Global health leader to speak at Indiana CTSI Fifth Annual Meeting

Sept. 10, 2013

An internationally renowned global health expert will visit IUPUI Sept. 11 to 13 to address fellow scientists and accept one of the largest prizes in the country awarded to a scientist who has made a significant contribution to the field of translational science.

Tadataka “Tachi” Yamada, M.D., past president of the Global Health Program at the Bill and Melinda Gates Foundation and executive vice president and chief medical and scientific officer at Japan-based Takeda Pharmaceuticals, is the recipient of the first August M. Watanabe Prize in Translational Research. The award, which will be given biennially, includes a $100,000 honorarium.

Dr. Yamada will address fellow translational scientists from 9 to 10 a.m. Friday, Sept. 13, at Indiana University-Purdue University Indianapolis during the fifth annual meeting of the Indiana Clinical and Translational Sciences Institute, CTSI 2.0: A New Chapter for a Changing World. The Indiana CTSI is a $30 million National Institutes of Health-funded collaboration among Indiana University, Purdue University and the University of Notre Dame that aims to accelerate the transfer of medical research from the lab to patient care.

Dr. Yamada’s address, Lessons From Global Health, will be open to all event registrants. Registration is available online.

“We’re honored to host such an illustrious translational scholar and drug development expert at our annual meeting,” said Anantha Shekhar, M.D., Ph.D., director of the Indiana CTSI and associate dean for translational research and Raymond E. Houk Professor of Psychiatry at the IU School of Medicine, who serves as chair of the Watanabe Prize Committee. Dr. Shekhar also is president of the Association for Clinical and Translational Science.

The Watanabe Prize, presented by the IU School of Medicine, is named after the late August M. Watanabe, an IU School of Medicine alumnus whose illustrious career spanned academia and the pharmaceutical and life sciences industries. He served as chairman of the Department of Medicine, the largest department at the IU School of Medicine, before joining Eli Lilly and Company, where he rose to become president of Lilly Research Laboratories and executive vice president of the company. After his retirement, he took on the role of chairman of the board of directors of BioCrossroads.

Family, friends and colleagues established the Watanabe Prize following Dr. Watanabe’s death in 2009, with the Eli Lilly and Company Foundation providing a generous leadership grant.

“Dr. Watanabe understood that discoveries in the lab mean very little if they don’t make their way to patients, so he dedicated his career to bridging that gap,” Dr. Shekhar said. “In that same spirit, the Indiana CTSI’s mission is to accelerate the rate that research travels from the lab to clinical trials and new therapies, including creating new drugs. This clearly requires close collaboration with our partners in the pharmaceutical industry. The chance to expose academic researchers who engage with our institute at IU, Purdue and Notre Dame to an expert of the caliber of Dr. Yamada, a world-renowned leader in global pharmaceuticals, is a once-in-a-lifetime opportunity. It’s exactly the kind of collaboration Dr. Watanabe would have championed.”

Takeda Pharmaceuticals is the largest pharmaceutical company in Asia. In his role at the company, Dr. Yamada is responsible for all Takeda’s research and development activities, and he chairs the committee that oversees all investments in research and development, business development and in-licensing.
Previously, at the Gates Foundation, Dr. Yamada oversaw grants totaling more than $9 billion in programs directed at applying technologies to address major health challenges of the developing world, including tuberculosis, HIV/AIDS, malaria and other infectious diseases, malnutrition, and maternal and child health. He also has served as chair of research and development at GlaxoSmithKline.

As a scientist, Dr. Yamada is the author of more than 150 original manuscripts on the field of gastroenterology. The studies conducted by Dr. Yamada and his collaborators have led to basic discoveries in the post-translational processing and biological activation of peptide hormones, the structure and function of receptors for hormones regulating gastric acid secretion, and the regulation of genes involved in the acid secretory process.

As part of the Watanabe Prize, Dr. Yamada will serve as a long-distance mentor to two IU School of Medicine researchers named Watanabe Translational Scholars. Both scientists were previously named recipients of the Indiana CTSI Young Investigator Awards, a two-year fellowship program. They will retain their titles as Watanabe Scholars for two years.

Additional speakers at the Indiana CTSI Fifth Annual Meeting include Dr. Shekhar; Mervin C. Yoder M.D., assistant dean for entrepreneurial research at the IU School of Medicine and director of the Herman B Wells Center for Pediatric Research Pediatrics; and Howard Edenberg, Ph.D., IUPUI Chancellor's Professor and Distinguished Professor of Biochemistry at the IU School of Medicine. Industry speakers include Alan T. Wright, M.D., MPH, chief medical officer at Roche Diagnostics, and representatives from BioCrossroads and Covance, a contract research organization.

During his time in Indianapolis, Dr. Yamada also will deliver an address at Eli Lilly and Co. He will receive the first Watanabe Prize on Sept. 11 during a private awards ceremony at the Indiana Historical Society. Guests will include donors, researchers and IU leadership, including Jorge José, M.D., vice president for research at IU; IUPUI Chancellor Charles R. Bantz, Ph.D.; Jay Hess, M.D., dean of the IU School of Medicine and vice president for university clinical affairs at IU; and D. Craig Brater, M.D., who retired as dean of the IU School of Medicine Sept. 1.

