Institute of Clinical and Translational Sciences News, Vol. 4, Issue 2
Heavy Lifting Results in Unique PET/MR Imaging Resource

On September 10, 2011 The Mallinckrodt Institute of Radiology (MIR) at Washington University School of Medicine became the third institution in the United States to receive a state-of-the-art Siemens Biograph mMR scanner. This equipment combines two well-established human imaging techniques, positron emission tomography (PET) and magnetic resonance imaging (MRI), to yield the world’s only commercially available multiple modality whole-body molecular MR device.

Hegele Logistics delivered the scanner on a Saturday morning, while Ben Hur iron workers managed the crane needed to lift the 10 ton scanner into the 10th floor of the West Pavilion of Barnes-Jewish Hospital. The equipment is a new resource in the MIR Center for Clinical Imaging Research (CCIR) which provides access and support to the ICTS Human Imaging Unit (HIU). During the 2+ hours it took for the scanner placement, onlookers snapped photos and cheered for the workers as the equipment was raised and maneuvered into place (see photos below). The CCIR underwent 3 months of extensive renovation in preparation for the 932 square foot scanner, control, hot lab, and equipment space with the final installation and activation completed at the end of September. The Biograph mMR combination of PET and MRI offers many new exciting capabilities for biomedical imaging research within the HIU. As the latest hybrid imaging technology, whole-body PET/MR imaging now joins existing multi-modal PET/CT methods and provides added benefits of:

- Superior soft-tissue contrast, which is advantageous when imaging the brain, parenchymal abdominal organs, and the musculoskeletal system using MRI
- Whole body, high spatial and temporal MR resolution with image acquisition in virtually any orientation without repositioning the patient
- Clinically-relevant, functional information obtained from MRI, such as MR spectroscopy, diffusion imaging, perfusion imaging, and functional MRI (fMRI), coupled with high sensitivity metabolic information obtained from PET
- Reduced radiation exposure to the patient compared with PET/CT methods

This new scanner will facilitate translation of techniques developed in small animal research directly into the clinic offering new insights in human studies of neurology, cardiology, oncology and musculoskeletal research. The combination of functional and anatomic imaging information provides measurements of cognitive processes, cardiovascular metabolism and delineation of the complexity of atherosclerotic plaque formation, tumor growth and response to therapy, as well as a host of other emerging questions in biomedical research. Some research has shown new multimodal imaging approaches to provide better accuracy than their single imaging counterparts. There is little doubt the expansion of the development of PET/MR imaging technologies will have high impact on basic biomedical research for many years to come.

Proposed research projects have been accepted and are ready to begin testing. If you are interested in exploring, developing, or running a research project using the Biograph mMR scanner, please contact Betsy Thomas, RN (thomasbe@wustl.edu), CCIR/HIU Clinical Research Specialist.
New NIH CTSA Telemedicine, Telehealth, and mHealth Thematic Special Interest Group/Network

By Cynthia LeRouge, PhD

Telecommunications technology applied to the health care context in the form of telemedicine, telehealth, and mHealth are increasingly part of the preventative, promotive, and curative aspects of health care. Telemedicine has been stated to have “the potential for ameliorating seemingly intractable problems in healthcare, such as limited access to care among segments in the population— especially the geographically disadvantaged—uneven quality of care, and cost inflation.” However, the tremendous value implied in this statement is not yet clearly evident in research or practice. Expanding the telemedicine concept to include preventative and promotive aspects of health (telehealth) and the possibility supported by mobile devices (m-health or mobile health) increases the need to explore the potential and the efficiency and speed of related clinical and translational research.

In response, a national CTSA Telemedicine, Telehealth, and mHealth Thematic Special Interest Group/Network (Telemedicine, Telehealth, and mHealth TSIG) has been formed. Rosemarie Filart, Program Coordinator, NIH National Center for Research Resources, and Michael Ackerman, National Library of Medicine, Assistant Director for High Performance Computing and Communications have been working with Wesley Valdes (University of Chicago –Illinois CTSA), and ICTS member Cynthia LeRouge (Saint Louis University, Health Management and Policy Department) to establish the leadership team to help advance the TSIG activities. Dr. LeRouge’s telemedicine, telehealth, and mHealth interests include design and evaluation of mHealth applications and telemedicine workflow, organizational issues, and adoption.

