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Welcome to the 14th International Summer School on Immunogenetics

The 14th International Summer School on Histocompatibility and Immunogenetics, hosted by the American Society for Histocompatibility and Immunogenetics (ASHI) with support from the European Federation of Immunogenetics (EFD), the Asia-Pacific Histocompatibility and Immunogenetics Association (APHIA) and the Arabic Society for Histocompatibility and Immunogenetics (ARSHI) will take place at the Marriott Springhill Suites Old Montreal, Canada, July 14 – 17, 2019. The meeting is intended for individuals desiring more in-depth coverage of theoretical and practical aspects of histocompatibility and immunogenetics, especially directors-in-training, fellows, graduate students and technologists desiring a comprehensive overview of histocompatibility and immunogenetics. Early applications are required as attendance is limited to promote open discussion and facilitate presentation of research by each participant. Meeting information including the program, faculty and application procedures are available on the ASHI web site (https://www.ashi-hla.org/page/Meetings_ISS). We look forward to seeing you in Montreal!

Sincerely,

Patricia Campbell, MBChB
ASHI President

John Schmitz, PhD, D(ABHI, ABMLI)
ASHI Past President
14th International Summer School
Hotel and Travel Information

Hotel Information
The 14th International Summer School will be held July 14 – 17, 2019 at the SpringHill Suites by Marriott Old Montreal in Montreal, QC, Canada. The registration fee of $250 USD includes registration to the summer school, 3 nights hotel stay during summer school dates, lunch and dinner for Sunday, Monday and Tuesday, and city excursions/events on Monday and Tuesday. If you wish to stay at the hotel more than 3 nights, you will include these dates on your registration, we will take care of making your full hotel reservation and upon your arrival, you will be asked to provide a credit card for the additional room nights.

Air Travel
The Montréal-Pierre Elliott Trudeau International Airport is approximately 13 miles from the SpringHill Suites by Marriott Old Montreal.

Ground Transportation
If you will be arriving into the Montréal-Pierre Elliott Trudeau International Airport (YUL), you can find a taxi or limousine at the arrivals level near the central exit located in front of the cloakroom, where a dispatcher will assist you. No reservation is required. The average fare will be $50 to SpringHill Suites by Marriott Old Montreal.

The average fare for an Uber or Lyft will be $30-50 to SpringHill Suites by Marriott Old Montreal.

Questions
For any questions, please contact Victoria Ramsay at vramsay@ashi-hla.org
14th International Summer School
Faculty

Fadi Alazayer, CHT, CHS(ABHI), MBA, CSSGB, CM
Arabian Society for Histocompatibility and Immunogenetics

Fadi Alazayer is a current HLA Laboratory supervisor with 20 years of experience and is CHT and CHS certified by American Board in Histocompatibility and Immunogenetics. Certified Manager (CM) by Institute of Certified Professional Manager (ICPM). Certified Lean & Six Sigma in Healthcare.

Reem Ameen, Msc, MBA, PhD
Arabian Society for Histocompatibility and Immunogenetics

Dr. Ameen is working as an Assistant Professor at the Medical Laboratory Sciences, Faculty of Allied Health Sciences, Kuwait University. She works also as Immunohematology and Immunogenetics Consultant at Kuwait Central Blood Banks, Ministry of Health. She received her Ph.D. in Immunopathology from the University of London and Masters in Immunohematology from University of Florida. She also received MBA from Maastricht School of Management. She established the Immunogenetics and Transplant Biology Laboratory for the Kuwait National Registry for Unrelated Stem Cell Donors based on grant of 2 million US dollars from Kuwait Foundation for the Advancement of Sciences in addition of several other scientific grants. Her research has focused mainly in Immunohematology and Immunogenetics resulting in several publications in Transfusion and other International Journals.