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The Indiana CTSI and Covance to collaborate on early stage clinical research

Sept. 10, 2013

Covance Inc., a leading global drug development services company, and the Indiana Clinical and Translational Sciences Institute, a National Institutes of Health-funded collaboration among Indiana University, Purdue University and the University of Notre Dame, have announced an agreement to collaborate in conducting early clinical trials for new medicines on behalf of biotechnology and pharmaceutical companies.

This alliance provides a significant opportunity to bring more Phase I clinical research to Indiana, through the clinical research unit located within the IU School of Medicine in Indianapolis and Covance's clinical research unit located in Evansville. Phase I clinical research includes studies where investigational new drugs are administered to humans for the first time.

Working together, the two organizations will conduct high-quality research in a safe and regulated environment for sponsors who are looking to recruit both healthy volunteers and patients for early clinical studies.

The alliance with the Indiana CTSI will help us provide biopharmaceutical clients with quicker access to patients in a hospital setting that supports specialized care and monitoring, said Rob Aspbury, vice president and general manager, Global Clinical Pharmacology Services at Covance. With quicker access to patients, we can streamline the drug development process and bring important new medications to patients who need them.

The Indiana CTSI will provide access to a 13,606-square-foot, 24-patient facility at IU Health University Hospital in Indianapolis. The institute also stands ready to expand operations into a recently renovated 33,078-square-foot, 50-patient facility in the same building. This space re-opens to clinical research for the first time in six years due to the efforts of the Indiana CTSI.

"The Indiana CTSI works every day to support tremendously talented biomedical scientists whose discoveries have the potential to translate into life-saving new therapies and treatments," said Anantha Shekhar, M.D., Ph.D., director of the Indiana CTSI and associate dean for translational research and Raymond E. Houk Professor of Psychiatry at the IU School of Medicine. "Our mission is to accelerate the rate at which this research travels out of the lab and into the care of the patients who need it. This alliance with Covance will greatly enhance our ability to accomplish this vital work."

Services provided by the Indiana CTSI include access to 24-hour nursing support, in-patient and out-patient facilities, on-site laboratory analyses and professional patient recruitment services. These patient recruitment efforts are strengthened through robust patient data from the Regenstrief Institute, a partner of the Indiana CTSI which houses the Indiana Network for Patient Care, in which more than 70 Indiana hospitals share nearly 80 percent of the state's electronic medical record data. Additional patient and support services are provided through its affiliation with IU Health.

The alliance between Covance and the Indiana CTSI was facilitated by BioCrossroads, an organization that advances Indiana's signature strengths in the life sciences by connecting corporations, academic institutions and philanthropic organizations.

"This is a major milestone for both Covance and the Indiana CTSI. It's the type of public-private partnership that really can influence breakthroughs in medicine," said Deborah Keller, executive vice president and group president, R&D Laboratories at Covance, and a member of the BioCrossroads Board of Directors. "Indiana is unique in its depth and breadth of drug
development opportunities, both on the corporate and academic sides, and this collaboration is a shining example of bringing the two together thanks to the work and support of BioCrossroads."

Covance has been conducting Phase I clinical trials for more than 35 years. In addition to its 80-bed clinical research unit in Evansville, Ind., Covance has clinics in Madison, Wis.; Daytona Beach, Fla.; Dallas, Texas; and Leeds, UK. In 2012, Covance conducted more than 100 Phase I trials globally. Covance also has a similar Phase I clinical research alliance with the Royal Liverpool University Hospital in Liverpool, UK.

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{comments on}
Indiana CTSI director to advise China on accelerating research

Sept. 10, 2013

An Indiana University School of Medicine researcher will forge new partnerships between Indiana and China as the U.S. leader of a board created to advise the Chinese government on creating a national infrastructure to accelerate biomedical research.

Anantha Shekhar, M.D., Ph.D., associate dean for translational research and Raymond E. Houk Professor of Psychiatry at the IU School of Medicine, was recently named co-director of the scientific advisory board for the Sino-American Symposium on Clinical and Translational Medicine during the group’s annual meeting in Beijing. Additional participants included medical school deans, researchers and thought leaders from around the world.

Dr. Shekhar will chair the advisory group’s U.S. board. The chair of the China board is Gui Yonghao, M.D., dean of the Shanghai Medical School and vice chancellor of Fudan University.

The Chinese government is trying to create centers of excellence for translational medicine similar to the system that exists in the United States, Dr. Shekhar said. We’re trying to accelerate the rate of information exchange between leaders in this field in the U.S. and China by exposing U.S. leaders to the Chinese environment and Chinese leaders to U.S. best practices.

Translational medicine is the art of transforming medical research from experiments in the lab into safe and innovative new treatments and therapies for patients in the clinic. The U.S. translational research system includes 60 centers funded by Clinical and Translational Science Awards from the National Institutes of Health, including the Indiana Clinical and Translational Sciences Institute, a $30 million NIH-funded collaboration among IU, Purdue University and the University of Notre Dame. Several CTSA directors also serve on the U.S.-China advisory group.

