

Are You an
Investigator
Needing Help?

About

News & Events

Research Resources

Training & Education

Grants & Funding

Community Engagement

Volunteer for Research

Tools

Indiana Biobank to serve as statewide resource for translational medicine

Storage system nears 2,000 samples in first months of collection

Dec. 13, 2011

The next time a nurse draws your blood for a health screening or medical checkup, you might not only be helping improve your own health but also the health of Hoosiers across the state.

Over the past several months, more than 1,700 volunteers have given blood to the Indiana Biobank, a statewide sample collection and storage system developed by the Indiana Clinical and Translational Sciences Institute to provide investigators access to relevant, well-annotated biospecimens that support translational research projects to improve health and health care in Indiana. Support for the Indiana Biobank includes \$8 million from the [Physicians Scientists Initiative](#), a program established by the Lilly Endowment with \$60 million to the Indiana University School of Medicine in 2009.

"The biobank's a really visionary thing, a real next generation tool," says David Flockhart, M.D., Ph.D., director of the Indiana Biobank and Harry and Edith Gladstein Professor of Cancer Epidemiology and Genetics at the IU School of Medicine. "It's a clinical tool for the institute, but—given the fact that we've got access to millions of people in Indiana through a statewide hospital system—I also see it as a long term investment in the future of the state and the state's health."

The biobank will store samples related to specific research studies as well as general physical samples from volunteers across Indiana, including blood samples from [several recent collection events](#) at health fairs at IU Health La Porte Hospital and IUPUI Campus Center in October. Other samples have been contributed by IU Health employees at their annual health screenings, during which they are invited to contribute by a [ResNet](#) research coordinator from Indiana CTSI Office of Research Recruitment.

Although the biobank was originally proposed nearly two years ago, Dr. Flockhart notes that collection only officially began after the project protocol was approved by the IUSM/IU Health "statewide" internal review board in May.

"We've really had everyone on board since the beginning, but the logistics are challenging," says Dr. Flockhart. "Now we've got a very efficient system in place so that once people are recruited they can provide their consent quickly, give a sample, and then see their sample shipped and stored safely."

The goal will be to collect 5,000 samples within the first year. The five-year goal will be 50,000 samples.

The physical location of the Indiana Biobank is Walther Hall, one of three high-tech buildings in the new "research corridor" at the IU School of Medicine. All the samples will be stored at the Indiana CTSI Specimen Storage Facility. In addition to volunteer contributions, Anne Nguyen, program manager for the Indiana Biobank, says 10 investigator-initiated protocols have been accepted for inclusion in the Indiana Biobank. This includes assistance with subject identification; advice on informed consent procedures; and permission to obtain specimens from subjects, then process, annotate and store them in the biobank.



David Flockhart, M.D., Ph.D., director of the Indiana Biobank



The Indiana Biobank is a statewide resource to accelerate translational medicine.

These “pilot projects” include investigations focusing on colon cancer, liver cirrhosis, cardiovascular disease, pediatric bone marrow transplants, lung transplants, gastroenterology, and drug interactions. As part of the Indiana Biobank, these samples will also be available to other research projects at institutions in the Indiana CTSI.

“Each pilot is aimed at a particular therapeutic area,” says Dr. Flockhart. “Making any one of these available would be a big deal... together they’re a huge accomplishment.”

He also points out three additional aspects of the Indiana Biobank that will not only strengthen the project but also set it apart from other biobanking efforts at hospitals and research institutions across the country. They are integration with electronic health records (EHRs), a strong emphasis on medication information, and a commitment to serving a statewide population.

The first aspect takes advantage of the state’s status as a leader in electronic medical data. Connecting the Indiana Biobank to patient information from the Indiana Health Information Exchange (IHIE) in collaboration with IU Health will create “a truly 21st century tool for genomics, proteomics and other ‘omics’ research,” says Dr. Flockhart, who asserts connecting the system to the biobank eliminates its greatest “Achilles’ heel.” This tight integration between physical samples and patient health data will play a crucial role in enabling investigators to track biospecimens across the lifespan—assisting in the quest to pinpoint genetic risk factors for disease. One such study among the “pilot projects” participating in the biobank involves collecting tissue samples from every child who undergoes a bone marrow transplant at Riley Hospital.