Patricia Campbell, MBChB
American Society for Histocompatibility and Immunogenetics

Patricia Campbell is the Medical Director of the Histocompatibility Laboratory at University of Alberta Hospitals. Professor of Medicine and transplant nephrologist. Chair of the National HLA advisory committee for Canadian Blood services. ASHI President 2018-19. Interests are in transplanting the Highly sensitized individual and Antibody Mediated rejection.
Heather Dunkley, PhD  
Asia-Pacific Histocompatibility and Immunogenetics Association

Dr. Dunkley is the ASHI Director of the New Zealand National Tissue Typing Laboratory and has worked in histocompatibility testing for more than 25 years. She has been President of ASEATTA (now APHIA) and has served on various committees for APHIA and ASHI and as an ASHI Lab Inspector.

Joannis Mytilineos, MD, PhD  
European Federation for Immunogenetics

Dr. Joannis Mytilineos was born in Athens/Greece. He graduated from Heidelberg Medical School in 1986 and received his PhD and Adjunct Professor’s degree in Immunology (1986-2004). After 15 years as head of the HLA Laboratory at the University of Heidelberg he took the lead of the Department of Transplantation Immunology in the IKT/Ulm University where he is still employed. Dr Mytilineos was appointed as a counselor of the IHWG in 2004 and has been serving as an EFI board member (2x) as well as a member of the ASHI board of directors. Dr Mytilineos has served in several EFI and ASHI committees and was the chair of the EFI Education committee from October 2000-2016. He is currently elected president of EFI. Dr Mytilineos has been co-chairing two EFI conferences, 2009 in Ulm and EFI 2016 in Kos. After 15 years of being focused in the field of solid organ transplantation where he was one of the main co-workers of Gerhard Opelz and the CTS-Study, Dr. Mytilineos clinical work in Ulm is concentrating in the area of hematopoietic stem cell (HSC) transplantation, currently supporting more than 20 allogeneic HSC transplant programs with HLA and Donor Search services. His department also includes a medium size unrelated stem cell donor center with currently 75,000 voluntary donors being registered.

James Robinson, BSc Hons, MSc  
European Federation for Immunogenetics

James Robinson is the Senior Bioinformatics Scientist at Anthony Nolan. He leads a team of bioinformatics and research scientists working on the IMGT/HLA and IPD Databases, analysis of the donor registry and the development of bioinformatics solutions for long read sequencing technology. He is also completing his PhD at UCL.
John Schmitz, PhD, D(ABHI, ABMLI)
American Society for Histocompatibility and Immunogenetics

Dr. Schmitz is Professor of Pathology & Laboratory Medicine at the University of North Carolina at Chapel Hill. He directs the Histocompatibility and Flow Cytometry Laboratories and is the Program Director of the Medical Laboratory Immunology Fellowship Program at UNC Hospitals.

Lyanne Weston, PhD
Asia-Pacific Histocompatibility and Immunogenetics Association

Dr. Weston is currently the acting manager of the Australian Red Cross laboratory which has 50 staff and provides transplantation and immunogenetic testing to two pediatric, nine adult stem cell transplant centers, seven renal transplant centers and one of each for pancreas, heart, lung and liver. Dr. Weston has worked in transplantation for the past 25 years and currently serves as the president of APHIA (Asia Pacific Histocompatibility and Immunogenetics Association). Her weakness is for cells but has grown to love the mysteries and intricacies of the amazing DNA code.
**Sunday, July 14, 2019**

**Welcome Reception and Dinner**  
*Room: Auberge St Gabriel, Dulong Room*  
5:00 pm – 8:00 pm

**Monday, July 15, 2019**

**Registration Open**  
*Room: Foyer, Mezzanine Level*  
7:30 am – 5:00 pm

**Session I: Genetics of the HLA System**  
*Room: Victoria and Alexandra, Mezzanine Level*  
9:00 am – 10:30 am

- **9:00 am – 9:30 am**  
  **MHC/HLA Genes/HLA Nomenclature**  
  James Robinson, BSc, Hons, MSc  
  Anthony Nolan Research Institute  
  London, United Kingdom

- **9:30 am – 10:00 am**  
  **HLA Typing Basics: Serology & Molecular**  
  Fadi Alzayer, CHT, CHS(ABHI), MBA, CSSGB, CM  
  King Faisal Specialist Hospital  
  Riyadh, Saudi Arabia

