

CTSIconnections

Clinical & Translational Science Institute news

JULY 2008

From the Senior Vice President for Health Affairs

It is a pleasure to introduce this inaugural issue of *CTSI Connections* and to update you on the progress Penn State is making toward an application for a Clinical and Translational Science Award, or CTSA.

Launched by the National Institutes of Health (NIH) in 2005, the CTSA program is a strategic initiative focused on "Re-engineering the Clinical Research Enterprise" and aimed at strengthening the connections between scientific advancements and improvements to the health and well-being of patients and communities. This program challenges academic institutions to bring together research, patient care, education, and community engagement to collectively devise and disseminate novel solutions to health problems.

The NIH asks each applicant institution to create an academic home for translational research. We have initiated a process to establish the Penn State Clinical and Translational Science Institute (CTSI). This new, University-wide institute will build on the University's enormous collective research and community outreach expertise and will link a vast array of disciplines across Penn State to benefit people throughout Pennsylvania and beyond.

The CTSI will aim to better understand the biological, social, behavioral, and environmental determinants of health and will help us speed the implementation of new methods that predict, pre-empt, and treat disease and promote wellness at all stages of life.

More than 100 faculty from the University Park and Hershey campuses have been involved in the CTSA planning process. In our application, we plan to highlight the unique strengths of Penn State arising from connections among investigators across campuses, colleges, and departments. And we intend to greatly expand already well-developed connections between Penn State and the community we serve.

The collaborative CTSI pilot projects announced in this newsletter illustrate how exchange at the interfaces among disciplines has sparked highly innovative collaborative research. Funding of these projects was made possible by a joint effort and pooling of resources among the College of Medicine, the Huck Institutes for the Life Sciences, the Social Science Research Institute, and the Institute for Computational Science.

In closing, I would like to thank all faculty and staff who are involved in the CTSA planning process for their efforts and encourage all members of our Penn State community to take the time to learn more about this exciting opportunity in this and subsequent issues of *CTSI Connections*.



Harold L. Paz, M.D.
Senior Vice President for Health Affairs
Dean, Penn State College of Medicine
Chief Executive Officer, Penn State
Milton S. Hershey Medical Center

CTSA Writing Groups

- **Novel Methodologies**—Brian Reeves, M.D., medicine; Penny Kris-Etherton, Ph.D., nutrition
- **Pilot Studies**—Leslie Parent, M.D., infectious diseases; Jack Vanden Heuvel, Ph.D., veterinary and biomedical sciences
- **Community Engagement**—Ian Paul, M.D., pediatrics; Karen Bierman, Ph.D., psychology
- **Biostatistics and Trial Design**—Vern Chinchilli, Ph.D., public health sciences; Mosuk Chow, Ph.D., statistics
- **Informatics**—Madhu Reddy, Ph.D., information sciences and technology services; Chris DeFlicht, M.D., emergency medicine
- **Regulatory, Ethics, Tech Transfer**—Alan Snyder, Ph.D., technology development; Michael Green, M.D., humanities; Jonathan Marks, B.C.L., M.A., liberal arts
- **Participant and Clinician Interactions**—Sheila West, Ph.D., biobehavioral health; Rick Legro, M.D., reproductive endocrinology
- **Education**—Jim Pawelczyk, Ph.D., kinesiology; Diane Thiboutot, M.D., dermatology
- **Core Services**—Bruce Stanley, Ph.D., research resources; Keith Aronson, Ph.D., child, youth, families consortium

PENNSSTATE



Initial Round of CTSI Pilot Projects Awarded

Out of seventy applications received, the CTSI has selected thirteen pilot projects for funding. Pooling resources enabled us to support a larger-than-anticipated number of projects, reflecting Penn State's strong commitment to innovative and collaborative translational research. These thirteen projects involve fifty-seven faculty members located at three campuses and eight colleges. Thanks to all faculty who submitted proposals and to the thirty-eight faculty members who served as peer reviewers. Congratulations to the awardees!

Eating Behavior Phenotypes: Relationship to Risk Factors for Metabolic Syndrome and Peripheral Feeding Signals

Leann Birch, Ph.D., human development and family studies, **UP**

Mary Jane De Souza, Ph.D., kinesiology, **UP**

Nancy Williams, Sc.D., kinesiology, **UP**

Nick Bellissimo, Ph.D., kinesiology, **UP**

Cynthia Bartok, Ph.D., kinesiology, **UP**

Ian Paul, M.D., pediatrics, **H**

Vitamin D and Crohn's Disease: From the Bench to the Clinic

Margherita Cantorna, Ph.D., veterinary and biomedical sciences, **UP**

Terryl Hartman, Ph.D., M.P.H., nutrition, **UP**

Jill Smith, M.D., gastroenterology, **H**

Adapting an RNA Sensor Platform to Protein Detection Using Aptamers

Gary Clawson, M.D., Ph.D., pathology, **H**

Rustom B. Bhiladvala, Ph.D., electrical engineering, **UP**

Christine D. Keating, Ph.D., chemistry, **UP**

Theresa S. Mayer, Ph.D., electrical engineering, **UP**

Wei-Hua Pan, M.S., pathology, **H**

Kevin Staveley-O'Carroll, M.D., Ph.D., surgery, microbiology and immunology **H**