“Having long-term data from throughout these patient’s lives is a very, very powerful resource,” says Dr. Flockhart. “We’ll know age, ethnicity, medication information... and, ultimately, we’ll know outcomes.”

The Indiana Biobank also has been designed to place a strong emphasis on collecting accurate information on patient medications. Many similar sample storage projects produce inconclusive results since investigators lack a reliable means to differentiate between health outcomes caused by prescription medications versus genetic factors. Capturing an accurate list of patients’ medication at the time of their donation—as well as tracking future drug interactions through EHRs—will eliminate this common pitfall. Dr. Flockhart says the strong emphasis on collecting accurate patient medication information at the Marshfield Clinic in Wisconsin was a major inspiration in establishing a similar system in Indiana.

Yet unlike the biobank at Marshfield—or most other biobanks across the country—the Indiana Biobank is not limited to a single researcher or research facility. Thanks to the Indiana CTSI’s connections to its three member universities—IU, Purdue and Notre Dame—as well as other public-private partnerships, the information from this powerful resource will be available to investigators across the state.

“We’ve had an incredible level of collaboration and cooperation to make the resources of the Indiana Biobank available to so many potential investigators,” says Dr. Flockhart, noting one of the few biobanks with a similarly broad mission includes the state-sponsored UK Biobank in the United Kingdom.

“There aren’t many other American biobanks that have this large geographic commitment,” he adds. “It’s really an unprecedented accomplishment.”

For more information about the Indiana Biobank, please visit www.indianabiobank.org.

[Return to the Indiana CTSI Newsletter](#)

{comments on}

[Support & Feedback](#)

[Citing CTSI](#)

[Newsletter](#)

[Grants Login](#)

This website is supported by [Indiana](#) and [Purdue](#) universities. Design by [IUPUI](#); concept by [Tufts CTSI](#). Copyright © 2014 Indiana CTSI

Contact:
info@indianactsi.org

Are You an
Investigator
Needing Help?

About

News & Events

Research Resources

Training & Education

Grants & Funding

Community Engagement

Volunteer for Research

Tools

Indiana CTSI researcher works to improve childhood cancer treatment in US and Africa

Dec. 13, 2011

For many children with cancer, treatment with vincristine means a cure. But it can also mean debilitating side effects. IU physician and Indiana CTSI investigator Jamie L. Renbarger, M.D., is on a quest to find out why those side effects occur, how to diagnose them, and how to predict who might be affected. On Sept. 26, she received a [2011 Presidential Early Career Award for Scientists and Engineers](#) for her role in this long-term study.

Dr. Renbarger's work is supported by about \$3 million in federal research grants, including more than \$383,800 from the Clinical and Translational Sciences Award of the National Institutes of Health. The CTSA grant has been awarded jointly to the Indiana Clinical and Translational Sciences Institute, University of Michigan Institute for Clinical and Health Research, Vanderbilt Institute for Clinical and Translational Research, and Clinical and Translational Science Institute at Children's National Medical Center at George Washington University.

A chemotherapy drug widely used to treat cancers such as childhood leukemia, vincristine went on the market over 50 years ago. The treatment remains effective but can also cause neuropathy—side effects in the nervous system that range from jaw pain to foot drop to severe constipation. Using an existing neuropathy assessment tool adapted to measure these side effects in children, Dr. Renbarger and collaborator Ellen Smith, Ph.D., of the University of Michigan successfully confirmed younger patients are particularly sensitive to these problems. But the research also finds some children don't experience significant neuropathies using the drug. In fact, they might even benefit from larger dosages.

"Early research suggests children who naturally produce the CYP3A5 enzyme in greater quantities are less likely to experience negative symptoms," says Dr. Renbarger. "Among those largely unaffected were younger children as well as African-American children, who only suffered adverse effects 4.5 percent of the time versus 34.8 percent in Caucasians."