- **10:00 am – 10:30 am**  
  **HLA Data Resources**  
  James Robinson, BSc, Hons, MSc  
  Anthony Nolan Research Institute  
  London, United Kingdom

**Coffee Break**  
*Room: Foyer, Mezzanine Level*  
10:30 am – 11:00 am

**Abstract Session I**  
*Room: Victoria and Alexandra, Mezzanine Level*  
11:00 am – 12:30 pm

- **11:00 am – 11:10 am**  
  **3'UTR variant rs9277534A/G linkages with 38 HLA-DPB1 alleles in the New Zealand Population**  
  Rebecca Lopes

- **11:10 am – 11:20 am**  
  **Qatar Genome Project: Determination of HLA Landscape in the Qatari population**  
  Zohreh Calderone

- **11:20 am – 11:30 am**  
  **GENETIC MATCHING FOR TRANSPLANTATION USING CAPTURE PROBES: COMPREHENSIVE AND FLEXIBLE TARGETED GENE SEQUENCING METHODOLOGY FOR HUMAN LEUKOCYTE ANTIGEN GENES AND BEYOND**  
  Supaneda Kolanski

- **11:30 am – 11:40 am**  
  **Evaluation of commercial next generation sequencing-based HLA typing assays for adoption during routine diagnostic HLA typing in South Africa.**  
  Ziyaad Valley-Omar

- **11:40 am – 11:50 am**  
  **Linkage Disequilibrium and Genotype Frequency between HLA DPA1/DPB1 and DQA1/DQB1**  
  Tuyen Le
Assimilation of high resolution HLA alleles from low resolution serological typing: a computational approach
Hannah Turnbull

Functional annotation of the HLA region polymorphisms and comparison of classical HLA genes and non-HLA genes
Sandeep Singh

Whole Gene HLA and MHC sequencing: Handling big data
Kathrin Starz

Lunch
Room: Mezzanine Level
12:30 pm – 1:30 pm

Session II: Non-HLA & HLA in Transfusion
Room: Victoria and Alexandra, Mezzanine Level
1:30 pm – 3:00 pm

1:30 pm – 2:00 pm
Non-HLA Histocompatibility Systems: ABO, MICA and Minor Antigens
Joannis Mytilineos, MD, PhD
Ulm University
Ulm, Baden-Wurttenberg, Germany

2:00 pm – 2:30 pm
NK Cells, KIR
Reem Ameen, Msc, MBA, PhD
Kuwait University
Kuwait City, Kuwait

2:30 pm – 3:00 pm
Role of HLA Testing in Transfusion Support
Lyanne Weston, PhD
Australian Red Cross
Alexandria, NSW, Australia

Coffee Break
Room: Foyer, Mezzanine Level
3:00 pm – 3:30 pm

Abstract Session II
Room: Victoria and Alexandra, Mezzanine Level
3:30 pm – 5:00 pm

3:30 pm – 3:40 pm
NGS ALLELE-LEVEL TYPING STRATEGY FOR KIR GENES
Sake van Wageningen

3:40 pm – 3:50 am
Targeted radionuclide therapy of melanoma requires the adaptive immune system and potentiates anti-CTLA-4 immunotherapy
Paul Rouzaire

3:50 pm – 4:00 pm
HSP displays a genetically distinct TCR repertoires with NSP
Min Li

4:00 pm – 4:10 pm
Genetics of metamizole-induced agranulocytosis: Development of a resequencing method for HLA genes
Anca Liliana Cismaru

4:10 pm – 4:20 pm
The HLA-F restricted immune-peptidome represents an exceptional proteomic footprint
Gia-Gia Toni Ho
4:20 pm – 4:30 pm  Novel HLA class I associations with HIV-1 control in a unique genetically admixed population  
Humberto Valenzuela-Ponce

4:30 pm – 4:40 pm  Effect of Ceramide and Sphingosine-1-Phosphate on the Expression of CD1 Isoforms and Other Antigen Presenting Molecules in Dendritic Cells and Macrophages  
Ahmad Abu-Khader

4:40 pm – 4:50 pm  Leukocyte Adhesion Deficiency Type I: Case Series of a Rare Primary Immunodeficiency Disorder  
Hamid Nawaz Tipy

