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Grants from Indiana CTSI fuel search for potential new drugs

Dec. 11, 2014

The Indiana Clinical and Translational Sciences Institute recently awarded more than \$100,000 to researchers seeking to identify new therapeutic agents for potential development as future drugs. The funded projects will target conditions such as cancer, drug-resistant infections and chronic pain.

The grants are the first from the [Indiana Drug Discovery Alliance](#), a central access point for statewide drug discovery and development resources established this year by the Molecular Therapeutics Program of the Indiana CTSI. The institute is a National Institutes of Health-funded collaboration of Indiana University, Purdue University and the University of Notre Dame.

The objective of the Indiana Drug Discovery Alliance is to promote and support promising early-stage drug-discovery research and facilitate collaborative translational research partnerships. With drug discovery expertise from each of the Indiana CTSI partner universities as well as Eli Lilly and Co., the alliance's advisory committee is identifying complementary expertise and critical resource facilities across these institutions.

"Each of the projects funded under the inaugural Indiana Drug Discovery Alliance grants were chosen for their high potential to generate new intellectual property and yield discoveries that advance the fight against disease," said Anantha Shekhar, M.D., Ph.D., director of the [Indiana CTSI](#) and associate vice president for university clinical affairs at IU. "Scientists are increasingly asked to present strong evidence for the effectiveness of proposed new therapies before they even begin to reach out to public or private partners for funds. We want to provide the boost needed to generate evidence that attracts external support and results in new products that save lives in the near future."

Grant recipients were chosen from more than 30 applicants. Many projects involve the rapid analysis of tens of thousands of potential chemical compounds that have a powerful effect on some aspect of the disease under investigation. These compounds can then be marked for additional investigation and potential development as drugs.

The 2014 Indiana Drug Discovery Alliance grant recipients are:

- [Theodore Cummins](#), Ph.D., professor and interim chair of pharmacology and toxicology at the IU School of Medicine. Dr. Cummins' project relates to chronic pain management.
- [Chang-Deng Hu](#), M.D., Ph.D., associate professor of medicinal chemistry and molecular pharmacology at Purdue University. Dr. Hu's project relates to cancers such as leukemia and lymphoma as well as cancers of the breast, lung, colon and rectum, ovaries, skin, and brain.
- [Julia C. Van Kessel](#), Ph.D., assistant research scientist in the Department of Molecular and Cellular Biochemistry at IU Bloomington. Dr. Kessel's project relates to antibiotic-resistant infections. [Laura C. Brown](#), Ph.D., of the Department of Chemistry at IU Bloomington, is a collaborator on the project.
- [Tao Lu](#), Ph.D., assistant professor of pharmacology and toxicology biochemistry and molecular biology at the IU School of Medicine. Dr. Lu's project relates to colon cancer.
- [Samy Meroueh](#), Ph.D., associate professor of biochemistry and molecular biology at the IU School of Medicine and a member of the IU Simon Cancer Center. Dr. Meroueh's project relates to the breast cancer. [Clark D. Wells](#), Ph.D., associate professor of biochemistry and molecular biology at the IU School of Medicine, is a collaborator on the project.
- [Maria Teresa Rizzo](#), M.D., associate investigator at the Methodist Research Institute and an adjunct assistant professor of medicine and of



Theodore Cummins, Ph.D.



Chang-Deng Hu, M.D., Ph.D.

pharmacology and toxicology at the IU School of Medicine. Dr. Rizzo's project relates to glioblastoma, a highly aggressive form of brain cancer. Collaborators on the project are [Mingji Dai](#), Ph.D., professor of organic chemistry at Purdue; and [Karen Pollok](#), Ph.D., associate professor of pediatrics, and [Aaron Cohen-Gadol](#), M.D., associate professor of neurological surgery, both at the IU School of Medicine.

- [Stanley Spinola](#), M.D., professor and chair of microbiology and immunology at the IU School of Medicine. Dr. Spinola's project relates to drug-resistant bacteria, such as those responsible for urinary tract infections, pneumonia, sepsis and sexually transmitted disease.
- [Jingwu Xie](#), Ph.D., Jonathan and Jennifer Simmons Professor of Pediatrics and a member of the Herman B Wells Center for Pediatric Research at the IU School of Medicine. Dr. Xie's project relates to pancreatic cancer.

