

APRIL 22-25, 2020

MONTRÉAL, CANADA

PALAIS DE CONGRÈS
DE MONTRÉAL

ISHLT

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Dear Colleagues,

We look forward to seeing you at our **40th Anniversary Meeting and Scientific Sessions**, April 22 – 25, 2020, in Montréal, Canada.

On behalf of the Scientific Program Committee, ISHLT President Stuart Sweet MD, and the entire Board of Directors, we hope you'll accept our heartfelt invitation to join us.

Marking our 40th anniversary, this year is an important milestone for ISHLT. For four decades, we've convened the world's most influential researchers and most innovative practitioners to share their science, ideas and passion around advanced heart and lung disease.

ISHLT's annual meetings offer the most comprehensive review of research, including late-breaking advances, dedicated to transplantation, mechanical support and related innovative therapies. From the Opening Plenary and the Symposia to the Oral Abstract Sessions and Presidential Address, **ISHLT2020** offers you a broad range of opportunities to dig deep into your specialty area. The interdisciplinary nature of our organization means you'll meet experts in related fields, something attendees always appreciate.

As always, we have partnered with stellar organizations to offer **Joint Symposia**. Our symposium with PVRI, Of **Mice and Men**, will be a must-attend session for anyone interested in pulmonary hypertension, CTEPH or lung failure and transplantation. We'll host a joint symposium with TTS on **Meeting Ethical Challenges in Transplantation through Global Partnership**, which will offer a fascinating look at transplantation around the world. Finally, we're partnering with AST to look at **Challenges in Heart/Kidney Transplantation**, a topic of growing relevance.

We look forward to welcoming you to Montréal, Canada for ISHLT2020!

On se voit à Montréal!

Stephan Ensminger, MD, DPhil
ISHLT 40th Annual Meeting Scientific Program Chair

GENERAL INFORMATION

Meeting Location

ISHLT2020 will be held at the Palais des Congrès de Montréal, 1001, Place Jean-Paul-Riopelle, Montréal, Quebec, H2Z 1H2 Canada

Registration

Registration for ISHLT2020 and/or the 2020 ISHLT Academies can only be made using by visiting the **ISHLT2020** website or by completing the Official **ISHLT2020 Registration Form**. Please note, ISHLT Academies are separate from and does not require registration to ISHLT2020. **Online Registration is strongly encouraged.** A \$300 discount off the onsite ISHLT2020 registration fee and a \$100 discount off the onsite 2020 ISHLT Academies registration fee offered to those who register on or before **March 18, 2020**. \$150 discount off the onsite ISHLT2020 registration fee and a \$50 discount off the onsite 2020 ISHLT Academies registration fee is offered to those who register between **March 19 and April 1, 2020**. Individuals who have not registered on or before **April 1, 2020** must register onsite at the meeting.

Confirmation letters will be emailed to all individuals who register on or before **April 1, 2020**. The registration fee includes admission to all scientific sessions, wine and cheese receptions, coffee breaks and the Exhibit Hall.

The Official ISHLT2020 Registration Form can be found on the **ISHLT2020** website. The registration fee for the Annual Meeting includes admission to all scientific sessions, the Exhibit Hall, all exhibit hall receptions and coffee breaks.

Hotel Reservations

ISHLT has arranged for a large block of sleeping rooms at a number of hotels within walking distance of the Palais des Congrès. You will find hotel descriptions, rates and online booking access information [here](#). Rooms can be reserved at the ISHLT room rate through March 19, 2020 subject to availability. After March 19, 2020 all unreserved rooms will be released back to the hotels for public sale.

Corporate Group Hotel Reservations

Corporate group blocks may be made by exhibiting companies only. Any request for 10 or more rooms must be submitted in writing to Christy Norcross, Christy.norcross@ishlt.org and approved by ISHLT. A sub-block contract with ISHLT will be required for group reservations of 10 or more rooms.

CONTINUING EDUCATION INFORMATION

ACCME Accreditation

Physicians

Accreditation Statement - The International Society for Heart and Lung Transplantation (ISHLT) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians and allied health professionals.

Credit Designation Statement - ISHLT designates this live activity for a maximum of *33 AMA PRA Category 1 credits*.™ Learners should claim only the credit commensurate with the extent of their participation in the activity.

Transplant Coordinators

Category 1 Continuing Education Points for Transplant Coordinators (CEPTCS) have been applied for through the American Board for Transplant Certification (ABTC)

Nurses and Pharmacists



In support of improving patient care, this activity has been planned and implemented by Amedco LLC and the International Society for Heart and Lung Transplantation (ISHLT). Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Credit Designation Statement – Amedco LLC designates this live activity for a maximum of 33 contact hours for nurses. The number of knowledge-based contact hours for pharmacists is being determined. Learners should claim only the credit commensurate with the extent of their participation in the activity. **NOTE to Pharmacists:** The only official Statement of Credit is the one you pull from CPE Monitor. You must request your certificate within 30 days of the activity to meet the deadline for submission to CPE Monitor.

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CONTINUING EDUCATION INFORMATION

Target Audience

The International Society for Heart and Lung Transplantation is a leading organization providing education for medical professionals involved in the care and treatment of patients with advanced heart or lung disease. The audience for this program includes physicians, surgeons, scientists, pharmacists, nurse, transplant coordinators and other allied health and social science professionals engaged in the management and treatment of patients with advanced heart or lung disease, basic science or clinical research related to these fields, or other specialties which cause them to become involved in the treatment of patients with advanced heart or lung disease.

Educational Needs

Because of the rapid advances in patient health care in general and advanced heart and lung disease management in particular, professionals are in need of regular opportunities to update and maintain their knowledge of advances and changes in the field. This meeting is designed to address their needs.

Educational Goals

The educational goals of this activity are to enable participants to learn about current practices, emerging technologies, and medical advances related to mechanical circulatory support, heart and lung transplantation, and advanced heart and lung disease management and to provide a forum for participants to engage in discussion, debate, and examination regarding the efficacy and applicability of those current practices, emerging technologies, and medical advances.

Disclosures

Current guidelines state that participants in continuing medical and allied health profession education activities must be made aware of any affiliation or financial interest that may affect the program content or a speaker's presentation. Planners, Faculty and Chairs participating in this meeting are required to disclose to the program audience any real or apparent conflict(s) of interest related to the content of their presentations or services as Chair/Planner. These disclosures will be distributed at the meeting. Additionally, all speakers have been asked to verbally disclose at the start of their presentation any financial interest or affiliations and to indicate if a product they are discussing is not labeled for the use under discussion or is still investigational.

CONTINUING EDUCATION INFORMATION

Learning Objectives

At the conclusion of this meeting:

1. Participants will have improved competence and professional performances in the areas of the latest information and approaches regarding transplant research, surgical techniques, medical therapies, donor management and patient management for the treatment for patients suffering from advance hearth and lung disease;
2. Participants will have improved competence and professional performance in the areas of state-of-the-art treatment approaches, risk factors, risk management approaches, patient selection criteria, disease prevention strategies, outcome implications, and psychosocial management strategies for patients with advanced heart and lung failures; and,
3. Participants will have improved competence and professional performances in the areas of emerging technologies, medical advances, and the clinical applications of basic modes of advanced heart and lung disease management.

Acronyms

Each scientific session has been flagged with a code, tying it to the primary and secondary professional audiences for which it was developed. These acronyms will help you identify the symposia most likely to be of interest to you. The codes and associated acronyms for each professional audience are:

BSTR	Basic Science and Translational Research
CTEPH	Chronic Thromboembolic Pulmonary Hypertension
HF/HTX	Heart Failure/ Transplantation
ID	Infectious Diseases
LF/LTX	Lung Failure/ Transplantation
MCS	Mechanical Circulatory Support
NHSAH	Nursing, Heath Science, Allied Health
PATH	Pathology
PEDS	Pediatrics
PHARM	Pharmacy and Pharmacology
PH	Pulmonary Hypertension

2020 LIFETIME ACHIEVEMENT AWARD RECIPIENTS

We are thrilled to announce that Dr. James K. Kirklin, professor of surgery at the University of Alabama, and the late Dr. Michael Hess, a founder and first president of ISHLT, will each receive the Society's Lifetime Achievement Award at our 2020 Annual Meeting.

We look forward to sharing an in-depth look at the honorees' careers and their enormous scientific contributions at our annual meeting, scheduled for April 22 – 25 in Montréal, Canada.

James K. Kirklin



Dr. Kirklin will be honored for his significant contributions to the fields of adult and pediatric heart transplantation and mechanical circulatory support. Among his many achievements, Dr. Kirklin was the first North American surgeon to bridge an infant to heart transplantation using the Berlin Heart VAD. He also implanted the Berlin Heart device on the youngest patient ever, a 17-day-old baby, allowing the infant to undergo a successful heart transplant 136 days later. He holds the James K. Kirklin Chair of Cardiovascular Surgery at UAB. He previously held the John W. Kirklin Chair in Cardiovascular Surgery, named for his father who was also a pioneer in cardiovascular surgery.

Michael Hess



meeting.

Before his death earlier this year, Dr. Hess was a heart failure cardiologist at Virginia Commonwealth University in Richmond, VA, where he published more than 200 research papers and three books and was revered as a teacher, earning a dozen outstanding teacher awards. Dr. Hess is credited with founding ISHLT when he convened an international group of cardiologists and cardiac surgeons at the American Heart Association meeting in Miami in November of 1980. Dr Hess was co-program chair of the first ISHLT meeting held in San Francisco. It is fitting that we honor him at our 40th anniversary

SCHEDULE AT A GLANCE (Monday-Tuesday)

*All meetings and activities will take place at the Loews Meeting Complex unless otherwise specified. All papers will be presented in English. Please check the **ISHLT2020** website for future updates. The Mobile App, available for download in early spring, will reflect the most up-to-date session schedule and room assignments. Information on the website will also be updated regularly. Check back frequently for important updates.*

Monday, April 20, 2020

8:00 AM – 5:00 PM

ISHLT Board of Directors/Strategic Planning Meeting (512A)

4:00 PM – 8:00 PM

Academy Registration Open (210 Foyer)

Speaker Ready Open (514)

Tuesday, April 21, 2020

6:00 AM – 3:00 PM

Academy Registration Open (210 Foyer)

6:00 AM – 7:15 PM

Speaker Ready Open (514)

7:45 AM – 5:35 PM

ISHLT Academy: Core Competencies in Mechanical Circulatory Support (510)

8:00 AM – 1:00 PM

ISHLT Academy: Master Class in Lung Transplantation (515ABC)

ISHLT Academy: Pediatric Mechanical Circulatory Support (513ABC)

8:00 AM – 2:00 PM

ISHLT Strategic Planning Meeting (512A)

8:00 AM – 6:00 PM

ISHLT Academy: Core Competencies in Basic Science and Translational Research (516ABC)

SCHEDULE AT A GLANCE (Tuesday-Wednesday)

8:15 AM – 5:40 PM

ISHLT Academy: Core Competencies in the Management of Advanced Pulmonary Hypertension and Right Ventricular Failure (511)

11:30 AM – 1:00 PM

Core Academy Box Lunch Pick-Up (TBD)

2:00 PM – 3:00 PM

COMMITTEE MEETING: Registries and Databases (512B)

2:00 PM – 7:00 PM

ISHLT Academy: Master Class in Lung Transplantation (515ABC)

ISHLT Academy: Master Class for Nurses and Allied Health Professionals in Thoracic Transplantation and Mechanical Circulatory Support (513DEF)

3:00 PM – 4:00 PM

COMMITTEE MEETING: Grants and Awards (512A)

4:00 PM – 7:15 PM

Annual Meeting Registration Open (210 Foyer)

4:00 PM – 5:00 PM

COMMITTEE MEETING: Standards and Guidelines (512A)

COMMITTEE MEETING: IMACS Registry (512B)

5:00 PM – 6:00 PM

COMMITTEE MEETING: International Engagement (512A)

Wednesday, April 22, 2020

6:00 AM – 7:15 PM

Registration Open (210 Foyer)

Speaker Ready Open (514)

SCHEDULE AT A GLANCE (Wednesday)

7:00 AM – 7:00 PM

Press Office Open (512G)

8:00 AM - 10:00 AM

OPENING PLENARY SESSION (517A)

8:00 AM – 9:45 AM

Poster Mount Session 1 (210CG)

9:30 AM – 7:15 PM

Exhibit Hall Open (210DH)

10:00 AM – 10:30 AM

Coffee Break

10:00 AM – 7:15 PM

Industry Theater Open (230B)

Poster Hall Open (210CG)

10:30 AM - 12:15 PM

SYMPOSIUM 01: Big Brother is Watching You! Home-Monitoring and Technical Advances in VAD Therapy (517A)

SYMPOSIUM 02: The Evolving Science of Shock Recognition and Management (210EF)

SYMPOSIUM 03: Crossing the HLA Rubicon: Lung Transplantation in the Presence of Donor Specific Antibodies (511)

ORAL SESSIONS

12:15 PM - 2:00 PM

Lunch Break

2:00 PM – 3:45 PM

SYMPOSIUM 04: We Are the World: Building Transplant Programs Internationally (210EF)

SYMPOSIUM 05: Immunology of Aging in Thoracic Transplantation and MCS (510BD)

SCHEDULE AT A GLANCE (Wednesday-Thursday)

2:00 PM – 3:45 PM

SYMPOSIUM 06: Hot Topics for Transplant and MCS Clinicians: Burnout, #SoMe and Psychosocial Issues (510AC)

ORAL SESSIONS

3:45 PM – 4:15 PM

Coffee Break

4:15 PM – 6:00 PM

SYMPOSIUM 07: Success Starts at the Beginning: Improving Outcomes From Referral to Implant and Beyond (517A)

SYMPOSIUM 08: Like a Bridge Over Troubled Waters: Preoperative Assessment and Management of Pulmonary Hypertension (516BC)

SYMPOSIUM 09: Eye Ball Test! I know My Patient is Frail: Now What? (511)

SYMPOSIUM 10: JHLT at ISHLT: The Year in a Capsule (210AB)

ORAL SESSIONS

5:45 PM – 7:15 PM

Exhibit Hall Opening Reception (210DH)

6:00 PM – 7:15 PM

POSTER SESSION 01

6:15 PM – 7:15 PM

IMACS User's Meeting (516DE)

