43rd Annual Meeting
September 11-15, 2017
Program

Hilton San Francisco Union Square
San Francisco, CA
# PROGRAM PLANNING COMMITTEE

## CHAIR
Anat Tambur, DMD, PhD, D(ABHI)
Northwestern University
Chicago, IL

## PLENARY AND SYMPOSIUM SESSIONS
Patricia Campbell, BMChB, FRCP
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Edmonton, AB, Canada

Frans Claas, PhD
Leiden University Medical Center
Leiden, Netherlands

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Health Science Center
Oklahoma, OK

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Rajalingam Raja, PhD, D(ABHI)
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Elaine Reed, PhD, D(ABHI)
UCLA Immunogenetics Center
Los Angeles, CA

Adriana Zeevi, PhD, D(ABHI)
UPMC Presbyterian
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Pittsburgh, PA

## ABSTRACT CHAIRS
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## WORKSHOP CHAIRS
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Pittsburgh, PA

Donna Phelan, BA, CHS, MT(HEW)
Barnes-Jewish Hospital
St. Louis, MO

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ASCI MEETING HEADQUARTERS

American Society for Histocompatibility & Immunogenetics (ASHI)

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Mount Laurel, NJ 08054
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2017.ashi-hla.org
LEARNING OBJECTIVES

The 43rd ASHI Annual Meeting will provide updates on basic Immunogenetics and on practice guidelines in clinical histocompatibility and immunogenetics.

The learning objectives are as follows:

1. Describe innovations in Immunotherapies, including the fields of infectious Disease, Cancer and Autoimmunity.
2. Understand the biology of Plasma Cells and techniques to assess immunoglobulins.
3. Critically analyze approaches used for Precision Medicine and Predictive Analytics.
4. Perform and evaluate new techniques for immune assessment.
5. Identify and implement approaches for recruitment and retention of qualified employees.
6. Recognize new findings from the 17th international workshop.
7. Discuss and critically analyze highlights and recommendations for practice guidelines from the STAR (Sensitization in Transplantation: Assessment of Risk) workshop.

FULL DISCLOSURE POLICY

All faculty and program organizers participating and planning continuing medical education programs sponsored by ASHI are required to disclose to the program audience any real or apparent conflicts of interest related to their presentation. Full disclosure of faculty relationships will be available onsite.

THE TULIP RUN

ASHI’S 5TH ANNUAL 5K RUN/WALK

Wednesday, September 13, 2017 • 6:30 am – 8:30 am

DONOR NETWORK WEST

Heal a life through organ and tissue donation

This will be ASHI’s 5th Annual 5K Run/Walk. Please join us for a morning run or walk through Crissy Field in San Francisco! The fee is $25.00 per person. Proceeds from this event will benefit the Donor Network West! All runners and walkers are welcome!

Thank you to our sponsor of the Tulip Run:

GENDX
personalising diagnostics

Note: Advance registration is strongly recommended as space is limited. Registration forms, including complete payment, must be received by Monday, August 7, 2017 to guarantee attendance. Additionally, advance registration ensures timely processing of your registration and helps avoid on-site delays.
HOTEL INFORMATION

OFFICIAL HOST HOTEL
Hilton San Francisco Union Square
333 O’Farrell Street
San Francisco, CA 94102

HILTON HONORS REWARD PROGRAM
Hilton Honors Members receive complimentary WiFi in their guest rooms throughout their stay. Digital Check-In with the Hilton Honors app, Late Check Out, Express Check Out and the 2nd guest stays free.

If you are currently not a Hilton Honors Member, please go to http://hiltonhonors3.hilton.com/en/index.html and click Join in the top right corner of the page to join for free and receive free internet in your guest room during your stay at the Hilton San Francisco Union Square.

TRAVEL INFORMATION

AIRPORT
The San Francisco International Airport is approximately 14 miles from the Hilton San Francisco Union Square.

GROUND TRANSPORTATION
San Francisco International Airport (SFO) offers plenty of public transportation options including shuttles to the downtown San Francisco hotels. Click here to find convenient shared ride vans.

Taxi Service
Average taxicab fare from San Francisco International Airport to the Hilton San Francisco Union Square is $63. Each taxi will also have an additional fee of $2 for airport pick up. For pick up terminal locations at the San Francisco International Airport, please visit: https://www.flysfo.com/to-from/ground-transportation

Uber
The average Uber fare from San Francisco International Airport to Hilton San Francisco Union Square will range from $25-31.

Lyft
The average Lyft fare from San Francisco International Airport to Hilton San Francisco Union Square will range from $23-38.

ONSITE REGISTRATION & EXHIBIT HOURS

REGISTRATION HOURS
East Lounge, Ballroom Level

Monday, September 11
11:00 AM – 8:00 PM
Thursday, September 13
8:00 AM – 7:00 PM

Tuesday, September 12
7:30 AM – 6:00 PM
Wednesday, September 13
7:30 AM – 5:00 PM

Wednesday, September 13
8:00 AM – 10:00 AM
Friday, September 15

EXHIBIT HALL & POSTER VIEWING
Grand Ballroom, Grand Ballroom Level

Monday, September 11
7:00 PM – 9:00 PM
Opening Reception
Tuesday, September 12
9:30 AM – 10:00 AM
2:00 PM – 7:00 PM
Wednesday, September 13
9:30 AM – 10:00 AM
2:00 PM – 6:30 PM
Thursday, September 14
9:30 AM – 10:00 AM
**Inspectors Training**  
8:00 AM – 5:00 PM  
Plaza Room, Lobby Level  
The Inspector Training Workshop is offered this year as a full day session for new inspectors, and a half day (afternoon) session for active inspectors & trainees to attend to maintain their active status. Dr. Myra Coppage, our current Inspector Training Chair, and the ARB will be hosting a variety of speakers, discussions, and round table exercises simulating real life inspection experiences.

