CHRONIC GVHD

Intersecting Aspects in Systemic and Ocular Disease

OCTOBER 27 – 28, 2017

UIC Department of Ophthalmology and Visual Sciences

VENUE: COM WEST TOWER, 2ND FLOOR, 1853 W. POLK STREET, CHICAGO, IL 60612
The Department of Ophthalmology and Visual Sciences in collaboration with Division of Hematology/Oncology is delighted to sponsor the Chronic GVHD: Intersecting Aspects in Systemic and Ocular Surface Disease meeting. This meeting brings together clinicians, researchers and educators from all Chicago area Ophthalmology Departments and Hematology/Oncology programs as well as internationally renowned experts, for presentations and discussion of new advances and changing clinical practice in chronic GVHD.

Our Department is dedicated to developing innovative research and clinical programs, which will impact the lives of patients with blinding and debilitating disease. The Chronic GVHD: Intersecting Aspects in Systemic and Ocular Surface Disease meeting and the NIH funded clinical trial in ocular GVHD reflect this commitment. We have established the ocular GVHD and Dry Eye Clinic and the Ophthalmic Clinical Trials and Translational Center in our Department, which provide services and infrastructure to these GVHD programs and numerous other clinical and translational programs.

Please join us on the University of Illinois at Chicago campus on October 28th, 2017 for this exciting meeting.

Mark I. Rosenblatt, MD, PhD, MBA
Professor and Head, Department of Ophthalmology & Visual Sciences
Director, Corneal Regenerative Medicine Laboratory
University of Illinois at Chicago

Sandeep Jain, MD
Associate Professor
Director, Ocular GVHD & Dry Eye Clinic
Department of Ophthalmology & Visual Sciences
University of Illinois at Chicago
Principal Investigator NEI/NIH Grant R13 EY027189
“The Chicago Chronic GVHD Meeting”

Damiano Rondelli, MD
Michael Reese Professor of Hematology
Division Chief, Hematology/Oncology
Director of Blood & Marrow Transplant
Director, Stem Cell Transplantation Program
Department of Medicine
University of Illinois at Chicago

From the Deans...

Dear Colleagues, we welcome your participation in The Chronic GVHD: Intersecting Aspects in Systemic and Ocular Disease Meeting at the renovated state-of-the-art facilities of the College of Medicine (COM) Learning Center.

The University of Illinois COM boasts several thriving biomedical discovery programs in basic science and clinical departments. Our research goals are centered on fostering interdisciplinary research collaboration and translating our strengths in biomedical and behavioral discoveries and the University’s strengths in technological innovations into clinical applications, including addressing unmet medical needs. A key initiative of the UI COM is to foster clinically relevant translational research by NIH funded clinician scientists. With the help of all the GVHD symposium participants, Dr. Sandeep Jain’s research on ocular GVHD is a prime example of the ongoing translational research at the Ophthalmology Department and College of Medicine.

This meeting will address a difficulty that is intrinsic in the area of dry eye and ocular surface disease due to chronic ocular GVHD - the difficulty in disseminating information and developing new management strategies in a fast-changing discipline (science and clinical treatment of ocular GVHD) where the stakeholders come from multiple disparate pools (clinician, clinical trainees and researchers in ophthalmology, hematology, oncology and immunology). The meeting will facilitate exchange of ideas across multiple clinical centers in the Chicago metropolitan region, and between the Chicago region and scientists and clinicians elsewhere in the country.

We look forward to seeing you at this interdisciplinary meeting on Chronic GVHD: Intersecting Aspects in Systemic and Ocular Disease.

Dimitri Azar, MD, MBA
Executive Dean, College of Medicine
Professor of Ophthalmology, Bioengineering and Pharmacology
B.A. Field Chair in Ophthalmologic Research
University of Illinois at Chicago

Charles E. Ray, MD, PhD, MS
Acting Dean, College of Medicine
Head, Department of Radiology
University of Illinois at Chicago

Message from the Department Head...

PROGRAM DIRECTORS

Sandeep Jain, MD
Associate Professor
Director, Ocular GVHD & Dry Eye Clinic
Department of Ophthalmology & Visual Sciences
University of Illinois at Chicago
Principal Investigator NEI/NIH Grant R13 EY027189
“The Chicago Chronic GVHD Meeting”

Damiano Rondelli, MD
Michael Reese Professor of Hematology
Division Chief, Hematology/Oncology
Director of Blood & Marrow Transplant
Director, Stem Cell Transplantation Program
Department of Medicine
University of Illinois at Chicago