MINI ORAL SESSIONS

7:15 PM – 8:15 PM

Poster Session 1 Removal (210GC)

Thursday, April 23, 2020

6:00 AM – 7:15 PM

Registration Open (210 Foyer)

SCHEDULE AT A GLANCE (Thursday)

6:00 AM – 7:15 PM

Speaker Ready Open (514)

7:00 AM – 9:45 AM

Poster Mount Session 2 (210CG)

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM 01: Cardiac Anesthesia: Tales from the Other Side of the Ether Screen (517A)

SUNRISE SYMPOSIUM 02: Primary Graft Dysfunction after Heart Transplantation: PCD or Predictor of Given Death? (210EF)

SUNRISE SYMPOSIUM 03: Building on a Solid Foundation: Guidelines and Unique Challenges in CF Lung Transplant (511)

SUNRISE SYMPOSIUM 04: Portopulmonary Rhapsody: Everything You Need to Know about Portopulmonary Hypertension (210AB)

SUNRISE SYMPOSIUM 05: Making the Move: Accelerating Basic Science to Novel Clinical Trials in Transplant (510AC)

SUNRISE SYMPOSIUM 06: The Eternal Challenge: Difficult-to-Treat Organisms in Thoracic Transplantation (516BC)

SUNRISE SYMPOSIUM 07: DSAs and AMR: When and How to Treat (510BD)

7:00 AM – 7:00 PM

Press Office Open (512G)

8:00 AM – 8:15 AM

Coffee Break

8:15 AM – 10:00 AM

SYMPOSIUM 11: The Good, the Bad, the Ugly: Individualized VAD Therapy (517A)

SYMPOSIUM 12: When the Left Appears to be Normal and the Right Goes Wrong: HFpEF and Infiltrative Cardiomyopathies (210EF)

SYMPOSIUM 13: From PCD to CLAD: The Lifespan of a Lung Allograft (511)

SCHEDULE AT A GLANCE (Thursday)

8:15 AM – 10:00 AM

SYMPOSIUM 14: Selection of Donors for Pediatric Heart and Lung Transplantation: Maximizing Use of a Limited Resource (510AC)

SYMPOSIUM 15: Great Debates in MCS and Transplant Care (510BD)

ORAL SESSIONS

9:30 AM – 7:15 PM

Exhibit Hall Open (210DH)

10:00 AM – 10:30 AM

Coffee Break

Annual Business Meeting (517A)

10:00 AM – 7:15 PM

Industry Theater Open (230B)

Poster Hall Open (210CG)

10:30 AM - 12:15 PM

PLENARY SESSION (517A)

12:30 PM – 1:45 PM

Junior Faculty and Trainees Mentor Lunch (513DEF)

12:30 PM – 2:00 PM

Lunch Break

2:00 PM – 3:45 PM

SYMPOSIUM 16: Greasing the Wheels: Antiplatelet Therapy for LVADS (516BC)

SYMPOSIUM 17: Segmental and Subsegmental Disease in CTEPH: Misconception and Missed Opportunities (510AC)

ORAL SESSIONS

SCHEDULE AT A GLANCE (Thursday-Friday)

3:45 PM – 4:15 PM

Coffee Break

2021 Annual Meeting Program Committee Meeting (516A)

4:15 PM – 6:00 PM

SYMPOSIUM 18: Everybody Else is Doing It So Why Can't We? Mechanical Circulatory Support in Adults with Congenital Heart Disease (517A)

SYMPOSIUM 19: Controversial Debates in Valvular and Structural Heart Disease and Heart Failure (210EF)

SYMPOSIUM 20: HCV State of the Art: How Do We DO This? An ISHLT HCV Consensus Conference (516BC)

ORAL SESSIONS

5:30 PM – 6:30 PM

Past Presidents Meeting (516A)

5:45 PM – 7:15 PM

Wine and Cheese Reception

6:00 PM – 7:15 PM

POSTER SESSION 02

6:15 PM – 7:15 PM

MINI ORAL SESSIONS

7:15 PM – 8:00 15

Poster Session 2 Removal (210CG)

Friday, April 24, 2020

6:00 AM – 7:15 PM

Registration Open (210 Foyer)

Speaker Ready Open (514)

SCHEDULE AT A GLANCE (Friday)

7:00 AM – 10:00 AM

Poster Mount Session 3 (210CG)

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM 08: VAD Infection: What Are We Doing Wrong? (517A)

SUNRISE SYMPOSIUM 09: Rewinding the Antibodies: Managing Highly Sensitized Patients Pre-Transplant (210EF)

SUNRISE SYMPOSIUM 10: Advances in the Microbiome: The Secret World Inside Us (510BD)

SUNRISE SYMPOSIUM 11: Challenging CTEPH Surgical Cases in the BPA Era (210AB)

SUNRISE SYMPOSIUM 12: Cardiac Allograft Injury: It's More Than Just Rejection (510AC)

SUNRISE SYMPOSIUM 13: Let's Talk about Sex, Baby! Intimacy in MCS and Transplant Patients (511)

SUNRISE SYMPOSIUM 14: Pediatric Pulmonary Hypertension: Management of Advanced Disease and Thoracic Transplant Referral (516BC)

7:00 AM – 7:00 PM

Press Office Open

8:00 AM – 8:15 AM

Coffee Break

8:15 AM – 10:00 AM

SYMPOSIUM 21: Joint ISHLT/PVRI Symposium: Of Mice and Men (210AB)

SYMPOSIUM 22: A Balancing Act: Innate Mechanisms of Injury and Immunomodulation in Transplantation (510BD)

ORAL SESSIONS

9:45 AM – 7:15 PM

Exhibit Hall Open (201DH)

10:00 AM – 10:30 AM

Coffee Break

SCHEDULE AT A GLANCE (Friday)

10:00 AM – 7:15 PM

Poster Hall Open (210CG)

10:15 AM – 7:15 PM

Industry Theater Open (230B)

10:30 AM – 12:15 PM

SYMPOSIUM 23: Short-Term Mechanical Circulatory Support in Bridging the Gap Between Recovery and Transplant (517A)

SYMPOSIUM 24: Joint ISHLT/TTS Symposium: Meeting Ethical Challenges in Transplantation Through Global Partnership (210EF)

SYMPOSIUM 25: ECMO and Lung Failure from Recovery to Transplant (511)

SYMPOSIUM 26: CMV: Great Debates on Prevention and Management Controversies (519AC)

ORAL SESSIONS

12:15 PM – 2:00 PM

Lunch Break

12:40 PM – 1:50 PM

JHLT Editorial Lunch Meeting (513DEF)

2:00 PM – 3:45 PM

SYMPOSIUM 27: Joint ISHLT/AST Symposium: Challenges in Heart/Kidney Transplantation (210EF)

SYMPOSIUM 28: Lean On Me: Mechanical Support of the Right Ventricle in Pulmonary Hypertension (210AB)

SYMPOSIUM 29: Shaping the Future of Thoracic Transplant Pathology: Multiplex, Multidisciplinary and Multimodality (510AC)

ORAL SESSIONS

3:45 PM – 4:15 PM

Coffee Break

SCHEDULE AT A GLANCE (Friday-Saturday)

4:15 PM – 6:00 PM

SYMPOSIUM 30: When a Single Ventricle Support is Not Enough! (517A)

SYMPOSIUM 31: Global Perspectives on Decreasing Waitlist Mortality: Expanded Donors and Prioritized Candidates (210EF)

SYMPOSIUM 32: Challenges in Patient and Device Selection in Pediatric Heart Failure and Mechanical Circulatory Support (516BC)

SYMPOSIUM 33: Jukebox Jives: Going Beyond the Fundamentals of Antifungal Therapy (510BD)

ORAL SESSIONS

6:00 PM – 7:15 PM

POSTER SESSION 03

6:15 PM – 7:15 PM

International Engagement Latin America Regional Meeting (516DE)

International Engagement Asia Pacific Regional Meeting (516A)

MINI ORAL SESSIONS

7:15 PM – 8:15 PM

Poster Session 3 Removal (210CG)

Saturday, April 25, 2020

6:00 AM – 2:00 PM

Speaker Ready Open (514)

6:30 AM – 2:00 PM

Registration Open (210 Foyer)

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM 15: Considering Sex and Race: Strategies for the Non-Typical Transplant Recipient (511)

SUNRISE SYMPOSIUM 16: Early Markers for CLAD Development: Ready to Use or Discard? (510BD)

SCHEDULE AT A GLANCE (Saturday)

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM 17: I Never Thought I'd Live to Be a Hundred: Lessons Learned to Delay Transplantopathy (516BC)

SUNRISE SYMPOSIUM 18: A Worthwhile Pursuit: Balancing Parallel Goals of Prolonged Life and Relief from Symptom Burden in Advanced Heart and Lung Disease (510AC)

SUNRISE SYMPOSIUM 19: Coagulation Wars: Rogue Anticoagulation Strategies in Durable MCS (515ABC)

SUNRISE SYMPOSIUM 20: Challenges in the Field of Pediatric Heart Transplantation: Are We Solving Them? (513DEF)

8:00 AM – 8:15 AM

Coffee Break

8:15 AM – 10:00 AM

ORAL SESSIONS

10:00 AM – 10:15 AM

Coffee Break

10:15 AM - 12:15 PM

PLENARY SESSION (511)

12:00 PM – 12:15 PM

Coffee Break

12:15 PM – 2:00 PM

ORAL SESSIONS

2:00 PM

Meeting Adjourns

OPENING PLENARY SESSION (Room 517A)

Wednesday, April 22, 8:00 AM – 10:00 AM

Audiences: ALL

Co-Chairs: **Stuart Sweet, MD, PhD and Stephan M. Ensminger, MD, DPhil**

8:00 AM Welcome/Program Chair Report

Stephan M. Ensminger, MD, DPhil. University Herzzentrum Lubeck, Lubeck, Germany

8:10 AM Thoracic Registry Report

Josef Stehlik, MD, MPH. University of Utah School of Medicine, Salt Lake City, UT, USA

8:20 AM IMACS Registry Report

Daniel J. Goldstein, MD. Montefiore Medical Center, Bronx, NY, USA

8:30 AM Journal Editor's Report

Mandeep R. Mehra, MD, FRCP, FACC, FESC. Brigham and Women's Hospital, Boston, MA, USA

8:40 AM President's Report

Stuart Sweet, MD. St. Louis Children's Hospital, St. Louis, MO, USA

8:55 AM Michael Hess Lifetime Achievement Commemoration

David O. Taylor, MD, Cleveland Clinic, Cleveland, OH, USA

9:00 AM Prime Minister Justin Trudeau or Featured Abstract

9:20 AM MAID (Medical Assistance in Dying): Implications for Transplantation

James Downar, MDMC MHSc. University of Ottawa, Ottawa, ON, Canada

9:40 AM Featured Abstract

SYMPOSIUM 01: Big Brother is Watching You! Home-Monitoring and Technical Advances in VAD Therapy (Room 517A)

Wednesday, April 22, 10:30 AM – 12:15 PM

Audiences: MCS, NNSAH

Summary: Long-term mechanical circulatory support improves outcome and quality of life of patients with advanced heart failure. There is growing evidence that home-monitoring of patients with a ventricular assist device (VAD) may impact outcome. In addition, recent innovations in powering devices and both internal and external device management have advanced VAD therapy. In this session, the role of home-monitoring of VAD patients and recent innovations in VAD technology will be discussed.

Co-Chairs: Kathleen Grady, PhD, APN, FAAN and Laurens Tops, MD

10:30 AM **When the Beat Goes On: Monitoring of Arrhythmias in VAD Patients**

Gabriel Sayer, MD. University of Chicago, Chicago, IL, USA

10:45 AM **Forgotten No More? Use of Hemodynamics in Monitoring and Optimization of VAD Patients**

Eugene C. DePasquale, MD. Keck School of Medicine of USC, Los Angeles, CA, USA

11:00 AM **Of Cuff and Doppler: (Home-)Monitoring of Blood Pressure in VAD Patients**

Van-Khue Ton, MD PhD. University of Maryland School of Medicine, Baltimore, MD, USA

11:15 AM **It's All About Coordination: The VAD Coordinator's Perspective on Home-Monitoring**

Thomas Schöglhofer, MSc. Medical University of Vienna, Vienna, Austria

11:30 AM **Of Apps and Icons: Utilizing Smart Phones and Tablets to Enhance Patient Monitoring**

Jesus Casida, PhD, RN. Johns Hopkins University, Baltimore, MD, USA

11:45 AM **Innovations in Mechanical Circulatory Support**

Yuriy Pya, MD. National Res Center for Cardiac Surgery, Astana, Kazakhstan

12:00 PM **15-min Panel Discussion**

SYMPOSIUM 02: The Evolving Science of Shock Recognition and Management (Room 210EF)

Wednesday, April 22, 10:30 AM – 12:15 PM

Audiences: HFTX, MCS, PEDS, PH, PHARM

Summary: This session aims to review the evolving understanding of cardiogenic shock, including its varied presentations and trajectories, the importance of hemodynamic data in management, determination of treatment options, and the rapidly growing concept of multidisciplinary shock teams to deliver expedited and patient-centered care.

Co-Chairs: **Shelley Hall, MD, FACC, FHFA, FAST and Peter Macdonald, MD, PhD**

- 10:30 AM** **From Code STEMI to Code Shock: Early Recognition is Key**
Anique Ducharme, MD, MSC. Montreal Heart Institute, Montreal, QC, Canada
- 10:45 AM** **Hemodynamics Drive Treatment Choices**
Jan F. Gummert, MD, PhD. Herz- und Diabeteszentrum NRW, Bad Oeynhausen, Germany
- 11:00 AM** **Let the Tissue Breathe: Use of Biomarkers to Optimize Organ Perfusion**
Sandra V. Chaparro, MD. University of Miami, Miami, FL, USA
- 11:15 AM** **Drug Therapy for Cardiogenic Shock: Which, When, and How**
Douglas Greig, MD. Pontificia Universidad Católica de Chile, Santiago, Chile
- 11:30 AM** **ECMO and Other Demons: How to Choose the Circulatory Support System in Cardiogenic Shock**
Jonathan W. Haft, MD. University of Michigan, Ann Arbor, MI, USA
- 11:45 AM** **Teamwork Makes the Dream Work: Evolution of the Shock Team**
Sharon Chih, MD. University of Ottawa Heart Institute, Ottawa, ON, Canada
- 12:00 PM** **15-min Panel Discussion**

SYMPOSIUM 03: Crossing the HLA Rubicon: Lung Transplantation in the Presence of Donor Specific Antibodies (Room 511)

Wednesday, April 22, 10:30 AM – 12: 15 PM

Audiences: LFTX, BSTR, NNSAH, PATH, PEDS, PHARM

Summary: Highly sensitized lung transplant candidates have prolonged waitlist times and increased waitlist mortality. This symposium will include representatives from programs that differ in their approaches to achieving successful transplant outcomes in this population.

