

JOIN US TODAY
FOR THE MEDTRONIC
MCS LUNCH SYMPOSIUM

Don't be Misled...A Scientific Analysis of VAD Data

12:30 - 1:30pm
Oceana 1
Loews Royal Pacific Hotel

Medtronic

Saturday, April 6, 2019

- [Well, That's a Wrap!](#)
- [A Round of Applause for Our Award Winners](#)
- [Ring Around the Azoles: What's the Interaction with Isavuconazonium?](#)
- [Warning: You're Losing Lung Transplants by Not Using Scleroderma Patients](#)
- [Final Plenary Session at ISHLT2019](#)
- [Welcome to the New ISHLT Board of Directors](#)

In the Spotlight

[Well, That's a Wrap!](#)



It's hard to believe that both the conference -- and my year as ISHLT president -- are in the books. Both were incredible experiences that underscore why the Society is so important to me, professionally and personally.

Serving as President has been a tremendous honor -- and for so many reasons. I've worked with such committed people, from my fellow volunteers to our staff. I've met new people from around the world and across disciplines. And I've had the opportunity to really dig into the organization and think about our role within the medical community.

I already knew that the ISHLT stands apart from any other organization, but was reinforced through this past year. Our commitment to including global voices and perspectives enriches all of us, personally and professionally. Our intradisciplinary content pushes us outside our individual corners and broadens our perspective. I really

grew to appreciate our commitment to these facets of our organization, not only for the unique lens they offer but also for the richness they bring to our work.

This year we focused heavily on refining our strategy and strengthening our governance structure. It's hard work, especially when you have a lot of opinions at the table! The Board and I heard a lot of feedback at the meeting and we do our best to incorporate this into our plans moving forward.

The Annual Meeting is a culmination of everything wonderful about this organization. It's always humbling to hear the work of my peers -- and see our collective commitment to making a difference. Congratulations to Lara Danzinger-Isakov, our program chair, for putting on an outstanding meeting. I am proud to say it was the highest attended meeting in the history of the ISHLT.

Plus, it's so much fun.

I'm happy to turn the honor of serving as president over to Stuart Sweet and wish him the best in the upcoming year. He and Stephan Ensminger will have a fabulous program for the 40th anniversary of the Society in 2019 in Montréal. It's going to be another great year for ISHLT.

I hope you continue to stay engaged in ISHLT. We always leave these annual meetings reinvigorated. Let's use some of that energy to help strengthen our organization. And if you haven't yet joined, what are you waiting for?

Thanks again and safe travels home,

Jeff Teuteberg, MD

Today's Highlights

[A Round of Applause for Our Award Winners](#)

In a year full of stellar submissions, it was no easy feat for the Awards Committees to select the winners. Congratulations to everyone who submitted work. The ISHLT2019

Award Winners are:

2019 JOEL D. COOPER CAREER DEVELOPMENT AWARD

Daniel Calabrese, MD

University of California San Francisco, San Francisco, California, USA

2019 ISHLT NORMAN E. SHUMWAY CAREER DEVELOPMENT AWARD

Julien Guihaire, MD, PhD

Marie Lannelongue Hospital, Le Plessis Robinson, France

2019 ISHLT RESEARCH FELLOWSHIP AWARD

Maria-Nieves Sanz, PhD

Berne University Hospital, Berne, Switzerland

2019 ISHLT/ENDURING HEARTS TRANSPLANT LONGEVITY RESEARCH AWARD

Kiran Khush, MD

Stanford University, Stanford, California, USA

Shelley Miyamoto, MD

Children's Hospital Colorado, Aurora, Colorado, USA

2019 ISHLT/O.H. FRAZIER AWARD IN MCS TRANSLATIONAL RESEARCH SPONSORED BY MEDTRONIC

Jasmin Hanke, MD

Hannover Medical School, Hannover, Germany

2019 ISHLT EARLY CAREER SCIENTIST AWARD

Argit Marishta, BS

Laboratory of Transplantation Genomics, National Heart, Lung, and Blood Institute, Bethesda, Maryland, USA