Funding for this conference was made possible (in part) by 1 R13 EY027189-01 from the National Eye Institute [Principal Investigator: Sandeep Jain, MD]. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention by trade names, commercial practices, or organizations imply endorsement by the U.S. Government.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Topic</th>
<th>Panelists</th>
</tr>
</thead>
</table>
| 7:30 - 8:00am | Introductions                                             |                                                                      | 8:00 - 8:05am Welcome by Dean of UIC College of Medicine  
8:05 - 8:10am Program Overview by Meeting Directors | Charles Ray, MD, PhD, MS  
Sandeep Jain, MD  
Damiano Rondelli, MD |
| 8:10 - 12:30pm| Intersecting Basic Aspects – Session I                   |                                                                      | 8:10 - 8:40am Chronic GVHD: NIH Classification and Beyond  
8:40 - 9:00am Ocular GVHD: Diagnostic & Classification Criteria  
9:00 - 9:30am Immunology of Chronic GVHD  
9:30 – 9:50am Immunology of Ocular Surface Disease | Madan Jagasia, MBBS, MS  
Yoko Ogawa, MD  
Frances Hakim, PhD  
Jerry Niederkorn, PhD |
| 10:25 - 11:45am| Intersecting Basic Aspects – Session II                  |                                                                      | 10:25 - 10:55am Systemic GVHD: Pathophysiological Basis  
10:55 - 11:15am Ocular GVHD: Pathophysiological Basis  
11:15 – 11:45pm Cutaneous GVHD: Pathophysiological Basis | Bruce Blazar, MD  
Victor Perez, MD  
Edward W. Cowen, MD, MHSc |
| 1:00 – 2:30pm | Intersecting Clinical Aspects                           |                                                                      | 1:00 – 1:30pm New Therapies for Chronic GVHD  
1:30 – 2:00pm Medical Management of Ocular GVHD  
2:00 – 2:30pm Outcomes Assessment in Chronic GVHD | Steven Z. Pavletic, MD, MS  
Reza Dana, MD, MPH, MSc  
Stephanie Lee, MD, MPH |
| 3:00 – 4:50pm | Biomarkers and Microbiome                               |                                                                      | 3:00 – 3:30pm Chronic GVHD: Biomarkers  
3:30 – 3:55pm Ocular GVHD: Biomarkers  
3:55 – 4:25pm The Microbiome and GVHD  
4:25 – 4:50pm The Microbiome and Ocular Surface Disease | Sophie Paczesny, MD, PhD  
Michael Stern, MD, PhD  
Pavan Reddy, MD  
Valery Shestopalov, PhD |
| 5:20 – 6:00pm | Chronic GVHD Management in the Chicago Area: Panel Discussion |                                                        | Hemanatology / Oncology Panelists  
Ophthalmology Panelists                                          | Surendra Basti, MD – Northwestern  
Charles Bouchard, MD – Loyola  
Asim Farooq, MD, MPH – U of C  
Anjali Tannan, MD – Rush  
Suri Dwarkananthan, MD – Cook County  
Ali Djallitian, MD – UIC  
John Galvin, MD, MPH- UIC  
Jayesh Mehta, MD – Northwestern  
Patrick Stiff, MD – Loyola  
Sunita Nathan, MD – Rush  
Satya Kosuri, MD – U of C | Damiano Rondelli, MD & Sandeep Jain, MD |
| 6:00 – 7:00pm | Emerging Research Aspects                                |                                                                      | 6:00 – 6:20pm Neutrophils in Chronic Systemic Inflammation  
6:20 – 6:40pm Neutrophils and NETs in Chronic ocular GVHD  
6:40 – 7:00pm The role of NET-Associated Proteins in Alloimmunity | J. Edwin Blalock, PhD  
Sandeep Jain, MD  
Jeffery Molidrem, MD |
## Satellite Session - Friday, October 27, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 - 7:00pm</td>
<td>Cocktail Hour</td>
</tr>
<tr>
<td>7:00 - 7:05pm</td>
<td>Welcome by the Executive Dean UIC College of Medicine - Dimitri Azar, MD, MBA</td>
</tr>
<tr>
<td>7:00 - 8:00pm</td>
<td>Dinner</td>
</tr>
<tr>
<td>8:00 - 8:30pm</td>
<td>Emerging Research Aspects – Session I  Moderator: Stefanie Sarantopoulos, MD, PhD</td>
</tr>
<tr>
<td>8:00 - 8:10pm</td>
<td>JAK2/STAT3 in Pathogenesis and Prevention of GVHD</td>
</tr>
<tr>
<td></td>
<td>Brian Betts, MD</td>
</tr>
<tr>
<td>8:10 - 8:20pm</td>
<td>Ocular Surface Disease and Commensal Microbiota</td>
</tr>
<tr>
<td></td>
<td>Cintia De Paiva, MD, PhD</td>
</tr>
<tr>
<td>8:20 - 8:30pm</td>
<td>Stem Cell Transplant of Pediatric Solid Tumors</td>
</tr>
<tr>
<td></td>
<td>Christian Capitini, MD</td>
</tr>
<tr>
<td>8:30 – 8:45pm</td>
<td>Dessert and Coffee</td>
</tr>
<tr>
<td>8:45 - 9:35pm</td>
<td>Emerging Research Aspects – Session II  Moderator: Marie Bleakley, MD, PhD, MMsc</td>
</tr>
<tr>
<td>8:45 - 8:55pm</td>
<td>Regulation of Intestinal Stem Cell Compartment</td>
</tr>
<tr>
<td></td>
<td>Alan Hanash, MD, PhD</td>
</tr>
<tr>
<td>8:55 - 9:05pm</td>
<td>Keratoconjunctivitis Sicca: Spectrum of Inflammatory Dry Eye</td>
</tr>
<tr>
<td></td>
<td>John A Gonzales, MD</td>
</tr>
<tr>
<td>9:05 – 9:15pm</td>
<td>T-Cell Monitoring and Immunotherapy</td>
</tr>
<tr>
<td></td>
<td>Everett Meyer, MD, PhD</td>
</tr>
<tr>
<td>9:15 – 9:25pm</td>
<td>Ocular Surface Microbiome in Ophthalmic Disease</td>
</tr>
<tr>
<td></td>
<td>Cecilia Lee, MD</td>
</tr>
<tr>
<td>9:25 – 9:35pm</td>
<td>T-Cell Metabolism during GVHD</td>
</tr>
<tr>
<td></td>
<td>Craig Byersdorfer, MD, PhD</td>
</tr>
<tr>
<td>9:35 – 9:45pm</td>
<td>Immunobiology of Oral GVHD</td>
</tr>
<tr>
<td></td>
<td>Jacqueline Mays, DDS, MHS,PhD</td>
</tr>
<tr>
<td>9:45 – 10:00pm</td>
<td>Closing Remarks: Sandeep Jain, MD</td>
</tr>
</tbody>
</table>
MADAN JAGASIA, MBBS, MS  |  Vanderbilt University  Professor of Medicine

Madan Jagasia, MBBS, MS is Professor of Medicine, Chief of Section of Hematology-Stem Cell Transplant and the Director of Outpatient Transplant Program at the Vanderbilt-Ingram Cancer Center. He is the co-leader of Translational Research and Interventional Oncology (TRIO) research program at Vanderbilt-Ingram Cancer Center. He specializes in stem cell transplant for hematological malignancies (leukemia, lymphoma, Myeloma, MDS) and bone marrow failure disorders. His research interest is graft-versus-host disease, an immune complication after a donor stem cell transplant. He established the long term transplant clinic (LTTC) at Vanderbilt. Dr. Jagasia has authored and co-authored more than 100 research articles in peer reviewed-journals. He is a member of the GVHD and Leukemia working committees for the Center of International Blood and Marrow Transplant Center and the steering committee for the NIH 2015 Consensus Criteria for Chronic GVHD.