Scientific consultants for the Indiana Drug Discovery Alliance include Jaipal Singh, Ph.D., and Zhong-Yin Zhang, Ph.D., of the IU School of Medicine; Yvonne Y. Lai, Ph.D., and Michael Nieuwenhze, Ph.D., of IU Bloomington; Timothy Ratliff, Ph.D., and Andrew Mesecar, Ph.D., of Purdue; Richard Taylor, Ph.D., of Notre Dame; Scott M. Sheehan, Ph.D., of Eli Lilly and Co.; and Jay McGill, Ph.D., of Eli Lilly and Biocrossroads. The team will track the progress of each of the funded projects and offer advice and support to the principal investigators.

The [Indiana Clinical and Translational Sciences Institute](#) is a statewide collaboration of Indiana University, Purdue University and the University of Notre Dame to facilitate the translation of scientific discoveries in the lab into new patient treatments in Indiana and beyond. It was established in 2008 with a Clinical and Translational Science Award from the National Center for Advancing Translational Sciences at the National Institutes of Health totaling \$60 million (TR000006, TR000163 and UL1TR001108), with additional support from the state, the three member universities and public and private partners. It is a member of the national network of over 60 CTSA-funded organizations across the country.



Julia C.

Van Kessel, Ph.D.



Tao Lu,

Ph.D.



Samy

Meroueh, Ph.D.



Maria

Teresa Rizzo, M.D.



Stanley

Spinola, M.D.



Jingwu

Xie, Ph.D.

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Peer Review Mentoring Committees yielding results for investigators

Jan. 20, 2015

When Quyen Q. Hoang, Ph.D., first heard about a new group at the IU School of Medicine designed to assist faculty with grant applications, he was skeptical. Wasn't he the best expert on his own work? But after meeting with a Peer Review Mentoring Committee, or PRMC, he was convinced -- and so were his reviewers at the National Institutes of Health.

An assistant professor of biochemistry and molecular biology, Dr. Hoang came to PRMCs with an NIH grant application that received an impact score of 68 in the 54th percentile. After reshaping the application based on the group's input, he received a score of 18 in the 5th percentile -- the top 5 percent among all applicants.

"That is an outstanding result," said Michael Vasko, Ph.D., Paul Stark Professor of Pharmacology, who serves as chair of the IUSM Neurosciences Peer Review Mentoring Committee. "It put this proposal at the top of the stack."

The turnaround time on the whole process -- from contacting the committee to submitting the revised application? A mere three weeks.

"I rewrote a lot of the grant," Dr. Hoang said. "The organization of the application -- everything -- was changed. The committee asked a lot of questions that I had presumed common knowledge. This helped me realize the need to fill in the knowledge gaps and develop a better layout. The committee really helped."

Established in May 2014, the [Peer Review Mentoring Committees](#) were created by the IU School of Medicine, in collaboration with the Indiana Clinical and Translational Sciences Institute, to provide faculty access to scientists with a proven track record of successful grant applications to the NIH. There are currently three PRMCs focused on neurosciences, cardiology and obesity/metabolism. The program is modeled after the Indiana CTSI Program Development Teams, a similar, successful program launched during the creation of the Indiana CTSI in 2008.

Dr. Hoang's research proposal focused on the need to provide a detailed understanding of the structure and function of LRRK2, an enzyme, which has long been seen as a target in the treatment of Parkinson's disease due to its over-activation in people with the condition. The development of LRRK2-inhibiting drugs has met with failure over the past decade, however, due to adverse side effects encountered during early preclinical trials.

"These side effects are caused by targeting the ATP-binding site in the kinase domain," Dr. Hoang said. "Therefore, it's critical to consider alternative mechanism-based approaches to modulating LRRK2. This grant is mostly about solving a protein structure that is very, very big, thus a difficult task. So we are also trying to solve the structure in pieces, which is much easier and a lot more feasible."

The Neurosciences PRMC pointed out that the original application put the project's most ambitious goals in the opening section -- the aspect of the research that Dr. Hoang also found the most exciting -- but which had the unintended effect of making the project's scope seem unattainable. The new application restructured the goals to demonstrate that each one acted as a step in a larger process.

Dr. Hoang added writing a grant application is a lot different from writing a scientific paper: "The latter is a report of scientific discovery whereas the former is a sales pitch." After the review, he put the relevance of the work to Parkinson's disease at the forefront rather than leading with nuts-and-bolts problems, such as unraveling an enzyme's biochemical functions and its



Quyen Q. Hoang, Ph.D.

mechanism of regulation.