2019 ISHLT PHILIP K. CAVES AWARD

Yizhan Guo, MD

University of Virginia, Charlottesville, Virginia, USA

2019 ISHLT JUNIOR FACULTY AND TRAINEES CLINICAL CASE DILEMMAS BEST PRESENTATION AWARD

Hari P. Tunuguntla, MD, MPH

Texas Children's Hospital, Houston, Texas, USA

ISHLT TRANSPLANT REGISTRY EARLY CAREER AWARD'

Lauren Cooper, MD, MHS

Inova Heart and Vascular Insititute, Falls Church, Virginia, USA

Michael Harhay, PhD, MPH, MS, M.Bioethics

University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania, USA

In-Cheol Kim, MD

Keimyung University Dongsan Medical Center, Daegu, South Korea

Anjan Tibrewala, MD

Northwestern University, Chicago, Illinois, USA

Jefferson Vieira, MD, MBA, PhD

Brigham and Women's Hospital, Boston, Massachusetts, USA

2019 ISHLT NURSING, HEALTH SCIENCES AND ALLIED HEALTH RESEARCH AWARD

Brittany Koons, PhD, RN

University of Pennsylvania, Philadelphia, Pennsylvania, USA

Benjamin Tarrant, B.Physio

Alfred Health, Melbourne, Australia

2019 ISHLT NURSING, HEALTH SCIENCES AND ALLIED HEALTH EXCELLENCE IN RESEARCH AWARD

Angela Velleca, BSN, RN CCTC

Cedars Sinai Heart Institute, Los Angeles, California, USA

ISHLT GRANTS AND AWARDS COMMITTEE

Kathleen Grady, PhD, RN, FAAN

Committee Chair

Daniel Kreisel, MD, PhD

Committee Past Chair

Stephan Ensminger, MD, DPhil

Board of Directors Liaison

Lousie Fuller, PT

NHSAH Research Grant Awards

Josef Stehlik, MD, MPH

Transplant Registry Early Career Awards

[Ring Around the Azoles: What's the Interaction with Isavuconazonium?](#)

Written By: Roy Lee, PharmD

Isavuconazonium Pharmacokinetic Interactions with Immunosuppression in Thoracic Transplant Recipients

Carrie Burt, PharmD, MPH

Azole antifungals (e.g. voriconazole, posaconazole, itraconazole) are commonly used to prevent and treat fungal infections in the cardiothoracic transplant

population. However, their use is complicated by their inhibition of cytochrome P450 (CYP) enzymes, particularly CYP3A4. This inhibition is clinically significant as it will interact with many of our workhorse immunosuppressive agents, particularly our calcineurin and mTOR inhibitors. This interaction can be profound and well documented and empiric adjustments to immunosuppressive doses are commonly recommended.

However, isavuconazonium (ISA) (the newest azole derivative) and its effects on immunosuppressive drug concentrations have not been studied as well versus the other azoles. What we do know, in general, is that ISA presumably has less CYP inhibition.

Thus, C. Burt et al. retrospectively studied ISA's effects on tacrolimus and sirolimus and found that up to a 4-fold dose increase may be required when transitioning a patient from other azoles to ISA. However, this interaction can be slow to manifest itself when transitioning azoles.

Given that there can be much interpatient variability, the presenter did not recommend any empiric dose adjustments and recommended continued therapeutic drug monitoring and modifications to dose as needed.

Find both the abstracts [here](#).

[Warning: You're Losing Lung Transplants by Not Using Scleroderma Patients](#)

Written By: Roy Lee, PharmD

Scleroderma: The Ability to Swallow is Optional

Maria Crespo, MD

Scleroderma is a connective tissue disease that involves the hardening and tightening of the skin and connective tissues and can involve the digestive tract, heart, lungs, and kidneys. Patients with scleroderma are considered suboptimal lung transplant candidates due to:

- Small chest cavities and severe pulmonary hypertension
- Esophageal dysmotility and gastroesophageal reflux disease (GERD)
- Increased risk for renal insufficiency
- Extra-pulmonary manifestations

However, as M. Crespo pointed out in her presentation this morning, patients with scleroderma do not seem to have an increased risk for CLAD (chronic lung allograft dysfunction) despite the high frequency of severe esophageal dysfunction and GERD. Additionally, these patients have comparable post-lung transplant outcomes versus those without the disease, including short and long term survival.