Diane M. Thiboutot, M.D., dermatology, **H**

A Novel Dietary Iron Supplement for the Treatment of Iron Deficiency Anemia

James Connor, Ph.D., neurosurgery, **H**

John Beard, Ph.D., nutrition, **UP**

Robert Cooney, M.D., surgery, **H**

Ralph Keil, Ph.D., biochemistry, **H**

Role of UGT2B7 Genotype in Patient Response to Tamoxifen

Leah Cream, M.D., hematology/oncology, **H**

Philip Lazarus, Ph.D., pharmacology, **H**

J Stanley Smith, M.D., surgery, **H**

Nanostructured Raman Detection and Diagnosis of Respiratory Pathogens

Melik Demirel, Ph.D., engineering science and mechanics, **UP**

Mary Poss, Ph.D., biology, **UP**

David Allara, Ph.D., chemistry, **UP**

Dani Zander, M.D., pathology, **H**

Interactive Web-Based Diabetes Self-Management Tool

Robert Gabbay, M.D., Ph.D., medicine, **H**

Heather Stuckey, D.Ed., adult education, **HGB**

Brian Smith, Ph.D., information science and technology, **UP**

S. Shyam Sundar, Ph.D., film-video and media studies, **UP**

David Mauger, Ph.D., public health sciences, **H**

Development of Novel Molecular Subtyping Methods for Identifying Pathways of Transmission of Endemic and Epidemic Clones of Community-Associated and Health Care-Associated Methicillin-Resistant

Staphylococcus Aureus (MRSA)

Stephen Knabel, Ph.D., food science, **UP**

Cynthia Whitener, M.D., infectious diseases, **H**

Edward Dudley, Ph.D., food science, **UP**

Bhushan Jayarao, Ph.D., veterinary and biomedical sciences, **UP**

Kathleen Julian, M.D., infectious diseases, **H**

Wallace Green, Ph.D., pathology, **H**

Pattern Recognition From 3D Histology Images for Translational Science and Discovery

Yanxi Liu, Ph.D., computer science and engineering, electrical engineering, **UP**

Keith Cheng, M.D., Ph.D., pathology, **H**

Sequencing of LGL Leukemia Retrovirus Genome

Thomas Loughran, M.D., hematology/oncology, **H**

Stephan Schuster, Ph.D., biochemistry-molecular biology, **UP**

Susan Nyland, Ph.D., medicine, **H**

Mary Poss, Ph.D., biology, **UP**

Mechanisms of Unexpected Drug Side Effects Related to Obesity and Diabetes

Christopher Lynch, Ph.D., cellular and molecular physiology, **H**

Ravi Singareddy, M.D., psychiatry, **H**

David Mauger, Ph.D., public health sciences, **H**

Dissecting the Interaction Between Radiofrequency Ablation and Tumor Antigen-Specific Immune Response in Hepatocellular Cancer: A Murine Model and a Human Protocol

Kevin Staveley-O'Carroll, M.D., Ph.D., surgery, microbiology and immunology **H**

Serene Shereef, M.D., surgery, **H**

Hephzibah Tagaram, Ph.D., surgery, **H**

Diego Avella, M.D., surgery, **H**

Eric Kimchi, M.D., surgery, **H**

Niraj Gusani, M.D., surgery, **H**

Peter Waybill, M.D., radiology, **H**

Todd Schell, Ph.D., microbiology and immunology, **H**

Harriet Isom, Ph.D., microbiology and immunology, **H**

Yixing Jiang, M.D., Ph.D., hematology/oncology, **H**

Central Pennsylvania Women's Health Study (CePAWHS): Extending the Strong Healthy Women Behavior Change Intervention to Urban Areas

Carol Weisman, Ph.D., public health sciences, obstetrics/gynecology **H**

John Botti, M.D., maternal and fetal medicine, **H**

Marianne Hillemeier, Ph.D., health policy and administration, **UP**

Danielle Symons Downs, Ph.D., kinesiology, **UP**

Mark Feinberg, Ph.D., prevention research center, **UP**

Visit www.ctsa.psu.edu for details.

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H = Penn State Hershey

HGB = Penn State Harrisburg

UP = Penn State University Park

What Are the Clinical and Translational Science Awards?

The Clinical and Translational Science Award program is a major initiative by the National Institutes of Health to accelerate the process of achieving health outcomes from basic and clinical science research. NIH has broadly defined translational research to include activities that ultimately improve individuals' health or well-being.

The CTSA will create academic homes for clinical and translational science at approximately sixty U.S. institutions. CTSA institutions must develop new paradigms for conducting research, develop capabilities in informatics and other technologies, engage with communities to assess needs and study novel interventions, and support research through best practices in study design, biostatistics, regulatory processes, technology transfer, and research ethics. In addition to providing faculty and staff development, these capabilities serve as a training environment for the next generation of translational and clinical investigators.

Penn State's response to this important initiative is rooted in these principles:

We attend to a broad range of influences on human health and well-being, well beyond traditional models of medical care.

We embrace a broad array of disciplines, spanning campuses and academic units.

We take proper advantage of Penn State's resources and propose creation of structures to facilitate access by investigators and trainees.

With our goal to deliver value to constituents, we architect research programs to be responsive to community needs.

The Penn State initiative is being spearheaded by Urs Leuenberger, M.D., Department of Medicine, College of Medicine, and Jan Ulbrecht, M.B., B.S., Department of Biobehavioral Health, College of Health and Human Development. Our administrator is Andrea Lazarus, Ph.D.