Co-Chairs: Andrew Courtwright, MD and TBD

- 10:30 AM** **Not All Created Equal: Which Pre-Transplant DSAs Really Matter?**
Elaine F. Reed, PhD. UCLA Immunogenetics Center, Los Angeles, CA, USA
- 10:45 AM** **DEBATE: Desensitization is an Effective Bridge to Lung Transplant (PRO)**
Ramsey Hachem, MD. Washington University School of Medicine, Saint Louis, MO, USA
- 11:00 AM** **DEBATE: Desensitization is an Effective Bridge to Lung Transplant (CON)**
Antoine Roux, MD. Foch Hospital, Paris, France
- 11:15 AM** **It's Time to Include Testing for Non-HLA Antibody in Thoracic Transplantation**
Nancy Reinsmoen, MD. Cedars Sinai Health System, Los Angeles, CA, USA
- 11:30 AM** **Pheresis Your Fears Away (In The OR)**
Lianne G. Singer, MD, FRCPC. Toronto General Hospital, Toronto, ON, Canada
- 11:45 AM** **You Must Augment: Induction and Maintenance Immunosuppression When Crossing DSA**
Glen Westall, MD. The Alfred Hospital, Melbourne, Australia
- 12:00 PM** **15-min Panel Discussion**

SYMPOSIUM 04: We Are The World: Building Transplant Programs Internationally (Room 210EF)

Wednesday, April 22, 2:00 PM – 3:45 PM

Audiences: HFTX, LTX, MCS, PEDS

Summary: Heart transplant (HTx) volume has plateaued internationally, yet the waiting lists continue to grow. This dilemma affects both HTx-developed and developing countries uniquely. Developing countries struggle with ethical/legal/cultural factors to establish socially-acceptable programs. This session aims to identify barriers and solutions to dilemmas that various HTx programs face worldwide.

Co-Chairs: Tomoko S. Kato, MD, PhD and Javier Segovia, MD, PhD

2:00 PM **Nothing's Gonna Stop Us Now: Challenges of Growing a Transplant Program**
Sonia Mirabet, MD. Hospital Sant Pau, Barcelona, Spain

2:15 PM **Current Status and Challenges of Setting Up Transplant Programs in India**
Nandkishore Kapadia, MBBS, MS, MCh, PhD. Kokilaben Dhirubhai Ambani Hospital, Mumbai, India

2:30 PM **Current Status and Challenges in the Management of Advanced Heart Failure in China and Southeast Asia**
Cumara C. Sivathanan, MBBS, FRCS. National Heart Centre, Singapore, Singapore

2:45 PM **Current Status and Challenges in the Management of Advanced Heart Failure in Korea and Japan**
Takeshi Nakatani, MD, PhD. Maki Hospital / Maki Health Care Group, Osaka, Japan

3:00 PM **Current Status and Challenges in the Management of Advanced Heart Failure in South America**
Adriana Torres, MD. Fundacion Cardioinfantil, Bogota, Colombia

3:15 PM **We Are Family: How Developed and Developing Nations Can Work Together**
Stephen C. Clark, MD. Freeman Hospital, Newcastle Upon Tyne, United Kingdom

3:30 PM **15-min Panel Discussion**

SYMPOSIUM 05: Immunology of Aging in Thoracic Transplantation and MCS (Room 510BD)

Wednesday, April 22, 2:00 PM – 3:45 PM

Audiences: BSTR, HFTX, LFTX, MCS, PATH, PHARM

Summary: Older thoracic transplant and MCS patients have increased rates of infection and death compared with younger patients, demonstrating the important of age-associated immune dysfunction in the growing numbers of older candidates. At the same time, older patients have lower rates of rejection compared with younger patients. This symposium seeks to explore differences across a variety of immunologic lineages, leading to a concept of biologic rather than chronologic age.

Co-Chairs: **Hanneke M. Kwakkel-van Erp, MD, PhD and John McDyer, MD**

- 2:00 PM** **Setting the Stage: Aging Trends in Thoracic Transplant and MCS**
John McDyer, MD. University of Pittsburgh Medical Center, Pittsburgh, PA, USA
- 2:10 PM** **Biology of T Cell Aging: Senescence and Exhaustion**
Joanna M. Schaenman, MD, PhD. UCLA School of Medicine, Los Angeles, CA, USA
- 2:25 PM** **Q & A**
- 2:29 PM** **B Cells, Aging and Impact on Transplantation**
Marilia Cascalho, MD, PhD. University of Michigan Hospital, Ann Arbor, MI, USA
- 2:44 PM** **Q & A**
- 2:48 PM** **NK Cells, Aging, and Tolerance in Transplantation**
Daniel Calabrese, MD. UCSF Medical Center, San Francisco, CA, USA
- 3:03 PM** **Q & A**
- 3:07 PM** **“Inflammaging” and the Older Transplant Patient: Role of Cytokines and Chemokines in Infection and Rejection**
John A. Belperio, MD. UCLA Pulmonary and Critical Care Medicine, Los Angeles, CA, USA
- 3:22 PM** **Q & A**
- 3:26 PM** **Continuous Flow Ventricular Assist Devices and Cellular Aging**
Maja-Theresa Dieterlen, PhD. Herzzentrum Leipzig, Leipzig, Germany
- 3:41 PM** **Q & A**

SYMPOSIUM 06: Hot Topics for Transplant and MCS Clinicians: Burnout, #SoMe and Psychosocial Issues (Room 510AC)

Wednesday, April 22, 2:00 PM – 3:45 PM

Audiences: ALL

Summary: This session focuses on hot topics relevant to transplant and MCS clinicians of all disciplines, including provider burnout and resilience, social media use among transplant professionals, and pressing psychosocial issues. This session will feature a physician's own personal story of heart transplantation and transformation, - after months of attributing heart failure symptoms to the busy lives we lead as healthcare providers!

Co-Chairs: Michael Petty, PhD, RN, CNS and Heike Spaderna, PhD

2:00 PM From My Heart: A Physician's Personal Story of Transplant and Transformation

Alin Gragossian, DO. Drexel University, Philadelphia, PA, USA

2:15 PM A Hard Day at Work: Provider Burnout and Resilience in Transplant Medicine

Melissa Cousino, PhD. C.S. Mott Children's Hospital, Ann Arbor, MI, USA

2:30 PM #SoMe, So What? Should the Transplant Community Embrace Social Media?

Brian Keller, MD, PhD. The Ohio State University, Columbus, OH, USA

2:45 PM Self-Management Interventions: What Really Works?

Christiane Kugler, PhD. Albert-Ludwigs-University Freiburg, Dortmund, Germany

3:00 PM DEBATE: Ready to Launch! Our Young Adults Must Transition (PRO)

Jenna Murray, MSN, RN, CPNP-AC. Lucile Packard Children's Hospital, Palo Alto, CA, USA

3:15 PM DEBATE: Ready to Launch! Our Young Adults Must Transition (CON)

Kathleen L. Grady, PhD, APN, FAAN. Northwestern Memorial Hospital, Chicago, IL, USA

3:30 PM 15-min Panel Discussion

SYMPOSIUM 07: Success Starts at the Beginning: Improving Outcomes From Referral to Implant and Beyond (Room 517A)

Wednesday, April 22, 4:15 PM – 6:00 PM

Audiences: MCS, HFTX, NNSAH, PEDS

Summary: The purpose of this session is to discuss the process that surrounds mechanical circulatory support including when to refer, initial evaluation for candidacy, optimization before implant and management of patients following MCS therapy. In this session we will discuss various challenges and perspectives of the multidisciplinary team and how to best prepare the patients for positive outcomes.

Co-Chairs: Colleen J. Juricek-LaBuhn, RN, MSN and Erin Davis, RN

- 4:15 PM** **Early Identification of Advancing Heart Failure: Knowing When To Refer**
Bow (Ben) Chung, MD. University of Chicago, Chicago, IL, USA
- 4:30 PM** **Evaluation for Candidacy: Can We Optimize for Better Results?**
Tonya I. Elliott, MSN, RN, CCTC, CHFN. MedStar Washington Hospital Center, Reston, VA, USA
- 4:45 PM** **Looking at Candidacy Through a Different Lens: The Psychosocial Perspective**
Jill Giordano, LCSW. Newark Beth Israel Medical Center, Newark, NJ, USA
- 5:00 PM** **Can Early Education Be the Start of Success?**
Keaton Lloyd. University of Alabama in Birmingham, Birmingham, AL, USA
- 5:15 PM** **What Role Does Medical Optimization Play in Surgical Implantation?**
Antonio Loforte, MD. S. Orsola Hospital, Bologna, Italy
- 5:30 PM** **Adverse Events and How to Achieve Successful Management and Long Term Outcomes**
Sarah Schettle, PA-C. Mayo Clinic, Rochester, MN, USA
- 5:45 PM** **15-min Panel Discussion**

SYMPOSIUM 08: Like A Bridge Over Troubled Waters: Perioperative Assessment and Management of Pulmonary Hypertension (Room 516BC)

Wednesday, April 22, 4:15 PM – 6:00 PM

Audiences: PH, CTEPH, HFTX, PEDS

Summary: Patients with PH are at higher risk for adverse outcomes in elective and non-elective surgery. This session reviews pre-operative risk assessment and the evaluation and management of patients and the intra-operative and post-operative consideration to minimize adverse outcomes. The role of peri-operative MCS is explored. The session will include a debate on the role of PAC monitoring. This symposium heralds the ISHLT expert consensus document currently under development.

Co-Chairs: **Marc Simon, MD and Teresa De Marco, MD**

4:15 PM The Calm Before the Storm: Preoperative Evaluation and Management
Dana McGlothlin, MD. Kaiser Permanente, San Francisco, CA, USA

4:30 PM The Raging Storm: Intraoperative Considerations and Management
Karen M. McRae, MD. Toronto General Hospital, Toronto, ON, Canada

4:45 PM The Aftermath: Postoperative Considerations and Management
Oksana A. Shlobin, MD. Inova Fairfax Hospital, Falls Church, VA, USA

5:00 PM Tread Carefully: Patient with Eisenmenger's Undergoing Surgery
Erika Berman-Rosenzweig, MD. Columbia University Hospital, New York, NY, USA

**5:15 PM DEBATE: PAC Monitoring is Essential in the Management of the High Risk
PAH Patient Undergoing Surgery (PRO)**
Celine Dewachter, MD. Erasme Hospital, Brussels, Belgium

**5:30 PM DEBATE: PAC Monitoring is Essential in the Management of the High Risk
PAH Patient Undergoing Surgery (CON)**
Stuart Hastings, MBBS. The Alfred Hospital, Melbourne, Australia

5:45 PM 15-min Panel Discussion

SYMPOSIUM 09: Eye Ball Test! I Know My Patient is Frail: Now What? (Room 511)

Wednesday, April 22, 4:15 PM – 6:00 PM

Audiences: LFTX, HFTX, MCS, NNSAH, PEDS

Summary: Patients with end stage heart and lung disease are frequently identified as frail and this is predictive of worse outcomes. Currently the best management for these patients is unclear. This session will describe current evidence gleaned from across medical specialties to manage the frail patient in all facets of the phenotype. The session will highlight ongoing relevant trials and will culminate in a debate on the use of frailty as criteria to guide listing for transplant.

Co-Chairs: Goran Dellgren, MD and Cassie Kennedy, MD

4:15 PM Iron Man (or Woman): Targeting Frailty Before Lung Transplantation

Aida Venado, MD. UCSF Medical Center, San Francisco, CA, USA

4:30 PM The Incredible Bulk: Addressing Obesity and Body Composition Pre-Transplant

Michaela Anderson, MD. Columbia University, New York, NY, USA

4:45 PM Frontiers of the Mind: Psychologic Frailty

Katharina Tigges-Limmer, PhD. Herz- und Diabeteszentrum NRW, Bad Oeynhausen, Germany

5:00 PM DEBATE: The Pre-Frail Patient Should Be Considered Earlier for Listing (PRO)

Hanneke Kwakkel-van Erp, MD. University Hospital, Antwerp, Belgium

5:15 PM DEBATE: The Pre-Frail Patient Should Be Considered Earlier for Listing (CON)

Allan Glanville, MD. St Vincent's Hospital, Sydney, Australia

5:30 PM Endgame: When to Delist

Joshua Diamond, MD. University of Pennsylvania, Philadelphia, PA, USA

5:45 PM Panel Discussion

SYMPOSIUM 10: JHLT at ISHLT: The Year in a Capsule (Room 210AB)

Wednesday, April 22, 4:15 PM – 6:00 PM

Audiences: ALL

Summary: This session will review the most impactful papers published in Journal of Heart and Lung Transplantation (JHLT) over the past year, among a broad field of interest: heart and lung transplantation, mechanical circulatory support, pediatric transplantation, infectious diseases. After a presentation of the main papers by a junior faculty, an expert senior member will comment how they significantly contributed to change the current knowledge and practice.

