Current Topics in Histocompatibility & Transplantation

A Unique Continuing Education Opportunity

2019 Teleconference Series

Sponsored by

Sandra Rosen-Bronson, PhD, D(ABHI)

Georgetown University

Washington, DC

An ABHI Approved Continuing Education Program

Current Topics in Histocompatibility and Transplantation for Technologists

This series of twenty interactive lectures, moderated by Dr. Sandra Rosen-Bronson, will reach hundreds of individuals through real-time, ninety minute in-depth audio conferences involving organizations and people from around the world. Without ever leaving your laboratory or office, you can listen to expert scientists and key decision makers thousands of miles away. Additionally, you can ask questions and get immediate answers, as well as listen to other participants' questions. This convenient and cost-effective educational tool will allow you to keep current in the field of histocompatibility testing and transplantation. Each participant will earn ABHI Continuing Education Credit (CEC) equal to 1.5 contact hours or 0.225 CE credits per lecture.

Frequently Asked Questions

How Does a Teleconference Work? Three to five days before each lecture, a teleconference packet is mailed to your site coordinator. The packet will contain the lecture slides as a PowerPoint file and a PDF file, handouts as a PDF file, along with detailed conference instructions all on a CD. At the scheduled time on the day of the lecture, your site must call the telephone number provided in the instructions. U.S. participants receive a toll-free telephone number. International participants may incur additional telephone charges.

All teleconferences are scheduled to start at 1:00 P.M. (Eastern Time) and last approximately ninety minutes. Once the teleconference has begun, participants view the slide show as they listen to the lecturer. There will be an opportunity to participate in a question and answer session at a midpoint and at the end of the lecture.

What If the CD Doesn't Work Properly? If the CD you receive does not function properly, it will be replaced at no charge. As soon as you receive your conference packet, please verify that the CD contains the correct PowerPoint file and that it functions properly in your computer system. If you experience any difficulty with the CD or have a problem opening the files, contact us immediately.

What If We Haven't Received the Packet? If you do not receive your conference packet, please contact us as soon as possible so that we can provide you with the materials.

What Equipment Do We Need On Site? You will need a computer with a monitor and a speakerphone.

How Do We Register? Complete the registration form and fax a copy of the form to (202) 944-2343. Send the original registration form with complete credit card information or a check made payable to Georgetown University to:

U.S. Mail:
Sandra Rosen-Bronson
Box 571438
Georgetown University
3900 Reservoir Road NW
Washington, DC 20057-1438

Overnight Courier:
Sandra Rosen-Bronson
Preclinical Science Bldg, Room LE8H
Georgetown University
3900 Reservoir Road NW
Washington, DC 20007

To ensure your registration is processed, it is important to send it to the EXACT NAME and ADDRESS as listed above.

Cancellation Policy: Cancellations which occur 21 days or more prior to the date of the first lecture for which your site has registered are refundable less a nonrefundable deposit of $50. For cancellations which occur from 21 to 14 days prior, 50% of the lecture series fee will be forfeited. No refunds are possible within 14 days prior to the starting date. All cancellation requests **must be submitted in writing.**

Further Questions: If you have any questions, please visit our website at www.ctht.info or contact us at:

Tel: (202) 784-5518 or (202) 687-8924
Fax: (202) 944-2343
Email: Andre.Thalberg@georgetown.edu

2019
Teleconference Schedule

All dates are Tuesdays and all lectures begin at 1:00 P.M. (Eastern Time)

May 14, 2019
Potential Clinical Relevance of Anti-HLA-DP Antibodies
presented by Jeffrey Kiernan, PhD, University Health Network, Toronto, ON

Participants will hear about current data on the clinical significance of donor specific antibody reactive with HLA-DP in solid organ transplant. The speaker will discuss how HLA Matchmaker analysis can be used to identify target epitopes.

May 21, 2019
Virtual Crossmatch Using Molecular HLA Typing Data
presented by Loren Gragert, PhD, Tulane University School of Medicine, New Orleans, LA

Participants will learn about a web-application designed to automate translation of HLA data between antigen-based and molecular nomenclature systems to streamline assessments of virtual crossmatch in the short time available to accept organ offers. This tool may also enable a standardized interpretation of molecular HLA typing data in organ allocation match runs.

