Scott Thompson APPOINTED INTERIM CHAIR OF THE DEPARTMENT OF PHYSIOLOGY

Dean E. Albert Reece, MD, PhD, MBA, has appointed Scott M. Thompson, PhD, as interim chair of the Department of Physiology. Dr. Thompson, a professor of physiology, has been a member of the department since 1998 and professor since 2004. He replaces Meredith Bond, PhD, who will become the next Dean of the College of Sciences and Health Professions at Cleveland State University.

“Dr. Thompson will bring strong leadership skills and tremendous energy to this role, and he will continue the outstanding work of our two previous chairs, Dr. Meredith Bond and Dr. Mordecai Blaustein,” said Dean Reece. “At the appropriate time, I will launch a search for a permanent chair.”

Dr. Thompson received a BS in Biological Sciences from Cornell University in 1979 and a PhD in Neuroscience from Stanford University in 1986. He then received a NATO Fellowship to study in Switzerland, where he worked first at the Biocenter of the University of Basel from 1986 to 1987 and then the Brain Research Institute at Columbia University. In 1990, Dr. Thompson was recruited to become an assistant professor at the Brain Research Institute in Basel, Switzerland.

He is currently principal investigator on grants from the National Institute of Neurological Disorders and Stroke, the National Institute of Mental Health and the National Institute of General Medical Sciences, with total funding of $3.3 million. Dr. Thompson has authored 75 articles, 15 of which he served as primary author. His articles have appeared in premier peer-reviewed journals including the Journal of Neurophysiology, the Proceedings of the National Academy of Sciences, USA, the Journal of Neuroscience, and Nature. He is an invited lecturer nationally and internationally, and he is actively involved in the training and mentoring of PhD candidates.
Study Finds Higher Mortality Among Hepatitis C Patients

Patients suffering from the hepatitis C virus are at an increased risk of non-liver-related deaths, according to a new study by Samer S. El-Kamary, MBChB, MS, MPH, assistant professor, Departments of Epidemiology & Public Health and Pediatrics. While prior studies have shown that hepatitis C patients die at higher rates from liver failure and liver cancer, this study was one of the first to find a higher risk of non-liver related death compared to those not infected with the virus. The research was just published in the Infection, Disease Society of America's journal, Clinical Infection Diseases, which looked at all causes of mortality in hepatitis C patients.

The study found that such patients are more than twice as likely to die from all causes, not just liver disease. The most common non-liver related deaths seen in the study were due to HIV, cardiovascular disease and diabetes. The findings indicate that doctors should closely monitor hepatitis C patients even without obvious signs of liver disease, according to Dr. El-Kamary.

“We hope this study will reinforce the importance of preventive measures for at-risk patients and improve access to care for those already infected, even in the absence of liver disease,” said Dr. El-Kamary, who also is a research scientist at the Center for Vaccine Development.

“It would be advisable to consider earlier screening of patients if there is any suspicion of infection, and refer those who are infected for treatment as soon as possible. Hepatitis C infection is a marker for other lifestyle factors,” explained Dr. El-Kamary.

People who engage in high-risk behaviors that can cause hepatitis C infection, such as injection drug use, are also at increased overall risk of dying from their high-risk behavior, he says. HIV is another infectious disease that can be contracted from these behaviors and can sometimes be fatal. The study found that there was an association between hepatitis C infection and increased deaths from cardiovascular disease or diabetes regardless of the presence of liver disease. “More research is needed to determine the exact causes, but we believe the findings may be directly related to hepatitis C infection itself,” Dr. El-Kamary said.

“We know from other studies that there is an association between hepatitis C infection and increased risk of heart disease and diabetes, which is independent of liver damage,” he said.