Co-Chairs: **Marco Masetti, MD, PhD and Peter Hopkins, MD**

4:15 PM JHLT Best Papers of the Year

Patricia Uber, PharmD. Virginia Commonwealth University, Richmond, VA, USA

4:30 PM Highlights of Heart Transplantation and MCS

Agnieszka Ciarka, MD, PhD. Catholic University of Leuven, Leuven, Belgium

4:45 PM Invited Discussant in Heart Transplantation and MCS

Finn Gustafsson, MD, PhD. Rigshospitalet, Copenhagen, Denmark

4:52 PM Highlights of Lung Transplantation and Pulmonary Hypertension

Joshua Mooney, MD. Stanford Univ School of Medicine, Stanford, CA, USA

5:07 PM Invited Discussant in Lung Transplantation and Pulmonary Hypertension

Lorriana E. Leard, MD. UCSF Medical Center, San Francisco, CA, USA

5:14 PM Highlights of Pediatric Heart and Lung Transplantation

Kyle D. Hope, MD. Texas Children's Hospital, Houston, TX, USA

5:29 PM Invited Discussant in Pediatric Heart and Lung Transplantation

David Morales, MD. Cincinnati Children's Hospital, Cincinnati, OH, USA

5:36 PM Highlights of Infectious Diseases

Nicole Pagani, MD. Royal Brompton and Harefield NHS Foundation Trust, London, United Kingdom

5:51 PM Invited Discussant in Infectious Diseases

Paolo A. Grossi, MD, PhD. University of Insubria, Varese, Italy

SUNRISE 01: Cardiac Anesthesia: Tales from the Other Side of the Ether Screen (Room 517A)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: MCS, HFTX, LFTX, PEDS, PH

Summary: The intraoperative management of patients undergoing mechanical circulatory support is challenging, multidisciplinary, and involves several aspects of patient care. This session addresses topics of paramount importance in the intraoperative period with tremendous impact on the outcome of the patients undergoing mechanical circulatory support.

Co-Chairs: Sharon McCartney, MD and Anna Meyer, MD

7:00 AM **When the Right Goes Wrong: Right Ventricle Failure in VAD Placement - Intraoperative Pearls**

Alina Nicoara, MD. Duke University, Durham, NC, USA

7:15 AM **Management of Coagulopathy During VAD Placement: Bleed Now or Clot the Pump Later?**

Maria A. Rajek, MD. Medical University of Vienna, Vienna, Austria

7:30 AM **Vasoplegia Syndrome Complicating Failure**

Leonardo Salazar, MD. Fundacion Cardiovascular de Colombia, Bucaramanga, Colombia

7:45 AM **15-min Panel Discussion**

SUNRISE 02: Primary Graft Dysfunction after Heart Transplantation: PGD or Predictor of Given Death? (Room 210EF)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: HFTX, MCS, PEDS, PHARM

Summary: This session will describe and explore the range of acute graft dysfunction seen following heart transplantation. The talks outlines the definition, diagnostic tools, treatment options and outcomes for primary graft dysfunction. The speakers will examine the limitations of current understanding and review potential new or innovative approaches to tackle this important problem.

Co-Chairs: **Fabiana Marcondes-Braga, MD, PhD and Monica M. Colvin, MD**

7:00 AM Primary Graft Dysfunction: What's In A Name?

Maryjane Farr, MD. Columbia University, New York, NY, USA

7:15 AM PGD: Who's To Blame?

Jong-Chan Youn, MD, PhD. Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Republic of Korea

7:30 AM Management of Primary Graft Dysfunction: What's Cool, What's Not?

Pedro Catarino, MD. Royal Papworth Hospital, Cambridge, United Kingdom

7:45 AM 15-min Panel Discussion

SUNRISE 03: Building on a Solid Foundation: Guidelines and Unique Challenges in CF Lung Transplant (Room 511)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: LFTX, NHSAA, PEDS, PHARM

Summary: The focus of this session is to provide an in-depth assessment of CF specific considerations in lung transplant. Recently published referral guidelines will be reviewed with a focus on issues such as adherence and psychosocial factors. Identification of at-risk patients and strategies to enhance waitlist survival will be undertaken. CF specific pre transplant issues and how they influence candidacy will be reviewed including liver disease, non adherence, vascular anatomy and other GIT manifestations.

Co-Chairs: **Monique Malouf, MD and Cecilia Chaparro, MD**

7:00 AM **Optimizing Transplant Referral for CF Patients Using Cystic Fibrosis Foundation Referral Guidelines**

Carli Lehr, MD. Cleveland Clinic, Cleveland, OH, USA

7:20 AM **Medical Strategies to Improve CF Survival to Lung Transplant**

Whitney Brown, MD. Inova Fairfax Hospital, Falls Church, VA, USA

7:35 AM **Unique Pre-Transplant Non-Microbiological Considerations for CF Lung Transplant Candidates**

Christian Benden, MD FCCP. University of Zurich, Zurich, Switzerland

7:50 AM **10-min Panel Discussion**

SUNRISE 04: Portopulmonary Rhapsody: Everything You Need to Know About Portopulmonary Hypertension (Room 210AB)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: PH, CTEPH

Summary: This session will review the new topics in the literature regarding portopulmonary hypertension. It will review the pathogenesis of portopulmonary hypertension and other forms of PAH related to liver disease, it will review the emerging treatment options for patients with portopulmonary hypertension, and will include a great debate on role of liver transplantation in treatment of portopulmonary hypertension

Co-Chairs: **Nicholas A. Kolaitis, MD and Daniel H. Kim, MD**

7:00 AM Case Presentation: RVSP"itis": Patient with Newly Diagnosed Portopulmonary Hypertension

Sophia Airhart, MD. University of Arizona, Tucson, AZ, USA

7:05 AM There Goes the Neighborhood: Updates in Pathogenesis, Epidemiology and Treatment of Portopulmonary Hypertension

Olivier Sitbon, MD. Hopital Universitaire de Bicêtre, Paris Sud, France

7:20 AM DEBATE: Liver Transplantation is a Treatment For Portopulmonary Hypertension (PRO)

Thenappan Thenappan, MD. University of Minnesota, Minneapolis, MN, USA

7:35 AM DEBATE: Liver Transplantation is a Treatment For Portopulmonary Hypertension (CON)

Kelly Chin, MD. UT Southwestern Medical Center, Dallas, TX, USA

7:50 AM 10-min Panel Discussion

SUNRISE 05: Making the Move: Accelerating Basic Science to Novel Clinical Trials in Transplant (Room 510AC)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: BSTR, HFTX, LFTX, PATH, PHARM

Summary: Despite a desperate need for novel therapies to prevent or reverse chronic rejection, there has been a paucity of clinical trials in this area. This symposium will discuss barriers to interventional trials in transplant and their potential solutions.

Co-Chairs: Laurie D. Snyder, MD and Simon Pecha, MD

7:00 AM **Changing the Endgame: Surrogate Markers Instead of Clinical Endpoints?**
Jamie L. Todd, MD. Duke University Medical Center, Durham, NC, USA

7:15 AM **Q & A**

7:20 AM **Sharing the Love: Translating Pre-Clinical Discoveries and Borrowing from Other Therapeutic Areas to Transplantation**
Patricia Uber, PharmD. Virginia Commonwealth University, Richmond, VA, USA

7:35 AM **Q & A**

7:40 AM **Maximizing Efficiency: Novel Clinical Trial Designs**
Finn Gustafsson, MD, PhD. Rigshospitalet, Copenhagen, Denmark

7:55 AM **Q & A**

SUNRISE 06: The Eternal Challenge: Difficult-to-Treat Organisms in Thoracic Transplantation (Room 516BC)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: ID, HTX, LTX, PHARM

Summary: Despite advances in surgical technique and immunosuppressive management, infection remains a significant cause of morbidity among thoracic transplant recipients. Multidrug-resistant Gram-negative bacteria and nontuberculous mycobacteria are challenging to treat due to a limited antimicrobial armamentarium and toxicities. The global spread of newer multidrug-resistant pathogens such as *Candida auris* poses challenges for thoracic transplant candidates and recipients.

Co-Chairs: **Shalika Katugaha, MD and Erik Verschuuren, MD, PhD**

7:00 AM **Expanding the Armamentarium: New Drugs and Novel Therapies for the Treatment of Multidrug-Resistant Gram-Negatives**

Stephanie Pouch, MD. Emory University, Atlanta, GA, USA

7:15 AM **Q & A**

7:20 AM **The New Fungal Threat: *Candida auris* Infections in Thoracic Transplant Candidates and Recipients**

Shirish Huprikar, MD. Mount Sinai, New York, NY, USA

7:35 AM **Q & A**

7:40 AM **Draining the Abscess: Inside *Mycobacterium abscessus***

Orla Morrissey, MD. The Alfred Hospital, Melbourne, Australia

7:55 AM **Q & A**

SUNRISE 07: DSAs and AMR: When and How to Treat (Room 510BD)

Thursday, April 23, 7:00 AM – 8:00 AM

Audiences: NNSAH, HFTX, PEDS, PHARM

Summary: This session will provide guidance on when and how to treat the highly sensitized peri-operative candidate for transplant. Speakers will discuss treatment of donor specific antibodies identified in the post-transplant phase, and the treatment plan for recipients who develop antibody mediated rejection.

Co-Chairs: **Kevin C. Carney, MSN, CRNP, CCTC and Emilie Jean St. Michel, MD**

7:00 AM **Peri-Operative Treatment of the Sensitized Candidate**
Patricia P. Chang, MD. University of North Carolina, Chapel Hill, NC, USA

7:15 AM **Post-Transplant DSAs: When and How to Treat**
Angela W. Velleca, RN, BSN, CCTC. Cedars Sinai Heart Institute, Los Angeles, CA, USA

7:30 AM **AMR in Pediatric and Adult Post-Transplant Recipients**
Steven P. Ivulich, BPharm. The Alfred Hospital, Melbourne, Australia

7:45 AM **Panel Discussion**

SYMPOSIUM 11: The Good, the Bad, the Ugly: Individualized VAD Therapy (Room 517A)

Thursday, April 23, 8:15 AM – 10:00 AM

Audiences: MCS, HFTX, NNSAH, PHARM

Summary: Tailoring treatments to individual patients has revolutionized other fields of medicine, but personalized therapies still need to gain attention in the left ventricle assist devices (LVADs) field. Even if LVADs are just few types, they are implanted in patients with different clinical and cultural characteristics. This symposium focuses on current disparities among LVAD patients and it investigates the importance of individualized therapies, titrated on sex, body mass, ethnicity and culture.

Co-Chairs: **Cally K. Ho, MD and Jaime A. Hernandez Montfort, MD MPH**

8:15 AM **Gender Matters Before, During and After LVAD Implantation**
Silvia Mariani, MD. Hannover Medical School, Hannover, Germany

8:30 AM **Asterix or Obelix? Don't Forget Body Mass Index!**
Hannah Copeland, MD. University of Mississippi Medical Center, Jackson, MS, USA

8:45 AM **Social Environment: Essential But Underestimated**
Alessandro Barbone, MD. Istituto Clinico Humanitas, Milan, Italy

9:00 AM **Europe, North America and Australia: Brothers But Not Triplets in the VAD Family**
Daniel Zimpfer, MD. Medical University of Vienna, Vienna, Austria

9:15 AM **VADs in Asia, Africa and South America: The Need for Local Standards**
Erik Fung, MD, PhD. Prince of Wales Hospital, Hong Kong, China

9:30 AM **The Complexity of a VAD Patient: How to Reach an Individualized Therapeutic Approach**
Pascal N. Leprince, MD, PhD. La Pitie Salpetriere, Paris, France

9:45 AM **15-min Panel Discussion**

SYMPOSIUM 12: When the Left Appears to be Normal and the Right Goes Wrong: HFpEF and Infiltrative Cardiomyopathies (Room 210EF)

Thursday, April 23, 8:15 AM – 10:00 AM

Audiences: HFTX, PATH, PH, PHARM

Summary: This session focuses on heart failure with preserved ejection fraction, including etiologies and hemodynamics, and the utility of advanced imaging techniques in diagnosis. This session also will discuss infiltrative cardiomyopathies, particularly conditions that often present with RV involvement or right heart failure, including amyloidosis and sarcoidosis. The speakers will discuss how to manage the specific cardiomyopathy, and when to refer these patients for advanced HF therapies.

Co-Chairs: **Richard K. Cheng, MD and Bojan Vrtovec, MD, PhD**

- 8:15 AM Case Presentation: A Challenging Case of Dyspnea in an Older Woman**
Thomas Cascino, MD, MSc. University of Michigan, Ann Arbor, MI, USA
- 8:20 AM Pathophysiology and Hemodynamics of Heart Failure with Preserved Ejection Fraction**
Sanjiv J. Shah, MD. Northwestern University, Chicago, IL, USA
- 8:35 AM Role of Imaging in Assessing HFpEF - Echocardiography, MRI, and PET: Is Ejection Fraction Overrated?**
Jerry Estep, MD, Cleveland Clinic, Cleveland, OH, USA
- 8:50 AM HFpEF: Treatment Options in Different Clinical Settings**
Maria Frigerio, MD. A.O. Niguarda Ca' Granda, Milan, Italy
- 9:05 AM Case Presentation: ATTR Amyloid Patient with Severe Restrictive Physiology/Right Heart Failure and Pulmonary Hypertension**
Elsy V. Navas, MD. Cleveland Clinic Florida, Weston, FL, USA
- 9:10 AM Restrictive Physiology and Emerging Treatment Options in ATTR Amyloidosis**
Natasha Altman, MD. University of Colorado, Aurora, CO, USA
- 9:25 AM Case Presentation: Right Heart Failure and Pulmonary Hypertension in Sarcoidosis**
Stephen Pan, MD. NYU Langone Medical Center, New York, NY, USA
- 9:30 AM Quest for Quiescence: Treating RV Dysfunction, Pulmonary Hypertension, and Arrhythmias in Sarcoidosis**
Maja Cikes, MD, PhD. University of Zagreb School of Medicine, Zagreb, Croatia
- 9:45 AM 15-min Panel Discussion**

SYMPOSIUM 13: From PGD to CLAD: The Lifespan of a Lung Allograft (Room 511)

Thursday, April 23, 8:15 AM – 10:00 AM

Audiences: LFTX, BSTR, ID, PATH, PEDS, PHARM

Summary: Lung allografts survive numerous damaging insults, with the recipient ultimately succumbing to chronic lung allograft dysfunction (CLAD). The initial insult occurs at the time of transplant surgery leading to primary graft dysfunction (PGD). Over months to years, cumulative damage to the allograft from PGD, rejection, infection, and antibody production results in irreversible CLAD. In this session, we will review mechanistic data regarding these critical events limiting lung allograft longevity.

Co-Chairs: John Dark, MD and Allison Carroll, MD

8:15 AM Clinical Strategies for the Prevention of Primary Graft Dysfunction: What's New on the Horizon

Jason Christie, MD. University of Pennsylvania, Philadelphia, PA, USA

8:30 AM Primary Graft Dysfunction: Molecular Mechanisms

Ciara M. Shaver, MD PhD. Vanderbilt University Medical Center, Nashville, TN, USA

8:45 AM Novel Cellular Modulators of Allograft Inflammation and Injury

Daniel Chambers, MD. The Prince Charles Hospital, Brisbane, Australia

9:00 AM Infectious Triggers of Increased Inflammation

Andrew J. Fisher, PhD FRCP. Newcastle University, Newcastle Upon Tyne, United Kingdom

9:15 AM CLAD: What's New in Terms of Clinical Risk?

