visual, audio, and/or other multimedia materials or flexible reading pathways that could not be included in traditionally published books, as well as an active distribution plan.

All projects must be interpretive. That is, projects must advance a scholarly argument through digital means and tools. Stand-alone databases and other projects that lack an interpretive argument are not eligible. Deadline: April 12, 2017.
<https://www.neh.gov/grants/research/neh-mellon-fellowships-digital-publication>

Predictive Multiscale Models for Biomedical, Biological, Behavioral, Environmental and Clinical Research (U01): The goal of this interagency opportunity is to support the development of multiscale models to accelerate biological, biomedical, behavioral, environmental and clinical research. The NIH, ARO, DOE, FDA, NASA, NSF, and ONR recognize that in order to efficiently and effectively address the challenges of understanding multiscale biological and behavioral systems, researchers will need predictive, computational models that encompass multiple biological and behavioral scales. This opportunity supports the development of non-standard modeling methods and experimental approaches to facilitate multiscale modeling, and active participation in community-driven activities through the Multiscale Modeling (MSM) Consortium.

Participating Organizations: U.S. Army Research Office (ARO), U.S. Dept. of Energy (DOE), Food and Drug Admin. (FDA), Nat'l Aeronautics and Space Admin. (NASA), Nat'l Science Foundation (NSF), and the Office of Naval Research (ONR). Deadline: Application: May 29, 2017. <http://grants.nih.gov/grants/guide/pa-files/PAR-15-085.html>

Advanced Laboratories for Accelerating the Reach & Impact of Treatments for Youth with Mental Illness (ALACRITY) Research Centers (P50): This opportunity invites applications for centers to support transdisciplinary teams of clinical and mental health services researchers, behavioral and social scientists, health information and communications technologists, health systems engineers, decision scientists, and mental health stakeholders to engage in high-impact studies that will significantly advance clinical practice and generate knowledge that will fuel transformation of US mental health care. ALACRITY Research Centers will support the rapid development, testing, and refinement of novel and integrative approaches for (1) optimizing the effectiveness of therapeutic or preventive interventions for mental disorders within well-defined target populations; (2) organizing and delivering optimized mental health services within real world treatment settings; and (3) continuously improving the quality, impact, and durability of optimized interventions and service delivery within diverse care systems. ALACRITY is intended to support research that demonstrates extraordinary synergy across disciplines and has a high potential for increasing the public health impact of existing and emerging mental health interventions and service delivery strategies. The program also expects applications to provide opportunities for graduate students, postdoctoral researchers, and new investigators to participate in transdisciplinary, T2 translational mental health research. Deadline: May 17, 2017. <http://grants.nih.gov/grants/guide/pa-files/PAR-16-354.html>

Advancing our Understanding of the Brain Epitranscriptomics (R01): "Epitranscriptomics" refers to chemical modifications of RNA molecules. RNA mods in the brain have been reported to regulate the fate and function of both coding and noncoding RNAs and are emerging as a critical element of cellular function. The purpose of this opportunity is to stimulate research into the functions of modified RNAs in the brain and/or the associated modification proteins that act on RNA (readers, writers, erasers) and play a role in basic neurobiological/behavioral processes implicated in mental/substance use disorders.

Applications should explore brain-specific roles of one or more eukaryotic RNA modifications of any of the 4 RNA bases, ribose methylation, ribose hydroxylation, or regulatory aspects of the proteins complexes that are directly involved in RNA modification (readers, writers, or erasers). Projects should develop tools or explore basic biological processes relevant to cells, circuits and pathways underlying mental disorders or addiction. Projects may have discovery components, but should explore novel areas of biology related to RNA mods in the brain. Applications may also propose novel approaches, tools or technologies to study the epitranscriptome in the brain. Of interest are studies involving novel or known modifications of all classes of brain RNAs, including, but not limited to the following: messenger, transfer, ribosomal, small nuclear, micro, piwi-interacting, long non-coding, enhancer, antisense, and small RNAs derived from transfer, small nucleolar, or circular RNAs. Deadline: Application: June 16, 2017. <https://grants.nih.gov/grants/guide/pa-files/PAR-17-153.html>

NATIONAL SCIENCE FOUNDATION

Discovery Research PreK-12 (DRK-12): This opportunity seeks to significantly enhance STEM learning and teaching by PreK-12 students and teachers, through research and development of STEM education innovations and approaches. Proposed projects build on fundamental research in STEM education and prior research and development efforts that provide theoretical and empirical justification for proposed projects. Projects should result in research-informed and field-tested outcomes and products that inform teaching and learning. Teachers and students who participate in DRK-12 studies are expected to enhance their understanding and use of STEM content, practices and skills. DRK-12 invites proposals that address immediate challenges that are facing preK-12 STEM education as well as those that anticipate radically different structures and functions of pre-K12 teaching and learning.