**Pre-Meeting Symposium - A Retrospective Perspective on HLA**  
1:00 PM – 5:00 PM  
Imperial Ballroom, Ballroom Level  
Retrospective Perspectives on HLA is a half day, special focus, meeting celebrating the history of our field and how this is driving the current science of HLA. The meeting will take place immediately prior to the ASHI annual meeting on September 11th 2017 at 1:00 PM. The goal of this meeting is to highlight breakthrough discoveries in Histocompatibility and Immunogenetics that led to the understanding of the physiologic role of the HLA system in health, and its involvement in a variety of diseases and transplantation. The speakers and a panel of experts will highlight how they see tomorrow’s science building on this history to impact patient care.

The intended audience are new comers to our field as well as the "oldies". You will have an opportunity to listen to some of the pillars of our field, and interact with them and other experts verbally or through text messaging from the audience.

*Committee Members: Elaine Reed, Peter Nickerson, Frans Claas, Willie Hildebrand & Nicole Valenzuela*

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**Panel 1:** Howard Gebel, PhD, D(ABHI)  
Emory University  
Atlanta, GA  
George Vlad, PhD  
Columbia University  
New York, NY  
Peter Nickerson, MD, FRCPC  
University of Manitoba  
Winnipeg, MB, Canada

**Panel 2:** Nicole Valenzuela, PhD  
UCLA Immunogenetics Center  
Los Angeles, CA  
Adriana Zeevi, PhD, D(ABHI)  
UPMC Presbyterian Shadyside  
Pittsburgh, PA

1:00 PM – 1:30 PM  
The Early Days of HLA  
Glenn Rodey, MD, Retired  
Baylor College of Medicine  
Hesperus, CO

1:30 PM – 1:45 PM  
Panel Discussion  
Howie Gebel, George Vlad, Peter Nickerson

1:45 PM – 2:15 PM  
The Structure of HLA Molecules – Functional Implications  
Pamela Bjorkman, PhD  
California Institute of Technology  
Pasadena, CA
2:15 PM – 2:30 PM  Panel Discussion
Howie Gebel, George Vlad, Peter Nickerson

2:30 PM – 2:45 PM  Coffee Break

2:45 PM – 3:15 PM  The Role of HLA in Peptide Recognition
James McCluskey, MD, FAA, FAHMS
University of Melbourne
Parkville, VIC, Australia

3:15 PM – 3:30 PM  Panel Discussion
Nicole Valenzuela, Adriana Zeevi

3:30 PM – 4:00 PM  Impact of Polymorphism on HLA Typing
Peter Parham, PhD
Stanford University
Stanford, CA

4:00 PM – 4:15 PM  Panel Discussion
Nicole Valenzuela, Adriana Zeevi

4:15 PM – 4:45 PM  HLA and Transplantation
Frans Claas, PhD
Leiden University Medical Center
Leiden, Netherlands

4:45 PM – 5:00 PM  Panel Discussion
Nicole Valenzuela, Adriana Zeevi

First Time Attendee & New Member Reception
5:00 PM – 6:00 PM
Franciscan AB, Ballroom Level

Opening Session – This Was Your Life
6:00 PM – 7:00 PM
Continental Ballroom, Ballroom Level
Sir Walter Bodmer and Dr. Peter Doherty. Two premier scientists. One is British royalty. One is a Nobel prize winner. Scientific pioneers who shaped the way we think. Undeniable geniuses. Why did they become scientists? What challenges did they face when their careers began? Who influenced them the most? What advice would they give to young students? The questions are endless. The answers? Come join us and find out!

Moderators: Howie Gebel, PhD, D(ABHI), Emory University Hospital, Atlanta, GA and Nicole Valenzuela, PhD, UCLA Immunogenetics Center, Los Angeles, CA

Interviewers: Howie Gebel, Nicole Valenzuela
Interviewees: Sir Walter Bodmer, PhD, FRCPath, FRS, Oxford University, Oxford, Oxfordshire, United Kingdom and Nobel Laureate Professor Peter Doherty, University of Melbourne, Melbourne, VIC, Australia
Opening Reception with Exhibits
7:00 PM – 9:00 PM
Grand Ballroom, Grand Ballroom Level

Tuesday, September 12, 2017

Keynote Address – The Killer Defence
8:30 AM - 9:30 AM
Continental Ballroom, Ballroom Level
Peter Doherty will discuss the challenge of pandemic infections, the current status of vaccines, the discovery of MHC restriction that led to our 1996 Nobel Prize, the implications for disease and MHC related resistance/susceptibility. Our work with killer T cells and T cell memory that leads to insights re possible vaccine development, and review T cell immunotherapy approaches, including the therapeutic use of mAbs to immune check point inhibitors and CAR T cells in cancer.

