

Researcher Profile: Riehle

Continued from page 14

members of the Department of Pathology, to form the Northwest Liver Research Program (NLRP). The program's major goals are to foster a culture of interdisciplinary collaboration between clinicians and scientists in order to develop state-of-the-art techniques to study liver diseases, and maximize bench-to-bedside translation of basic knowledge into clinical care. Key focus areas for NLRP include cancer, regeneration, injury and inflammation, metabolism, and immunology. Some of the questions the group hopes to answer include how to enable earlier detection of liver tumors; how to improve liver regeneration after resection in humans with disease; and how to identify the roles of the immune cells in the liver so as to better harness the body's own immune system to fight cancer.

In addition to monthly meetings to review individual research progress and strategize on collaborative grant proposals, members of the NLRP have begun work to establish a core facility for the isolation, purification, and culture of primary liver cells from resection specimens and unused portions of donated livers. The cell isolation core facility will support the basic research of NLRP investigators and will be expanded in the future to include other gastrointestinal tumors. Once established, the NLRP intends to make the cell isolation core available to faculty in the School of Medicine, as well as other investigators in the region, so as to further enhance collaborative efforts in finding treatment options benefiting each and every patient.

20th Annual Helen & John Schilling Lecture & 2014 Research Day



Timothy R. Billiar, MD

Photo credit: Patricia L. McGiffert
UW Photographer

On Friday, January 31, 2014, the Department of Surgery proudly hosted [Timothy R. Billiar, MD](#) as the 20th Annual Helen & John Schilling Lecturer. Dr. Billiar is the George Vance Foster Endowed Professor and Chair of the Department of Surgery, and Director of the Trauma Research Center at the University of Pittsburgh in Pittsburgh, PA. His laboratory studies the mechanisms leading to the initiation of the inflammatory response and organ injury after trauma. In his talk, "Of Men and Mice: An Iterative Strategy to Dissect the Immune Response to Trauma,"

Dr. Billiar discussed recent findings in humans and experimental models on the mechanisms regulating immune dysfunction following trauma. His talk also provided a framework around which to pursue a complex human disease through an iterative strategy between clinical data and mouse models.

Dr. Billiar graduated *summa cum laude* 1979 from Doane College in Crete, Nebraska with a BA in Natural Sciences. He then received his medical degree from the University of Chicago in 1983 followed by general surgery training and four years of surgical research training at the University of Minnesota and the University of Pittsburgh. In 1992, Dr. Billiar joined the University of Pittsburgh faculty as the Samuel P. Harbison Assistant Professor in the Department of Surgery and in 1999 was named Department Chair.



From left to right: John T. Slattery, PhD, Vice Dean of Research and Graduate Education in the School of Medicine, David R. Flum, MD, MPH, Carlos A. Pellegrini, MD, FACS, FRCSI (Hon.) and Timothy R. Billiar, MD

Photo credit: Patricia L. McGiffert, UW Photographer

Dr. Billiar has a long standing interest in shock and sepsis and as a result of his research he has gained an international reputation for his contributions

(continued on page 16)

Schilling Lecture and Research Day

Continued from page 15

to discoveries on the role of nitric oxide in shock and liver disease. Additionally, his laboratory is credited with initially cloning the human inducible nitric oxide synthase gene. Dr. Billiar holds seven US patents associated with his research. He is currently the Principal Investigator (PI) on a National Institutes of Health (NIH) trauma training grant, Director of a P50 Trauma Center Grant also from the NIH, and PI on an NIH RO1 grant.

Dr. Billiar is widely published, having edited 8 medical texts and authored over 600 peer-reviewed articles. He also sits on eight Editorial Boards, including the Journal of the American College of Surgeons, Molecular Medicine, and the Journal of Perioperative Medicine. Dr. Billiar is active in numerous professional societies and is past president of the Society of University Surgeons, the Nitric Oxide Society, and the Surgical Infection Society. He has previously served on the Surgery, Anesthesia, and Trauma Study Section at NIH and is currently a member of the Residency Review Committee of the Accreditation Council for Graduate Medical Education (ACGME). In 2006 Dr. Billiar was inducted into the Institute of Medicine of the National Academy Sciences, and in 2008 he received the Flance Karl Award for Scientific Achievement from the American Surgical Association. In 2011 he was named University of Pittsburgh Distinguished Professor.

Dr. Billiar's Schilling Lecture was preceded by the annual **Department of Surgery Research Symposium** which included 33 oral presentations and posters by Department of Surgery residents and fellows on a wide variety of basic and clinical research topics. The day also included presentations by three faculty members highlighting their own research as well as related research by colleagues in their divisions:

- [Leah Backhus, MD](#), Assistant Professor in the Division of Cardiothoracic Surgery: "Cardiothoracic Surgery Health Services Research"
- [Thomas Hatsukami, MD](#), Professor in the Division of Vascular Surgery: "p27kip1 and Carotid Plaque Progression"
- [Jason Ko, MD](#), Assistant Professor in the Division of Plastic Surgery: "Targeted Muscle Reinnervation (TMR) As a Treatment for Neuromas: From bedside to bench and... back to bedside"

Both the plenary and poster sessions were adjudicated by Dr. Billiar and Department of Surgery research leadership. Participants were ranked on scientific merit and validity, presentation skills, and preparedness for questions and comments. Congratulations are in order to the top three individuals in each session:

Oral presentations:

1st place – [Jonathan Sham, MD](#) "Novel Antibody-Targeted Zirconium-89 PET Imaging of Hepatocellular Carcinoma"

2nd place – [Ravi Sood, MD](#) "Dermal Fibroblasts from Duroc and Yorkshire Pigs Demonstrate Differences in Response to Injury"

3rd place – [Meera Kotagal, MD](#) "Use and Accuracy of Diagnostic Imaging in the Evaluation of Pediatric Appendicitis: A Report from the SCOAP-CERTAIN Collaborative"

The [Helen and John Schilling Endowed Lectureship](#) was established by the late Helen Schilling to bring distinguished scholars to the Department of Surgery at the University of Washington, and to enhance the Department's commitment to the highest standards of patient care, teaching, research and scholarship. It was Mrs. Schilling's wish that the lectureship be in honor of her husband, John.

Please follow this link to read more about all of the research presentations:


[20th Annual Helen & John Schilling Lecture and 2014 Research Day >>](#)

Honors, Awards and Publications

Faculty



[Dr. Jonathan M. Chen](#), Professor, Division of Cardiothoracic Surgery, and Chief of Pediatric Cardiovascular Surgery is the third individual to hold the Samuel and Althea Stroum Endowed Chair in Pediatric Cardiovascular Surgery at [Seattle Children's Hospital](#).

[Dr. Heather L. Evans](#), Assistant Professor, Division of Trauma, Critical Care and Burn Surgery, was awarded a [Commercialization Gap Fund \(CGF\)](#) grant from the [University of Washington Center for Commercialization \(C4C\)](#) in support of her project entitled "Mobile Post-Operative Wound Evaluator (mPOWER)." 

The UW C4C CGF grants are made possible by funding support from the [University of Washington Royalty Research Fund](#) and the [Washington Research Foundation](#).

Dr. Evans also received an [Institute of Translational Health Sciences \(ITHS\)](#) pilot grant. The pilot grants are intended to provide the funding to develop preliminary findings and test

(continued on page 17)