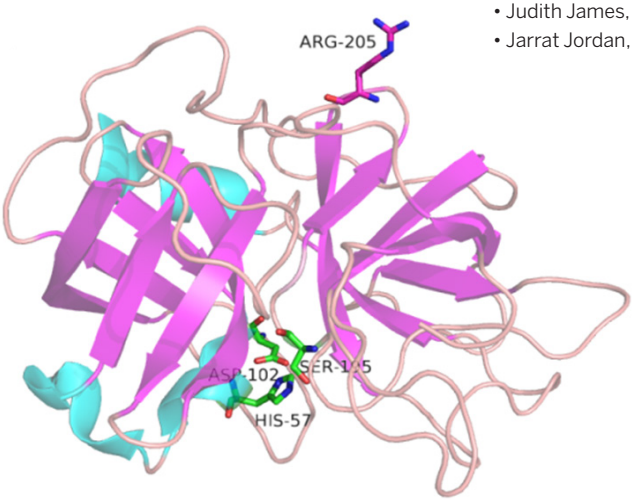
THIRD ANNUAL COLTON CENTER SYMPOSIUM

ADVANCES IN AUTOIMMUNITY

Monday, December 4, 2017 • 12–4 pm
Apella Event Space at Alexandria Center

Hosts:
- Timothy Niewold, MD
- Steven Abramson, MD
- Jill Buyon, MD
- Boris Reizis, PhD

Speakers:
- Dan Kastner, MD, PhD
- John Harley, MD, PhD
- Laurence Morel, PhD
- Mark Shlomchik, MD, PhD
- Judith James, MD, PhD
- Jarrat Jordan, PhD



NYU Langone Health

For additional information:
nyulmc.org/coltoncenter

Sponsored by:
The Judith & Stewart Colton Center for Autoimmunity

Cover photo credit:
Timothy Niewold, MD
Director, Judith and Stewart Colton Center for Autoimmunity
Judith and Stewart Colton Professor of Medicine

We are pleased to welcome you to our third annual Judith and Stewart Colton Symposium on Autoimmunity and recognize the special commitment of Judith and Stewart Colton to foster fundamental discoveries that translate into improved clinical care and health for families living with autoimmune disease.

The Coltons have been generous benefactors of NYU Langone, with ties that date back to the 1960s, when Judith's uncle, a prominent surgeon, established a loan fund for medical students. Some of the couple's previous gifts to the Medical Center have supported asthma research and the research of early-career physician scientists known as the Colton Scholars. The recently established Judith and Stewart Colton Center for Autoimmunity is particularly close to their heart.

The center's researchers are furthering our understanding of immune system functions and how they are disrupted, for example, by gut microbes, so that we may more effectively treat and even prevent diseases like lupus, arthritis, Crohn's disease and multiple sclerosis.

In its third year, the Colton center continues to grow and thrive, with the recruitment of Dr. Timothy Niewold as the Director. He joins the leadership team with Drs. Jill Buyon, Boris Reizis, and Steve Abramson. The pilot grants awarded thus far have generated considerable progress in the field, leading to numerous high impact publications and prestigious external grant awards which accelerate the center's mission to find solutions for autoimmune disease. Thank you for joining us for the Annual Judith and Stewart Colton Symposium on Autoimmunity, I'm sure you will enjoy the inspiring science presented here today.

ADVANCES IN AUTOIMMUNITY SYMPOSIUM
2017 AGENDA

APELLA EVENT SPACE AT ALEXANDRIA CENTER
MONDAY, DECEMBER 4, 2017

INTRODUCTION

12:00-12:10pm **Timothy Niewold, MD**
Judith and Stewart Colton Professor of Medicine and Pathology
Director, Colton Center for Autoimmunity

SCIENTIFIC PRESENTATIONS

12:10-12:45pm **Dan Kastner, MD, PhD**
NIH Distinguished Investigator
Scientific Director, National Human Genome Research Institute (NHGRI)
Autoinflammatory Diseases

12:45-1:20pm **John Harley, MD, PhD**
Professor and Director
David Glass Endowed Chair
Center for Autoimmune Genomics and Etiology (CAGE)
Department of Pediatrics
University of Cincinnati
Environmental Genomics of Lupus and Rheumatoid Arthritis

1:20-1:55pm **Laurence Morel, PhD**
Mary and Bryan Whisenant Professor of Pathology
Vice Chair for Research and Academic Affairs
Department of Pathology, Immunology, and Laboratory Medicine
University of Florida
Metabolic checkpoints in lupus