Dinner  
*Location: TBD*

6:30 pm – 8:00 pm

City Excursion  
*Location: TBD*

8:00 pm – 10:00 pm

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**Tuesday, July 16, 2019**

Registration Open  
*Room: Foyer, Mezzanine Level*

8:30 am – 5:00 pm

**Session III: HLA and Disease**  
*Room: Victoria and Alexandra, Mezzanine Level*

9:00 am – 10:30 am

9:00 am – 9:30 am  HLA and Disease Association: Autoimmune, Infectious and Drug Hypersensitivity  
Heather Dunckley, PhD  
New Zealand Blood Service  
Auckland, New Zealand

9:30 am – 10:00 am  Transplant Immunology  
Lyanne Weston, PhD  
Australian Red Cross  
Alexandria, NSW, Australia

10:00 am – 10:30 am  Immunosuppressive Medications and Mechanisms  
Patricia Campbell, MBChB  
University of Alberta Hospitals  
Edmonton, AB, Canada

Coffee Break  
*Room: Foyer, Mezzanine Level*

10:30 am – 11:00 am

Abstract Session III  
*Room: Victoria and Alexandra, Mezzanine Level*

11:00 am – 12:30 pm

11:00 am – 11:10 am  Casting a smaller net into a bigger donor pool: A single center’s experience with the new kidney allocation system  
Julie Houp

11:10 am – 11:20 am  Low Frequency of Canonical HLA Alloimmunization in Heart Transplantation Candidates with VADs  
Grace Mahowald
11:20 am – 11:30 am  Validation of the Halifaster Flow Lymphocyte Crossmatch for use in Australia  
Masa Mihaljcic

11:30 am – 11:40 am  INTERPRETATION OF DETECTED NON-CLINICAL HLA ANTIBODIES IN THE ERA OF SOLID PHASE ASSAY  
Khalid Elfaki

11:40 am – 11:50 am  Diversity in DQB1 Amino Acid Mismatches Leads to Discrepant DQ Antibody Reactivity Between B Cells and Single Antigen Beads  
Michelle Nguyen

11:50 am – 12:00 pm  Evaluating complement fixation assays  
Kylie Peck

12:00 pm – 12:10 pm  Immunophenotyping donor cells via flow cytometric analysis prior to crossmatching  
Natalia Tan

12:10 pm – 12:20 pm  Characterization of Commercially Available HLA Locus-specific Monoclonal Antibodies  
Benjamin Peton

Lunch  
Room: Mezzanine Level  
12:30 pm – 1:30 pm

Session IV: Solid Organ Transplantation I: Pre-Transplant Evaluation  
Room: Victoria and Alexandra, Mezzanine Level  
1:30 pm – 3:00 pm

1:30 pm – 2:00 pm  Pretransplant Risk Assessment: AB Testing Basics, Crossmatching and Virtual Crossmatching  
John Schmitz, PhD, D(ABHI, ABMLI)  
University of North Carolina at Chapel Hill  
Chapel Hill, NC, USA

2:00 pm – 2:30 pm  HLA Epitopes and Alternative Matching Systems  
John Schmitz, PhD, D(ABHI, ABMLI)  
University of North Carolina at Chapel Hill  
Chapel Hill, NC, USA

2:30 pm – 3:00 pm  Organ Allocation  
Patricia Campbell, MBChB  
University of Alberta Hospitals  
Edmonton, AB, Canada

Coffee Break  
Room: Foyer, Mezzanine Level  
3:00 pm – 3:30 pm

Abstract Session IV  
Room: Victoria and Alexandra, Mezzanine Level  
3:30 pm – 5:00 pm

3:30 pm – 3:40 pm  HLA DR PAN reactivity –are the MFI values real?  
Vijay Sharma

3:40 pm – 3:50 pm  Mitigating Background in Solid Phase Antibody Assays  
Matthew Najor
3:50 pm – 4:00 pm Machine learning prediction for de novo donor specific antibodies and acute rejection after simultaneous pancreas kidney transplantation. Ankit Sharma