"A lot of times we're too close to the work ourselves to see potential shortcomings as we're writing our grants," said Dr. Vasko, also a professor of anesthesia and of medicine at the IU School of Medicine. "Historically speaking, everyone worked on their grants in isolation. Having peer reviews at the local level gives everybody a chance to improve their application."

Working through the application process in isolation also negatively impacts young investigators in greater numbers since the modern research environment has grown increasingly competitive due to limited federal funds, he said. PRMC groups give scientists at the start of their careers immediate access to the grant-writing knowledge of their more experienced peers.

"There's an issue of the significance of the work and its impact, and then there's the issue of the 'grantsmanship,'" Dr. Vasko said. "That has a lot more to do with how you communicate the significance and the innovation of your science."

The PRMC's current goal is raising awareness about the groups to ensure everyone knows they're ready and willing to provide assistance, he added.

"This is really a resource that's helpful for grant writing strategy," Dr. Hoang said. "I would encourage everyone to use it."

Additional members of the Neurosciences PRMC are Elliot J. Androphy, M.D., chair and Kampen-Norins Professor of Dermatology; Aaron Cohen-Gadol, M.D., associate professor of neurological surgery; Theodore R. Cummins, professor and interim chair of pharmacology and toxicology; Sujuan Gao, Ph.D., professor of biostatistics; Kathryn Jones, Ph.D., professor and chair of Anatomy and Cell Biology; R. Mark Payne, M.D., professor of pediatrics and of medical and molecular genetics; Tammy Sajdyk, Ph.D., associate research professor of psychiatry; Fletcher A. White, Ph.D., Vergil K. Stoelting Professor of Anesthesia; and Karmen K. Yoder, Ph.D., associate professor of radiology and imaging sciences. Dr. Androphy is also a professor of microbiology and immunology and of anatomy and cell biology. Dr. White is also professor of pharmacology and toxicology and of ophthalmology. Dr. Sajdyk is also a research navigator at the Indiana CTSI and coordinator for the PMRCs.

By Kevin Fryling

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Indiana CTSI awards 2014 Collaboration in Translational Research Grants

Jan. 20, 2015

Sixteen scientists across Indiana were recently awarded pilot funds designed to encourage collaborative research projects focused on research to advance human health.

The recipients of the 2014 Collaboration in Translational Research from the Indiana Clinical and Translational Sciences Institute will each receive support for early-stage research projects with the potential to attract additional support from outside federal and commercial agencies, including the National Institutes of Health and National Science Foundation. Each two-person team will receive up to \$75,000.

To foster collaboration across disciplines, teams must include a member from one of the following universities, schools or campuses: IUPUI, IU Bloomington, IU School of Medicine, Purdue or Notre Dame. The recipients and their projects are:

A. George Akingba, M.D., assistant professor of clinical surgery and medicine at the Indiana University School of Medicine, and **Philippe Sucosky**, Ph.D., professor of aerospace and mechanical engineering at the University of Notre Dame School of Engineering, received support for their project, "Modular Anastomotic Valve Device for Improving Patency of Arteriovenous Grafts for Hemodialysis: Pilot Computational and Experimental Studies."

Elliot Androphy, M.D., chair and Kampen-Norins Professor of Dermatology at the IU School of Medicine, and **V. Jo Davisson**, Ph.D., professor of medicinal chemistry and molecular pharmacology, Purdue University School of Pharmacy, received support for their project, "Drug-like inhibitors of HPV-16 E6." Dr. Androphy is also professor of microbiology and immunology and of anatomy and cell biology at the IU School of Medicine.

Mary Beth Brown, Ph.D., assistant professor of physical therapy in the IU School of Health and Rehabilitation Science at IUPUI, and **Jeffrey Kline**, M.D., professor of emergency medicine and of cellular and integrative physiology at the IU School of Medicine, received support for their project, "Exercise to Attenuate Right Ventricular Damage after Pulmonary Embolism."

Derek Houston, Ph.D., Philip F. Holton Scholar in Otolaryngology and associate professor of otolaryngology-head and neck surgery at the IU School of Medicine, and **Amanda Seidl**, Ph.D., associate professor of speech, language and hearing sciences at the Purdue College of Health and Human Sciences, received support for their project, "Infant Directed Speech and Language Development in Infants with Hearing Loss."

