HAMLET: A New ICTS Core
By Matthew J. Ellis, MB, BChir, PhD, and Bradley A. Evanoff, MD, MPH

The Human and Mouse Linked Evaluation of Tumors Core (HAMLET) uses human breast tissue xenografting techniques to propagate breast cancers in vivo. The new core is led by Professor Matthew Ellis, MB, BChir, PhD, Director of Medical Oncology at Washington University and Co-Leader of the Breast Cancer Research Program at the Siteman Cancer Center.

The vision of the core is to promote understanding of the biology and genetics of Human Breast Cancer by enabling investigators to study tumor cell lines in vivo, which are genetically similar or nearly identical to the human tumor from which they originated.

The mouse is an easily manageable system and more closely represents the preferred environment of the human tumors, allowing for the hot growth of the tumor soon after it is excised from the human donor. This avoids most of the problems and artifacts of attempted in-vitro cultures and faithfully reproduces the genomic and phenotypic features of aggressive subtypes of breast cancer, making it a valuable research model for preclinical development of biomarkers and imaging techniques, and for assessing novel therapeutic approaches. Whole genome tumor profiling and clinical data linked to HAMLET tumor lines is used to validate the models as better preclinical models of the disease than standard cell line approaches.

This new research core provides the infrastructure for distributing tumor lines and associated genomic, clinical, and pathological data. This approach has already led to exciting results, including a recent paper in Nature (http://www.ncbi.nlm.nih.gov/pubmed/20393555) describing the genomic analyses of four DNA samples from a patient with basal-like breast cancer: peripheral blood, the primary tumor, a brain metastasis, and a xenograft derived from the primary tumor. The differential mutation frequencies and structural variation patterns in metastasis and xenograft compared with the primary tumor indicated that secondary tumors may arise from a minority of cells within the primary tumor. A future

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Dr. Francis S. Collins, NIH Director, Visits the ICTS

NIH Director, Francis S. Collins, MD, PhD, visited the Washington University Medical Center on June 16th and spoke at the dedication ceremony for the BJC Institute of Health at Washington University School of Medicine. While on campus, Dr. Collins met with ICTS leadership and ICTS member investigators to learn about the impact the University’s NIH Clinical and Translational Science award has had over the last three years. Kenneth S. Polonsky, MD, ICTS Director, provided an overview, ICTS core directors outlined programmatic efforts and individual investigators presented notable clinical and translational research accomplishments that have received ICTS support.

Left to Right: Larry J. Shapiro, MD, Victoria J. Fraser, MD, FAACP, Francis S. Collins, MD, PhD, Kenneth S. Polonsky, MD, and Bradley A. Evanoff, MD, MPH
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aim is to extend the HAMLET approach to other tumor types and a discussion on the possibilities of a similar program in pancreatic cancer has been initiated.

Services provided by the HAMLET Core that are currently available to ICTS members include:

- Training in procedures to produce and expand Human Breast Cancer Cells in mice
- Archived Washington University Human in Mouse (WHIM) lines
- Tumor lysates from mice
- Nucleic Acid isolated from Human Tumor Lines (DNA, RNA)
- Paraffin-embedded tissue sections WHIM tumors
- Preclinical experiment consultation

For additional information, see the HAMLET webpage at http://www.icts.wustl.edu/cores/hamlet.aspx or or contact Tom Kitchens at rjkitchen@dom.wustl.edu.

BJHF and ICTS Announce the 3rd Annual Clinical and Translational Research Funding Program

The Barnes-Jewish Hospital Foundation (BJHF) and the ICTS have partnered again to offer a joint Clinical and Translational Research Funding Program. The purpose of this program is to fund high-quality, innovative proposals that have the potential to advance human health. Principal Investigators applying for funding must meet RFA eligibility requirements, including membership in the ICTS. Member eligibility information and registration are available at http://icts.wustl.edu/membertools/registration.aspx.

Applications will be accepted in two categories:

- **Planning Grants**: Provide up to $25,000 direct costs for 1 year to facilitate the planning of a new clinical or translational research project
- **Research Grants**: Provide up to $75,000 direct costs per year for 1-2 years to support a clinical or translational research project

A town hall meeting to provide investigators the opportunity to ask questions of the ICTS pilot program directors (Robert W. Thompson, MD, FACS and Bradley A. Evanoff, MD, MPH) and obtain assistance in developing a competitive proposal will be held on Monday, September 13 from 2:30-3:30 p.m. in the classroom of the ICTS Clinical Research Training Center (CRTC), 2nd Floor, Wohl Clinic Building.