Moderators: Anat Tambur, DMD, PhD, Northwestern University, Chicago, IL and Michael Gautreaux, PhD, D(ABHI), Wake Forest School of Medicine, Winston-Salem, NC

Featured Speaker: Nobel Laureate Professor Peter Doherty
University of Melbourne
Melbourne, VIC, Australia

Coffee Break with Exhibits
9:30 AM – 10:00 AM
Grand Ballroom, Grand Ballroom Level

Symposium I: Immunotherapy
10:00 AM - 12:00 PM
Continental Ballroom, Ballroom Level
The session on Immunotherapy will focus on novel approaches for immunomodulation of the patient’s immune system in the setting of autoimmunity, viral infection and cancer. The goal of this symposia is to highlight research discoveries in the field of immunology and their direct translation to patient care. Dr. Nepom’s lecture will focus on novel approaches for immunomodulation in automimmunity with a specific emphasis on targeting effector T cell responses in Type 1 diabetes and the use of immunological monitoring tools for predicting disease susceptibility and response to therapy in clinical trials. Dr. Bollard’s lecture will describe the development of viral-specific immune cells and their application to the treatment of EBV and CMV disease in the immunosuppressed patient. Dr Riddell’s lecture will present the state-of-the-art in immunotherapy for cancer using CAR-T cell therapy.

Moderators: Adriana Zeevi, PhD, D(ABHI), UPMC Presbyterian Shadyside Laboratories, Pittsburgh, PA and Elaine Reed, PhD, D(ABHI), UCLA Immunogenetics Center, Los Angeles, CA

10:00 AM – 10:40 AM
Immunotherapy in Infectious Diseases
Catherine Bollard, MD
Children’s National and The George Washington University
Washington DC
10:40 AM – 11:20 AM  Immunotherapy in Autoimmunity
Gerald Nepom, MD, PhD
Benaroya Research Institute
Seattle, WA

11:20 AM – 12:00 PM  Immunotherapy in Cancer
Stanley Riddell, MD
Fred Hutchinson Cancer Research Center
Seattle, WA

User Group Meetings
12:00 PM – 2:00 PM

Scholar Award – Abstract Sessions (International/Scholar Awards)
2:00 PM - 3:30 PM
Continental Ballroom, Ballroom Level

2:00 PM – 2:22 PM  OR1: The Bound Peptides are the Determinants For The Potential of HLA-G Mediated Immune Regulation
Alexander Celik, M.Sc.
Institute for Transfusion Medicine, Hannover Medical School
Hannover, Lower Saxony, Germany

2:22 PM – 2:44 PM  OR2: Recipient NK Cell Receptor Repertoire Comprising Activating KIR2DS5 and Licensed KIR3DL1 is Associated With Improved Chronic Lung Allograft Dysfunction (CLAD) Free Survival When Donor Misses HLA-BW4 Ligand
Haibo Sun, PhD
University of California, San Francisco
San Francisco, CA

2:44 PM – 3:08 PM  OR3: HLA-DPB1 Single Nucleotide Polymorphism Determines DP Molecule Expression And B Lymphocyte Crossmatch Results
Nwe Nwe Soe, MBBS, PhD
UCLA Immunogenetics Center
Los Angeles, CA

3:08 PM – 3:30 PM  OR4: Development Of An In Vitro Model Of Human Antibody Mediated Rejection
Luis G. Hidalgo, PhD, D(ABHI)
University of Alberta
Edmonton, AB, Canada

Coffee Break with Exhibits
3:30 PM – 4:00 PM
Grand Ballroom, Grand Ballroom Level
Concurrent Abstract Sessions
4:00 PM – 5:30 PM

Abstract Session 1: Bone Marrow/HSCT
Continental Ballroom 1-5, Ballroom Level

Moderators: Marcelo Fernandez-Vina, PhD, Stanford University, Palo Alto, CA and Eric Weimer, PhD, D(ABMLJ), University of North Carolina at Chapel Hill, Chapel Hill, NC

4:00 PM – 4:12 PM
OR5: Phenotypic and Functional Evaluation of KIR-Regulated Natural Killer Cells Responding to Epstein-Barr Virus: Implications On Post-Transplant Lymphoproliferative Disease (PTLD) After Allogeneic HCT
Rehan M. Faridi
University of Calgary
Calgary, AB, Canada

4:12 PM – 4:24 PM
OR6: Next Generation Sequencing HLA Typing in Patients With Copy Neutral Loss of Heterozygosity
Fredrick Oakley
Seattle Cancer Care Alliance
Seattle, WA

4:24 PM – 4:36 PM
OR7: MIHAIP: Comprehensive Pipeline to Discover Immunogenic Minor Histocompatibility Antigens Via Whole Genome Sequences of HLA-Matched Donor-Recipient Pairs
Wei Wang
National Marrow Donor Program
Minneapolis, MN

4:36 PM – 4:48 PM
OR8: Killer Cell Immunoglobulin-Like Receptor Genotype BX1 and Centromeric Gene-Content Motifs Influences Survival After 3-Models of Allogeneic Hematopoietic Stem Cells Transplantation
Xiaojing Bao
First Affiliated Hospital of Soochow University
Suzhou, China

4:48 PM – 5:00 PM
OR9: Certain KIR-HLA Genotypes Show Improved Progression-Free Survival In Patients With Multiple Myeloma Treated With Isatuximab (SAR650984, ANTI-CD38MAB), Lenalidomide and Dexamethasone
Haibo Sun
University of California, San Francisco
San Francisco, CA

5:00 PM – 5:12 PM
OR10: Analysis of Engraftment Kinetics of Donor-Type Chimerism in Linage-Specific Cell Populations After Allogeneic Hematopoietic Stem Cell Transplantation
Jasmeet Kaur
Dr. Ialpath Labs
New Delhi, India
5:12 PM – 5:30 PM  OR11: Low Content of Activating Killer Immunoglobulin-Like Receptors Predispose to Hematological Malignancies
Ariz Akhter
University of Calgary
Calgary, AB, Canada