Pedro Irazoqui, Ph.D., Showalter Faculty Scholar and associate professor of electrical and computer engineering in the Weldon School of Biomedical Engineering, Purdue College of Engineering, and **Thomas V. Nowak**, M.D., professor of clinical medicine at the IU School of Medicine, received support for their project, "Effect of Gastric Electrical Stimulation on Vagal Nerve Conduction in Patients with Gastroparesis."

Sonak D. Pastakia, Pharm.D., associate professor of pharmacy practice in the Purdue College of Pharmacy, and **Martin C. Were**, M.D., associate professor of medicine at the IU School of Medicine, received support for their project, "Enhanced Biometric Identification Technology for Rural Healthcare Delivery." Dr. Pastakia also serves as a pharmacist with the Academic Model Providing Access to Healthcare in Kenya.

Ryan Roeder, Ph.D., associate professor aerospace and mechanical engineering in the School of Engineering at Notre Dame, and **Matthew Allen**, Ph.D., associate professor of anatomy and cell biology at the IU School of



Elliot

Androphy, M.D., is among the recipients of the 2014 Indiana CTSI CTR awards.

Medicine, received support for their project, "Development of a Rabbit Model for 'Atypical' Fractures in Cortical Bone During Long-Term Bisphosphonate Therapy."

David John Wild, Ph.D., associate professor of informatics and computing, School of Informatics at IU Bloomington, and **Richard Taylor**, Ph.D., associate vice president for research and professor of chemistry and biochemistry at the University of Notre Dame, received support for their project, "Cheminformatic big data mining for automated chemical synthesis."

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Community Health Engagement Program looks towards future goals

Jan. 20, 2015

In the seven years since its establishment as a founding program within the Indiana CTSI, the Community Health Engagement Program (CHEP) has facilitated countless connections between researchers and the community, including an official membership list of about 350 community and academic partners across Indiana.

The program also recently gained a new leader, Sarah Wiehe, M.D., MPH, associate professor of pediatrics at the IU School, who assumed the role of sole director in September. Dr. Wiehe, who previously served as co-director with Douglas Miller, M.D., and currently serves chair of the Indiana CTSI Community and Urban Health Project Development Team, aims to lead CHEP into a period of even greater activity.

A researcher with the Children's Health Services Research at the IU School of Medicine and an investigator with Regenstrief Institute whose research focuses on sensitive subjects such as how poverty affects teenage behaviors such as smoking, substance and abuse and risky sexual activity, Dr. Wiehe understands the need to create a sense of common cause around research with the community -- as well as the real-world impact such work can have on people's lives. She also serves on the boards of the Marion County Head Start Association and Eskenazi Health Center.

"We're at a point where CHEP's really built a lot of great infrastructure and capacity within the Indiana CTSI," said Dr. Wiehe. "Now we need to pause and listen to our stakeholders about how we can increase our impact and engagement with the community -- how we can best to tailor our services to meet their needs. Over the past six months, we've conducted interviews with over 100 members of the community and the academy to understand how CHEP can be a better partner."

These "CHEP Chats," conducted by Dr. Wiehe and Helen Sanematsu, an expert in health communication at the Herron School of Art and Design at IUPUI, were held across the Indiana CTSI member institutions of Purdue, Notre Dame and IU, including IU Bloomington as well as in the community.

The sessions will culminate Feb. 12 and 13 with two half-day strategic planning sessions with CTSI leadership and members of CHEP's academic and community advisory council -- two key groups which rarely met together in the past. The program also recently hired a new program manager, [Gina Claxton](#), MPH, RD, and plans to hire an administrative assistant in the near future.

In addition to connecting community organizations, CHEP supports community-based research through pilot grants -- a total of 20 projects have been funded over the past few years. The recipient of the 2014 funds, who together received a total of \$100,000, were:

- Ulla Connor, Ph.D., of the IU School of Liberal Arts at IUPUI and Rylin Rodgers of Family Voices Indiana, for "Targeted Language Instruction for Limited English Proficiency Latino Families of Infants with Special Needs"
- Mary DeGroot, M.D., of the IU School of Medicine and Angela Goode of Minority Health Coalition of Marion County, for "Evaluating the Impact of the 'Too Sweet for Your Own Good' Diabetes Education Program"
- James R. Farmer, Ph.D., and Rasul A. Mowatt, Ph.D. of the IU School of Public Health at IU Bloomington and Marcia Veldman of the City of Bloomington Parks and Recreation and Megan Hutchison and Cheryl Carter-Jones of the Local Growers' Guild, for "Infusion or Assimilation: Barriers to Integration of Local Food Systems Across the Community"
- Mary Ott, M.D., of the IU School of Medicine and Abby Hunt of Health Care Education and Training, Inc., for "Development and Evaluation of a



Sarah Wiehe, M.D., MPH, speaks with a participant in the 2014 Indiana CTSI CHEP Community Advisory Council.

