FINAL PROGRAM

ISHLT • INTERNATIONAL SOCIETY FOR HEART AND LUNG TRANSPLANTATION

33rd ANNUAL MEETING and SCIENTIFIC SESSIONS
April 24 – 27, 2013

ISHLT Academy: Core Competencies in Mechanical Circulatory Support
Tuesday, April 23, 2013

ISHLT Academy: Core Competencies in Pediatric Heart and Lung Transplantation
Tuesday, April 23, 2013

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THE PURPOSES OF THE SOCIETY ARE:

1. To associate persons interested in the fields of heart and lung transplantation, end-stage heart and lung disease, and related sciences.

2. To encourage and stimulate basic and clinical research in these disciplines and to promote new therapeutic strategies.

3. To hold scientific meetings featuring presentations and discussions relevant to these disciplines.

4. To sponsor a scientific journal for the publication of manuscripts related to these disciplines.

5. To establish and maintain an international registry for heart and lung transplantation.

6. To award research grants and establish endowments for the study of these disciplines.

ABOUT ISHLT

THE INTERNATIONAL SOCIETY FOR HEART AND LUNG TRANSPLANTATION (ISHLT) is a not-for-profit, multidisciplinary, professional organization dedicated to improving the care of patients with advanced heart or lung disease through transplantation, mechanical support and innovative therapies via research, education and advocacy.

ISHLT was created in 1981 at a small gathering of about 15 cardiologists and cardiac surgeons. Today we have over 2700 members from over 45 countries, representing over fifteen different professional disciplines involved in the management and treatment of end-stage heart and lung disease. This multinational, multidisciplinary mix is one of the biggest strengths of the Society. It brings greater breadth and depth to our educational offerings and provides an exceptional environment for networking and exchanging information on an informal basis.

Our members include anesthesiologists, basic scientists, cardiologists, cardiothoracic surgeons, ethicists, immunologists, nurses, pathologists, perfusionists, pharmacists, pulmonologists, tissue engineers, transplant coordinators, and infectious disease specialists. Despite their differing specializations, all ISHLT members share a common dedication to the advancement of the science and treatment of end-stage heart and lung disease.
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HEART FAILURE & TRANSPLANT MEDICINE
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David S. Feldman, MD, PhD, 2013 Annual Meeting Program Committee Co-Representative
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Josef Stehlik, MD, Registries & Databases Committee Representative
Naveen Pereira, MD, Standards & Guidelines Committee Representative
Maria G. Crespo-Leiro, MD, Board of Directors Co-Liaison
David O. Taylor, MD, Board of Directors Co-Liaison
Pradeep P.A. Mammen, MD, FACC, FAHA, Basic Science & Translational Research Council Co-Liaison
Uwe Schulz, MD, Basic Science & Translational Research Council Co-Liaison
David P. Nelson, MD, Communications Liaison

INFECTION DISEASES
Lara Danziger-Isakov, MD, MPH, Chair
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Martha L. Mooney, MD, FACP, Past Chair
Stanley I. Martin, MD, 2013 Annual Meeting Program Committee Co-Representative
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Michele Estabrook, MD, Communications Co-Liaison
Macé M. Schuurmans, MD, Communications Co-Liaison
Me-Linh Luong, MD, Junior Faculty and Trainees Council Liaison

JUNIOR FACULTY AND TRAINEES
Pali D. Shah, MD, Chair
Jennifer Ann Cowger, MD, MS, Vice Chair and 2013 Annual Meeting Program Committee Co-Representative
Manreet Kanwar, MD, Secretary/Vice Chair-Elect
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Lorriana E. Leard, MD, 2013 Annual Meeting Program Committee Co-Representative
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Matthew Morrell, MD, Education Committee Representative
Reema Hasan, MD, I2C2 Committee Representative
Keyur B. Shah, MD, Registries & Databases Committee Representative
Steven Kindel, MD, Standards & Guidelines Committee Representative
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Zsuzsanna Hollander, MSc, Basic Science and Translational Research Council Co-Liaison
Esme Dijke, PhD, Basic Science and Translational Research Council Co-Liaison
Christina Migliore, MD, Communications Liaison
Me-Linh Luong, MD, Infectious Diseases Council Liaison

MECHANICAL CIRCULATORY SUPPORT
Jeffrey J. Teuteberg, MD, Chair
Daniel J. Goldstein, MD, Vice Chair
Francis D. Pagani, MD, PhD, Past Chair and Board of Directors Co-Liaison
Soon J. Park, MD, 2013 Annual Meeting Program Committee Co-Representative
Josef Stehlik, MD, PhD, 2013 Annual Meeting Program Committee Co-Representative
Mario C. Deng, MD, Development Committee Representative
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Sean P. Pinney, MD, 12C2 Committee Representative
Vivek Rao, MD, PhD, Registries & Databases Committee Representative
David S. Feldman, MD, PhD, FACC, FAHA, Standards & Guidelines Committee Representative
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J. Michael DiMaio, MD, Basic Science and Translational Research Council Liaison
Evgenij V. Potapov, MD, Communications Liaison

NURSING, HEALTH SCIENCES AND ALLIED HEALTH
Annemarie Kaan, MCN, RN, Chair
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Nancy P. Blumenthal, MSN, CRNP, CCTC, Past Chair
Samantha J. Anthony, PhD, MSW, 2013 Annual Meeting Program Committee Co-Representative
Annette J. DeVito Dabbs, PhD, RN, 2013 Annual Meeting Program Committee Co-Representative
Arzellra K. Walters, RN, MA, Development Committee Representative
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Connie White-Williams, PhD, RN, Standards & Guidelines Committee Representative

PATHOLOGY
Patrick Bruneval, MD, Chair
Dylan V. Miller, MD, Vice Chair and Education Committee Representative
Carmela D. Tan, MD, Vice Chair-Elect
Gerald J. Berry, MD, Past Chair and Development Committee Representative
E Rene Rodriguez, MD, 2013 Annual Meeting Program Committee Representative
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Joseph J. Maleszewski, MD, Standards & Guidelines Committee Representative
James F. George, PhD, Board of Directors Liaison
Annalisa Angelini, MD, Basic Science and Translational Research Council Liaison
James B. Atkinson, III, MD, PhD, Communications Liaison

PHARMACY AND PHARMACOLOGY
Christopher R. Ensor, PharmD, BCPS-CV, Chair
Michael A. Shullo, BS, PharmD, Vice Chair and 2013 Annual Meeting Program Committee Co-Representative
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Walter Uber, PharmD, 2013 Annual Meeting Program Committee Co-Representative
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Adam B. Cochrane, PharmD, BCPS, Standards & Guidelines Committee Representative
Paul E. Nolan, PharmD, FCCP, FASHP, Basic Science and Translational Research Council Liaison
Steven P. Ivulich, BPharm, Communications Liaison

PULMONARY HYPERTENSION
Robert P. Frantz, MD, Chair
Mardi Gomberg-Maitland, MD, MSc, Vice Chair
Myung H. Park, MD, FACC, Past Chair
Paul A. Corris, MB FRCP, 2013 Annual Meeting Program Committee Co-Representative
Marc de Perrot, MD, 2013 Annual Meeting Program Committee Co-Representative
Evelyn Horn, MD, Development Committee Representative
Dana P. McGlothlin, MD, Education Committee Representative
John Granton, MD, I2C2 Committee Representative
Stephen C. Mathai, MD, Registries & Databases Committee Representative
Ivan Robbins, MD, Registries & Databases Committee Representative
Teresa De Marco, MD, FACC, Standards & Guidelines Committee Representative
Raymond L. Benza, MD, Board of Directors Liaison
James D. West, PhD, Basic Science and Translational Research Council Liaison
Veronica Franco, MD, Communications Liaison

1981-1982  Michael Hess, MD
1982-1984  Jack Copeland, MD
1984-1986  Terence English, FRCS
1986-1988  Stuart Jamieson, MD
1988-1990  Bruno Reichart, MD
1990-1991  MargaretBillingham, MD
1991-1992  Christian Cabrol, MD
1992-1993  John O’Connell, MD
1993-1994  Eric Rose, MD
1994-1995  John Wallwork, FRCS
1995-1996  Sharon Hunt, MD
1996-1997  William Baumgartner, MD
1997-1998  Leslie Miller, MD
1998-1999  Alan Menkins, MD, FRCS(C)
1999-2000  Robert L. Kormos, MD
2000-2001  Anne Keogh, MBBS, MD
2001-2002  James B. Young, MD
2002-2003  Stephan Schueler, MD
2003-2004  Jon Kobashigawa, MD
2004-2005  Alec Patterson, MD
2005-2006  Mark L. Barr, MD
2006-2007  Robert C. Robbins, MD
2007-2008  Paul A. Corris, MB FRCP
2008-2009  Mandeep R. Mehra, MD
2009-2010  James K. Kirklin, MD
2010-2011  John Dark, MB, FRCS
2011-2012  Lori J. West, MD, DPhil

PULMONARY TRANSPLANTATION
David Weill, MD, Chair
Michael Mulligan, Vice Chair
Lianne G. Singer, MD, FRCP, Past Chair and I2C2 Committee Representative
Denis Hadjiliadis, MD, 2013 Annual Meeting Program Committee Co-Representative
Deborah J. Levine, MD, 2013 Annual Meeting Program Committee Co-Representative
Geert M. Verleden, MD, PhD, 2013 Annual Meeting Program Committee Co-Representative
Glen P. Westall, FRACP, PhD, Development Committee Representative
Kevin M. Chan, MD, Education Committee Representative
Roger D. Yusen, MD, MPH, Registries & Databases Committee Representative
Peter M. Hopkins, FRACP, Standards & Guidelines Committee Representative
R. Duane Davis, MD, Board of Directors Liaison
Daniel C. Chambers, MBBS, MD, Basic Science and Translational Research Council Liaison
Tereza Martinu, MD, Communications Liaison
Jonathan P. Singer, MD MS, Quality of Life Representative

2001-2002  William Baumgartner, MD
2003-2004  Jon Kobashigawa, MD
2004-2005  Alec Patterson, MD
2005-2006  Mark L. Barr, MD
2006-2007  Robert C. Robbins, MD
2007-2008  Paul A. Corris, MB FRCP
2008-2009  Mandeep R. Mehra, MD
2009-2010  James K. Kirklin, MD
2010-2011  John Dark, MB, FRCS
2011-2012  Lori J. West, MD, DPhil
Past Scientific Program Chairs

1981  San Francisco, CA  Edward B. Stinson, MD and Michael L. Hess, MD
1982  Phoenix, AZ  Michael Kaye and Bernard Gersh
1983  New Orleans, LA  Stuart W. Jamieson, MD and Mark E. Thompson, MD
1984  New York, NY  Randall B. Grieppe, MD
1985  Anaheim, CA  Terence A. H. English and Hillel Laks
1986  New York, NY
1987  New Orleans, LA
1988  Los Angeles, CA  John C. Baldwin, MD
1989  Munich, Germany  Bruno Reichart, MD
1990  San Diego, CA  D. Glenn Pennington, MD
1991  Paris, France  John B. O’Connell, MD
1992  San Diego, CA  Eric A. Rose, MD
1993  Boca Raton, FL  Maria Rosa Costanzo, MD
1994  Venice, Italy  John Wallwork, MBBChB, FRCS
1995  San Francisco, CA  Leslie W. Miller, MD
1996  New York, NY  William A. Baumgartner, MD
1997  London, England  Stephan Schueler, MD
1998  Chicago, IL  James B. Young, MD
1999  San Francisco, CA  Mark L. Barr, MD
2000  Osaka, Japan  Jon Kobashigawa, MD
2001  Vancouver, Canada  David O. Taylor, MD
2002  Washington, DC  Robert C. Robbins, MD
2003  Vienna, Austria  Bruce R. Rosengard, MD
2004  San Francisco, CA  Mandeep R. Mehra, MD
2005  Philadelphia, PA  Shaf Keshavjee, MD
2006  Madrid, Spain  John Dark, MB, FRCS
2007  San Francisco, CA  Duane Davis, MD
2008  Boston, MA  Lori J. West, MD, DPhil
2009  Paris, France  Randall C. Starling, MD, MPH
2010  Chicago, IL  Hermann Reichenspurner, MD, PhD
2011  San Diego, CA  Richard N. Piersen, MD, MD
2012  Prague, Czech Republic  Stuart C. Sweet, MD, PhD

Editors, Journal Of Heart And Lung Transplantation

1981-1985  Jacques G. Losman, MD
1986-1994  Michael P. Kaye, MD
1995-1999  Maria Rosa Costanzo, MD
2000-2009  James K. Kirklin, MD
2010-Present  Mandeep R. Mehra, MD

Editors, Links Newsletter

2008-2011  David S. Feldman, MD, PhD
2011-Present  Vincent G. Valentine, MD

Medical Directors, Thoracic Organ Transplant Registry

1987-1993  Michael P. Kaye, MD
1993-2001  Jeffrey D. Hosenpud, MD
2001-2012  Marshall I. Hertz, MD
2012-Present  Josef Stehlik, MD, PhD

ISHLT AWARD RECIPIENTS

Lifetime Achievement Award
1996  Norman Shumway, MD
1999  Keith Reemtsma, MD
2004  Sir Magdi Yacoub, MD
2010  Margaret Billingham, MD
2012  Sharon Hunt, MD

Lifetime Service Award
1996  Michael P. Kaye, MD
1997  Jacques G. Losman, MD

Pioneers in Transplantation Lecture
2000  Christiaan Barnard, MD
2002  Michael DeBakey, MD
2004  Bruce A. Reitz, MD
2006  Leonard L. Bailey, MD
2008  Richard E. Lower, MD
2009  Christian E. A. Cabrol, MD
2011  Elizabeth Hammond, MD

Norman E. Shumway ISHLT Career Development Award
2000  Gordon D. Wu, MD (supported by Roche)
2002  Anthony Azakie, MD (supported by Roche)
2004  Allan M. Ramirez, MD (supported by Novartis Pharma)
2006  Dennis W. Wilege, MD, PhD (supported by Astellas Pharma)
2008  Glen Westall, MD, PhD (supported by Roche)
2010  Sonja Schrepfer, MD, PhD (supported by Astellas)
2012  Tereza Martinu, MD
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**ISHLT Research Fellowship Grant**

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<td>Frances L. Johnson, MD</td>
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<td>Sajia Schraper, MD</td>
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**ISHLT Transplant Registry Early Career Award (formerly Junior Faculty)**

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<td>Beth D. Kaufman, MD</td>
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<td>Scott Halpern, MD</td>
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<td>Jennifer Conley, MD</td>
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<td>Kiron K. Kuch, MD</td>
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<td>2011</td>
<td>Jesse Nathi, MD</td>
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<td>2012</td>
<td>Eric M. Lowery, MD</td>
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<td>Omar E. Weer-Pincon, MD</td>
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**ISHLT Nursing and Social Sciences Research Grant**

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<td>Nancy M. Albert, MSN</td>
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<td>Lynn Doering, RN, DSCS</td>
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<td>Annette J. De Vito Debbas, RN, NM, PhD</td>
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<td>Diane K. Ledesd, RN, MSN</td>
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<td>Janet E. Nadig, PhD</td>
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<td>Delise E. Logan, PhD</td>
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<td>Anamaria F. Kaan, MCN</td>
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<td>Stacey P. Pollock-Bazak, PhD</td>
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<td>Jane MacIver, RN, MSN</td>
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<td>Christiane Kruger, PhD</td>
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<td>Hiro Bolten, RN, PHD</td>
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<td>Lu Berben, RN, (supported by CSL Behring)</td>
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<td>Christine White-Williams, PhD, RN, FAAN</td>
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**ISHLT Banskavac Memorial Fellowship Grant**

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**Symposium Details**

- **Symposium 1**: MCS Molecular Pathways
- **Symposium 2**: Changing HTX Surviving in New Age
- **Symposium 3**: Back to the Drawing Board
- **Symposium 4**: Clarifying CTEPH
- **Symposium 5**: ID Nightmare Syndromes
- **Symposium 6**: Pediatric HTX: Art, Science or Voodoo?
- **Symposium 7**: Card Support Long-term Success
- **Symposium 8**: Cell Antibodies Practice
- **Symposium 9**: Brushing to LTX Who, When and with What
- **Symposium 10**: Controversies in PHTX
- **Symposium 11**: Lung 1 Cell 101
- **Symposium 12**: Joint ISHLT/IPTA Issues in PHTX
- **Symposium 13**: LVAD Support
- **Symposium 14**: CHT Antibodies
- **Symposium 15**: Cell Migration & Trafficking in LTX and HTX
- **Symposium 16**: Mapping the Management of the RV in LTX
- **Symposium 17**: Cell Migration & Trafficking in LTX and HTX
- **Symposium 18**: Spectrum of CMV, Young or Old, Heart or Lung
- **Symposium 19**: Great Debates in MCS
- **Symposium 20**: Cardio-Renal Syndrome, End of Happy Marriage
- **Symposium 21**: Lung AMR Cases
- **Symposium 22**: Motivational Intervening
- **Symposium 23**: Natural Immun: Pinata Cocktail
- **Symposium 24**: Unique Aspects of PHTX Failure

**Additional Events**

- **Exhibit Hall Opening Reception**: 6:30 PM - 7:30 PM
- **Poster Removal**: 7:30 PM - 8:00 PM
- **Coffee Breaks**: Multiple times throughout the day
- **Lunch Breaks**: 12 PM - 12:30 PM, 1 PM - 1:30 PM, 2 PM - 2:30 PM, 3 PM - 3:30 PM, 4 PM - 4:30 PM, 5 PM - 5:30 PM, 6 PM - 6:30 PM, 7 PM - 7:30 PM
The International Society for Heart and Lung Transplantation is most grateful for the educational grants and support of

**SILVER LEVEL PARTNER**

Actelion
Gilead
Thoratec

**BRONZE LEVEL PARTNER**

Astellas
Bayer
Heartware

Toward this 33rd Annual Meeting and Scientific Sessions

ANNUAL MEETING
CONTINUING MEDICAL EDUCATION INFORMATION

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.

CREDIT DESIGNATION STATEMENT

ISHLT designates this live activity for a maximum of 28.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. Continuing Education Points for Transplant Certification (CEPTC) have been applied for through the American Board for Transplant Certification.

DISCLOSURE

Current guidelines state that participants in CME activities must be made aware of any affiliation or financial interest that may affect the program context 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 service 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.

EDUCATIONAL OBJECTIVES

The International Society for Heart and Lung Transplantation is a leading organization providing education for medical professionals involved in heart and lung transplantation. Because of the rapid advances in medicine in general and transplantation medicine specifically, transplant professionals are in need of regular opportunities to update and maintain their knowledge of advances and changes in transplant medicine. This meeting is designed to address their needs.
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**Columns:**
- **517AB**: Various conferences and workshops.
- **516**: Workshops and seminars.
- **517CD**: Conferences and seminars.
- **511**: Workshops and seminars.
- **510**: Conferences and workshops.
- **512A-G**: Conferences and workshops.
- **513ABC**: Symposiums and workshops.
- **513DEF**: Symposiums and seminars.
- **514B**: Workshops and seminars.
- **514C**: Symposia and workshops.
- **512D**: Workshops.
- **512H**: Workshops.
- **519A**: Workshops.

**Activities:**
- **OPENING PLENARY SESSION**: 7:00 AM – 10:00 AM.
- **COFFEE BREAK**: Throughout the day.
- **LUNCH BREAK**: At specified times.
- **WINE & CHEESE/VIEW POSTERS**: 5:30 PM – 6:30 PM.
- **POSTER MOUNT**: 7 AM – 10 AM.
- **POSTER REMOVAL**: 6:30 PM – 7:30 PM.

**Conference Themes:**
- **517AB**: Various topics.
- **516**: Various topics.
- **517CD**: Various topics.
- **511**: Various topics.
- **510**: Various topics.
- **512A-G**: Various topics.
- **513ABC**: Symposium 1 – 3.
- **513DEF**: Symposium 1 – 2.
- **514B**: Various topics.
- **514C**: Various topics.
- **512D**: Various topics.
- **512H**: Various topics.
- **519A**: Various topics.

**Other Activities:**
- **OPENING PLENARY SESSION**: 7 AM – 10 AM.
- **LUNCH BREAK**: At specified times.
- **WINE & CHEESE/VIEW POSTERS**: 5:30 PM – 6:30 PM.
- **POSTER MOUNT**: 7 AM – 10 AM.
- **POSTER REMOVAL**: 6:30 PM – 7:30 PM.
EDUCATIONAL GOALS
The educational goals of this activity are: to enable participants to learn about current practices, emerging technologies and medical advances related to heart and lung transplantation and end-stage heart and lung disease and to provide a forum for participants to engage in discussion, debate and examination regarding the efficacy and applicability of these current practices, emerging technologies and medical advances.

TARGET AUDIENCE
The audience for this program includes physicians, surgeons, scientists, nurses and transplant coordinators engaged in the practice of heart and lung transplantation, the management and treatment of heart and lung transplant recipients, the management and treatment of patients with end-stage heart or lung disease, basic science or clinical research related to these fields or specialties which cause them to become involved in the treatment of transplant recipients or patients with end-stage heart or lung disease.

LEARNING OBJECTIVES
At the conclusion of this meeting, participants will have improved competence and professional performance in the areas of:

1. Understanding the latest information and approaches regarding transplant research, surgical techniques, medical therapies, donor management and patient management for the treatment of patients suffering from end-stage heart and lung disease.

2. Understanding the 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 end-stage heart and lung failure.

3. Understanding emerging technologies, medical advances and the clinical applications of basic science models of end-stage heart and lung disease management and prevention.

HIGHLIGHTS OF THE MEETING
The Pioneers in Transplantation Award is bestowed every other year to an ISHLT member who is recognized for their landmark contributions as a pioneer in the field of heart and/or lung transplantation.

A pioneer lecture will be given by the 2013 recipient, Jack G. Copeland, MD in the Opening Plenary Session.
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**Presidential Gala Reception - Fortification Center** - 7:30 PM - 8:45 PM
ANTI-DONOR ANTIBODIES REMAIN AN OBSTACLE to successful thoracic transplantation. The combined expertise of ISHLT and the American Transplant Society come to bear on this timely topic in two separate sessions. The first, \textit{Pre-transplant Circulating Antibodies: Making Sense of Sensitization}, explores the detection, interpretation and potential treatments of these antibodies prior to transplantation. The second, \textit{Antibody-Mediated Rejection: State of the “Current” Art}, explores the development of antibody-mediated rejection after thoracic transplantation and importantly includes the perspective of the non-thoracic transplant community.

HEART FAILURE AND TRANSPLANTATION

EVEN THOUGH HEART TRANSPLANTATION ACTIVITY and immunosuppression pipelines appear stagnant around the world, Heart Failure and Transplantation disciplines remains a flagship of ISHLT. Five dedicated and interactive symposia will renew enthusiasm and energy to heart transplant clinicians by covering hot topics in transplant medicine. Awareness and management of donors, changing epidemiology, clinical handling of HLA antibodies and the heart-kidney relationship, challenges in resolving unanswered post-transplant issues and a glance into the future with clinical applications of proteomics and genomics will be embraced by interactive formats and bench to bedside approaches. Some heavy brainstorms and hurricanes of big ideas are forecasted... and desired.

A number of exciting abstract sessions have been planned for heart failure and transplantation. \textit{In What’s New in Translational Science}, CD34+ transplantation, post-transcriptional regulation and miRNA modulation are center stage. For your pleasure, progenitor cells will circulate, free from dietary and lifestyle choice in the oxidation context and expression of cardiovascular biomarkers will change your way of thinking about heart failure as a simple clinical phenomenon. \textit{In Focus on the Right Heart}, the delicate, innocent, yet vulnerable Right Ventricle brings together all corners of the ISHLT. Here are some of the most recent RV carols manufactured and interpreted for you by the Clinical Heart Failure Choir in six tasty chapters including prognosis, sildenafil, pulmonary wedge pressure and arrhythmogenic cardiomyopathy.

\textit{Can We Improve Transplant Risk Assessment and Outcome Prediction?} titanic dilemmas and naive questions – in an effort to save as many lives as it is possible with our more and more limited donor heart resources – will be prepared and served to you in the form of six short stories about HLA positive recipients, UNOS status modifying human fate, kidney-heart brotherhood in transplantation and others. \textit{News from the Registry – What We Need To Learn To Achieve Long-Term} will discuss very long term survival and guidance to support customized strategies: two holy goals that transplant clinicians cannot achieve with the limited everyday single center experience. In this concurrent session, evidence confirming or contradicting common experience-based concepts will be served, thanks to robust data regarding age and causes of death, racial differences and PRA, oversized hearts and recipients’ pulmonary hypertension, and long term survival.

\textit{Coronary Artery Vasculopathy in 2013 – Diagnosis, Prognosis and Treatment} will provide a late breaking overview of a classical topic at the ISHLT meeting. Ranging from novel diagnostic views to detect prognostic relevant CAV, to the effects of mTOR inhibitors on coronary morphology and cardiovascular events, the audience will have a great opportunity to receive a full update on current and future perspectives on CAV, diagnosis, prognosis and treatment. \textit{In Living with a Transplanted Heart – A Narrow Pathway in the Jungle}, a successful heart transplant surgery is just the beginning of a hopefully long, but surely complex, journey in a minefield, which often distances recipients’ life from the mirage of healthy normality. The dream of a successful pregnancy, the amplified negative effects of excessive food intake, the torture of receiving periodic invasive procedures, the nightmare of facing chronic and hazardous diseases of organs other than heart: the management these side-effects of our life-saving strategy – substituting one deadly disease with a bunch of dangerous others – will be discussed in this exciting session that will provide audiences with compass directions to recover the many patients wandering in the jungle. After being “easily” accustomed to pathologists’ biopsy diagnoses – sometimes disconnected from patients clinical picture-transplant clinicians now must learn to deal with immunogenetics, a new species of lab-people providing reports containing obscure antibody names and typing, that may or may not be coherent with pathologists’ readings, and may or may not trigger a treatment. In the session, \textit{Are All Antibodies Equal? Predicting, Managing and Treating the Risk for AMR}, the audience will have a unique opportunity to attend cutting edge presentations unraveling the complexities of different kinds of HLA antibodies, their time course and how to manage organ allocation and post-transplant treatments. Returning back to clinic attendance, participants will have new tools to build a coherent view and management of the clinical and laboratory picture of sensitized patients.

Endomyocardial biopsy is still considered a gold standard for the diagnosis of rejection in clinical practice. However, established grading for T Cell mediated rejection, but also for antibody-mediated rejection, does not always include all the available information that could be gained from the myocardial specimens. On the other hand, non-invasive markers for rejection diagnosis haven’t conquered clinical practice yet. In the visionary concurrent session, \textit{Mechanisms and Markers of Acute Rejection: Within and Without Biopsy Sampling}, the audience will be excited by novel ways of looking at a biopsy to understand different mechanisms of rejection, insights on promising non-invasive methodologies for rejection diagnosis and global clinical views on the interplay between histology, DSA and hemodynamics.

RESPIRATORY FAILURE AND LUNG TRANSPLANTATION

THE PULMONARY COUNCIL IS LOOKING FORWARD with great excitement to the ISHLT Annual Scientific Program in Montréal April 2013. Council members and the Program Committee have worked diligently to create a program that includes several valuable sessions and symposiums that are vital to setting the tone for an outstanding educational forum for all ISHLT attendees. The scientific program itself is filled...
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with vital symposia and sessions presenting a forum for chal-
 lenging debates and discussions on important issues regarding
 lung transplantation.

 There are eight total symposia throughout the meeting, which
cover a broad range of important topics. Some of these are
collaborative efforts with other councils (including pathology,
 basic science, nursing, health science and allied health and
 pharmacy). Along with the scientific program, there are a
large number of original scientific investigations focused on
both basic and clinical science that were submitted for the
meeting. These topics will be highlighted in six oral presenta-
tion sessions (thirty-six abstracts), eighteen mini-oral presen-
tations and more than eighty posters for presentation.
Translational science will be highlighted in the “Bench to Bed-
side” session. Topics will range from BOS to infection.

 There will be several sessions highlighting antibody me-
diated rejection (AMR) in lung transplantation. AMR has be-
come increasingly more recognized over the last several years,
however, there still is considerable controversy on its diagno-
sis, unique features and treatment. Two symposia in collabora-
tion with the pathology and basic science councils will focus
on discussions that will hopefully lead to better understand-
ing of this issue. The interest in the current topic is also fea-
tured in the oral, mini-oral and poster sessions. Bronchiolitis
obliterans remains a major complication after lung transplant
and is the major cause for late morbidity and mortality. We
now understand that different processes can lead to allograft
dysfunction. The term chronic lung allograft dysfunction
(CLAD) has been incorporated to include these other
processes. One symposium will provide state-of-the-art infor-
mation on these issues and an abstract session will update us
on its pathophysiology. Another area of significant interest to
our council members is how to best support patients with
end-stage lung disease while bridging them to a successful
lung transplant. A symposium will bring experts together to
discuss techniques of bridging patients that are critically ill
prior to transplant. A Sunrise symposium will discuss patient
selection as part of this ongoing debate. Immunosuppression
is also featured prominently with an abstract session present-
ing interesting conundrums on the use of different therapeutic
agents. This session will be nicely paired with a symposium
on T Cells and their roles post-transplant.

 Other interesting sessions include outcomes after lung
transplantation. Primary graft dysfunction is featured in an ab-
stract session and a Sunrise symposium will discuss patient-re-
ported outcomes. Two additional Sunrise symposia have been
planned: one will assess anastomotic issues and the utility of
bronchoscopy; the other will present different lung allocation
systems around the world and discuss their merits and limita-
tions. Finally, common topics of interest that will also be dis-
cussed include a joint Saturday symposium with the Pharmacy
council which assesses the journey of a cystic fibrosis patient
through transplant. It discusses many unique pharmacologic,
infectious challenges that this group of patients face, while un-
dergoing lung transplantation.

