



Current Topics in Histocompatibility & Transplantation

A Unique Continuing Education Opportunity

2017 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 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

2017

Teleconference Schedule

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

April 25, 2017

Understanding Outcomes Studies

presented by Ruta Brazauskas, PhD

Division of Biostatistics, Medical College of Wisconsin, Madison, WI

Many clinical research studies use an end result or outcome of a treatment to evaluate efficacy. From this basic lecture participants will hear about key components of outcomes study design and will learn how to understand and interpret results from such studies.

May 9, 2017

Taking Good Quality Processes and Making Them Great

presented by Frederick Strathmann, PhD, DABCC (CC, TC)

NMS Labs, Willow Grove, PA

Good quality practices are well known but may not be fully implemented when turnaround time, efficiency, and costs continue to exert their influence on laboratory decision making. From this lecture participants will learn alternative approaches to QC monitoring that can facilitate increased accuracy and reduced error rates.

May 16, 2017

Polyreactive Antibody

presented by Emmanuel Zorn, PhD

Columbia University Medical Center, New York, NY

Pre-existing serum antibodies have long been associated with graft loss in transplant recipients. Although HLA antibodies are clearly important factors in transplant outcomes, the contribution of non-HLA-reactive antibodies is often overlooked. From this lecture participants will learn about natural polyreactive antibodies produced by innate B cells that have been shown to negatively impact long-term transplant outcome.

May 23, 2017

Next Generation Luminex

presented by Lynn Kilheeny, MT, CHS, UPMC Presbyterian Shadyside, Pittsburgh, PA and

Paul Sikorski, MS, CHS, Thermo Fisher Scientific, Canoga Park, CA

The LABScan 3D is an advanced Luminex instrument with which 500 distinguishable bead sets can simultaneously be multiplexed in a single sample. Participants will hear an overview of how the instrument works and will learn about kits available for HLA typing and antibody analysis. They will also hear about assay performance as well as validation considerations from an experienced end user.

June 6, 2017

Who Needs NGS:

Combining Sanger SBT With Phasing Probes Results in Resolution of the Majority of HLA Variation

presented by Carolyn Hurley, PhD, D(ABHI)

CW Bill Young Marrow Donor Recruitment and

Research Program at Georgetown University Medical Center, Washington, DC

This talk will provide an overview about a workflow strategy to pair Sanger-based DNA sequencing with oligonucleotide probe hybridization results in single genotype resolution at the G level for over 95% of the HLA class I loci without additional assays. Participants will hear how the resolution obtained with this approach compares with that obtained by NGS in typing both registry samples and donor-recipient pairs.

June 20, 2017

Validation of HLA Typing by NGS

presented by Eric Weimer, PhD, D(ABMLI)

University of North Carolina at Chapel Hill School of Medicine, Chapel Hill, NC

The validation of HLA typing by next-generation sequencing is a laborious process. Participants will hear about the steps and considerations involved, as well as how to comply with the QC requirements and ASHI standards specific to NGS.

June 27, 2017

Flow Crossmatch: When is Negative Not Really Negative and Positive Not Really Positive?

presented by Cathi Murphy Half, PhD, HCLD

Southwest Immunodiagnostics, Inc., San Antonio, TX

Although the flow crossmatch is a key tool for histocompatibility laboratories to assess donor and recipient compatibility, its interpretation can sometimes be complicated. Participants will learn how variables such as donor HLA expression levels or donor specific antibody to public epitopes like Bw4 or Bw6 can affect results. They will also hear about the effects of interference from autoantibodies or therapeutic drugs on crossmatch results.

July 18, 2017

The Application of NGS to HLA Typing: Challenges in Data Interpretation

presented by Marcelo Fernández-Viña, PhD, D(ABHI)

Stanford University School of Medicine, Stanford, CA

Next-generation sequencing (NGS) is a power tool for interrogating DNA sequences; however, its use by clinical laboratories for HLA typing can present unique obstacles. Participants will hear about how NGS manufacturers are dealing with the challenges and will learn how to understand NGS data and avoid pitfalls.

August 1, 2017

Autoimmunity in Transplantation and its Clinical Relevance

presented by Marie-Josée Hébert, MD, FRCPC

University of Montreal, Montreal, QC, Canada

Autoantibodies present before transplantation are increasingly recognized as important determinants of rejection, function, and survival of solid organ transplants. Explanations for the presence of autoantibodies in de novo transplant patients in absence of classical auto-immune conditions are only beginning to be unraveled. Participants will learn about mounting evidence that suggests expression of cryptic antigenic determinants and release of exosome-like apoptotic vesicles in association with vascular injury are important contributors to autoantibody formation before transplantation.

August 8, 2017

Non-HLA Factors Considered for Donor Selection

presented by Bronwen Shaw, MD, PhD

Center for International Blood and Marrow Transplant Research

The Medical College of Wisconsin, Milwaukee, WI

Survival after an allogeneic hematopoietic cell transplant has improved over time. A major part of this advancement is attributed to more precise HLA typing and appropriate donor selection, but other factors not related to HLA antigens have also contributed. From this lecture participants will learn about factors not related to the HLA system that are important for donor selection such as stem cell source (peripheral blood vs. bone marrow), donor age, donor sex, and more.