To further her investigation into the benefits and the risks of the drug, Dr. Renbarger has expanded her work to Kenya, where the IU School of Medicine conducts an [international medical program](#) in partnership with the Moi University School of Medicine. She and Jodi Skiles, M.D., a pediatric hematology oncology fellow, have begun a study of Kenyan children undergoing vincristine treatment. The study grew out of the observation that African-American children tend to produce more of the enzyme that is efficient at metabolizing vincristine.

"We've seen virtually no neuropathy," says Dr. Renbarger of the first 65 Kenyan children enrolled in the study. "We would be finding subtle to significant changes in 90 percent of the patients" in a similar group of US children receiving the drug.

If this trend holds up as the research continues, she says it may turn out that many children in Africa could tolerate higher doses of vincristine—making it even more effective in the fight against childhood cancers both at home and abroad.

In addition, the Kenya study will contribute genetic and clinical data to the overall investigation into broader questions about which young patients are more likely to be negatively affected by vincristine versus who could benefit from larger dosages.

"That's my long term goal," says Dr. Renbarger, "I want to optimize how we give vincristine." The CTSA administrative supplement award contributing to



Jamie Renbarger, M.D.

Support & Feedback

Citing CTSI

Newsletter

Grants Login

This website is supported by Indiana and Purdue universities. Design by JUPUI; concept by Tufts CTSI. Copyright © 2014 Indiana CTSI

Contact:
info@indianactsi.org

this research was granted in support of the Best Pharmaceuticals for Children Act supported by the CTSA Consortium Child Health Oversight Committee.

[Return to the Indiana CTSI Newsletter](#)

{comments on}

Are You an Investigator Needing Help?

- About
- News & Events
- Research Resources
- Training & Education
- Grants & Funding
- Community Engagement
- Volunteer for Research
- Tools

Indiana CTSI programs support psychologist's research on discrimination and mental health

Dec. 13, 2011

With pilot funds from the Indiana CTSI, Irene Kim Park, Ph.D., assistant professor of psychology at the University of Notre Dame, is preparing a grant application to the National Institutes of Health in support of her DISCO Study.

Named for DIScrimination and COping, DISCO explores the effects of racial and ethnic discrimination on the mental health of Mexican-origin teenagers. Dr. Park became involved with the Indiana CTSI [Community Health Engagement Program](#) (CHEP) after meeting Waldo Mikels-Carrasco, a northern Indiana liaison for CHEP, during a workshop at Notre Dame. He introduced her to Emily Hardwick, program manager for CHEP, who brought her in contact with the Indiana CTSI [Project Development Teams](#) (PDTs).

"It was a long drive, three hours down and three hours back," says Dr. Park of her first in-person meeting with the Pediatric PDT, "but it was well worth it."

The meeting brought about connections with other faculty, including an IUPUI faculty member with similar research interests. She and her team were also able to acquire research funds through the Pediatric PDT, with which they purchased Audio Computer Administered Self Interview (ACASI) software technology. Using this technology, Dr. Park says they were able to collect data that she feels will strengthen their NIH grant application.

"Overall, I've had a positive experience interacting with the PDT," says Dr. Park. "I found them to be very supportive of my research and future grant submission."

Data from this proposed study could have major public health implications," she says, noting they will be able to better understand —"and hopefully reduce"—health disparities among Latino adolescents, specifically the impact of discrimination on mental health.

Dr. Park says she and her team will continue to capitalize on the connections made during interactions with the Indiana CTSI Project Development Teams and CHEP and notes the experience has "planted the seed" for future collaborations between IUPUI and Notre Dame.

"There is a huge potential for academic researchers and community-based organizations to form partnerships around research questions that can really impact the health and well-being of underserved populations," she adds. "I hope that CHEP will continue to invest in that direction, such as providing pilot funds or thinking of new ways to promote the collaborations that bridge academia and community-based groups."

For more information about CHEP, visit www.indianactsi.org/chep/join.