We are implementing online Letter of Intent and proposal submission processes this year to automatically collect key data items.

The full RFA can be accessed on the ICTS website at http://icts.wustl.edu/funding/bjhf_icts_funding_program.aspx. Deadlines include:

- **Town Hall Q&A Meeting**: September 13, 2010 2:30-3:30 p.m. (CRTC Classroom, 2nd Floor, Wohl Clinic)
- **Letter of Intent Due**: September 15, 2010 -- 5:00 p.m. CST
- **Applications Due**: October 18, 2010 -- 5:00 p.m. CST
- **Proposal Peer Review**: December, 2010
- **Award Start Date**: June 1, 2011

Program questions may be addressed to icts@wustl.edu, Jaimee Stagner (ICTS) at 314-362-6325, Becky Evans (ICTS) at 314-362-9386 or Pamela Jayne (BJHF) at 314-286-0349.

Technical questions about electronic submission may be addressed to icts@wustl.edu or Jae Allen (ICTS) at 314-362-9331.
First Grant Recipients of Community/University Health Research Partnership Announced

Edited from the St. Louis Regional Health Commission Press Release of July 21, 2010

The St. Louis Regional Health Commission (RHC) announced the recipients of the first grants from the $1.5 million St. Louis Community/University Health Research Partnership (CUHRP), funded by Washington University, Saint Louis University and BJC HealthCare. The initiative, facilitated by the RHC, focuses research efforts on critical health care problems in the St. Louis community and supports the development of research partnerships between community-based organizations in St. Louis City and County and faculty members at Washington University and Saint Louis University.

The program awarded seven research partnerships, up to $100,000 per project for a one-year period, to investigate, analyze and publicly report findings on an existing health concern within the St. Louis community. Research projects that produce significant findings requiring additional funding for program development and implementation may be eligible for a second year of funding. The 2010 St. Louis Community/University Research Partnership Awardees are:

- Kendra Copanas (Maternal Child and Family Health Coalition) and Pamela Xaverius (SLU)  
  Advancing Interconception Wellness Among At-Risk Post-Partum Women
- Ben Cooper (Nurses for Newborns) and Nancy Weaver (SLU)  
  Promoting Safe Environment and Parenting Practices with Home Visitation Programs
- William Hildebrandt (Queen of Peace Center) and Stephen Wernet (SLU)  
  Evaluation of a Peer Delivered Recovery Management Checkup Model Among Substance Abuse Women
- Joan McGinnis (St. Louis Diabetes Coalition) and Thomas Burroughs (SLU)  
  Self-Management Education and Support for Diabetes Care Improvement: Linking High-Touch and High-Tech Approaches
- Sherrill Jackson (Breakfast Club Inc) and Mary Politi/Matthew Kreuter (WU)  
  Connecting Rarely/Never Screened Women to Mammography Via Kiosks and Navigators
- Hannah Reinhart (Gateway Greening) and Susan Racette (WU)  
  Nourishing an Urban Community II
- Lori Behrens (SIDS Resources) and James Kemp (WU)  
  Assessing the Delivery of Prevention Messages for Infant Mortality

CUHRP was established in 2009 following two community forums hosted by the RHC to address medical/health research issues in the St. Louis community. At these forums, representatives of Washington University and Saint Louis University outlined several new initiatives to improve the interaction between medical/health researchers and the community, including the creation of a new granting program for community-based organizations with initial funding from universities and affiliated hospitals. In the spring of 2011, the RHC will host a forum for the universities to provide an update to the community on the status of their efforts, including the new grants. For more information, visit [www.stlrhc.org](http://www.stlrhc.org) or contact Angela Flemming at 314-446-6454 x1011 or afleming@stlrhc.org.

ICTS Community Engagement ARRA Project: CTSA Sentinel Network Promotes Study Participation

Reprinted from NCRR Reporter (Spring-Summer 2010 • Vol. XXXIV, No. 2)

Less than 1 percent of Americans participate in more than 80,000 clinical trials each year, a possible explanation for the difficulty researchers face in efforts to reach diverse populations.