To date, 14 CTSAs have designated representatives to the TSIG. The inaugural meeting, held in conjunction with the American Telemedicine Association’s September 2011 meeting, highlighted needs and opportunities in research that could be promoted by CTSA members including:

- Comparative effectiveness research of healthcare situations where technologies are not used compared to situations where various technological modalities (iPhone, iPad, video, laptop, etc.) are used
- Research comparing care delivered (process and outcomes) via various technology modalities (e.g., high-end video versus personal computer video such as Skype)
- Large population-based studies and small and large retrospective and prospective trials
- Research exploring the inter- and intra- organizational program and collaboration issues involving these technologies.
- Economic analysis of telemedicine/telehealth/mhealth technologies
- Telemedicine/telehealth/mhealth usability, accessibility, and design research
- Exploration of ways to improve outcomes using telemedicine/telehealth/mhealth technologies
- Research comparing subspecialties’ clinical results from and perspectives regarding the use of telemedicine/telehealth/mhealth technologies

An additional formative TSIG meeting will take place in Washington D.C. on October 25, 2011 in conjunction with the American Medical Informatics Association Conference and an extended strategy meeting will be held in Washington D.C. in conjunction with the MHealth Summit, December 5-7. Monthly teleconferences among interested CTSA members will begin in January 2012. ICTS members interested in the Telemedicine, Telehealth, and mHealth TSIG regarding either regional ICTS interests or national CTSA interests should contact Cynthia LeRouge at lerougec@slu.edu or 314-977-8195.


2012 Comparative Effectiveness Research Symposium at Washington University

The Comparative Effectiveness Research Center will host a symposium titled “Shared Decision Making: Opportunities to Implement Comparative Effectiveness Research in Clinical Practice.” The symposium will be held in St. Louis at the Washington University School of Medicine on March 13 and 14, 2012. Keynote speakers include Michael S. Lauer, MD, Director, Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute (NHLBI) and France Légaré, MD, PhD, CCFP, FCFP, Professor, Department of Family Medicine at Université Laval and Canada Research Chair, Implementation of Shared Decision Making in Primary Care. CME credits will be available.

Recent policy movements encourage shared decision making as a way to translate evidence into routine clinical practice. This conference can help clinicians confront the challenges of incorporating shared decision making into their clinical workflow through didactic lectures, break out discussion sessions, and one-on-one mentoring opportunities with national leaders in the field.

For more information about the symposium, visit: http://cer.wustl.edu/index.php/training-resources/seminars-and-conferences.

This program is supported in part by the Agency for Health Care Research and Quality (R13 HS020933, PI: Politi), the NIH NCI (KM1 CA156708, PI: Fraser), and the NIH NCRR Clinical and Translational Science Award (UL1 RR024992, PI: Evanoff)
Dr. Francis S. Collins Speaks at Annual October CTSA Steering Committee Meeting

NIH Director, Dr. Francis S. Collins, addressed the CTSA Principal Investigators at their annual meeting held in Rockville, MD on October 5th, explaining the relationship between the CTSA and the proposed National Center for Advancing Translational Sciences (NCATS). Since NCATS is the anticipated new home for the CTSA program, Dr. Collins described the findings of the CTSA/NCATS Integration Working Group which was convened to recommend a strategy for ensuring that the CTSA most effectively contribute to the mission of NCATS. The 6 Integration Working Group recommendations and the group roster can be found at: http://www.nih.gov/about/director/index.htm.

NCATS has been proposed to “catalyze the generation of innovative methods and technologies that will enhance the development, testing, and implementation of diagnostics and therapeutics across a wide range of human diseases and conditions.” While NCATS will bring new focus to translational development, Dr. Collins stressed that NCATS and CTSA will continue to support the full range of translational research. The establishment of NCATS is still pending congressional approval.