Abstract Session 2: Antibody Assessment
Continental Ballroom 6-9, Ballroom Level

Moderators: Robert Liwski, MD, PhD, Dalhousie University, Halifax, NS, Canada and John Lunz, PhD, D(ABHI), Gift of Hope Organ & Tissue Donor Network, Itasca, IL

4:00 PM – 4:12 PM  OR12: Complement-Binding Donor-Specific Anti-HLA Antibodies Predict the Response to Complement-Targeting Therapy: A Multicenter International Study
Carmen Lefaucheur
Paris Transitional Research Center for Organ Transplantation
Paris, France

4:12 PM – 4:24 PM  OR13: C3D As A Non-Invasive Tool for Early Prediction of Antibody Mediated Rejection (AMR) and Renal Allograft Failure
Ahmed Mostafa
Calgary Laboratory Services
Calgary, AB, Canada

4:24 PM – 4:36 PM  OR14: Next-Generation HLA Antibody Reagents
Paul Warner
Bloodworks Northwest
Seattle, WA

4:36 PM – 4:48 PM  OR15: Hierarchy of HLA Types in Provoking Antibody Production Following Kidney Transplantation
David D. Gae
University of California, San Francisco
San Francisco, CA

4:48 PM – 5:00 PM  OR16: Donor-Specific Antibodies (DSA) Detected by C1Q and C3D Assays Predict Antibody-Mediated Rejection (AMR) in Renal Transplant (TX) Patients, But Specific Detection of IGG2, IGG3, IGG4, IGA, and IGM DSA, and Anti-AT1R and Anti-ETAR Antibodies Do Not
Bobbie Rhodes-Clark
UAMS HLA Laboratory
Little Rock, AR

5:00 PM – 5:12 PM  OR17: Pre-Transplant Panel Reactive Antibodies and HLA-A*/DQB1* Mismatches Associated with the Development of De Novo Specific Antibody After Lung Transplant
Aiwen Zhang
Cleveland Clinic
Cleveland, OH
5:12 PM – 5:30 PM
OR18: Identification of Anti-Endothelial Non-HLA Antibodies in Kidney Allograft Rejection
Carrie Butler
UCLA
Los Angeles, CA

Workshop 1 - Round Table Discussion
4:00 PM – 5:30 PM
Plaza Room, Lobby Level
The Round Table Discussion Workshop will focus on the presentations of three to four submitted abstracts with subsequent discussion amongst peers and colleagues. The discussions will take place at tables of 8-10 individuals with a moderator. After discussions, each table will present their conclusions to the entire participant group.

Moderators: Donna Phelan, BA, Mt, CHS, Barnes Jewish Hospital, St. Louis, MO; Lynn Kilheeney, CHS, UPMC Presbyterian – Shadyside, Pittsburgh, PA; Brian Duffy, MA, CHS, Barnes Jewish Hospital, St. Louis, MO; Harriet Noreen, BS, CHS, University of Minnesota, Minneapolis, MN; Cathi Murphy, PhD, Southwest Immunodiagnostics, San Antonio, TX; Gerald Morris, MD, PhD, University of California San Diego, La Jolla, CA; Chang Liu, MD, PhD, Washington University, St. Louis, MO; Olga Timofeeva, Temple University & Hospital, Philadelphia, PA; Sharon Adams, MT, CHA (ABHI), National Institute of Health, Bethesda, MD; Donna Lucas, MS, CHS, Johns Hopkins University School of Medicine, Baltimore, MD; Nancy Higgins; Anne Halpin

Workshop 2 - Retention and Recruitment
4:00 PM – 5:30 PM
Imperial Ballroom, Ballroom Level
With the increase in hiring difficulty and high turnover rates especially in laboratory medicine, this workshop will provide tips and tools to improve recruitment and retention of laboratory professionals.

Moderators: Chang Liu, MD, PhD, Washington University, St. Louis, MO

4:00 PM – 5:30 PM
John Cardella, MBA, MT(ASCP)
Emory Healthcare
Atlanta, GA

Poster Reception with Exhibits
5:30 PM – 7:00 PM
Grand Ballroom, Grand Ballroom Level

ARB Inspections & International Reception
7:00 PM – 9:00 PM
Vista Room, Forty-Fifth Floor
Wednesday, September 13, 2017

The Tulip Run – ASHI’s 5K Run/Walk
6:30 AM – 8:30 AM
Crissy Field
Shuttle buses will be departing from the Hilton San Francisco Union Square starting at 5:30 AM from the Taylor Street Entrance. Race will begin promptly at 6:30 AM. Shuttle buses will begin return trips starting at 7:30 AM.

Update on the Declaration of Istanbul
8:00 AM – 8:30 AM
Moderator: Anat Tambur, DMD, PhD, Northwestern University, Chicago, IL

John Gill, MD, MS
University of British Columbia
Vancouver, BC, Canada

Rose Payne Award Presentation
8:30 AM – 9:30 AM
Continental Ballroom, Ballroom Level
Moderators: Michael Gautreaux, PhD, D(ABHI), Wake Forest School of Medicine, Winston-Salem, NC and Elaine Reed, PhD, D(ABHI), UCLA Immunogenetics Center, Los Angeles, CA

Dominique Charron, MD, PhD
Hospital Saint-Louis
Paris, France

Coffee Break with Exhibits
9:30 AM – 10:00 AM
Grand Ballroom, Grand Ballroom Level

Symposium II: B Cells (B cell/Immunoglobulin Biology/Plasma Cells)
10:00 AM - 12:00 PM
Continental Ballroom, Ballroom Level
Antibody-mediated rejection (AMR) is a major obstacle impacting short and long term solid organ allograft survival. The efficacy of currently available immunosuppressive agents to reduce/eliminate the production and pathogenicity of alloantibodies is limited. Circulating alloantibodies should be viewed as surrogate markers for the B cells and plasma cells producing them. A better understanding of the basic biology of these cells and alloantibody production is required before new therapeutic options to combat AMR can be developed and implemented. This session will focus on the functions and diversity of antibody-secreting B and plasma cells, and how they represent potential therapeutic targets.