Positive Youth Development Approach to Sexual Health with Incarcerated Teens"

Also launched under the leadership of Dr. Wiehe is the CTSI Patient Engagement Core, a new resource for CTSI investigators that collaborates with patients and a design team to provide expert advice on how to engage the community in research studies. Many projects involve the creation of a design product to aid investigators in their work.

The core expands upon a patient outcomes improvement project conducted by IU investigator Aaron Carroll with support from the Agency for Healthcare Research and Quality, under which Dr. Wiehe and Sanematsu oversee patient-focused materials for studies on juvenile diabetes and ADHD, among others. In the diabetes study, the Patient Engagement Core developed an interactive tool for patients and caregivers to assist with specific diabetes management, such as daily glucose testing. The ADHD study involved developing several tools used in group medical visits, including an easy-to-follow pamphlet guiding parents through accessing special services within the school system.

The CTSI's investment in the core expands its mission beyond the AHRQ-funded projects -- as well as enabled the hiring of two part-time visual communication designers.

"There are so many interesting projects out there that we're working with," said Dr. Wiehe. "We really look forward to the tangible outcomes of increased patient engagement on these studies and how they might impact improved study outcomes."

Overall, the core has agreed to provide services to 15 research projects in the past few months alone despite no advertisement -- strong evidence the core fulfills an unmet need among many investigators.

"I'm excited about what other new concepts will be under discussion next month -- some really great ideas have been raised in our conversations with researchers and community leaders," Dr. Wiehe. "Our goal will be to create prioritized list based upon everything we've learned so far -- a new path forward for CHEP."

Everyone is encouraged to provide feedback to CHEP in advance of the planning session Watch your email for a survey inviting you to share your thoughts about how CHEP can better serve your community and patient engagement needs.

By *Kevin Fryling*

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Claxton named Indiana CTSI CHEP Program Manager

Jan. 20, 2015

Gina Claxton, MPH, RD has been named program manager for the Indiana Clinical and Translational Sciences Institute Community Health Engagement Program.

In this position, Claxton will manage the development, growth and implementation of the Indiana CTSI CHEP, including engaging academic and community partners in research to better the health of Indiana residents. She will be responsible for the coordination of program activities such as the Patient Engagement Core, Community-Based Research Program pilot grant program, the Community Advisory Council annual meeting, networking and matching services, and academic and community capacity building activities and programs.

Additional duties include grant writing, budgeting, report construction, staff supervision, program evaluation, strategic planning, education and training initiatives, overall management of the CHEP consult service and communication strategies. The mission of CHEP is to provide infrastructure and support for collaboration between the academy and community stakeholders in order to leverage resources, enrich evaluations, communicate research findings and engage Indiana residents in research and their health. The position reports to Sarah Wiehe, M.D., MPH, associate professor of pediatrics at the IU School of Medicine and director of the Indiana CTSI CHEP.

Claxton was most recently study coordinator, professional research assistant and registered dietitian at the University of Colorado's Anschutz Health and Wellness Center. She completed her masters of public health practicum and capstone with the Colorado Medical Society serving as project coordinator for the health policy department. She had earlier been a clinical dietitian at Finger Lakes Health in Upstate New York, and interned in health promotions at MVP Health Care in Rochester, New York. She also previously served the Indiana CTSI as a dietary technician at the Purdue Clinical Research Center, where she was also a research camp counselor at [Camp Calcium](#), a six-week summer camp experience that is part of a long-running clinical trial on the role of calcium in bone development founded by Indiana CTSI Deputy Director Connie Weaver, Ph.D.

Claxton holds a master's of public health from the University of Colorado and a dual major bachelor's degree in dietetics and nutrition, fitness and health from Purdue University. She completed her supervised dietetic practice program with Cornell University.