Robin Vos, MD, PhD. University Hospitals Leuven, Leuven, Belgium

9:30 AM CLAD: Molecular Mechanisms

Vibha N. Lama, MD, MS. University of Michigan, Ann Arbor, MI, USA

9:45 AM 15-min Panel Discussion

SYMPOSIUM 14: Selection of Donors for Pediatric Heart and Lung Transplantation: Maximizing Use of a Limited Resource (Room 510AC)

Thursday, April 23, 8:15 AM – 10:00 AM

Audiences: PEDS, HFTX, LFTX, NNSAH

Summary: This session aims to report the current state of donor selection and management, discuss the factors that impact donor acceptance, highlight provider behaviors that may negatively impact donor utilization, discuss the positive and negative impacts of publicly reported outcome data, and discuss future strategies to optimize the utilization of potentially viable donor hearts and lungs.

Co-Chairs: Justin Godown, MD and Ernestina Melicoff, MD

8:15 AM Donor Allocation Systems Across the Globe: How Can We Improve Use of Limited Resources?

Jens Boehmer, MD. The Queen Silvia Children's Hosp, Gothenburg, Sweden

8:30 AM Donor Selection Among Pediatric Heart Transplant Providers: Waste Not, Want Not

Anna Joong, MD. Lurie Children's Hospital, Chicago, IL, USA

8:45 AM Donor Selection Among Pediatric Lung Transplant Providers: Waste Not, Want Not

Nicolaus Schwerk, MD. Hannover Medical School, Hannover, Germany

9:00 AM Donor Assessment Scoring in Pediatric Heart Transplantation to Ensure the Optimal Use of Organs

Farhan Zafar, MD. Children's Hospital Medical Center, Cincinnati, OH, USA

9:15 AM Behavioral Economics: How Our Biases Impact Provider Decision-Making in Donor Selection

Gretchen Chapman, PhD. Carnegie Mellon University, Pittsburgh, PA, USA

9:30 AM Public Reporting of Transplant Outcomes: Does This Change Our Willingness to Take Organs?

Ryan Davies, MD. Children's Hospital, Dallas, TX, USA

9:45 AM 15-min Panel Discussion

SYMPOSIUM 15: Great Debates in MCS and Transplant Care (Room 510BD)

Thursday, April 23, 8:15 AM – 10:00 AM

Audiences: NNSAH, HFTX, LFTX, MCS, PEDS, PH, PHARM

Summary: Clinicians face daily challenges and debates in the care of our patients. Hot discussion topics among our teams and colleagues will include strategies around anticoagulation in MCS, device implantation or transplantation without social support, and decisions related to stopping life-sustaining treatments. This symposium will feature 3 debates from multidisciplinary clinicians on these burning topics.

Co-Chairs: **Gregory Macaluso, MD and Gro Sorensen, RN CCN**

8:15 AM DEBATE: Every MCS Patient Needs Anticoagulation (PRO)

Nicola Robinson Smith, RN. Freeman Hospital, Newcastle upon Tyne, United Kingdom

8:30 AM DEBATE: Every MCS Patient Needs Anticoagulation (CON)

Sara Strout, PharmD. Johns Hopkins, Baltimore, MD, USA

8:45 AM DEBATE: We Can and Should Implant or Transplant without Social Support (PRO)

Sarah E. Schroeder, ACNP-BC, MSN RN. Bryan Heart, Lincoln, NE, USA

9:00 AM DEBATE: We Can and Should Implant or Transplant without Social Support (CON)

Quincy Young, PhD, RPsych. St. Paul's Hospital, Vancouver, BC, Canada

9:15 AM DEBATE: The Final Decision to Turn Off the Pump Lies With The Patient (PRO)

Karen Meehan, MSN. University of Chicago, Chicago, IL, USA

9:30 AM DEBATE: The Final Decision to Turn Off the Pump Lies With The Patient (CON)

Shunichi Nakagawa, MD. Columbia University Medical Center, New York, NY, USA

9:45 AM Panel Discussion

PLENARY SESSION (Room 517A)

Thursday, April 23, 10:30 AM – 12:30 PM

Audiences: ALL

Co-Chairs: Lori West, MD, DPhil and Maryl Johnson, MD

10:30 AM Lifetime Achievement Award Recipient Introduction

Lori West, MD, DPhil, University of Alberta, Edmonton, AB, Canada

10:32 AM Lifetime Achievement Award Recipient Lecture

James K. Kirklin, MD. University of Alabama at Birmingham, Birmingham, AL, USA

11:00 AM Mechanical Circulatory Support: Past, Present and Future

Daniel J. Goldstein, MD. Montefiore Medical Center, New York, NY, USA

11:20 AM Translating Tissue Engineered Heart Repair

Wolfram H. Zimmermann, MD. University of Goettingen, Goettingen, Germany

11:40 AM Management of Lung Failure in 2040 - Artificial Lung or Regeneration?

Shaf Keshavjee, MD, FRCSC. Toronto General Hospital, Toronto, ON, Canada

12:00 PM Transplant Medicine in the Age of Machine Learning

Alvin Rajkomar, MD, UCSF Medical Center, San Francisco, CA, USA

SYMPOSIUM 16: Greasing the Wheels: Antiplatelet Therapy for LVADs (Room 516BC)

Thursday, April 23, 2:00 PM – 3:45 PM

Audiences: PHARM, MCS, NNSAH, HTX

Summary: Management of antiplatelet therapies in patients with or awaiting durable LVAD and/or heart transplant has become highly variable due to the absence of well-controlled clinical trials evaluating the risk vs. benefit ratio of these agents. The management of these agents can be very challenging in certain scenarios. This symposium will review the existing data and provide discussion on management of these agents.

Co-Chairs: **Ian B. Hollis, PharmD, BCPS and Meredith Brisco-Bacik, MD MSCE FACC**

2:00 PM More Than Warfarin: Oral Antiplatelet Therapy for Primary Prevention of Thromboembolic Events

Andrew Mardis, PharmD. Prisma Health, Columbia, SC, USA

2:15 PM Putting Out the Fire: Antiplatelet Agents for the Acute Management of Pump Thrombosis

Phillip Weeks, PharmD. Memorial Hermann - Texas Medical Center, Houston, TX, USA

2:30 PM Down to the Nitty Gritty: Platelet Function-Guided Management of Antiplatelet Therapy

Marvin Slepian, MD. University of Arizona, Tucson, AZ, USA

2:45 PM Timing is Everything: Management of Dual Antiplatelet Therapy Before or After LVAD

Amanda Ingemi, PharmD. Sentara Norfolk General Hospital, Falls Church, VA, USA

3:00 PM DEBATE: Routine Use of Antiplatelet Agents Should Be Standard of Care for Durable LVADs (PRO)

Ivan Netuka, MD, PhD. Institute for Clinical and Experimental Medicine, Prague, Czech Republic

3:15 PM DEBATE: Routine Use of Antiplatelet Agents Should Be Standard of Care for Durable LVADs (CON)

Christopher Michaud, PharmD. Spectrum Health, Grand Rapids, MI, USA

3:30 PM Panel Discussion

SYMPOSIUM 17: Segmental and Subsegmental Disease in CTEPH: Misconception and Missed Opportunities (Room 510AC)

Thursday, April 23, 2:00 PM – 3:45 PM

Audiences: CTEPH, PH

Summary: This symposium will specifically focus on segmental and subsegmental disease in CTEPH. The management of segmental and subsegmental disease has evolved over the past decade. Pulmonary endarterectomy and balloon pulmonary angioplasty have been shown to be excellent therapeutic options for these patients. However, both options have not yet been widely adopted due to technical challenges.

Co-Chairs: Joanna Pepke-Zaba, MD and Isabelle Opitz, MD

2:00 PM **Prevalence of Segmental/Subsegmental Disease in CTEPH: How To Overcome a Missed Diagnosis?**

Kim M. Kerr, MD. UCSD Medical Center, La Jolla, CA, USA

2:15 PM **Q & A**

2:20 PM **What is the Most Reliable Way to Identify Segmental/Subsegmental Disease: Selective Pulmonary Angiography, CT, or MRI?**

Micheal McInnis, MD. University of Toronto, Toronto, ON, Canada

2:35 PM **Q & A**

2:40 PM **Surgical Techniques in Segmental CTEPH: Tips and Tricks**

Michael M. Madani, MD. UCSD Medical Center, La Jolla, CA, USA

2:55 PM **Q & A**

3:00 PM **BPA Techniques in Segmental CTEPH: Tips and Tricks**

Aiko Ogawa, MD. Okayama Medical Center, Okayama, Japan

3:15 PM **Q & A**

3:20 PM **Global Perspective on Management of Segmental CTEPH: Medical Therapy, BPA, PEA**

Julius Punnen, MD. Narayana Health, Bangalore, Karnataka, India

3:35 PM **Q & A**

SYMPOSIUM 18: Everybody Else is Doing It So Why Can't We? MCS in Adult Congenital Heart Disease (Room 517A)

Thursday, April 23, 4:15 PM – 6:00 PM

Audiences: MCS, HFTX, PEDS, PH

Summary: Durable mechanical circulatory support (MCS) has revolutionized care for end-stage heart failure patients, however remains rarely used in adults with congenital heart disease (ACHD). This session will present the most recent data on MCS use in ACHD generally including patient and device selection and post MCS outcomes. The session will include a debate on the optimal MCS strategy to be used in the most complex patient group: Fontan-palliated single ventricle patients.

Co-Chairs: **Angela Lorts, MD and David Crossland, MRCP**

4:15 PM How Soon is Now? Timing of Referral for Advanced Heart Failure Care in Adult Congenital Heart Disease

Lucy Roche, MB ChB. University of Toronto, Toronto, ON, Canada

4:35 PM Realizing the Promise of VAD Technology in Adult Congenital Heart Disease

Ari M. Cedars, MD. Baylor University Medical Center, Dallas, TX, USA

4:55 PM DEBATE: Fontan Patients Should Get Cavopulmonary Support for Bridge to Transplant (PRO)

Stephanie Fuller, MD. University of Pennsylvania, Philadelphia, PA, USA

5:10 PM DEBATE: Fontan Patients Should Get Cavopulmonary Support for Bridge to Transplant (CON)

Bart Meyns, MD, PhD. UZ Leuven, Leuven, Belgium

5:25 PM The ACTION Network: Acceleration Group Learning in Congenital MCS

Kurt Schumacher, MD. University of Michigan, Ann Arbor, MI, USA

5:45 PM 15-min Panel Discussion

SYMPOSIUM 19: Controversial Debates in Valvular and Structural Heart Disease and Heart Failure (Room 210EF)

Thursday, April 23, 4:15 PM – 6:00 PM

Audiences: HFTX, MCS, PEDS

Summary: Despite advances in the treatment of valvular heart disease and the emergence of TAVR and MitraClip, questions remain regarding patient selection and therapeutic options for left ventricular dysfunction and right-sided valves. This session will include rapid fire debates on challenging questions in the field, including valve repair versus advanced HF therapies in severe LV dysfunction, whether LV remodeling techniques have a role in the modern era, and valve options for the right heart.

Co-Chairs: **Luanda P. Grazette, MD and Richard C. Daly, MD**

4:15 PM DEBATE: Device-Directed Left Ventricular Remodeling Improves Patient Outcomes (PRO)

Emma Birks, MD, PhD. University of Louisville, Louisville, KY, USA

4:30 PM DEBATE: Device-Directed Left Ventricular Remodeling Improves Patient Outcomes (CON)

Steven SL Tsui, MD, FRCS. Papworth Hosp NHS Trust, Cambridge, United Kingdom

4:45 PM DEBATE: Remembering the Right Heart: Percutaneous Options are Ideal for the Tricuspid and Pulmonic Positions (PRO)

Valluvan Jeevanandam, MD. University of Chicago Medical Center, Chicago, IL, USA

5:00 PM DEBATE: Remembering the Right Heart: Percutaneous Options are Ideal for the Tricuspid and Pulmonic Positions (CON)

Renata Shih, MD. University of Florida, Gainesville, FL, USA

5:15 PM DEBATE: Valve Repair/Replacement is Always a Good Option Regardless of LV Function (PRO)

JoAnn Lindenfeld, MD. Vanderbilt University, Nashville, TN, USA

5:30 PM DEBATE: Valve Repair/Replacement is Always a Good Option Regardless of LV Function (CON)

Alejandro M. F. Bertolotti, Sr., MD. University Hospital Favaloro Foundation, Buenos Aires, Argentina

5:45 PM 15-min Panel Discussion

SYMPOSIUM 20: HCV State of the Art: How Do We Do This? An ISHLT HCV Consensus Conference (Room 516BC)

Thursday, April 23, 4:15 PM – 6:00 PM

Audiences: ID, HTX, LTX, PHARM

Summary: This symposium will offer practical insights from the recent ISHLT HCV consensus conference and will discuss recommendations regarding use of HCV+ organs for cardiothoracic (CT) transplant. This includes details regarding direct acting antiviral therapy for HCV, with a focus on drug interactions, financial and waitlist time implications, summarize early results from use of HCV+ donors in CT transplant and management strategies regarding recipient and donor selection, and treatment of HCV.