Moderators: Howie Gebel, PhD, D(ABHI), Emory University Hospital, Atlanta, GA and Nicole Valenzuela, PhD, UCLA Immunogenetics Center, Los Angeles, CA
10:00 AM – 10:40 AM  
EmoryPlasma Cells in Transplantation – “It Doesn’t End at B Cells”
Frances Lee, MD
Emory University
Atlanta, GA

10:40 AM – 11:20 AM  
Immunoglobulin Rep. to Track B Cell Immunity
Nicole Valenzuela, PhD
UCLA Immunogenetics Center
Los Angeles, CA

11:20 AM – 12:00 PM  
From Benchtop to Bedside
E. Steve Woodle, MD
University of Cincinnati
Cincinnati, OH

User Group Meetings
12:00 PM – 2:00 PM

Concurrent Abstract Sessions
2:00 PM – 3:30 PM

Abstract Session 3: Genetic and Epigenetics
Continental Ballroom 1-5, Ballroom Level

Moderator: George Vlad, PhD, D(ABHI), Columbia University, New York, NY

2:00 PM – 2:12 PM  
OR19: MIRNA Medicated Post Transcriptional Regulation of HLA
Transcriptional Regulation of HLA Transcripts
Peter Clark
Children’s Hospital of Philadelphia
Philadelphia, PA

2:12 PM – 2:24 PM  
OR20: De Novo Generation of MC Haplotypes Using Single Molecule
Sequencing
Peter Clark
Children’s Hospital of Philadelphia
Philadelphia, PA

2:24 PM – 2:36 PM  
OR21: The Novel Functional Role of HLA DRA and DRB5 Encoded MIRNA
Transcripts
Peter Clark
Children’s Hospital of Philadelphia
Philadelphia, PA

2:36 PM – 2:48 PM  
OR22: High-Resolution HLA Typing and Identification of a Novel Allele with
a Splice Variant Using RNA-SEQ
Rasmi Thomas
Walter Reed Army Institute of Research
Silver Spring, MD
2:48 PM – 3:00 PM OR23: Whole Gene Analysis of HLA-A, -B and -C Alleles observed in 100,000 Individuals Demonstrate Distinct Evolutionary and Selection Patterns in Each Class I Gene
Nezih Cereb
Histogenetics
Ossining, NY

3:00 PM – 3:12 PM OR24: Alternative Splicing of HLA-C Adds Another Layer of Polymorphism to the Hyperpolymorphic HLA Genes
Christina E. Voorter
Maastricht University Medical Center
Maastricht, The Netherlands

3:12 PM – 3:30 PM OR25: Construction of High Resolution Haplotype Database for Human Leukocyte Antigen LOCI
Evan Kountouris
Immucor Inc.
Mountain View, CA

Abstract Session 4: Histocompatibility Beyond HLA
Continental Ballroom 6-9, Ballroom Level

Moderators: Raja Rajalingham, PhD, D(ABHI), University of California San Francisco, San Francisco, CA and Charles Lutz

2:00 PM – 2:12 PM OR26: BW4+ HLA Class I and KIR3DL1 Allotypic Pairing Influences Licensing and Effector Function of KIR3DL1+ NK Cells
Shu Cheng Wong
The University of Melbourne
Melbourne, Australia

2:12 PM – 2:24 PM OR27: Detection of Thousands of Novel KIR Alleles with High-Throughput NGS Typing via Nextype
Jurgen Sauter
DKMS
Tubingen, Germany

2:24 PM – 2:36 PM OR28: High-Throughput KIR Sequencing by NGS: 500,000 Registry Samples Genotypes at Allelic Resolution
Ines Wagner
DKMS Life Science Lab
Dresden, Germany

2:36 PM – 2:48 PM OR29: Ligation of B4403 with Antibody Fails to Form a Signal Complex with TLR4 and Inhibits HLA-I-Mediated P-Selection Expression and Monocyte Adhesion to Human Endothelial Cells
Yiping Jin
University of California, Los Angeles
Los Angeles, CA
2:48 PM – 3:00 PM
OR30: Discrepancy Between In Silico Predictions and Experimental Estimation of Dominant/Co-Dominant Ratio of Potential Minor Histocompatibility Antigens
Nadezhda Bykova
National Research Center for Hematology
Moscow, Russian Federation

3:00 PM – 3:12 PM
OR31: New NGS Assays for MHC Class I-Associated Genes MICA and MICB
Loes L. van de Pasch
GenDx
Utrecht, Netherlands

3:12 PM – 3:30 PM
OR32: Binding of ILT3 to Its Ligand Inhibits Signaling Pathways Involved in Cell Proliferation and Migration
Zheng Xu
Columbia University Medical Center
New York, NY

Workshop 3 – Abstract Case Studies
2:00 PM – 3:30 PM
Plaza Room, Lobby Level
This workshop is an actual abstract session for case study only presentations. The presentations will be clinical in nature and submitted primarily by technologists working in the field.