To help increase health study participation among underrepresented communities, the Washington University Institute of Clinical and Translational Sciences is using ARRA funds for the Sentinel Network for Community-Based Participatory Research project. This project aims to include more women and older adults in health research as well as those from racially and ethnically diverse backgrounds and from rural regions.

Community health workers at the five CTSA Sentinel Network sites — Albert Einstein College of Medicine of Yeshiva University; University of California, Davis; University of Michigan; University of Rochester; and Washington University in St. Louis — are working with partner organizations Patient Advocates in Research and Community-Campus Partnerships for Health to find ways to increase community participation in clinical research. They also strive to educate community members and provide referrals to area health agencies. The Sentinel sites will share results with NCRR, the research community and those who participated in the project.
Clinical Research Training Center Accepting Applications for Career Development Awards

Career Development Funding Opportunities
Applications are currently being accepted for Scholar awards under the ICTS KL2 Mentored Career Development Program. All candidates must have a doctoral-level degree in a discipline that can be applied to clinical research as well as a commitment from their department to allow at least 75% of their time to be devoted to didactic and clinical research training. The KL2 program recently received an ARRA supplement that provides funding to extend the program to scholars engaged in Comparative Effectiveness Research (CER), allowing for two, one-year CER Scholars to be selected in addition to the standard KL2 Scholars.

Deadlines/Start Dates

KL2 CER Scholar Applications (1 year) - Due August 18, 2010 for appointments to begin on September 1, 2010.
KL2 Scholar Applications (2 year minimum) – Due September 15, 2010 for appointments to begin on July 1, 2011.

Background
The ICTS KL2 Mentored Career Development Awards Program arose from the NIH Roadmap KL2 Multidisciplinary Clinical Research Career Development (MCRCD) awarded in 2005 to Victoria J. Fraser, MD, J. William Campbell Professor of Medicine, Co-Director Infectious Diseases Division, and Director of the ICTS Clinical Research Training Center. The MCRCD initiative of the NIH Roadmap has been a key part of the “Reengineering the Clinical Research Enterprise” theme, which seeks to accelerate and strengthen the clinical research process. Specifically, this initiative's intent is to produce new clinical research leaders who can cross the boundaries of their disciplines and draw upon the strengths of other fields.

Before the MCRD K12, this type of multidisciplinary training had not existed at Washington University, but rather each department conducted its own training. In addition, the K12 was unique in that it facilitated collaborative research across five institutions – WU, Saint Louis University School of Public Health, St. Louis College of Pharmacy, University of Missouri at St. Louis College of Nursing, and Southern Illinois University Edwardsville School of Nursing. In 2007, the K12 was rolled into the newly-funded ICTS as the KL2 Mentored Career Development Awards Program. Dr. Fraser continued as the Program Director for the KL2 and was named as the Director of the Clinical Research Training Center (CRTC).

The KL2 program is aimed at fellows, post-doctoral scholars, and junior faculty committed to multidisciplinary clinical and translational research. The program provides generous financial support and benefits that allow the scholar to focus on didactic studies and mentored research to further their career goals and to contribute to clinical and translational science. Mentors are an integral component of the program and KL2 scholars have been fortunate to receive the benefit of their guidance and expertise.

Since the initial cohort of seven scholars in 2006, the program has accepted a total of 35 scholars from a wide variety of disciplines including Neurology, Geriatrics and Nutritional Science, Occupational Therapy, Infectious Diseases, Pulmonary and Critical Care, Emergency Medicine, Cardiology, Obstetrics and Gynecology, Public Health, Pediatrics, Psychiatry, and Surgery. Under the ICTS, the KL2 remains strong and committed to providing excellent and innovative career development to junior investigators.

Submission and Contact Information
For more information and/or to apply for the current funding opportunities, please visit [http://crscholars.wustl.edu](http://crscholars.wustl.edu) or contact Alison Ebers, Program Coordinator, at aebers@dom.wustl.edu or 314-454-8255.

Save the Dates!