Hepatitis C is an infectious disease of the liver caused by the blood borne hepatitis C virus. It affects almost 150 million people worldwide. Hepatitis C is not routinely tested for in the general population in the United States, and most people infected can go undetected for years. Anywhere from 55 percent to 85 percent of newly infected patients will eventually go on to have chronic viral infection. Of those, 20 percent will develop liver disease, which is complicated by fibrosis, cirrhosis, liver failure and even occasionally liver cancer. In the United States, according to the Third National Health and Nutrition Examination Survey (NHANES III) conducted by the National Center for Health Statistics from 1988 to 1994, about four million people tested positive for hepatitis C. NHANES III is a representative survey of adults living in the United States, for which follow-up mortality data was collected through 2006.

This is attributed in part to the data used by Dr. El-Kamary and his team. Senior author Michelle D. Shardell, PhD, assistant professor, Department of Epidemiology & Public Health, noted that by using the NHANES III mortality data, “Unlike results from previous studies that focused on a narrow patient population, our findings are representative of non-institutionalized adults in the United States.” This study is one of the first to examine mortality data from this large, representative survey of United States adults who had no prior knowledge of their infection.

Institute for Genome Sciences Cracks Genomic Code of German E. Coli Outbreak

A team led by University of Maryland Institute for Genome Sciences researchers has unraveled the genomic code of the E. coli bacteria that caused the deadly outbreak in Germany that began in May 2011. More than 50 people died in the outbreak that sickened thousands in Germany, Sweden and the U.S. The paper, published in the New England Journal of Medicine (NEJM), describes how researchers around the globe worked together to use cutting edge technology to sequence and analyze the genomes of E. coli samples from the outbreak as well as closely related strains in a matter of days. They combined those findings with their knowledge of the biology and evolution of the bacteria to learn more about the outbreak. The analysis occurred rapidly enough to inform the physicians treating people who were infected, and assisted epidemiologists as they raced to trace the source of the pathogen.

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Dr. Rasko and colleagues at the Institute for Genome Sciences analyzed the genomic data using computational tools, some of which were developed at the Institute. The Institute for Genome Sciences team included postdoctoral researchers Jason Sahh, PhD, and Susan Stetzer, PhD, and lab manager Julia Redman. Dr. Rasko's expertise is in the molecular pathogenesis and evolution of E. coli, which helped his team to interpret the massive amount of genomic data involved and learn more about the microbe and how it fits into the overall picture of E. coli.

Scientists found that the genome of the German outbreak E. coli strain was mostly enterohemorrhagic E. coli, a subtype of the bacteria. In carefully examining its genome, they found that the outbreak strain was actually an unusual combination of enterohemorrhagic E. coli and another subtype, known as enteroaggregative E. coli. Researchers also noted that the strain carried a unique set of virulence and antibiotic resistant factors, making it distinct from other strains of the bacteria.

When the outbreak began in May, scientists around the world began examining the E. coli strain as soon as samples were available. Many groups were releasing their findings to the public for free—the data in the current study are also publicly available. This resulted in a type of “crowd-sourcing.” That is, research was being conducted through the collaboration of a large, disparate group around the globe. “Usually, science takes place in relative solitude,” said Dr. Rasko. “This is the first time we’ve seen true ‘open source’ analysis of a microbial genome.”

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Drs. Henry, Fiskum and Njoku Most Recent Endowed Professors

The School of Medicine has awarded three endowed professorships during two special investiture ceremonies. The endowed chair or professorship is one of the highest honors that can be bestowed upon a faculty member and recognizes exceptional performance, reputation and prestige of the faculty member who occupies the position. Endowed chairs or professorships also recognize the vision and inspiration by donors who make such endowments possible. The endowed chair or professorship is one of the many ways to honor the performance, reputation and prestige of the faculty member who occupies the position. Endowed chairs or professorships also recognize the vision and inspiration by donors who make such endowments possible.

Jonathan Bromberg Appointed New Head of the Division of Transplantation

By Larry Roberts

T he Division of Transplantation, which focuses on kidney, pancreas and liver transplantation, includes 10 faculty members who are clinicians and basic scientists. Dr. Bromberg will lead the division in significantly expanding its research program, in part by solidifying collaborations with the Departments of Medicine and Microbiology & Immunology as well as the Institute for Genome Sciences. According to Stephen T. Bartlett, MD, the Peter Angelos Distinguished Professor in Surgery and chair of the Department of Surgery, Genomics is a key area of interest in transplant science.