Moderators: Harriet Noreen, BS, CHS, University of Minnesota, Minneapolis, MN and Olga Timofeeva, Temple University & Hospital, Philadelphia, PA

2:00 PM – 2:12 PM
OR33: The Importance of Detection of Donor-Chimerism and Anti-Donor or Anti-Recipient HLA Antibodies After Liver-Contained Intestinal Transplantation
Aiwen Zhang
Cleveland Clinic
Cleveland, OH

2:12 PM – 2:24 PM
OR34: Platelet Refractoriness in a Patient with 0% PRA Due to a Rare Anti-CD36(NAKa) Antibody
Amy Schmidt
University of Rochester Medical Center
Rochester, NY

2:24 PM – 2:36 PM
OR35: Haploidentical Matched Donor or Unrelated Mismatched?
Zahra Kashi
Kashi Clinical Laboratories
Portland, OR
2:36 PM – 2:48 PM
OR36: Allograft Rejection Associated with Pre-Transplant Donor Specific Anti-DQ Antibodies Detected By Single Antigen Bead Assay and A Negative Flow Cytometry Crossmatch
Jane Kearns
University of Pennsylvania
Philadelphia, PA

2:48 PM – 3:00 PM
OR37: Persistence of T Cells From The First Donor After A Second Allogeneic Stem Cell Transplantation
Larissa Slavich
Children’s Hospital of Philadelphia
Philadelphia, PA

3:00 PM – 3:12 PM
OR38: Antibody Mediated Rejection in Heart Transplantation: Looking Beyond HLA to Non-HLA Targets
Melissa Jeresano
Johns Hopkins University
Baltimore, MD

3:12 PM – 3:30 PM
OR39: Epitopic Analysis Suggests a New Conformational DPαβ Epitope in a Patient Searching for an Unrelated Hematopoietic Stem Cell Donor
Alberto Lima
Federal University of Parana
Curitiba, Brazil

Workshop 4 – Immunoassessment
2:00 PM – 3:30 PM
Imperial Ballroom, Ballroom Level
This workshop will describe the numerous tests available to assess the immune status of recipients both pre and post transplantation.

Moderators: Michelle Hickery, PhD, D(ABHI), UCLA Immunogenetics Center, Los Angeles, CA and James Mathew, PhD, Northwestern University, Chicago, IL

2:00 PM – 2:45 PM
Permissible Mismatches and Donor Selection
Maura Rossetti, PhD
University of California, Los Angeles
Los Angeles, CA

2:45 PM – 3:30 PM
New Tools To Monitor Donor-Specific B Cell Reactivity
Sebastian Heidt, PhD
Leiden University Medical Center
Leiden, Netherlands

Coffee Break with Exhibits
3:30 PM – 4:00 PM
Grand Ballroom, Grand Ballroom Level
Directors’ Forum  
4:00 PM – 5:30 PM  
Continental Ballroom 6-9, Ballroom Level  
This session will provide updates on issues pertinent to the profession. The session will begin with a series of short presentations that will cover the hot topics in the areas of training, regulatory affairs, and professional standards. Time will then be provided for open discussion by the attendees. The session is open to all Directors and Directors-in-Training.

Technologists’ Forum  
4:00 PM – 5:30 PM  
Plaza Room, Lobby Level  
The Technologist Forum is dedicated to what the HLA technologist are interested in, first and foremost. This year, the forum will concentrate on issues which last year’s technologist indicated were areas they were most interested in sharing information. The Technologist Forum is driven by what the technologist interests are from year to year.

IHIWS Update  
5:30 PM – 7:00 PM  
Continental Ballroom 1-5, Ballroom Level  
The goal of the 17th International HLA and Immunogenetics Workshop is to advance the fields of H&I research through the application NGS technologies. Next generation sequencing (NGS) methods are now being applied for HLA and KIR genotyping with great success, the results of analysis of data submitted by multiple laboratories using various NGS platforms and collected in a centralized IHIWS database will be presented. The topics to be discussed include summaries based on objectives from the 17th IHIWS projects which are organized in five different components: NGS for HLA, KIR Genetics and Diversity, Immunogenetics of HSC Transplantation, Epitopes Analyses and Informatics/Population Genetics.

5:30 PM – 5:50 PM  
Overview of 17th IHIWS; 17th IHIWS Summary: NGS for HLA; 17th IHIWS Summary: Immunogenetics of HSC Transplantation  
Marcelo Fernandez-Vina, PhD, D(ABHI)  
Stanford University  
Stanford, CA

5:50 PM – 6:10 PM  
Informatics of the 17th IHIWS; 17th IHIWS Summary: Population Genetics  
Steven Mack, PhD  
Children’s Hospital Oakland Research Institute  
Oakland, CA

6:10 PM – 6:30 PM  
17th IHIWS Summary: Epitope Analyses  
Dolly Tyan, PhD  
Stanford University  
Stanford, CA

6:30 PM – 6:50 PM  
17th IHIWS Summary: KIR Genetics and Diversity  
Jill Hollenbach, PhD, MPH  
University of California, San Francisco  
San Francisco, CA
Thursday, September 14, 2017

The Paul I Terasaki Clinical Science Award and Outstanding Scientist Award
8:00 AM - 9:30 AM
Continental Ballroom 1-5, Ballroom Level

Moderators: Michael Gautreaux, PhD, D(ABHI), Wake Forest School of Medicine, Winston-Salem, NC and John Schmitz, PhD, D(ABMLI, ABHI), UNC – Chapel Hill, Chapel Hill, NC

Paul I Terasaki Award: Elaine F. Reed, PhD, D(ABHI)
UCLA
Los Angeles, CA

Distinguished Scientist Award: Dimitri Monos, PhD
University of Pennsylvania
Philadelphia, PA

Coffee Break with Exhibits
9:30 AM – 10:00 AM
Grand Ballroom, Grand Ballroom Level