June 18, 2019
Risk Epitope Mismatches Associated with *de novo* Donor Specific Antibody
presented by Jennifer McCaughan, MBChB, PhD, Belfast City Hospital, Belfast, UK

Participants will hear about studies aimed at identifying specific HLA factors associated with *de novo* DSA development. Listeners will also learn about potential primary prevention strategies that could reduce the incidence of *de novo* DSA without prohibitively limiting access to transplant.

June 25, 2019
Fundamental Concepts for Understanding Antibody Recognition of Protein Antigens
presented by Neil Greenspan, MD, PhD, Case Western Reserve University, Cleveland, OH

This lecture will define structural and chemical concepts critical to understanding how antibodies bind and discriminate among antigens, especially protein antigens. Key terms that will be discussed include: affinity, avidity, specificity, epitope, paratope, equilibrium constant, kinetic constant.

July 9, 2019
Targeting Notch Signaling to Prevent Graft-Versus-Host Disease
presented by Ivan Maillard, MD, PhD, University of Pennsylvania, Philadelphia, PA

Participants will learn about the growing body of preclinical evidence showing that Notch signaling plays a central role in GVHD pathogenesis and how transient inhibition of Notch ligands in the peri-transplant period can provide long-term disease protection. Listeners will also learn about new therapeutic targets and interventions that have the potential to change clinical practice.

July 16, 2019
HLA Allele and Haplotype Frequencies Characterized Using NGS
presented by Marcelo Fernandez-Vina, PhD, Stanford University School of Medicine, Palo Alto, CA

Participants will hear about findings from the 17th IHIW unrelated population HLA diversity project. They will learn how next generation sequencing (NGS) generated HLA genotype data was statistically analyzed to estimate allele and haplotype frequencies. In addition, they will learn how new information about HLA genetic diversity at the intronic level will be a useful resource for anthropologic and disease association studies.

July 30, 2019
Applying HLA Population Genetics to Solid Organ Transplantation:
Re-thinking the Calculated Panel Reactive Antibody
presented by Loren Gragert, PhD, Tulane University School of Medicine, New Orleans, LA and
Evan Kransdorf MD, Cedars-Sinai Heart Institute, Cedars–Sinai Medical Center, Los Angeles, CA

The CPRA is an indispensable measure of access to transplantation for sensitized candidates and is used as the official measure of sensitization for organ allocation in the U.S. In this lecture, HLA population genetics will be reviewed and the mathematical basis of the CPRA will be detailed. The speakers will also discuss limitations of the current CPRA calculation and present their efforts to validate a more comprehensive high-resolution HLA reference panel for CPRA based on NMDP registry haplotype frequency data.

August 13, 2019
Donor-Derived Cell-Free DNA: A Marker of Transplant Rejection
presented by Sean Agbor–Enoh, MD, Laboratory of Transplantation Genomics
National Heart Lung Blood Institute, NIH, Bethesda, MD

Allograft failure is common in lung transplant recipients and leads to poor outcomes including early death. Moreover, currently no reliable clinical tools exist to identify patients at high risk for allograft failure. Participants will learn about studies that suggest how donor-derived cell-free DNA may serve as a sensitive biomarker for early graft injury and may predict impending allograft failure.

September 10, 2019
The African Diaspora and Its Implications for Transplant
presented by Martin Maiers, MS, Bioinformatics Research, National Marrow Donor Program, Minneapolis, MN

Participants will learn how the genetic heterogeneity of U.S. “persons of African descent” contributes to difficulties in identifying a matched unrelated donor. Listeners will hear about studies aimed at understanding and eliminating disparities to improve access to transplant for underserved patients.

October 1, 2019
Donor and Cord Blood Selection Guidelines 2019
presented by Jason Dehn, MPH, Collection and Laboratory Services,
National Marrow Donor Program, Minneapolis MN and
Joseph A. Pidala, MD, PhD, Blood and Marrow Transplantation and Cellular Immunotherapy, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL

Participants will learn about HLA typing considerations for patients and donors along with strategies to guide the search and expedite transplant. They will also hear about additional factors that are important in the selection of unrelated donors and patient characteristics that may influence donor selection.

October 8, 2019
IdeS (Imlifidase): New Hope for Highly Sensitized Transplant Patients
presented by Bonnie Lonze, MD, PhD, NYU Langone Transplant Institute, New York, NY

Participants will learn about an endopeptidase derived from *Streptococcus pyogenes* called IdeS or imlifidase that, when infused intravenously, results in rapid cleavage of IgG. The audience will learn about study results that suggest IdeS treatment in highly sensitized kidney transplant patients may represent a groundbreaking new method of desensitization for patients who otherwise might have no hope for receiving a lifesaving transplant.