The program has three major research and development strands: Assessment, Learning, and Teaching. The program

recognizes the synergy among the three strands and that there is some overlap among them. However, PIs should identify a clear focus of the proposed research efforts consistent with the proposal's main objectives and research questions. The program supports 5 project types: Exploratory, Design & Development, Impact, Implementation & Improvement, and Conferences & Syntheses. Deadline: December 04, 2017

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=500047

Cyberlearning & Future Learning Technologies: The purpose of the Cyberlearning and Future Learning Technologies program is to integrate opportunities offered by emerging technologies with advances in what is known about how people learn to advance three interconnected thrusts: 1) Cyber innovation: Developing next-generation cyberlearning approaches through high-risk, high-reward advances in computer and information science and engineering; 2) Learning innovation: Inventing and improving next-generation genres of learning technologies, identifying new means of using technology for fostering and assessing learning, and proposing new ways of integrating learning technologies with each other and into learning environments to foster and assess learning; and 3) Advancing understanding of how people learn in technology-rich learning environments: Enhancing understanding of how people learn and how to better foster and assess learning, especially in technology-rich learning environments.

Of particular interest are technological advances that foster deep understanding of content coordinated with masterful learning of practices and skills; draw in and encourage learning among populations not served by current educational practices; or provide new ways of assessing learner understanding, engagement, and capabilities. Deadline: February 10, 2018. http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504984&org=NSF&sel_org=NSF&from=fund

MacroSystems Biology and Early NEON Science: NEON, the National Ecological Observatory Network, is a continental-scale observation system for examining ecological change over time. This opportunity will support quantitative, interdisciplinary, systems-oriented research on biosphere processes and their complex interactions with climate, land use, and invasive species at regional to continental scales as well as planning, training, and development activities to enable groups to conduct MacroSystems Biology and Early NEON Science research. Deadline: October 16, 2017. http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf16521

PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE

Communication and Dissemination Research This opportunity invites applications that study the comparative effectiveness of communication and dissemination strategies. The program is looking for strategies aimed at informing and empowering patients, caregivers, and other healthcare decision makers so that they know what questions to ask and have the information needed to provide support in shared decision making.

This announcement is designed to solicit applications that include:

- Communication strategies to promote the use of health and healthcare CER evidence by patients and clinicians
- Dissemination strategies to promote the use of health and healthcare CER evidence by patients and clinicians
- Explanation of uncertain health and healthcare CER evidence to patients and clinicians. Deadlines: Letter of Intent: Feb. 17, 2017; Application: May 17, 2017. <http://www.pcori.org/funding-opportunities/announcement/communication-and-dissemination-research-cycle-1-2017>

U.S. DEPT. OF DEFENSE

Pandemic Prevention Platform (P3): The P3 program aims to revolutionize outbreak response capabilities to allow rapid discovery, characterization, production, and testing of efficacious medical countermeasures. The P3 program aims to innovate in the following areas: 1) Generation of virus stock (including viral unknowns), 2) Rapid evolution of antibody candidates, and 3) Genetic-encoded antibody delivery methods.

This opportunity solicits innovative research proposals to develop an end-to-end platform capability for preventing a pandemic threat in < 60 days. Recent advances in medical countermeasures have formed a strong foundation, enabling the creation of a true end-to-end pandemic prevention platform. However, experience gained from conventional responses to emerging infectious diseases (MERS, SARS, dengue, chikungunya, Ebola) has demonstrated that significant bottlenecks hinder the rapid response to an emerging infectious threat. Current challenges include the ability

to rapidly produce virus needed to test and evaluate therapies, to obtain high potency antibodies within the first weeks of an outbreak, or to scale delivery methods into humans to produce protective levels inside the patient. Deadlines: Abstract Submission: March 13, 2017; Application: May 01, 2017. <http://www.grants.gov/web/grants/view-opportunity.html?oppld=291624>

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 Steven Chin at schin@iupui.edu.

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