Dr. Shekhar serves as the director of the Indiana CTSI as well as president of the Association for Clinical and Translational Science, an independent organization of clinical and translational research scientists and organizations.

Meetings of the Sino-American Symposium on Clinical and Translational Medicine are organized by GlobalMD, an international physician’s group, in collaboration with the Chinese government, the Chinese Academy of Medical Sciences and the Chinese Academy of Engineering, as well as multiple universities and research institutions in China.

The group’s short-term goals include establishing an exchange program to welcome Chinese scientists to U.S. institutions, including Indiana University, for up to one year in order to learn U.S. clinical research techniques from medical researchers. The long-term goal is to leverage China’s state-run health care system to create a pipeline for clinical trial research, in which patients receive new treatments or therapies under strict ethical and safety guidelines.

It’s currently estimated that China will consume about one-third of all global pharmaceutical sales within the next 10 years, but they lack the robust infrastructure needed to support this work or safely test new drugs, Dr. Shekhar said. Their leaders know they’ve got to change since they can’t currently meet their own need for innovation.

Despite their great size -- the central hospital in Beijing houses about 10,000 patient beds -- China’s hospitals exist primarily to provide primary care and train doctors, not conduct clinical research or make health care innovations. Dr. Shekhar said cooperation between medical leaders in the U.S. and China to overcome these hurdles will create great benefits for U.S. researchers, in
terms of both economic and scientific breakthroughs.

There is huge scientific potential, Dr. Shekhar said. We’re looking at access to a whole different population with different resources, health conditions and genetic composition.

This includes insights into disease such as diabetes, for which there is a different set of causes in China versus the U.S., and cancers, some of which are far more common in the U.S. Understanding the underlying scientific reasons for these differences is the first step to more effective treatments.

Since genetic differences also tend to translate into differences in drug effectiveness, Dr. Shekhar added that many pharmaceutical companies will not market new treatments in a country without first conducting a clinical trial in the nation. Closer ties between the U.S. and China will improve IU School of Medicine researchers’ ability to conduct clinical research studies on China’s vast patient population, increasing the global impact of their discoveries and creating more effective treatments worldwide.

Such partnerships also open the door to new research on alternative treatment methods, such as traditional Chinese medicines, which are frequently overlooked by U.S. physicians, he said.

In terms of business opportunities, Dr. Shekhar said that collaboration between U.S. and Chinese scientists -- whether to develop new drug therapies or biomedical technologies -- creates a smoother pipeline to the Chinese market since joint discoveries bypass many regulatory and intellectual property hurdles.

Any new technology is likely to be consumed in massive amounts in China; it’s an emerging market, he said. The rationale behind our engagement with the country is the same as any other industry going to China. It’s a huge opportunity.

Additional U.S. advisory board members include Barbara M. Alving, M.D., former director of the National Center for Research Resources at the NIH, who preceded Dr. Shekhar as chair of the U.S. advisory group; and Vicki Seyfert-Margolis, Ph.D., former senior science advisor to the FDA commissioner.

The Scientific Advisory Board for Sino-American Symposium on Clinical and Translational Medicine will meet quarterly, with annual in-person meetings in the U.S. and China.

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 $30 million (TR000006, TR000163 and TR000162), with additional support from the state, the three member universities, and public and private partners.

It is a member of the national network of 60 CTSA-funded organizations across the country.

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Luncheon celebrates Indiana CTSI-sponsored summer internships

Sept. 10, 2013

Not everyone gets the chance to get their feet wet in a wet lab within their first year of medical school. But Nathan Delafield, a rising second-year medical student, is already contributing to a research that could help curtail hospital staph infections.

Delafield joined medical, undergraduate and high school students from across the IU School of Medicine, IUPUI and the Indianapolis area July 12 for a luncheon celebrating three programs that provide students from all stages of their education the chance to work under an experienced scientist mentor at the IU School of Medicine.

A total of 34 medical students at the IU School of Medicine are gaining first-hand experience in labs this summer through the Office of Medical Student Affairs' Student Research Program in Academic Medicine program. Undergraduate and high school students were matched with faculty mentors through similar internship opportunities at the Multidisciplinary Undergraduate Research Institute in the IUPUI Center for Research and Learning and Indianapolis Project Seed, a non-profit organization that provides underrepresented students access to educational opportunities in science. The majority of students in the program are matched with IU School of Medicine faculty.

The luncheon was hosted by the Indiana Clinical and Translational Sciences Institute, which provides support to all three programs.

"Our goal is to contribute to the creation of the next generation of scientists, who will have a great impact on human health and other scientific endeavors," said Anantha Shekhar, M.D., Ph.D., director of the Indiana CTSI and associate dean for translational research and Raymond Houck Professor of Psychiatry at the IU School of Medicine. "We're focused on education, career development and building a scientific workforce not only in Indiana, but also nationally and internationally."

Delafield's work takes place in the lab of Henrique Serezani, Ph.D., assistant professor of microbiology and immunology, who joined the IU School of Medicine in April from the University of Michigan Medical School.