October 12 (2:30-4:00 p.m.) KL2 Career Development Seminar “Ethics in Research-Industry Issues” with Nancy Hauserman, JD, Professor of Management and Organizations, Williams Teaching Professor, University of Iowa Wohl Auditorium, Lower-Level, Wohl Hospital Building

October 27 (9:00 a.m. - 4:30 p.m.) -- 5th Annual Research Training Symposium and Poster Session Farrell Learning & Teaching Center
Implementation Research Institute Launched at Washington University

The Center for Mental Health Services Research, within the George Warren Brown School of Social Work, received funding to launch an Implementation Research Institute (IRI) to advance the field of implementation science in mental health services research (NIMH - R25 MH80916-01 A2, 09/09-08/14). Local leadership was provided by Enola Proctor, PhD, PI, and Ross Brownson, PhD, core IRI faculty. Over five years, this $1.2 million grant, augmented by the Veteran’s Administration, will bring to our University a nationally renowned fellowship and over 40 researchers for intensive training in implementation research.

The first cohort of fellows and faculty were at the Brown School for a week in June for a series of workshops and trainings. Sessions were open only to Institute participants, however video recordings of many of the presentations will be posted soon for streaming download from the IRI web site. These resources will augment the tools available to ICTS members through its Dissemination and Implementation Core (DIRC).

Applications for the next cohort of IRI fellows are due January 31, 2011. Potential applicants, from anywhere in the United States are encouraged to see the IRI web site or contact Dr. Proctor at 314-935-5687 or cmhsr@brownschool.wustl.edu.

In the News

- Washington University’s ICTS is the featured institution in the current CTSA national newsletter, which can be found at http://www.ncrr.nih.gov/ctsa-newsletter/currentissue/.
- James M. Dubois, PhD, DSc, ICTS Director of the Center for Clinical Research Ethics (CCRE), and Mäder Endowed Professor and Director of the Bander Center for Medical Business Ethics at Saint Louis University, was the lead author of “Instruction in the Reasonable Conduct of Research: An Inventory of the Programs and Materials within CTSA,” an article published in the May 2010 issue of the journal, CTS-Clinical and Translational Science.
- Learn more about upcoming events, workshops, and intra-CTSA university initiatives at the CTSA web site at http://www.ctsaweb.org/.

Have You Met? Vicky Holtschlag

Vicky Holtschlag is the Clinical Laboratory Manager for the biospecimen division of the ICTS Translational Pathology and Molecular Phenotyping (TPMP) Core, a joint core with the Siteman Tissue Procurement Core. Vicky works with TPMP Director Mark A. Watson, MD, PhD, Associate Professor of Pathology and Immunology, to manage quality control processes and administrative services for the TPMP. During the last ten years, she has been instrumental in helping the tissue bank grow from 5,000 specimens to over 200,000. Currently, she manages the translational pathology lab, supervising 13 laboratory and technical staff.

Vicky grew up in Quincy, Illinois and returns home often to visit family and friends. She began her career at Blessing Hospital in Quincy where she became experienced in basic clinical laboratory methods and a wide-range of testing technologies. She worked nights while attending college to earn a Bachelor of Science in Biology. Subsequently, she continued her education as a medical technologist, specializing in hematology, and earning certification from the American Society for Clinical Pathology. Vicky worked in the Barnes-Jewish Hospital flow cytometry laboratory before joining Washington University in 2000 in her current position as laboratory supervisor for the Laboratory of Translational Pathology, which includes both the TPMP Core and the Siteman Cancer Center Tissue Procurement Core.

The TPMP Core provides biospecimen-related services that include processing, tracking, distributing and storing frozen tissue, viable cells, plasma serum, and other biofluids. Blood specimens are generally processed to frozen serum aliquots and peripheral leukocyte cell pellets. Other histology and molecular services provided include frozen and fixed tissue processing and sectioning, and preparing nucleic acid (DNA and/or RNA) from tissue and blood biospecimens.

Investigators interested in utilizing the TPMP Core to help support biospecimen collection for their clinical studies should arrange to meet with Dr. Watson, Vicky, and other members of the TPMP team to discuss their protocol, steps to obtain IRB approval for specimen collection, and allocation of funding to support core services (which may include ICTS Just-In-Time funding awards). Once initiated, Vicky and the TPMP Core staff ensure that specimens are processed according to protocol, inventoried and tracked by the core’s secure, web-accessible inventory system (wuTissue), and appropriately preserved for future use (if required by the protocol).