 MONTREAL WILL FEATURE BENCH-TO-BEDSIDE developments
in the diagnosis and management of infectious diseases in thoracic
transplant and MCS patients. In addition to Symposia on CMV
(The Spectrum of CMV: Young or Old, Heart or Lung), we will be
entertained (Nightmare Syndromes) and enlightened (Travel,
Leisure and Work After Transplant: Keeping Our Patients Safe
From Infections) by leaders in the field during Symposia through-
out the meeting. Together with the Basic Science and Translational
Research Council, the immunity to infectious diseases and its effect
on the allograft will be discussed (Natural Immunity, Adaptive Re-
sponse to Infection and Immunosuppression: The Piñata Cocktail).

 Specific infectious diseases topics are also embedded in other
thoracic transplant and MCS symposia and Concurrent Oral Ab-
stract sessions. In Concurrent Session 18: From Fungus to Virus –
The Microbiome Elicted, as our knowledge grows of microbial
colonization and growth in the lung allograft, share in these new
findings and the implications they have for our lung transplant
recipients. One of the biggest limitations in mechanical circulatory
support today remains infectious complications and pump failure.
Come pump up your own knowledge of these issues with a host of
abstracts on these complications and their implications for patient
management in Concurrent Session 25: MCS 6: Infectious Issues
and Pump Failure.

 NURSING, HEALTH SCIENCES
AND ALLIED HEALTH

 THE PROGRAM FOR THE 2013 ANNUAL MEETING includes a
diverse series of plenary sessions and symposia that are sure to
excite NHSAH professionals. NHSAH research will be highlighted
throughout the Program with an emphasis on new evidence, inno-
vative interventions, and remaining controversies. The plenary lec-
ture, “The Mind Matters” will present the results of a systematic
review on psychological distress in transplant recipients, including
evidence for impact on key areas of morbidity. The symposium,
Motivational Interviewing (MI): An Intervention Aimed at
Change will introduce the concept of MI as a potential treat-
ment to address the issue of non-adherence within the field of transplan-
tation. Other jointly sponsored symposia include Psychosocial
Issues in Pediatric Cardiothoracic Transplant (Peds), Beyond Sur-
vival: Evaluating Lung Transplant Success through Patient-Ori-
THE ANNUAL MEETING WILL OFFER A RICH PROGRAM that will address all the aspects of the rapidly evolving field of mechanical circulatory support (MCS). Physicians, surgeons, VAD coordinators, pharmacists, as well as basic, translational and clinical science researchers will all find presentations of interest to their particular angle of expertise. The Wednesday MCS program will start off with a session that will explore the molecular pathways engaged in the process of mechanical unloading of the myocardium, and continue with a session that will explore different approaches to treatment of severe biventricular failure. A session to follow will focus on important aspects of long-term care of a patient supported with an LVAD. The Wednesday MCS program will conclude with what is likely to be a memorable set of debates on controversial topics in MCS.

In addition, there will be three sunrise symposia that will provide ‘hands-on’ advice and room for interaction with the presenters. The Pump It Up symposium will provide up to date information on the use of echocardiography, right heart catheterization and how to adjust device settings to optimize left ventricular assist device function. A case based discussion using graphics and echo will illustrate how to optimize speed and device settings. The Congenital Heart Disease – Success and Failure symposium will address challenges and potential solutions to managing complex congenital heart disease patients undergoing transplant and mechanical circulatory support. Avatars and Advanced Care Planning will address challenges in managing patients from a distance, empowering patients to be responsible for their care and optimizing palliative care in patients with advanced heart failure.

A record 337 MCS abstracts were submitted to the 2013 ISHLT Annual meeting. This made the job of the planning committee – to prepare a terrific MCS program – quite easy! The top graded abstracts were selected for presentation in 11 oral and 2 mini-oral sessions. Two oral sessions will explore specifics of different devices as well as patient selection considerations. Another session will focus on physiological changes seen after VAD implant. Several sessions will focus on key complications seen with MCS support and discuss approaches to prevent and treat these. A review of clinical outcomes will be provided and approaches to maximize patient quality of life and survival after VAD placement discussed. A separate session will analyze the cost of achieving...
longevity and good quality of life in advanced heart failure patients through MCS support. A number of additional topics will be addressed during MCS poster sessions.

**PEDIATRICS**

THE MONTRÉAL PROGRAM OFFERS A WIDE VARIETY of sessions of interest to the pediatric cardiothoracic transplant community including a plenary session *How to Succeed When the Right Ventricle Fails*. Symposia address the *Unique Aspects of Heart Failure in Children, Mechanical Circulatory Support in Congenital Heart Disease and Developments and Controversies in Pediatric Lung Transplantation.* Some of the current management controversies are on the agenda in a debate session titled *Pediatric Heart Transplantation: Art, Science, or Voodoo?* that will include audience questions to the speakers. Together with the Nursing, Health Science and Allied Health Council, we plan to discuss *Psychosocial issues in Pediatric Cardiothoracic Transplantation.*

There are three Oral Sessions planned including *Pediatric Heart and Lung Transplantation, Pediatric Heart Failure and Heart Transplantation and Mechanical Circulatory Support in Children.* The Session on *Pediatric Heart and Lung Transplantation* focuses on aspects such as de novo donor specific HLA antibodies and rejection and graft loss in Pediatric heart transplant recipients, CMV specific immunity, the lung microbiome and the development of BOS in Pediatric lung transplantation and Pediatric thoracic multi-organ transplantation. In addition, there is a Mini Oral Poster Session on Pediatrics and Infectious Diseases.

Finally, more than 40 abstracts were selected for Poster Sessions, the largest number ever of Pediatric abstracts accepted for presentation at an ISHLT Annual Meeting. So you better make your travel arrangements and register for the 2013 ISHLT Annual Meeting in Montréal in April to be part of the ever growing Pediatric cardiothoracic transplant community.

**PULMONARY HYPERTENSION**

THE PULMONARY HYPERTENSION SESSIONS IN MONTRÉAL reflect the growing strength in this area within ISHLT as a result of the unique background mix of its membership from Cardiology (pediatric and adult), Respiratory Medicine and Cardiothoracic Surgery. We will debate an exciting range of topical issues including a stellar plenary session on right ventricular failure and a plenary talk from Marlene Rabinovitch discussing how basic research into BMPR mutations is offering novel targets for therapeutic manipulation in patients with PAH. There are other stunning symposia covering state of the art issues in chronic thromboembolic pulmonary hypertension, the right ventricle and lung transplantation, pulmonary hypertension and parenchymal lung disease, proteins and pathogenesis and novel pathways.

A total of 53 abstracts will be presented covering a broad variety of clinical and translational research topics in the field. The Thursday oral session entitled *All About Outcomes* will lead off with the much anticipated initial results from the PROSPECT registry of 331 PAH patients treated with the room-temperature stable epoprostenol with arginine (Veletri®). The group from the University of Minnesota will present survival data using a simplified version of the REVEAL prediction model that does not require right heart cath or pulmonary function variables. Vizza et al will present their intriguing finding of a relatively high proportion of extra-cardiac causes of death in PAH. As the use of extra-corporeal support continues to expand worldwide, the Papworth group will present their experience with this modality following thrombo-endarterectomy for chronic thrombo-embolic pulmonary hypertension. Granton and co-workers will show the results of a microarray expression study in explanted PAH lungs demonstrating prominent upregulation of osteopontin, a potent vascular smooth muscle mitogen. The session will be rounded out with a paper from Rigshospitalet, Denmark on pulmonary hypertension in end-stage IPF.

Reflecting the increasingly recognized importance of right ventricular (RV) function in PH, two oral sessions will be devoted to this topic on Friday. The morning session, *Right Ventricular Matters* will include two presentations on the use of RV strain and other echocardiographic derived indices of RV function as predictors of outcome in PAH. Large animal models of RV failure were used in three studies to characterize RV function, assess RV angiogenesis and explore the feasibility of mechanical RV support. Wrapping up the session will be the team from Sapienza University in Rome presenting data on the impact of RV dyssynchrony in PAH. Later in the day, six more outstanding abstracts on *Right Ventricular Assessment and Function* will be presented. Investigators from Lyon, France will report on the prognostic value of RV ejection fraction in PAH. Researchers from Alberta, Canada will describe the role of HIF-1α signaling in RV myocardium. Saggar and colleagues will report their experience with parenteral treprostinil therapy on
RV function in PH associated with pulmonary fibrosis. Finally, the group from Allegheny General Hospital in Pittsburgh will report on echocardiographic assessment of the RV as a predictor of RV fibrosis, as determined by late gadolinium enhancement by MRI and the prognostic value of the latter.

**PATHOLOGY**

THE PATHOLOGY WORKING FORMULATIONS for heart and lung transplants will be reviewed and discussed by clinicians (addressing adult and pediatric patients) to assess their current state and usefulness. This will provide the Pathology Council with further targets for improvement of the formulations in the symposium *Are the Pathology Working Formulations the Gold Standard for Diagnosing AMR in Heart and Lung in 2013?* The current status of the pathologic working formulation for the evaluation for Antibody Mediated Rejection (AMR) in lung transplants will be presented in the symposium: *AMR in Lung: Definitions and Current State*. This symposium is organized in tandem with a clinical correlation symposium on evaluation of AMR in Lung Transplants. *(Lung AMR: “How I Do It” A Multidisciplinary Case Based Discussion)*.

**BASIC SCIENCE**

EXPECT TO FIND BASIC SCIENCE INFORMATION throughout the meeting including several multi-disciplinary sponsored symposia with a basic science focus (for example *T Cell 101 in Lung Transplantation* is jointly sponsored with the Pulmonary Council) as well as “bench to bedside” presentations and themes integrated into clinically-focused sessions. In addition, there will be two Wednesday symposia with a basic science focus. The first, *Cell Migration and Trafficking in Lung and Heart Transplantation* will provide an update on cellular migration and homing in thoracic transplantation with a focus on new visualization techniques as well as interesting chemokine and other homing receptors. The second, *Natural Immunity, Adaptive Response, Infection and Immunosuppression: The Piñata Cocktail*, jointly sponsored by the ID Council, will provide a state of the art view of the interplay between infection, innate and adaptive immunity and allograft dysfunction. There will also be a sunrise session entitled *What’s New in Xenotransplantation* that will provide a summary of the current state of xenotransplant immunobiology followed by updates on the status of efforts to achieve success with heart and lung xenotransplantation.

*New Frontiers in Cardiothoracic Organ Regeneration – From Cosmetic to Prosthetic* will showcase the rapid developments in bioengineering which are already impacting on heart and lung transplantation, and which will transform our field into the future. Chaired by Sonja Schrepfer and Shaf Keshavjee, the session will cover the breadth of organ rejuvenation from the relatively cosmetic improvements which can be made during ex-vivo lung perfusion to the “knock-down and rebuild” approach to organ replacement achieved using decellularised matrix.

The session combining the highest scoring abstracts on exploration and modification of the immune system, *Exploring and Modifying the Immune Response – Cells, Antibodies and Tolerance*, will feature presentations on the impact of natural killer cells and T Cell deficiency on graft survival and BOS in lung transplantation. Innovative therapeutic approaches discussed in this session include pre-clinical evaluation of JAK 1/3 inhibitors and MHC-encoding chitosan-DNA microparticles in animal models.

During *The Fundamental Difference – Innate Immunity and Xenotransplantation*, new research on the challenges of platelet
activation and aggregation in the setting of xenotransplantation and lung reperfusion will be presented. Further presentations evaluate Caspase 1 as a serum marker of myocardial remodeling and pre-clinical data on therapeutic use of VEGF-C/D for improved cardiac allograft survival.

of drug therapy to improve outcomes in multiple therapeutic areas including treatment strategies for rejection and infection in heart and lung transplant patients as well as pharmacologic treatments for pulmonary hypertension in patients requiring mechanical circulatory support.

The second, on Saturday, is a symposium that continues our successful “Lifecycle Journey” series creating an enduring case to create a panel facilitated and audience supported best practice based discussion at predefined key “journey intervals.” This year the session is titled, A Lifecycle Journey in Cystic Fibrosis and Lung Transplantation. In this session, members of the Pharmacy and Pharmacology and the Pulmonary Transplantation Councils will focus on four “journey points” which include: (1) listing considerations and pre-transplant infections, (2) peri-operative and immediate post-operative management issues, (3) metabolic and interaction considerations to drug dosing and (4) immunomodulation strategies for the management of bronchiolitis obliterans syndrome.

In addition, several posters selected by our council demonstrating the diversity and scope of pharmacotherapy as applied to multiple areas, including; Heart Transplantation, Lung Transplantation and Mechanical support will be presented.

JUNIOR FACULTY AND TRAINEES

THE JUNIOR FACULTY AND TRAINEES COUNCIL (JFTC) is comprised of individuals who are early in their career with an aim of fostering mentorship and developing the tools necessary for leadership and success within the transplant community. The Annual JFTC Mentor Luncheon will again take place on Wednesday. Junior faculty and trainees, regardless of council or ISHLT membership, are encouraged to attend and interact with some of transplant and mechanical circulatory support’s most renowned clinicians (pre-registration required and limited). New this year to the meeting is a joint session between the JFTC and Journal of Heart and Lung Transplantation (JHLT), summarizing some of the most exciting publications in the JHLT. Senior editorial consultants will then discuss the publications’ impact on advancing science and knowledge. Finally, the JFTC is again hosting the very popular session, Clinical Case Dilemmas in Thoracic Transplantation. Test your own clinical skills as junior faculty present clinical conundrums to the fields’ experts. Ask questions, share management strategies and enjoy intellectual banter.

PHARMACY AND PHARMACOLOGY

THE PHARMACY AND PHARMACOLOGY COUNCIL, now in its second year, continues to evolve in developing unique educational programming focused on pharmacologic therapy for the ISHLT Annual Meeting. For the 33rd Annual Meeting, the Program Committee has designed sessions and symposiums showcasing innovative science and real world clinical applications. Our programming which focuses on drug therapy lends applicability across all disciplines represented by the ISHLT membership.

There are two sessions sponsored by our council this year. The first is an Oral Scientific Session on Friday titled, Innovative Pharmacotherapeutic Approaches to Thoracic Transplant and Mechanically Assisted Patients. This session explores novel uses
Meeting Rooms Floor Plan  Level 5
Palais des congrès de Montréal

MEETING ROOMS

EXHIBIT HALL
SEE DETAILED EXHIBIT HALL FLOOR PLAN ON PAGE 246
The purpose of the **ishlt academy** is to develop an enduring resource of education in core competencies in the field of cardiopulmonary transplantation, mechanical and biological support of the failing heart, advanced lung disease (including pulmonary vascular disease) and cell replacement therapy. These educational endeavors will complement the ISHLT’s existing activities in the promulgation of new science, registry analyses, guideline statements and monograph series as a consolidated activity designed to train and educate young clinicians, trainees and those looking for a refresher course in clinical practice mandates in the field.

The **ishlt academy** draws on the wealth of experience and expertise within the society to deliver high quality educational experiences with the goal of enabling our members to improve and maintain the highest possible standards in the care of patients with advanced heart and lung disease and those undergoing heart or lung transplantation. The **ishlt academy** represents the ‘brand name’ that will be associated with the educational opportunities offered by the ISHLT to its members and interested non-members.
ISHLT ACADEMY: Core Competencies in Mechanical Circulatory Support

TUESDAY, APRIL 23, 2013
MONTRÉAL, QUEBEC, CANADA

In response to high demand, on Tuesday, April 23, 2013, the day prior to the 2013 ISHLT Annual Meeting, we are conducting, for a second time, the ISHLT Academy: Core Competencies in Mechanical Circulatory Support.

This Academy will provide a concise review of clinical knowledge and essential professional skills to facilitate the surgical and medical management of patients with advanced heart failure who are being assessed for and who have received durable mechanical circulatory support. The course consists of focused presentations covering a broad array of topics for both inpatient and outpatient management with an emphasis on a practical approach to patient care, implementing best practices and clinical problem solving. All lectures will be delivered by internationally recognized experts in the field and include cardiologists, cardiac surgeons and VAD coordinators. Audience participation and interaction with the faculty will be actively encouraged throughout the Academy with Question and Answer sessions following each major topic and by limiting the enrollment to 200 participants. The educational workforce of the Mechanical Circulatory Support Counsel of the ISHLT is confident this will be the most comprehensive and valuable summary for practitioners in the field of mechanical circulatory support.

The 2013 ISHLT Academy: Core Competencies in Mechanical Circulatory Support will cover the same broad categories that were presented for the 2012 Academy in Prague: Review of the Current State of MCS, Patient Selection, Surgical Considerations, Post-operative Management, the Transition to Home and Long-term Management. However the program has been refocused as a result of participant feedback, with a particular emphasis on more audience participation and case studies.

CONTINUING MEDICAL EDUCATION INFORMATION

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.

Credit Designation Statement

ISHLT designates this live activity for a maximum of 8.0 AMA PRA Category 1 Credits.™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclosure

Current guidelines state that participants in CME 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 service 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 if a product they are discussing is not labeled for the use under discussion or is still investigational.

Educational Goals

The educational goals of this activity are to provide a concise review of clinical knowledge and essential professional skills to facilitate best practice of surgical and medical aspects involved in the care of patients during assessment as candidates and as recipients of mechanical circulatory support.

Target Audience

While all members are invited to enroll, this course is primarily designed to be of benefit for clinicians and allied professionals who are in the early stages of their careers or who are in training, are part of a new program or desire an update on the current state of the field. The information presented is intended to provide a strong foundation of the overarching principles of mechanical support, rather than as a detailed update for those who are already proficient in the field.
Learning Objectives
At the conclusion of this meeting, participants will have improved competence and professional performance in their ability to:

1. Recognize the various types of mechanical circulatory support, their outcomes and rates of adverse events.
2. Identify the clinical signs and risk factors of advanced heart failure in order to optimally time implantation.
3. Recognize the medical and social factors which impact patient outcomes on MCS.
4. Optimize implantation techniques and pump selection.
5. Manage patients after MCS in the intensive care unit, as an inpatient and as an outpatient.
6. Diagnose and manage common clinical dilemmas and adverse events in patients after MCS.
9:45 AM  End-Organ Assessment  
Lee R. Goldberg, MD, MPH, University of Pennsylvania, Philadelphia, PA, USA

10:00 AM  Timing of Implantation: When is the Patient “Sick Enough” to Implant MCS?  
Andrew J. Boyle, MD, Cleveland Clinic Florida, Weston, FL, USA

10:15 AM  Q & A

10:30 AM – 10:45 AM  COFFEE BREAK

10:45 AM – 12:00 PM  SURGICAL CONSIDERATIONS

10:45 AM  Implantation 101: Overview of the Most Crucial Surgical Considerations: Inflow Cannula/Pump Placement, Driveline, etc.  
Nader Moazami, MD, The Cleveland Clinic, Cleveland, OH, USA

11:05 AM  How Much Else is Too Much? – Concomitant Operative Procedures  
Stephan Schueler, MD, PhD, FRCS, Freeman Hospital, Newcastle upon Tyne, UK

11:25 AM  Matching Pumps to Patients: Considerations for Device Type, Type of Flow Based Upon Patient Factors  
Mark Slaughter, MD, PhD, University of Louisville, Louisville, KY, USA

11:45 AM  Q & A

12:00 PM  NOON – 1:00 PM  LUNCH BREAK (lunch on own; delegates are encouraged to pre-register for a box lunch so they can spend the lunch break interacting with the faculty)

1:00 PM – 2:15 PM  POST-OP

1:00 PM  Managing the RV: Post-Operative Approach to the RV: Surgical Considerations, Pump Speed, iNo, Inotropes, etc.  
David S. Feldman, MD, PhD, FACC, FAHA, Minneapolis Heart Institute/Abbott Northwestern Hospital, Minneapolis, MN, USA

1:20 PM  Anticoagulation Protocols  
Vivek Rao, MD, PhD, Toronto General Hospital, Toronto, ON, CANADA

1:40 PM  The Role of Imaging in Managing the VAD Patient  
Shashank S. Desai, MD, Inova Fairfax Hospital, Falls Church, VA, USA

2:00 PM  Q & A

2:15 PM – 3:15 PM  TRANSITION TO HOME

2:15 PM  Teaching/Patient Assessment  
Michael G. Petty, PhD, RN, CCNS, CNS, University of Minnesota Medical Center-Fairview, Minneapolis, MN, USA

2:30 PM  Outpatient Management – Clinic Structure, Typical Items Addressed, Focused Medical Management (BP, Rhythms, etc.), Rehab  
Joseph G. Rogers, MD, Duke University, Durham, NC, USA

2:45 PM  Quality of Life, Functional Capacity, End of Life – The Need For, Timing Of, and Measures to Assess  
Salpy Pamboukian, MD, MSPH, University of Alabama at Birmingham, Birmingham, AL, USA

3:00 PM  Q & A

3:15 PM – 3:30 PM  COFFEE BREAK

3:30 PM – 5:10 PM  LONG-TERM MANAGEMENT/CASE STUDIES

CASE DISCUSSANT PANEL:
- Christopher T. Salerno, MD, CorVasc, Indianapolis, IN, USA;
- Sean P. Pinney, MD, Mount Sinai Medical Center, New York, NY, USA;
- Michele Pilato, MD, ISMETT, Palermo, ITALY

3:30 PM  Infections: Prevention, Diagnosis, Medical and Surgical Management  
Evgenij Potapov, MD, PhD, Deutsches Herzzentrum Berlin, Berlin, GERMANY

3:45 PM  Case and Discussion
3:55 PM  **GI Bleeding: Review of Pathophysiology, Incidence, and Diagnostic/Therapeutic Approach**  
Benjamin C. Sun, MD, The Minneapolis Heart Institute, Minneapolis, MN, USA

4:10 PM  **Case and Discussion**

4:20 PM  **Pump Thrombosis: Diagnostic and Management Algorithm**  
Daniel J. Goldstein, MD, Montefiore Medical Center, New York, NY, USA

4:35 PM  **Case and Discussion**

4:45 PM  **Aortic Insufficiency: Incidence, Screening, Management**  
Martin Strueber, MD, University Heart Center Leipzig, Leipzig, Germany

5:00 PM  **Case and Discussion**

5:10 PM – 5:30 PM  
**ISHLT MCS GUIDELINES PANEL DISCUSSION**

**DISCUSSANTS:**
- David S. Feldman, MD, PhD, FACC, FAHA, Minneapolis Heart Institute/Abbott Northwestern Hospital, Minneapolis, MN, USA
- Salpy Pamboukian, MD, MSPH, University of Alabama at Birmingham, Birmingham, AL, USA
- Jeffrey J. Teuteberg, MD, University of Pittsburgh, Pittsburgh, PA, USA

5:20 PM  **Summary/Adjourn**

5:30 PM – 6:30 PM  
**RECEPTION**
CONTINUING MEDICAL EDUCATION INFORMATION

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
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Educational Goals
The educational goals of this activity are to provide a concise review of clinical knowledge and essential professional skills to facilitate best practice of surgical and medical aspects involved in the care of pediatric patients undergoing heart or lung transplantation, with an emphasis on patients with congenital heart disease.

Target Audience
While all members are invited to enroll, this course is primarily designed to be of benefit for clinicians and allied professionals who are in the early stages of their careers or who are in training, are part of a new program or desire an update on the current state of the field. The information presented is intended to provide a strong foundation of the overarching principles of pediatric transplantation, rather than as a detailed update for those who are already proficient in the field.
Learning Objectives
At the conclusion of this meeting, participants will have improved competence and professional performance in the areas of:

1. Describing the evolution of pediatric heart and lung transplantation.
2. Identifying the risk factors for survival following heart or lung transplantation in patients with congenital heart disease and cardiomyopathy.
3. Evaluating and managing children presenting with heart or lung failure.
4. Completing a comprehensive evaluation and listing for pediatric heart or lung transplantation.
5. Managing a pediatric patient awaiting heart or lung transplantation including the use of mechanical support.
6. Evaluating a potential pediatric donor heart or lung.
7. Managing a pediatric patient in the early post-operative period following heart or lung transplantation.
8. Optimizing immunosuppression in children following heart or lung transplantation.
9. Evaluating and treating rejection following pediatric heart or lung transplantation.
10. Managing the co-morbidities of pediatric heart or lung transplantation.
9:00 AM  Evaluation and Listing for Lung Transplantation  
Christian Benden, MD,  
University Hospital Zurich,  
Zurich, SWITZERLAND

9:15 AM  Case Presentations  
Presenters and participants

9:45 AM – 10:00 AM  COFFEE BREAK

10:00 AM – 11:15 AM  MANAGEMENT OF THE LISTED PATIENT
10:00 AM  Evaluation and Decision-Making for Mechanical Assist Device Support  
Evgenij Potapov, MD, PhD,  
Deutsches Herzzentrum Berlin,  
Berlin, GERMANY

10:15 AM  Management of Mechanical Assist Device Support and Outcomes  
David LS Morales, MD,  
Cincinnati Children’s Hospital Medical Center,  
Cincinnati, OH, USA

10:30 AM  Evaluation and Management of the Donor Lung  
Shaf Keshavjee, MD, FRCSC,  
Hospital for Sick Children, University of Toronto, Toronto, ON, CANADA

10:45 AM  Evaluation and Management of the Donor Heart  
Kirk R. Kanter, MD,  
Emory University School of Medicine, Atlanta, GA, USA

11:00 AM  Case Presentations  
Presenters and participants

11:15 AM – 11:30 AM  COFFEE BREAK

11:30 AM – 12:30 PM  MANAGEMENT OF SPECIAL POPULATIONS
11:30 AM  Evaluation and Management of ABO Incompatible Transplantation  
Simon Urschel, MD,  
University of Alberta, Edmonton, Alberta, CANADA

11:45 AM  Evaluation and Management of the Sensitized Patient  
Steven A. Webber, MBChB,  
Vanderbilt University School of Medicine, Nashville, TN, USA

12:00 PM  Evaluation and Management of the Complex Congenital Heart Disease Patient  
Beth Kaufman, MD,  
Stanford University, Palo Alto, CA, USA

12:15 PM  Case Presentations  
Presenters and participants

12:30 PM – 1:30 PM  LUNCH BREAK (lunch on own; delegates are encouraged to pre-register for a box lunch so they can spend the lunch break interacting with the faculty)

1:30 PM – 3:00 PM  PERI-TRANSPLANT MANAGEMENT
1:30 PM  Transplantation and Immediate Post-Transplantation Management  
Charles E. Canter, MD,  
Washington University School of Medicine, St. Louis, MO, USA

1:45 PM  Immunosuppression: Induction and Maintenance  
Richard Kirk, FRCP, FRCPCH,  
Freeman Hospital, Newcastle, UK

2:00 PM  Management of Acute Cellular Rejection  
Micheal A. Kuhn, MD,  
Loma Linda University Children’s Hospital, Loma Linda, CA, USA

2:15 PM  Management of Antibody-Mediated Rejection  
Anne I. Dipchand, MD, FRCPC,  
Hospital for Sick Children, Toronto, Ontario, CANADA

2:30 PM  Case Presentations  
Presenters and participants

3:00 PM – 3:15 PM  COFFEE BREAK
3:15 PM – 4:45 PM
LONG-TERM MANAGEMENT I

3:15 PM  Designing a Follow-up Program
Tajinder P Singh, MD, MSc,
Boston Children’s Hospital, Boston, MA, USA

3:30 PM  Transition to Home and Quality of Life
Connie White-Williams, PhD, RN, FAAN, UAB
Hospital, Birmingham, AL, USA

3:45 PM  Evaluation of the Failing Graft
Gerard J. Boyle, MD, FACC,
Cleveland Clinic Children’s Hospital,
Cleveland, OH, USA

4:00 PM  Diagnosis and Management of Graft Vasculopathy
Elfriede Pahl Schuette, MD,
Lurie Children’s/Northwestern Feinberg
School of Medicine, Chicago, IL, USA

4:15 PM  Case Presentations
Presenters and participants

4:45 PM – 5:00 PM
COFFEE BREAK

5:00 PM – 6:30 PM
LONG-TERM MANAGEMENT II

5:00 PM  Infections: Prevention, Diagnosis, and Management
Lara Danziger-Isakov, MD, MPH,
Cincinnati Children’s Hospital Medical Center,
Cincinnati, OH, USA

5:15 PM  Late Complications Following Heart and Lung Transplantation
Stuart C. Sweet, MD, PhD,
Washington University, St. Louis, MO, USA

5:30 PM  Re-transplantation: Is the Second Time the Charm?
Linda J. Addonizio, MD,
Columbia University, New York, NY, USA

5:45 PM  Case Presentations
Presenters and participants

6:15 PM  SUMMARY/ADJOURN

6:30 PM – 7:30 PM
RECEPTION
MORE THAN 13,000 REASONS TO BELIEVE

Celebrating more than 13,000 patients’ implanted with HeartMate II® in partnership with you.