1:55-2:15pm **Coffee Break**

2:15-2:50pm **Mark Shlomchik, MD, PhD**
UPMC Endowed Professor of Immunology and Chair, Department of Immunology
University of Pittsburgh School of Medicine
How Autoimmunity Gets Started: B, T and TLR Interactions in SLE

2:50-3:25pm **Judith James, MD, PhD**
Vice President of Clinical Affairs
Member and Program Chair
Arthritis & Clinical Immunology Research Program
Lou C. Kerr Endowed Chair in Biomedical Research
Oklahoma Medical Research Foundation
Associate Vice Provost for Clinical and Translational Science
George Lynn Cross Professor of Research
Professor of Medicine, Professor of Pathology
Adjunct Professor of Microbiology and Immunology
Oklahoma University Health Sciences Center
Molecular underpinnings of the clinical transition from benign autoimmunity to overt SLE

3:25-4:00pm **Jarrat Jordan, PhD**
Director, Lupus Biomarkers
The Janssen Pharmaceutical Companies of Johnson & Johnson
Introducing a Novel SLE-Specific IFN-I Inhibitor CNTO 6358: Laying the Groundwork for Precision Medicine in Lupus

RECEPTION

4:00-5:00pm **Reception**

BIOGRAPHICAL INFORMATION OF PRESENTING SCIENTISTS
IN ORDER OF PRESENTATIONS

Dan Kastner, MD, PhD

NIH Distinguished Investigator
Scientific Director, National Human Genome Research Institute (NHGRI)

Dan Kastner obtained his A.B. summa cum laude in philosophy from Princeton University and a Ph.D. and M.D. from Baylor College of Medicine. After completing an Internal Medicine residency and chief residency at Baylor, Dan moved to the NIH in 1985. He is currently the Scientific Director of the Division of Intramural Research of the National Human Genome Research Institute (NHGRI). For the last 27 years his laboratory has studied the genetic basis of several inherited disorders of inflammation, defining a key role for IL-1 in the pathogenesis of a number of these diseases and establishing IL-1 inhibitors as effective therapy. Dan's group also proposed the now widely accepted concept of autoinflammatory disease to denote disorders of innate immunity. His group currently utilizes genomic approaches, including exome sequencing and genome-wide association, to expand our understanding of these illnesses. Dan has won a number of awards and honors, including election to the National Academy of Sciences in 2010 and to the National Academy of Medicine in 2012.

John Harley, MD, PhD

Professor and Director
David Glass Endowed Chair
Center for Autoimmune Genomics and Etiology (CAGE)
Department of Pediatrics
University of Cincinnati
Cincinnati Children's Hospital Medical Center

John Harley, MD, PhD, received his MD and PhD from the University of Pennsylvania. He is Professor of Pediatrics and Medicine at the University of Cincinnati where he holds the David Glass Endowed Chair and is the Director of the Center for Autoimmune Genomics and Etiology (CAGE) at the Cincinnati Children's Hospital Medical Center.

Dr. Harley's research has focused on the etiology and pathogenesis of systemic lupus erythematosus (SLE). In his early career this took the form of the immunochemistry of the autoimmune response, leading to the identification of early, perhaps, the first structures to become autoimmune, which show immune cross-reactivity with Epstein-Barr virus (EBV) nuclear antigen 1 (EBNA1). A rate of EBV infection was then found in children with lupus (OR~50). Using stored samples he and his colleagues, especially Judith James, have shown that autoimmunity precedes lupus clinical disease by years. The pursuit of the origin of lupus led to genetic association studies, which have produced over 100 lupus risk loci. Recent work has shown that the human DNA bound indirectly by Epstein-Barr virus (EBV) nuclear antigen 2 in EBV transformed B cells is enriched in the risk loci of lupus reinforces the impression that EBV may be important in the pathogenesis of lupus, an observation that is extended to rheumatoid arthritis and a few other autoimmune diseases. These findings will be the subject of his lecture.

Laurence Morel, PhD

Mary and Bryan Whisenant Professor of Pathology
Vice Chair for Research and Academic Affairs
Department of Pathology, Immunology, and Laboratory Medicine
University of Florida

Laurence Morel obtained her PhD from the University of Aix-Marseille (France). She trained as a postdoctoral fellow with Dr. Ward Wakeland at the University of Florida (USA) in immunogenetics, where she started to work on the genetic basis of lupus in mouse models. She was appointed with a faculty position in the department of Pathology, Immunology, and Laboratory Medicine at UF in 1999, where she is currently a tenured professor and the Vice Chair for Research and Academic Affairs.

Her research focuses on the mechanisms of lupus pathogenesis using mouse models as well as patients' samples. In addition to genetic studies, her studies now extend to immune metabolism, the role of the microbiome, and the contribution of mesenchymal stem cells to lupus pathogenesis. Her long-term goal is to identify genes and pathways responsible for lupus susceptibility, to characterize their contribution to autoimmune immunopathology, and to translate these findings into therapeutic targets.