YOKO OGAWA, MD  |  Keio University School of Medicine  Project Associate Professor

Yoko Ogawa, MD is Project Associate Professor in the Department of Ophthalmology at Keio University School of Medicine. Dr. Ogawa completed her residency and research fellowship at Keio University. As a physician-scientist, Dr. Ogawa is a passionate investigator of Dry Eye and chronic ocular Graft-Versus-Host Disease (oGVHD) in the clinic and the lab. She has published extensively on the pathophysiology and clinical manifestations of ocular GVHD and currently is leading the International Chronic Ocular Graft-Versus-Host Disease Consensus Group. She is the lead author on the paper proposing consensus group diagnostic criteria on chronic ocular GVHD. Dr. Ogawa has won several awards in Japan and abroad, and most recently received the best paper award in her department at Keio University.

FRANCES HAKIM, PhD  |  National Cancer Institute  Senior Research Physician

Frances Hakim, PhD is an Associate Scientist and Head of the Preclinical Development and Clinical Monitoring Facility within Experimental Transplantation and Immunology Branch of the National Cancer Institute. This core facility provides translational support for implementing protocols involving adoptive T cell immunotherapy, and supports allogeneic hematopoietic stem cell transplant protocols through biospecimen archiving and monitoring of cellular and molecular endpoints. Her research has focused on immune reconstitution after transplant and on the immunologic mechanisms underlying the development of chronic graft versus host disease (CGVHD). Her laboratory has characterized cell populations in CGVHD patient blood and tissues through multi-parameter flow cytometry, immunohistochemistry, plasma ELISAs, and multiplex RNA assays of gene expression. Based on these studies she has proposed a model that CGVHD results from Interferon (IFN)-driven inflammatory processes initiated in the tissues through response to activation of the innate immune system.

JERRY NIEDERKORN, PhD  |  UT Southwestern Medical Center  Professor and Vice Chair

Jerry Niederkorn, PhD is Professor and Vice Chair of Research in the Department of Ophthalmology at UT Southwestern Medical Center in Dallas, Texas. He has an active immunology research program and mentors Ph.D. students who are engaged in eye research. Dr. Niederkorn’s research activities have focused on the immunology of corneal transplantation, the role of the immune system in controlling the growth and metastasis of intraocular melanoma, vaccination studies on Acanthamoeba keratitis, and immune regulation in the eye.

BRUCE BLAZAR, MD  |  University of Minnesota  Regents Professor of Pediatrics

Bruce Blazar, MD is a Regents Professor of Pediatrics in the Division of Blood and Marrow Transplantation at the University of Minnesota. Dr. Blazar is a member of the National Academy of Medicine, Association of American Physicians, American Society of Clinical Investigation, Society of Pediatric Research, and fellow of the American Association for the Advancement of Sciences. He has served as past Chair of the National Institutes of Health Cancer Immunopathology and Immunotherapy Study Section, and as a past member of the Immune Tolerance Network Executive Committee, Food and Drug Administration Biological Response Modifiers Advisory Committee. Dr. Blazar is the past recipient of an NIH MERIT Award, Ernest Beutler Prize from the American Society of Hematology, and is the principal investigator of several NIH funded studies focusing on BMT immunological studies. Dr. Blazar is the author of more than 680 manuscripts, 635 of which were peer-reviewed publications.

VICTOR PEREZ, MD  |  Duke University  Professor of Ophthalmology

Victor Perez, MD is a Professor of Ophthalmology at Duke University and is the Director of the Ocular Immunology Center. He graduated from the University of Puerto Rico School of Medicine and trained in the Ophthalmology residency program at the Massachusetts Eye and Ear Infirmary, Harvard Medical School followed by fellowships in Corneal and External Diseases and Uveitis at Harvard. He is a National Eye Institute funded clinician scientist. His research is focused on Innate and Adaptive Immunological Responses in High-Risk Corneal Transplantation and Anterior Segment Immunology. Dr. Perez and his colleagues use a mouse model of corneal transplantation and Ocular GVHD that allows for translational research relevant to patients with penetrating keratoplasty and ocular GVHD. He was recently awarded an NEI R01 grant to study Immunological Aspects of Ocular GVHD.
SENIOR CLINICIAN SCIENTISTS AND RESEARCHERS

EDWARD W. COWEN, MD, MHSC | National Institute of Arthritis and Skin Disease  Head of Dermatology Consultation Service

Edward W. Cowen, MD, MHSC is a Senior Clinician and Head of the Dermatology Consultation Service and Acting Chief of the Dermatology Branch at the National Institute of Arthritis and Musculoskeletal and Skin Disease, NIH. He is internationally recognized in the diagnosis and management of cutaneous graft-versus-host disease (GVHD). As Head of the Dermatology Consultation Service, Dr. Cowen also specializes in the evaluation of rare and challenging dermatologic syndromes and adverse reactions to novel therapeutic agents. Dr. Cowen expertise is in cutaneous graft-versus-host disease, autoinflammatory skin disease, cancer-related genodermatoses, adverse drug reactions and primary immunodeficiency.

STEVEN Z. PAVLETIC, MD, MS | National Cancer Institute  Professor and Senior Clinician of Microbiology & Immunology

Steven Z. Pavletic, MD, MS is a Senior Clinician at the National Cancer Institute, Center for Cancer Research, NIH, Bethesda Maryland. Until October 2002, Dr. Pavletic served as the director of the Allogeneic Stem Cell Transplantation Program at University of Nebraska Medical Center, Omaha. In 2002, Dr. Pavletic received an appointment at the National Cancer Institute (NCI). He is the Head of the Graft-versus-Host and Autoimmunity Section in the Experimental Transplantation and Immunology Branch. In October 2006, Dr. Pavletic received the NCI Director’s award for his achievements in developing national and international consensus guidelines for clinical trials in chronic GVHD. He directs the NIH chronic GVHD study group and spearheaded and chaired the 2005 and 2014 NIH chronic GVHD Consensus Conferences.