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**TUESDAY, APRIL 23, 2013**

6:30 AM – 8:00 PM  
SPEAKER READY ROOM OPEN (515AB)

6:30 AM – 8:30 AM  
ACADEMY REGISTRATION DESK OPEN (517 FOYER)

7:45 AM – 2:00 PM  
ISHLT BOARD OF DIRECTORS MEETING (512D)

7:45 AM – 7:30 PM  
ISHLT ACADEMY: CORE COMPETENCIES IN PEDIATRIC HEART AND LUNG TRANSPLANTATION (512A-G)  
(see page 70 for scientific program and schedule)

8:00 AM – 6:30 PM  
ISHLT ACADEMY: CORE COMPETENCIES IN MECHANICAL CIRCULATORY SUPPORT (511)  
(see page 62 for scientific program and schedule)

8:00 AM – 4:00 PM  
ID COUNCIL FUNGAL WORKSHOP (515C)

NOON – 4:00 PM  
PATHOLOGY COUNCIL LUNG AMR WORKSHOP (512H)

2:00 PM – 4:00 PM  
EDUCATION COMMITTEE MEETING (514C)

2:00 PM – 6:00 PM  
HEART TRANSPLANT LISTING CONSENSUS CRITERIA WORKSHOP (512D)

3:30 PM – 5:00 PM  
TRANSPLANT REGISTRY EXECUTIVE COMMITTEE MEETING (514B)

4:00 PM – 6:00 PM  
STANDARDS AND GUIDELINES COMMITTEE MEETING (514C)

5:00 PM – 6:00 PM  
REGISTRIES AND DATABASES COMMITTEE MEETING (514B)

5:00 PM – 8:00 PM  
IMACS USERS GROUP MEETING (512H)

5:00 PM – 8:00 PM  
REGISTRATION DESK OPEN

**WEDNESDAY, APRIL 24, 2013**

(see page 92 for annual meeting scientific program details)

7:00 AM – 6:30 PM  
SPEAKER READY ROOM OPEN (515AB)

7:00 AM – 7:00 PM  
REGISTRATION DESK OPEN (517 FOYER)

8:00 AM – 10:00 AM  
SYMPOSIUM 1: Molecular Pathways of Cardiac Mechanical Unloading (517CD)

SYMPOSIUM 2: The Changing Landscape in Heart Transplantation: Surviving in the New Age (511)

SYMPOSIUM 3: BOS: Back to the Drawing Board (510)

SYMPOSIUM 4: Clarifying Chronic Thromboembolic Pulmonary Hypertension (CTEPH) (512A-G)

SYMPOSIUM 5: Nightmare Syndromes (513ABC)

SYMPOSIUM 6: Pediatric Heart Transplantation: Art, Science, or Voodoo? (513DEF)

10:00 AM – 10:15 AM  
COFFEE BREAK (517 FOYER)

10:15 AM – 12:15 PM  
SYMPOSIUM 7: LVAD Support: Ensuring Long-Term Success (517CD)

SYMPOSIUM 8: How to Face Antibodies: A Practicum for the Cardiac Transplantation Clinician (511)

SYMPOSIUM 9: Bridging to Lung Transplantation: Who, When and With What (510)

SYMPOSIUM 10: New Pathways and Controversies in PAH (512A-G)

SYMPOSIUM 11: T Cell 101 in Lung Transplantation (513ABC)

SYMPOSIUM 12: Joint ISHLT/IPTA Session – Psychosocial Issues in Pediatric Cardiothoracic Transplantation (513DEF)

12:15 PM – 2:15 PM  
LUNCH BREAK

12:15 PM – 2:15 PM  
JUNIOR FACULTY MENTOR LUNCH (514C)
### Schedule At A Glance

**Wednesday • April 24 | Thursday • April 25, 2013**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 AM – 6:30 PM</td>
<td>Speaker Ready Room Open</td>
<td>(515AB)</td>
</tr>
<tr>
<td>6:30 AM – 6:30 PM</td>
<td>Registration Desk Open</td>
<td>(517 FOYER)</td>
</tr>
<tr>
<td>7:00 AM – 8:00 AM</td>
<td>Sunrise Symposium 1: Are the Pathology Working Formulations the Gold Standard for Diagnosing AMR in Heart and Lung in 2013?</td>
<td>(514B)</td>
</tr>
<tr>
<td>7:00 AM – 8:00 AM</td>
<td>Sunrise Symposium 2: Beyond Survival: Evaluating Lung Transplant Success Through Patient-Oriented Outcomes</td>
<td>(514C)</td>
</tr>
<tr>
<td>7:00 AM – 8:00 AM</td>
<td>Sunrise Symposium 3: Controversies in Lung Allocation Around the World</td>
<td>(512D)</td>
</tr>
<tr>
<td>8:00 AM – 10:00 AM</td>
<td>Opening Plenary Session</td>
<td>(517CD)</td>
</tr>
<tr>
<td>10:00 AM – 4:00 PM</td>
<td>Exhibit Hall Open</td>
<td>(517AB)</td>
</tr>
<tr>
<td>10:00 AM – 6:30 PM</td>
<td>Poster Hall Open</td>
<td>(516)</td>
</tr>
<tr>
<td>10:00 AM – 10:30 AM</td>
<td>Coffee Break / Visit Exhibits / View Posters</td>
<td>(516; 517AB)</td>
</tr>
<tr>
<td>10:30 AM – 12:00 PM</td>
<td>Concurrent Session 1: MCS 1: VADS in the Real World – Clinical Outcomes</td>
<td>(517CD)</td>
</tr>
<tr>
<td>10:30 AM – 12:00 PM</td>
<td>Concurrent Session 2: Heart 1: News from the Registries – What We Need To Learn To Achieve Long Long-Term</td>
<td>(511)</td>
</tr>
<tr>
<td>10:30 AM – 12:00 PM</td>
<td>Concurrent Session 3: Donor Management 1: Lung</td>
<td>(510)</td>
</tr>
<tr>
<td>10:30 AM – 12:00 PM</td>
<td>Concurrent Session 4: PH 1: All about Outcomes</td>
<td>(512A-G)</td>
</tr>
<tr>
<td>10:30 AM – 12:00 PM</td>
<td>Concurrent Session 5: PATH AMR: Exploring the New Frontier</td>
<td>(513ABC)</td>
</tr>
<tr>
<td>10:30 AM – 12:00 PM</td>
<td>Concurrent Session 6: Heart 2: Heart Failure – Focus on the Right Heart</td>
<td>(513DEF)</td>
</tr>
<tr>
<td>6:30 PM – 7:30 PM</td>
<td>Exhibit Hall Opening Reception</td>
<td>(517AB)</td>
</tr>
<tr>
<td>6:30 PM – 7:30 PM</td>
<td>General Poster Session 1</td>
<td>(516)</td>
</tr>
<tr>
<td>6:30 PM – 7:30 PM</td>
<td>Junior Faculty Clinical Case Posters</td>
<td>(516)</td>
</tr>
</tbody>
</table>
NOON – 2:00 PM
JFT COUNCIL MEETING (514C)
JHLT EDITORIAL BOARD MEETING/LUNCH (519A)
PULMONARY COUNCIL QOL WORKFORCE MEETING (512H)

1:00 PM – 2:00 PM
2014 PROGRAM COMMITTEE MEETING (514B)

2:00 PM – 3:30 PM
Concurrent Session 7: MCS 2: How to Bridge Over Troubled Waters (517CD)
Concurrent Session 8: Heart 3: Coronary Artery Vasculopathy in 2013 – Diagnosis, Prognosis and Treatment (511)
Concurrent Session 9: Lung 1: Transplantation – Bench to Bedside (510)
Concurrent Session 10: MCS 3: Pump and Patient Crosstalk (512A-G)
Concurrent Session 11: Philip K. Caves Award Candidate Presentations (513ABC)
Concurrent Session 12: PEDS 1: Heart Failure and Transplantation (513DEF)

3:30 PM – 4:00 PM
COFFEE BREAK / VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

4:00 PM – 5:30 PM
Concurrent Session 13: MCS 4: VAD Clots – Beyond LDH (517CD)
Concurrent Session 14: Heart 4: Living with a Transplanted Heart – A Narrow Pathway in the Jungle (511)
Concurrent Session 15: Lung 2: Primary Graft Dysfunction (510)
Concurrent Session 16: NHSAH 1: Implications and Innovations throughout the Lung Transplant Trajectory (512A-G)
Concurrent Session 17: BSTR 1: New Frontiers in Cardiothoracic Organ Regeneration – From Cosmetic to Prosthetic (513ABC)
Concurrent Session 18: ID 1: From Fungus to Virus – The Microbiome Elicited (513DEF)

5:30 PM – 6:30 PM
GENERAL POSTER SESSION 2 (516)

5:30 PM – 6:30 PM
Mini Oral Session 1: Heart Post-Transplantation (513ABC)
Mini Oral Session 2: Mechanical Circulatory Support (513DEF)
Mini Oral Session 3: Lung Failure, Diagnosis and Therapy (514B)
Mini Oral Session 4: Pulmonary Hypertension (514C)
Mini Oral Session 5: Basic Science (512D)

5:30 PM – 7:00 PM
COUNCIL CHAIRS’ RECEPTION/MEETING (519A)

FRIDAY, APRIL 26, 2013

6:30 AM – 6:30 PM
SPEAKER READY ROOM OPEN (515AB)

6:30 AM – 6:30 PM
REGISTRATION DESK OPEN (517 FOYER)

7:00 AM – 8:00 AM
SUNRISE SYMPOSIUM 4: VAD Optimization – Pump It Up (517CD)
SUNRISE SYMPOSIUM 5: The “Omics” of Cardiac Transplantation (511)
SUNRISE SYMPOSIUM 6: Bronchoscopic Battles and Anastamotic Atrocities (510)
SUNRISE SYMPOSIUM 7: Proteins and Pathogenesis of PH (512A-G)
SUNRISE SYMPOSIUM 8: Avatars and Advanced Care Planning (513ABC)
SUNRISE SYMPOSIUM 9: What’s New in Xenotransplantation (514B)
8:00 AM – 9:30 AM
Concurrent Session 19: MCS 5: The Aftermath of VAD Implantation (517CD)

Concurrent Session 20: Heart 5: Advances in Interpretation of Cardiac Allograft Immune Activation (511)

Concurrent Session 21: Lung 3: Clinical and Immune Monitoring (510)

Concurrent Session 22: PH 2: Right Ventricular Matters (512A-G)

Concurrent Session 23: NHSAH 2: MCS and Heart Transplantation – Assessment, Outcomes and Interventions (513ABC)

Concurrent Session 24: BSTR 2: Exploring and Modifying the Immune Response – Cells, Antibodies, and Tolerance (514B)

SYMPOSIUM 25: JHLT AT ISHLT – The Year in a Capsule (513DEF)

9:00 AM – 2:00 PM
EXHIBIT HALL OPEN (517AB)

9:00 AM - 6:30 PM
POSTER HALL OPEN (516)

9:30 AM – 10:00 AM
ANNUAL BUSINESS MEETING (517CD)

COFFEE BREAK / VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

10:00 AM – NOON
PLENARY SESSION: How to Succeed When the Right Ventricle Fails (517CD)

NOON – 2:00 PM
LUNCH BREAK

VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

12:10 PM – 12:55 PM
MECHANICAL CIRCULATORY SUPPORT COUNCIL MEETING (513ABC)

PULMONARY HYPERTENSION COUNCIL MEETING (513DEF)

PEDIATRIC TRANSPLANTATION COUNCIL MEETING (514B)

NURSING, HEALTH SCIENCE, ALLIED HEALTH COUNCIL MEETING (514C)

INFECTIOUS DISEASES COUNCIL MEETING (512D)

1:05 PM – 1:50 PM
HEART FAILURE AND TRANSPLANT MEDICINE COUNCIL MEETING (513ABC)

PULMONARY TRANSPLANTATION COUNCIL MEETING (513DEF)

PEDIATRIC HEART FAILURE WORKFORCE MEETING (514B)

PATHOLOGY COUNCIL MEETING (514C)

PHARMACY AND PHARMACOLOGY COUNCIL MEETING (512D)

2:00 PM – 3:30 PM
ISHLT and AST JOINT SESSION I: Pretransplant Circulating Antibodies: Making Sense of Sensitization (513DEF)

Concurrent Session 25: MCS 6: Infectious Issues and Pump Failure (517CD)

Concurrent Session 26: Heart 6: Are All Antibodies Equal? Predicting, Managing and Treating the Risk for AMR (511)

Concurrent Session 27: Lung 4: Immunosuppression and Therapeutics (510)

Concurrent Session 28: MCS 7: Changes in Physiology During Support (512A-G)

Concurrent Session 29: Donor Management 2: Rethinking the Cardiac Donor (513ABC)

Concurrent Session 30: Heart 7: Heart Failure – What’s New in Translational Science (514B)

3:30 PM – 4:00 PM
COFFEE BREAK / VIEW POSTERS (516)

4:00 PM – 5:30 PM
Concurrent Session 31: MCS 8: The Cost for Quality of Life after VAD (517CD)

Concurrent Session 32: Heart 8: Mechanisms and Markers of Acute Rejection - Within and without Biopsy Sampling (511)

Concurrent Session 33: Lung 5: BOS – An Update (510)

Concurrent Session 34: PH 3: Right Ventricular Assessment and Function (512A-G)

Concurrent Session 35: PEDS 2: Mechanical Circulatory Support in Children (513ABC)

Concurrent Session 36: PHARM 1: Innovative Pharmacotherapeutic Approaches to Thoracic Transplant and Mechanically Assisted Patients (514B)

ISHLT and AST JOINT SESSION II: Antibody-Mediated Rejection: State of the “Current” Art (513DEF)
**Schedule At A Glance**

**Friday, April 26 | Saturday, April 27**

**5:30 PM – 6:30 PM**
**Mini Oral Session 6: Heart Failure, Diagnosis and Therapy**
(513ABC)

**Mini Oral Session 7: Mechanical Circulatory Support**
(513DEF)

**Mini Oral Session 8: Lung Failure, Heart Donor Management and Lung Donor Management**
(514B)

**Mini Oral Session 9: Nursing, Health Science and Allied Health**
(514C)

**Mini Oral Session 10: Pediatrics and Infectious Diseases**
(512D)

**5:30 PM – 6:30 PM**
**GENERAL POSTER SESSION 3**
(516)

**5:30 PM – 7:00 PM**
**INTERNATIONAL MCS REIMBURSEMENT SESSION**
(512H)

**PAST PRESIDENT’S COUNCIL MEETING/RECEPTION**
(519A)

**7:30 PM – 8:45 PM**
**PRESIDENT’S GALA COCKTAIL RECEPTION, Fortification Centre**

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**SATURDAY, APRIL 27, 2013**

**6:30 AM – 12:15 PM**
**REGISTRATION DESK OPEN**
(517 FOYER)

**6:30 AM – 1:30 PM**
**SPEAKER READY ROOM OPEN**
(515AB)

**7:00 AM – 8:00 AM**
**SUNRISE SYMPOSIUM 10: Congenital Heart Disease – Success and Failure**
(511)

**SUNRISE SYMPOSIUM 11: PH and the Lung Parenchyma**
(510)

**SUNRISE SYMPOSIUM 12: Challenging Candidates for Lung Transplant Selection**
(512A-G)

**SUNRISE SYMPOSIUM 13: Pediatric Lung Transplantation: Developments and Controversies**
(513ABC)

**8:00 AM – 9:30 AM**
**Concurrent Session 37: MCS 9: Before the VAD!**
(511)

**Concurrent Session 38: Heart 9: Progress in Cardiac Allograft Immunosuppression**
(510)

**Concurrent Session 39: BSTR 3: The Fundamental Difference – Innate Immunity and Xenotransplantation**
(513ABC)

**Concurrent Session 40: Clinical Case Dilemmas in Thoracic Transplantation**
(513DEF)

**PHARM SYMPOSIUM: A Lifecycle Journey in Cystic Fibrosis and Lung Transplantation**
(512A-G)

**9:30 AM – 9:45 AM**
**COFFEE BREAK**
(517 FOYER)

**9:45 AM – NOON**
**PLENARY SESSION: From Bench to Bedside**
(511)

**NOON – 12:15 PM**
**COFFEE BREAK**
(517 FOYER)

**12:15 PM – 1:30 PM**
**Concurrent Session 41: MCS 10: Outcomes Potpourri**
(511)

**Concurrent Session 42: Heart 10: Can We Improve Transplant Risk Assessment and Outcome Prediction?**
(510)

**Concurrent Session 43: Lung 6: Transplant Complications and Outcomes**
(512A-G)

**Concurrent Session 44: MCS 11: Translational Science and New Devices**
(513ABC)

**Concurrent Session 45: PEDS 3: Heart and Lung Transplantation**
(513DEF)

**1:30 PM – 3:00 PM**
**COUNCIL AND COMMITTEE REPORTS TO THE BOARD AND MEMBERSHIP**
(513DEF)

**3:00 PM – 10:00 PM**
**ISHLTL BOARD OF DIRECTORS MEETING**
(514C)
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>6:30 AM – 8:00 PM</td>
<td>Speaker Ready Room Open (515AB)</td>
<td>(515AB)</td>
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<tr>
<td>6:30 AM – 8:30 AM</td>
<td>Academy Registration Desk Open (517 FOYER)</td>
<td>(517 FOYER)</td>
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<tr>
<td>7:45 AM – 2:00 PM</td>
<td>ISHLT Board of Directors Meeting (512D)</td>
<td>(512D)</td>
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<tr>
<td>7:45 AM – 7:30 PM</td>
<td>ISHLT Academy: Core Competencies in Pediatric Heart and Lung Transplantation (512A-G)</td>
<td>(512A-G)</td>
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<tr>
<td></td>
<td>(See page 70 for scientific program and schedule)</td>
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</tr>
<tr>
<td>8:00 AM – 6:30 PM</td>
<td>ISHLT Academy: Core Competencies in Mechanical Circulatory Support (511)</td>
<td>(511)</td>
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<td></td>
<td>(See page 62 for scientific program and schedule)</td>
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</tr>
<tr>
<td>8:00 AM – 4:00 PM</td>
<td>ID Council Fungal Workshop (515C)</td>
<td>(515C)</td>
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<tr>
<td>NOON – 4:00 PM</td>
<td>Pathology Council Lung AMR Workshop (512H)</td>
<td>(512H)</td>
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<tr>
<td>2:00 PM – 4:00 PM</td>
<td>Education Committee Meeting (514C)</td>
<td>(514C)</td>
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<tr>
<td>2:00 PM – 6:00 PM</td>
<td>Heart Transplant Listing Consensus Criteria Workshop (512D)</td>
<td>(512D)</td>
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<tr>
<td>3:30 PM – 5:00 PM</td>
<td>Transplant Registry Executive Committee Meeting (514B)</td>
<td>(514B)</td>
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<tr>
<td>4:00 PM – 6:00 PM</td>
<td>Standards and Guidelines Committee Meeting (514C)</td>
<td>(514C)</td>
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<tr>
<td>5:00 PM – 6:00 PM</td>
<td>Registries and Databases Committee Meeting (514B)</td>
<td>(514B)</td>
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<tr>
<td>5:00 PM – 8:00 PM</td>
<td>IMACS Users Group Meeting (512H)</td>
<td>(512H)</td>
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<tr>
<td>5:00 PM – 8:00 PM</td>
<td>Registration Desk Open (517 FOYER)</td>
<td>(517 FOYER)</td>
</tr>
</tbody>
</table>
## SYMPOSIUM 1

### Molecular Pathways of Cardiac Mechanical Unloading (517CD)

**CHAIRS:** Lee R. Goldberg, MD, MPH and Craig H. Selzman, MD

**SESSION SUMMARY:** This session highlights the molecular pathways associated with mechanical unloading of the failing myocardium. Topics include the myocardial response affecting cardiac contractility, fibrosis and metabolism as well as the vasculature. Further, we will discuss molecular patterns associated with a favorable response of the myocardium to mechanical unloading and the potential impact on myocardial recovery after mechanical unloading.

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Impact of Mechanical Circulatory Support on Myocardial Contractility and Calcium Handling</td>
<td>Daniel Burkhoff, MD, PhD, Columbia University, New York, NY, USA</td>
</tr>
<tr>
<td>8:18 AM</td>
<td>Discussion</td>
<td></td>
</tr>
<tr>
<td>8:24 AM</td>
<td>Myocardial Fibrosis in Heart Failure and Its Response to Mechanical Unloading</td>
<td>Hendrik Milting, PhD, Heart and Diabetes Center NRW, Ruhr-University, Clinic for Thoracic &amp; Cardiovascular Surgery, E &amp; H Klessmann-Institute, Bad Oeynhausen, NRW, Germany</td>
</tr>
<tr>
<td>8:42 AM</td>
<td>Discussion</td>
<td></td>
</tr>
<tr>
<td>8:48 AM</td>
<td>Impaired Cardiac Metabolism in Heart Failure and the Impact of Left Ventricular Assist Device Support</td>
<td>P. Christian Schulze, MD, PhD, Columbia University, New York, NY, USA</td>
</tr>
<tr>
<td>9:06 AM</td>
<td>Discussion</td>
<td></td>
</tr>
<tr>
<td>9:12 AM</td>
<td>Vascular Changes in Patients Supported by Ventricular Assist Devices</td>
<td>Stavros G. Drakos, MD, PhD, University of Utah &amp; UTAH Cardiac Transplant Program, Salt Lake City, Utah, USA</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>Discussion</td>
<td></td>
</tr>
<tr>
<td>9:36 AM</td>
<td>The Molecular Signature of Myocardial Recovery Following Ventricular Assist Device Support</td>
<td>Kenneth B. Margulies, MD, University of Pennsylvania, Philadelphia, PA, USA</td>
</tr>
<tr>
<td>9:54 AM</td>
<td>Discussion</td>
<td></td>
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</tbody>
</table>

## SYMPOSIUM 2

### The Changing Landscape in Heart Transplantation: Surviving in the New Age (511)

**CHAIRS:** John Wallwork, FRCS and Marisa Crespo-Leiro, MD

**SESSION SUMMARY:** A dramatic epidemiological shift in the heart transplant donor and recipient characteristic in recent years has led to a need to review our current allocation and matching systems. In this symposium, we shall review the changing landscape, evaluate the different allocation systems world-wide across diverse continents and debate whether an international consensus is timely for developing clinical algorithms that facilitate optimal donor and recipient matching. How shall we allocate donors for those with durable LVAD's? Is it time to develop a universal classification for the “marginal” donor? Are “sensitized” patients a unique group for a targeted allocation system? These and other burning issues will be addressed by a panel of international experts in the field.

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Changing Epidemiology of the Heart Transplant Candidate</td>
<td>Josef Stehlik, MD, MPH, University of Utah School of Medicine, Salt Lake City, UT, USA</td>
</tr>
<tr>
<td>8:10 AM</td>
<td>Changing Epidemiology of the Optimal Heart Donor</td>
<td>Guy A. MacGowan, MD, FACC FRCPI, Freeman Hospital, Newcastle upon Tyne, United Kingdom</td>
</tr>
</tbody>
</table>

### Donor Allocation Systems Around the World: Current Approaches, Advantages, Challenges

<table>
<thead>
<tr>
<th>Time</th>
<th>USA – Joseph G. Rogers, MD, Duke University, Durham, NC, USA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8:20 AM</td>
<td>Canada – Debra L. Isaac, MD, University of Calgary, Calgary, Alberta, Canada</td>
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<tr>
<td>8:30 AM</td>
<td>Eurotransplant – Andreas Zuckermann MD, Medical University of Vienna, Vienna, Austria</td>
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<tr>
<td>8:35 AM</td>
<td>Spain – Juan F. Delgado, MD, Universitary Hospital 12 de Octubre, Madrid, Spain</td>
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<tr>
<td>8:40 AM</td>
<td>Italy – Maria Frigerio, MD, Niguarda-Ca’ Granda Hospital, Milan, Italy</td>
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<tr>
<td>8:45 AM</td>
<td>Australia – Peter MacDonald, MD, PhD, St. Vincent’s Hospital, Sydney, Australia</td>
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</tbody>
</table>

### Expanding and Maximizing the Donor Pool

<table>
<thead>
<tr>
<th>Time</th>
<th>Expanding the Donor Pool: UK Experience</th>
<th>Stephen C. Clark, FRCS, Freeman Hospital, Newcastle upon Tyne, United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:50 AM</td>
<td>Pushing the Limits for Organ Acceptability</td>
<td>Ashish S. Shah, MD, Johns Hopkins Hospital, Baltimore, MD, USA</td>
</tr>
</tbody>
</table>

### DEBATE: It Is Time For An International Consensus For A Recipient Scoring System

<table>
<thead>
<tr>
<th>Time</th>
<th>PRO: Keith D. Aaronson, MD, University of Michigan, Ann Arbor, MI, USA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9:20 AM</td>
<td>CON: Lynne Warner Stevenson, Brigham and Women’s Hospital, Boston, MA, USA</td>
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</tbody>
</table>

## SYMPOSIUM 3

### BOS: Back to the Drawing Board (510)

**CHAIRS:** Denis Hadjiliadis, MD, MHS and Robin Vos, MD, PhD

**SESSION SUMMARY:** Phenotyping and adding new terminology to chronic rejection have been major issues in the last few years. This session will clarify some well-defined phenotypes and put them into perspective of the “old BOS” where everything was pulled together with fewer diagnostic tools.

<table>
<thead>
<tr>
<th>Time</th>
<th>Basic Science and Mechanisms, Laurie D. Snyder, MD, Duke University, Durham, NC, USA</th>
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<tbody>
<tr>
<td>8:00 AM</td>
<td>Discussion</td>
<td></td>
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<tr>
<td>8:20 AM</td>
<td>Phenotypes of BOS, Geert M. Verleden, MD, PhD, University Hospital Gasthuisberg, Leuven, Belgium</td>
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<tr>
<td>8:50 AM</td>
<td>Discussion</td>
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8:00 AM – 10:00 AM

**SYMPOSIUM 4**

Clarifying Chronic Thromboembolic Pulmonary Hypertension (CTEPH) (512A-G)

**CHAIRS:** Raymond L. Benza, MD and Marc de Perrot, MD, MSc

**SESSION SUMMARY:** CTEPH remains the only potentially curable form of PH to date underlying the huge importance of making an accurate diagnosis and thoroughly assessing suitability for thromboendarterectomy in any patient presenting with PH. This symposium covers the basics of diagnosis and surgical decision making, then moves to consider the current evidence base for using medical therapy for those patients who are not cured or curable by thromboendarterectomy. Finally the role of extracorporeal support in patients with acute adverse responses to thromboendarterectomy will be discussed to enable practical lessons to be learned.

- **8:00 AM** Making the Diagnosis of CTEPH, Irene M. Lang MD, Medical University of Vienna, Vienna, Austria
- **8:20 AM** What are the Contraindications to Pulmonary Endarterectomy in CTEPH?, Michael M. Madani, MD, University of California San Diego, San Diego, CA, USA
- **8:40 AM** Medical Approaches in Non-Surgical CTEPH, Hossein A. Ghofrani, University Hospital Giessen and Marburg, Justus-Liebig-University Giessen, Giessen, Germany
- **9:00 AM** Managing Right Ventricular Failure and Reperfusion Injury Following Pulmonary Endarterectomy, Marc de Perrot, MD, MSc, Toronto General Hospital, Toronto, ON, Canada
- **9:15 AM** Role of ECLS for Failed/Suboptimal Pulmonary Endarterectomy: The Paris Experience, Prof. Philippe G. Darerevelle, Marie Lannelongue Hospital Paris sud University, Le Plessis Robinson, France
- **9:30 AM** Role of ECLS for Failed/Suboptimal Pulmonary Endarterectomy: The Cambridge Experience, David P. Jenkins BSc, MS, FRCS(CTh), Papworth Hospital, Cambridge, United Kingdom
- **9:45 AM** Panel Discussion

8:00 AM – 10:00 AM

**SYMPOSIUM 5**

Nightmare Syndromes (513ABC)

**CHAIRS:** Annette Boehler, MD and David Weill, MD

**SESSION SUMMARY:** This session will cover unique and challenging clinical syndromes that are difficult to diagnose and manage.

- **8:00 AM** Thrombotic Microangiopathy, Ramsey R. Hachem, MD, Washington University School of Medicine, St. Louis, MO, USA
- **8:15 AM** Discussion
10:15 AM – 12:15 PM

**SYMPOSIUM 7**

**LVAD Support: Ensuring Long-Term Success (517CD)**

*CHAIRS:* Jaap R. Lahpor, MD and Stephan Schueler, MD, PhD, FRCS

*SESSION SUMMARY:* The field of mechanical circulatory assistance has been expanding quickly and many patients are now benefiting from long-term VAD support. With this expanding experience, new challenges to the long-term success of VAD support have also been identified. This session will discuss several of the key adverse events that clinicians face while caring for VAD recipients on chronic support. The speakers will discuss proven and novel approaches to the management of these problems.

- **10:15 AM** *Aortic Insufficiency – Pre-implant Management, Post-op Surveillance, Post-op Management,* Evgenij V. Potapov, MD, PhD, Deutsches Herzzentrum Berlin, Berlin, Germany
- **10:35 AM** *Gastrointestinal Bleeding – Management, Including Endoscopy, Anticoagulation/Antiplatelet Management, Pump Settings,* Salpy V. Pamboukian MD MSPH, University of Alabama at Birmingham, Birmingham, AL, USA
- **10:55 AM** *Thrombosis/Power Spikes/Hemolysis – Diagnosis, Management of Anticoagulation/Antiplatelets, Lytic Therapy, and Replacement,* Ulrich P. Jorde, MD, Columbia University/New York Presbyterian Hospital, New York, NY, USA
- **11:15 AM** *VAD Infection Prevention Strategies,* Shimon Kusne, MD, Mayo Clinic in Arizona, Phoenix, AZ, USA
- **11:35 AM** *The Emotional and Psychosocial Selection Criteria and Needs of Patients on VADs,* Kathleen L. Grady, PhD, APN, Northwestern University, Chicago, IL, USA
- **11:55 AM** Panel Discussion

10:15 AM – 12:15 PM

**SYMPOSIUM 8**

**How to Face Antibodies: A Practicum for the Cardiac Transplantation Clinician (511)**

*CHAIRS:* Nicola E. Hiemann, MD, FACC and D. Brad Dyke, MD

*SESSION SUMMARY:* In this session, we have attempted to use a bench-top to bedside approach to explain the relevant science as it relates to sensitization, recognition and treatment of antibody mediated rejection (AMR) in cardiac transplantation. In this fast moving field, the science is distilled to provide an increased working knowledge of the translational science in order to better understand and treat patients with AMR. This session, led entirely by transplant clinicians, is targeted to clinicians to enhance their knowledge base and positively alter patient care strategies.

- **10:15 AM** *How to Detect and Manage Sensitization Pre-Transplant,* Kathryn J. Tinckam, MD, MMS, FRCP, University of Toronto, Toronto, ON, Canada
- **10:35 AM** Discussion

10:15 AM – 12:15 PM

**SYMPOSIUM 9**

**Bridging to Lung Transplantation: Who, When and With What (510)**

*CHAIRS:* Marc de Perrot, MD, MSc and Stephen C. Clark, FRCS

*SESSION SUMMARY:* This symposium will provide a review of the current status of mechanical bridging to lung transplantation. It will provide an overview of available techniques and outcomes.