"It is clear that a strong, multidisciplinary approach is the future of transplantation research, and we want to capitalize on the fantastic resources we have here among the many departments of the School of Medicine," said Dr. Bartlett. "Dr. Bromberg is a versatile clinician and an outstanding investigator with very high quality research. He is the ideal person to strengthen and expand our cutting edge transplantation research, education and clinical efforts."

Benjamin Philosophe, MD, PhD, associate professor, Department of Surgery, led the division since 2004. He has moved on to become the head of the Section of Liver Transplantation and Hepatobiliary Surgery. "We are fortunate to have an already strong Division of Transplantation, thanks to the outstanding leadership of Ben Philosophe," said Dr. Bartlett. "I want to express my gratitude for his exceptional work as division head and I know he will continue to excel in his expanded role in the division."

Dr. Bromberg already is working on research that fosters collaboration between clinicians and basic scientists from various disciplines within the School of Medicine. One area of interest is the microbiota—the microorganisms that live on and inside of the human body. Dr. Bromberg is working with the Institute for Genome Sciences to examine the microorganisms of transplant patients and how those change with different immune responses. He is also collaborating with scientists in the School of Medicine and other research institutions to study gene expression in kidney transplant biopsies.

"The University of Maryland School of Medicine is unique in that it is such a large institution with established programs in a wide array of disciplines," said Dr. Bromberg. "These are the kinds of great resources that create a fantastic atmosphere for growing and moving, changing and accomplishing. I plan to take advantage of that atmosphere in strengthening the division’s clinical, research and educational components." Dr. Bromberg received his MD degree from Harvard Medical School in 1983, and a PhD in immunology the same year from the Harvard Graduate School of Arts and Sciences. He conducted postgraduate research at University College in London before becoming chief resident at the University of Washington Affiliated Hospitals in Seattle. He then completed a fellowship in the Division of Transplantation of the Department of Surgery at the University of Pennsylvania. His research focuses on cellular and molecular immunology in transplantation. Specifically, he studies the details of how T-cells migrate from the lymph node to the transplanted organ. Dr. Bromberg examines how the intricacies of that travel affect the final immune response, determining whether the organ is tolerated or rejected. Dr. Bromberg has published nearly 200 peer-reviewed articles, and has more than $6.35 million in extramural research funding.
### 11th Annual Mini-Med School Schedule

**Date:** Wednesdays, September 7th through October 5th  
**Time:** 6:00–8:00 pm  
**Location:** University of Maryland School of Medicine  
MSTF Auditorium

**Date** | **Topic & Speaker** | **Details**
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Wednesday, 9/7 | Welcome—Dr. E. Albert Reece, Dean | Smoking Cessation—Dr. Kevin Ferentz, Associate Professor of Family of Community Medicine  
Stroke—Dr. Barney Stern, Professor of Neurology

Wednesday, 9/14 | Low Back Pain—Dr. Dan Gelb, Associate Professor of Orthopaedics  
Disorders of the Thyroid—Dr. Richard Horevatin, Assistant Professor of Medicine

Wednesday, 9/21 | Osteoporosis—Dr. Marc Hochberg, Professor of Medicine  
Optimizing Heart Health—Dr. Mike Miller, Professor of Medicine

Wednesday, 9/28 | Pancreatic and Colon Cancers—Dr. Peter Darrow, Associate Professor of Medicine  
Glaucoma & Macular Degeneration—Dr. Lily Lin and Dr. Amir Guerami, Assistant Professors of Ophthalmology & Visual Sciences

Wednesday, 10/5 | Traumatic Brain Injury: From the Ballfield to the Battlefield—Dr. Alan Faden, Professor of Anesthesiology and David S. Brown Professor in Trauma  
Graduation—Dr. E. Albert Reece, Dean

For more information, visit [http://medschool.umd.edu/minimed/](http://medschool.umd.edu/minimed/).