REZA DANA, MD, MPH, MSC | Harvard Medical School  Claes H. Dohlman Chair in Ophthalmology

Reza Dana, MD, MPH, MSc, holds the Claes H. Dohlman Chair in Ophthalmology at Harvard Medical School where he is Vice Chairman and Associate Chief of Ophthalmology for Academic Programs. He is Director of the Cornea Service at Massachusetts Eye and Ear, Senior Scientist and W Clement Stone Scholar at the Schepens Eye Research Institute/Mass Eye and Ear, and a faculty member of the Immunology graduate program (Committee on Immunology) at Harvard Medical School. He is an expert in cornea and ocular immunology. His work focuses on the molecular and cellular mechanisms of ocular inflammation with applications in autoimmunity, transplantation, dry eye disease, stem cells, angiogenesis, and bioengineering. A “Gold Fellow” of ARVO, he has authored over 320 peer-reviewed articles and over 120 reviews and book chapters. Along with his basic laboratory investigations, he leads a translational research program at Mass. Eye and Ear that has received 10 IND permits from the US FDA in the past decade.

STEPHANIE LEE, MD, PHD | University of Washington  Professor of Medicine

Stephanie Lee, MD, MPH is a Professor of Medicine at the University of Washington and Member at Fred Hutchinson Cancer Research Center. Dr. Lee’s research interests include outcomes and health services research, focusing on allogeneic hematopoietic cell transplantation. She has a special interest in studies of quality of life, costs, and late effects, particularly chronic graft-versus-host disease. Her research program is funded by the National Cancer Institute and she has published more than 300 papers in her research field. Her clinical interests include all types of allogeneic hematopoietic cell transplants and long-term follow-up of survivors.

SOPHIE PACZESNY, MD, PHD | Indiana University School of Medicine  Professor of Pediatrics and Immunology

Sophie Paczesny, MD, PhD is a tenured Professor of Pediatrics and Immunology at the Indiana University School of Medicine. Dr. Paczesny leads the Blood and Marrow Transplantation Program on acute graft-versus-host disease (GVHD) biomarker discovery and validation research. With her responsibilities at Indiana University and affiliations with the Simon Cancer Center, Wells Center for Pediatric Research, Department of Pediatrics, and Department of Immunology, she is pursuing her research of discovery and validation of biomarkers of complications post-transplantation as well as bring new targeted therapies to the clinic and explore novel pathways in GVHD.
MICHAEL STERN, PHD | Baylor College of Medicine  Co-Director of Ocular Immunology

Michael E. Stern, PhD, is the Co-director of the Ocular Immunology at IOBA (University of Valladolid) and Adjunct Associate Professor at Baylor College of Medicine. He has received the Diaz-Caneja Award and given the Aware Lecture at the International Ocular Surface Society. Dr. Stern has authored over 100 publications, 300 abstracts and several book chapters. Additionally, along with Dr. Stephen Pflugfelder and Dr. Roger Beuerman, he published a book: Dry Eye and Ocular Surface Disorders (2004). He serves on the editorial boards of IOVS and The Ocular Surface and is a reviewer for multiple journals. At Allergan, he led an effort in elucidating the pathophysiology of Dry Eye. This laboratory was key in defining this disease as an immune based inflammation of the Lacrimal Functional Unit. Further research defined the role of T-helper cells, T-regulatory cells, Dendritic Cells and B-cells in the initiation and maintenance of this chronic immune pathology.

PAVAN REDDY, MD | University of Michigan  Division Chief and Frances Victor Ginsberg Professor

Pavan Reddy, MD, is the Frances Victor Ginsberg Professor of Hematology/Oncology, Chief of the Division of Hematology/Oncology and Deputy Director of the University of Michigan Comprehensive Cancer Center. Dr. Reddy is interested in understanding the immunobiology of graft-versus-host disease (GVHD) in the laboratory and translating the insights gained into improved treatments for patients with GVHD. Dr. Reddy studies the role of cytokines and cellular effectors in the biology of GVHD/GVL by utilizing well-characterized mouse models of allogeneic BMT.

VALERY SHESTAPALOV, PHD | University of Miami  Professor of Ophthalmology

Valery (Val) Shestopalov, PhD, is a Professor of Ophthalmology and Cell Biology. He graduated Moscow State University and obtained his PhD Degree in molecular genetics at the Vavilov Institute of General Genetics in Moscow, Russia. He completed postdoctoral training at the Department of Ophthalmology and Visual Sciences, Washington University, St. Louis, MO. His translational research focuses on the role of the microbial community in ocular surface infections. His ocular microbiome research projects received NIH funding since 2011 and are a collaborative effort of basic and clinician scientists at the Bascom Palmer Eye Institute and the Department of Ophthalmology at the University of Washington (Seattle, WA). Dr. Shestopalov’s other projects are centered on cellular and molecular mechanisms underlying ocular disease initiation and progression, particularly focusing on retinal ganglion cell degeneration.

J. EDMUND BLALOCK, PHD | University of Alabama at Birmingham  Professor of Medicine

J. Edwin Blalock, PhD, is a Professor of Medicine, Pulmonary, Allergy, and Critical Care Medicine Division and Scientific Director, Lung Health Center at the University of Alabama at Birmingham School of Medicine. Dr. Blalock is a Distinguished Alumnus of the University of Florida who is internationally recognized for his research in neuroimmunology, rational drug design, as well as the role of inflammation in chronic diseases. He has published over 350 journal articles and book chapters, enjoyed uninterrupted funding for the past 40 years, and in 2016 was an inaugural recipient of a 7-year R35 Outstanding Investigator Award from the NHLBI. Dr. Blalock has served on two NIH study sections, as well as study sections for the American Heart Association and the National Multiple Sclerosis Society.

JEFFERY MOLLDREM, MD | MD Anderson Cancer Center  Professor and Chief

Jeffery Molldrem, MD, is a Professor and Chief of the Section of Transplantation Immunology in MD Anderson Cancer Center Division of Stem Cell Transplantation & Cellular Therapy. Dr. Molldrem is interested in developing immunotherapies for leukemia and other hematological diseases through an understanding of T-cell immunity against hematopoietic progenitors. His laboratory central hypothesis is that T-cells target and eliminate these progenitors by recognizing determinants of self-antigens when tolerance has been reversed by aberrant self-antigen expression.
BRIAN C. BETTS, MD | Moffitt Cancer Center  | Associate Professor

Brian C. Betts, MD is an Associate Professor in the Department of Blood and Marrow Transplantation and Cellular Immunotherapy (BMT-CI) at Moffitt Cancer Center and the University of South Florida. He leads a NIH-funded translational research lab and is an Amy Streizer Manasevit Research Program Scholar. He received his Doctorate of Medicine at Eastern Virginia Medical School in 2004. He completed his internal medicine residency at the University of Minnesota in 2007, and served as Chief Resident from 2007-2008. He went on to complete his subspecialty training in hematology and medical oncology at Memorial Sloan Kettering Cancer Center in 2011. Dr. Betts studies how human T-cell signal transduction may be controlled to prevent harmful graft-versus-host disease (GVHD) and preserve beneficial graft-versus- leukemia (GVL) after allogeneic hematopoietic cell transplantation.