"I wasn't expecting to get involved in this program since I'm new, but it's really been a blessing," he said. "This program sets a great foundation for medical students in regard to research. The sooner they see how a research program works, the more excited they will be to learn and the more appreciative they will be for the work it takes to develop ideas in the lab."

The opportunity to work in the lab attracted Delafield due to a desire to learn what translational research in medicine looks like from the inside.

"Academic medicine and research are something that I'm interested in doing in my career," he added. "Integrating research into my practice will be fundamental in acquiring a faculty position at an institution."

Another IU School of Medicine faculty member participating in the program this summer is Timothy Corson, Ph.D., assistant professor of ophthalmology and of biochemistry and molecular biology at the IU School of Medicine, who is serving as a mentor to Vanessa Gehring, a recent high school graduate who will join IU Bloomington this fall.

Dr. Corson's work aims to develop new therapies for retinoblastoma, a form of eye cancer that causes loss of vision or eyes in young children, with a specific focus on a single gene, called KIF14, which his previous research has identified as highly overexpressed in the cancer. Gehring's job involves purifying catalytic proteins related to KIF14 in order to investigate their potential as a drug target.
Protein purification itself is a bit monotonous and repetitive -- it's a lot of centrifuging and re-suspending -- but it's been a great experience to get to learn and practice all these lab techniques, Gehring said. Just the feeling of being in the lab has been a wonderful. Everyone's been great -- there's a real sense of collaboration.

Among the current undergraduates at the event was Ruben Naoye, a sophomore biology major at the School of Science at IUPUI, who is serving as an intern in the lab of Melissa Kacena, Ph.D., assistant professor of orthopaedic surgery at the IU School of Medicine. His summer project focuses on cataloging the effect of experimental versus standard drug compounds on bone growth and bone healing.

Last year, Naoye worked as an intern through Project Seed in the lab of A. Joseph Tector III, M.D., Ph.D., professor of surgery at the IU School of Medicine, whose lab explores the potential use of animal organs in human transplants.

It's a very different lab experience, Naoye said. I liked studying animal models, but I've also enjoyed learning about bones. You can see how well they do in a short amount of time, whereas, with antibodies, it's harder to see the results quickly.

The IUPUI program that coordinated Naoye's lab placement aims to supplement student's mentorship experience through workshops focused on transferable skills such as information literacy, communication skills and professional development, said Elizabeth Rubens, director of the Multidisciplinary Undergraduate Research Institute.

These programs are unique and wonderful because they bring together so many students, she said, and it's important because we're trying to make an investment in tomorrow's medical researchers and to move research from the bench to the bedside.

Elmer Sanders, program coordinator for Indianapolis Project Seed and a science teacher in the Perry Township Metropolitan School District, agrees.

This is about giving students a science experience at just the right time, he said. Just like a three-year-old hearing a foreign language or a third-grader taking violin lessons, we're catching students at the moment most likely to promote lifelong natural talent and achievement.

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Indiana CTSI announces 2013 CTR, CECARE and core pilot grants

Sept. 10, 2013

Researchers at Indiana University, Purdue University and the University of Notre Dame have received more than $1.1 million through the Indiana Clinical and Translational Sciences Institute in support of research projects that aim to accelerate the transformation of novel scientific discoveries into new medical treatments and therapies.

2013 Collaboration in Translational Research Grants

Nine research teams from IU, Purdue and Notre Dame will receive more than $600,000 through the Collaboration in Translational Research grant program. CTR grants support 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. Moreover, in order to foster collaboration, CTR grants require each grant proposal include an investigator from two or more academic campuses at the IU School of Medicine, IUPUI, IU Bloomington, Purdue or Notre Dame. The recipients and their projects are:

Arezoo Ardekani, Ph.D., of the Department of Mechanical Engineering, School of Engineering, at the University of Notre Dame, and Yves Brun, Ph.D., of the Department of Biology, School of Arts and Sciences, at Indiana University Bloomington, will receive $72,649 to support their project titled, "Transition from reversible to irreversible of bacterial adhesion to surfaces."

Ji-Xin Cheng, Ph.D., of the Department of Biomedical Engineering, Purdue School of Engineering, at Purdue University, and Shaoxiong Chen, M.D., Ph.D., of the Department of Pathology and Laboratory Medicine, IU School of Medicine, will receive $74,000 to support their project titled, "Prevention of Pancreatic Cancer Metastasis by Abrogating Cholesterol Metabolism." Additional project collaborators include Jingwu Xie, Ph.D., of the IU School of Medicine.

J. Dennis Fortenberry, M.D., of the Department of Pediatrics, IU School of Medicine, and Cleveland Shields, Ph.D., of the Child Development and Family Studies, Purdue School of Arts and Sciences, will receive $15,010 to support their project titled, "The PATH Study: Promoting Autonomy in Teen Health." Additional project collaborators include Alexander Stewart, Ph.D., of Purdue.

Robyn Fuchs, Ph.D., of the Department of Physical Therapy, IU School of Health and Rehabilitation Science, and Linda Dimiglio, M.D., of the Department of Pediatrics, IU School of Medicine, will receive $72,445 to support their project titled, "The Effect of Botox on Bone Health in Children with Cerebral Palsy."