[Return to the Indiana CTSI Newsletter](#)

{comments on}



Research team from left: Crystalia Sulaiman, May Kim, Rosa Maria Salinas, Stephanie Pedicini, and Karina Lizzi (not pictured: Irene Park).

DISCO team (from left): Crystalia Sulaiman, May Kim, Rosa Maria Salinas, Stephanie Pedicini and Karina Lizzi (Not Pictured: Irene Kim Park).












Irene Kim Park, Ph.D.

- Support & Feedback
- Citing CTSI
- Newsletter
- Grants Login

This website is supported by Indiana and Purdue universities. Design by IUPUI; concept by Tufts CTSI. Copyright © 2014 Indiana CTSI

Contact: info@indianactsi.org

 **Are You an Investigator Needing Help?**

- About 
- News & Events 
- Research Resources 
- Training & Education 
- Grants & Funding 
- Community Engagement 
- Volunteer for Research 
- Tools 

Pre- and Post-doctoral Training Awards in Translational Research – Request for Applications

The Indiana Clinical and Translational Sciences Institute is seeking applicants for special predoctoral and postdoctoral training grants in translational research. Funding is available for predoctoral graduate students, clinician-scientists and basic researchers conducting translational research. All candidates must be U.S. citizens or permanent residents.

Predocotoral (T Award) candidates must be in the second or third year of their pre-doctoral program when they apply, and must have co-mentorship by faculty investigators from at least two different disciplines (preferably a clinician and a non-clinician scientist).

Postdoctoral (Young Investigator Award) candidates must be full-time faculty members, who would be eligible to apply as principal investigators on an NIH grant or career development award, but who have not to date been principal investigator on an R01 or equivalent grant.

Complete information on the application process will be available on the Indiana CTSI website at www.indianactsi.org/grants on Wednesday, Nov. 30, 2011.

Applications will be due **Wednesday, Feb. 1, 2012.**

[← Return to the Indiana CTSI Newsletter](#)

{jcomments on}

 **Support & Feedback**


 **Citing CTSI**

 **Newsletter**

 **Grants Login**

This website is supported by [Indiana](#) and [Purdue](#) universities. Design by [IUPUI](#); concept by [Tufts CTSI](#). Copyright © 2014 Indiana CTSI

Contact: info@indianactsi.org


[Are You an Investigator Needing Help?](#)

[About](#)


[News & Events](#)


[Research Resources](#)


[Training & Education](#)


[Grants & Funding](#)


[Community Engagement](#)


[Volunteer for Research](#)


[Tools](#)


Indiana CTSI-IU Kelley MBA Core and Project Business Management Assistance Program

The Indiana CTSI-IU Kelley MBA Core and Project Business Management Assistance Program is accepting applications for their third annual The Indiana CTSI-IU Kelley MBA Core and Project Business Management Assistance program.

This program provides a team of two to five MBA students from the IU Kelley School of Business to core services, resources and units partners that support Indiana CTSI investigators that need assistance in project management, marketing plans, and financial or and resource efficacy management. MBA students will present their plans at a capstone event Feb. 24.

Participants can choose to engage with MBA students for seven to eight weeks or 15-16 weeks. The first option will run from December 2011 February 2012; the second from January 2012 to May 2012. Preference should be indicated in the application.

Cores, resources and units providing a central service to Indiana CTSI investigators are eligible. Application deadline is **11:59 p.m. Tuesday, Nov.15**. Reviews will be completed by Nov. 30.

For complete guidelines and application forms, visit www.indianactsi.org/grants, log in using your institutional ID and password, and select "CTSI - IU Kelley MBA Business Management Assistance."

Questions to Jessica Lapsia at jlapsia@iupui.edu or Lilith Reeves at lreeves@iupui.edu.

For additional opportunities from the Indiana CTSI, please [see our grants and awards page](#)

[← Return to the Indiana CTSI Newsletter](#)

{jcomments on}


[Support & Feedback](#)


[Citing CTSI](#)


[Newsletter](#)


[Grants Login](#)

This website is supported by [Indiana](#) and [Purdue](#) universities. Design by [IUPUI](#); concept by [Tufts CTSI](#).
 Copyright © 2014 Indiana CTSI

Contact:
info@indianactsi.org

Are You an
Investigator
Needing Help?