October 15, 2019
Understanding Your Laboratory's Quality Plan
presented by Jenifer Williams, BS, CHS, MB(ASCP), and
Parivash Abbasalizadeh, BS, MT, BB(ASCP), Baylor University Medical Center, Dallas, TX

Participants will learn about basic concepts of laboratory quality systems. They will learn how quality assessment can be used to ensure continuous improvement of the laboratory's performance through ongoing monitoring that identifies, evaluates and resolves problems.

October 22, 2019
Characterization of HLA Antibody Specificities in the NGS Era
presented by Marcelo Fernandez-Vina, PhD, Stanford University School of Medicine, Palo Alto, CA

Participants will hear how the incorporation of allele level donor and recipient HLA typing performed by next generation sequencing (NGS) may facilitate our ability to characterize antibody specificities. They will also learn about solutions for dealing with the conundrum of new alleles not represented in commercially available solid phase antibody kits.

October 29, 2019
HLA Typing for the Novice: How Did We Get Here?
presented by Donna Phelan, CHS, Barnes-Jewish Hospital, St. Louis, MO
Brian Duffy, MA, CHS, Barnes-Jewish Hospital, St. Louis, MO, and
Harriet Noreen, CHS, Fairview University Medical Center, Minneapolis, MN

Beginners in the field of HLA will learn how to make sense of serologic versus molecular names for HLA molecules. They will learn about the relationship between HLA serologic equivalents and HLA alleles through hearing about how HLA antigens were originally defined as well as how and why typing methods have evolved.

November 5, 2019
Differential Reactivity of Monoclonal Antibodies for the Detection of HLA Class II Surface Expression
presented by Esme Dijke, PhD, University of Alberta Hospital Histocompatibility Laboratory
Edmonton, Alberta, Canada

Participants will hear about a study aimed at evaluating the utility of two different monoclonal antibodies for assessing HLA class II density on donor cells used in a flow cytometric crossmatch.

November 12, 2019
Histocompatibility Assay Validation: Unique Challenges
presented by Sam Ho, PhD, Gift of Life Michigan, Ann Arbor, MI

Participants will hear about strategies for validating flow crossmatches. They will learn how to access metrics such as sensitivity, specificity, and precision for histocompatibility assays in which a truly positive or negative is hard to define.

November 19, 2019
Quality Challenges in the Next Generation Sequencing Era
presented by Deborah Ferriola, BS, CHT, Children's Hospital of Philadelphia, Philadelphia, PA

Next generation sequencing (NGS) is a powerful technology that utilizes clonally-amplified templates sequenced in a massively parallel fashion requiring complex informatics processes. Participants will learn about the unique quality assurance challenges and ASHI standards specific to utilizing NGS for patient testing in a clinical laboratory.

December 3, 2019
Antibody Epitope Analysis for the Novice
presented by Robert Liwski, MD, PhD, Queen Elizabeth II Health Sciences Centre, Halifax, NS, Canada

Participants will learn how to use available tools to understand complex HLA antibody specificities. The speaker will provide step-by-step guidance and include case studies to teach basic concepts of epitope analysis.

December 10, 2019
The Progress and Biology of *De Novo* Alloantibody
presented by Mark Haas, MD, PhD, Cedars-Sinai Medical Center, Los Angeles, CA

Participants will hear a review of the temporal relationships between key morphologic lesions of active and chronic antibody mediated rejection (ABMR) in biopsies of human grafts. Listeners will also learn about likely intermediate forms of ABMR and potential therapeutic approaches that may be useful throughout the time course of ABMR progression.

December 17, 2019
Computational Approaches to Facilitate Epitope-Based HLA Matching in Solid Organ Transplant
presented by Eric Spierings, PhD, University Medical Center Utrecht, Utrecht, The Netherlands

Although HLA genotyping methodologies have improved, rapid availability of reliable high-resolution typing data remains challenging. Participants will learn about a computational method to perform epitope-based matching using serologic split-level HLA typing to predict high-resolution genotypes based on HLA haplotype frequency tables. This computational approach may be a powerful tool to estimate either PIRCHE-II (predicted indirectly recognizable HLA epitopes) or HLA Matchmaker eplet values when high-resolution data is not available.


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