Bumsoo Han, Ph.D., of the Department of Mechanical Engineering, School of Engineering, at Purdue, and Jian-Ting Zhang, Ph.D., of the Department of Pharmacology and Toxicology, IU School of Medicine, will receive $75,000 to support their project titled, "Rapid screening of drugs for multidrug resistant cancers using a new tumor-microenvironment-on-chip platform." Additional project collaborators include Kinam Park, Ph.D. of Purdue.

Fredrick Pavalko, Ph.D., of the Department of Cellular and Integrative Physiology, IU School of Medicine, and Angela Bruzzaniti, Ph.D., of the Department of Oral Biology, IU School of Dentistry at IUPUI, will receive $75,000 to support their project titled, "Biomechanical regulation of osteoporosis and osteoarthritis by tyrosine family kinases." Additional project collaborators include Hiroki Yokota, Ph.D., of IUPUI.

Jean-Christophe Rochet, Ph.D., of the Department of Medicinal Chemistry and Molecular Pharmacology, School of Pharmacy, at Purdue, and Kenneth
Nephew, M.D., of the Cellular and Integrative Physiology, IU School of Medicine-Bloomington, will receive $74,500 to support their project titled, "Role of DNA methylation in Lewy body diseases."

Chandru Sundaram, M.D., of the Department of Urology, IU School of Medicine, and Philip Low, Ph.D., of the Department of Chemistry, at Purdue, will receive $72,500 to support their project titled, "Real time targeted imaging of renal cell carcinoma using folate guided fluorescence." Additional project collaborators include Clinton Bahler, M.D., of the IU School of Medicine.

William Truitt, Ph.D., of the Department of Anatomy and Cellular Biology, IU School of Medicine, and Riyi Shi, M.D., Ph.D., of the Department of Basic Medical Sciences, College of Veterinary Medicine, at Purdue, will receive $75,000 to support their project titled, "Mechanisms and treatment of depression in rats post mild blast-induced brain injury."

2013 CECARE Grants

Five research teams from the IU School of Medicine will receive about $380,000 through the CECARE grant program. These grants, administered by Indiana CTSI on behalf of the Strategic Research Initiative-funded Center of Excellence in Cardiovascular Research, support clinical and translational research projects focused on cardiovascular health. This year's recipients are:

Sharon Moe, M.D., Stuart A. Kleit Professor of Nephrology and professor of medicine at the IU School of Medicine, will receive $117,000 to support her project titled, "Calcium as a cardiovascular toxin." Dr. Moe's collaborators are Neal Chen, M.D., Ph.D.; Chia-Hsiang Hsueh, Ph.D.; and Shien-Fong Lin, Ph.D., all of the IU School of Medicine.

Irina Petrache, M.D., Dr. Calvin H. English Professor of Medicine and professor of biochemistry and molecular biology at the IU School of Medicine, will receive $120,000 to support her project titled, "Effect of alpha-1 antitrypsin on vascular endothelial function modulated by HDL signaling."

Michael Rubart von der Lohe, M.D., assistant research professor of pediatrics at the IU School of Medicine, will receive $120,000 to support his research project titled, "Myofibroblast arrhythmogeneicity in the chronically infarcted heart."

Michael Sturek, Ph.D., professor and chair of cellular and integrative physiology and professor of medicine at the IU School of Medicine, will receive $120,000 to support his project titled, "Imaging for Early Diagnosis of Unstable Plaque and Vascular Calcification." Dr. Sturek's collaborator on the project is Dr. Moe.

Johnathan Tune, Ph.D., associate professor of cellular and integrative physiology at the IU School of Medicine, will receive $117,954 to support his project titled, "Perivascular adipose and metabolic syndrome induced coronary disease."

2013 Spring Core Pilot Grants

Sixteen researchers from IU, Purdue and Notre Dame will receive about $150,000 through the spring 2013 grant cycle of the Indiana CTSI core pilot grants program. Core pilot grants provide investigators access to more than 60 Indiana CTSI-approved core facilities across the IU, Purdue and Notre Dame campuses. The recipients and their projects are:

Tarek El-Achkar, M.D., of the Department of Medicine, IU School of Medicine, will receive $10,000 to access the Physiological Proteomics Core at the IU School of Medicine in support of his project titled, "Proteomic Characterization of Tamm-Horsfall Protein Isoforms during Kidney Injury."

Michael Ferdig, Ph.D., of the Department of Biological Science, School of Science, at Notre Dame, will receive $10,000 to access the Genomics and Bioinformatics Core at Notre Dame in support of his project titled, "Expression Variation of Plasmodium falciparum Malaria: Implications for Adaptation and Evolution."

Anthony Firulli, Ph.D., of the Department of Pediatrics, IU School of Medicine, will receive $10,000 to access the IU Transgenic Animal/Embryonic Stem Cell Core at the IU School of Medicine in support of his project titled, "Molecular mechanisms of left ventricular growth and morphogenesis."

Craig Goergen, Ph.D., of the Department of Biomedical Engineering, School of Engineering, at Purdue, will receive $10,000 to access the Transgenic
Mouse Core at Purdue in support of his project titled, "Creation of apolipoprotein E-deficient rats for the study of cardiovascular disease."