Keep up with national CTSA news at: http://www.ctsaweb.org

ICTS Funding Program Updates

Just-In-Time (JIT) Core Usage Funding Program

Revised JIT program documents (Overview and Request Form) were posted on the ICTS website (http://icts.wustl.edu/funding/jit_core_usage_funding_program.aspx) September 2nd and sent via e-mail to ICTS members September 14th. The revised documents reflect recent program modifications so the new Request Form must be used by applicants and core directors beginning with the October 10th submission deadline. The old Request Form will no longer be accepted. The intent of the JIT program is to provide quick access to funding to obtain services from ICTS Cores for research advancing medical knowledge that can improve human health. However, increased emphasis is now placed on funding support for pilot data needed for preliminary results for a clinical/translational proposal to be submitted for extramural funding. The revised form requires additional detail about plans to request external funding for the project. Questions can be addressed to Andrea Cox (acox@dom.wustl.edu) or Jaimee Stagner (jstagner@dom.wustl.edu).

BJHF/ICTS Clinical & Translational Research Funding Program

The 4th annual Barnes-Jewish Hospital Foundation/ICTS RFA was issued in August with 142 Letters of Intent received by the September 12th deadline. The RFA Program Committee reviewed each LOI with increased scrutiny regarding “the potential to promote the translation of scientific discoveries into improvements in human health.” As a result of that review, 118 investigators were invited to submit full proposals due by 5 p.m. CST on Monday, October 24th. Study Sections will be held the first week of December with over 100 experienced investigators from WU, Saint Louis University, St. Louis College of Pharmacy, and the University of Missouri at St. Louis participating. Funding decisions will be made in January with awards starting June 1, 2012. Questions can be addressed to Jaimee Stagner (jstagner@dom.wustl.edu) or Jae Allen (jallen@dom.wustl.edu).

On Monday, September 26 and Tuesday, September 27, 2011, Washington University’s Human Research Protection Office (HRPO) and the ICTS partnered with the Health and Human Services Office for Human Research Protections (OHRP) and Meharry Medical College (partner with Vanderbilt University CTSA) to hold a 2 day conference focused on Community-Engaged Research. The event was held at the Eric P. Newman Education Center and included over 300 attendees representing 25 states and 37 community organizations.

Attendees listened to and participated in discussions that revolved around current issues to community-engaged research including collaboration, shared decision-making, and working toward a common goal. During the course of the event, attendees heard from both academic investigators and community partners. Common themes that prevailed across presentations and discussions were open communication, trust building, resource sharing, equality amongst partners, and sharing study results. Training for both academic and community based researchers was key not only to conducting the given research project, but also to help bring about an understanding of each partner’s perspective as well as an understanding of what is needed from a regulatory and scientific perspective.

At the close of the conference, attendees had this to say: “This was the best conference I have ever attended!”; “I am amazed how much information - good, high quality information - we received in 2 days.”; “I usually don’t walk away from a conference with new tools and ideas to apply to my research, but this meeting is going to change the way I do science.”

The agenda is available at http://hrpohome.wustl.edu/OHRPconference/Conference_Home.aspx and in the near future, the Planning Committee intends to disseminate conference information to assist others conducting community-engaged research. In addition, useful tools for investigators involved in community-engaged research are provided on the HRPO website (http://hrpohome.wustl.edu/community_research/cbr.aspx). Contact Sarah Fowler-Dixon at fowlers@wusm.wustl.edu with any questions.

Annual ICTS Bander Program in Business Ethics in Medical Research Lecture
November 3, 2011 - 4:00-5:00pm
(Reception at 3:30pm)
“Partnerships Between Academic Health Centers and Industry: Opportunities, Challenges, and Pitfalls”

Bernard Lo, MD
Professor of Medicine, Medical Director of the Medical Ethics Program, University of California, San Francisco

Conner Auditorium, Farrell Learning & Teaching Center.
Find more information on ICTS website (www.icts.wustl.edu).
RSVP to ICTS@wustl.edu or call 314-362-9829
# Events & Announcements

## ICTS Brown Bag Seminars
**October 26 (Noon-1:00 p.m.)**

"myIRB: Modifications, Attachments, and Other Tips and Tricks for Faster Review"

Amy Carmen and Abby Turner
IRB Review Analysts, Washington University HRPO

## Hold Other Fall Seminar Dates
November 17, December 20

Holden Auditorium, Farrell Learning & Teaching Center, WU Medical Center Campus. Register via HRMS Self Service, Training & Development. Non-WU staff are welcome. Email to ICTS@wustl.edu to register. For more information, call 314-747-8155.