CINTIA DE PAIVA, MD, PHD | Baylor College of Medicine  | Assistant Professor

Cintia De Paiva, MD, PhD is currently an Assistant Professor of Ophthalmology at the Baylor College of Medicine and has been a member and active contributor to the cornea section of ARVO for 14 years. She maintains an exciting research program studying ocular surface mucosal immunology and the effects of desiccation and dysbiosis on the pathogenesis of ocular surface disease. Her research has led to major advances in understanding the pathogenesis and treatment of dry eye disease. Dr. de Paiva is an active member of the research community, serving as President of the International Ocular Surface Society, a co-chair of the DEWS II committee Pathophysiology, Associate Editor for Arquivos Brasileiros de Oftalmologia, editorial board member of Scientific Reports and frequent and respected reviewer for a number of high impact ophthalmology and scientific journals.

CHRISTIAN CAPITINI, MD | University of Wisconsin-Madison  | Assistant Professor

Christian Capitini, MD is an Assistant Professor of Pediatrics at the University of Wisconsin-Madison. The goal of his research is improve graft-vs.-tumor (GVT) effects against pediatric solid tumors, and to treat GVHD through modulation of antigen presenting cells, using preclinical models of allogeneic bone marrow transplant (alloBMT). To improve GVT, he is combining ex vivo activated NK cells with immunocytokines to stimulate NK cell proliferation and activation against several GD2+ pediatric tumors in the alloBMT setting. He is also tracking NK cells in vivo by fluorine-19 MRI. For GVHD, he is educating macrophages ex vivo with MSCs to make them anti-inflammatory.

ALAN HANASH, MD, PHD | Memorial Sloan Kettering Cancer Center  | Assistant Member

Alan Hanash, MD, PhD is an Assistant Member of Memorial Sloan Kettering and an Attending Physician on the Adult Bone Marrow Transplant Service in the Department of Medicine. Dr. Hanash’s research focuses on the immunology of hematopoietic transplantation and immune-mediated mechanisms of tissue damage and regeneration. His clinical expertise is in Hematologic Malignancies, Bone Marrow Transplantation, Transplant Immunology, Prevention of GVHD and Cytokines.

JOHN A. GONZALES, MD | University of California, San Francisco  | Assistant Professor

John A. Gonzales, MD is an Assistant Professor of Ophthalmology at the University of California, San Francisco. Dr. Gonzales’s interest involves the diagnosis and management of infectious and non-infectious inflammatory uveitis, ocular involvement in Sjögren’s syndrome and graft-versus-host disease, and neuropathic ocular pains. Dr. Gonzales is supported by grant funding from the National Institutes of Health – National Eye Institute (1K23EY026998-01) studying non-Sjögren’s Syndrome- and Sjögren’s Syndrome-related keratoconjunctivitis sicca.

EVERETT MEYER, MD, PHD | Stanford University  | Assistant Professor

Everett Meyer, MD, PhD is an Assistant Professor of Medicine at the Stanford University Medical Center. In 2011, he received the Young Investigator Award from the American Society of Blood and Marrow Transplantation. Dr. Meyer was named the Amy Streizer Manasevit Scholar from the National Donor Marrow Program and American Society for Blood and Marrow Transplantation in 2013. He received the Beckman Center Technology Grant from Stanford University in 2014. His research focus is in T cell immunotherapy and T cell immune monitoring using high-throughput sequencing and genomic approaches, with an emphasis on hematopoietic stem cell transplantation, the treatment of graft-versus-host disease and immune tolerance induction.

CECILIA LEE, MD, MS | University of Washington  | Assistant Professor

Cecilia Lee, MD, MS is an Assistant Professor of Ophthalmology at the University of Washington. Her research interests are focused in diseases of the retina and uveitis. She is dedicated in improving our knowledge on pathogens’ role in various ocular conditions and understanding the clinical outcome. Additionally, her interests include using non-invasive imaging modalities to find new biomarkers to predict the outcomes of different retinal diseases. She has been awarded a NIH K23 Grant for investigation of the ocular surface microbiome in potentially infectious ophthalmic disease.
CRAIG BYERSDORFER, MD, PHD | University of Pittsburgh  Assistant Professor

Craig Alan Byersdorfer, MD, PhD is a pediatric hematologist-oncologist at the Children’s Hospital of Pittsburgh. His research interest is focused on immune cell metabolism during the dynamic interplay of immune reconstitution and T cell activation following allogeneic stem cell transplantation (alloSCT). The goal of his lab is to define metabolic pathways up-regulated in lymphocytes following alloSCT, particularly in the T cells which cause graft-versus-host disease (GVHD). His lab utilizes animal models and genetically modified donor cells to test fundamental questions regarding post-transplant T cell metabolism.

JACQUELINE MAYS, DDS | National Institute of Health  Chief of the Oral Immunobiology Unit

Jacqueline W. Mays, DDS, MHSc, PhD is an Assistant Clinical Investigator at the National Institute of Health. She also serves as the Chief of the Oral Immunobiology Unit. Dr. Mays is an immunologist and a clinical trials dentist whose research is focused on better understanding chronic graft-versus-host disease (cGVHD) in the salivary glands and oral mucosa, an alloimmune disease process that occurs following allogeneic hematopoietic stem cell transplantation. Dr. Mays’ goal is to translate research findings into the development of non-invasive methods for serial post-transplant screening/diagnosis and improved targeted therapies for oral chronic graft-versus-host disease.