Symposium III: Precision Medicine/Predictive Medicine - Precision Medicine and Predictive Analytics (Not Eligible for CME Credit)
10:00 AM – 12:00 PM
Continental Ballroom 1-5, Ballroom Level

Symposium III will focus on the integration of a person’s genetic and immune profile, including their HLA type, into the clinical decision making processes. In the first talk, Dr. Scheller will describe how human genetic data is now being gathered and how it can act as a guide for clinical therapies that address both common and rare diseases. Dr. Scheller will discuss the information provided by each pair of our 23 chromosomes in regards to overall health, specific inherited traits, ancestry, and new applications for these data. Our second speaker, Dr. Helen Heslop, will describe approaches for tailoring an individual’s immune system so that it can target virally infected cells as well as tumor cells. Dr. Heslop will describe how a person’s T lymphocytes can be directed to HLA-presented antigens that are distinct to cancerous cells as well as to post-transplant cells that are infected by a virus. The session’s third speaker, Dr. Dorry Segev, will discuss how an increase in clinical tests and in clinical data collection can be efficiently processed and then applied to clinical transplantation. Dr. Segev will discuss the many factors that a transplant team must consider and he will describe the latest strategies for utilizing the data that is now available as it pertains to optimizing short and long-term transplant outcomes.

Moderators: William Hildebrand, PhD, D(ABHI), University of Oklahoma Health Science Center, Oklahoma, OK and Raja Rajalingham, PhD, D(ABHI), University of California San Francisco, San Francisco, CA

10:00 AM – 10:40 AM
Predictive Medicine
Richard Scheller, PhD
23andMe, Inc.
Mountain View, CA
10:40 AM – 11:20 AM  
**Virus and Tumor Specific T Cells**  
Helen Heslop, MD  
Baylor College of Medicine  
Houston, TX  

11:20 AM – 12:00 PM  
**Big Data and Predictive Analytics in Transplantation**  
Dorry Segev, MD, PhD  
Johns Hopkins University  
Baltimore, MD  

**User Group Meetings**  
12:00 PM – 2:00 PM  

**Concurrent Abstract Sessions**  
2:00 PM – 3:30 PM  

**Abstract Session 5: Novel Assays/Technologies**  
Continental Ballroom 1-5, Ballroom Level  

*Moderators: Robert Bray, PhD, D(ABHI), HCLD/CC(ABB), Emory University, Atlanta, GA and Olga Timofeeva, Temple University & Hospital, Philadelphia, PA*

- **2:00 PM – 2:12 PM**  
  **OR40: Applying Single-Cell Mass Cytometry to Investigate the Immune System of Highly Sensitized Patients Who Undergo Intravenous Immunoglobulin Desentization Treatment**  
  Lin Wang  
  Disease Profiling Laboratory  
  Palo Alto, CA  

- **2:12 PM – 2:24 PM**  
  **OR41: PIRCHE-II: A Novel Tool to Identify Permissible HLA Mismatches in Kidney Transplantation**  
  Kristen Geneugelijk  
  UMC Utrecht  
  Utrecht, Netherlands  

- **2:24 PM – 2:36 PM**  
  **OR42: Expanded Thymic Regulatory T Cells (TREGS) Have Low Class I HLA Expression Levels and Are HLA-DR Negative Potential For ‘Off-The-Shelf’ Cellular Therapy?**  
  Esme Dijke  
  University of Alberta  
  Edmonton, AB, Canada  

- **2:36 PM – 2:48 PM**  
  **OR43: Therapeutic Vaccination Against Breast Cancer In A Transgenic Mouse Model**  
  Christa Devette  
  University of Oklahoma Health Science Center  
  Oklahoma City, OK
2:48 PM – 3:00 PM  OR44: Preliminary Evaluation of a Prototype Panel of Non-HLA Antigens  
Donna Lucas  
Johns Hopkins University  
Baltimore, MD

3:00 PM – 3:12 PM  OR45: Proof of Principle: Bead-Based ABO Antibody Assessment  
Anne Halpin  
University of Alberta  
Edmonton, AB, Canada

3:12 PM – 3:30 PM  OR46: A Novel Cellular Crossmatch to Detect Donor HLA Specific Immunity  
Ge Chen  
Stanford University  
Palo Alto, CA

Abstract Session 6: Rejection  
Continental Ballroom 6-9, Ballroom Level

Moderators: Annette Jackson, PhD, D(ABHI), Johns Hopkins Hospital, Baltimore, MD and Luis Hildalgo, PhD, University of Alberta, Edmonton, AB, Canada

2:00 PM – 2:12 PM  OR47: A Novel Role For Antibodies to HLA and Self-antigens: Induction of Immunostimulatory Exosomes  
Thalachallour Mohanakumar  
St. Joseph’s Hospital and Medical Center  
Phoenix, AZ

2:12 PM – 2:24 PM  OR52: AT1R Antibody In Pediatric Heart Transplant Patients: What Are We Really Detecting  
Anne Halpin  
University of Alberta  
Edmonton, AB, Canada

2:24 PM – 2:36 PM  OR49: Effect of Everolimus Immunotheraphy on HLA-Antibody Mediated Activation of Endothelial Cells in Heart Transplantation  
Fang Li  
UCLA Immunogenetics Center  
Los Angeles, CA

2:36 PM – 2:48 PM  OR50: Complement-Binding Donor-Specific Anti-HLA Antibodies Induce a Specific Histo-Molecular Kidney Allograft Rejection Phenotype  
Carmen Lefaucheur  
Paris Translational Research Center for Organ Transplantation  
Paris, France