## Clinical Research Training Center (CRTC) Career Development Seminars
**Tuesday, November 8 (2:30-4:00 p.m.)**

**Effective Uses of Imaging in Research**

Dr. Josh Shimony, Assistant Professor of Radiology, will be presenting on strategies for the most efficient use of imaging in translational research including: an overview of the methodologies available at Washington University, examples of what can and cannot be done with different technologies, examples of the limitations of each, and other pearls of wisdom.

Wohl Auditorium, Lower Level Wohl Hospital, WU Medical School Campus. RSVP not required.

## Translational Research Seminar Series

**WU Biologic Therapeutics Center**

(see attached flier for full series list)

**Wednesday, November 9 (3:00 – 4:00 p.m.)**

**“Is AAV Gene Therapy Ready for Prime Time?”**

James M. Wilson, MD, PhD
University of Pennsylvania, Dept of Pathology & Laboratory Medicine, Gene Therapy Program

Eric P. Newman Education Center, Seminar Room B
WU Medical Center Campus, CME credit offered

Co-sponsors: Saint Louis University School of Medicine, WU Department of Molecular Microbiology & Immunology, and the Division of Infectious Diseases

For more information, contact Christy Matteuzzi at mmatteuzzi@radonc.wustl.edu or 314-362-9767

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## ICTS Research Navigator Corner

By Sally Anderson, RN, BSN, CCRC

### Did you know?
Did you know that all the ICTS Cores provide “free” consultation? Because they are subsidized by the CTSA grant, ICTS Cores are able to designate a certain number of hours for consultation services at no charge for ICTS members. The level of subsidized consultation may vary slightly from core to core. For example, the Research Design and Biostatistics Group (RDBG) and the Dissemination and Implementation Core (DIRC) both offer 10 hours of fully subsidized consultation by which an investigator can better develop their research proposal by getting expert advice on study design. When these fully subsidized hours have been exhausted, an investigator can apply for internal ICTS Just-in-Time Funding (JIT) which provides up to $5,000 for one year to utilize ICTS services to support pilot data for submission of a proposal for extramural funding.

To learn more about all the core resources available to you as an ICTS member, visit the ICTS Cores and Resources website icts.wustl.edu where you can find contact information to inquire about subsidized consultation. You may also contact the ICTS Research Navigator at 314-747-8155 or ICTSNavigator@wustl.edu for more information.

### Attention ICTS LINC Members!
The next LINC meetings will take place from 12:30 to 1:30 in BJCIH Room 8A/B on October 28th and November 18th. The Regulatory Support Core (RSC) will present their services in October and the Clinical Research Training Center (CRTC) will discuss the education and training programs for investigators in November. Hope to see you there!

### Tips & Tools from Becker Library

**Open Access @ Washington University: Why Here? Why Now? Why Care?**

The Becker Medical Library invites you to this informational session to get the facts about the Open Access Resolution adopted by the WU Faculty Senate and what it means to your rights as an author.

Speakers include:

- Dr. Susan Dutcher – Professor, Department of Genetics
- Patricia Hart – Associate General Counsel, Washington University
- Paul Schoening, Associate Dean and Director, Becker Medical Library

**Date:** Tuesday, October 25, 2011

**Time:** Noon to 1:00 PM

**Location:** Holden Auditorium, Farrell Learning and Teaching Center

**FOOD AND REFRESHMENTS WILL BE PROVIDED**

For more information, contact Cathy Sarli: sarlic@wustl.edu
Partnerships Between Academic Health Centers and Industry: Opportunities, Challenges, and Pitfalls

Bernard Lo, MD
Professor of Medicine, Medical Director of the Medical Ethics Program, University of California, San Francisco (UCSF)

- Chaired the 2009 Institute of Medicine (IOM) committee that produced the report, “Conflict of Interest in Medical Research, Education, and Practice”

Thursday, November 3, 2011
4:00 - 5:00 PM (Reception in Atrium 3:30 – 4:00 PM)

Connor Auditorium
Farrell Learning and Teaching Center, Washington University School of Medicine, 520 S. Euclid, St. Louis, MO 63110

