Klassen Research Day
Recovery from Lung Injury: Translational Approaches in 2015

Thursday, January 22, 2015
8:00 am - 12:30 pm

The Richard M. Ross Heart Hospital Auditorium
The Ohio State University Wexner Medical Center
452 West Tenth Avenue, Columbus, Ohio

2015 Klassen Lecture

Jason D. Christie, MD, MSCE
Associate Professor of Medicine and Epidemiology
Director, Center for Translational Lung Biology
Chief, Medical Critical Care Section
Director, Clinical Research, Pulmonary Division
Department of Pulmonary and Critical Care Medicine
University of Pennsylvania
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**2015 Klassen Lecture**

**Jason D. Christie, MD, MSCE**

Dr. Jason Christie is the Section Chief of Medical Critical Care. He is currently Associate Professor of Medicine in the Department of Pulmonary/Critical Care Medicine and Associate Professor of Epidemiology in the Department of Biostatistics and Epidemiology at the University of Pennsylvania. He is a Senior Scholar in the Center for Clinical Epidemiology and Biostatistics, and the Director of Clinical Research in the Pulmonary Division. His career is focused on translational research studies of the risks, pathogenesis, treatment, and outcomes of acute lung injury (ALI) in the transplant and non-transplant human populations. Through leadership of the Center for Translational Lung Biology, Dr. Christie brings together clinicians, bench scientists, epidemiologists, and statisticians to build multidisciplinary research teams. His research integrates new knowledge generated from bench studies with epidemiology approaches in well-phenotyped, large human populations to generate new definitions of human syndromes, improved diagnostics and prognostics, and targeted therapy approaches in advanced lung diseases and critical illness.

Dr. Christie is the founder of the lung transplant outcomes group (LTOG), which is a multicentered cohort study the etiology and pathogenesis of acute lung injury following lung transplantation (termed primary graft dysfunction). This line of research is funded by multiple R01 grants from NHLBI; active LTOG research themes focus on the mechanisms of clinical factors that elevate PGD risk, including donor smoke exposure, recipient obesity and body composition, pulmonary hypertension, alterations in lung microbiome, and autoimmunity to lung collagens. His multidisciplinary lung transplant research focuses on genetics, innate immunity, regulatory T-cells, innate lymphoid cell (ILC) populations in the lung, ischemia reperfusion injury, inflammation, and autoimmunity.

Dr. Christie is actively involved in sepsis and major trauma research, focusing on acute lung injury. He recently formed a multicenter collaboration, called the Trauma ALI SNP Consortium (TASC) and published the first genome wide genetic association studies of ARDS risk and outcomes.

**The Klassen Research Day** is a special annual conference that defines the current state of research and scientific interaction between Cardiac and Thoracic Surgery and The Davis Heart & Lung Research Institute. This represents our continued success in bringing world-class surgeons and scientists to address topics of current interests.

2015 Klassen Research Day will be represented by both clinical and basic science topics. This year’s Klassen speaker, Dr. Jason Christie represents excellence in clinical and basic science. Dr. Christie and faculty from The Ohio State University Wexner Medical Center will deliver insights into novel approaches to lung injury repair, advanced strategies to support patients with end-stage pulmonary failure and improve understanding of the etiologies of end-stage pulmonary disease.
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AGENDA

8:00 am
Welcome and Introduction
Juan Crestanello, MD
Associate Professor and Director, Division of Cardiac Surgery
The Ohio State University

Jianjie Ma, PhD
Professor and Karl P. Klassen Chair in Thoracic Surgery, Divisions of Cardiac and Thoracic Surgery
The Ohio State University

Patrick Ross, Jr., MD, PhD
Professor and Director, Divisions of Thoracic Surgery
The Ohio State University

8:10 am
Lung Transplant and Ex Vivo Perfusion 2015
Amy Pope-Harman, MD
Associate Professor
Division of Pulmonary, Allergy, Critical Care and Sleep Medicine
The Ohio State University

8:40 am
Ambulatory ECMO
Don Hayes, Jr., MD, MS, MEd
Associate Professor, Departments of Pediatrics and Internal Medicine
Medical Director, Advanced Lung Disease Program
Director, Artificial Lung and ECMO Research Laboratory
Nationwide Children’s Hospital and The Ohio State University

9:10 am
Chronic Thromboembolic Pulmonary Hypertension
Namita Sood, MD
Associate Professor and Director, Pulmonary Hypertension Program
Division of Pulmonary, Allergy, Critical Care and Sleep Medicine
The Ohio State University

9:40 am
Pulmonary Hypertension in Congenital Heart Disease
Curt Daniels, MD
Professor and Dottie Dohan Shepard Endowed Chair of Internal Medicine and Pediatrics
Director, Columbus Ohio Adult Congenital Heart Disease (COACH) and Pulmonary Hypertension Program
Nationwide Children’s Hospital and The Ohio State University

10:10 am
Break

10:30 am
Mechanotransduction Acute Lung Injury
Samir Ghadiali, PhD, MS
Associate Professor, Department of Biomedical Engineering
Associate Professor, Division of Pulmonary, Allergy, Critical Care and Sleep Medicine
The Ohio State University