Mark Shlomchik, MD, PhD

UPMC Endowed Professor of Immunology and Chair, Department of Immunology
University of Pittsburgh School of Medicine

Mark Shlomchik, MD, PhD received his undergraduate degree in biology at Harvard College, and received his MD and PhD degree in Immunology from the University of Pennsylvania in 1989. He completed his residency in pathology and laboratory medicine at the Hospital of the University of Pennsylvania. After a postdoctoral fellowship at the Fox Chase Cancer Center he joined the Department of Laboratory Medicine at Yale University School of Medicine in 1993. There he became full professor with tenure and was Associate Director of the Transfusion Medicine service until he moved to the University of Pittsburgh in July of 2013, where he currently is Chair of the Department of Immunology and UPMC Endowed Professor of Immunology.

Dr. Shlomchik's research program focuses on the B cell immune response and how the immune system is activated in systemic autoimmunity pathogenesis. He has made seminal contributions to the mechanisms and origins of long-lived humoral immunity and the germinal center process that leads to it. In addition, he has elucidated the origins of autoantibodies, delineated the importance of B cells in autoimmunity, and identified the role of nucleic acid-specific innate immune receptors (such as Toll-like Receptors) in both driving and restraining systemic autoimmunity. Currently he is investigating the roles of myeloid cells and T cells in systemic autoimmunity. He recently received an NIH MERIT award supporting his autoimmunity research. He has also had a longstanding collaboration with his brother, Warren, in the study of graft vs. host disease in which he has contributed to the understanding that only naïve and not memory T cells are clinically pathogenic in the disease.

Judith James, MD, PhD

Vice President of Clinical Affairs
Member and Program Chair
Arthritis & Clinical Immunology Research Program
Lou C. Kerr Endowed Chair in Biomedical Research
Oklahoma Medical Research Foundation
Associate Vice Provost for Clinical and Translational Science
George Lynn Cross Professor of Research
Professor of Medicine, Professor of Pathology
Adjunct Professor of Microbiology and Immunology
Oklahoma University Health Sciences Center

Judith James, MD, PhD, is Vice President of Clinical Affairs, Chair of the Arthritis and Clinical Immunology Program and holds the Lou Kerr Chair in Biomedical Research at the Oklahoma Medical Research Foundation. Dr. James is also the Associate Vice Provost for Clinical and Translational Science, Professor of Medicine and Pathology, and George Lynn Cross Research Professor at the University of Oklahoma Health Sciences Center.

Dr. James' research interests focus on understanding the etiology and pathogenesis of systemic lupus erythematosus and related disorders, the evolution and pathogenic mechanisms of autoantibodies in systemic rheumatic disease, and the interplay of genetic risk and environmental responses in systemic autoimmunity. Her work has contributed to understanding how autoimmune diseases start and to the concept of humoral epitope spreading. She has published over 260 articles. Dr. James has received the Presidential Early Career Award for Scientists and Engineers and the Dubois' Award from the American College of Rheumatology. She recently served as the chair of the NIAMS Board of Scientific Counselors with the National Institutes of Health and as the elected Secretary-Treasurer of the American Society of Clinical Investigation. She has served on several other NIH advisory committees and chaired an NIH Roundtable regarding preclinical autoimmunity.

Jarrat Jordan, PhD

Director, Lupus Biomarkers
The Janssen Pharmaceutical Companies of Johnson & Johnson

Jarrat is a scientific leader in the pharmaceutical industry. He has held roles of increasing responsibility over the last 13 years across a variety of projects in Immunology, Infectious Disease, Toxicology, and Biomarkers at Janssen. Jarrat's research has focused on Systemic Lupus Erythematosus since 2009, and has since initiated many global biomarker profiling studies to better understand the molecular underpinnings of disease heterogeneity. In 2013, Jarrat was the research lead and a founding biologist for a Johnson & Johnson internal venture. In this role, he helped to successfully progress a novel lupus compound from preclinical development to a proof of mechanism trial. Jarrat has recently joined the Immunology Biomarkers team as Director of Lupus Biomarkers where he supports the clinical development of all lupus assets across the early and late development portfolio. Jarrat's innovative research has earned him three Johnson & Johnson R&D Innovation Awards, two Philip B. Hofmann Research Scientist Awards, along with several patents and peer-reviewed publications in the fields of Microbiology, Innate Immunity and Toxicology. Jarrat received his PhD in Microbiology from the University of Georgia at Athens where he studied bacterial pathogenesis and host-pathogen interactions.

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