Co-Chairs: **Emily A. Blumberg, MD and Haifa Lyster, MSc**

- 4:15 PM** **Direct Acting Antivirals for HCV: A Whole New World!**
Laura Lourenco, PharmD. University of Chicago Medicine, Chicago, IL, USA
- 4:30 PM** **Q & A**
- 4:35 PM** **HCV Treatment Paradigms: Early Results from Cardiothoracic Transplantation and Consensus Recommendations**
Saima Aslam, MD, MS. UCSD Medical Center, San Diego, CA, USA
- 4:50 PM** **Q & A**
- 4:55 PM** **Donor Profiles and Recipient Selection Criteria when Considering HCV-Infected Donors**
Cameron Wolfe, MD. Duke University, Durham, NC, USA
- 5:10 PM** **Q & A**
- 5:15 PM** **Approaches to Donor-Derived HCV Infection: The Practical Applications of Pre-Emptive and Delayed Therapy**
Ann E. Woolley, MD, MPH. Brigham and Women's Hospital, Boston, MA, USA
- 5:30 PM** **Q & A**
- 5:35 PM** **Financial and Waitlist Time Implications from the Use of HCV+ Organs**
Mandeep R. Mehra, MD, FRCP, FACC, FESC. Brigham and Women's Hospital, Boston, MA, USA
- 5:50 PM** **Q & A**

SUNRISE 08: VAD Infection: What Are We Doing Wrong? (Room 517A)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: MCS, ID, NNSAH, PHARM

Summary: This session will provide an overview of evidence-based approaches to diagnosis and management of LVAD infections. Individual speakers will add their own personal experience. Lectures will cover all aspects of non-VAD specific to VAD specific infection from the peri-operative period to months/years after implantation.

Co-Chairs: **Keyur Shah, MD and Margaret M. Hannan, MD**

7:00 AM **Drive-Line Infection: Perils and Comprehensive Mitigation Strategies**
Michael Morshuis, MD. Heart Center NRW, Bad Oeynhausen, Germany

7:15 AM **Internal Pump Components Infection**
Nir Uriel, MD. New York-Presbyterian, New York, NY, USA

7:30 AM **LVAD Exchange or Heart Transplantation in Intractable Pump Infection?**
Marian Urban, MD, PhD. University of Nebraska Medical Center, Omaha, NE, USA

7:45 AM **15-min Panel Discussion**

SUNRISE 09: Rewinding the Antibodies: Managing Highly Sensitized Patients Pre-Transplant (Room 210EF)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: PHARM, HFTX, LFTX, NHSAH, PEDS

Summary: This symposium will provide an overview of important topics regarding antibodies and desensitization for thoracic transplant recipients. Topics reviewed will include immunology, strategies for desensitization, and sensitization considerations with regard to prioritization and allocation of organs.

Co-Chairs: Amy Kiskaddon, PharmD and Adam Cochrane, MD

7:00 AM Blues Brothers: HLA and Non-HLA Antibodies

Adriana Zeevi, PhD. University of Pittsburgh Medical Center, Pittsburgh, PA, USA

7:15 AM Q & A

7:20 AM Ghostbusters: Strategies for Desensitization

Fay S. Burrows, PharmD, BCPS. St. Vincent's Hospital, Sydney, Australia

7:35 AM Q & A

7:40 AM Stand By Me: Organ Allocation and Sensitized Patients

Scott Silvestry, MD. Florida Hospital Transplant Institute, Orlando, FL, USA

7:55 AM Q & A

SUNRISE 10: Advances in the Microbiome: The Secret World Inside Us (Room 510BD)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: BSTR, HFTX, ID, LFTX, MCS

Summary: It is now understood that the human body is home to a multitude of niche environments, each with their own unique microbiome, which appears to have an important symbiotic role with the host and modulates functioning of the associated organ system. The most researched of these is the gut microbiome. Although, our understanding of this symbiotic relationship has stemmed from gut-based research, it developed to include the reciprocal relationships between the gut and other organs including the heart and lung.

Co-Chairs: **W. H. Wilson Tang, MD and Nancy Law, DO, MPH**

7:00 AM **The Gut Microbiome as a Modulator in Transplant**
Steven Greenway, MD. Alberta Children's Hospital, Calgary, AB, Canada

7:15 AM **Q & A**

7:20 AM **The Microbiome Changes of Heart Failure, Heart Transplant and MCS**
Melana Yuzepolskaya, MD. Columbia University, New York, NY, USA

7:35 AM **Q & A**

7:40 AM **The Microbiome After Lung Transplantation and Effects on CLAD**
Alicia B. M. Mitchell, B.Med.Sci. (Hons), PhD. Sydney Medical School,
University of Sydney, Sydney, Australia

7:55 AM **Q & A**

SUNRISE 11: Challenging CTEPH Surgical Cases in the BPA Era (Room 210AB)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: CTEPH, PH

Summary: BPA is becoming a new standard of treatment for inoperable CTEPH patients as it achieved satisfactory early and mid-term outcomes. Hence, it appears a grey zone for operable patients with distal disease whose surgery remains challenging and BPA seems possible. The aim of the session is to present surgical results of distal pulmonary endarterectomy (splenectomy, chronic emboli from catheter, blood disorders) and debate to know what is the best treatment of this challenging subset of patients.

Co-Chairs: Marc de Perrot, MD and Andrea D'Armini, MD

- 7:00 AM Case Presentation: Pulmonary Endarterectomy in Catheter-Induced CTEPH Patients**
Andrea M. D'Armini, MD. University of Pavia School of Medicine, Pavia, Italy
- 7:05 AM Case Presentation: Pulmonary Endarterectomy in Blood Disorders Patients**
David P. Jenkins, FRCS. Papworth Hospital, Cambridge, United Kingdom
- 7:10 AM Case Presentation: Pulmonary Endarterectomy in Splenectomised Patients**
Marc De Perrot, MD. Toronto General Hospital, Toronto, ON, Canada
- 7:15 AM DEBATE: CTEPH in High-Risk Patients is Better Managed Using BPA Rather Than Undergoing Pulmonary Endarterectomy (PRO)**
Hiromi Matsubara, MD, PhD. Nat'l Hosp Org Okayama Med Ctr, Okayama, Japan
- 7:30 AM DEBATE: CTEPH in High-Risk Patients is Better Managed Using BPA Rather Than Undergoing Pulmonary Endarterectomy (CON)**
Elie Fadel, MD. Hosp Marie Lannelongue, Le Plessis Robinson, France
- 7:45 AM 15-min Panel Discussion**

SUNRISE 12: Cardiac Allograft Injury: It's More Than Just Rejection! (Room 510AC)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: PATH, BSTR, HFTX

Summary: Cardiac allograft dysfunction (CAD) reflects myocardial injury (MI). Previously attributed to acute cellular rejection and infection, the current etiology is multifactorial. New diagnostic modalities are directed at detection and enumeration of MI. This symposium will discuss CAD as a consequence of MI. Clinicians and pathologists will be aware of causes of injury and how diagnostic modalities address them. The symposium will unite clinicians and pathologists to discuss emerging modalities.

Co-Chairs: Martin Goddard, MD and Brandon T. Larsen, MD, PhD

7:00 AM **Histopathology of Allograft Injury: A Temporal Paradigm**
Gerald J. Berry, MD. Stanford University, Stanford, CA, USA

7:15 AM **Q & A**

7:20 AM **Allograft Dysfunction: A Clinician's Approach to a Common Dilemma**
Christopher S. Hayward, MD. St. Vincent's Hospital, Sydney, Australia

7:35 AM **Q & A**

7:40 AM **Integration of Information Overload: The Role of the Pathologist**
Ornella Leone, MD. University of Bologna, Bologna, Italy

7:55 AM **Q & A**

SUNRISE 13: Let's Talk about Sex, Baby! Intimacy in MCS and Transplant Patients (Room 511)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: NNSAH, HFTX, LFTX, ID, MCS, PEDS, PH, PHARM

Summary: This multidisciplinary symposium focuses on issues specific to sexual intimacy and fertility in patients receiving device therapies, cardiac or lung transplantation. Topics will include: impact of heart failure medication on sexual potency, ethical issues and decision making around unplanned pregnancies, sexually transmitted infections, and fertility treatment, and supporting patients with device therapies around intimacy concerns.

Co-Chairs: Annemarie Kaan, MCN, RN and Pamela Combs, PhD RN

7:00 AM I Can't Get No Satisfaction: Pharmacological Considerations
Nathan Verlinden, PharmD. Allegheny General Hospital, Pittsburgh, PA, USA

7:15 AM Q & A

7:20 AM Papa Don't Preach: STI, Fertility and Pregnancy Dilemmas
Vasiliki Gerovasili, MD. Queen Elizabeth Hospital, Oxford, UK

7:35 AM Q & A

7:40 AM Rock With You: Sexual Intimacy and Device-Therapy in MCS Patients
Melissa Sanchez, BSc, PGDip, MSc, DCLinPSy. Royal Brompton Hospital, Harefield, United Kingdom

7:55 AM Q & A

SUNRISE 14: Pediatric PH: Management of Advanced Disease and Thoracic Transplant Referral (Room 516BC)

Friday, April 24, 7:00 AM – 8:00 AM

Audiences: PEDS, CTEPH, LFTX, PH, PHARM

Summary: This session will bring together experts on pediatric pulmonary hypertension for a discussion that is much needed regarding the treatment of advanced pulmonary vascular diseases in children. In addition to medical management, discussions will include surgical management and referral for thoracic transplantation in refractory cases.

Co-Chairs: Don Hayes, MD and Melinda Solomon, MD

7:00 AM **How Many Drugs are Enough to Treat Severe Pediatric Pulmonary Hypertension?**

Nidhy Varghese, MD. Baylor College of Medicine, Houston, TX, USA

7:15 AM **Q & A**

7:20 AM **Surgical Management of Severe Pulmonary Hypertension in Children Prior To or Instead Of Lung Transplantation?**

Pirooz Eghtesady, MD, PhD. St. Louis Children's Hospital, St. Louis, MO, USA

7:35 AM **Q & A**

7:40 AM **When to Refer a Child with Pulmonary Hypertension for Thoracic Transplant**

Brigette Willemse, MD. University Medical Center Groningen, Groningen, Netherlands

7:55 AM **Q & A**

SYMPOSIUM 21: Joint ISHLT/PVRI Symposium: Of Mice and Men (Room 210AB)

Friday, April 24, 8:15 AM – 10:00 AM

Audiences: PH, BSTR, CTEPH, LFTX, PEDS

Summary: In collaboration with the Pulmonary Vascular Research Institute (PVRI), the ISHLT is pleased to offer this joint symposium. The management of PAH has considerably evolved in the past years; however, the development of disease-modifying therapies faces challenges witnessed by a high number of negative Phase II trials. Do we make the right choice of agents? Should we change our RCT paradigm? How do we measure success and how does this translate in real-life management? These are some key questions the symposium will try to answer with world-leading experts who will discuss how the future will look like.

Co-Chairs: Paul Corris, MB FRCP and Trevor Williams, MD

- 8:15 AM** **Journey to the Center of the Cell: New Pathways and Beyond**
Sebastien Bonnet, PhD, FAHA. Pulmonary Hypertension Research Group, Quebec, QC, Canada
- 8:40 AM** **Intolerable Cruelty or Why Phase II Trials Failed**
Olivier Sitbon, MD. Hopital Universitaire de Bicêtre, Paris Sud, France
- 9:05 AM** **Facing the Void: How Do We Define Success in PAH?**
Jean-Luc Vachiery, MD. Erasme University Hospital, Brussels, Belgium
- 9:25 AM** **The Full Monty: Tools and Tricks for a Better Management**
Raymond L. Benza, MD. Allegheny General Hospital, Pittsburgh, PA, USA
- 9:50 AM** **10-min Panel Discussion**

SYMPOSIUM 22: A Balancing Act: Innate Mechanisms of Injury and Immunomodulation in Transplantation (Room 510BD)

Friday, April 24, 8:15 AM – 10:00 AM

Audiences: BSTR, HFTX, LFTX, PATH, PHARM

Summary: Transplant immunology is a rapidly advancing field. This session aims to challenge existing paradigms regarding how the innate immune system and its effector cells are helpful or harmful to thoracic allografts. Identifying similarities and differences between heart and lung transplant immunology may help advance understanding of the immunobiology of both organs. The primary goal of this session is to enrich understanding of allograft immune responses with a focus on targets for interventions.

Co-Chairs: **Christian Heim, MD and Ciara M. Shaver, MD PhD**

8:15 AM Setting the Stage

Christian Heim, MD. University of Erlangen, Erlangen, Germany

8:20 AM Cellular Death: The Kickoff

Mingyao Liu, MD. Toronto General Hospital, Toronto, ON, Canada

8:35 AM Q & A

8:40 AM Mitochondria: A Game Changer

Andrew E. Gelman, PhD. Washington University School of Medicine, St. Louis, MO, USA

8:55 AM Q & A

9:00 AM Endothelium and Epithelium: Ground Zero

Christine Falk, PhD, Hannover Medical School, Hannover, Germany

9:15 AM Q & A

9:20 AM Complement: Defending Cell Integrity

Hrishikesh S. Kulkarni, MD. Washington University in St Louis, Saint Louis, MO, USA

9:35 AM Q & A

9:40 AM Therapeutic Targets for Innate Immune Manipulation: The Comeback

Karl B. Lemstrom, MD, PhD. Helsinki University, Helsinki, Finland

9:55 AM Q & A

SYMPOSIUM 23: Short-Term MCS in Bridging the Gap Between Recovery and Transplant (Room 517A)

Friday, April 24, 10:30 AM – 12:15 PM

Audiences: MCS, CTEPH, HFTX, PEDS, PH

Summary: The symposium will review all short-term circulatory support devices and their pros and cons. We will discuss which patients are best suited for short-term support, which would do better with durable support, and who should not be supported at all. We will discuss how to manage the acute heart failure patient; specifically, which patients will recover and which should be transitioned to durable support or transplant. Finally, we will review the new heart allocation system in the US and its impact on decision making around support strategies.

Co-Chairs: Carmelo A. Milano, MD and Jens Garbade, MD, PhD

10:30 AM Percutaneous Management of the Acute Heart Failure Patient
David Schibilsky, MD. University of Freiburg, Freiburg, Germany

10:45 AM Surgical Management of the Acute Heart Failure Patient, Temporary vs Durable Support
Julia Riebandt, MD. University of Vienna, Vienna, Austria

11:00 AM Will This Heart Beat Again? Who Will Recover and Who to Transplant
Shelley Hall, MD. Baylor University Medical Center, Dallas, TX, USA

11:15 AM Novel Strategies for Extended Support for Pediatric and Adult Patients with 'Short-Term' Mechanical Circulatory Support
Iki Adachi, MD. Texas Children's Hospital, Houston, TX, USA

11:30 AM DEBATE: Short-Term MCS is the Best Strategy for Bridge to Heart Transplant (PRO)
Lauren B. Cooper, MD, MHS. Inova Heart and Vascular Institute, Fairfax, VA, USA

11:45 AM DEBATE: Short-Term MCS is the Best Strategy for Bridge to Heart Transplant (CON)
Jeffrey J. Teuteberg, MD. Stanford University School of Medicine, Stanford, CA, USA

12:00 PM 15-min Panel Discussion

SYMPOSIUM 24: Joint ISHLT/TTS Symposium: Meeting Ethical Challenges in Transplantation Through Global Partnership (Room 210EF)

Friday, April 24, 10:30 AM – 12:15 PM

Audience: ALL

Summary: In collaboration with The Transplantation Society (TTS), this joint symposium will address the challenges of organ transplantation across borders. Country disparities in the access to transplantation lead to ethical dilemmas when organs, donors or recipients cross the borders. Good collaborative experiences as well as the challenges of transplant tourism or organ traffic will be discussed. Experiences on the rise of transplant programs in developing countries will be shared. Society policies regarding transplantation in China will be discussed.