Thus, an ISHLT working consensus document for lung transplants with connective tissue disease was initiated in 2018 involving a multidisciplinary team composed of rheumatology, pulmonology, transplant surgery, cardiology, pathology, anesthesiology, pharmacy, nursing, and nutrition. Once published, this document should help guide management in this unique patient population both pre- and post-lung transplantation.

This guidance should address common practices that will cover lifestyle modifications, diet, and optimization of medical management.

Find both the abstracts [here](#).

[Final Plenary Session at ISHLT2019](#)

Written By: Yasbanoo Moayedi, MD and Van-Khue Ton, MD, PhD

The final Plenary session of ISHLT2019 included the President's Debate – a rousing look at Retransplantation – as well as two What's Hot. What's New sessions. Read on for the highlights:

The President's Debate - Time to Abandon Retransplantation

Pro – Andrew Fisher, FRCP, PhD

- Equitability: Transplantation should be just and offered to recipients that will receive maximal benefit from donated organs

- Outcomes: Cardiac retransplantation is associated with 2.5-year reduced survival compared non-retransplanted adult counterparts, multivariable analysis also shows retransplantation increases risk. Similar data in pediatric patients
- 2016 ISHLT guidelines also recognizes high risk nature of retransplantation
- Investigators exclude patients after retransplantation from clinical studies

Con – Josef Stehlik, MD, MPH

- Ethics of rationing do not necessarily apply, in spite of the limited organ supply, patients who have developed graft failure also deserve consideration of retransplantation
- Total heart retransplantation accounts < 4% of all cardiac transplantation
- Long term outcomes can be similar to conditional one-year survival of other primary transplantation etiologies (ischemic heart disease)
- Consensus statement (2007) reports selected candidates for retransplantation may have a better chance at successful outcome than certain primary heart transplantation candidates.
- Emergency retransplantation is not appropriate but late retransplantation give acceptable outcomes

What's Hot, What's New: Basic Science Overview

Stijn Verleden, MD PhD

The steps of scientific development originate in basic science, with the following important processes highlighted below:

- *Thinking outside the box*: 2 studies exemplified this process, one illustrated the improved survival of xenotransplantation from 2015 to 2018, and the other suggested that the microbiome may play a crucial role in regulating T cell-dependent lung allograft rejection in a mouse model.
- *Know your technique*: a study that exemplified this process was one that included novel labelling of T cells and the identification of a specific intrapulmonary CD4+ T cells subset prior to onset of lung allograft dysfunction.
- *Apply technique in relevant clinical situation*: a few studies exemplified this process. They included one on the use of circulating tumor DNA before the clinical onset of PTLN, and this DNA decreased with Rituxan. Circulating cell-free DNA for early detection of rejection was another “hot topic”, so was gene expression profiling for rejection subtypes, and micro RNA expression as

signature for acute rejection or primary graft dysfunction. Novel ex vivo lung perfusion techniques were also highlighted, such as engineered mesenchymal stem cells or the use of hydrogen-rich environment. A study examining the role of LTB4 expression in inducing leukocytes' adhesion and activation leading to CAV development was highlighted as well.

What's Hot, What's New: Clinical Science Overview

Maria Rosa Constanzo, MD

There was a plethora of topics worth noting at this year's conference.

- The first-in-man totally implantable LVAD made a big impression, as did the results of the full MOMENTUM 3 cohort. MOMENTUM 3 demonstrated the largest reduction in pump thrombus and other adverse events seen in a clinical trial.
- Many studies examined data from the IMACS registry used a novel end-point of "living well at 1 year" to track patients' outcomes.
- The RAMP-IT-UP multicenter randomized study suggested that hemodynamic ramp tests, compared to TTE-guided ramps, might be better at adjusting patients' medications and pump speed, with a trend in greater freedom of adverse events.
- Regarding GI bleeding in VAD patients, venous congestion appeared to be associated with increases in TNF-alpha and angiopeptin 2 levels, suggesting that GI bleeding might be part of heart failure pathophysiology, and not necessarily related to VAD physiology.
- New RVAD devices included the Tandem Heart Protek Duo and a novel direct cavo-pulmonary stent mounted RVAD.
- Regarding exercise tolerance in VAD patients, RV pacing was suggested to be better than BiV pacing in improving 6MWT and KCCQ.
- The secret of cardiac recovery on LVAD remains elusive, but patients with a UCAR recovery score of 5-9 may have a greater chance of recovery.
- In pediatrics: the EXCOR IDE trial showed improved 5-yr survival on support
- In heart transplant: DCD donation occupied a lot of attention. The use of social media to increase awareness of organ donation was a novel method.
- 10-year data of the trial comparing everolimus (EVL) to azathioprine (AZA) was presented. There was a trend toward decreased CAV in the EVL arm. Notably, 1st year IVUS data did not predict 10-year survival or CAV development.

