



Current Topics in Histocompatibility & Transplantation

A Unique Continuing Education Opportunity



An ACHI Approved Continuing Education Program

2021 Teleconference Series



Sponsored by
Sandra Rosen-Bronson, PhD, D(ABHI)
Georgetown University
Washington, DC

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, all teleconference materials are sent to your site coordinator on a CD via FedEx or by email. The materials will include: the lecture slides in two file formats (PowerPoint and PDF), handouts as a PDF file, and detailed conference instructions. 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 sessions.

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 files and it is compatible with 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

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 one of the ADDRESSES listed above** and fax it to (202) 944-2343.

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

Tel: (202) 784-5518

Fax: (202) 944-2343

Email: Andre.Thalberg@georgetown.edu

Thank you for your participation in our program!

2021 Teleconference Schedule

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

May 25, 2021

Good Pipetting Practices

presented by Sandra Jabre, BS and Chris Phaneuf, BS, Mettler-Toledo Rainin, LLC, Oakland, CA

Although often overlooked, pipettes are critical tools used daily in histocompatibility laboratories and precise pipetting is crucial for accurate results. Participants will learn tips and tricks to reduce pipetting errors and ensure data quality. They will also hear about the importance of maintaining pipettes for greater accuracy and longevity, as well as what to look for when selecting a service provider to take care of these daily tools.

June 15, 2021

The Kidney for Life Initiative

presented by Michael Cecka, PhD, D(ABHI), University of California Los Angeles, Los Angeles, CA
and Matthew Ronin, BS, National Kidney Registry, Babylon, NY

Participants will learn about the National Kidney Registry's (NKR) Kidney for Life initiative. This NKR program utilizes the NGS sequencing-based HLA typing from recipients and potential donors to assess the epitope/epitope match of a given donor/recipient pair. The goal of this assessment is to help transplant centers select donors for specific recipients based on a better understanding of the epitope mismatch risk. They will also hear about other important things that NKR does that impact HLA labs as well as how they can be more engaged with the NKR.

June 22, 2021

COVID 19 Vaccines: Where are We Now

presented by Todd Hatchette, MD FRCPC, Division of Microbiology, Department of Pathology
and Laboratory Medicine, Dalhousie University, Halifax, Nova Scotia

The critical role of anti-viral vaccines has become starkly clear since the onset of the COVID-19 pandemic. Participants in this conference will hear a review of currently available COVID-19 vaccines including their mechanisms of action and effectiveness data. The speaker will also discuss hot topics and controversies about the vaccines.

July 13, 2021

Virtual Crossmatch: One Size Doesn't Fit All

presented by David Pinelli, PhD D(ABHI), Northwestern University Feinberg School of Medicine
Chicago, IL

Participants will learn what a virtual crossmatch is, as well as its advantages and limitations. They will also hear about applying the virtual crossmatch to clinical practices along with patient, organ type, and transplant center specific considerations.

July 20, 2021

Hybrid Capture Technology: Next Generation HLA Typing and Beyond

presented by Gordon Hill, MS, CareDx, Inc., West Chester, PA and Nehal Kothari, MS
CareDx, Inc., San Francisco, CA

Participants will learn how innovative hybrid capture technology can be used to enrich for HLA target sequences prior to next generation sequencing. Through clinical case study examples, listeners will also learn how the hybrid capture approach for NGS eliminates the inefficiencies observed with long-range PCR methods.

July 27, 2021

Next Generation Nanopore Sequence

presented by Karen Sherwood, PhD, University of British Columbia, Vancouver, BC

Participants will learn about a novel to NGS method that leverages the single molecule real-time sequencing capabilities of nanopore technologies. Next generation nanopore sequencing is potentially a robust and reliable protocol for deceased donor typing capable of providing high-resolution HLA sequence and epitope data in a turnaround time of approximately 6hrs from sample acquisition.