Co-Chairs: Are M. Holm, MD, PhD and Nancy Ascher, MD

10:30 AM Cultural and Religious Implications in the Donation and Transplant Process
Marta Farrero, MD, PhD. Hospital Clinic de Barcelona, Barcelona, Spain

10:45 AM Transplantation Across International Borders: The Ethical Challenges
Nancy Ascher, MD. UCSF Medical Center, San Francisco, CA, USA

11:00 AM Established International Collaborations in Organ Sharing: Benefits and Challenges
Are M. Holm, MD, PhD. Oslo University Hospital, Oslo, Norway

11:15 AM Transplant Tourism: Recipients Crossing Borders
Komarakshi Balakrishnan, MD. Fortis Malar Hospital, Chennai, India

11:30 AM Partnerships for Establishing Deceased Donor Transplant Programs in Emerging Countries
Richard Allen, MBBS. University of Sydney, Sydney, Australia

11:45 AM Organ Transplantation in China
Jeremy Chapman, MD. University of Sydney, Sydney, Australia

12:00 PM 15-min Panel Discussion

SYMPOSIUM 25: ECMO and Lung Failure from Recovery to Transplant (Room 511)

Friday, April 24, 10:30 AM – 12:15 PM

Audiences: LFTX, MCS, PEDS, PH

Summary: There is continued push from pulmonary and critical care teams to bridge sick patients to lung transplant with mechanical support. For most centers these patients pose a prohibitive risk due to poor 1-year survival, however, select programs are able to show equipoise between the mechanical support population and their standard transplant patients. This session will discuss best practices in respiratory ECMO as well as who, when, and how to bridge to lung transplant.

Co-Chairs: Sandeep Attawar, MD and Jasleen Kukreja, MD, MPH

10:30 AM Building a Successful Bridge to Transplant Program: Pitfalls and Traps

Nathalie Roy, MD. Boston Children's Hospital, Boston, MA, USA

10:45 AM The Expanding Pool of ECMO Programs: Patient Selection Criteria and Ethical Considerations

Jens Gottlieb, MD. Hannover Medical School, Hannover, Germany

11:05 AM Successfully Transitioning from Pre-Operative to Intra-Operative to Post-Operative Mechanical Support

Mani A. Daneshmand, MD. Emory University, Atlanta, GA, USA

11:20 AM DEBATE: We Should Routinely Use EVLP for Marginal Organs (PRO)

Marcelo Cypel, MD. Toronto General Hospital, Toronto, ON, Canada

11:35 AM DEBATE: We Should Routinely Use EVLP for Marginal Organs (CON)

Walter Klepetko, MD. Medical University of Vienna, Vienna, Austria

11:50 AM Debate Rebuttal (PRO)

Marcelo Cypel, MD. Toronto General Hospital, Toronto, ON, Canada

11:55 AM Debate Rebuttal (CON)

Walter Klepetko, MD. Medical University of Vienna, Vienna, Austria

12:00 PM 15-min Panel Discussion

SYMPOSIUM 26: CMV: Great Debates on Prevention and Management Controversies (Room 510AC)

Friday, April 24, 10:30 AM – 12:15 PM

Audiences: ID, HTX, LTX, PEDS, PHARM

Summary: Despite advances in diagnostics and prevention strategies, cytomegalovirus (CMV) infection continues to be a significant management challenge in thoracic organ transplantation. This session involves two pro and con debates and a lecture related to 3 controversial issues: 1) the duration of universal anti-viral prophylaxis, 2) the use of CMV-specific immune monitoring assays as adjuncts to viral load testing, and 3) approaches to the management of resistant or recurrent CMV.

Co-Chairs: **Lara Danziger-Isakov, MD, MPH and Michael Ison, MD**

10:30 AM DEBATE: Universal CMV Prophylaxis Should Be Short Or Not Used At All (PRO)

Nicolas Mueller, MD. University of Zurich, Zurich, Switzerland

10:45 AM DEBATE: Universal CMV Prophylaxis Should Be Short Or Not Used At All (CON)

Emily Blumberg, MD, University of Pennsylvania, Philadelphia, PA, USA

11:00 AM Debate Rebuttal (PRO)

Nicolas Mueller, MD. University of Zurich, Zurich, Switzerland

11:05 AM Debate Rebuttal (CON)

Emily Blumberg, MD, University of Pennsylvania, Philadelphia, PA, USA

11:10 AM DEBATE: CMV-Specific Immune Monitoring Assays Are Ready For Prime Time! (PRO)

Laurie D. Snyder, MD. Duke University Medical Center, Durham, NC, USA

11:25 AM DEBATE: CMV-Specific Immune Monitoring Assays Are Ready For Prime Time! (CON)

Camille Kotton, MD. Massachusetts General Hospital, Boston, MA, USA

11:40 AM Debate Rebuttal (PRO)

Laurie D. Snyder, MD. Duke University Medical Center, Durham, NC, USA

11:45 AM Debate Rebuttal (CON)

Camille Kotton, MD. Massachusetts General Hospital, Boston, MA, USA

11:50 AM Resistance, Toxicities, and More: A Case-Based Approach to the Management of CMV in Lung Transplant Recipients

Catherine Burton, MD. University of Alberta, Edmonton, AB, Canada

SYMPOSIUM 27: Joint ISHLT/AST Symposium: Challenges in Heart/Kidney Transplantation (Room 210EF)

Friday, April 24, 2:00 PM – 3:45 PM

Audiences: HFTX, BSTR, PATH, PEDS, PHARM

Summary: In collaboration with the American Society of Transplantation (AST), this joint symposium will provide an overview of the pathophysiological basis of cardiorenal syndrome and treatment strategies, and indicators of irreversible kidney disease that lead to dual organ transplantation. Contrasting views from cardiology and nephrology regarding treatment of sensitized candidates and graft monitoring after dual transplantation will be discussed, as will ethical concerns surrounding dual organ transplantation and various allocation strategies.

Co-Chairs: **Arezu Aliabadi-Zuckermann, MD and Darshana Dadhania, MD**

2:00 PM The Pathophysiology of Cardio-Renal Disease Leading to End Organ Failure
Juan Ivey-Miranda, MD. Instituto Mexicano del Seguro Social, Ciudad de Mexico, Mexico

2:15 PM Interdisciplinary Management Strategies for Cardio-Renal Syndrome: Tools in Our Arsenal
Jeffrey M. Testani, MD, MTR. Yale University, New Haven, CT, USA

2:30 PM Reversible or Irreversible Kidney Damage: How do I Know? Indications for Heart-Kidney Transplantation
Richard Formica, MD. Yale School of Medicine, New Haven, CT, USA

2:45 PM Sensitization in Heart-Kidney Transplantation
Darshana Dadhania, MD. Weill Cornell Medicine, New York, NY, USA

3:00 PM Partners for Life: Monitoring and Caring for the Heart and Kidney Allografts
Arezu Aliabadi-Zuckermann, MD. Medical University of Vienna, Vienna, Austria

3:15 PM The Ethics of Dual Organ Transplantation: Evaluating Fairness in Organ Allocation
Jayme Locke, MD, MPH. University of Alabama at Birmingham, Birmingham, AL, USA

3:30 PM 15-min Panel Discussion

SYMPOSIUM 28: Lean On Me: Mechanical Support of the Right Ventricle in Pulmonary Hypertension (Room 210AB)

Friday, April 24, 2:00 PM – 3:45 PM

Audiences: PH, CTEPH, HFTX, LFTX, MCS, PEDS

Summary: This session will focus on the role of mechanical circulatory support (ventricular assist devices, impeller devices, extracorporeal membranous oxygenation devices, etc) in the management of patients with advanced pulmonary hypertension with severe and complex heart failure physiology.

Co-Chairs: Arun Jose, MD and Maria G. Crespo-Leiro, MD

- 2:00 PM** **Knowing When to Bail: Timing and Candidacy in MCS for End Stage Pulmonary Hypertension**
Manreet Kanwar, MD. Allegheny General Hospital, Pittsburgh, PA, USA
- 2:15 PM** **Q & A**
- 2:20 PM** **Tickle Me ECMO: What is the Best Configuration to Support the Failing Right Ventricle?**
Sonja Bartolome, MD. UT Southwestern, Dallas, TX, USA
- 2:35 PM** **Q & A**
- 2:40 PM** **DEBATE: ECMO Should Be Routine Perioperatively for PAH Patients Undergoing Transplant (PRO)**
David McGiffin, MD. Alfred Institute, Melbourne, Australia
- 2:55 PM** **DEBATE: ECMO Should Be Routine Perioperatively for PAH Patients Undergoing Transplant (CON)**
Christopher King, MD. Inova Fairfax Hospital, Falls Church, VA, USA
- 3:10 PM** **Debate Rebuttal (PRO)**
David McGiffin, MD. Alfred Institute, Melbourne, Australia
- 3:15 PM** **Debate Rebuttal (CON)**
Christopher King, MD. Inova Fairfax Hospital, Falls Church, VA, USA
- 3:20 PM** **Future of MCS in Management of RV Failure: Will it be Destination Therapy for Patients with PAH?**
Olaf Mercier, MD. Paris-Sud University, Paris, France
- 3:35 PM** **Q & A**

SYMPOSIUM 29: Shaping the Future of Thoracic Transplant Pathology: Multiplex, Multidisciplinary and Multimodality (Room 510AC)

Friday, April 24, 2:00 PM – 3:45 PM

Audiences: PATH, BSTR, HFTX, LFTX

Summary: Ancillary techniques are set to refine, rather than replace, histopathologic diagnosis in transplant pathology, including expression profiling, miRNA, cfDNA, multiplex immunohistochemistry, image analysis, integration with radiology, and integration of complex data using algorithms (including artificial intelligence processing). The aim of this symposium is to provide an overview of these techniques, and to describe their role in modern transplant pathology practice, including both lung and heart transplantation.

Co-Chairs: **Jan H. von der Thüsen, MD and Fiorella Calabrese, MD**

- 2:00 PM** **Immunohistochemistry, Special Stains and Automated Image Analysis in Post-Transplant Follow-Up Cardiac Biopsies**
Gregory A. Fishbein, MD. Ronald Reagan UCLA Medical Center, Los Angeles, CA, USA
- 2:15 PM** **Immunohistochemistry, Special Stains and Automated Image Analysis in Post-Transplant Follow-Up Transbronchial Biopsies**
Anja C. Roden, MD. Mayo Clinic, Rochester, MN, USA
- 2:30 PM** **MicroRNA Signatures and Exosomes in Cardiac Biopsies and Detection of Allograft Rejection**
Marny Fedrigo, MD. University of Padua, Padua, Italy
- 2:45 PM** **Expression Profiling in Paraffin Material: A New Level of Understanding in Pathology**
Benjamin Adam, MD. University of Alberta, Edmonton, AB, Canada
- 3:00 PM** **Correlation of Histology with (Micro)CT Images in CLAD: A Reciprocal Relationship**
Stijn E. Verleden, PhD. KU Leuven, Leuven, Belgium
- 3:15 PM** **Making Sense of Big Data: Integration of Complex Data Using Algorithms**
Alexandre Loupy, MD. Necker Hospital, Universite Paris Descartes, Paris, France
- 3:30 PM** **15-min Panel Discussion**

SYMPOSIUM 30: When a Single Ventricle Support is Not Enough! (Room 517A)

Friday, April 24, 4:15 PM – 6:00 PM

Audiences: MCS, CTEPH, HFTX, PEDS, PH

Summary: Biventricular failure is associated with high in-hospital mortality. The aim of this session is to explore the clinical utility of extra- and intracorporeal as well as percutaneous MCS for patients persisting biventricular failure. In this session the currently available devices for treating shock and heart failure and a look ahead within this developing field, including new devices and novel indications for established technology should be presented.

Co-Chairs: Yaron Barac, MD and Emily K. Granger, MBBS

4:15 PM Defining Biventricular Heart Failure

Cesar I. Guerrero-Miranda, MD. Baylor University Medical Center, Dallas, TX, USA

4:30 PM Variety of Temporary Biventricular Support

Jamila Kremer, MD. University Hospital Heidelberg, Heidelberg, Germany

4:45 PM When Durable LVAD Alone is Not Enough: Short-Term Right Ventricular Mechanical Support in LVAD Patients

Sarah E. Scheuer, MD. St Vincent's Hospital, Sydney, Paddington, Australia

5:00 PM Paracorporeal Devices Still Exist: Continuous Flow VADs in Combination with Paracorporeal Devices

Jan D. Schmitto, MD, PhD, MBA, FCCP, FRCS. Hannover Medical School, Hannover, Germany

5:15 PM Which Device in Which Configuration for Biventricular Support: BiVAD vs Total Artificial Heart? How, Which and When?

Ivan Knezevic, MD. Univ Clinical Centre, Ljubljana, Slovenia

5:30 PM Do It Both Ways: BiVAD vs. Bivad in a TAH Configuration

Evgenij V. Potapov, MD, PhD. Deutsches Herzzentrum, Berlin, Germany

5:45 PM 15-min Panel Discussion

SYMPOSIUM 31: Global Perspectives on Decreasing Waitlist Mortality: Expanded Donors and Prioritized Candidates (Room 210EF)

Friday, April 24, 4:15 PM – 6:00 PM

Audiences: HFTX, ID, MCS, PEDS

Summary: Advances in donor selection, innovative procurement strategies, and heart allocation policies are evolving. This session will review international practices aimed at decreasing wait list mortality. Talks will be given on the use of non-conventional donors, innovative procurement strategies, prioritization of underserved populations and controversial trends in urgent transplantation. A panel discussion will advance the discussion to considerations of post-transplant survival.