**Eri Hashino**, Ph.D., of the Department of Otolaryngology-Head and Neck Surgery, IU School of Medicine, will receive $10,000 to access the Indiana Center for Biological Microscopy at the IU School of Medicine in support of her project titled, "3D reconstruction and functional imaging of inner ear organs derived from human pluripotent stem cells."

**Reginald Hill**, Ph.D., of the Department of Biological Sciences, School of Science, at Notre Dame, will receive $9,999 to access the Genomics and Bioinformatics Core at Notre Dame in support of his project titled, "Identifying Stromal MicroRNAs mediating chemoresistance in pancreatic cancer."

**Jeffrey Kline**, M.D., of the Department of Emergency Medicine, IU School of Medicine, will receive $9,172 to access the Chemical Genomics Core at the IU School of Medicine in support of his project titled, "Decoy peptide to inhibit Î±2antiplasmin binding to delta plasmin."

**Stephen F. Konieczny**, Ph.D., of the Department of Biological Sciences, College of Science, at Purdue will receive $10,000 to access the Center for Medical Genomics and Bioinformatics Cores at the IU School of Medicine in support of his project titled, "Identifying the Importance of the SOX9 Transcriptome in Pancreatic Cancer."

**Liu Wang**, Ph.D., of the Purdue School of Pharmacy, will receive $6,606 to access the Bioinformatics Core at the IU School of Medicine, in support of his project titled, "A Genome-wide eQTL Mapping for Human Hepatic UGTs."

**Seema Mattoo**, Ph.D., Department of Biological Sciences, College of Science, at Purdue, will receive $10,000 to access the Proteomics Core at Purdue in support of her project titled, "Assessing Fic-mediated Post-Translational Modifications During Cancer Signaling."

**Sharlene Newman**, Ph.D., of the Department of Psychological and Brain Sciences, College of Arts and Sciences, IU Bloomington, will receive $10,000 to access the IU Imaging Research Facility at IU Bloomington in support of her project titled, "Neural and behavioral correlates of anomia treatment in acquired neurogenic disorders."

**Karen E. Pollok**, Ph.D., of the Department of Pediatrics, IU School of Medicine, will receive $10,000 to access the Flow Cytometry Resource Facility at the IU School of Medicine in support of her project titled, "Therapy-induced DNA Damage Response Kinetics in Nervous System Tumors measured by imaging flow cytometry using the ImageStreamX Mark II."

**Alexander Robling**, Ph.D., of the Department of Anatomy, IU School of Medicine, will receive $10,000 to access the Transgenic Mouse Core Facility at the IU School of Medicine in support of his research project titled, "Generation of a novel mouse model for impaired Lrp4 function in bone."

**Jean-Christophe Rochet**, Ph.D., of the Department of Medicinal Chemistry and Molecular Pharmacology, School of Pharmacy, at Purdue, will receive $10,000 to access the Purdue Proteomics Facility Biophysical Analysis Lab at Purdue in support of his research project titled, "Biophysical approaches to characterize protective functions of the Parkinson's disease-related protein DJ-1."

**Sarah Tersey**, Ph.D., of the Department of Pediatrics, IU School of Medicine, will receive $7,008 to access the Islet Core at the IU School of Medicine in support of her project titled, "Role of Ornithine Decarboxylase in Pancreatic Islets."

**Claire Walczak**, Ph.D., of the Department of Biochemistry and Molecular Biology, IU School of Medicine, will receive $3,500 to access the Bioinformatics Core at the IU School of Medicine in support of her project titled, "Analysis of the Microtubule Depolymerizing Kinesin as a Prognostic Marker for Taxane Resistant Breast Cancers."

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Indiana CTSI Community Health Engagement Program hosts networking event

Sept. 10, 2013

About 50 representatives of community organizations across Indianapolis and beyond met Aug. 29 at the Martin House Hotel & Lilly Conference Center on the north side of Indianapolis.

The event, organized by the Indiana CTSI Community Health Engagement Program, or CHEP, was organized in direct response to frequent requests from its partners and members of its Community Advisory Council to meet one another and learn more about numerous health-related projects throughout Indiana.

Speakers included Dennis Savaiano, Ph.D., professor and interim dean of the Honors College in the Department of Nutrition Science at Purdue, who addressed the importance and role of community-based participatory research, and Doug Miller, M.D., director of CHEP, who spoke about the importance of CHEP members obtaining strong knowledge of their communities in order to understand the specific topics they are interested in researching.

Dr. Miller added that it is also important to match the right community organization with the right researcher. To facilitate this process, a matching program has been developed that enables community members interested in partnering with a researcher to indicate their research interest electronically. This form is online at www.indianactsi.org/chep/contactform.

The Aug. 29 event also featured a challenging networking exercise, during which participants had an opportunity to learn more about the purpose and activities of CHEP from several staff.