- **10:15 AM** *Selection and Timing,* Jasleen Kukreja, MD, University of California San Francisco, San Francisco, CA, USA
- **10:35 AM** *Device Development and Choice,* Martin Strueber, MD, Heart Center Leipzig, University Leipzig, Leipzig, Germany
- **10:55 AM** *Managing the Wait,* Jens Gottlieb MD, Hannover Medical School, Hannover, Germany
- **11:15 AM** *Transplant Surgical Strategies,* Walter Klepetko, MD, Medical University of Vienna, Vienna, Austria
- **11:35 AM** *Outcomes of Bridging to Transplantation,* R. Duane Davis, MD, MBA, Duke University, Durham, NC, USA
- **11:55 AM** Panel Discussion

10:15 AM – 12:15 PM

**SYMPOSIUM 10**

**New Pathways and Controversies in PAH (512A-G)**

*CHAIRS:* Robert P. Frantz, MD and Myung H. Park, MD

*SESSION SUMMARY:* The field of PH is moving rapidly in both clinical and translational science and in this session our speakers will cover new evidence supporting firstly the respective value of monitoring right ventricular function and secondly combined clinical end points in the clinical management of patients. The second half of the symposium will discuss the potential link between insulin resistance and vascular inflammation, also describing the effect of targeted therapy on this axis. Finally the role of inflammation as a therapeutic target will be discussed.

- **10:15 AM** *Is RVEF the Best Endpoint When Following Up a Patient with Pulmonary Arterial Hypertension?,* Anton Vonk Noordegraaf, MD, VU Medical Center, Amsterdam, The Netherlands
- **10:35 AM** Discussion
### SYMPOSIUM 11

**T Cell 101 in Lung Transplantation (513ABC)**

**CHAIRS:** Daniel C. Chambers, MBBS, MRCP, FRACP, MD and Annette Boehler, MD

**SESSION SUMMARY:** This session will bring basic scientists and clinicians together to jointly review sets of basic knowledge slides, slides addressing the current knowledge in animal models, slides addressing human data in the field and slides pulling the whole topic into clinical context

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<th>Time</th>
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<tr>
<td>10:15 AM</td>
<td><strong>Overview of T Cell Differentiation</strong>, Tereza Martinu, MD, Duke University, Durham, NC, USA</td>
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<td>10:30 AM</td>
<td>Discussion / Q &amp; A</td>
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<td>10:35 AM</td>
<td><strong>Th1 and Lung Rejection</strong>, John F. McDyer, MD, University of Pittsburgh, Pittsburgh, PA, USA</td>
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<td>10:50 AM</td>
<td>Discussion / Q &amp; A</td>
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<tr>
<td>10:55 AM</td>
<td><strong>Th2 and Lung Rejection</strong>, John A. Belperio, MD, UCLA Pulmonary &amp; Critical Care Medicine, Los Angeles, CA, USA</td>
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<td>11:10 AM</td>
<td>Discussion / Q &amp; A</td>
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<td>11:15 AM</td>
<td><strong>Th17 and Lung Rejection</strong>, Bart M. Vanaudenaerde, Katholieke Universiteit Leuven, Leuven, Belgium</td>
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<td>11:30 AM</td>
<td>Discussion / Q &amp; A</td>
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<td>11:35 AM</td>
<td><strong>Tregs and Lung Transplantation</strong>, Gregor Warnecke, MD, Hannover Medical School, Hannover, Germany</td>
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<td>Discussion / Q &amp; A</td>
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<td>11:55 AM</td>
<td><strong>Gamma Delta T Cells and Lung Transplantation</strong>, Andrew E. Gelman, PhD, Washington University School of Medicine, Saint Louis, MO, USA</td>
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<td>12:10 PM</td>
<td>Discussion / Q &amp; A</td>
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### SYMPOSIUM 12

**Joint ISHLT/IPTA Session – Psychosocial Issues in Pediatric Cardiothoracic Transplantation (513DEF)**

**CHAIRS:** Christian Benden, MD and Alison Amegatcher, RN

**SESSION SUMMARY:** The session will discuss psychosocial aspects of pediatric cardio-thoracic transplantation, both in heart and lung transplant recipients, using a multi-disciplinary team approach. In addition, the intersection between transplant and palliative care will be discussed.

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<th>Time</th>
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<tr>
<td>10:15 AM</td>
<td>The Psychosocial Transplant Evaluation – What Works?, Jo Wray, PhD, Great Ormond Street Hospital for Children NHS Foundation Trust, London, United Kingdom</td>
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<tr>
<td>10:35 AM</td>
<td>Discussion</td>
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<tr>
<td>10:40 AM</td>
<td>Transplanting the Adolescent Patient – Can We Do It Successfully?, Diana A. Shellmer, PhD, University of Pittsburgh and the Children's Hospital of Pittsburgh of UPMC, Pittsburgh, PA, USA</td>
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<tr>
<td>11:00 AM</td>
<td>Discussion</td>
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<td>11:05 AM</td>
<td>Socioeconomic Status in Pediatric Cardiothoracic Transplantation – Does It Impact On Outcomes?, Tajinder P. Singh, MD, MSc, Boston Children’s Hospital, Boston, MA, USA</td>
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<tr>
<td>11:25 AM</td>
<td>Discussion</td>
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<tr>
<td>11:30 AM</td>
<td>Intersection of Transplant Medicine and Palliative Care – Can We Work Together?, Elisabeth P. Dellon, MD, MPH, University of North Carolina, Chapel Hill, NC, USA</td>
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<td>11:50 AM</td>
<td>Discussion</td>
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<td>11:55 AM</td>
<td>Physician and Parent Perceptions of End-of-Life Experience in Children with Advanced Heart Disease; E. Morell, J. Wolfe, S. Ziniel, R. Thiagarajan, P. Lang, H. Cheng, T. Kulik, L. Smoot, E.D. Blume.1 Harvard Medical School, Boston, MA; 2Psychosocial Oncology and Palliative Care, Dana-Farber Cancer Institute, Boston, MA; 3Pediatrics, Boston Children’s Hospital, Boston, MA; 4Cardiology, Boston Children’s Hospital, Boston, MA.</td>
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<td>12:10 PM</td>
<td>Discussion</td>
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### SYMPOSIUM 13

**Machines vs. Medications for Biventricular Failure (517CD)**

**CHAIRS:** Robert L. Kormos MD, FRCS(C), FACS, FAHA and Jan F. Gummert, MD

**SESSION SUMMARY:** Biventricular failure represents significant challenges. Both medical and mechanical approaches have considerable limitations and risks. This session will provide an interactive forum for discussing a patient with biventricular failure, and exploring the potential benefits and risks of various therapeutic approaches available in our clinical armamentarium today.
2:15 PM – 4:15 PM

**SYMPOSIUM 15**

**AMR in Lung Transplantation: Definitions and Current State** (510)

**CHAIRS:** Roberto Barrios, MD and Gerald J. Berry, MD

**SESSION SUMMARY:** The current status of the pathologic working formulation for the evaluation for Antibody Mediated Rejection (AMR) in lung transplants will be presented. This symposium is organized in tandem with a clinical correlation symposium on evaluation of AMR in Lung Transplants.

2:15 PM  **Overview of AMR in Lung Transplantation at Banff,** W. Dean Wallace, David Geffen School of Medicine at UCLA, Los Angeles, CA, USA

2:35 PM  **Discussion**

2:45 PM  **Pathology of AMR,** Martin J. Goddard, BA, MB, ChB, FRCS, FRCPath, Papworth Hospital NHS Trust, Cambridge, United Kingdom

3:05 PM  **Discussion**

3:15 PM  **Histocompatibility Assessment for AMR in Lung Transplants,** Dolly B. Tyan, PhD, D(ABHI), Stanford University School of Medicine, Palo Alto, CA, USA

3:35 PM  **Discussion**

3:45 PM  **Pediatric Lung Transplantation,** Carol Farver, MD, Cleveland Clinic, Cleveland, OH, USA

4:05 PM  **Discussion**

2:15 PM – 4:15 PM

**SYMPOSIUM 16**

**Mapping the Management of the Right Ventricle in Lung Transplantation** (512A-G)

**CHAIRS:** Paul A. Corris, FRCP and John Granton, MD

**SESSION SUMMARY:** The peri-operative management of the right ventricle during isolated lung transplantation for pulmonary arterial hypertension remains most challenging. This symposium will first cover recent developments in the non-invasive assessment of the right ventricle. Practical approach to the intra-operative management of patients with a failing right ventricle will then be reviewed. Finally, perspectives on potential recovery of the right ventricle after lung transplantation will be debated.

2:15 PM  **Non-Invasive Assessment of the Right Ventricle,** Steven M Kawut, MD, MS, University of Pennsylvania, Philadelphia, PA, USA

2:35 PM  **Discussion**

2:45 PM  **Intra Operative Management of the Patient with a Failing Right Ventricle,** Karen M. McRae, MD, Toronto General Hospital, Toronto, ON, Canada

3:05 PM  **Discussion**

**DEBATE:**  **This House Believes the Right Ventricle Always Recovers after Isolated Lung Transplantation**

3:15 PM  **PRO:** Walter Kлепетко, MD, Medical University of Vienna, Vienna, Austria

3:35 PM  **CON:** Elie Fadel, MD, Hospital Marie Lannelongue, Le Plessis Robinson, France

3:55 PM  Panel Discussion
2:15 PM – 4:15 PM

**SYMPOSIUM 17**

**Cell Migration and Trafficking in Lung and Heart Transplantation (513ABC)**

**CHAIRS:** Stephan M. Ensminger, MD, DPhil and Andrew E. Gelman, PhD

**SESSION SUMMARY:** This session will serve as an opportunity for basic and clinical scientists, pathologists, immunologists and clinicians to get an update on cellular migration and homing of different cell subsets in heart and lung transplantation and their visualization. There will be an update on new techniques in cell tracking, about potential new interesting homing receptors in transplantation and a summary of what is currently known about the relevance of chemokine receptors in transplantation.

- **2:15 PM** Intravital Immunology: Visualizing T Cell Migration and Activation by Multiphoton Microscopy, Thorsten R. Mempel, MD, PhD, Harvard Medical School, Boston, MA, USA
- **2:35 PM** Discussion
- **2:39 PM** Donor Derived Mesenchymal Stem Cell Trafficking in Lung Transplantation, Vibha N. Lama, MD, MS, University of Michigan, Ann Arbor, MI, USA
- **2:59 PM** Discussion
- **3:03 PM** Vivo Imaging of Cell Trafficking into Heart Allografts, Daniel Kreisel, MD, PhD, Washington University in St. Louis, St. Louis, MO, USA
- **3:23 PM** Discussion
- **3:27 PM** Regulation of Chemokines in Lung Transplantation, John A. Belperio, MD, PhD, UCLA Pulmonary & Critical Care Medicine, Los Angeles, CA, USA
- **3:47 PM** Discussion
- **3:51 PM** Mechanisms of B cell Migration, João P. Pereira, Yale University, New Haven, CT, USA
- **4:11 PM** Discussion

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2:15 PM – 4:15 PM

**SYMPOSIUM 18**

**The Spectrum of CMV: Young or Old, Heart or Lung (513DEF)**

**CHAIRS:** Fernanda P. Silveira, MD, MS and Erik A. M. Verschuuren, MD, PhD

**SESSION SUMMARY:** Although CMV has become quite effectively handled with the current arsenal, the new strategies have led to new problems. This session will use a bench to bedside approach to cover the current state of the art for CMV in heart and lung transplant recipients and will highlight the newly emerging pitfalls in the currently used prevention strategies. Pharmacokinetics (including adult and pediatric studies), monitoring strategies and treatment options including CMV resistance will be discussed.

- **2:15 PM** CMV: Prevention Strategies: All Are Not Created Equal, Luciano Potena MD, PhD, University of Bologna, Bologna, Italy
- **2:40 PM** Antiviral Pharmacokinetics: Are All Recipients Equal?, Patricia Uber, PharmD, University of Maryland, Baltimore, MD, USA
- **3:05 PM** CMV: Monitoring For Risk and Recurrence, Laurie D. Snyder, MD, Duke University, Durham, NC, USA
- **3:30 PM** CMV: Resistance Emerging, Robin K. Avery, MD, FIDSA, Johns Hopkins, Baltimore, MD, USA
- **3:55 PM** Panel Discussion of Challenging CMV Cases
### SYMPOSIUM 20

**The Cardio-Renal Syndrome: End of a Happy Marriage (511)**

**CHAIRS:** Michael M. Givertz, MD and Finn Gustafsson, MD, PhD, DMSci

**SESSION SUMMARY:** Heart and kidney functions are linked in an elegantly harmonized physiology. However, when one of the two starts failing, the function of the other is impaired, and often the therapeutic strategy to recover the function for one organ may be dangerous for the other. In this session, speakers will discuss pathophysiological mechanisms and provide clinical hints to save the marriage of the two organs, before and after transplant.

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<th>Time</th>
<th>Session Title</th>
<th>Presenter/Discussant</th>
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<tr>
<td>4:30 PM</td>
<td>The Cardio-Renal Syndrome Explained: Bench to Bedside Perspective</td>
<td>Jeffrey M. Testani, MD, MTR, Yale University, New Haven, CT, USA</td>
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<td>4:50 PM</td>
<td>Predicting and Facilitating Renal Recovery after Heart Transplantation</td>
<td>Marcelo Cantarovich, MD, FRCP, McGill University Health Center, Montréal, Québec, Canada</td>
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**Optimal Strategies**

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<tr>
<td>5:10 PM</td>
<td>Pharmacological Management of Heart Transplant Recipients with Kidney Insufficiency</td>
<td>Lars Gullesstad, MD, Oslo University Hospital, Rikshospitalet, Oslo, Norway</td>
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<td>5:30 PM</td>
<td>Combined or Staged Heart – Kidney Transplantation for Refractory Renal Dysfunction</td>
<td>Markus J. Barten, MD, PhD, University Leipzig, Heart Center, Leipzig, Saxonia, Germany</td>
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<td>5:50 PM</td>
<td>Case Presentation</td>
<td>Kiran K. Khush, MD, MAS, Stanford University School of Medicine, Palo Alto, CA, USA</td>
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<td>6:00 PM</td>
<td>Panel Discussion</td>
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### SYMPOSIUM 21

**Lung AMR: “How I Do It” A Multidisciplinary Case Based Discussion (510)**

**CHAIRS:** Allan R. Glanville, MBBS, MD, FRACP and Deborah J. Levine, MD

**SESSION SUMMARY:** Even with increased recognition and a progressively increasing literature base on single and multi-center experience, there is still a lack of consensus on our collective approach, diagnosis and treatment of pulmonary AMR. This will be a “How I do it” symposium which will include pulmonology, immunology and pathology. This will be an audience participation symposium: case presentations with audience participation and input from Pulmonary, Pathology and Immunology who will all comment on each case.

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<th>Time</th>
<th>Session Title</th>
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<tbody>
<tr>
<td>4:30 PM</td>
<td>Case Presentation 1: The Presensitized Patient</td>
<td>Glen P. Westall, MD, Alfred Hospital, Melbourne, Australia</td>
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<td>4:40 PM</td>
<td>Immunologist Discussant</td>
<td>Adriana Zeevi, PhD, University of Pittsburgh (UPMC), Pittsburgh, PA, USA</td>
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<td>4:50 PM</td>
<td>Pathologist Discussant</td>
<td>Desley A. H. Neil, FRCPath, Queen Elizabeth Hospital Birmingham (QEHB), Birmingham, United Kingdom</td>
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<td>Panel Discussion</td>
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<td>5:10 PM</td>
<td>CASE PRESENTATION 2: Stable Lung Transplant Recipient with +HLA</td>
<td>Ramsey R Hachem, MD, Washington University School of Medicine, St. Louis, MO, USA</td>
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<td>5:20 PM</td>
<td>Immunologist Discussant</td>
<td>Adriana Zeevi, PhD, UPMC, Pittsburgh, PA, USA</td>
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<td>5:30 PM</td>
<td>Pathologist Discussant</td>
<td>Desley A. H. Neil, FRCPath, QEHB, Birmingham, United Kingdom</td>
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<td>Panel Discussion</td>
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<td>5:50 PM</td>
<td>CASE PRESENTATION 3: +DSA with Lung Dysfunction</td>
<td>Deborah J. Levine, MD, University of Texas Health Science Center, San Antonio, TX, USA</td>
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<td>6:00 PM</td>
<td>Immunologist Discussant</td>
<td>Adriana Zeevi, PhD, UPMC, Pittsburgh, PA, USA</td>
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<td>Pathologist Discussant</td>
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4:30 PM – 6:30 PM

SYMPOSIUM 22

Motivational Interviewing: An Approach to Improving Outcomes in Transplantation (512A-G)

CHAIRS: Susan M. Chernenko, RN, MN, NP and Emily Stimpson, RN, BSN, CCT

SESSION SUMMARY: Motivational interviewing (MI) is a goal-directed, client-centered intervention to help patients increase intrinsic motivation and strengthen commitment for change. Despite many discussions about the causes and detection of non-adherence in patients undergoing heart or lung transplantation or mechanical circulatory support, clinicians continue to report limited success in impacting the cooperation of non-adherent patients. This session is designed to introduce the concept of MI as a potential approach to such situations. Presenters will describe the concept, the fundamental changes to our language with patients and case studies demonstrating the effectiveness of this treatment.

4:30 PM Following the Rules Seems So Obvious: Understanding Patients’ Motivation to Follow Post-Transplant/MCS Regimens, Fabienne Dobbels, PhD, University of Leuven, Belgium

4:50 PM Introduction to Motivational Interviewing: Talking “The Change” Means “Changing The Talk,” Nikole J. Cronk, PhD, University of Missouri School of Medicine, Columbia, MO, USA

5:10 PM Case Studies: Putting Motivational Interviewing Into Practice, Hilde Bollen, RN, UH Leuven, Leuven, Belgium

5:30 PM Preparing the Team for this New Communication Style: TRANSIT as an Exemplar, Nathalie Duerrinckx, MSN, KU Leuven, University Hospitals of Leuven, Leuven, Belgium

5:50 PM Motivational Interviewing: An Empirically Supported Intervention, Mary Amanda Dew, PhD, University of Pittsburgh School of Medicine & Medical Center, Pittsburgh, PA, USA

6:10 PM Panel Discussion

4:30 PM – 6:30 PM

SYMPOSIUM 23

Natural Immunity, Adaptive Response Infection and Immunosuppression: The Piñata Cocktail (513ABC)

CHAIRS: John P. Scott, MD and Martin R. Zamora, MD

SESSION SUMMARY: This session will bring bench to bedside by focusing on the responses to infections and microbial colonization in transplant recipients. The focus will be on innate immune function, their responses to microbes and their effects on graft function.

4:30 PM Natural and Adaptive Immunity, Javier Carbone, MD, PhD, Gregorio Marañon Hospital, Madrid, Spain

4:50 PM Discussion

4:54 PM Immune Reconstitution Inflammatory Response Syndrome, Martha L. Mooney, MD, FACP, Sentara Norfolk Transplant and Advanced Heart Failure Center, Eastern Virginia Medical School, Norfolk, Virginia, USA

5:14 PM Discussion

5:18 PM The Role of Fungal and Viral Infection and Colonization on Chronic Lung Allograft Dysfunction, Shahid Husain MD, MS, University Health Network, University of Toronto, Toronto, ON, Canada

4:30 PM – 6:30 PM

SYMPOSIUM 24

Unique Aspects of Heart Failure in Children: Physiology and Management (513DEF)

CHAIRS: Yuk M. Law, MD and Beth D. Kaufman, MD

SESSION SUMMARY: The pathophysiology and management of heart failure in children resemble those in adult heart failure patients. This symposium will discuss these similarities and highlight the unique aspects of heart failure in children.

4:30 PM Neurohormonal Changes, Ventricular Remodeling and Clinical Presentation: Similarities and Differences with Adults, Ulrich Schweigmann, MD, Medical University Hospital, Innsbruck, Austria

4:50 PM Medical Management: Are Children Small Adults?, Robert E. Shaddy, MD, The Children’s Hospital of Philadelphia, Philadelphia, PA USA

5:10 PM Medical Management of Children with Failed Fontan Physiology, Elfriede H. Schuette, MD, Lurie Children’s Hospital, Northwestern Feinberg School of Medicine, Chicago, IL, USA

5:30 PM Biomarkers in Pediatric Heart Failure, Robert G. Weintraub, MB BS FRACP FACC, Royal Children’s Hospital, Melbourne, Victoria, Australia

5:50 PM Cardiorenal Syndrome in Pediatric Heart Failure, Jack F. Price, MD, Baylor College of Medicine/Texas Children’s Hospital, Houston, TX, USA

6:10 PM Panel Discussion

6:30 PM – 7:30 PM

EXHIBIT HALL OPENING RECEPTION (517AB)

GENERAL POSTER SESSION 1 (516)

(SEE PAGE 190 FOR LISTING OF POSTER PRESENTATIONS)

JUNIOR FACULTY CLINICAL CASE REPORTS (516)

(SEE PAGE 237 FOR LISTING OF POSTER PRESENTATIONS)
### SUNRISE SYMPOSIUM 2

**Beyond Survival: Evaluating Lung Transplant Success Through Patient-Oriented Outcomes (514C)**

**CHAIRS:** Daniel F. Dilling, MD and Annette DeVito Dabbs PhD, RN

**SESSION SUMMARY:** Lung transplantation primarily aims to extend survival and improve quality of life (QOL). Despite its clinical primacy, however, QOL remains a poorly understood area of research hindering its integration into clinical care and counseling. This session will address QOL research in lung transplantation from the “bench to the bedside.” Content will include a primer on QOL instrument design and data interpretation, followed by a comprehensive review of state-of-the-art research in QOL, utility measures and interventions that can improve clinically relevant QOL outcomes in patients undergoing lung transplantation.

- **7:00 AM** *What is Quality of Life, Really? Understanding QOL Research Instruments and Outcomes*, Jonathan P. Singer, MD, UCSF Medical Center, San Francisco, CA, USA
- **7:10 AM** *Does Lung Transplantation Actually Improve Quality of Life?*, Lianne G. Singer, MD, FRCPC, University Health Network, University of Toronto, Toronto, ON, Canada
- **7:20 AM** *Utilities in Lung Transplant – Moving Beyond Survival to Calculate “Net-Transplant Benefit,”* Roger D. Yusen, MD, MPH, Washington University School of Medicine, St. Louis, MO, USA
- **7:30 AM** *Quality of Life in Pediatric Lung Transplantation,* Samantha J. Anthony, PhD MSW, The Hospital for Sick Children/McMaster University, Toronto, ON, Canada
- **7:40 AM** *Determinants of QOL in Lung Transplantation: Pulmonary and Extrapulmonary Factors,* Christiane Kugler, University Witten and Hannover Medical School, Hannover, Germany
- **7:50 AM** Panel Discussion
8:00 AM – 10:00 AM

OPENING PLENARY SESSION (517CD)

CHAIRS: Allan R. Glanville, MBBS, MD, FRACP and David O. Taylor, MD

8:00 AM Welcome/Program Chair Report,
Allan R. Glanville, MBBS, MD, FRACP, St. Vincent’s Hospital, Sydney, Australia

8:05 AM President’s Report,
David O. Taylor, MD, Cleveland Clinic, Cleveland, OH, USA

8:15 AM Thoracic Transplant Registry Report,
Josef Stehlik, MD, MPH, University of Utah School of Medicine, Salt Lake City, UT, USA

8:30 AM IMACS Registry Report,
James K. Kirklin, MD, University of Alabama at Birmingham, Birmingham, AL, USA

8:40 AM FEATURED ABSTRACT:
(2) Two-Year Outcomes in the Destination Therapy Post-FDA-Approval Study with a Continuous Flow Left Ventricular Assist Device: A Prospective Study Using the INTERMACS Registry; U.P. Jorde,1 S.S. Khushwaha,2 A.J. Tatooles,3 Y. Naka,1 G. Bhat,4 J.W. Long,4 D. Horstmannshof,3 R.L. Kormos,5 J.J. Teuteberg,6 M.S. Slaughter,6 E.J. Birks,6 D.J. Farrar,2 S.J. Park,2 Columbia University Medical Center, New York, NY; 2 Mayo Clinic, Rochester, MN; 3 Advocate Christ Medical Center, Oak Lawn, IL; 4 Integris Baptist Medical Center, Oklahoma City, OK; 5 University of Pittsburgh Medical Center, Pittsburgh, PA; 6 University of Louisville, Louisville, KY; Thoratec Corporation, Pleasanton, CA.

8:55 AM INVITED LECTURE:
The Human Microbiome: What Is It, How Do We Measure It, What Does It Mean for Thoracic Transplantation?, Ronald G. Collman, MD, University of Pennsylvania School of Medicine, Philadelphia, PA, USA

9:20 AM FEATURED ABSTRACT:
(3) Longitudinal Holistic Profiling of the Lung Transplant Microbiome; D. Willner,1 N.A. Ab-Ghani,1 S. Yerkovich,2 M.E. Tan,2 P.M. Hopkins,2 D.C. Chambers,2 P. Hugenholdt,1 Australian Centre for Ecogenomics, University of Queensland, St. Lucia, QLD, Australia; 2School of Medicine, University of Queensland, Herston, QLD, Australia; 3Queensland Lung Transplant Service, The Prince Charles Hospital, Brisbane, QLD, Australia

9:35 AM PIONEER LECTURE:
Cardiac Replacement, A Journey Outside the Box, Jack G. Copeland, MD, University of California San Diego, San Diego, CA, USA

10:00 AM – 10:30 AM

COFFEE BREAK / VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

10:00 AM – 4:00 PM

EXHIBIT HALL OPEN (517AB)

10:00 AM – 6:30 PM

POSTER HALL OPEN (516)

10:30 AM – 12:00 PM

CONCURRENT SESSION 1

MCS 1: VADS in the Real World – Clinical Outcomes (517CD)

CHAIRS: Francis D. Pagani, MD, PhD and George Javorsky, MBBS FRACP

10:30 AM (4) Hemocompatibility of a Fully Magnetically Levitated Centrifugal LVAD: Results from the DuraHeart Pivotal Trial; N. Moazami,1 F. Pagani,2 D. Feldman,3 Y. Naka,4 S. Bailey,5 M. Camacho,6 Thoracic & Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; 2University of Michigan, Ann Arbor, MI; 3Abbott Northwestern Hospital, Minneapolis, MN; 4Columbia University, New York, NY; 5Allegheny Hospital, Pittsburgh, PA; 6St. Barnabas Medical Center, Newark, NJ.

10:45 AM (5) Results of the Registry To Evaluate the HeartWare Left Ventricular Assist System (The REVOLVE Registry); M. Strueber,1 R. Larbalestier,2 P. Jansz,3 D. Zimpfer,4 A.E. Fiame,5 S. Tsui,6 A. Simon,7 K. Najarian,8 S. Shueller,9 HERZZENTRUM Leipzig GmbH, Leipzig, Germany; 2Royal Perth Hospital, Perth, Australia; 3St. Vincent’s Hospital, Sydney, Australia; 4Medical University Vienna, Vienna, Austria; 5Oslo University Medical Center, Oslo, Norway; 7Papworth Hospital, Cambridge, United Kingdom; 8Royal Brompton Hospital, London, United Kingdom; 9HeartWare, Inc., Framingham, MA; 2Freeman Hospital, Newcastle, United Kingdom.

11:00 AM (6) Japanese Experience of EVAHEART TM Left Ventricular Assist System; S. Saito,1 T. Nishinaka,1 Y. Ichihara,1 M. Komagamine,1 H. Tsukui,1 K. Yamazaki,1 J-MACS Investigators.2 Cardiovascular Surgery, Tokyo Women’s Medical University, Tokyo, Japan; 2J-MACS Investigators, Tokyo, Japan.

11:15 AM (7) Outcomes of Patients with Peripartum Cardiomyopathy Who Received Mechanical Circulatory Support: Data from the INTERMACS Registry; R. Loyaga-Rendon,1 S.V. Pamboukian,3 J.A. Tallaj,1 D. Acharya,1 R.C. Starling,2 J.K. Kirklin.1 1University of Alabama at Birmingham, Birmingham, AL; 2Cleveland Clinic, Cleveland, OH.

11:30 AM (8) Use of Genetic Testing for Targeted Anticoagulation in Patients on Long-Term Mechanical Circulatory Support; T.M. Dewey,1 M.A. Herbert,1 C.M. Worley,2 D.S. Savor,3 E.J. Eichhorn,1 B.S. Bowers,1 M.J. Magee.11 Medical City Dallas Hospital, Dallas, TX; 3Cardiopulmonary Research Science and Technology Institute, Dallas, TX.

11:45 AM (9) Multicenter Canadian Experience with the HeartWare HVAD; Y. Rao,1 J.F. Legare,2 R. MacArthur,3 J. Bashir,4 D. Freed,5 A. Cheung,5 R. Baskett,2 J. Mullen,3 I. Rebejka,3 T. Yau,1 R.J. Cusimano.1 1Toronto General Hospital, Toronto, ON, Canada; 2Dalhousie University, Halifax, NS, Canada; 3University of Alberta, Edmonton, AB, Canada; 4Vancouver General Hospital, Vancouver, BC, Canada.
10:30 AM – 12:00 PM

CONCURRENT SESSION 2

Heart 1: News from the Registries – What We Need To Learn To Achieve Long Long-Term (511)

**CHAIRS:** Adrian B. Van Bakel, MD, PhD and Mirta Diez, MD

**10:30 AM (10)** Impact of Recipient Age on Differential Causes of Heart Transplant Mortality. Is It Time To Personalize Post-Transplant Management?; O. Weyer-Pinzon,1 L.H. Lund,2 L.B. Edwards,3 D.O. Taylor,4 J.N. Nativi,5 S.G. Drakes,1 A.G. Kfoury,5 C.H. Selzman,1 J. Stehlik,1,2 UTAH Cardiac Transplant Program, University of Utah School of Medicine, Salt Lake City, UT;2 Karolinska University Hospital, Stockholm, Sweden;4 International Society for Heart and Lung Transplantation, Addison;3 Cleveland Clinic, Cleveland;1,2 UTAH Cardiac Transplant Program, Intermountain Medical Center, Salt Lake City, UT.

**10:45 AM (11)** Survival after Heart Retransplantation; M. Colvin-Adams,1,3 B. Heubner,1 M. Skeans,1 M. Hertz,1,2,3 Scientific Registry of Transplant Recipients, Minneapolis Medical Research Foundation, Minneapolis, MN;1 University of Minnesota, Minneapolis, MN.