4:00 pm – 4:10 pm Central Role of Graft Resident Memory T Cells in Pathogenesis of GVHD after Intestinal Transplantation Nina Svetlicky

4:10 pm – 4:20 pm Impact of de novo anti-HLA DSA on allograft survival in a cohort of living-donor renal transplant recipients: A follow-up of a retrospective study. Georg Dieplinger

4:20 pm – 4:30 pm Injury derived autoimmunity: Anti-Perlecan/LG3 antibodies in transplantation Melanie Dieude

4:30 pm – 4:40 pm Assessment of de novo Donor Specific Antibodies in Renal Transplant Candidates Lakshmanan Suresh

4:40 pm – 4:50 pm Impact of Donor Specific anti-HLA Antibodies in Haploidentical HSCT Rajesh Sawant

Closing Event
Location: TBD
6:30 pm – 9:00 pm

Wednesday, July 17, 2019

Registration Open
Room: Foyer, Mezzanine Level
8:30 am – 3:30 pm

Session V: Solid Organ Transplant II: Post-Transplant Evaluation
Room: Victoria and Alexandra, Mezzanine Level
9:00 am – 10:30 am

9:00 am – 9:30 am AMR and Impact of HLA DSA and Non-HLA on Outcomes Patricia Campbell, MBChB University of Alberta Hospitals Edmonton, AB, Canada

9:30 am – 10:00 am Strategies to Transplant the Highly Sensitized Patient Fadi Alzayer, CHT, CHS(ABHI), MBA, CSSGB, CM King Faisal Specialist Hospital Riyadh, Saudi Arabia

10:00 am – 10:30 am Post-Transplant Testing – DSA, Biomarkers of Rejection and Tolerance John Schmitz, PhD, D(ABHI, ABMLI) University of North Carolina at Chapel Hill Chapel Hill, NC, USA

Coffee Break
Room: Foyer, Mezzanine Level
10:30 am – 11:00 am
Session VI: Hematopoietic Cell Transplant and Transfusion Medicine

Room: Victoria and Alexandra, Mezzanine Level
11:00 am – 12:30 pm

11:00 am – 11:30 am   HCT Workup and Donor Selection
Heather Dunckley, PhD
New Zealand Blood Service
Auckland, New Zealand

11:30 pm – 12:00 pm   HCT Post-Transplant: Chimerism
Reem Ameen, Msc, MBA, PhD
Kuwait University
Kuwait City, Kuwait

12:00 pm – 12:30 pm   Compatibility in HSCT – GvH vs. Relapse
Joannis Mytilineos, MD, PhD
Ulm University
Ulm, Baden-Wurttenberg, Germany

Lunch
Room: Mezzanine Level
12:30 pm – 1:30 pm

Abstract Session V
Room: Victoria and Alexandra, Mezzanine Level
1:30 pm – 3:00 pm

1:30 pm – 1:40 pm   Pretransplant HLA typing revealed loss of heterozygosity in the major histocompatibility complex in a patient with acute myeloid leukemia
Mary Krueger-Sersen

1:40 pm – 1:50 pm   Polymorphisms within NKG2 receptor genes are associated with Graft-versus-Host Disease development
Wendy Vazquez

1:50 pm – 2:00 pm   KIR3DL2-HLA-A3/11 and absence of KIR2DL1-HLA-C2 interactions improve progression-free survival in patients with relapsed and/or refractory multiple myeloma treated with Isatuximab (anti-CD38 mAb), Lenalidomide and Dexamethasone
Haibo Sun

2:00 pm – 2:10 pm   HLA antigen and haplotype distribution in Malaysian candidates for hematopoietic stem cell transplantation
Kevin Tey

2:10 pm – 2:20 pm   NGS high resolution typing in combination with PIRCHE as a tool to select a permissible HSCT donor
Sonja Verheyden

2:20 pm – 2:30 pm   The Impact of the HLA-E genotype in Haematopoietic Stem Cell Transplantation in a cohort of adult patients treated in Ireland receiving an unrelated donor transplant.
Greta Domarkaite

Closing Remarks
Room: Victoria and Alexandra, Mezzanine Level
2:30 pm – 3:00 pm