RSVP requested but not required to 314-362-9829 or icts@wustl.edu

ICTS Partner Institutions Include:
- Washington University – School of Medicine, School of Law, School of Engineering, George Warren Brown School of Social Work, Arts & Sciences
- Saint Louis University – School of Medicine, School of Public Health, Doisy College of Health Sciences, School of Nursing, Albert Gnaegi Center for Health Care Ethics
- St. Louis College of Pharmacy
- University of Missouri at St. Louis College of Nursing
- Southern Illinois University Edwardsville School of Nursing
- BJC Healthcare--Barnes-Jewish Hospital, St. Louis Children’s Hospital, Goldfarb School of Nursing
2011-2012
TRANSLATIONAL RESEARCH SEMINAR SERIES
Eric P. Newman Education Center

08.24.11; MARK A. KAY, M.D., Ph.D, Stanford University School of Medicine
  Director, Program in Human Gene Therapy; Departments of Pediatrics and Genetics;
  “Gene and RNAi Based Therapies”
  Co-Supporter: Digestive Disease Research Core Center; Seminar Room A, 2pm-3pm

09.16.11; JEFFREY SCHLOM, Ph.D., National Cancer Institute, NIH
  Prokstein Oncology Visiting Lectureship on Radiation Oncology
  Laboratory of Tumor Immunology and Biology; Head, Immunotherapeutics Group; Laboratory Chief
  “Therapeutic Cancer Vaccines: Building on Success”
  Co-Supporter: St. Louis College of Pharmacy, Seminar Room A, 10am-11am

11.09.11; JAMES M. WILSON, M.D., Ph.D., University of Pennsylvania
  Department of Pathology & Laboratory Medicine, Gene Therapy Program
  “Is AAV Gene Therapy Ready for Prime Time?”
  Co-Supporter: St. Louis University School of Medicine, Department of Molecular Microbiology &
  Immunology and Division of Infectious Diseases, Seminar Room B, 3pm-4pm

12.07.11; RONALD G. CRYSTAL, M.D., Weill Cornell Medical College
  Chairman, Department of Medicine
  “Cocaine Addiction: The Clinical Dilemma, Biology and Hunt for a Vaccine”
  Co-Supporter: Department of Psychiatry, Seminar Room B, 2pm-3pm

01.25.12; KATHERINE A. HIGH, M.D., The Children’s Hospital of Philadelphia
  Investigator, Howard Hughes Medical Institute; Attending Physician
  “In Vivo Gene Transfer for Genetic Disease: Progress and Challenges”
  Co-Supporters: Department of Pediatrics and Division of Hematology, Seminar Room B, 1pm-2pm

02.22.12; ROBERT J. KREITMAN, M.D., National Cancer Institute; NIH
  Laboratory of Molecular Biology; Head, Clinical Immunotherapy Section; Senior Investigator
  “Hairy Cell Leukemia, Standard and Biologic Approaches”
  Co-Supporter: Siteman Cancer Center, Auditorium, 2pm-3pm

03.21.12; IRA PASTAN, M.D., National Cancer Institute, NIH
  Laboratory of Molecular Biology; Head, Molecular Biology Section; Laboratory Chief,
  “Treatment of B Cell Malignancies and Mesothelioma with Recombinant Immunotoxins”
  Co-Supporter: Department of Surgery, Seminar Room B, 2pm-3pm

*04.25.12; E. ANTONIO CHIOCCA, M.D., Ph.D., The Ohio State University Medical Center
  27th Annual Tolmach Symposium Speaker
  Chair, Department of Neurological Surgery
  “Developing Viral-based Therapies against Brain Tumors”
  Supporter: Department of Radiation Oncology, Auditorium, 2pm-3pm

05.16.12; LOUIS M. WEINER, M.D., Georgetown Lombardi Comprehensive Cancer Center
  Director
  “Systems Approaches to Antibody-based Immunotherapy of Cancer”
  Co-Supporter: Department of Obstetrics & Gynecology/Division of Gynecologic Oncology
  Seminar Room B, 2pm-3pm

CME credit offered with each lecture

*Special lecture supported & hosted solely by the Department of Radiation Oncology

Christy Matteuzzi, Program Coordinator, mmatteuzzi@radonc.wustl.edu, 314.362.9767