**11:00 AM (12)** Outcomes after Orthotopic Heart and Heart-Lung Transplantation for Congenital Heart Disease in Australia and New Zealand; J. Hatzistergos,1,2 K. Dhital,1,2 D. Winlaw,3 1Heart Lung Transplant Unit, St Vincent’s Hospital, Darlinghurst, NSW, Australia;2 Faculty of Medicine, University of New South Wales, Kensington, NSW, Australia;3 Cardiothoracic Surgery, Westmead Children’s Hospital, Westmead, NSW, Australia.

**11:15 AM (13)** Heart Transplant Recipients with LVADS and Pulmonary Hypertension Do Not Benefit from “Oversized” Donor Hearts; B.A. Whitson, Y. Ravi, A. Kilic, A. Hasen, V. Franco, R.S.D. Higgins, C. Sai-Sudhakar. The Ohio State University Wexner Medical Center, Columbus, OH.

**11:30 AM (14)** Twenty Years Survivors after Heart Transplantation: La Pitié Experience; A. Galeone,1 S. Varnous,1 E. Barreda,1 F. Fernandez,1 E. Vaissier,2 A. Pavié,1 P. Leprince,1 M. Kirsch,1 1Department of Thoracic and Cardiovascular Surgery, Cardiology Institute, La Pitié-Salpêtrière Hospital, Paris, France;2 Department of Anesthesiology, Cardiology Institute, La Pitié-Salpêtrière Hospital, Paris, France.

**11:45 AM (15)** Influence of Race/Ethnic Differences in Pre-Transplant Panel Reactive Antibody on Outcomes in Heart Transplant Recipients; A.A. Morris,1 R.T. Cole,1 E. Veledar,2 A.L. Smith,1 J. Butler.1 Cardiology, Emory University School of Medicine, Atlanta, GA;2 Emory University School of Public Health, Atlanta, GA.

10:30 AM – 12:00 PM

CONCURRENT SESSION 3

Donor Management 1: Lung (510)

**CHAIRS:** Kumud Dhital, FRCS-CTh, PhD, FRACS and Christopher H. Wigfield, MD, FRCS (C/Th)

**10:30 AM (16)** Favorable Outcomes of Donation after Cardiac Death in Lung Transplantation: A Multicenter Study; M. Cypel,1 B. Lewvey,1 D. Van Raemdonck,2 M. Erasmus,4 R. Love,3 D. Mason,4 A. Galanville,1 J. Stehlik,2 M. Herz,2 B. Whitson,5

V. Puri,10 J. Dark,11 P. Hopkins,12 G. Snell,2 S. Keshavjee,1 University of Toronto, Toronto, Canada;2 Alfred Hospital, Melbourne, Australia;3 Leuven University, Leuven, Belgium;4 University Hospital Groenigen, Groenigen, Netherlands;5 Loyola University Medical Center, Chicago;6 Cleveland Clinic, Cleveland;7 St Vincent’s Hospital, Sydney, Australia;8 University of Utah, Salt Lake City;9 University of Minnesota, Minneapolis;10 Washington University, St. Louis,11 Freeman Hospital, Newcastle upon Tyne, United Kingdom;12 Queensland University, Brisbane, Australia.

**10:45 AM (17)** Donation after Circulatory Death Lung Activity in the UK – 100 Transplants and Counting; H.L. Thomas,1 R. Taylor,1 A.R. Simon,2 S.C. Clark,3 J. Dunning,4 N. Yovan,5 N.R. Banner,5 J.H. Dark,6 On Behalf of the Steering Group, UK Cardiothoracic Transplant Audit;7 NHS Blood and Transplant, Bristol, United Kingdom;8 Royal Brompton and Harefield NHS Foundation Trust, Harefield, United Kingdom;9 Freeman Hospital, Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle, United Kingdom;10 Papworth Hospital NHS Trust, Papworth Everard, United Kingdom;11 Wythenshawe Hospital NHS Trust, Manchester, United Kingdom;12 Newcastle University, Newcastle, United Kingdom.

**11:00 AM (18)** Mesenchymal Stem Cell Pretreatment of Non-Heart-Beating-Donors in Experimental Lung Transplantation – Initial Experience; T. Wittwer,1 P. Rahmanian,1 Y.H. Choi,1 M. Zeriouh,1 A. Sabashnikov,1 K. Neef,1 C. Muehlfeld,2 M. Ochs,2 T. Wahlers,1 Cardiothoracic Surgery, Heart Center, University Hospital of Cologne, Cologne, Germany;2 Institute of Functional and Applied Anatomy, Medical School Hannover, Hannover, Germany.

**11:15 AM (19)** The INSPIRE International Lung Trial with the Organ Care System Technology (OCS™); G. Warnecke,1 B. Weigmann,1 D. Van Raemdonck,1 G. Massard,3 N. Satelmo,1 P.-E. Falcoz,1 A. Olland,1 G. Leseche,1 H. Mal,1 P. Thomas,1 F. Rea,1 G. Marulli,5 C. Knosalla,1 R. Hetzer,1 A. Ardehali,8 J. Kukreja,9 C. Bermudez,10 F.J. Moradiellos,11 A. Varela,11 K. Dhital,12 J. Nagendran,13 K. McCurry,13 A. Haverich,13 Thoracic and Cardiovascular Surgery, Hannover Medical School, Hannover, Germany;1 University Hospital Leuven, Leuven, Belgium;2 Hospital of University of Strasbourg, Strasbourg, France;3 Hospital Bichat-Claude-Bernard, Paris, France;4 University Hospitals of Marseille, Marseille, France;5 University of Padova, Padova, Italy;6 German Heart Institute Berlin, Berlin, Germany;7 Ronald Reagan UCLA Medical Center, Los Angeles, CA;8 University of California San Francisco, San Francisco, CA;9 University of Pittsburgh Medical Center, Pittsburgh, PA;10 University Hospital Puerta de Hierro, Madrid, Spain;11 St. Vincent's Hospital, Sydney, Australia;12 University of Alberta Medical Center, Edmonton, Canada;13 Cleveland Clinic Foundation, Cleveland, OH.

**11:30 AM (20)** Three Center Experience with Clinical Normothermic Ex Vivo Lung Perfusion; M. Cypel,1 C. Aigner,2 E. Sage,3 T. Machuca,1 A. Slama,2 M. Stern,3 W. Klepetko,2 A. Chapelier,3 F. D’ovido,1 M.J. Weyan,4 P.C. Camp,3 E. Cantu III,6 B.P. Griffith.1 1Cardiac Surgery, University of Pennsylvania, Philadelphia, PA;2 Thoracic Surgery, Brigham and Women's Hospital, Boston, MA;3 Cardiac Surgery, University of Pittsburgh Medical Center, Pittsburgh, PA;4 Surgery, University of Colorado, Aurora, CO;5 Thoracic Surgery, University of Toronto, Toronto, Canada;6 Surgery, University of California San Francisco, San Francisco, CA;7 Heart Lung Transplant Unit, St Vincent’s Hospital, Darlinghurst, NSW, Australia;8 Faculty of Medicine, University of New South Wales, Kensington, NSW, Australia;9 Cardiothoracic Surgery, Westmead Children’s Hospital, Westmead, NSW, Australia.
CONCURRENT SESSION 4

PH 1: All About Outcomes (512A-G)

CHAIRS: Robert J. Moraca, MD and Teresa De Marco, MD

10:30 AM (22) PROSPECT Patient Subgroups and Etiologies: Predictors of Outcomes; R.O. Schilz,1 D.B. Badesch,2 R.J. Barst,3 M. Chakinala,4 R.P. Frantz,3 D.P. Miller,6 B.K. Hartline,7 W.W. Benton,7 V.V. McLaughlin,4 H.W. Farber,3 University Hospitals of Cleveland, Cleveland, OH; 2University of Colorado Denver, Aurora, CO; 3Columbia University College of Physicians and Surgeons, New York, NY; 4Washington University School of Medicine, St. Louis, MO; 5Mayo Clinic, Rochester, MN; 6ICON Late Phase & Outcomes Research, San Francisco, CA; 7Astellon Pharmaceuticals US, Inc., South San Francisco, CA; 8University of Michigan Health System, Ann Arbor, MI; 9Boston University School of Medicine, Boston, MA.

10:45 AM (23) REVEAL Model Simplified: Performance of the REVEAL Pulmonary Arterial Hypertension Prediction Model Using Non Invasive and Routinely Measured Parameters; R.J. Cogswell,2,4 1,2 M.R. Pritzker,1 T. De Marco.2 1Medicine-Division of Cardiology, University of Minnesota, Minneapolis, MN; 2Medicine-Division of Cardiology, University of California, San Francisco, San Francisco, CA.

11:00 AM (24) Mode of Death in Patients with Pulmonary Arterial Hypertension: C.D. Vizza,1 B. Pezzuto,1 R. Badagliacca,1 R. Ponticelli,1 M. Mezzapesa,1 M. Nocioni,1 M. D’Alto,2 S. Ghio,3 P. Vitulo,4 M. Mulè,1 C. Albera,6 F. Fedele.1 1Department of Cardiovascular and Respiratory Disease, Sapienza University of Rome, Rome, Italy; 2Department of Cardiology, GUCH Unit, Monaldi Hospital, Second University of Naples, Naples, Italy; 3Department of Cardiology, IRCCS San Matteo Hospital, Pavia, Italy; 4Pneumology Unit, Mediterranean Institute and Advanced Specialized Therapies (ISMETT), Palermo, Italy; 5Division of Cardiology, Ferrarotto Hospital, University of Catania, Catania, Italy; 6Department of Clinical and Biological Sciences, Interstitial and Rare Diseases Unit, University of Turin, Turin, Italy.

11:15 AM (25) Successful Extracorporeal Membrane Oxygenation Support Following Pulmonary Endarterectomy; M. Berman,1 S. Tsui,1 A. Vuytssteke,4 J. Dunning,1 J. Fowles,2 C. Ng,1 K. Valchanov,2 S. Webb,2 F. Falter,2 N. Jones,4 C. Treacy,2 D. Jenkins.1 1Cardiothoracic Surgery, Papworth Hospital, Cambridge, United Kingdom; 2Anesthesia and Intensive Care, Papworth Hospital, Cambridge, United Kingdom.

11:30 AM (26) Osteopontin Lung Expression Is a Marker of Disease Severity in Pulmonary Arterial Hypertension; M. Mura,1 Y. Zhao,3 S. Azad,2 Z. Yun,3 S. Mak,1 J. Parker,1 L.G. Singer,1 S. Keshavjee,4 M. de Perrot,1 J.T. Granton.1 1Pulmonary Hypertension Program, University of Toronto, Toronto, Canada; 2Lung Transplant Program, University of Toronto, Toronto, Canada; 3Latner Thoracic Surgery Research Laboratories, University of Toronto, Toronto, Canada.

11:45 AM (27) Pulmonary Hypertension in End-Stage Pulmonary Fibrosis: Prevalence, Predictors and Survival Before and After Lung Transplantation; L. Bjurstöm, K.H. Andersen, J. Kjærgaard, M.P. Iversen, S. Boesgaard, J. Carlsen. Cardiology, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark.
**10:30 AM – 12:00 PM**

**CONCURRENT SESSION 6**

**Heart 2: Heart Failure – Focus on the Right Heart (513DEF)**

**CHAIRS:** Sean P. Pinney, MD and Miriam S. Jacob, MD


10:45 AM (35) Prevalence and Clinical Correlates of Right Ventricular Dysfunction in Patients with Hypertrophic Cardiomyopathy; G. Finocchiaro, A. Pavlovic, N. Sudini, G. Sinagra, P. Haddad, E. Ashley, Stanford University School of Medicine, Department of Medicine, Division of Cardiovascular Medicine, Palo Alto; Cardiovascular Department, Ospedali Riuniti and University of Trieste, Trieste, Italy.

11:00 AM (36) Hemodynamic Benefits of Chronic Sildenafil Therapy in Advanced Heart Failure (HF): A Multi-Center Experience; J. Sassier, F.P. Mongeon, N. Piriou, M. Carrier, J.P. Guelfett, M. White, J.N. Trochu, A. Ducharme, Medicine, CHU Nantes, Nantes, France; Surgery, Montréal Heart Institute, Montréal, QC, Canada; Medicine, Montréal Heart Institute, Montréal, QC, Canada.

11:15 AM (37) Right Atrial to Pulmonary Capillary Wedge Pressure Ratio Is Not Associated with Failure of Optimal Medical Management in the INTERMACS 4-5 Population; J.N. Menachem, G.M. Felker, C.B. Patel. Internal Medicine, Duke University Medical Center, Durham, NC; Division of Cardiovascular Medicine, Duke University Medical Center, Durham, NC; Duke Clinical Research Institute, Duke University Medical Center, Durham, NC.

11:30 AM (38) Clinical Characteristics and Outcomes in Patients with Mismatched Filling Pressures in Advanced Heart Failure: Looking beyond the JVP; C. Patel, M. Daneshmand, G.C. Stewart, M.M. Kittleson, J. Cowger, E. Rame, M. Mountis, F. Johnson, P. Patel, M. Guglin, J.J. Teuteberg, M. Drazner, J. Rogers. Duke University, Durham, NC; Brigham and Women’s Hospital, Boston, MA; Cedars-Sinai Hospital, Beverly Hills, CA; University of Michigan, Ann Arbor, MI; University of Pennsylvania, Philadelphia, PA; Cleveland Clinic, Cleveland, OH; University of Iowa, Iowa City, IA; University of Texas Southwestern, Dallas, TX; University of South Florida, Tampa, FL; University of Pittsburgh, Pittsburgh, PA.

11:45 AM (39) Outcomes of Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) Post Heart Transplant (HT); E.C. DePasquale, R.K. Cheng, A. Baas, M. Cadeiras, D. Cruz, T. Khoo, A. Nsair, M. Deng, D.L. Jacoby. Division of Cardiology, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA; Division of Cardiology, Yale University School of Medicine, New Haven, CT.

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**2:00 PM – 3:30 PM**

**CONCURRENT SESSION 7**

**MCS 2: How to Bridge Over Troubled Waters (517CD)**

**CHAIRS:** George M. Wiesenthaler, MD and Ivan Netuka, MD, PhD

2:00 PM (40) Mortality Differences after Heart Transplantation in Patients Bridged with Balloon Pumps vs. Left Ventricular Assist Devices; A.W. Castleberry, C.B. Patel, A.D. DeVore, K. Southerland, J.G. Rogers, C.A. Milano, Division of General Surgery, Duke University Medical Center, Durham, NC; Division of Cardiology, Duke University Medical Center, Durham, NC; Division of Thoracic and Cardiovascular Surgery, Duke University Medical Center, Durham, NC.

2:15 PM (41) Hospital Readmission in Left Ventricular Assist Device (LVAD) Patients Compared to Patients Receiving Intra-aortic Inotropic Therapy; J. Whittier, P. Pirlamarla, J. Patel, S. Feitell, E. Gongora, T. Rowe, S. Hankins, H.J. Eisen. Division of Cardiology/Department of Medicine, Drexel University College of Medicine, Philadelphia, PA; Center for Advanced Heart Failure Care, Hahnemann University Hospital, Philadelphia, PA.

2:30 PM (42) Institutional Volume of Heart Transplantation with Left Ventricular Assist Device Explanation Influences Graft Survival; S. Maltais, N.A. Haglund, I.D. Feurer, M.A. Wigger, T.G. DiSalvo, K.H. Schleendorf, R.M. Ahmad, D.J. Lenihan, M. Stulak, M.E. Keebler, Cardiothoracic Surgery, Vanderbilt University Medical Center, Nashville, TN; Cardiothoracic Surgery, Vanderbilt University Medical Center, Nashville, TN; Cardiothoracic Surgery, Mayo Clinic, Rochester, MN.

2:45 PM (43) Impact of Demographic and On-Pump Factors on Post-Transplant Survival Following Support with the HVAD System; R. John, K.D. Aaronson, F.D. Pagani, D.R. Hathaway, K.H. Schleendorf, R.M. Ahmad, J. Southerland, M. Cadeiras, T. Brett, C.A. Milano, Division of Cardiothoracic Surgery, University of Minnesota, Minneapolis, MN; University of Michigan, Ann Arbor, MI; HeartWare, Inc., Framingham, MA; University of Louisville, Louisville, KY.

3:00 PM (44) Age and Era-Based Survival Differences in Thoracic Transplantation Patients Who Require ECMO; S. Law, T. Bogan, Y. Law, M. McMullan. Seattle Children’s Hospital, Seattle.

3:15 PM (45) Implantable Cardiomyoplastics Do Not Reduce Mortality in Patients with the HeartMate II Left Ventricular Assist Device; A. Enriguez, B. Calenda, A. Anyanwu, S. Pinney. Mount Sinai Medical Center, New York, NY.
2:00 PM – 3:30 PM

CONCURRENT SESSION 8

Heart 3: Coronary Artery Vasculopathy in 2013 – Diagnosis, Prognosis and Treatment (511)

CHAIRS: Mazen A. Hanna, MD and Javier Segovia, MD

2:00 PM (46) Change in Maximum Intimal Thickness with Everolimus-Based Immunosuppression after Heart Transplantation in Patients at Increased Risk of Cardiac Allograft Vasculopathy; J. Kobashigawa,1 R. Starling,2 G. Dong,3 P. Lopez,4 H.J. Eisen,5 1Cedars-Sinai Heart Institute, Los Angeles, CA; 2Kaufman Center for Heart Failure, Heart & Vascular Institute, Cleveland Clinic Foundation, Cleveland, OH; 3Division of Cardiology, Drexel University College of Medicine/Hahnemann University Hospital, Philadelphia, PA; 4Novartis Pharmaceuticals, East Hanover, NJ; 5Novartis Pharma AG, Basel, Switzerland.

2:15 PM (47) Incidence of Allograft Vasculopathy in the TICTAC Trial as Compared to a Real World Cohort; D.A. Baran, J. Pieretti, C.G. Gidea, J.A. Weiss, C.Y. Guerrero-Miranda, H. Vefali, V. Costa, M. Camacho, M.J. Zucker. Heart Failure and Transplant Program, Newark Beth Israel Medical Center, Newark, NJ.

2:30 PM (48) Cardiovascular Events with De Novo Use of Everolimus in Heart Transplant Recipients: 24-Month Analysis of the A2310 Study; L. Potena,1 U. Schultz,2 C. Bara,3 J.M. Arizon,4 G. Dong,5 P. Lopez,6 E. Epailly,7 1Cardiovascular Department, University of Bologna, Bologna, Italy; 2Herz- u Diabeteszentrum NRW/Ruhr-Universität Bochum, Bad Oeynhausen, Germany; 3Klinikum der Medizinischen Hochschule, Hannover, Germany; 4Hospital Universitario Reina Sofia, Córdoba, Spain; 5Novartis Pharmaceuticals, East Hanover, NJ; 6Novartis Pharma AG, Basel, Switzerland; 7CHU de Strasbourg Hopital Civile, Strasbourg, France.

2:45 PM (49) Coronary Collaterals Predict Improved Survival and Allograft Function in Patients with Coronary Allograft Vasculopathy; K.J. Lavine, M. Sintek, E. Novak, G. Ewald, E. Geltman, S. Joseph, D. Mann. Internal Medicine, Division of Cardiology, Washington University School of Medicine, St Louis, MO.

3:00 PM (50) Novel Model To Assess Prognosis of Transplant Vasculopathy Following Cardiac Transplantation; N.E. Hiemann,1 E. Wellnhofer,2 C. Christian,1 S. Kretschmer,1 R. Meyer,1 H. Valantine,3 R. Hetzer,1 K.K. Khush,1 Cardiothoracic and Vascular Surgery, Deutsches Herzzentrum Berlin, Berlin, Germany; 2Cardiology, Deutsches Herzzentrum Berlin, Berlin, Germany; 3Cardiovascular Research, Stanford University School of Medicine, Stanford, CA.

3:15 PM (51) High Intensity Interval Training Reduces Progression of Cardiac Allograft Vasculopathy among Heart Transplant Recipients – Results from a Randomized Controlled Trial; K. Nygren,1 R. Lene Annette,1 E. Ingrid,1 A. Pål,2,4 U. Thor,2,4 L. Tove,2,4 G. Einar,1 W.E. Nils,1 H. Anders,2 A. Svend,1 G. Lars,1,4 A. Satish,1 1Department of Cardiology, Oslo University Hospital, Rikshospitalet, Oslo, Norway; 2Research Institute for Internal Medicine, Oslo University Hospital, Rikshospitalet, Oslo, Norway; 3Department of Circulation and Medical Imaging, Norwegian University of Science and Technology, Trondheim, Norway; 4Faculty of Medicine, University of Oslo, Oslo, Norway.

2:00 PM – 3:30 PM

CONCURRENT SESSION 9

Lung 1: Transplantation - Bench to Bedside (510)

CHAIRS: Sangeeta M. Bhorade, MD and Michael Mulligan, MD

2:00 PM (52) Identiﬁcation Biofilm Forming Strains of Pseudomonas aeruginosa Occur in Lung Allograft BAL and Gastric Juice From CF Patients with Gastro Oesophageal Reﬂux; A. Krishnan,2 A. Perry,1 A. Robertson,1 M. Brodlie,1 J. Perry,2 P. Corris,2 M. Griffin,3 K. Gould,4 I. Forrest,1 J. Pearson,1 C. Ward,2 Freeman Hospital, Newcastle upon Tyne, Tyne and Wear, United Kingdom; 2University of Newcastle, Newcastle upon Tyne, United Kingdom; 3Royal Victoria Infirmary, Newcastle upon Tyne, United Kingdom.

2:15 PM (53) Anti-Fibrotic Effect of Combined mTORc1 and mTORc2 Inhibition in Bronchiolitis Obliterans; N. Walker, M. Mary, B. Linda, W. Anish, S. Linda, C. Kevin, L. Jules, L. Vibha. Pulmonary and Critical Care, Pharmacology, and Surgery, University of Michigan, Ann Arbor, MI.

2:30 PM (54) Catenin Activation in Bronchiolitis Obliterans Syndrome; B. Linda, L.N. Vibha. Pulmonary and Critical Care, University of Michigan, Ann Arbor, MI.


3:00 PM (56) Plasma PAI-1 Used as a Quantitative Trait Implicates the Innate Immune Regulator TOLLIP in Post Lung Transplant Primary Graft Dysfunction Risk; E. Cantu,1 Y. Suzuki,1 J.M. Diamond,2 R.J. Shah,2 J.D. Flesch,2 N.J. Meyer,2 D.J. Lederer,3 S.M. Kawut,2,4 J.C. Lee,2 S.M. Palmer,5 V.N. Lama,2 S.M. Bhorade,3 M.M. Crespo,5 E. Demissie,2,4 K.M. Wille,10 J.B. Orens,11 P.D. Shah,11 A. Weinacker,12 D. Weill,12 S.M. Acrasoy,13 D.S. Wilkes,13 L.B. Ware,13 R. Feng,4 J.D. Christie.4,2 Surgery, Cardiovascular Surgery, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 2Medicine, Pulmonary, Allergy, and Critical Care, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 3Medicine, Pulmonary, Allergy, and Critical Care Medicine, Columbia University College of Physicians and Surgeons, New York, NY; 4Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 5Penn Cardiovascular Institute, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 6Medicine, Pulmonary, Allergy, and Critical Care Medicine, Duke University, Raleigh-Durham, NC; 7Medicine, Pulmonary, Allergy, and Critical Care Medicine, University of Michigan, Ann Arbor, MI; 8Medicine, Pulmonary, Allergy, and Critical Care Medicine, University of Chicago, Chicago, IL; 9Medicine, Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA; 10Medicine, Pulmonary, Allergy, and Critical Care Medicine, University of Alabama at Birmingham, Birmingham, AL; 11Medicine, Pulmonary, Allergy, and Critical Care Medicine, Johns Hopkins University Hospital, Baltimore, MD; 12Medicine, Pulmonary, Allergy, and Critical Care Medicine, Stanford University, Palo Alto, CA; 13Medicine, Pulmonary, Allergy, and Critical Care, and Occupational Medicine, Indiana University School of Medicine, Indianapolis, IN; 14Medicine and Pathology, Microbiology and Immunology, Vanderbilt University, Nashville, TN.
### 2:00 PM – 3:30 PM

#### CONCURRENT SESSION 10

**MCS 3: Pump and Patient Crosstalk (512A-G)**

**CHAIRS:** O. H. Frazier, MD and Peter Eckman, MD

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<td>2:00 PM</td>
<td>(58) <em>Has the Incidence of Pump Thrombosis and Stroke in Patients with a HeartMate II Increased over Time?</em>; A.D. Nappal, K.J. Hoercher, M.Z. Tong, D. Kalavrouziotis, S. Lee, N. Moazami, Cardiothoracic Surgery, Cleveland Clinic Foundation, Cleveland, OH; *Heart Failure and Transplant Unit, St. Vincent's Hospital, Sydney, NSW, Australia; *Faculty of Medicine, University of New South Wales, Sydney, NSW, Australia; *Graduate School of Biomedical Engineering, University of New South Wales, Sydney, NSW, Australia.</td>
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<td>2:15 PM</td>
<td>(59) <em>The Value of Pump Audiosignals in Patients with Left Ventricular Assist Devices</em>; P. Markey, P.K. Dhital, S. Gupta, K. Woldendorp, D. Robson, C. Hayward, N. Lovell, Heart Failure and Transplant Unit, St. Vincent's Hospital, Sydney, NSW, Australia; *Cardiology, Cleveland Clinic Foundation, Cleveland, OH.</td>
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<td>2:30 PM</td>
<td>(60) <em>Effect of Blood Pressure (BP) Control in Continuous Flow Left Ventricular Assist Devices (CF-LVAD) on Aortic Insufficiency (AI) and Neurologic Events</em>; B.C. Lampert, M.A. Shullo, N. Kunz, K. Lockard, C. Allen, J. Bhama, C. Bermudez, R. Kormos, J. J. Teuteberg, Heart and Vascular Institute, University of Pittsburgh, Pittsburgh, PA; *Pharmacy and Therapeutics, University of Pittsburgh, Pittsburgh, PA.</td>
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<td>2:45 PM</td>
<td>(61) <em>Late Right Heart Failure after Left Ventricular Assist Device Implantation: Clinical Predictors and Outcomes</em>; S. Saxena, J. Um, D. Dumitru, S. Pilmaier, T. Ryan, S. Yannone, M. Moulton, B. Lowes, E. Raichlin, Cardiology, University of Nebraska Medical Center, Omaha, NE; *Surgery-Cardiovascular &amp; Thoracic Surgery, University of Nebraska Medical Center, Omaha, NE.</td>
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### 2:00 PM – 3:30 PM

#### CONCURRENT SESSION 11

**Philip K. Caves Award Candidate Presentations (513ABC)**

**CHAIRS:** R. Duane Davis, MD, MBA and Hermann C. Reichenspurner, MD

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<th>Time</th>
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<td>2:00 PM</td>
<td>(64) <em>Association of Prior Implantation of HeartMate II Left Ventricular Assistive Device with Post-Heart Transplant Mortality</em>; M.M. Donneyong, J.R. Trivedi, M.L. Williams, R. Singh, K.C. McCants, E.J. Birks, M.S. Slaughter, Division of Thoracic and Cardiac Surgery, University of Louisville, Louisville, KY; *Division of Cardiovascular Medicine, University of Louisville, Louisville, KY.</td>
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<td>2:15 PM</td>
<td>(65) <em>Intracoronary Treatment with VEGF-C/D Inhibitor Enhances Cardiac Allograft Survival and Prevents Chronic Rejection by Regulating Lymphatic Endothelial Cell Activation</em>; A. Dashkevich, S.O. Syrjälä, M.A. Keränen, R. Tuunimäki, R. Krebs, A.I. Nykänen, K. Alitalo, K.B. Lemström, Transplantation Laboratory, Haartman Institute, University of Helsinki, Helsinki, Finland; *Department of Cardiothoracic Surgery, Helsinki University Hospital, Helsinki, Finland; *Molecular Cancer Biology Program, Institute for Molecular Medicine Finland, Biomedical Helsinki, University of Helsinki, Helsinki, Finland.</td>
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<td>2:30 PM</td>
<td>(66) <em>Functional Association between a Genetic Variant in the IL-17 Receptor Gene and Chronic Rejection after Lung Transplantation</em>; D. Ruttens, E. Wauters, M. Kicinski, S.E. Verleden, A. Vaneylen, E. Vandermeulen, R. Vos, D.E. Van Raemdonck, T.S. Nawrot, D. Lambrechts, G.M. Verleden, B. Vanaudenaerde, Lab of Pneumology, Lung Transplant Unit, KUL, University Hospital Gasthuisberg, Leuven, Belgium; *Vesalius Research Centrum, University Hospital Gasthuisberg, Leuven, Belgium; *Centre for Environmental Sciences, Hasselt University, Diepenbeek, Belgium; *Department of Public Health, KULeuven, Leuven, Belgium.</td>
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<td>2:45 PM</td>
<td>(67) <em>Circulating Mitochondrial DNA Is Elevated in Patients with Immediate Primary Graft Dysfunction</em>; M. Ibrahim, H. Strah, Y. Huang, A. Krupnick, D. Kreisel, R. Hachem, E. Trulock, A. Alouch, A. Gelman, Surgery, Washington University at St. Louis, St. Louis, MO; *Medicine, Washington University at St. Louis, St. Louis, MO; *Thoracic Surgery, Sapienza University of Rome, Rome, RM, Italy.</td>
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<td>3:00 PM</td>
<td>(68) <em>Late Changes in Maximal Intimal Thickness after Heart Transplant: Prognostic Implications and Risk Factors</em>; M. Masetti, L. Potena, V. Pece, P. Prestinzeni, I.G. Bianchi, C. Lonetti, N. Taglieri, A. Russo, G. Magnani, F. Grigioni, A. Branzi, Cardiovascular Department, University of Bologna, Bologna, Italy.</td>
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<td>3:15 PM</td>
<td>(69) <em>Longitudinal Study of Pulmonary Microbial Dynamics in Lung Transplant Recipients with and without Bronchiolitis Obliterans Syndrome</em>; V. Poroyko, E. Semenyuk, Z. Xu, A. Sperling, A. Chong, M.L. Alegre, E. Garrity, S. Bhorade, Medicine, University of Chicago Medicine, Chicago, IL; *Microbiology and Immunology, Loyola University Health System, Maywood, IL.</td>
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2:00 PM – 3:30 PM

CONCURRENT SESSION 12

PEDS 1: Heart Failure and Transplantation (513DEF)

CHAIRS: Melanie D. Everitt, MD and Debra A. Dodd, MD

2:00 PM (70) Circulating microRNA: Prognostic Biomarker for Pediatric Heart Failure; S.D. Miyamoto,1 V. Peterson,2 B. Freed,3 L. Cagle,3 B.L. Stauffer,2 C.C. Sucharow,2 Pediatrics/Cardiology, University of Colorado Denver, Aurora, CO; Medicine/Cardiology, University of Colorado Denver, Aurora, CO; Allergy and Immunology, University of Colorado Denver, Aurora, CO.