- Many therapies for PAH were presented.
 - New method in improving donor-recipient matching in lung transplant, such as the use of the distance between apex to costophrenic angle on chest X-ray that may better correlate with total lung capacity.
 - Novel CLAD treatments in lung transplant were also highlighted (such as extracorporeal photopheresis, IgGAM-based Tx, azithromycin, montelukast).
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#ISHLT2019 Announcements

[Welcome to the New ISHLT Board of Directors](#)

We're pleased to present the recently-elected Directors and Officers for the ISHLT Board of Directors -- term April 2019-April 2022:

President-Elect: Joseph Rogers, MD, Cardiologist, Duke University, North Carolina, USA

Secretary: Jason Christie, MD, Pulmonologist, University of Pennsylvania, Pennsylvania, USA

Treasurer: Raymond Benza, MD, Pulmonologist, Allegheny General Hospital, Pennsylvania, USA

Director: Martin Goddard, FRCPath, Pathologist, Cambridge University, United Kingdom

Director: Annemarie Kaan, MCN, RN, Nurse, St. Paul's Hospital, British Columbia, Canada

Director: Ulrich Jorde, MD, Cardiologist, Montefiore Medical Center, New York, USA

With the addition of these new members, we want to thank those members whose terms have ended:

Andrew Fisher FRCP, PhD United Kingdom

Howard Eisen MD, USA

Dirk Van Raemdonck MD, PhD, Belgium

The entire Board of Directors now serving ISHLT:

President: Stuart Sweet, MD, PD, Pediatric Pulmonologist, USA

President-Elect: Joseph Rogers, MD, Cardiologist, USA

Past President: Jeffrey Teuteberg, MD, Cardiologist, USA

Secretary: Jason Christie, MD, Pulmonologist, USA
Treasurer: Raymond Benza, MD, Cardiologist, USA
Director: Kevin Chan, MD, Pulmonologist, USA
Director: Jennifer Cowger, MD, MS, Cardiologist, USA
Director: Goran Dellgren, MD, Cardiothoracic Surgeon, Sweden
Director: Teresa DeMarco, MD, FACC, Cardiologist, USA
Director: Stephan Ensminger, MD, DPhil, Cardiothoracic Surgeon, Germany
Director: Martin Goddard, FRCS, MRCPa, Histopathologist, United Kingdom
Director: Kathy Grady, PhD, RN, Nurse, USA
Director: Ulrich Jorde, MD, Cardiologist, USA
Director: Annemarie Kaan, MCN, RN, Nurse, Canada
Director: Manreet Kanwar, MD, Cardiologist, USA
Director: Michael Shullo, PharmD, Pharmacist, USA

[We Want Your Opinions! Be Sure to Take the Survey](#)

Help us make next year's event as strong as possible by giving us feedback. Take the survey. You'll find it in the app under Attendee Information or [click here](#) to take it online.

Thanks in advance from the ISHLT Staff!

[Claiming CME for ISHLT2019 is Easy](#)

Need to Continuing Medical Education for ISHLT2019 or the ISHLT Academies? Here's how to get your certificate.

1. Go online [here](#).
2. Visit the ISHLT 39th Annual Meeting and Scientific Sessions link.
3. Choose which profession you need credit for and click on that link.

Questions? Email Certificate@AmedcoEmail.com.

On the Horizon

See You Next Year – And the One After That!

ISHLT 40th ANNUAL MEETING & SCIENTIFIC SESSIONS

April 22-25, 2020

Palais de Congrès de Montréal

Montréal, Canada

ISHLT 41st ANNUAL MEETING & SCIENTIFIC SESSIONS

April 21-24, 2021

International Convention Center Sydney

Sydney, Australia

Mark your calendars now!