SUNG WON CHOI, MD, PHD | University of Michigan  Associate Professor

Sung Won Choi, MD, PhD received a B.S. from the University of Michigan, M.D. from Wayne State University, and M.S. in Clinical Research Design and Statistical Analysis from the University of Michigan. She completed her pediatric residency at New York University and fellowship training in pediatric hematology-oncology at Michigan. She then joined the Department of Pediatrics and Communicable Diseases in 2006. Dr. Choi is the Edith S. Briskin / Shirley K. Schlafer Research Professor. Her clinical and translational area of interest is in the prevention and treatment of acute GVHD. She and her colleagues at the University of Michigan have been exploring the role of histone deacetylase inhibition in GVHD prevention.

MARIE BLEAKLEY, MD, PHD, M.MSC | University of Washington  Associate Professor

Marie Bleakley, MD, PhD, M.Msc is an Associate Professor and pediatric oncologist with expertise in hematopoietic stem cell transplantation (HSCT) to treat leukemia. Her research is focused on improving outcomes for patients with high-risk leukemia by developing new strategies that optimize the activities of T cells in the context of HCT. In particular, she is working to promote the advantageous Graft-Versus-Leukemia (GVL) effect and reduce the potentially dangerous GVHD that also can be caused by donor T cells after allogeneic transplantation. Dr. Bleakley is currently serving as the Principal Investigator of three clinical trials of TN -depletion for recipients of peripheral blood stem cell grafts (PBMC).

RAN RESHEF, MD, MSC | Columbia University Medical Center  Director of Translational Research

Ran Reshef, MD, MSc is the Director of Translational Research in the Blood and Marrow Transplantation (BMT) Program at Columbia University Medical Center. His lab is part of the Columbia Center for Translational Immunology and the Herbert Irving Comprehensive Cancer Center. Dr. Reshef’s research revolves around immunologic responses that determine the outcome of hematopoietic stem-cell transplantation. His lab pioneered the use of chemokine receptor antagonists that prevent donor cell migration into organs in order to reduce the development of graft-versus-host disease. In addition, the lab investigates new methods to optimize donor selection, and develops personalized approaches based on the genetic makeup of donors, recipients and tumors.

SCOTT M. LIEBERMAN, MD, PHD | University of Iowa  Assistant Professor

Scott M Lieberman, MD, PhD is a pediatric rheumatologist with a special interest in childhood Sjögren syndrome. His research laboratory focuses on understanding immune dysregulation in a mouse model of Sjögren syndrome with specific interest in T cell mechanisms driving lacrimal gland-specific autoimmunity. He received his MD & PhD from Albert Einstein College of Medicine and completed his Residency in Pediatrics and Fellowship in Pediatric Rheumatology at The Children’s Hospital of Philadelphia.
**STEFANIE SARANTOPOULOS, MD, PHD | Duke University | Associate Professor**

Stefanie Sarantopoulos, MD, PHD is an Associate Professor in Medicine at Duke University in the Division of Hematological Malignancies and Stem Cell Therapies. Dr. Sarantopoulos was an active participant on both the NIH Chronic GVHD Biology, and the Immune Dysfunction Working Group of the Transplantation Late Effects NIH Consensus Projects. Dr. Sarantopoulos also served on the Transplantation Biology Scientific Committee of American Society of Hematology (ASH), and is a co-chair of a Center for International Blood and Marrow Transplant Research (CIBMTR) committee. Her laboratory at Duke studies the extrinsic and intrinsic mechanisms that drive B cell biology and pathobiology after stem cell transplantation. Dr. Sarantopoulos is also the PI of an investigator-initiated clinical trial studying the effects of an inhibitor of B Cell Receptor inhibitors in chronic GVHD. Her research aimed at diminishing toxicity and improving efficacy of stem cell transplantation is funded by NIH (NHLBI R01 HL 129061-01) and The Leukemia and Lymphoma Society (LLS TRP).

**VINAY AAKALU, MD, MPH | University of Illinois at Chicago | Assistant Professor**

Vinay Aakalu MD, MPH is an Assistant Professor of Ophthalmology at the University of Illinois at Chicago. He is a clinician-scientist and practices as an oculofacial plastic surgeon. His clinical interests include thyroid eye disease and ocular surface reconstruction. He directs the Lacrimal Cell Biology Laboratory and Illinois Center for Thyroid Eye Disease at the University of Illinois at Chicago. Dr. Aakalu is supported by the NEI through a K08 grant for his research on lacrimal gland biology, lacrimal gland gene expression and lacrimal gland regeneration. He also studies peptide based therapeutics for ocular surface disease.

**CYNTHIA TUNG, MD | University of Texas | Assistant Professor**

Cynthia I Tung, MD is an Assistant Professor at the University of Texas MD Anderson Cancer Center. She completed a surgical fellowship in Cornea, External Diseases & Refractive Surgery at the University of Buffalo. Dr. Cynthia I. Tung, received her B.S in molecular biology from Cornell University in 2005 and her M.D. degree from University of Rochester School of Medicine and Dentistry in 2010. She had further intensive study in ocular surface disease at the Massachusetts Eye & Ear Infirmary and the Boston Foundation for Sight. Dr. Tung’s interests focus on diseases of the cornea and anterior segment in cancer patients, especially ocular graft-versus- host disease, tear film dysfunction, and complex cataract surgery in cancer patients.
JOHN GALVIN, MD, MPH  |  University of Illinois at Chicago  |  Assistant Professor of Clinical Medicine

John P Galvin, MD, MPH is an Assistant Professor of Clinical Medicine at the University of Illinois at Chicago. He received his Medical Degree and Masters in Public Health from the University of Illinois at Chicago. Dr. Galvin completed his residency training at Mount Sinai School of Medicine. After his fellowships at Northwestern University, he joined Northwestern as faculty. Dr. Galvin’s area of expertise is in hematopoietic stem cell transplantation (HSCT). His research focuses on understanding the immunobiology of graft-versus-host disease (GVHD) in the laboratory with the goal of translating insights gained into improved treatments for his patients who develop GVHD.

JAYESH MEHTA, MD  |  Northwestern University  |  Director of the Hematopoietic Stem Cell Transplantation Program

Jayesh Mehta, MD is the Director of the Hematopoietic Stem Cell Transplantation Program of the Division of Hematology/Oncology at Northwestern University Feinberg School of Medicine. He is an attending physician at Northwestern Memorial Hospital. His research interests encompass hematopoietic stem cell transplantation, the use of adult stem cells for tissue repair, multiple myeloma, and opportunistic infections in immunocompromised patients. He has developed a number of novel conditioning regimens and supportive therapy to improve the outcome of allogeneic transplantation for hematologic malignancies, particularly multiple myeloma.