August 15, 2017

Back to the Future: HLA Matching to Improve Outcomes

presented by Peter Nickerson, MD, FRCPC
University of Manitoba, Winnipeg, Manitoba, Canada

Patients lose their transplanted organs due to multiple complex interrelated factors including the degree of HLA mismatch and donor specific antibodies. This talk will feature studies conducted over the years that are contributing to progress toward maximizing long-term transplant survival.

August 29, 2017

Web Tools for Donor Search

presented by Jason Dehn, MPH
National Marrow Donor Program, Minneapolis, MN

The search for a suitably HLA-matched stem cell donor is a complex process. The current web tools to evaluate HLA type and donor compatibility are an invaluable source of information. From this basic talk, participants will learn how to use and understand the data generated by HaploStats, a tool provided by the NMDP Bioinformatics group for accessing frequency information for haplotypes and haplotype pairs. They will also hear about other available web tools useful for donor search such as the IMGT DPB T-Cell Epitope Algorithm and KIR Ligand Calculator.

September 26, 2017

Application of HLA Epitope-Based Matching in the Clinical Transplant Setting

Part I: Antibody Reactivity with Epitopes

presented by Rene Duquesnoy, PhD
University of Pittsburgh Medical Center, Pittsburgh, PA

Molecular modeling and amino acid sequence comparisons of HLA alleles have permitted structural descriptions of epitopes reacting with HLA antibodies. Participants will learn basic concepts about HLA epitopes and how they should be considered in the analysis of HLA antibody reactivity patterns.

October 3, 2017

Is NGS for Everyone?

presented by Lee Ann Baxter-Lowe, PhD, D(ABHI)
Children's Hospital Los Angeles, Los Angeles, CA

A growing number of laboratories are adopting next-generation sequencing (NGS) as their main HLA typing method; however, especially for smaller laboratories, many elements need to be considered when determining whether or not to change typing methods. Participants will hear about factors that need to be weighed in making this decision.

October 10, 2017

Finding the Best Match: Looking to the Epitopes

presented by Anat Tambur, DMB, PhD
Northwestern University, Chicago, IL

Many patients receive transplants from donors who may be mostly HLA mismatched and post transplant, develop donor specific HLA antibody, along with antibody mediated graft rejection. Participants will learn how an understanding of epitopes can facilitate the selection of donors with the least detrimental mismatches in an effort to improve outcomes.

October 17, 2017

**Application of HLA Epitope-Based Matching in the Clinical Transplant Setting
Part II: Pre-Transplant Serum Analysis for Epitope-Specific Antibodies**

presented by Rene Duquesnoy, PhD
University of Pittsburgh Medical Center, Pittsburgh, PA

Epitope analysis of serum antibody reactivity in sensitized patients is useful for the identification of potential compatible donors. Through case examples, participants will learn how to use available analysis tools for recognizing epitope-specific antibodies.

October 24, 2017

The Molecular Microscope

presented by Zahra Kashi, PhD, HCLD
Kashi Clinical Laboratories, Portland, OR

Participants will learn how an understanding of the relationship between gene expression and clinical phenotypes in kidney transplant biopsy samples has led to the development of a system that enables diagnoses of specific disease states on the basis of messenger RNA levels in the biopsy sample. The talk will focus on advances in the molecular assessment of disease states in biopsy samples and how they have improved understanding of specific processes involved in kidney graft outcomes.

October 31, 2017

HLA Amino Acid Polymorphisms and Kidney Allograft Outcomes

presented by Malek Kamoun, MD, PhD
University of Pennsylvania, Philadelphia, PA

This talk will cover studies aimed at understanding the effects of individual amino acid differences on delayed graft function (DGF). Participants will learn about one study in particular that examined the effect of individual amino acid mismatches on organ alloreactivity and graft survival.

November 7, 2017

Post-Transplant Monitoring: It's More Than Just DSA

presented by Alexander Gilbert, MD
Transplant Nephrologist, Kidney and Pancreas Transplant Program
MedStar Georgetown Transplant Institute, Washington, DC

From this basic lecture, participants will learn how donor specific antibody (DSA) testing fits into the big picture of post-transplant patient care. They will hear about the clinical factors considered for DSA risk assessment, testing frequency, and treatment decisions.

November 14, 2017

What's Wrong With This Picture? Technical and Instrumental Troubleshooting Tips

presented by Robert Liwski, MD, PhD
HLA Typing Laboratory, Queen Elizabeth II Health Sciences Centre, Halifax, Nova Scotia, Canada

Participants will learn how to recognize and troubleshoot problematic flow cytometer and Luminex results. They will also learn how to spot potential technical problems including incorrect instrument settings, insufficient washes, or suboptimal dilution of principle reagents.



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