August 3, 2021

Non-HLA Antibody Testing

presented by Michelle Hickey, PhD D(ABHI), UCLA Immunogenetics Center
Department of Pathology and Laboratory Medicine, Los Angeles, CA

Participants will hear about the multiple polymorphic allo-antigens and auto-antigens that may be clinically relevant in transplant. They will also learn about different test platforms available for testing transplant patients for non-HLA antibodies.

August 24, 2021

The HLA Laboratory Experience with HLA-DSA

presented by Kelly Hitchman, PhD, D(ABHI), Histocompatibility and Immunogenetics Laboratory
University of Texas Health San Antonio, San Antonio, TX

Participants will learn about the immunologic role of donor specific HLA antibody (DSA) and strategies for monitoring DSA post-transplant. They will hear about ways that DSA can escape detection and how to prevent this from happening as well as strategies for assessing the clinical relevance of different types of DSA.

August 31, 2021

Optimizing NGS Workflow: Ensuring Quality Results from Every Run

presented by Anh Huynh, BA, CHS, HLA Technical Consultant, Transplant Diagnostics
Thermo Fisher Scientific, Los Angeles, CA

Regardless of what platform or NGS kit used by a laboratory, from DNA extraction to PCR amplification they all share similar critical steps and procedures that can affect the ultimate success or failure of a NGS run. Participants will learn tips, tricks, and best practices to facilitate optimal NGS workflow and quality results.

September 14, 2021

Broadening Metrics for Immune Compatibility to Improve Equity in Organ Allocation

presented by Loren Gragert, PhD, Tulane University School of Medicine, New Orleans, LA and
James Lan, MD, FRCPC, D(ABHI), University of British Columbia
Department of Pathology and Laboratory Medicine and the Division of Nephrology, Vancouver, BC

This talk will describe two approaches to improve equity in organ allocation based on measuring the proportion of the immune-compatible donor pool. Updates will be provided on development of a more comprehensive and accurate calculated panel reactive antibody (CPRA) metric for HLA antibody sensitization based on a US stem cell registry donor panel of HLA high resolution genotypes covering all classical loci. The speakers will also discuss a new OPTN policy initiative for continuous distribution of organs that may improve equity in access among ABO blood groups.

October 5, 2021

HLA as a Target of T Cell Tolerance

presented by Megan Levings, PhD, University of British Columbia, Department of Surgery
Vancouver, BC

Participants will hear about studies focused on engineering regulatory T cells (Tregs) and the development of alloantigen-specific chimeric antigen receptor (CAR) Tregs. They will learn how such CAR Treg cell-based therapies could be used to mitigate the consequences of graft rejection, graft-versus-host disease, and autoimmune disease.

October 12, 2021

The Kinetics of Anti-HLA Antibody in Simultaneous Liver-Kidney Transplantation

presented by Matthew Cusick, PhD, D(ABHI), University of Michigan Medicine
Department of Pathology, Ann Arbor, MI

During simultaneous liver-kidney transplantation in sensitized patients, high levels of donor specific HLA antibodies (DSA) can be present prior to transplant without significant incidences of acute rejection. This is due to the fact that, unlike kidneys, the liver appears to be “immunologically privileged” and appears to be refractory to high levels of DSA. Furthermore, the liver may provide “immunological cover” in dual organ recipients with high levels of circulating DSA. Participants will hear about a study aimed at understanding the immediacy and extent of the protective effect of the liver during SLK by assessing the intra- and peri-operative kinetics of anti-HLA antibodies in highly sensitized SLK recipients.

October 19, 2021

A Modified Flow Cytometric Crossmatch Protocol to Decrease B Cell Background

presented by Robert Liwski, MD, PhD, Queen Elizabeth II Health Sciences Centre
Dalhousie University, Halifax, Nova Scotia

Participants will hear an update on the latest modification to the optimized flow crossmatch protocol developed in Dr. Liwski’s laboratory. They will learn how the new modified protocol decreases B cell crossmatch background and facilitates accurate interpretation.