2:15 PM (71) Are Smaller Children Waiting Longer? Trends in Median Waiting Time for Smaller Children Listed for Heart Transplant in the US; C.S. Almond,1 L.B. Smoot,1 C. VanderPluym,1 T.P. Singh,1 E.D. Blume,1 D. Rosenthal,2 H. Bastardi,1 S. Dillis,1 K.P. Daly,1 Cardiology, Boston Children’s Hospital, Boston, MA; Cardiology, Stanford University/Lucile Packard Children’s Hospital, Palo Alto, CA.

2:30 PM (72) Elevated Pre-Transplant Pulmonary Vascular Resistance Is Not Associated with Mortality in Children without Congenital Heart Disease: A Multi-Center Study; M.E. Richmond,1 Y.M. Law,1 B. Das,2 M.D. Everitt,3 M. Kukreja,3 D.C. Naftel,5 M. Kemna,5 H. Henderson,7 K. Beddows,1 F.J. Fricker,1 W. Mahle,6 Division of Pediatric Cardiology, Columbia University College of Physicians and Surgeons, New York, NY; Division of Cardiology, Children’s Medical Center, UT Southwestern Medical Center, Dallas, TX; Division of Cardiology, Primary Children’s Medical Center, Salt Lake City, UT; Division of Pediatric Cardiology, University of Florida, Gainesville, FL; Cardiothoracic Surgery, University of Alabama at Birmingham, Birmingham, AL; Seattle Children’s Hospital, Seattle, WA; Division of Pediatric Cardiology, Duke University School of Medicine, Durham, NC; Emory University School of Medicine, Atlanta, GA.

2:45 PM (73) ECMO at Heart Transplant Listing: Has Waitlist Survival Improved in the Era of Pediatric VAD Support?; C.S. Almond,1 T.P. Singh,1 K.P. Daly,1 C. VanderPluym,1 L.B. Smoot,1 E. Kehoe,1 D. Rosenthal,2 Cardiology, Boston Children’s Hospital, Boston, MA; Cardiology, Stanford University/Lucile Packard Children’s Hospital, Palo Alto, CA.

3:00 PM (74) Liver Cirrhosis in Fontan Patients Does Not Affect One Year Post-Heart Transplant Mortality or Markers of Liver Function; K.E. Simpson, A. Esmaeili, G. Khanna, F.V. White, Y. Turmelle, C.E. Canter, Washington University Saint Louis School of Medicine, Saint Louis, MO.

3:15 PM (75) Maintenance Steroid Use and Outcomes of Pediatric Heart Transplantation: A Propensity Matched Analysis of the Pediatric Heart Transplant Study (PHTS) Database; S.R. Auerbach,1 M. Kukreja,2 D. Gilbert,1 H. Bastardi,1 B. Feingold,3 K. Knecht,4 B.D. Kaufman,5 R.N. Brown,2 S.D. Miyamoto,1 Pediatrics, Division of Cardiology, University of Colorado School of Medicine, Aurora, CO; Division of Cardiothoracic Surgery, University of Alabama at Birmingham, Birmingham, AL; Pediatric Cardiology, Boston Children’s Hospital, Boston, MA; Pediatric Cardiology, Children’s Hospital, Pittsburgh, PA; Pediatrics, University of Arkansas for Medical Sciences, Arkansas Children’s Hospital, Little Rock, AR; Pediatric Cardiology, The Children’s Hospital of Philadelphia/University of Pennsylvania, Philadelphia, PA.

3:30 PM – 4:00 PM

COFFEE BREAK / VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

4:00 PM – 5:30 PM

CONCURRENT SESSION 13

MCS 4: VAD Clots - Beyond LDH (517CD)

CHAIRS: Ullrich P. Jorde, MD and Stephen H. McKellar, MD, MSc

4:00 PM (76) Hemolysis in Patients Supported with Durable, Long-Term Left Ventricular Assist Device Therapy; J.N. Katz,1 B.C. Jensen,1 P.P. Chang,1 W.E. Stansfield,1 H. Alhousaini,2 S.L. Myers,3 F.D. Pagani,4 J.K. Kirklin,3 University of North Carolina at Chapel Hill, Chapel Hill, NC; East Carolina University, Greenville, NC; University of Alabama at Birmingham, Birmingham, AL; University of Michigan, Ann Arbor, MI.

4:15 PM (77) Lactate Dehydrogenase Is Superior to Serum Free Hemoglobin as a Marker of Pump Thrombosis in Left Ventricular Assist Devices; B. Shah,1 V.M. Mehta,2 J.A. Cowger,1 J.W. Haft,3 M.A. Romano,3 K.D. Aaronson,3 F.D. Pagani,3 Division of Cardiology, University of Michigan, Ann Arbor, MI; College of Literature, Arts and Science, University of Michigan, Ann Arbor, MI; Department of Cardiac Surgery, University of Michigan, Ann Arbor, MI.

4:30 PM (78) HeartMate II Explants Due to Hemolysis Show Acute on Chronic Laminar Fibrin Layering at Stators; S.M. Prasad,1 A. Itoh,1 S.M. Joseph,2 G.A. Ewald,3 S.C. Silvestry,2 Cardiothoracic Surgery, Washington University, St. Louis, MO; Cardiology, Washington University, St. Louis, MO.

4:45 PM (79) A Novel Link between G6PD Deficiency and Hemolysis Events in Patients Supported with Continuous-Flow Left Ventricular Assist Devices; H. Alhousaini,1 J.N. Katz,2 B.C. Jensen,2 W. Stansfield,2 B.C. Sheridan,3 P.P. Chang,2 Department of Cardiovascular Sciences, East Carolina Heart Institute, Greenville, NC; Department of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC; Department of Surgery, University of North Carolina at Chapel Hill, Chapel Hill, NC.

5:00 PM (80) Comparing Survival of HMII Patients with Elevated LDH: Implications for Medical and Surgical Management; C.C. Ballew,1 E.M. Benton,1 D.S. Groves,2 J.L.W. Kennedy,1 G. Ailawadi,1 J.A. Kern,1 J.D. Bergin,1 Heart Center, University of Virginia Health System, Charlottesville, VA; Anesthesiology, University of Virginia Health System, Charlottesville.

5:15 PM (81) Early Elevation in Pump Power with the HeartMate II Left Ventricular Assist Device Does Not Predict Late Adverse Events; C. Salerno,1 K.S. Sundareswaran,2 T.P. Schleeter,1 S.L. Moanie,1 D.J. Farrar,2 M.N. Walsh,1 St.Vincent Heart Center of Indiana, Indianapolis, IN; Research and Scientific Affairs, Thoratec Corporation, Pleasanton, CA.
CONCURRENT SESSION 14

Heart 4: Living with a Transplanted Heart – A Narrow Pathway in the Jungle (511)
CHAIRS: Hannah A. Valantine, MD, MRCP, FACC and Francisco Gonzalez-Vilchez, MD, PhD


4:30 PM (84) You Are What You Eat: Impact of Early Metabolic Syndrome on Long-Term Outcome after Heart Transplantation; M. Grommer, J. Linz, A.Z. Aliabadi, D. Dunkler, D. Wiedemann, G. Laufer, A.O. Zuckermann. Cardiac Surgery, Medical University of Vienna, Vienna, Austria.

4:45 PM (85) Incidence of Malignancy on Tacrolimus Monotherapy Versus Combination Therapy: A Report from the TICTAC Trial; D.A. Baran, H. Vefali, V. Costa, C.Y. Guerrero-Miranda, J.A. Weiss, J. Pieretti, C.G. Gidea, M. Camacho, M.J. Zucker. 1Transplant Center, Newark Beth Israel Medical Center, Newark, NJ; 2Transplant Center, Newark Beth Israel Medical Center, Newark, NJ; 3Transplant Center, Newark Beth Israel Medical Center, Newark, NJ.


CONCURRENT SESSION 15

Lung 2: Primary Graft Dysfunction (510)
CHAIRS: James C. Lee, MD, Keith M. Wille, MD and Gregory I. Snell, MD

4:00 PM (88) Lung Size Mismatch and Primary Graft Dysfunction after Bilateral Lung Transplantation; M. Eberlein, R.M. Reed, S. Bolukbas, J.B. Orens, R.G. Brower, C.A. Merlo, L.B. Ware, K.M. Wille, A. Weinacker, R. Shah, J. Diamond, S.M. Kawut, J.D. Christie. University of Iowa Hospitals and Clinics, Iowa City; 2University of Maryland, Baltimore; 3HSK, Wiesbaden, Germany; 4Johns Hopkins University, Baltimore; 5Vanderbilt University, Nashville; 6University of Alabama, Birmingham; 7Stanford Hospital and Clinics, Stanford; 8University of Pennsylvania, Philadelphia.


4:30 PM (90) Gene Set Enrichment Analysis of Bronchial Alveolar Lavage Fluid Identifies Key Innate Immune Pathways in Primary Graft Dysfunction after Lung Transplantation; E. Cantu, D.J. Lederer, K.C. Meyer, R.K. Milewski, Y. Suzuki, R.J. Shah, J.M. Diamond, N.J. Meyer, J.W. Tobias, D.A. Baldwin, V.M. Van Deerlin, K.M. Olthoff, A. Shaked, J.D. Christie. Surgery, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 2Medicine, Columbia University College of Physicians and Surgeons, New York, NY; 3Medicine, University of Wisconsin School of Medicine and Public Health, Madison, WI; 4Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 5Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 6Penn Molecular Profiling Facility, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA; 7Pathonomics LLC, Philadelphia, PA; 8Pathology and Laboratory Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA.

4:45 PM (91) Surfactant Pretreatment Is Superior to Treatment after Reperfusion for Lung Ischemia-Reperfusion Injury; N.P. van der Kaaij, J. Kluin, M.A. Den Bakker, B.N. Lambricht, B. Lachmann, R.W.F. de Bruin, J.J.C. Bogers. 1Surgery, University of Amsterdam, Amsterdam, Netherlands; 2Anesthesia and Intensive Care Medicine, Charité, Campus Virchow-Klinikum, Humboldt-University, Berlin, Germany; 3Anesthesia and Intensive Care Medicine, Charité, Campus Virchow-Klinikum, Humboldt-University, Berlin, Germany; 4Cardio-Thoracic Surgery, Erasmus MC, Rotterdam, Netherlands; 5Pulmonary Medicine, University Hospital Gent, Gent, Belgium; 6Anesthesiology and Intensive Care Medicine, Universiteit van Amsterdam, Amsterdam, Netherlands; 7Cardio-Thoracic Surgery, Erasmus MC, Rotterdam, Netherlands.

5:00 PM (92) Plasma Free Hemoglobin Potentiates the Association between Reperfusion FiO2 and Primary Graft Dysfunction after Lung Transplantation; L.B. Ware, D.R. Janz, J.M. Diamond, D.J. Lederer, S.M. Kawut, S. Bhorade, S.M. Palmer, K.M. Wille, A. Weinacker, V. Lama, M. Crespo, J.B. Orens, J.D. Christie. MD and the Lung Transplant Outcomes Group. 1Vanderbilt University, Nashville; 2University of Pennsylvania, Philadelphia; 3Colombia University, New York; 4University of Chicago, Chicago; 5Duke University, Durham; 6University of Alabama, Birmingham; 7Stanford University, Palo Alto; 8University of Michigan, Ann Arbor; 9University of Pittsburgh, Pittsburgh; 10Johns Hopkins University, Baltimore.
4:00 PM – 5:30 PM

CONCURRENT SESSION 16

NHSAH 1: Implications and Innovations Throughout the Lung Transplant Trajectory (512A-G)

CHAIRS: Bronwyn J Levvey, RN Grad Dip Clin Epi and Nancy P. Blumenthal, CRNP, CCTC


5:00 PM (98) Socioeconomic Disparities Associated with Medication Non-Adherence Following Lung Transplantation in Adult Recipients; A.W. Castleberry, P.J. Speicher, M. Worni, A.A. Osho, L.D. Snyder, K.L. Gandy, R.S. Pietrobon, R.D. Davis, M.G. Hartwig, Division of General Surgery, Duke University Medical Center, Durham, NC; Division of Pulmonary and Critical Care, Duke University Medical Center, Durham, NC; Division of Pediatric, Medical College of Wisconsin, Milwaukee, WI; Division of Thoracic and Cardiovascular Surgery, Duke University Medical Center, Durham, NC.


Acute and Tertiary Care, University of Pittsburgh School of Nursing, Pittsburgh, PA; Department of Nursing, Chatham University, Pittsburgh, PA.
### 4:00 PM – 5:30 PM

**CONCURRENT SESSION 17**

**BSTR 1: New Frontiers in Cardiothoracic Organ Regeneration – From Cosmetic to Prosthetic (513ABC)**

**CHAIRS:** Sonja Schreper, MD, PhD and Shaf Keshavjee, MD

#### 4:00 PM (100)

**Decellularizing Human Hearts: Characterizing Native Cardiac Matrix for Clinical Translation;**

- J.P. Guyette,1 J.J. Song,1 W. Chuang,1 R. Ng,1 J.M. Charest,1 G.R. Gaudente,1 J.P. Vacanti,1 H.C. Ott,1 Center for Regenerative Medicine, Massachusetts General Hospital, Boston, MA; 2Department of Biomedical Engineering, Worcester Polytechnic Institute, Worcester, MA.

#### 4:15 PM (101)

**Discovery of mRNA Biomarkers Predicting Donor Lung Failure;**

- R. Zamel,1 R.G. Matheny,2 J.N. Young,1 A.M. Fallon.2 1Latner Thoracic Research Laboratories, University Health Network, Toronto, ON, Canada; 2Department of Biomedical Engineering, Worcester Polytechnic Institute, Worcester, MA.

#### 4:30 PM (102)

**Injectable Matrix Bioscaffolds Improve LV Function and Stimulate Cardiomyocyte Regeneration in Infarcted Hearts;**

- W.D. Boyd,1 R.G. Matheny,2 J.N. Young,1 A.M. Fallon.2 1Thoracic and Cardiovascular Surgery, Saga University, Saga, Japan; 2Biomedical Engineering Course Advanced Technology, Saga University, Saga, Japan; 3Cardiology, Saga University, Saga, Japan.

#### 4:45 PM (103)

**Development of 3-Dimensional Prevascularized Scaffold-Free Contractile Cardiac Patch for Heart Regeneration;**

- R. Noguchi,1 K. Nakayama,2 M. Itoh,1 K. Kamohara,1 K. Furukawa,1 J. Oyama,1 K. Node,1 S. Morita,1 1Thoracic and Cardiovascular Surgery, Saga University, Saga, Japan; 2Biomedical Engineering Course Advanced Technology, Saga University, Saga, Japan; 3Cardiology, Saga University, Saga, Japan.

#### 5:00 PM (104)

**Lung Injuries Induced by Gastric Acid Aspiration Are Attenuated by Exogenous Surfactant during Ex Vivo Reconditioning in Pigs;**

- T. Khalife,1 E. Sage, P. Dorfmuller, S. Eddahibi, E. Fadel. Laboratoire de Recherche Chirurgicale INSERM U999, Hospital Marie Lannelongue, Le Plessis Robinson, France.

#### 5:15 PM (105)

**Protein Expression Profiling Predicts Graft Performance in Clinical Ex Vivo Lung Perfusion;**


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**4:00 PM – 5:30 PM**

**CONCURRENT SESSION 18**

**ID 1: From Fungus to Virus – The Microbiome Elicited (513DEF)**

**CHAIRS:** Lara Danziger-Isakov, MD, MPH and Me-Linh Luong, MD

#### 4:00 PM (106)

**Utility of Bronchoalveolar Lavage Galactomannan in Diagnosis of Aspergillosis in Lung Transplant Recipients;**

- M.I. Birader,1 M.D. Holmes,1 S. Kidd,2 C.L. Holmes-Liew.1 1SA Lung Transplant Unit, Royal Adelaide Hospital, Adelaide, Australia; 2Mycology Department, SA Pathology, Women's and Children's Hospital, North Adelaide, South Australia, Australia.

#### 4:15 PM (107)

**Characteristics and Outcome of Influenza Infections in Lung Transplant Recipients: A Single Season Cohort Study;**

- M.M. Schuurmans,1 C. Benden,1 C. Jungo,1 J. Boeni,2 B. Annette.1 1Division of Pulmonary Medicine, University Hospital, Zurich, Switzerland; 2Institute of Medical Virology, University of Zurich, Zurich, Switzerland.

#### 4:30 PM (108)

**Long-Term Outcomes of Lung Transplantation (LT) in Hepatitis C Positive (HCV+) Patients;**

- P. Garcha,1 R. Fadul,1 A. Kapoor,1 O. Akindipe,1 C. Lane,1 A. Mehta,1 T. Olofsson,1 H. Blazey,1 D. Mason,2 S. Murthy,2 D. Johnston,2 G. Pettersson,2 K. McCurry,2 M. Budev.1 1Pulmonary & Critical Care Medicine, Cleveland Clinic, Cleveland, OH; 2Thoracic & Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH.

#### 4:45 PM (109)

**Clostridium Difficile Infection Increases Mortality Risk in Lung Transplant Recipients;**

- J.T. Lee,1 R.F. Kelly,2 M.I. Hertz,3 J.M. Dunitz,3 S.J. Shumway.2 1Department of Surgery, Division of Colon and Rectal Surgery, University of Minnesota, Minneapolis, MN; 2Department of Surgery, Division of Cardiothoracic Surgery, University of Minnesota, Minneapolis, MN; 3Department of Medicine, Division of Pulmonary, Allergy, Critical Care, and Sleep Medicine, University of Minnesota, Minneapolis, MN.

#### 5:00 PM (110)

**Predictors of Chronic Lung Allograft Dysfunction (CLAD) Following Respiratory Viral Infection (RVI);**


#### 5:15 PM (111)

**Efficacy of BAL Galactomannan (GM) and Culture Based Pre-Empive Antifungal Therapy (PET) in Lung Transplant Recipients (LTRs);**

- A. Bhaskaran,2 L.G. Singer,1 A. Yinka,2 C. Chaparro,1 C. Rotstein,1 T. Mazulli,1 S. Keshavjee,1 S. Husain.2 1Toronto Lung Transplant Program, University of Toronto, Toronto, Canada; 2University Health Network, University of Toronto, Toronto, Canada.
MINI ORAL SESSION 1

Heart Post-Transplantation (513ABC)

CHAIRS: Debra L. Isaac, MD and Arezu Z. Aliabadi, MD

5:30 PM (112) Cardiac Allograft Vasculopathy after Heart and Heart-Lung Transplantations: Is There Any Protective Role from the Lungs?; J. Guillaume,1 O. Mercier,1 E. Flecher,1 F. Leroy Ladurie,2 C. Chabanne,1 T. Langnay,1 J.P. Verhoeye,1 E. Fadel,2 P. Darievelle,2 A. Leguerrier,1 Thoracic and Cardiovascular Surgery, Pontchaillou Hospital, Rennes, France; 2Thoracic, Vascular Surgery and Heart-Lung Transplantation, Marie Lannelongue Hospital, Le Plessis Robinson, France.


5:45 PM (115) Role of Percutaneous Intervention in Treatment of Proximal Cardiac Allograft Vasculopathy as Compared to Diffuse Distal Disease; S. Agarwal, N.S. Bajaj, A. Parashar, D. Modi, E.M. Tuzcu, R.C. Starling, G.H. Oliveira. Heart and Vascular Institute, Cleveland Clinic, Cleveland, OH.

5:50 PM (116) Early Inflammatory Predictors of Cardiac Allograft Vasculopathy; C.A. Labarrere,1 J.R. Woods,2 J.W. Hardin,3 B.R. Jaeger,1 M. Zembala,4 M.C. Deng,6 P.C. Kirlin,7 D.E. Pitts,7 1CBL Partners for Life, Noblesville, IN; 2Methodist Research Institute, Indiana University Health, Indianapolis, IN; 3Epidemiology and Biostatistics, University of South Carolina, Columbia, SC; 4Dr. Stein und Kollegen, Mönchengladbach, Germany; 5Silesian Center for Heart Diseases, Zabrze, Poland; 6Ronald Reagan UCLA Medical Center, Los Angeles, CA; 7St Vincent Heart Center of Indiana, Indianapolis, IN.


6:00 PM (118) Influence of Liver and Renal Impairments on Early Mortality in Heart Transplant Patients; P. Lebray,1 S. Varnous,2 P. Lepinoux,2 C.E. Luyt,1 G. Rousseau,1 A. Pascale,2 D. Thabut,1 V. Ratuí,1 J.C. Vaillant,4 J. Chastre,1 A. Pavie,2 1Hepatogastroenterology Unit, Paris VI-Pitié-Salpêtrière Hospital, Paris, France; 2Cardiothoracic Surgical Unit, Paris VI-Pitié-Salpêtrière Hospital, Paris, France; 3Anaesthesia Department, Paris VI-Pitié-Salpêtrière Hospital, Paris, France; 4Liver Transplantation Unit, Paris VI-Pitié-Salpêtrière Hospital, Paris, France; 5Hepatology Unit, Paris VI-Saint-Antoine Hospital, Paris, France.

6:05 PM (119) Neopterin Predicts Poor Short- and Long-Term Outcomes in Heart Transplant Recipients; O.P. Shevchenko,1 O.V. Orlov,1 B.L. Mironkov,1 I.M. Iljinsky,1,2 A.G. Kuprianova,1,2 A.I. Kormer,1 S.V. Gautier,1,2 1Federal Research Center of Transplantology and Artificial Organs named after Academician V.I. Shumakov, Moscow, Russian Federation; 2I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation.

6:10 PM (120) Outcomes of Orthotopic Heart Transplantation with Extended Allograft Ischemic Time; A. Polgar,1 W.C. Yeen,5 1Stanford University School of Medicine, Stanford, CA.

6:15 PM (121) Perioperative Levosimendan Therapy Improves Renal Function in Heart Transplant Recipients; I. Knezevic,1 G. Poglajen,1 E. Hrovat,1 A. Omar,1 F. Haddad,2 V. Bojan,3 1Advanced Heart Failure and Transplantation Ctr, Ljubljana, Slovenia; 2Stanford University School of Medicine, Stanford, CA.

6:20 PM (122) Prognostic Implications of Donor Age in Outcomes of Heart Transplantation; S. Mirabet,1 L. Almenar,1 M. Crespo-Leiro,3 J. Segovia,4 J. Delgado,4 F. Pérez-Villa,6 J.L. Lambert,7 M. Sanz,8 J. Muñiz,8 E. Roig,8 1Cardiology, Hospital Sant Pau, Barcelona, Spain; 2Cardiology, Hospital La Fe, Valencia, Spain; 3Cardiology, Hospital A Coruña, A Coruña, Spain; 4Cardiology, Hospital Clinic, Barcelona, Spain; 5Cardiology, Hospital General de Asturias, Oviedo, Spain; 6Cardiology, Hospital Miguel Servet, Zaragoza, Spain.

6:25 PM (123) Establishing a PRA Threshold To Treat Sensitized Patients Awaiting Heart Transplant in the Era of the Virtual Crossmatch; J. Kobashigawa,1 R. Tadwalkar,1 M. Kittleson,1 J. Patel,1 J. Moriguchi, J. Kobashigawa. Cedars-Sinai Heart Institute, Los Angeles, CA; 2Cedars-Sinai Medical Center, Los Angeles.
### MINI ORAL SESSION 2

#### Mechanical Circulatory Support (513DEF)

**CHAIRS:** Daniel J. Goldstein, MD and Stephanie Moore, MD, FACC

5:30 PM (124) **A Novel Algorithm To Promote Native Aortic Valve Function Using the Next Generation Heartware MVAD;**

5:35 PM (125) **Perforation of the Pneumatic Driveline in Patients Converted to a Portable Driver for the Total Artificial Heart;**
K.B. Shah, R.A. Volman, S.C. Harton, D.G. Tang, V. Kasirajan. Division of Cardiology, Virginia Commonwealth University, Richmond, VA; Division of Cardiothoracic Surgery, Virginia Commonwealth University, Richmond, VA.

5:40 PM (126) **Aortic Valve Commissural Fusion during Continuous-Flow Left Ventricular Assist Device Support Is Associated with Continuous Valve Closure, a Correlation Study between Valve Histopathology and Clinical Patient Characteristics;**
J. Martina, M. Schipper, N. de Jonge, R. de Weger, J. Lahpor, A. Vink. Thoracic and Cardiovascular Surgery, University Medical Center Utrecht, Utrecht, Netherlands; Pathology, University Medical Center Utrecht, Utrecht, Netherlands; Cardiology, Utrecht Medical Center Utrecht, Utrecht, Netherlands.

5:45 PM (127) **Bi-Caval Dual Lumen Catheter for Veno-Venous Extracorporeal Membrane Oxygenation as a Bridge to Lung Transplantation for Cystic Fibrosis;**
S. Nicolas, S. Edouard, P. Francois, C. Delphine, C. Charles. Thoracic Surgery and Lung Transplantation Unit, Hôpital Foch, Suresnes, France; 1ICU, Hôpital Foch, Suresnes, France.

5:50 PM (128) **Comparative Analysis of von Willebrand Disease in Intensive Care Patients before Mechanical Circulatory Support;**
C. Oezpeker, S. Ensminger, B. Bohms, D. Roefe, K. Hakim, J. Gummert, H. Milting. Clinic of Thoracic and Cardiovascular Surgery, Erich & Hanna Klessmann-Institute, Ruhr-University Bochum, Heart & Diabetescenter NRW, Bad Oeynhausen, Germany.

5:55 PM (129) **Measurement of Left Ventricular Chamber Function in the Setting of Ventricular Assist Device Support;**
S. Gupta, K. Muthiah, K. Woldendorp, D. Robson, P. Jansz, C.S. Hayward. Heart Failure and Transplant Unit, St. Vincent’s Hospital, Sydney, Australia; Faculty of Medicine, The University of New South Wales, Sydney, Australia; Victor Chang Cardiac Research Institute, Sydney, Australia.

6:00 PM (130) **Concomitant Tricuspid Valve Repair in Patients Undergoing LVAD Placement Reduces Incidence of Acute Right Heart Failure;**

6:05 PM (131) **Hemolysis Is Strongly Associated with Mortality in LVAD Patients;**
A. Ravichandran, J. Parker, S. Joseph, N. Eric, J. Schilling, G. Ewald, S. Silvestry. Cardiovascular Division, Internal Medicine, Washington University School of Medicine, Saint Louis, MO; Department of Surgery, Washington University School of Medicine, Saint Louis, MO.

6:10 PM (132) **HeartMate II Device Exchange: Single Center Experience;**

6:15 PM (133) **Differential Response to Afterload in Axial and Centrifugal Continuous Flow Left Ventricular Assist Devices (CV-LVAD);**
B.C. Lampert, C. Eckert, M.A. Shullo, A. Scanlon, S. Weaver, J.Bhama, C. Bermudez, R. Kormos, J.J. Teuteberg. Heart and Vascular Institute, University of Pittsburgh, Pittsburgh, PA; Pharmacy and Therapeutics, University of Pittsburgh, Pittsburgh, PA.

6:20 PM (134) **A Comparison between HeartMate II and HeartWare LVAD, a Single Center Experience;**
M.J. Morshuis, C. Oezpeker, J. Gummert. Thoracic and Cardiovascular Surgery, Heart and Diabetic Center NRW, Bad Oeynhausen, North Rhine Westfalia, Germany.

6:25 PM (135) **Minimal-Invasive LVAD Implantation, Is It Safe or Even Better?;**
MINI ORAL SESSION 3

Lung Failure, Diagnosis and Therapy (514B)

CHAIRS: Edward Cantu, III, MD and Christiane Knoop, MD, PhD

5:30 PM (136) Donor Alcohol Abuse Increases the Risk for Graft Dysfunction in Lung Transplant Recipients; E.M. Lowery, E. Kuhlmann, E. Mahoney, C. Wigfield, E.J. Kovacs. Medicine, Loyola University Medical Center, Maywood, IL.

5:35 PM (138) Candidates Listed for Both Single and Double Lung Do Not Have Improved Post-Transplant Survival with Double Lung Transplant; N. Shariati, S.M. Studer, C. Migliore, S. Schultz, M. Hur, E. Johnson, M.J. Russo. Lung Center, Barnabas Health Heart and Lung Institute, Newark, NJ.

5:40 PM (139) Large-Airway Lymphocytic Bronchitis Predicts Bronchiolitis Obliterans Syndrome; J.R. Greenland, K.D. Jones, S.R. Hays, J.A. Golden, A. Urisman, N.P. Jewell, G.H. Caughey, N.N. Trivedi. 1Department of Medicine, University of California San Francisco, San Francisco, CA; 2Department of Pathology, University of California San Francisco, San Francisco, CA; 3Division of Biostatistics, University of California, Berkeley, CA; 4Department of Medicine, Veterans Affairs Medical Center, San Francisco, CA.

5:45 PM (140) Impact of Lung Allocation Score on Transplantation Activity and Outcomes – Initial German Experience; M. Greer, J. Gottlieb, U. Sommerwerck, T. Deuse, C. Witt.

5:50 PM (141) Bronchiolitis Obliterans Syndrome-Free Survival after Two Years in Patients with Higher Frequencies of Regulatory T Cells Early after Lung Transplantation; J. Salman, A.-K. Knoefel, W. Sommer, C. Kuehn, M. Avsar, J. Gottlieb, A. Haverich, G. Warnecke. 1Department of Cardiothoracic, Transplantation and Vascular Surgery, Hannover, Germany; 2Department of Pneumology, Hannover, Germany.