The conversations between participants were lively and animated. Based upon evaluations passed out following the event, the majority of attendees reported they felt that the event was well planned and worth their time. Ninety-two percent of the attendees also ranked themselves as satisfied or very satisfied with the event. As a result of the networking, several participants were able to make connections for future collaborative efforts (fig. 1)

CHEP is considering replicating this event in the communities of the other Indiana CTSI West Lafayette, South Bend, and Bloomington. Watch this newsletter for an announcement concerning upcoming events and dates.

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{comments on}
Access Technology Program (ATP) Core Facility Update

Sept. 10, 2013

Developments at the IUSM Proteomics Core Facility

The IUSM Proteomics Core (formerly the Protein Analysis Research Center) recently added two additional mass spectrometers to its arsenal of analytical instrumentation. The addition of a Thermo Scientific LTQ Orbitrap Velos Pro mass spectrometer will enable Core researchers to provide peptide (bottom-up) and intact protein (top-down) proteomics analysis for specific applications requiring higher resolution and greater mass accuracy than previously available.

In addition, as a result of a merger with the Physiological Proteomics Core Facility (PPCF), an additional linear ion trap mass spectrometer (Thermo Scientific LTQ) has been acquired, enabling the core to provide dedicated nanoflow and microflow LC-MS/MS services to its clients.

The merger has also enabled the acquisition and application of a novel label-free mass spectrometry-based analytical platform, IdentitQuantXL®, that enables global protein expression profiling and biomarker discovery and complements previously available services such as targeted analyses of specific molecules with multiple/selected reaction monitoring (MRM and SRM), equipment and software for 1D or 2D gel analyses, Western blotting, ELISA, identification/characterization of peptide and protein modifications, analysis of purified peptides and proteins, protein identification in gel-plugs/bands, assay development for specific protein(s) and metabolite(s), and proteomics methods development, consultation, and bioinformatic analysis of complicated results.

IUSM Proteomics Core Director Mu Wang, Ph.D., has welcomed former PPCF members Xianyin Lai, Ph.D., as associate core director, and Frank Witzmann, Ph.D., as scientific director.

New Tracer Development and Validation Laboratory (TDVL) in the IU Department of Radiology and Imaging Sciences

The IU Department of Radiology and Imaging Sciences has established a Tracer Development and Validation Laboratory (TDVL) to serve as a research resource for intramural and extramural projects. The laboratory provides services for the qualification, testing and validation of new chemical entities (NCEs). It also provides key secondary confirmation data of ligand/target interactions, thus supporting the validation of these interactions.

With respect to IU Radio-Chemistry efforts, where ligands have been synthesized but require additional validation data prior to use in existing animal models or humans, the laboratory helps identify appropriate cell, tissue and animal model systems to advance the NCE towards IND submissions. Combined, these activities provide new research avenues for the component as a whole in the areas of oncology, cardiovascular and neuroscience research.

This team provides a number of key functionalities to the department and external partners, including:

- In vitro cellular receptor binding analysis
- In vitro cellular receptor occupancy analysis
- In vitro cellular enzyme function analysis
- In vitro ELISA analysis
- In vitro RIA analysis
- In vitro cellular receptor autoradiography analysis
- In vitro cellular enzyme autoradiography analysis
- In vitro tissue receptor autoradiography analysis
- In vitro tissue enzyme autoradiography analysis
- In vitro receptor validation via IHC analysis
- In vitro enzyme validation via IHC analysis
- In vitro receptor validation via Western Blot analysis
- In vitro enzyme validation via Western Blot analysis
- In vivo/Ex vivo receptor binding analysis
- In vivo/Ex vivo receptor occupancy analysis
- In vivo/Ex vivo enzyme function analysis
- In vivo/Ex vivo autoradiography analysis (i.e. 2DG in mice and rats)
- In vivo/Ex vivo bio-distribution analysis

If interested in learning more about the Tracer Development and Validation Lab, please contact Paul R. Territo, Ph.D. (pterrito@iupui.edu); Jill A. Meyer, MS (jilmeyer@iupui.edu); or Jonathan S. Peters, MS (jp63@iupui.edu).

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Indiana CTSI Opportunities — September 2013

Sept. 10, 2013

Several Indiana CTSI funding programs will accept applications in October. They are:

**Pilot Funding for Research Use of Core Facilities**

The Indiana CTSI Pilot Funding program is intended to promote the use of technologies and expertise afforded by the Indiana CTSI Core Facilities available at all partner institutions. Successful proposals will demonstrate outstanding scientific merit that can be linked to generating extramural funding or novel intellectual property (IP). Success of the program will be viewed, in part, by the fostering of new funded grants or providing significant contributions to grant renewals. Therefore, proposals will be judged with equal measure on scientific merit and the likelihood of generating new IP or extramural grant support.

The submission deadline is **5 p.m. Monday, Oct. 14**.

To learn how to submit a proposal, visit [www.indianactsi.org/grants](http://www.indianactsi.org/grants) and log in using your institutional username and password.

**CTSA Partnership Grant: Indiana CTSI and West Virginia CTSI**

The West Virginia Clinical and Translational Science Institute (WVCTSI) and the Indiana Clinical and Translational Science Institute (Indiana CTSI) announce the availability of pilot project funding for clinical and translational research. Awards will be for collaborative efforts between faculty at WVCTSI institutions (WVU, CAMC/WVU-C, and WVSOM) and Indiana CTSI institutions (Indiana University, Purdue University, and the University of Notre Dame).