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Gina

Claxton, MPH, RD

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Access Technology Program Updates -- January 2015

Jan. 20, 2015

The latest update from the Indiana CTSI Access Technology Program includes news about new services and technology at the IU Center for Medical Genomics and IU Simon Cancer Center In Vivo Therapeutics Core:

Center for Medical Genomics

The Center for Medical Genomics (CMG) has reduced its rates for RNA and DNA sequencings on SOLiD5500xl system. These reduced rates also include genomic alignment by the bioinformatics core. The Center for Computational Biology and Bioinformatics (CCBB) will provide funding support to conduct basic sequencing data processing. The Bioinformatics Core will charge separately for additional analyses including determination of differentially expressed genes, contact Dr. Yunlong Liu at yunliu@iu.edu for more analysis details. Contact Dr. Xiaoling Xuei, xxuei@iu.edu, for RNA and DNA sequencing questions.

In other Next Gen sequencing news, the Life Technologies Ion Proton system is in full swing. The first generation PI chip allows sequencing 8Gb per chip up to 200bp per read for whole genome sequencing, RNAseq, ChIPseq, as well as various designs of targeted sequencing called AmpliSeq. The RNAseq of Ion system uses an improved library preparation kit further reducing the starting RNA amount to 20-50 ngs. Recently, it has released a new Ion PGM Hi-Q Sequencing Kit. It further improves sequencing accuracy particularly for better insertion and deletion detection. Ion PGM system is usually used for small genome sequencing and targeted re-sequencing. The new Ion Proton Hi-Q Sequencing Kit will be released in mid-January of this year. For more information, contact Dr. Xiaoling Xuei, xxuei@iu.edu.

Another new release is a new Ion 16S Metagenomics Kit for bacterial genome analysis using the Ion PGM system. This kit allows identifying bacterial species from microbiome and environmental specimens. This is done by sequencing the variable regions of the bacterial 16S rRNA. If you are interested, contact Dr. Jeanette McClintick, jnmcclin@iu.edu, or Dr. Xiaoling Xuei, xxuei@iu.edu.

New services for microarrays: A new labeling kit from Affymetrix (mid-February release) will enable the CMG to use reduced amounts of RNA for mRNA microarrays. This new "pico kit" will allow us to use <1ng of total RNA for standard Affymetrix Gene type microarrays, compared to previous standard labeling which use 50-100ngs per array. This would allow investigators using limited numbers of cells, e.g. sorted stem cells, for mRNA microarrays. Affymetrix also has a labeling kit designed for use with RNA extracted from FFPE samples. Affymetrix has transcriptome arrays for human (HTA 1.0) and mouse (MTA 1.0) that contain probes for exon junctions, besides probes for exons, to improve analysis of alternatively spliced transcripts. Contact Jeanette McClintick, jnmcclin@iu.edu, for any microarray questions.

In addition, CMG has been performing miRNA analysis using miRNAs from exosomes (also referred to as vesicles). These extracellular lipid vesicles contain various components from the cells from which they were derived. The contents can include RNA as well as miRNA. These exosomes can be found in biological fluids like blood and urine and in the medium of cultured cells. The core's current experience indicates that miRNAs are present in many of these exosomes. In some exosomes, miRNA appears to be enriched and we have been successful using low amounts (30-50ng) of purified small RNA with the Affymetrix miRNA 4.0 array. CMG would like to keep in touch with investigators that are isolating exosomes and extracting various nucleic acids. In particular, CMG members are looking to contact investigator who have

used one of the new kits that do not require ultracentrifugation to isolate exosomes? Please contact Dr. Jeanette McClintick, jnmcclin@iu.edu, with information about these new kits. She would also be interested if you are extracting miRNAs from biofluids such as urine, plasma or serum, not specifically from exosomes. CMG would like to know what works so that we can pass on this valuable information to potential customers.

IU Simmon Cancer Center In Vivo Therapeutics Core

The IU Simon Cancer Center In Vivo Therapeutics Core has secured funding through the Indiana CTSI core equipment grant award to purchase Studylog software licenses.

Studylog software allows research teams to design, plan, execute, analyze, report, and collaborate on all animal models of disease. It is used by the world's leading academic and biotech labs, and by over half of the top-20 pharmaceutical companies. The software flexibly manages the entire workflow of animal studies in almost any disease area, cutting lab time substantially, and enabling labs to get more done without additional staff. Studylog customers have doubled the number of studies they can conduct, as compared to writing data down and entering into Excel. Variability is minimized, nomenclature is standardized, analyses and data outputs make cross-study comparisons easier. For more information, visit <http://www.studylog.com>.