About ▾
 News & Events ▾
 Research Resources ▾
 Training & Education ▾
 Grants & Funding ▾
 Community Engagement ▾
 Volunteer for Research ▾
 Tools ▾

Miller Named Co-Director of Community Health Engagement Program

Douglas K. Miller, M.D., a geriatrician with extensive experience conducting health services, epidemiological and clinical research over nearly 30 years, has joined the Indiana Clinical and Translational Sciences Institute as co-director of the Indiana CTSI [Community Health Engagement Program \(CHEP\)](#).

Dr. Miller's research interests focus on frailty and its complications for urban-dwelling seniors. Additional research interests include improving care to older patients in primary care settings and encouraging disease self-management in vulnerable populations. Community-based participatory research plays an important role in his research methods.

"The CHEP of the Indiana CTSI is thrilled to have the involvement of Dr. Doug Miller," says David Marrero, Ph.D., co-director of the Indiana CTSI CHEP and J. O. Ritchley Professor of Medicine at the IU School of Medicine. "He brings a wealth of experience in community based participatory research that will benefit our efforts to more closely integrate our community stakeholders into the research process.

Dr. Miller's research includes serving as principal investigator on a large, ongoing grant from the National Institute on Aging (NIA) entitled, "Physical Frailty in Urban African Americans." This project, which has been continuously funded by the NIA since 1991, is a population-based study of frailty in two longitudinal cohorts in St. Louis. He is particularly interested in identifying ways to reduce the disability disparities faced by African Americans.

He is also associate director of the Indiana University Center for Aging Research (IU-CAR), Richard M. Fairbanks Chair in Aging Research at the IU School of Medicine and an investigator with the Regenstrief Institute. Prior to joining IUSM in November 2003, Dr. Miller was associate director of the Division of Geriatric Medicine at Saint Louis University School of Medicine, where he served for 24 years. He was also chair of the hospital's ethics committee and chair of the Health Sciences Center Mission and Identity Committee at SLU. He holds an undergraduate degree from Stanford University and medical degree from Washington University.

Dr. Miller succeeds Ronald Ackermann, M.D., M.P.H., who departed Indiana in July to serve as director of the Community-Engaged Research Center at the Northwestern University Clinical and Translational Sciences Institute in Chicago.

[← Return to the Indiana CTSI Newsletter](#)

{comments on}



Douglas Miller, M.D.

Support & Feedback

Citing CTSI

Newsletter

Grants Login

This website is supported by Indiana and Purdue universities. Design by IUPUI; concept by Tufts CTSI. Copyright © 2014 Indiana CTSI

Contact:
info@indianactsi.org

[Are You an Investigator Needing Help?](#)

- About ▼
- News & Events ▼
- Research Resources ▼
- Training & Education ▼
- Grants & Funding ▼
- Community Engagement ▼
- Volunteer for Research ▼
- Tools ▼

Mark Your Calendars for the Fourth Annual Indiana CTSI Meeting — May 7

Don't forget to mark your calendars for the Fourth Annual Indiana CTSI Meeting on Monday, May 7, 2012 at the University Place Conference Center and Hotel at IUPUI. This annual event is the perfect time to learn more about the Indiana CTSI and its programs from state-, local- and national-level representatives as well as hear from researchers supported by institute, explore poster presentations, and meet new colleagues and collaborators. Information about previous presentations is available from the Indiana CTSI News Center under the drop down menu labeled "Meetings."

[← Return to the Indiana CTSI Newsletter](#)

{comments on}

[Support & Feedback](#)

[Citing CTSI](#)

[Newsletter](#)

[Grants Login](#)

This website is supported by [Indiana](#) and [Purdue](#) universities. Design by [IUPUI](#); concept by [Tufts CTSI](#).
Copyright © 2014 Indiana CTSI

Contact:
info@indianactsi.org