Co-Chairs: **Eric Steidley, MD and Kiran K. Khush, MD, MAS**

4:15 PM The New Normal: Decreasing Waitlist Mortality and Increasing Transplant Rates from Donors with High Risk Features

Ricardo La Hoz, MD. University of Texas Southwestern, Dallas, TX, USA

4:30 PM Leveling the Playing Field: Decreasing Waitlist Mortality by Prioritizing Sensitized Patients in Canada

Kim Anderson, MD. University of Toronto, Toronto, ON, Canada

4:45 PM Just Because We Can, Doesn't Mean We Should: Use of Status Modifying Therapies in Waitlist Urgency

Maria G. Crespo-Leiro, MD. Hospital Universitario A Coruna, La Coruna, Spain

5:00 PM More Opportunities: Evolving Practices Including Use of DCD and Advanced Age Donors

Kumud K. Dhital, BMBCh, FRCS-CTh, FRACS, PhD. Alfred Hospital, Melbourne, Australia

5:15 PM Getting Warmer: Expanding the Donor Pool with Use of Ex-Vivo Perfusion

Abbas Ardehali, MD. UCLA School of Medicine, Los Angeles, CA, USA

5:30 PM How We Got Here: Reflections on the Evolving OPTN Allocation System

Maryl R. Johnson, MD. University of Wisconsin, Madison, WI, USA

5:45 PM 15-min Panel Discussion

SYMPOSIUM 32: Challenges in Patient and Device Selection in Pediatric Heart Failure and MCS (Room 516BC)

Friday, April 24, 4:15 PM – 6:00 PM

Audiences: PEDS, HFTX, MCS, NNSAH

Summary: This symposium will explore the complexity of patient and device selection in pediatric mechanical circulatory support through 3 case-based debates, each highlighting a clinical scenario for which there is currently no standard approach. The session will present competing views on the risks and benefits of various management approaches to 3 distinct pediatric advanced heart failure populations.

Co-Chairs: **Aamir Jeewa, MD and Danielle S. Burstein, MD**

4:15 PM DEBATE: All Neonates with DCM and Decompensated Heart Failure Should Receive a VAD as a Bridge to Transplant (PRO)

Joshua Friedland-Little, MD. Seattle Children's Hospital, Seattle, WA, USA

4:30 PM DEBATE: All Neonates with DCM and Decompensated Heart Failure Should Receive a VAD as a Bridge to Transplant (CON)

Michael Burch, MD. Great Ormond Street Hospital, London, United Kingdom

4:45 PM DEBATE: All Patients with Fulminant Myocarditis Failing Medical Therapy Should Be Bridged with ECMO Support as First Line MCS (PRO)

Sabrina P. Law, MD. Columbia University Medical Center, New York, NY, USA

5:00PM DEBATE: All Patients with Fulminant Myocarditis Failing Medical Therapy Should Be Bridged with ECMO Support as First Line MCS (CON)

Jacob Mathew, MD. Royal Children's Hospital, Melbourne, Australia

5:15 PM DEBATE: A Child with a Glenn Palliation with Severe Right Ventricular Systolic Dysfunction Should Be Bridged Medically to Transplant (PRO)

Kathleen Simpson, MD. St. Louis Children's Hospital, Saint Louis, MO, USA

5:30 PM DEBATE: A Child with a Glenn Palliation with Severe Right Ventricular Systolic Dysfunction Should Be Bridged Medically to Transplant (CON)

Antonio Amodeo, MD. Pediatric Hospital Bambino Gesù, Rome, Italy

5:45 PM 15-min Panel Discussion

SYMPOSIUM 33: Jukebox Jives: Going Beyond the Fundamentals of Antifungal Therapy (Room 510BD)

Friday, April 24, 4:15 PM – 6:00 PM

Audiences: PHARM, HFTX, ID, LFTX, MCS, NNSAH, PEDS

Summary: Fungal infections are associated with high morbidity and mortality in thoracic transplant and MCS. This session will provide an overview of some less commonly encountered antifungal issues and provide guidance for clinicians enabling clinicians to make the most of currently available agents.

Co-Chairs: **Thais Gift, PharmD, BCPS and Fernanda Silveira, MD**

4:15 PM **Stuck on You: Reviewing Unique Antifungal Dosing in ECMO**
Haifa Lyster, MSc. Royal Brompton and Harefield NHS Foundation Trust, Middlesex, United Kingdom

4:30 PM **Q & A**

4:35 PM **Billie 'Gene': Pharmacogenomics of Antifungals**
Christine Aquilante, PharmD. University of Colorado, Aurora, CO, USA

4:50 PM **Q & A**

4:55 PM **We Go Together: Synergy and Antagonism Among Antifungal Agents**
Maureen Converse, PharmD. UF Health Shands, Gainesville, FL, USA

5:10 PM **Q & A**

5:15 PM **A Change is Gonna Come Armamentarium Against Scedosporium and Fusarium**
Me-Linh Luong, MD. St. Luc Hospital, Montreal, QC, Canada

5:30 PM **Q & A**

5:35 PM **Bitter Pill: Outside the [Pill] Box Antifungal Administration Strategies**
Rickey A. Evans, PharmD. University of North Carolina Healthcare, Chapel Hill, NC, USA

5:50 PM **Q & A**

SUNRISE 15: Considering Sex and Race: Strategies for the Non-Typical Transplant Recipient (Room 511)

Saturday, April 25, 7:00 PM – 8:00 AM

Audiences: HFTX, LTX, MCS, NHSAH, PEDS

Summary: This symposium will focus on sex, gender, and race-specific strategies in HTX: differences in advanced HF therapies (MCS vs inotropic support, complications of MCS, status listing); differences in HTX and implications of sex and race matching; cardiovascular risk factors in women (traditional and non-traditional); pregnancy in HTX recipients (preconception considerations, timing, cardiac assessment, maternal and fetal complications, breastfeeding, immunosuppression, contraception, ethics); gender awareness.

Co-Chairs: Yael Peled, MD and Marta Farrero, MD

7:00 AM The Woman in Red: Sex Differences in Advanced Heart Failure Therapies and Outcomes

Eileen M. Hsich, MD. Cleveland Clinic Foundation, Cleveland, OH, USA

7:15 AM Racial Differences in Advanced Heart Failure Therapies and Outcomes

Alanna A. Morris, MD. Emory University, Atlanta, GA, USA

7:30 AM Giving Birth After New Life: Pregnancy in Heart Transplant Recipients

Tuvia Ben Gal, MD. Rabin Medical Center, Petah Tikva, Israel

7:45 AM He/She/They: Gender Identity and Heart Transplant

Loreta Matheo, MD. Children's Hospital of Pittsburgh, Pittsburgh, PA, USA

SUNRISE 16: Early Markers for CLAD Development: Ready to Use or Discard? (Room 510BD)

Saturday, April 25, 7:00 PM – 8:00 AM

Audiences: LFTX, BSTR, PATH, PEDS

Summary: This session will give an update on the current status of blood and BAL biomarkers and early changes in pulmonary function, imaging, and pathology which might predict the development of CLAD and its specific phenotypes.

Co-Chairs: **Geert M. Verleden, MD, PhD, FERS and Federica Meloni, MD**

7:00 AM **Imaging, Pulmonary Function and Pathological Changes as Early Markers and Prognostic Sign for CLAD Phenotypes: How Predictable Are They?**

Greg Snell, MD. The Alfred Hospital, Melbourne, Australia

7:20 AM **Blood Biomarkers: Does Anything Stand at Present?**

Sam S. Weigt, MD. UCLA Medical Center, Los Angeles, CA, USA

7:35 AM **BAL Biomarkers: What's in the Name?**

Angela Koutsokera, MD, PhD. Lausanne University Hospital, Lausanne, Switzerland

7:50 AM **10-min Panel Discussion**

SUNRISE 17: I Never Thought I'd Live to Be a Hundred: Lessons Learned to Delay Transplantopathy (Room 516BC)

Saturday, April 25, 7:00 PM – 8:00 AM

Audiences: HFTX, PEDS, PHARM

Summary: In this session, lecturers will speak about complications that decrease long-term survival post heart transplant cardiac allograft vasculopathy and malignancy, focusing on updated clinical evidence to prevent their onset and/or delay their progression. Complications related to proliferation signal inhibitors and their impact to prevent long-term complications and improve survival post-transplant will be discussed.

Co-Chairs: **David A. Baran, MD and Elena Sandoval, MEBCTS**

- 7:00 AM** **What's Beyond Ten Years? A Definition for Transplantopathy**
Maria Rosa Costanzo, MD. Midwest Heart Specialists-Advocate Medical,
Naperville, IL, USA
- 7:15 AM** **Facing the Facts: What Really Works and What Doesn't to Prevent and Delay
CAV?**
Livia Goldraich, MD. Hospital de Clínicas Porto Alegre, Porto Alegre, Brazil
- 7:30 AM** **There Goes My Miracle: How Can We Prevent Post-Transplant Malignancies?**
Sandrigo Mangini, MD, PhD. Heart Institute, Sao Paulo, Brazil
- 7:45 AM** **15-min Panel Discussion**

SUNRISE 18: A Worthwhile Pursuit: Balancing Parallel Goals of Prolonged Life and Relief from Symptom Burden in Advanced Heart and Lung Disease (Room: 510AC)

Saturday, April 25, 7:00 PM – 8:00 AM

Audiences: PH, HFTX, LFTX, NHTSAH, PEDS, PHARM

Summary: Advanced cardiopulmonary disease (both the disease and treatment) has a devastating effect of quality of life (QoL). Palliative care support as a treatment option is very much underutilized in patients with end stage heart and lung disease both before and after transplantation. This session will focus on how to integrate palliative care and improve QoL both before and after transplantation.

Co-Chairs: Sasha Storaasli, MD and Sandeep Sahay, MD

- 7:00 AM** **Case Presentation on End-Stage Cardiopulmonary Disease**
Sandeep Sahay, MD. Houston Methodist Hospital, Houston, TX, USA
- 7:05 AM** **A Breath of Fresh Air: Management of Dyspnea in End Stage Heart/Lung Disease**
Rebecca Colman, MD. University of Toronto, Toronto, ON, Canada
- 7:20 AM** **This Could Go a Couple of Ways: Understanding How Preoperative Expectations of Quality of Life After Transplant Measure Up with Actual Experience**
Meghan Aversa, MD. New York Presbyterian at Columbia University, New York, NY, USA
- 7:35 AM** **A Shared Reality: Seeing Through the Lens by All Providers, Starting Early**
Eric Nolley, MD, MS. Johns Hopkins, Baltimore, MD, USA
- 7:50 AM** **10-min Panel Discussion**

SUNRISE 19: Coagulation Wars: Rogue Anticoagulation Strategies in Durable MCS (Room 515ABC)

Saturday, April 25, 7:00 PM – 8:00 AM

Audiences: PHARM, MCS, NNSAH

Summary: This session will focus on anticoagulation strategies and monitoring in adult and pediatric patients on durable mechanical circulatory support (MCS). Anticoagulation bridging approaches, reversal methods, and anticoagulation monitoring strategies will be discussed.

Co-Chairs: Douglas L. Jennings, PharmD and Georgina Waldman, PharmD

7:00 AM Phantom Menace: Anticoagulation Bridging for Durable MCS
Tara Veasey, PharmD, BCPS. Allegheny General Hospital, Pittsburgh, PA, USA

7:15 AM Q & A

7:20 AM A New Hope: Reversal of Bleeding for Durable MCS
Jean Connors, MD. Brigham and Women's Hospital, Boston, MA, USA

7:35 AM Q & A

7:40 AM Return of the Pharmacists: Pharmacist-Driven Anticoagulation for Durable MCS
Casandra Vale, BPharm. The Prince Charles Hospital, Queensland, Australia

7:55 AM Q & A

SUNRISE 20: Challenges in the Field of Pediatric Heart Transplantation: Are We Solving Them? (Room 513DEF)

Saturday, April 25, 7:00 PM – 8:00 AM

Audiences: PEDS, HFTX, PATH, PHARM

Summary: This session aims to discuss the greatest controversies that pediatric transplant providers have debated over the last decade. There will be three main topics.

Co-Chairs: **Shahnawaz Amdani, MD and Estela Azeka, MD**

- 7:00 AM** **Why Be Positive When You Can Be Negative? The Utility of Virtual Crossmatch**
Linda J. Addonizio, MD. Columbia Presbyterian Medical Center, New York, NY, USA
- 7:15 AM** **Q & A**
- 7:20 AM** **To Be Old and Wise or Young and Stupid: Biopsy vs. Novel Non-Invasive Means to Diagnose Rejection**
Annalisa Angelini, MD. University of Padua, Padua, Italy
- 7:35 AM** **Q & A**
- 7:40 AM** **Referring the Fontan for Advanced Therapies: When, How, Why?**
Leigh C. Reardon, MD. UCLA Medical Center, Los Angeles, CA, USA
- 7:55 AM** **Q & A**

PLENARY SESSION (Room 511)

Saturday, April 25, 10:15 PM – 12:15 PM

Co-Chairs: Joseph G. Rogers, MD and Peter M. Hopkins, FRACP

10:15 AM Awards Presentations

Kathleen L. Grady, PhD, APN, FAAN. Northwestern Mem Hosp, Chicago, IL, USA

10:27 AM Caves Award Winner Encore Presentation

10:35 AM Featured Abstract

10:50 AM Featured Abstract

11:05 AM Featured Abstract

11:20 AM CASE PRESENTATION for PRESIDENT'S DEBATE

Melissa Cousino, PhD, C.S. Mott Children's Hospital, Ann Arbor, MI, USA

11:25 AM PRESIDENT'S DEBATE: Psychosocial Issues Alone are a Contraindication to Transplantation (PRO)

Erik Verschuuren, MD, PhD, University Medical Center Groningen, Groningen, Netherlands

11:45 AM PRESIDENT'S DEBATE: Psychosocial Issues Alone are a Contraindication to Transplantation (CON)

Melanie Everitt, MD. Children's Hospital Colorado, Aurora, CO, USA

12:05 PM Debate Rebuttal (Pro)

Erik Verschuuren, MD, PhD

12:10 PM Debate Rebuttal (Con)

Melanie Everitt, MD