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Indiana CTSI Opportunities — January 2015

Jan. 20, 2015

A number of programs are offering services to Indiana CTSI investigators. They are:

Indiana CTSI Young Investigator Award -- due Jan. 21

Applications for the Indiana CTSI's Young Investigator Awards in Clinical and Translational Research are due **4 p.m. Wednesday, Jan. 21**. These awards are designed to provide promising junior investigator faculty with the opportunity to be mentored in research-intensive multi-disciplinary settings toward the goal of developing careers in clinical-translational research.

Eligible candidates are clinician-scientists with a doctoral degree (physicians, nurses, dentists, pharmacists, clinical psychologists, optometrists, veterinarians, allied health care professionals, etc.) or basic scientists with a Ph.D. engaged in translational research with high potential for early translation into impacting patient care.

Benefits include partial salary support, as well as tuition and fees for required and elective coursework, pilot research monies and travel funds. Awards will begin May 1.

Complete application guidelines are online. To apply, visit the Indiana CTSI [grants portal](#) and enter your institutional username and password. Applications instructions are located under " CTSI Young Investigator Award in Clinical - Translational Research - 2015.01 (KL2)."

Questions to Donna Burgett at dfburget@regenstrief.org.

Postdoctoral training awards in translational research -- due Jan. 30

Applications for the Indiana Clinical and Translational Sciences Institute postdoctoral training awards in translational research are due **5 p.m. Friday, Jan. 30**.

These awards are aimed at postdoctoral students whose research is at any point along the translational research spectrum. Candidates must have received a Ph.D. or equivalent doctoral degree from an accredited domestic or foreign institution with no more than three years combined experience as a postdoctoral fellow in academia or industry.

Funding is for two years with the second year of funding contingent upon review. Benefits include salary support and health insurance. Awards will start July 1.

Complete application guidelines are online. To apply, visit the Indiana CTSI [grants portal](#) and enter your institutional username and password. Applications instructions are located under "CTSI Postdoctoral Training Awards in Translational Research - 2015.01 (TL1)."

Questions to Andrew Bullock, Ph.D., at sabullock@nd.edu.

Translational Education Program MS in Translational Science -- applications due March 9

The Indiana Clinical and Translational Research Institute is seeking medical student applicants for a special research fellowship in translational research.

Applications for the CTSI [Translational Education Program](#) are due **4 p.m. Monday, March 9**. This program will provide a \$24,500 annual stipend and one year of health insurance to up to two students from the IU School of Medicine interested in taking a year out of medical school to pursue an master's degree in translational science.

Applicants must be currently enrolled at IUSM as a medical student and have completed at least one year at IUSM. Applicants will be required to make a commitment to complete the master's degree requirements in 12 to 18 months while conducting 12 months of continuous, full-time research.

Previous research experience is not required, but advantageous. Applicants must identify two co-mentors that are faculty-investigators from different disciplines (a clinician-scientist and a non-clinician-scientist).

For complete application instructions, visit the [Indiana CTSI](#). Interested candidates should e-mail their CV to Carrie Hansel at cahansel@iu.edu or 317-278-5842 for prior approval. Eligible candidates will receive additional information to proceed with the application. Awards begin June 1, 2015.

To read about a past recipient of the M.S. in Translational Science, [click here](#).

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Indiana CTSI Open Requests for Applications — January 2015

Jan. 20, 2015

Several Indiana CTSI-funded programs are accepting applications. They are:

Indiana Spinal Cord and Brain Injury Research Fund -- due Feb. 9

Applications are sought for the [Indiana Spinal Cord and Brain Injury Research Fund](#) are due **5 p.m. Monday, Feb. 9.**

The ISCBIR Fund is a state grant program established in 2007 to support research related to treatment and cure of spinal cord and brain injuries. Proposals should be related to research on the prevention, treatment and cure of spinal cord and brain injuries, including acute management, medical complications, rehabilitative techniques and neuronal recovery.

Eligible applicants must be based in Indiana and have the education, skills, knowledge and resources necessary to carry out the proposed research. (This includes public and private universities, nonprofit organizations and business.) Collaborations are encouraged with Indiana-based researchers as well as researchers located outside the state of Indiana, including researchers in other countries.

The maximum requested amount per application should not exceed \$80,000 per year for up to two years (\$160,000 maximum). Proposed projects should not exceed two years.

Complete application guidelines are online. To apply, visit the Indiana CTSI [grants portal](#) and enter your institutional username and password. Applications instructions are located under "Indiana Spinal Cord and Brain Injury Research Fund Grant - 2015.02 (SCBI)."