PATRICK STIFF, MD  |  Loyola University Medical Center  |  Professor of Medicine and Hematology/Oncology

Patrick Stiff, MD is a Professor of Medicine at Loyola University Medical Center and Director of the Cardinal Bernardin Cancer Center Hematology/Oncology Division. He graduated from Loyola University Chicago Stritch School of Medicine and completed his residency in internal medicine at the Cleveland Clinic Foundation, followed by fellowship training in Hematology and Medical Oncology at the Memorial Sloan - Kettering Cancer Center. Dr. Stiff's clinical expertise is in Bone Marrow Transplantation, Non-Hodgkin’s Lymphoma, Ovarian Cancer and Leukemia.

SUNITA NATHAN, MD  |  Rush University Medical Center  |  Attending Physician & Assistant Professor of Medicine & Hematology/Oncology

Sunita Nathan, MD is the Interim Director of the Section of Bone Marrow Transplant and Cell Therapy at Rush University Medical Center. Dr. Nathan’s clinical expertise is in stem cell transplantation in the management of hematologic malignancies with special interest in lymphoproliferative disorders and haploidentical stem cell transplantation. Her research interests include use of novel agents to improve transplant outcomes in lymphoma, and steroid refractory Graft versus host disease.

SATYA KOSURI, MD  |  University of Chicago  |  Assistant Professor of Medicine

Satyajit Kosuri, MD is an Assistant Professor of Medicine at the University of Chicago. He trained in and served as Chief Resident of Internal Medicine at the State University of New York Downstate. After completing a fellowship in Hematology/Oncology at Weill Cornell-New York Presbyterian Hospital he completed a fellowship at Memorial Sloan-Kettering Cancer Center in Bone Marrow Stem Cell transplantation. He is a medical oncologist who treats adult patients with acute leukemia, myelodysplastic syndrome and myelofibrosis. His clinical research focuses on improving patient access to transplant through the use of alternative donor strategies and the use of novel immune therapies in these diseases.
SURENDRA BASTI, MD | Northwestern University Feinberg School of Medicine  Professor of Ophthalmology

Surendra Basti, MD is a Professor of Ophthalmology at Northwestern University Feinberg School of Medicine. His areas of clinical and research interest include ocular surface disease and dry eye, pediatric and adult cataracts, keratoconus and external eye disease related to cancer medications. He has authored 65 publications in peer-reviewed ophthalmology journals. In 2007, Dr. Basti was named to the list of the “Best Doctors in America” and has been named to this list each year since. In 2008, he received the achievement award from the American Academy of Ophthalmology.

CHARLES BOUCHARD, MD | Loyola University Medical Center  Professor and Chairman, Ophthalmology

Charles Bouchard, MD is the Department Chair of Ophthalmology and a Professor of Ophthalmology at the Stritch School of Medicine Loyola University. His clinical expertise is in Dry Eye Syndrome, Ocular Surface Disease, Stem Cell Transplantation and Keratoconus. Dr. Bouchard’s areas research interests include corneal transplant, corneal immunology, ocular surface reconstruction, Keratoconus and Stevens-Johnson syndrome.

ASIM FAROOQ, MD, MPH | University of Chicago  Assistant Professor, Ophthalmology

Asim Farooq, MD, MPH is an Assistant Professor of Ophthalmology at the University of Chicago. He is a graduate of the combined BA/MD program at the University of Illinois at Chicago. During medical school he was awarded a one-year fellowship by Research to Prevent Blindness to study herpetic keratitis. He subsequently completed an ophthalmology residency at the Illinois Eye and Ear Infirmary, and a fellowship in cornea and external disease at Washington University in St. Louis. Dr. Farooq has published 32 peer-reviewed articles, 3 book chapters and numerous abstracts. His areas of interest include ocular herpes simplex and herpes zoster virus infections, as well as ocular surface disease. He is also interested in pediatric ocular graft versus host disease.

ANJALI TANNAN, MD | Rush University, NorthShore Health  Assistant Professor, Ophthalmology

Anjali Tannan, MD is an Assistant Professor at Rush University Medical Center. She grew up in Oshkosh, Wisconsin and obtained both her Bachelor of Science and her Medical Degree from the University of Wisconsin-Madison. She then completed her internship and ophthalmology residency at Rush University Medical Center. She went on to pursue a fellowship in Cornea, External Diseases and Refractive surgery at the Stein Eye Center, UCLA. She has an interest in corneal infections, refractive cataract surgery, and corneal transplants.

SURI DWARAKANATHAN, MD | Cook County Hospital  Attending Physician, Ophthalmology

Suri Dwarakanathan, MD is an Attending Physician and Residency Program Director at John Stroger Hospital of Cook County. He graduated from Albany Medical College and completed his residency at Cook County Hospital, followed by fellowship training in Ophthalmology at University of Texas Southwestern at Dallas. Dr. Dwarakanathan clinical and research interest is primarily in corneal and ocular surface disease.

ALI DJALILIAN, MD | University of Illinois at Chicago  Associate Professor of Ophthalmology

Ali Djallilian, MD is an Associate Professor of Ophthalmology at the University of Illinois at Chicago. He specializes in cornea, particularly ocular surface diseases and immunologic diseases of the cornea and anterior segment. He is a leading expert on ocular surface reconstruction and has developed innovations in the surgical techniques for limbal stem cell transplantation. He bridges his clinical experience with his basic science and translational research projects, which have been funded in part by the National Eye Institute/NIH, Department of Defense, and Research to Prevent Blindness.
DAVID E KLEINER, MD, PHD
Senior Research Physician
Head, Histopathology and Autopsy Pathology
National Cancer Institute, National Institute of Health

ROBERT B LEVY, PHD
Professor of Microbiology and Immunology
Ophthalmology and Medicine
University of Miami School of Medicine

DEBORAH JACOBS, MD
Associate Professor of Ophthalmology
Harvard Medical School
Medical Director, BostonSight

STELLA KIM, MD
Clinical Professor in Ophthalmology
Robert Cizik Eye Clinic
University of Texas McGovern Medical School
In the Dry Eye and ocular GVHD Clinic, we use state-of-the-art diagnostic equipment to assess the severity and type of dry eye. We use customized treatments to treat Dry Eye and ocular GVHD. The Dry Eye and ocular GVHD Clinic seamlessly connects with Dr. Jain’s Translational Biology Laboratory that receives federal grants from the National Institutes of Health (NIH) and is equipped with advanced cell and molecular biology tools that allow discovery of new diagnostic tests and therapeutic targets. The clinic and the laboratory are also connected to the Ophthalmic Clinical Trials and Translational Center for running Dry Eye and ocular GVHD clinical trials.