To contact Vicky, email her at vholt@wustl.edu or call 314-454-7605. To learn more about how the TPMP Core can assist you with your research project, see the ICTS website or email tbank@pathbox.wustl.edu.
ICTS News
July-August 2010

Events & Announcements

ICTS Brown Bag Seminars
August 26 (Noon–1:00 p.m.)
“My IRB Approval Just Expired—Now What?”
Martha Jones, MA, CIP, Executive Director, Human Research Protection Office
Cindy Kiel, JD, CRA, Assistant Vice Chancellor for Research Services and
Executive Director, Office of Sponsored Services; and
John Michnowicz, Director, Office of Sponsored Research Services

September 28 (Noon–1:00 p.m.)
“Case Studies in Human Subjects Research Ethics”
James M. Dubois, PhD, Dsc, Director of the ICTS Center for Clinical Research Ethics (CCRE), and Mäder Endowed Professor and Director of the Bander Center for Medical Business Ethics at Saint Louis University

Clinical Research Training Center (CRTC) Seminars
September 7 (2:30–4:00 p.m.)
“ICTS Cores – Part I”
Learn about ICTS services from core directors. Cores included in this session are:
• Dissemination & Implementation Research Core (DIRC) - Enola K. Proctor, PhD
• Center for Applied Research Sciences (CARS) - Samuel Klein, MD
• Brain, Behavior and Performance Unit (BBPU) - Joel S. Perlmutter, MD
• Human Imaging Unit (HIU) - Robert C. McKinstry, III, MD, PhD
• Center for Biomedical Informatics (CBMI) - Rakesh Nagarajan, MD, PhD

Wohl Auditorium, Lower Level, Wohl Hospital Building.

September 14 (2:00-4:00 p.m. Lecture with Reception After)
CRTC Career Development Retreat
KeyNote Speaker: David F. Penson, MD, MPH, Director of the Center for Surgical Quality & Outcomes Research, Professor of Urological Surgery, and Professor of Medicine, Vanderbilt University
“Recognizing the Right Faculty Position and the Wrong One: Strategic Decisions to Build Your Career”
Farrell Learning & Teaching Center, WU Medical School Campus.
For more information about any CRTC event, contact Julie Headrick at ICTS@wustl.edu or call 314-362-9829.

Thursday Noon Topics
Hosted by the Office of Faculty Affairs in the School of Medicine

• September 2: The ICTS: An Overview (Sally Anderson, RN, BSN, CCRC, ICTS Research Navigator)
• September 9: ICTS Translational Pathology and Molecular Phenotyping Core (Mark Watson, MD, PhD)
• September 16: ICTS Center for Economic Evaluation of Medicine (Steven M. Kymes, PhD)
• September 23: ICTS Center for Biomedical Informatics (Rakesh Nagarajan, MD, PhD)
Schwarz Auditorium, 1st Floor Maternity Building, Washington University Medical School Campus. For more information, please contact Karen Dodson at dodsonk@wustl.edu.

ICTS Research Navigator Corner

What is Translational Research?
It seems that there are many new buzz words in the world of research, and one question that I am often asked is, “What exactly is translational research?” For many, the term refers to the “bench-to-bedside” concept of harnessing knowledge from basic sciences to produce new drugs, devices, and treatment options for patients. For others such as health services researchers and public health investigators whose studies focus on health care and health as the primary outcome, translational research refers to translating research into practice where the research knowledge actually reaches the populations for whom they are intended.

With that in mind, translational research can be broken down as T1, T2 and T3:

T1 Research: The translation of new understandings of disease mechanisms gained in the laboratory into the development of new methods for diagnosis, therapy, and prevention and their initial testing in proof-of-concept studies in humans including detailed phenotyping and genotyping.

T2 Research: Translation of initial research findings to test initial hypotheses and/or approaches in clinical trials, including development of evidence-based guidelines.

T3 Research: The translation of results from clinical studies into everyday clinical practice and health decision making, and identification and resolution of barriers to implementation of evidence-based guidelines into community practice.

For examples of ICTS funded projects, visit the website at http://icts.wustl.edu/funding.

Contact Sally Anderson, the ICTS Research Navigator, for assistance in navigating through the research process.

Sally Anderson, RN, BSN, CCRC
ICTSNavigator@wustl.edu
(314) 747-8155

Workshops on Research Resources
Wednesday, September 8, 2010 -- 2:00-3:00 p.m.
“An Overview of the Clinical and Translational Science Award & the ICTS”
Sally Anderson, RN, BSN, CCRC, ICTS Research Navigator
Farrell Learning and Teaching Center, Room 214
Please RSVP by emailing ICTS@wustl.edu

Hosted by the Office of Neuroscience Research & the ICTS