6:05 PM (144) Gene Expression Profiling To Predict the Development of Bronchiolitis Obliterans Syndrome in Lung Transplant Recipients; Z. Xu, W. Zhang, A. Sperling, A. Chong, M.L. Alegre, E. Garrity, S. Bhorade. 1Department of Medicine, University of Chicago, Chicago, IL; 2Department of Pediatrics, UIC, Chicago, IL.

6:10 PM (145) Exhausted T Helper Cells in Lung Transplantation Portend Worse Outcome; F.Y. Chao, C. Lockard, S.D. Force, F. Fernandez, A. Pickens, R. Bag, E.C. Lawrence, A.D. Kirk, D.C. Neujahr. Emory Transplant Center, Emory University, Atlanta, GA.

6:15 PM (146) Pregnancy after Lung Transplantation: A Single Center Experience; M.V. Thakrar, K. Morley, J.L. Lordan, G.J. Meachery, A.J. Fisher, G. Parry, P.A. Corris. 1Pulmonary Transplant Unit, Freeman Hospital, Newcastle upon Tyne, United Kingdom; 2Southern Alberta Lung Transplant Program, University of Calgary, Calgary, AB, Canada.

6:20 PM (147) Lobar Lung Transplantation for High Risk Patients – Lessons from the Initial Experience; N. Shimomura, J. D’Cunha, A. Hackman, A. Abou El Ela, A. Shiose, J. Bhama, C. Gries, M. Crespo, D. Zaldonis, B. Johnson, J. Pilewski, C. Bermudez. 1Cardiothoracic Surgery, University of Pittsburgh Medical Center, Pittsburgh, PA; 2Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA.

MINI ORAL SESSION 4

Pulmonary Hypertension (514C)

CHAIRS: Robert D. Levy, MD, FRCPC and Veronica Franco, MD, MSPH

5:30 PM (148) Biomarkers of Idiopathic Pulmonary Arterial Hypertension (IPAH): Volatile Constituents of Expired Breath Condensates (EBC) as Markers of Disease Severity Using Gas Chromatography/Mass Spectroscopy (GC/MS); R.P. Allen, C.E. Davis, A. Aksenov, A. Pasamontes, J.K. Mansoor, W.F. Wally, J. Figueroa, E.S. Schelegle; Internal Medicine: Pulmonary/CCM, University of California, Davis, Davis, CA;

5:35 PM (149) Hemodynamic Changes after Surgical MAZE: Pulmonary Hypertension Secondary to Stiff Left Atrial Syndrome; E.R. Fenstad, E.L. Hardegree, R.J. Le, C.M. Witt, S.H. Sheldon, J.M. Stulak, S.S. Kushwaha; Cardiovascular Diseases, Mayo Clinic, Rochester, MN;

5:40 PM (150) Pulmonary Venous Hypertension in End-Stage COPD and Preserved Systolic Left Ventricular Function: Vascular Lesions in Explanted Lungs after Transplantation; K.H. Andersen, C.B. Andersen, J. Kjaergaard, M.P. Iversen, F. Gustafsson, J. Carlsten; Cardiology, Pulmonary Vascular Program, Copenhagen University Hospital, Rigshospitalet, Copenhagen, Denmark;

5:45 PM (151) Fluid Challenge to Identify Pulmonary Venous Hypertension; I.M. Robbins, A.R. Hemmes, M.E. Pugh, J.H. Newman; Medicine, Vanderbilt Medical Center, Nashville, TN;

5:50 PM (152) Increased ADORA2B Expression Correlates with Mean Pulmonary Arterial Pressure in Idiopathic Pulmonary Fibrosis; L.J. Garcia-Morales, H. Karmouty-Quintana, E. Melicoff, N.Y. Chen, B.A. Bruckner, S. La Francesca, B. Ramlawi, H. Seetharamu, M.R. Blackburn, M. Loebe; Cardiovascular Surgery, Methodist DeBakey Heart & Vascular Center, Houston, TX;

5:55 PM (153) The Relationship of Pulmonary Vascular Resistance and Pulmonary Arterial Compliance with Right Ventricular Function in Pulmonary Arterial Hypertension; N.L. Sudini, A.Y. Denault, L. Rudski, A. VonkNordengraff, E. Fadel, O. Mercier, J. Huo, J. Guihaire, K. Kudelko, R. Zamanian, F. Haddad; Cardiovascular Medicine, Stanford University Medical Center, Stanford, CA;

6:00 PM (154) Quality of Life of Children with Pulmonary Hypertension; J. Wray, H. Clisby, L. Walker, V. Kelly, I. Schulze-Neick, S. Moledina; Cardiorespiratory Department, Great Ormond Street Hospital for Children NHS Foundation Trust, London, United Kingdom.


6:10 PM (156) Impact of Parenteral Treprostinil Dosing in Pulmonary Arterial Hypertension; L.R. Preston, H.W. Farber; Pulmonary, Critical Care and Sleep Medicine, Tufts Medical Center/Tufts University School of Medicine, Boston, MA;

6:15 PM (157) Characteristics of PAH Patients Treated Initially with Parenteral Prostanoids Differ from Those Treated Initially with Oral Therapy Despite Matching for REVEAL Risk Score; R.P. Frantz, H.W. Farber, D.P. Miller, W.W. Benton, M.D. McGoon; Division of Cardiovascular Diseases, College of Medicine, Mayo Clinic, Rochester, MN;


5:30 PM – 6:30 PM

MINI ORAL SESSION 5

Basic Science (512D)

CHAIRS: Esme Dijke, PhD and Tereza Martinu, MD

5:30 PM (160) Hydrogen Inhalation during Ex Vivo Lung Perfusion Ameliorates the Quality of Lung Grafts in Rats; K. Noda, N. Shigemura, Y. Tanaka, C.A. Bermudez. Department of Cardio-Thoracic Surgery, University of Pittsburgh Medical Center, Pittsburgh, PA.

5:35 PM (161) Ex Vivo Lung Perfusion of Rejected Human Donor Lungs: Are Donor Lungs with Prolonged Cold Ischemic Time Re-Conditioned by EVLP?: T. Okamoto, D. Wheeler, P. Shen, S. Keshavamurthy, A. Rafael, K. McCurry. Pathobiology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH; Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH.


5:45 PM (163) Pediatric Thymic Tissue as a Source of Regulatory T Cells for Cellular Therapy; E. Dijke, A. McMurchy, M. Levings, I. Larsen, I. Rebejka, D. Ross, L. West. University of Alberta, Edmonton, AB, Canada; Alberta Institute for Transplant Sciences, University of Alberta, Edmonton, AB, Canada; Surgery, University of British Columbia, Vancouver, BC, Canada; Surgery, University of Alberta, Edmonton, AB, Canada.

5:50 PM (164) Kidney-Induced Cardiac Allograft Tolerance across a Full MHC-Barrier in Miniature Swine; G. Michel, M.L.L. Madariaga, M. Tasaki, V. Villani, G.M. LaMuraglia II, E.A. Farkash, J.S. Allan, D.H. Sachs, K. Yamada, J.C. Madsen. Transplantation Biology Research Center, Massachusetts General Hospital, Harvard Medical School, Boston, MA; Department of Pathology, Massachusetts General Hospital, Boston, MA.

5:55 PM (165) Transmyocardial Revascularization Enhances Mesenchymal Stem Cell Engraftment in Infarcted Hearts through SCF-c-Kit and SDF-1-CXCR4 Signaling Axes; U. Shahzad, G. Li, T.M. Yau. Department of Cardiovascular Surgery, University of Toronto, Toronto, ON, Canada; Division of Cardiovascular Surgery, Peter Munk Cardiac Centre, University Health Network, Toronto, ON, Canada.

6:00 PM (166) Hearts from Donations after Circulatory Death (DCD); Donors – Assessment in a Porcine Transplant Model Utilising Transmedics Organ Care System for Organ Perfusion Preservation; A. Iyer, L. Gao, A. Doyle, G. Kumarasinghe, A. Jabbour, M. Hicks, P. Jansz, K. Dhillon, P. Macdonald. Heart Transplantation Lab, Victor Chang Cardiac Research Institute, Sydney, Australia; Heart & Lung Transplant Program, St. Vincent’s Hospital, Sydney, Australia.
**SUNRISE SYMPOSIUM 6**

**Bronchoscopic Battles and Anastamotic Atrocities (510)**

**CHAIRS:** Stephen C. Clark, FRCS and Lorriana E. Leard, MD

**SESSION SUMMARY:** This sunrise session will focus on controversies regarding surveillance bronchoscopy, airway anastomotic complications and surgical techniques. The session will focus on causation, management and outcomes from both a surgical and medical perspective in a ‘quick fire debate’ format.

7:00 AM **Current Status of Surveillance Bronchoscopy**, Maria M. Crespo, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

7:10 AM **DEBATE: Airway Complications**

This is a quick-fire debate with the following topics:

1. Risk factors
2. Technique
3. Dehiscence
4. Stenosis
5. Air Leaks and Endobronchial Valve

**FORMAT:** Speaker 1 (3 mins), Speaker 2 (3 mins), Discussion (3 mins)

Speaker 1: Dirk EM Van Raemdonck, MD, PhD, University Hospitals Leuven, Leuven, Belgium

Speaker 2: Lonny Yarmus, DO, FCCP, Johns Hopkins University School of Medicine, Baltimore, MD, USA

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**SUNRISE SYMPOSIUM 7**

**Proteins and Pathogenesis of PH (512A-G)**

**CHAIRS:** James D West, PhD and Ioana R. Preston, MD

**SESSION SUMMARY:** Remarkable progress continues to be made in our understanding of the pathobiology of pulmonary hypertension. This sunrise session will provide the audience with an update on three cutting-edge topics that are the subject of intense ongoing basic research efforts. The critical importance of regulatory micro RNA's in vascular remodeling is rapidly evolving with the prospect of potent therapeutic applications in the not too distant future. Technologic advances in proteomics and metabolomics are expected to lead to the discovery of novel molecular pathways. A role for sex hormones in pulmonary hypertension has long been suspected based on the recognized female predominance clinically. Recent investigations on the effects of estrogens, testosterone and their receptors in clinical and animal models of pulmonary hypertension provide new insights.

7:00 AM **Role of Micro RNAs in the Pathogenesis of Pulmonary Hypertension**, Sebastien Bonnet, PhD, Laval University, Québec City, QC, Canada

7:15 AM **Proteomics and Metabolomics in Pulmonary Hypertension**, Bruce McManus, MD, PhD FRSC FCAHS, NCE CECR Centre of Excellence for Prevention of Organ Failure, Vancouver, BC, Canada

7:30 AM **Abnormal Oestrogen Pathways in Pulmonary Hypertension**, Mario C. Deng, MD, UCLA, Los Angeles, CA, USA

7:45 AM Discussion
#### SUNRISE SYMPOSIUM 8

**Avatars and Advanced Care Planning** *(513ABC)*

**CHAIRS:** Michael G. Petty, PhD, RN, CCNS, ACNS-BC and Fabienne Dobbels, PhD

**SESSION SUMMARY:** At the end of this session, the attendees will be able to discuss the challenges associated with managing patients who live at large distances from the implanting centers determine the best approaches to engage VAD patients in their care, and review the approaches to palliation in patients with the most advanced forms of disease.

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<td>7:00 AM</td>
<td>Managing Patients from a Distance – Alternatives to Laying on Our Own Hands, Annemarie Kaan, MCN RN CTCTN, St Paul's Hospital, Vancouver, BC, Canada</td>
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<td>7:15 AM</td>
<td>The Responsibility Handoff: Empowering Patients, Michelle L. Harkess, RN, MCN, St. Vincent's Hospital, Sydney, NSW, Australia</td>
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<td>7:30 AM</td>
<td>Palliative Care Considerations, Sally J. Brush, MSN, FNP, Intermountain Medical Center, Salt Lake City, UT, USA</td>
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<td>7:45 AM</td>
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#### SUNRISE SYMPOSIUM 9

**What's New in Xenotransplantation** *(514B)*

**CHAIRS:** David K.C. Cooper, MD, PhD, FRCS and Jeffrey Teuteberg, MD

**SESSION SUMMARY:** This sunrise symposium will go over the latest advances of xenotransplantation and how they apply to heart and lung transplantation.

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<tr>
<td>7:00 AM</td>
<td>Immunobiology of Xenotransplantation, Richard N. Pierson III, MD, University of Maryland, Baltimore, MD, USA</td>
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<td>7:15 AM</td>
<td>Discussion</td>
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<td>7:18 AM</td>
<td>Current Status of Cardiac Xenotransplantation, Christopher G A McGregor, UCL, London, UK and Mayo Clinic, Rochester, MN, USA</td>
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<td>7:33 AM</td>
<td>Discussion</td>
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<td>7:36 AM</td>
<td>Lung Xenotransplantation, Agnes Azimzadeh, PhD, University of Maryland, Baltimore, MD, USA</td>
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<td>7:51 AM</td>
<td>Discussion</td>
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<td>7:54 AM</td>
<td>Panel Discussion</td>
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CONCURRENT SESSION 20

Heart 5: Advances in Interpretation of Cardiac Allograft Immune Activation (511)

CHAIRS: Maryl Johnson, MD and James F. George, PhD


8:15 AM (179) Validation of Humoral Immunity Profiles To Identify Heart Recipients at Risk for Development of Severe Infections: A Multicenter Prospective Study; E. Sarmiento, J. Fernandez-Yañez, J. Palomo, M. Gomez-Sanchez, M. Crespoleiro, M. Paniguia, L. Almenar, M. Cebrian, G. Rabago, B. Levy, S. Segovia, M. Gomez-Bueno, J. Lopez, J. Garcia-Guereta, S. Mirabet, M. Jaramillo, J. Navarro, J. Rodriguez-Molina, J. Carbone. Hospital General Universitario Gregorio Marañón, Madrid, Spain; Hospital Universitario Doce de Octubre, Madrid, Spain; Hospital Universitario Juan Canalejo, A Coruña, Spain; Hospital Universitario La Fe, Valencia, Spain; Clínica Universitaria de Navarra, Pamplona, Spain; Hospital Universitario Puerta de Hierro, Madrid, Spain; Hospital Clínico Universitario, Valladolid, Spain; Hospital Universitario La Paz, Madrid, Spain; Hospital de la Santa Creu y Sant Pau, Barcelona, Spain.


8:45 AM (181) Comparison of HLA & MICA Allosensitization Patterns among Patients Supported by Ventricular Assist Devices (VAD) and Patients with No Devices; M. Askar, E. Hsich, P. Revilla, J. Daghstani, A. Nowacki, A. Zhang, L. Klingman, S. Bakdash, W. Baldwin, N. Smedira, D. Taylor, R. Starling, G. Gonzalez-Stawinski. Allogene Laboratories, Cleveland Clinic, Cleveland, OH; Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH; Department of Quantitative Health Sciences, Cleveland Clinic, Cleveland, OH; Clinical Pathology, Cleveland Clinic, Cleveland, OH; Immunology, Cleveland Clinic, Cleveland, OH; Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; Thoracic and Cardiovascular Surgery, Baylor University, Houston, TX.


9:15 AM (183) Immunohistochemical Counting of Mononuclear Infiltrates in Endomyocardial Biopsy Fragments: A New Method To Improve the Diagnosis of Rejection after Heart Transplantation; E.A. Bocchi, L.A. Benvenutti, R. Tanigawa, S. Brandão, V.S. Issa, S. Ayub-Ferreira, F. Cruz, P. Pomerantzeff, R. Honorato, D.D. Lourenço-Filho, A.I. Fiene, P. Chizzola, G. Souza, F. Bacal. Heart Failure Clinics, Heart Institute (Incor) of São University Medical School, São Paulo, SP, Brazil.

CONCURRENT SESSION 21

Lung 3: Clinical and Immune Monitoring (510)

CHAIRS: Glen P Westall, MD and Vincent G Valentine, MD

8:00 AM (184) Pre-Transplant Antibodies to K Tubulin and Collagen V in Lung Transplantation: Correlation with Disease, Primary Graft Dysfunction, Donor Specific HLA Antibodies, and Chronic Rejection; V. Triveddhi, G. Baskaran, N. Sarma, M. Askar, M. Budev, A. Aloush, R. Hachem, E. Trulock, B. Meyers, G.A. Patterson, T. Mohanakumar, Washington University School of Medicine, St. Louis, MO; Cleveland Clinic, Cleveland, OH.

8:15 AM (185) Improved Survival with Perioperative Desensitization in Lung Transplant Patients with Donor Specific Antibodies (DSA); K. Tinckam, S. Azad, D. Barth, M. Binnie, C. Chaparro, C.-W. Chow, M. Cypel, M. dePerrot, A. Pierre, T. Waddell, K. Yasufuku, S. Keshavjee, L.G. Singer. Department of Medicine, University Health Network, Toronto, Canada; Laboratory Medicine Program HLA Lab, University Hospital, Toronto, Canada; Department of Surgery, University Health Network, Toronto, Canada.


9:00 AM (188) HLA Antibodies after Lung Transplantation: Early Results of the HALT Study; R.R. Hachem, M. Kamoun, M. Budev, M. Askar, A. Vivek, D.J. Levine, M.S. Pollack, G. Dhillon, K. Schechtman, L.E. Lorriana, L.A. Baxter-Lowe, T. Mohanakumar, D. Tyan, R.D. Yusen. Washington University School of Medicine, St. Louis, MO; University of Pennsylvania School of Medicine, Philadelphia, PA; Cleveland Clinic Foundation, Cleveland, OH; University of Texas Health Science Center, San Antonio, TX; Stanford University School of Medicine, Palo Alto, CA; University of California San Francisco, San Francisco, CA.

9:15 AM (189) Antibodies to Lung Self-Antigens (K 1 Tubulin or Collagen V) Lead to Epitope Spreading, Loss of Tolerance and Rejection of CTLA4/MR1 Induced Tolerant Murine Lung Allograft; V. Subramanian, S. Yamamoto, N. Benshoff, D. Kreisel, A.E. Gelman, T. Mohanakumar, Surgery, Washington University School of Medicine, St. Louis, MO; Pathology and Immunology, Washington University School of Medicine, St. Louis, MO.
8:00 AM – 9:30 AM

**CONCURRENT SESSION 22**

**PH 2: Right Ventricular Matters (512A-G)**

**CHAIRS:** Steven M Kawut, MD, MS and Adaani E. Frost, MD

**8:00 AM (190)** Right Ventricular Systolic Strain Predicts Outcomes in Pulmonary Hypertension: A Prospective Evaluation; N.M. Fine, L. Chen, R.P. Frantz, P.A. Pellikka, G.C. Kane, Division of Cardiovascular Disease, Department of Medicine, Mayo Clinic, Rochester, MN.


**8:30 AM (192)** Indices of Right Ventricular Contractility in a Model of Chronic Pulmonary Hypertension; J. Guihaire, F. Haddad, O. Mercier, B. Decante, P. Herve, P. Darfeville, M. Humbert, E. Fadel. Laboratory of Surgical Research, Inserm U999, Marie Lannelongue Hospital, University of South Paris, Le Plessis Robinson, France; Service de Pneumologie, Inserm U999, Hôpital Bicêtre, University of South Paris, Le Kremlin-Bicêtre, France.


**9:00 AM (194)** Right Ventricular Support for Pulmonary Arterial Hypertension: An Acute Feasibility Study in Sheep; J. Verheugen, M. Ghoda, I. Van Tichelen, M. Delcroix, F. Rega, B. Meyns. Experimental Cardiac Surgery, KULeuven, Leuven, Belgium; Pneumology, University Hospitals Leuven, Leuven, Belgium.


8:00 AM – 9:30 AM

**CONCURRENT SESSION 23**

**NHSAS 2: MCS and Heart Transplantation – Assessment, Outcomes and Interventions (513ABC)**

**CHAIRS:** Connie White-Williams, PhD, RN, FAAN and Berni L. Coleman, Ph.D, ACNP-BC, FAAN

**8:00 AM (196)** Modification of the Psychosocial Assessment of Candidates for Transplantation (PACT) Improves Risk Classification and Prediction of Hospital Readmission of MCS Patients; M.C. Maltby, M.P. Flattery, B.A. Burns, K.B. Shah. Department of Care Coordination, Virginia Commonwealth University Health System, Richmond, VA; Pauley Heart Center, Virginia Commonwealth University Health System, Richmond, VA; Division of Cardiology, Virginia Commonwealth University, Richmond, VA.

8:15 AM (202) **WITHDRAWN**

8:15 AM (203) **T Cell-Deficiency Exacerbates Diacetyl-Induced Obliterative Bronchiolitis;** T. Martinu, F.L. Kelly, J. Sun, H.L. Zhang, R.F. Beasley, E.N. Potts-Kant, G.P. Flake, D.L. Morgan, W.M. Foster, S.M. Palmer. Medicine, Duke University, Durham, NC; Toxicology, NIEHS, RTP, NC.


8:15 AM (197) The Stanford Integrated Psychosocial Assessment for Transplantation (SIPAT): A New Scale for the Prediction of Psychosocial and Medical Outcomes in Organ Transplant Candidates; J.R. Maldonado, Y. Sher, S. Lolak, D. Skibola, C. Sullivan, K. Standridge, E. David. Psychiatry and Behavioral Sciences, Stanford University School of Medicine, Stanford, CA; Associate Director, Transplant, ALD & VAD Program, Stanford Hospital and Clinics, Stanford, CA; Social Services, Stanford Hospital and Clinics, Stanford, CA.

8:30 AM (198) Driveline Exit Site in Long-Term LVAD’s – Patient Choice or Surgeon’s Decision; N. Wrightson, S. Schueler, T. Butt, N. Robinson Smith, A. Siddique, F. Ozalp, T. Pillay, G.A. MacGowan. Mechanical Circulatory Support Service for Advanced Heart Failure, The Newcastel Hospitals NHS Foundation Trust/Freeman Hospital, Newcastle upon Tyne, Tyne and Wear, United Kingdom.


9:00 AM (200) It’s Not the Bad Guys. A Differentiated View on Post HTX Adherence: Medication, Mental Health, Hygienic Behavior; K. Tiegges-Limmer, Y. Brooks, D. Grisse, A. Zittermann, G. Schmid-Ott, U. Schulz, J. Brakhage, A. Benkler, J.F. Gummert. Department for Thoracic and Cardiovascular Surgery, HDZ-NRW, Ruhr-University Bochum, Bad Oeynhausen, Germany; Department of Psychosomatic Medicine, Berolina Hospital, Loehne, Germany.

9:15 AM (201) Use and Helpfulness of Interventions 5 and 10 Years after Heart Transplantation; C. White-Williams, P. Fazeli, K.L. Grady, B. Rybarszyk, K.L. Grady, B. Rybarszyk. Nursing, University of Alabama at Birmingham, Birmingham, AL; Division of Cardiac Surgery, Northwestern Memorial Hospital, Chicago, IL; Psychology, Virginia Commonwealth University, Richmond, VA.
8:00 AM – 9:30 AM

SYMPOSIUM 25

JHLT at ISHLT: “The Year in a Capsule” (513DEF)

CHAIRS: Patricia Uber, PhD and Jayan Parameshwar, MD

SESSION SUMMARY: The Junior Faculty Trainee Council and the Journal of Heart and Lung Transplantation are sponsoring a novel session this year to bring the JHLT to the ISHLT. This session will highlight the most exciting publications in the JHLT over the past year, followed by a discussion by one of the senior editorial consultants of the journal to relate the presented articles to the greater body of published literature and to suggest how they advance our understanding in the field.

8:00 AM  Highlights of Heart Transplantation and Mechanical Circulatory Support, Keyur B. Shah, MD, Virginia Commonwealth University, Richmond, VA, USA

8:15 AM  Discussant: Mark S. Slaughter, MD, University Cardiothoracic Surgical Assoc, Louisville, KY, USA

8:20 AM  Highlights of Lung Transplantation, Hanneke Kwakkel-van Erp, MD, PhD, University Medical Center Utrecht, Utrecht, The Netherlands

8:35 AM  Discussant: Allan R. Glanville, MD, FRACP, Sydney, Australia

8:40 AM  Highlights of Pulmonary Hypertension, Christina Migliore, MD, Newark Beth Israel Medical Center, Newark, NJ, USA

8:55 AM  Discussant: Paul A. Corris, MB, FRCP, Newcastle upon Tyne, UK

9:00 AM  Highlights of Issues Related to Children, Yishay Orr, FRACS, PhD, Children’s Hospital at Westmead, Lane Cove, Australia

9:15 AM  Discussant: Lori J. West, MD, DPhil, University of Alberta, Edmonton, Canada

9:20 AM  General Q & A

10:00 AM – 2:00 PM

EXHIBIT HALL OPEN (517AB)

10:00 AM

How to Succeed When the Right Ventricle Fails (517CD)

CHAIRS: Prof. Paul A. Corris, FRCP and Sharon A. Hunt, MD

SESSION SUMMARY: The right ventricle is often held accountable for morbidity and mortality in patients with advanced heart and/or lung disease. Moreover the right ventricle is frequently blamed for poor outcomes seen in patients receiving left ventricular assist device or heart transplantation. This session will provide the participant with a better understanding of right ventricular structure, function and physiology; how to evaluate right ventricular function in health and disease; and importantly management of right ventricular failure both through medical and surgical/device options.

10:00 AM  Right Ventricular Structure and Function in Health and Disease, Andrew N. Redington, MD, FRCP(C), FRCP(UK), The Hospital for Sick Children, Toronto, ON, Canada

10:25 AM  Clinical Assessment and Imaging, David Langleben, MD, FRCPC, Jewish General Hospital, McGill University, Montréal, Quebec, Canada

10:45 AM  The Failing Systemic Right Ventricle, Daniel Bernstein, MD, Stanford University, Stanford, CA, USA

11:05 AM  Medical Management, John Granton, MD, UHN, University of Toronto, Toronto, ON, Canada

11:25 AM  Surgical Approaches, Devices, and Transplant, Martin Stueber, MD, Heart Center Leipzig, University Leipzig, Leipzig, Germany

NOON – 2:00 PM
LUNCH BREAK
VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

12:10 PM – 12:55 PM
MECHANICAL CIRCULATORY SUPPORT COUNCIL MEETING (513ABC)
PULMONARY HYPERTENSION COUNCIL MEETING (513DEF)
PEDIATRIC TRANSPLANTATION COUNCIL MEETING (514B)
NURSING, HEALTH SCIENCE, ALLIED HEALTH COUNCIL MEETING (514C)
INFECTIOUS DISEASES COUNCIL MEETING (512D)

1:05 PM – 1:50 PM
HEART FAILURE AND TRANSPLANT MEDICINE COUNCIL MEETING (513ABC)
PULMONARY TRANSPLANTATION COUNCIL MEETING (513DEF)
PEDIATRIC HEART FAILURE COUNCIL MEETING (514B)
PATHOLOGY COUNCIL MEETING (514C)
PHARMACY AND PHARMACOLOGY COUNCIL MEETING (512D)

2:00 PM – 3:30 PM

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<tr>
<th>ISHLT AND AST JOINT SESSION I</th>
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<tr>
<td><strong>Pretransplant Circulating Antibodies: Making Sense of Sensitization (513DEF)</strong></td>
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<tr>
<td><strong>CHAIRS:</strong> David O. Taylor, MD (ISHLT President) and Roslyn B. Mannon, MD (AST President)</td>
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<td><strong>SESSION SUMMARY:</strong> Anti-donor antibodies remain an obstacle to successful thoracic transplantation. The combined expertise of ISHLT and the American Transplant Society come to bear on this timely topic in two separate sessions. The first explores the detection, interpretation and potential treatments of these antibodies prior to transplantation. The second explores the development of antibody-mediated rejection after thoracic transplantation and importantly includes the perspective of the non-thoracic transplant community.</td>
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| 2:00 PM | Antibody Detection and the Use of the C1q Assay, Dolly B. Tyan, PhD, D(ABHI), Stanford University School of Medicine, Palo Alto, CA, USA |
| 2:20 PM | Pretransplant Antibodies in Clinical Practice: Are They All Bad, When to Treat and Use of the Virtual Crossmatch, A.G. Kfoury, MD, FACC, Intermountain Heart Institute (UTHA Cardiac Transplant Program), Salt Lake City, Utah, USA |
| 2:40 PM | Desensitization Therapies in Patients Awaiting Kidney Transplantation, Ashley A Vo, PharmD, Cedars-Sinai Medical Center, Los Angeles, CA, USA |
| 3:00 PM | The Approach to Desensitization Therapies for Urgent Status and Mechanical Assisted Patients Awaiting Thoracic Transplantation, Marisa G. Crespo-Leiro, MD, Hospital Universitario A Coruña, La Coruña, Spain |
| 3:20 PM | Moderated Panel Discussion |

2:00 PM – 3:30 PM

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<th>CONCURRENT SESSION 25</th>
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<tr>
<td><strong>MCS 6: Infectious Issues and Pump Failure (517CD)</strong></td>
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<tr>
<td><strong>CHAIRS:</strong> Tobias Deuse, MD and Shahid Husain, MD MS</td>
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</tbody>
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| 2:00 PM | (209) Driveline Infections and Sepsis in Patients Receiving the HVAD System as a Left Ventricular Assist Device; R. John,1 K.D. Aaronson,2 W.E. Pae,3 M.A. Acker,4 D.R. Hathaway,5 K. Najarian,1 M.S. Slaughter,5 1Division of Cardiothoracic Surgery, University of Minnesota, Minneapolis, MN; 2University of Michigan, Ann Arbor, MI; 3Penn State Hershey Medical Center, Hershey, PA; 4University of Pennsylvania, Philadelphia, PA; 5HeartWare, Inc., Framingham, MA |
| 2:15 PM | (210) Driveline Infections in a Large Cohort of Continuous Flow Left Ventricular Assist Device (LVAD) Recipients: The Impact of Pseudomonas on Deep Driveline Involvement; C.E. Koval,1 L. Thuita,2 N. Moazami,3 M. Mountis,4 E. Blackstone.3 1Infectious Disease, Cleveland Clinic Foundation, Cleveland, OH; 2Quantitative Health Sciences, Lerner College of Medicine, Cleveland, OH; 3Thoracic and Cardiovascular Surgery, Cleveland Clinic Foundation, Cleveland, OH; 4Cardiovascular Medicine, Cleveland Clinic Foundation, Cleveland, OH |
| 2:30 PM | (211) Infectious Complications and Outcomes in Children Supported with Left Ventricular Assist Devices; A.G. Cabrera,2 M.S. Khan,3 D.L.S. Morales,4 D.W. Chen,2 B.S. Moffett,4 I.F. Price,4 W.J. Dreyer,1 S.W. Denfield,1 A. Jeewa,1 C.D. Fraser, Jr.,2 J.G. Vallejo,5 1Department of Pediatrics, Section of Pediatric Cardiology, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; 2Michael E. DeBakey Department of Surgery, Division of Congenital Heart Surgery, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; 3Pediatric Cardiomyopathy Program, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; 4Pediatric Cardiothoracic Surgery, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH; 5Pharmacy, Texas Children’s Hospital, Houston, TX |
| 2:45 PM | (212) Thrombotic Complications Increase after Percutaneous Site/Pocket Infection in Patients with Left Ventricular Assist Devices: An INTERMACS Analysis; M.R. Shah,4 D.C. Naftel,2 M.A. Miller,1 J.T. Baldwin,1 E.D. Feller,2 S.S. Desai,4 R. John,5 R.L. Kormos,6 W.L. Holman.2 1Infectious Disease, Cleveland Clinic Foundation, Cleveland, OH; 2Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; 3Department of Biomedical Engineering, Lerner Research Institute, Cleveland Clinic, Cleveland, OH; 4University of Minnesota, Minneapolis, MN; 5University of Louisville & Jewish Hospital, Louisville, KY; 6University of Louisville, Louisville, KY |
| 3:00 PM | (213) Incidence and Characterization of Percutaneous Lead Damage in the Heartmate II Left Ventricular Assist Device; D. Kalavrouziotis,1 A. Massiello,2 M.Z. Tong,3 R.C. Starling,3 R. Fryc,4 G. Heatley,4 D.J. Farrar,4 N. Moazami,3 1Department of Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; 2Department of Biomedical Engineering, Lerner Research Institute, Cleveland Clinic, Cleveland, OH; 3Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH; 4Thoratec Corporation, Pleasanton, CA |
| 3:15 PM | (214) Predisposition to Infection and Bleeding in Mechanical Assist Devices (LVADs) Recipients after Dental Procedures: A Single Center Experience; K.C. McCants, J.B. McCants, P.S. Combs, P. Raheja, M.S. Slaughter, E. Birks. Advanced Heart Failure and Transplant, University of Louisville & Jewish Hospital, Louisville, KY |
**CONCURRENT SESSION 26**

**Heart 6: Are All Antibodies Equal? Predicting, Managing and Treating the Risk for AMR (511)**

**CHAIRS:** Nancy L. Reinsmoen, PhD and Adriana Zeevi, PhD

- **2:00 PM** (215) The Development and Impact of De Novo Circulating Antibodies in Non-Sensitized Patients after Heart Transplantation; J. Patel, M. Kittleson, M. Rafiei, A. Osborne, D. Chang, L. Czer, N. Reinsmoen, A. Trento, J. Kobashigawa. Cedars-Sinai Heart Institute, Los Angeles, CA.