In the Dry Eye and ocular GVHD Clinic, we use state-of-the-art diagnostic equipment to assess the severity and type of dry eye. These include:

- Assessment of disease severity using symptom analysis tools
- Keratograph analysis of tear break-up time and ocular redness score
- Tear Osmolarity measurements
- LipiView imaging of meibomian glands and analysis of lipid layer thickness
- MMP-9 inflammatory protein detection in tear fluid using InflammaDry
- Corvis measurement of Intraocular pressure and corneal thickness
- HD Analyzer assessment of vision quality via scatter meter, optical quality, and tear film quality
- Eidon confocal imaging of retina
- PARK 1 non-contact pachymeter, auto-refractor and keratometer
- Slit lamp anterior segment photography
- Research tests are performed in Dr. Sandeep Jain’s laboratory. These include immunostaining of tear fluid cells, measurement of tear fluid extracellular DNA, and analysis of chemokines/cytokines in the tear fluid.

We use customized treatments to treat dry eye and ocular GVHD. In addition to standard treatments, these include:

- Compounded Methylprednisone eye drops
- Compounded Cyclosporine 1% and Tacrolimus eye drops
- Serum Tears and Platelet rich plasma tears
- PROSE scleral contact lenses
- PROKERA biologic corneal bandage devices
- Investigational Drugs:
  - DNase I Eye drops
  - Brimonidine Eye Drops
  - Heparin Eye Drops

Clinic Information
For Appointments
Phone: (312) 996-8937
Text Message: (312) 918-0900
Email Christine Mun: ogvhd@uic.edu
Website: Ogvhd.org

Clinic Address
Illinois Eye and Ear Infirmary
1855 W. Taylor Street
Chicago, IL 60612
Ongoing Clinical Trials in Dry Eye and ocular GVHD

- A Phase I/II Randomized Placebo-Controlled, Double-Blind, Single-Center, Tolerability And Preliminary Efficacy Clinical Trial Of Recombinant Human Deoxyribonuclease (rhDNase) Eye Drops in Patients With ocular Graft-vs.-Host Disease.

- A Prospective Study to Identify Bio-Markers that Predict Onset and Progression of ocular Graft-vs.-Host Disease in Patients who receive Allogeneic hematopoietic Stem Cell Transplant.

- A Phase I/II Randomized Placebo-Controlled, Double-Blind, Single-Center, Tolerability And Preliminary Efficacy Study Of Recombinant Human Deoxyribonuclease (rhDNase) Eye Drops In Patients With Dry Eye Disease.

Principal Investigator: Sandeep Jain, MD
Funding Agency: NEI/NIH R01 EY024966, Research to Prevent Blindness
Location: Ophthalmic Clinical Trials and Translational Center
Contact: 312-918-0900 or ogvhd@uic.edu

OPHTHALMIC CLINICAL TRIALS AND TRANSLATIONAL CENTER

The Ophthalmic Clinical Trials and Translational Center was established to provide services that evaluate preventative, therapeutic, and diagnostic interventions in ophthalmic diseases. Located on the second floor of the Illinois Eye and Ear Infirmary, the mission of the center is to design and run clinical trials and translational studies with world class academic ophthalmologists and federal and industry sponsors.

CORES:

Full Service Clinical Trials Core:
- Certified ophthalmic examination lanes
- Patient identification and recruitment strategies
- IRB preparation and submission
- Budget and contract negotiations
- Specialized diagnostic equipment for research evaluation

Data and Statistics Core:
- Epidemiological and biostatistical design and analyses spanning the entire biomedical research spectrum
- Statistical programming involving data management, design/construction of databases and analyses

Translational Research Core:
- Intellectual property and commercialization consulting
- Regulatory and oversight support to first in human studies

For more information please contact: Joelle Hallak, PhD, (312)996-0157, joelle@uic.edu
Webpage: ophthalmicct.uic.edu

CME LEARNING OBJECTIVES:

1. To bring together nationally recognized experts for disseminating new findings in the area of chronic systemic and ocular GVHD and discussions regarding the clinical and research challenges and interdisciplinary opportunities.

2. To bring together five bone marrow transplant programs and six ophthalmology departments in the Chicago area to discuss their approach to ocular GVHD management and impediments/opportunities in inter-institutional clinical and translational research collaborations.
ABOUT THE CHRONIC GVHD MEETING

Chronic GVHD is an extraordinarily complex disease in terms of pathophysiology and practical management that demands a multidisciplinary approach. Most of the management falls within the realm of internal medicine. Yet one of the most important manifestations of chronic GVHD is ophthalmological (severe dry eye disease), and ophthalmologists are separated from internal medicine by numerous barriers. This meeting is devoted to the intersection between ophthalmologist and hematologists/oncologists working in the areas of chronic GVHD and dry eye/ocular surface disease. By bringing together clinicians and scientists from different disciplines, including nationally recognized experts, this meeting will lower this barrier and promote interdisciplinary research and education and facilitate improvements in the management of patients with chronic ocular GVHD.

An important goal of this meeting is to provide a highly interactive, interdisciplinary forum for scientific exchange and collaboration amongst junior and senior scientists in the fields of hematology/oncology and ophthalmology.

Date of Meeting: Saturday, October 27th, 2017

Location of Meeting:
The Learning Center, 2nd floor Room 227
UIC College of Medicine West Tower
1853 W. Polk Street
Chicago, IL 60612

Parking for Meeting:
Wood Street Parking Structure
Corner of Wood & Fillmore
1100 S Wood St
Chicago, IL 60612

Contact information:
Email: GVHDmeet@uic.edu

Online Registration Website:
www.ogvhd.com

Registration Fee: None