2:48 PM – 3:00 PM  OR51: Correlation of Class II Antibody Development With Acute Cellular Rejection and Fibrosis in Pediatric Liver Transplantation  
Laurine M. Bow  
Yale University School of Medicine  
New Haven, CT
3:00 PM – 3:12 PM  
OR48: Antibodies Against Vascular Endothelial Keratin 1 Antigen Associate with Deterioration of Renal Allograft Function  
Yizhou Zou  
Xiangya School of Medicine, Central South University  
Changsha Hunan, China

3:12 PM – 3:30 PM  
OR53: In Vitro and In Silico Approach to Identify HAS-MIR-374A Targets Associated with Antibody Mediated Rejection  
Omar Moussa  
University of Michigan  
Ann Arbor, MI

Workshop 5 – HLA Precision Medicine  
2:00 PM – 3:30 PM  
Imperial Ballroom, Ballroom Level  
Precision Medicine is a medical model that proposes the customization of healthcare to the individual patient. This workshop will describe the medical decisions, practices and products as they relate to genetics, histocompatibility and transplantation.

Moderator: Lynn Kilheeney, CHS, UPMC Presbyterian – Shadyside, Pittsburgh, PA

2:00 PM – 2:45 PM  
Caleb Kennedy, PhD  
Center for International Blood and Marrow Transplant Research  
Minneapolis, MN

2:45 PM – 3:30 PM  
Peter Nickerson, MD, FRCPC  
University of Manitoba  
Winnipeg, Manitoba, Canada

Workshop 6 - Everything You Wanted to Ask About HLA but were Afraid To  
2:00 PM – 3:30 PM  
Plaza Room, Lobby Level  
This workshop comprises a panel of well known experts in the fields of Histocompatibility and Immunogenetics, knowledgeable in all areas and specialties. They will provide answers to ALL questions posed to them during the workshop. Questions can also be submitted anonymously prior to the workshop.

Moderators: Donna Phelan, BA, Mt, CHS, Barnes Jewish Hospital, St. Louis, MO and Jun Zhou, MD, PhD, MD  
Anderson Cancer Center, Houston, TX

Patricia Campbell, BMChB, FRCP  
University of Alberta  
Edmonton, AB, Canada

Carolyn Hurley, PhD, D(ABHI)  
Georgetown University  
Washington DC
Cathi Murphy, PhD  
Southwest Immunodiagnosticstics, Inc.  
San Antonio, TX

Andrea Zachary, PhD, D(ABHI)  
Johns Hopkins University School of Medicine  
Baltimore, MD

Coffee Break with Exhibits  
3:30 PM – 4:00 PM  
Grand Ballroom, Grand Ballroom Level

Symposium IV: Awards, Business Meeting & Updates  
4:00 PM – 5:30 PM  
Continental Ballroom 1-5, Ballroom Level

Networking Event Reception  
9:00 PM – 11:00 PM  
Plaza Room, Lobby Level  
New to ASHI's Meeting this year, this exclusive Networking Event is the ONLY social night out at ASHI’s 43rd Annual Meeting – you won’t want to miss it!

Join us to enjoy a night of music, desserts, drinks, dancing, and networking with your colleagues on Thursday, September 14, from 9:00 pm – 11:00 pm in the Plaza Ballroom (Hotel Lobby level) of the Hilton Union Suare Hotel. The Networking Event features Dorry Segev as your DJ! Dorry is a transplant surgeon from Johns Hopkins Medical Center who has been a DJ at several transplant-related, highly enjoyable parties.

Friday, September 15, 2017

The ASHI-AST First STAR (Sensitization in Transplantation: Assessment of Risk) Workgroup Updates  
8:30 AM – 10:00 AM  
Continental Ballroom 1-5, Ballroom Level  
The STAR workgroup was put together as a joint effort by ASHI and the AST to bring together transplant clinicians and HLA professionals to brainstorm immunobiology and testing for transplant recipients. Members of the workgroup spent a few months reviewing current literature and proposing practice recommendations. The group met the day following the CEOT 2017 and was supported also by the CST, CBS, NIH, One Lambda, Immucor, and a donation from Mark Terasaki and Laurinda Jaffe in memory of Paul Terasaki. This session will provide highlights from the work and discussion of the STAR group members

Moderators: Anat Tambur, DMD, PhD, D(ABHI), Northwestern University, Chicago, IL and Peter Nickerson, MD, FRCPC, University of Manitoba, Winnipeg, Manitoba, Canada

8:30 AM - 8:50 AM  
Technical Primer  
Anat Tambur, DMD, PhD  
Northwestern University  
Chicago, IL

ASHI FINAL PROGRAM • 22
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Institution</th>
<th>Location</th>
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<tr>
<td>8:50 AM - 9:10 AM</td>
<td>Immunobiology</td>
<td>Howard Gebel, PhD, D(ABHI)</td>
<td>Emory University</td>
<td>Atlanta, GA</td>
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<td>9:10 AM - 9:30 AM</td>
<td>Approaches to patients with immunological memory</td>
<td>Kathryn Tinckam, MD MMSc FRCPC FAST</td>
<td>University Health Network Toronto</td>
<td>Toronto, ON, Canada</td>
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<tr>
<td>9:30 AM - 9:50 AM</td>
<td>Approached to patients with naïve memory</td>
<td>Patricia Campbell, BMChB, FRCP</td>
<td>University of Alberta</td>
<td>Edmonton, AB, Canada</td>
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<td>9:50 AM - 10:00 AM</td>
<td>Q&amp;A</td>
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