The submission deadline is **5 p.m. Monday, Oct. 28**.

To learn about this program or access the application form, visit [www.indianactsi.org/grants](http://www.indianactsi.org/grants) and log in using your institutional username and password.

Applications instructions are under “CTSA Partnership Grant - Indiana CTSI and West Virginia CTSI - 2013.10.”

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Bioethics, Science Policy and Culture: Tales of Translation from a Year in Toulouse

Eric Meslin, Ph.D., will present "Bioethics, Science Policy and Culture: Tales of Translation from a Year in Toulouse" from noon to 1 p.m. Thursday, Sept. 12, in the HITS Building, Room 1110.

Dr. Meslin is director of the IU Center for Bioethics and professor of bioethics and associate dean for bioethics at the IU School of Medicine.

For more information, contact evajacks@iupui.edu.

Indiana Neuroimaging Symposium

The Third Indiana Neuroimaging Symposium will be Friday, Oct. 25, at the Indiana Memorial Union at Indiana University Bloomington.

This event will feature invited talks and a poster session, as well as breakout sessions designed to foster collaborations in areas such as drug abuse, aging and dementia, and concussion and traumatic brains injury.

The keynote speaker will be Olaf Sporns, Ph.D., Provost Professor in Psychological and Brain Sciences at Indiana University.

This event is supported by the Imaging Research Facilities at IU, Purdue and the IU School of Medicine.

For more information, visit http://psych.indiana.edu/imagingsymposium.php.

Fifth Annual Leaders in Biobanking Congress

Indiana Clinical and Translational Sciences Institute members are eligible for a discount rate at Cambridge Healthtech Institute’s fifth annual Leaders in Biobanking Congress from Nov. 4 to 5 at the Sheraton Indianapolis City Centre Hotel in Indianapolis.

Indiana CTSI members including all faculty at Indiana University, Purdue University and the University at Notre Dame. Registrations will receive a $100 discount with the keycode "BNK CTSI."

This year’s event, " Maximizing Your Investment in Biospecimens," will address both the business and science of biobanking, bringing together biomedical and biopharmaceutical researchers, regulators, biorepository managers and practitioners to investigate the best strategies for effective use of biospecimens within today’s cutting-edge research.

Speakers will include Anantha Shekhar, M.D., Ph.D., director of the Indiana CTSI and associate dean for translational research and Raymond E. Houk Professor of Psychiatry at the IU School of Medicine, who will present "Academia and Pharma: New Approaches for Bi-Directional Collaborations." Dr. Shekhar's address is scheduled at 10:45 a.m. on Nov. 4.

Today, biospecimen collections are used by multiple research groups for varying research aims, from basic research through clinical trials. A well-managed biobank is a critical prerequisite for high-quality biological research. The proper collection, processing, storage and tracking of biospecimens are critical components allowing researchers to better link molecular and clinical information. Thus, by necessity, biobanking is both a science and a business.

To register for this event, visit www.healthtech.com/biobanking and enter "BNK CTSI."

Discount rates are available to new registrations only. Indiana CTSI registrants cannot combine their discount with other special offers, except poster discounts. Not applicable to short course only registrations.

The Third Annual Indiana CTSI Symposium on Disease and Therapeutic Response Modeling

The Third Annual Indiana Clinical and Translational Sciences Institute Symposium on Disease and Therapeutic Response Modeling will take place on Nov. 5-6 in the IUPUI Campus Center, Room 409, 420 University Blvd., Indianapolis, IN.

This two-day program will include speakers from academia, industry and regulatory agencies, as well as poster presentations. Confirmed speakers include Vikram Sinha, Ph.D., of the U.S. Food and Drug Administration; Jeffrey Barrett, Ph.D., of the Children’s Hospital of Philadelphia; Marc Gastonguay, Ph.D., of the Metrum Institute; John Urquhart, Ph.D., of the AARDEX Group; Mark Sale, Ph.D., of Next Level Solutions, LLC; Sean Mooney, Ph.D., of the Buck Institute for Age Research; Immanuel Freedman, Ph.D., of GlaxoSmithKline; Michael Heathman, Ph.D., of Eli Lilly and Company; and Bernard Vrijens, Ph.D., of MeadWestvaco Healthcare.

Registration for participants from academia and government, as well as Eli Lilly and Company is free. (Register Here) Registration for industry participants is $200. (Register Here) Registrants will be redirected to the IU Office of Conference and Event Registration Services. Unless you have already registered for an event through this system in the past, you will be required to register. After doing so, you will be redirected to the Event Registration page.)

A block of rooms reserved at the Omni Hotel in downtown Indianapolis for participants traveling from out of town and need a hotel. When making your hotel reservations, please ask for the Group Rate for the Indiana University Modeling Symposium. Participants are free to stay at any hotel of their choice.

For more information or questions, contact Shripad Chitnis at chitnisss@iupui.edu or Nieves Velez de Mendizabal at nvelezde@iu.edu.