Questions to Julie Driscol at ictsi@iu.edu.

IU Grant Linking University-wide Expertise (GLUE) Award -- due Feb. 20

Letters of intent for a new joint grant initiative between the Indiana Clinical and Translational Sciences Institute and the Office of the Provost at IU Bloomington are due **4 p.m. Friday, Feb. 20.** Complete applications are due **Friday, March 20.**

The IU Grant Linking University-wide Expertise, or GLUE, Awards will provide up to \$100,000 to support the cross-campus development of multi-investigator and/or multi-project translational research teams that aim to submit multi-year extramural grant applications with annual budgets of \$500,000 or higher, e.g.: NIH Project Planning Grants, "U series" grants, multi-PI R01s, Small Business Technology Transfer grants or Specialized Programs of Research Excellence grants.

Proposed projects should bring together two or more scientific teams who will develop appropriate administrative and technical "core" supports. Projects at any stage of their development will be accepted for review.

Eligible applications must include a full-time, tenure track a primary investigator from IU Bloomington. Other team members should be from IUPUI or the IU School of Medicine. Team members from other CTSI partner institutions (Purdue or Notre Dame) also will be considered.

Additional application instructions are online. To apply, visit [Indiana CTSI's website](#) and log in using your institutional username and password.

Questions to Anne Nguyen (IUPUI) or Yvonne Lai (IU Bloomington) at ictsi@indianactsi.org.

Design and Biostatistics Program Pilot Grants -- due March 2

Applications for the Indiana CTSI Design and Biostatistics Program pilot grant program are due **5 p.m. March 2.**

This program will provide a total of \$20,000 to two pilot programs that synergize with the programs' methodological strengths. These include research projects that involve novel methodology (such as biostatistical, epidemiological, genetic, bioinformatics, and pharmacometrics methods); match novel methodology with translational science needs; and possess high potential to obtain external funding.

The Indiana CTSI Design and Biostatistics Program provides investigators with access to comprehensive biostatistical, epidemiological, genetic, bioinformatics and pharmacometrics research services, including optimal planning and design, efficient data management, appropriate statistical analyses, and preparation of reports and manuscripts; and education and training for researchers conducting clinical and translational research. Program members draw upon schools and departments across the IU School of Medicine, IUPUI, IU Bloomington, Purdue and Notre Dame.

Complete application guidelines are online. To apply, visit the Indiana CTSI [grants portal](#) and enter your institutional username and password. Applications instructions are located under "[Design and Biostatistics Program \(DBP\) Pilot Grant - 2015.03.](#)"

Questions to ictsi@indianactsi.org.

Collaboration in Translational Research Pilot Grants -- due March 9

Applications for the Indiana CTSI Collaboration in Translational Research Pilot Program are due **4 p.m. Monday, March 9.**

The Indiana Clinical and Translational Science Institute is seeking applicants for the Collaboration in Translational Research (CTR) Pilot Grant Program. The objective of the Indiana CTSI CTR pilot grant program is to foster and encourage collaboration across the Indiana CTSI partner institutions (IU, Purdue and 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.

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Proposed projects should have participation by two (or more) principal investigators representing at least two of the sponsoring affiliates for this program. Sponsoring affiliates include: Indiana University School of Medicine, IUPUI (non-IUSM), IU-Bloomington, Purdue University and University of Notre Dame.

Faculty from IU, Purdue, and Notre Dame are eligible to apply. Complete application guidelines are online. To apply, visit the Indiana CTSI [grants portal](#) and enter your institutional username and password. Applications instructions are located under "Collaboration in Translational Research Pilot Grant Program - 2015.03 (CTR)."

Questions to Anne Nguyen at annnguye@iu.edu.

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January, 2017

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Sun	Mon	Tue	Wed	Thu	Fri	Sat	
1	2	3	4	5	6	7	
				05:15pm Healthy Weight ...			
8	9	10	11	12	13	14	
				02:00pm Collaborative R ...			
15	16	17	18	19	20	21	
	08:00am Dr. Martin Luth ...	Poster submissi ...		09:30am Indiana Healthy ...		Susan G. Komen ...	
22	23	24	25	26	27	28	
		08:00am Indiana Rural H ...	08:00am Talking Tenure, ...		01:00pm Webinar - Model ...		
			09:00am Public and Enga ...				
			02:30pm Demonstrating a ...				
29	30	31	1	2	3	4	

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