November 2, 2021

KIR Testing

presented by Faisal M. Khan, PhD, D(ABHI), Hematology Translational Laboratory
Cumming School of Medicine, University of Calgary, Alberta

Participants will hear an update on the current understanding and practices concerning evaluation of KIR genes and their role in donor selection for hematopoietic cell transplantation.

November 9, 2021

Missing Self and DSA: Synergy of Two NK Cell Activation Pathways in Kidney Transplantation

presented by Luis Hidalgo, PhD, University of Wisconsin HLA Laboratory, Madison, WI

Antibody-mediated rejection (ABMR) remains one of the leading causes of allograft dysfunction and kidney transplant failure. The diagnosis of ABMR relies on donor-specific antibodies (DSA) detected in the recipient’s blood, along with histopathologic features of antibody mediated damage evident in the graft microvasculature. Although DSA is the critical component that initiates ABMR, it has been shown that circulating DSA is not a strong predictor for the development of ABMR or graft loss. Participants will hear about recent studies suggesting that natural killer (NK) cell activation through a process known as “missing self” may synergize with DSA-mediated NK cell activation and translate into increased graft damage.

November 16, 2021

Assessment of the Humoral Response to SARS-CoV-2 Infection via Novel Multiplexed Assays
presented by Jonathan Maltzman, MD, PhD, Stanford University, Palo Alto, CA

During the COVID-19 pandemic, clinicians, labs, and researchers are continuously looking for new methods and tools to understand the impact of COVID-19 on transplant patients. Participants will learn about one such tool, a Luminex-based multiplex test designed to identify antibody responses to unique SARS-CoV-2 targets. They will also learn about what is known about patients' immune responses to the virus as well as the current understanding of the effect of the SARS-CoV2 virus on their immune system overall.

November 23, 2021

Machine Learning to Analyze Immune Cellular Compartments in Pre-Transplant Patients
presented by Franz Fenninger, PhD, University of British Columbia
Vancouver General Hospital, BC

Uremic patients awaiting transplant exhibit profound disturbance of the immune response characterized by impaired immunity and enhanced inflammation. Dysregulation is further influenced by age, disease and therapy, individualizing the functional and cellular changes in each patient's circulating immune system. Participants will learn about studies that combined deep cytometry with machine learning to explore these changes to gain an understanding of the effects of kidney disease on the immune system.

November 30, 2021

Kidney Allocation 2021

presented by Sam Ho, PhD, D(ABHI), Histocompatibility and Infectious Disease Testing Laboratory
Gift of Hope Organ & Tissue Donor Network, Itasca, IL

As of March 15, 2021, kidney allocation in the U.S. changed significantly. The new allocation system changed the definition of "local allocation" from the Donation Service Area to 250 nautical mile circles originating from the donor hospital. While this allocation approach has also been adopted for other organs, the larger number of both kidney transplant centers and transplant candidates make the change in kidney allocation more complex. Participants will hear how the new allocation system impacts workflow in HLA laboratories and transplant programs, as well as Organ Procurement Organization across the U.S.

December 7, 2021

The impact of the COVID-19 Pandemic on Transplant Patients

presented by Robin Avery, MD, Johns Hopkins University, Baltimore, MD

Transplant patients have an increased risk for infection due to the nature of their underlying disease and, post-transplant, life-long immunosuppression. Participants will learn from an infectious disease expert about the impact of the COVID-19 pandemic on transplant patients and donors.

December 21, 2021

Tips for Determining if an Antibody Specificity is Relevant

presented by Matthew Najor, PhD, D(ABHI), MedStar Georgetown University Hospital
Histocompatibility Laboratory, Washington, DC

It is often hard to ascertain whether an antibody specificity detected in a solid phase assay is truly a clinically relevant HLA antibody. Through case examples, participants will learn how to access antibody specificities by comparing results from multiple assay platforms and epitope analysis using tools such as the HLA Epitope Registry and HLA Matchmaker.



2021

www.ctht.info