11:00 am
Cell Membrane Repair in Acute Lung Injury: From Bench to Bedside
Jianjie Ma, PhD
Professor and Karl P. Klassen Chair in Thoracic Surgery
Divisions of Cardiac and Thoracic Surgery
Director, Division of Surgical and Biomedical Sciences, Davis Heart & Lung Research Institute
The Ohio State University

11:30 am
Keynote: “Translational Studies of Primary Graft Dysfunction after Lung Transplantation”
Jason Christie, MD, MSCE
Associate Professor of Medicine and Epidemiology
Director, Center for Translational Lung Biology
Chief, Medical Critical Care Section
Director, Clinical Research, Pulmonary Division
Department of Pulmonary and Critical Care Medicine
University of Pennsylvania

12:30 pm
Conclusion
Karl Peter Klassen, artist, superb surgeon, outstanding teacher and innovative researcher, was born in Spat in the Crimea of Russia in 1908. He was one of thirteen children, and in his early years, was stimulated by his familial surrounding of art, literature and education. His family left Russia in 1925 for religious reasons. Dr. Klassen received his B.S. degree in 1931 from Wheaton College in Wheaton, Illinois. He entered the University of Chicago Medical School and while there, became a surgical disciple of such great surgeons as Huggins, Phemister and Dragstedt. He graduated in 1935, and stayed on for surgical training under Dallas Phemister, then chairman of the Department of Surgery.

During this period, Dr. Klassen developed a research interest in surgery and was advised to come to Columbus, Ohio, to train with George M. Curtis. First as a resident surgeon, and then as an associate with Dr. Curtis, Dr. Klassen became a pioneer in the developing field of thoracic surgery. In 1950 he was appointed to the faculty of the Department of Surgery by Dr. Robert M. Zollinger, chairman. Dr. Klassen held that position for 25 years.

Dr. Klassen was the recipient of many awards and honors, including the “Man of the Year” award for outstanding teaching in 1959. He was a founding member of the American Board of Thoracic Surgery.

Dr. Klassen was “Mr. Thoracic Surgery” in central Ohio and trained many local and national surgeons in this specialty. He was an authority on stained glass and was active in many artistic and civic groups. He was the devoted husband of Elvera Hertz Klassen, the father of two children, and an enthusiastic grandfather. Until his death in 1978, Dr. Klassen remained the most outstanding teacher in the Department of Surgery at Ohio State. Dr. Klassen’s memory is honored by the Department’s annual Klassen Research Day.

Jianjie Ma, PhD, is the Professor in the Department of Surgery and the Karl P. Klassen Chair of Thoracic Surgery in the Department of Surgery. He is an OSU Davis Heart Lung Research Institute Investigator and serves on the advisory committee of the Center for Regenerative Medicine and Cell-Based Therapies in the College of Medicine.

Dr. Ma comes to Ohio State from the Robert Wood Johnson Medical School at the University of Medicine and Dentistry of New Jersey (UMDNJ) where he is a university-named professor and acting chair of the Department of Physiology and Biophysics, as well as Chief of the Division of Developmental Medicine and Research. During his time at UMDNJ, Dr. Ma founded the Graduate Program in Physiology and Integrative Biology, which is jointly sponsored by UMDNJ and Rutgers University. He served on the Scientific Advisory Board for the Cancer Institute of New Jersey. In addition, he served on several National Institutes of Health study sections and various editorial boards.

In addition to his faculty appointment with UMDNJ, Dr. Ma also founded his own company, TRIM-edicine Inc., a university spinoff biotechnology company. TRIM-edicine develops novel biopharmaceutical products for the treatment of several important unmet medical needs. One specific therapeutic protein is MG53, which targets diseases involved chronic and acute tissue damage. The other drug is ATAP, which targets apoptosis for cancer treatment.

Dr. Ma is an NIH-funded researcher, prominently and widely published on the topics of muscle physiology, aging, cardiovascular disease, cystic fibrosis, apoptosis and cancer biology. He has authored more than 130 publications and holds 10 patents. He has assembled an international team of collaborators working on translational research. His group maintains close collaboration with pharmaceutical industries for joint development efforts toward translating basic discovery into clinical application.

Dr. Ma received his bachelor’s degree in Physics from Wuhan University in China, and came to the United States through the CUSPEA (China-US Physics Examination Application) program after his undergraduate education. He was chosen to represent the Department of Physiology and Biophysics at the Graduate Student Symposium of Baylor College of Medicine, where he received his PhD in 1989. Dr. Ma went on to become an Instructor of Physiology at Rush Medical College (1989-1991) where he received postdoctoral fellowship and research grants from the Muscular Dystrophy Association, and a University Committee on Research Grant Award. Dr. Ma joined the Department of Physiology and Biophysics at Case Western Reserve University in 1992, and became a tenured Associate Professor in 1997. In 2001, he was recruited to UMDNJ as a university-named professor.

Dr. Ma has trained numerous graduate and postgraduate students, and many of them have become leaders in academia, industry, medicine and law firms. He was an established investigator for the American Heart Association (AHA) and served as advisor for many AHA postdoctoral and scientist development fellows. He is an outstanding mentor and educator, and has coordinated the teaching of both medical and graduate students at Case Western Reserve University as well as the Robert Wood Johnson Medical School. He is also actively involved in teaching and collaboration with the Chinese Academy of Sciences and universities in China.