- **2:30 PM** (217) Virtual Crossmatch Predicts Compatibility for Heart Transplantation with Favorable Outcomes in Sensitized Patients; D.O. Crowe, S.C. Fossey, S. Maltais, M.A. Wigger. Transplant Immunology, DCI Laboratory, Nashville, TN; Cardiac Surgery, Vanderbilt University Medical Center, Nashville, TN; Heart Transplantation, Vanderbilt University Medical Center, Nashville, TN.

- **2:45 PM** (218) No Harm, No Foul? The Prospective Treatment of Sensitized Heart Transplant Recipients with Plasmapheresis and IVIG-Five Year Follow-Up; M.W. Weston, M. Lopez-Cepero, T. Jarmi, T. Cardiology, Tampa General Hospital, Tampa, FL; Immunology, Lifelink Immunology Laboratory, Tampa, FL; Nephrology, Tampa General Hospital, Tampa, FL; Cardiology, University of South Florida College of Medicine, Tampa, FL; Nephrology, University of South Florida College of Medicine, Tampa, FL.

- **3:00 PM** (219) Predictive Value of HLA Antibody Characteristics in Progression of Subclinical Antibody Mediated Rejection in Heart Transplant Recipients; M. Askar, E.R. Rodriguez, P. Reville, J. Gatto, J. Schold, J. Daghestani, A. Zhang, L. Klingman, E. Hsich, R. Starling, N. Smidria, N. Moazami, D. Taylor, C. Tan. Cleveland Clinic, Cleveland, OH; The Ohio State University, Columbus, OH.


**CONCURRENT SESSION 27**

**Lung 4: Immunosuppression and Therapeutics (510)**

**CHAIRS:** Roger D Yusen, MD, MPH and Geert M. Verleden, MD, PhD

- **2:00 PM** (221) To Induce or Not To Induce: A 21st Century Evaluation of Lung Transplant Immunosuppression; B.A. Whitson, A. Lehman, A. Wehr, D. Hayes, Jr., S. Kirkby, A. Pope-Harman, A. Kilic, R.S.D. Higgins. The Ohio State University Wexner Medical Center, Columbus, OH; Nationwide Children’s Hospital, Columbus, OH.


- **2:30 PM** (223) Use of Sirolimus in Lung Transplantation: A Single Center Experience; L.J. Stuckey, C.E. Bartos, H.A. McCullough, R.D. Florn, V.N. Lama, J. Lin, K.M. Chan. Department of Pharmacy Services, University of Michigan Health System, Ann Arbor; Transplant Center, University of Michigan Health System, Ann Arbor; Department of Internal Medicine, Division of Pulmonary & Critical Care Medicine, University of Michigan Health System, Ann Arbor; Section of Thoracic Surgery, University of Michigan Health System, Ann Arbor.

- **2:45 PM** (224) Proteasome Inhibitor Therapy for Antibody-Mediated Lung Transplant Rejection; J.A. Iuppa, K.B. Bain, C.A. Witt, E.P. Trulock, D.E. Byers, R.R. Hachem. Pharmacy Department, Barnes-Jewish Hospital, St. Louis, MO; Division of Pulmonary and Critical Care Medicine, Washington University – School of Medicine, St. Louis, MO.

- **3:00 PM** (225) World Wide Experience with Induction in Lung Transplantation for Cystic Fibrosis: Is Induction Necessary?; C.A. Beaty, T.J. George, A. Kilic, A.S. Shah, C.A. Merlo. Division of Cardiac Surgery, Johns Hopkins Medical Institutions, Baltimore, MD; Division of Pulmonology, Johns Hopkins Medical Institutions, Baltimore, MD.

- **3:15 PM** (226) Chronic Renal Failure in Lung Transplant Recipients Is Predicted by Tacrolimus Toxicity Events; D. Fox, D. Rozengarten, Y. Raviv, S. Yitzhakian, M.R. Kramer. Pulmonology, Rabin Medical Center, Petach Tikva, Israel; Medicine, Tel Aviv University, Tel Aviv, Israel.
CONCURRENT SESSION 28

MCS 7: Changes in Physiology During Support (512A-G)

CHAIRS: Jennifer Cowger, MD, MS and Jack G. Copeland, MD

2:00 PM (227) Dynamic BMI Changes in Patients Implanted with Continuous Flow Left Ventricular Assist Devices: Evidence for Reversibility of Cardiac Cachexia and Impact on Survival; D.M. Kobrin,1 J.P. Donnelly,1 A.L. Acker,1 J.L. Howard,1 C.M. Zalewski,1 S.L. Walsh,1 C.E. Hill,1 M.L. O’Hara,1 J.F. Marble,2 P. Atleri,1 J.W. Wald,2 L.R. Goldberg,2 Y.J. Woo,1 M.A. Acker,1 J.E. Rame.1
1Cardiac Surgery, Hospital of the University of Pennsylvania, Philadelphia, PA; 2Heart Failure and Cardiac Transplantation, Hospital of the University of Pennsylvania, Philadelphia, PA.

2:15 PM (228) Maximal Exercise Response Is Reduced in Patients with the Total Artificial Heart; J.M. Canada,1 E.J. Paulus,1 J.M. Mizell,1 R.K. Evans,2 D.G. Tang,3 V. Kasirajan,3 K.B. Shah.4
1Cardiopulmonary Rehabilitation, VCU Medical Center, Richmond, VA; 2Health & Human Performance, Virginia Commonwealth University, Richmond, VA; 3Division of Cardiothoracic Surgery, VCU Medical Center, Richmond, VA; 4Division of Cardiology, VCU Medical Center, Richmond, VA.

2:30 PM (229) Blood Pressure Measurement in Patients with Continuous-Flow Left Ventricular Assist Devices; K.D. Woldendorp,1 S. Gupta,1 P. Markey,1 D. Robson,1 K. Dhital,1 C.S. Hayward.1,2,3
1Heart Failure and Transplant Unit, St Vincent’s Hospital, Sydney, Australia; 2Faculty of Medicine, The University of New South Wales, Sydney, Australia; 3Victor Chang Cardiac Research Institute, Sydney, Australia.

2:45 PM (230) Slight Exercise in Ambulatory LVAD Patients Leads to a Severe Compromise of Hemodynamic Parameters; D. Camboni,1 T. Lange,2 D. Lunz,2 L. Rupprecht,3 M. Hilker,1 S. Hirt,1 C. Schmid.1
1Cardiothoracic Surgery, University Medical Center, Regensburg, Germany; 2Internal Medicine, University Medical Center, Regensburg, Germany; 3Anesthesiology, University Medical Center, Regensburg, Germany.

3:00 PM (231) Differences in Exercise Capacity Among Left Ventricular Assist Device Recipients Correlate More with Resting Filling Pressures Than Systolic Function; J. Vader, H. Craddock, G. Ewald, R. Rasalingam. Cardiovascular Division, Washington University, St Louis, MO.

3:15 PM (232) Chronotropic Incompetence May Impact Exercise Capacity in Patients Supported by Left Ventricular Assist Device; A.R. Garan,1 N. Nahumi,1 J. Han,1 P. Colombo,1 M. Yuzefpolskaya,1 R. Te-Frey,2 H. Takayama,2 Y. Naka,2 N. Uriel,1 U.F. Jorde.1
1Cardiology, Columbia University Medical Center, New York, NY; 2Cardiothoracic Surgery, Columbia University Medical Center, New York, NY.

CONCURRENT SESSION 29

Donor Management 2: Rethinking the Cardiac Donor (513ABC)

CHAIRS: David A. D’Allesandro, MD and Ashish S. Shah, MD

2:00 PM (233) Do Donor Characteristics Matter? Prediction of Graft Utilization and Recipient Outcomes after Heart Transplantation; K.K. Khush,1 R. Menza,2 J. Nguyen,3 J.G. Zaroff,4 B.A. Goldstein.1
1Stanford University, Palo Alto, CA; 2Victoria University, Wellington, New Zealand; 3California Transplant Donor Network, Oakland, CA; 4Kaiser Northern California Division of Research, Oakland, CA.

2:15 PM (234) Does Cardiopulmonary Arrest and Resuscitation of Heart Donors Portend Inferior Outcomes in Heart Transplantation Recipients?; M.A. Quader, L.G. Wolfe, V. Kasirajan. Cardiothoracic Surgery, Virginia Commonwealth University, Richmond, VA.

2:30 PM (235) Donor Pulmonary Status Impacts Survival in Cardiac Transplant Recipients; J.L. Madden,1 B.C. Baird,1 J. Stehlik,2 S.G. Drakos,2 S.H. McKellar,3 J.N. Nativi,2 C.H. Selzman.1
1Cardiothoracic Surgery, University of Utah Hospitals & Clinics, Salt Lake City, UT; 2Cardiology, University of Utah Hospitals & Clinics, Salt Lake City, UT.

2:45 PM (236) Right Ventricular Distension in Donor Hearts Following Cardiocirculatory Death: Implications for Post-Transplant Function; C.W. White,1 A. Ali,2 D. Hasanally,3 F. Wang,3 B. Xiang,1 P. Mundt,4 S. Large,3 A. Ravandi,3 T.W. Lee,1 R.C. Arora,1 G. Tian,1 D.H. Freed.1
1Cardiac Sciences Program, University of Maryland, Baltimore, MD; 2Cardiothoracic Surgery, University of Maryland School of Medicine, Baltimore, MD; 3Cardiothoracic Surgery, University of Maryland School of Medicine, Baltimore, MD; 4National Research Council Institute for Biodiagnostics, Winnipeg, Canada.

3:00 PM (237) Ex Vivo Heart Preservation: Impact of an Acellular Hemoglobin-Based Oxygen Carrier on Myocardial Function and Energy Metabolism; C.W. White,1 B. Xiang,2 P. Mundt,4 R.C. Arora,1 G. Tian,1 D.H. Freed.1
1Cardiac Sciences Program, University of Manitoba, Winnipeg, Canada; 2Cardiothoracic Surgery, Papworth Hospital, Cambridge, United Kingdom; 3Institute of Cardiovascular Sciences, St. Boniface Hospital, Winnipeg, Canada; 4National Research Council Institute for Biodiagnostics, Winnipeg, Manitoba.

3:15 PM (238) The PROCEED II International Heart Transplant Trial with the Organ Care System Technology (OCS); E. Esmailian,1 J.A. Kobashigawa,1 Y. Naka,2 D. Mancini,1 E. Soltész,3 E. Hisch,4 M. Camacho,2 D. Baran,2 J. Madsen,2 P. LePrince,2 M. Deng,2 A. Ardehali.10
1Cedars-Sinai Heart Institute, Cedars-Sinai Medical Center, Los Angeles, CA; 2Department of Surgery, New York Presbyterian Hospital/Columbia University Medical Center, New York, NY; 3Department of Thoracic & Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; 4Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH; 5Department of Cardiothoracic Surgery, Barnabas Health Heart Center at Newark Beth Israel Medical Center, Newark, NJ; 6Department of Heart Failure and Transplant, Barnabas Health Heart Center at Newark Beth Israel Medical Center, Newark, NJ; 7Department of Surgery, Cardiac Surgery, Massachusetts General Hospital, Boston, MA; 8Department of Surgery, Groupe Hospitalier Pité-Salpêtrière, Paris, France; 9Department of Cardiothoracic Medicine, David Geffen School of Medicine at UCLA Medical Center, Los Angeles, CA; 10Department of Surgery, Division of Cardiothoracic Surgery, David Geffen School of Medicine at UCLA Medicine, Los Angeles, CA.
3:30 PM – 4:00 PM
COFFEE BREAK / VISIT EXHIBITS / VIEW POSTERS (516; 517AB)

4:00 PM – 5:30 PM

ISHLT AND AST JOINT SESSION II

Antibody-Mediated Rejection: State of the “Current” Art (513DEF)
CHAIRS: Lori J. West, MD, DPhil, FRCPCH (ISHLT) and Cynthia J. Gries, MD MSc (AST)

SESSION SUMMARY: Anti-donor antibodies remain an obstacle to successful thoracic transplantation. The combined expertise of ISHLT and the American Transplant Society come to bear on this timely topic in two separate sessions. The first explores the detection, interpretation, and potential treatments of these antibodies prior to transplantation. The second explores the development of antibody-mediated rejection after thoracic transplantation and importantly includes the perspective of the non-thoracic transplant community.

4:00 PM Antibodies After Thoracic Transplantation: The Clinical Meaning and When to Intervene, John D. Smith, FRCPCH, Royal Brompton & Harefield NHS Foundation Trust, Harefield, Middlesex, UK

4:20 PM Common Pathology Findings of AMR Across Solid Organ Transplantation, Michael Mengel, MD, University of Alberta, Edmonton, Canada

4:40 PM Prophylactic Therapies in Sensitized Patients After Kidney Transplantation, Millie Samaniego, MD, FACP, FASN, University of Michigan, Ann Arbor, MI, USA

5:00 PM Treatment Strategies in AMR in Thoracic Transplantation, Jon Kobashigawa, MD, Cedars-Sinai Heart Institute, Los Angeles, CA, USA

5:20 PM Moderated Panel Discussion
4:00 PM – 5:30 PM

CONCURRENT SESSION 31

MCS 8: The Cost for Quality of Life after VAD (517CD)

CHAIRS: Annemarie Kaan, MCN RN CCTN and Stuart D. Russell, MD

4:00 PM (245) Comparison of Costs, Readmissions and Days out of Hospital at One Year between Heart Transplantation and Continuous Flow LVAD; D.J. Goldstein, A. Sileo, L. Baker, J. Nguyen, P. Cotter. Cardiothoracic and Vascular Surgery, Montefiore Medical Center, Bronx, NY.

4:15 PM (246) Hit the Road: A Multicenter Evaluation of Driving with LVADs; S. Emani, F.D. Pagani, P.M. Eckman, R.A. Gordon, M.A. Brisco, T.C. Kschedell, S.A. Mandras, A.K. Hasan, C.B. Sai-Sudhakar, B.C. Sun, Division of Cardiology, The Ohio State University, Columbus, OH; Cardiac Surgery, University of Michigan, Ann Arbor, MI; Cardiology Division, University of Minnesota, Minneapolis, MN; Cardiology, Northwestern University, Chicago, IL; Division of Cardiology, University of Pennsylvania, Philadelphia, PA; Thoracic and Cardiovascular Surgery, University of Florida, Gainesville, FL; Division of Cardiology, Ochsner Health System, New Orleans, LA; Division of Cardiothoracic Surgery, The Ohio State University, Columbus, OH; Cardiac Surgery, Minneapolis Heart Institute, Minneapolis, MN.


4:45 PM (248) Hospital Readmissions in Left Ventricular Assist Device (LVAD) Recipients: Analysis of Bridge to Transplant (BTT) and Destination Therapy (DT); M. Bradner, B.A. Whitson, P. Eckman, A. Lacey, M. Colvin-Adams, K.K. Liao, R. John.


5:15 PM (250) Impact of Mechanical Support on Quality of Life Measures over Time; J.J. Teuteberg, N. Kunz, C. Allen, K. Lockard, M. Simon, J.K. Bham, C. Bernmudez, M.L. McNulty, R.L. Kormos, M.A. Dew, Heart and Vascular Institute, University of Pittsburgh, Pittsburgh, PA; School of Medicine, University of Pittsburgh, Pittsburgh, PA.

4:00 PM – 5:30 PM

CONCURRENT SESSION 32

Heart 8: Mechanisms and Markers of Acute Rejection—Within and Without Biopsy Sampling (511)

CHAIRS: Mario C. Deng, MD and Annalisa Angelini, MD


5:15 PM (256) Clinical and Prognostic Correlates of pAMR Grading in Patients with Suspect Antibody Mediated Rejection; L. Borgese, M. Fanizzi, L. Potena, O. Leone, A. Bontadin, S. Iannelli, F. Fruet, P. Prestinenzi, V. Manfredini, G. Magnani, F. Grigioni, A. Branzi, Cardiovascular Department, University of Bologna, Bologna, Italy; Pathology Department, Academic Hospital S.Orsola-Malpighi, Bologna, Italy; Immunogenetics Laboratory, Academic Hospital S. Orsola-Malpighi, Bologna, Italy.
CONCURRENT SESSION 33

Lung 5: BOS – An Update (510)

**CHAIRS:** Kevin M. Chan, MD and Charles Poirier, MD FRCP(C)

4:00 PM (257) **Uteroglobin Protective Role in CLAD, from Proteomic to In Vitro Biological Activity:** D. Capuano,1 E. Cova,2 S. Miserere,2 D. Piloni,2 M. Porzio,2 T. Oggionni,2 F. Meloni,1,2 1Department of Molecular Medicine, University of Pavia, Pavia, Pavia, Italy; 2Department of Respiratory Diseases, Policlinico San Matteo Foundation, Pavia, Pavia, Italy.

4:15 PM (258) **New Insights in Bronchiolitis Obliterans Syndrome after Lung Transplantation Using (micro-)CT:** S.E. Verleden,1 D. Vasilescu,2 S. Willems,1 D. Ruttens,1 E. Vandermeulen,1 A. Vaneylen,1 D.E. Van Raemdonck,1 R. Vos,1 J.E. Mcdonough,2 E.K. Verbeken,1 J. Verschaepkelen,1 B. Rondelet,2 C. Knoop,1 J. Cooper,1 M.L. Decraemer,1 J.C. Hogg,2 G.M. Verleden,1 B.M. Vanaudenaerde,1 1KU Leuven, Leuven, Belgium; 2Lab of Experimental Thoracic Surgery, Kyoto University Hospital, Kyoto, Kyoto, Japan; 3The Toronto Lung Transplant Program, University Health Network, University of Toronto, Toronto, ON, Canada.

4:30 PM (259) **Overexpression of IL-1 Receptor Antagonist Attenuates Obliterative Bronchiolitis in Murine Tracheal Transplant Model:** V.Y. Sacher,1 R.C. Levitt,2 P. Ruiz,1 Y. Wei,1 S. Gupta,3 R.I. Vazquez-Padron,1 S.M. Pham,1 Surgery, University of Miami, Miami, FL; 2Anesthesiology, University of Miami, Miami, FL; 3Microbiology and Immunology, University of Miami, Miami, FL.

4:45 PM (260) **Transbronchial Brush (TBBr) Detection of Activated T Cells Identifies Patients at Risk of Progressive Bronchiolitis Obliterans Syndrome (BOS):** D.C. Chambers,1 A. Fiene,1 K. Sinclair,1 L. Samson,1 M.E. Tan,1 T. Sladden,1 P.M.A. Hopkins,1,2 S.T. Yerkovich,1,2 Queensland Lung Transplant Service, The Prince Charles Hospital, Brisbane, QLD, Australia; 1School of Medicine, The University of Queensland, Brisbane, Qld, Australia.

5:00 PM (261) **Chronic Rejection Lesions Are Decreased in IL-17 KO Mice after Orthotopic Lung Transplantation:** A. Vaneylen,1 E. Verbeke,1 E. Vandermeulen,1 J. Somers,2 S.E. Verleden,1 D. Ruttens,1 R. Vos,1 D.E. Van Raemdonck,2 W. Jungraithmayr,3 B.M. Vanaudenaerde,1 G.M. Verleden,1 Lab of Pneumology, KU Leuven, Leuven, Belgium; 2Lab of Experimental Thoracic Surgery, KU Leuven, Leuven, Belgium; 3Lab of Thoracic Surgery, University Hospital, Leuven, Belgium.

5:15 PM (262) **Diagnosis of Restrictive Allograft Syndrome (RAS) without Using Total Lung Capacity:** M. Sato,1 T. Saito,2 T.K. Waddell,1 L.G. Singer,1 S. Keshavjee,1 Department of Thoracic Surgery, Kyoto University Hospital, Kyoto, Kyoto, Japan; 2The Toronto Lung Transplant Program, University Health Network, University of Toronto, Toronto, ON, Canada.

CONCURRENT SESSION 34

PH 3: Right Ventricular Assessment and Function (512A-G)

**CHAIRS:** Raymond L. Benza, MD and Dana McGlothlin, MD

4:00 PM (263) **Radionuclide Angiographic Assessment of Right Ventricular Ejection Fraction Is Pronostic in Pulmonary Arterial Hypertension:** P.Y. Courand,1 V. Cottin,1,2,3 G. Pina-Jomir,1 M. Bertocchi,1 C. Khoura atra,1 J. Traclet,1 A.-S. Blanchet,1 A. Dib,1 S. Turquier,1 J.-C. Glé rant,1 G. Dérumeaux,1,2 M. Humbert,1,2,3 G. Simonneau,1,2,3 J.-F. Morrey,1,2,3 C. Scheiber,1,2,3 J.-F. Cordier,1,2,3 1Hospices Civils de Lyon, Lyon, France; 2Université Lyon 1, Lyon, France; 3UMR753, INRA, Lyon, France; 4CH Annecy, Annecy, France; 5CH St Joseph St Luc, Lyon, France; 6CARMEN, Inserm, Lyon, France; 7Assistance Public Hôpitaux de Paris, Le Kremlin-Bicêtre, France; 8Université Paris Sud, Paris, France; 9U999, Inserm, Paris, France.

4:15 PM (264) **Hypoxia Inducible Factor-1 Driven Vascular Endothelial Growth Factor and Stromal Derived Factor-1 Signaling Are Maintained in the Hypertrophied Right Ventricle in Congenital Heart Disease: Implications for Pulmonary Hypertension:** P. Drompar,1 G. Sutendra,2 R. Paulin,1 J. Zhao,1 J. Sandha,1 I.M. Rebyekya,1 D.B. Ross,1 E.D. Michelakis,2 J. Nagn-dran1, 1Surgery (Cardiac Surgery), University of Alberta, Edmonton, AB, Canada; 2Medicine (Cardiology), University of Alberta, Edmonton, AB, Canada.

4:30 PM (265) **A ‘Virtual’ Echocardiographic Score for Predicting the Hemodynamic Profile in Pulmonary Hypertension:** A. Vaidya,1 A.R. Opotowsky,2 P.R. Forfia,1 1Department of Medicine, Division of Cardiology, University of Pennsylvania School of Medicine, Philadelphia, PA; 2Department of Cardiology, Children’s Hospital Boston, Boston, MA.

4:45 PM (266) **Effects of Parenteral Treprostinil on Functional Capacity, Hemodynamics and Right Heart Function in Patients Referred to LTx with Pulmonary Fibrosis & Significant PH:** R. Sagarra,1 A. Fields,2 D. Khanna,3 F. Paul,2 R. Saggar,3 1Heart-Lung Institute, St. Joseph Hospital & Medical Center, Phoenix, AZ; 2Division of Cardiology, University of Pennsylvania, Philadelphia, PA; 3Division of Rheumatology, University of Michigan, Ann Arbor, MI; 4Division of Cardiology, University of Pennsylvania, Philadelphia, PA; 5Division of Pulmonary & Critical Care, David Geffen School of Medicine, UCLA, Los Angeles, CA.

5:00 PM (267) **Right Ventricular Outflow Tract Velocity Time Integral Is the Strongest Echo-Doppler Predictor of Right Ventricular Fibrosis in Patients with Pulmonary Arterial Hypertension:** S.K.R. Soma, D. Raghavue, S. Prabhakar, R. Biederman, A. Raina, Cardiovascular Institute, Allegheny General Hospital, Pittsburgh, PA.

CONCURRENT SESSION 35

PEDS 2: Mechanical Circulatory Support in Children
(513ABC)

CHAIRS: Daphne T. Hsu, MD and David N. Rosenthal, MD

4:00 PM (269) Improving Outcomes in Children Requiring Mechanical Bridge-To-Transplantation (BTT) in the Current Era; R.R. Davies, S. Haldeman, C. Pizarro. Nemours Cardiac Center, Nemours/Al duPont Hospital for Children, Wilmington, DE.

4:15 PM (270) Neurological Outcomes Associated with Use of the Berlin Heart EXCOR Pediatric; L.C. Jordan, T. Humphl, O. Reinhartz, S. Pruthi, C. Tjossem, R. Ichord, D.N. Rosenthal. Neurology, Vanderbilt University, Nashville, TN; Critical Care Medicine, University of Toronto, Toronto, ON, Canada; Cardiac Surgery, Stanford University, Stanford, CA; Radiology, Vanderbilt University, Nashville, TN; Critical Care Medicine, University of Toronto, Toronto, ON, Canada; Pediatric Cardiology, Stanford University, Stanford, CA; Berlin Heart, The Woodlands, TX.

4:30 PM (271) Effect of VAD Use on HLA Sensitization and Risk of Rejection Post-Heart Transplant in US Children with Dilated Cardiomyopathy; C.S. Almond, K.P. Daly, T.P. Singh, G. Piercey, K. Gauvreau. Cardiology, Boston Children’s Hospital, Boston, MA.

4:45 PM (272) Pediatric VAD Utilization in Dilated Cardiomyopathy: Does Higher VAD Utilization Lead to Better Waitlist Outcomes?; C.J. VanderPluym, T.P. Singh, K. Gauvreau, E. Blume, B. Millian, F. Fynn-Thompson, K. Daly, C. Almond. Cardiology, Boston Children’s Hospital, Boston, MA.

5:00 PM (273) Evaluation of the Infant Jarvik Ventricular Assist Device in a Chronic Juvenile Sheep Model; A.C. Watkins, X. Wei, P.G. Sanchez, Y. Liu, G.J. Bittle, T. Li, A. Narin, M. Repetto, E. Faria, S. Li, R. Jarvik, Z. Wu, B.P. Griffith. Division of Cardiac Surgery, University of Maryland, School of Medicine, Baltimore, MD; Division of Cardiology, University of Maryland Medical Center, Baltimore, MD; Jarvik Heart Inc, New York, NY.

5:15 PM (274) Worldwide Use of SynCardia Total Artificial Heart in Adolescents: A 25-Year Experience; D.L. Morales, F. Zafar, A. Lorts, T.D. Ryan, C. Chin, J.A. Towbin, J.L. Jefferies. Heart Institute, Cincinnati Children’s Hospital, University of Cincinnati School of Medicine, Cincinnati, OH.

CONCURRENT SESSION 36

PHARM 1: Innovative Pharmacotherapeutic Approaches to Thoracic Transplant and Mechanically Assisted Patients
(514AB)

CHAIRS: Michael A. Shullo, PharmD and Katrina Ford, BPharm

4:00 PM (275) Therapeutic Peptide-Modified Gold Nanoparticles for the Treatment of Acute Lung Injury; D. Lee, J.Z. Zhao, H. Kim, H. Yang, M. Liu, Institute of Medical Science, University of Toronto, Toronto, ON, Canada; Latner Thoracic Surgery Research Laboratories, University Health Network, Toronto, ON, Canada; Department of Physiology, University of Toronto, Toronto, ON, Canada.

4:15 PM (276) Oral Ribavirin Is a Cost-Effective Alternative to Intravenous Ribavirin for Respiratory Syncytial Virus (RSV) Infection after Lung Transplantation (LTX); F.S. Burrows, L.M. Carlos, D. Marriott, A. Havyr, M. Pilt, A.R. Glanville. Pharmacy Department, St Vincent’s Hospital, Sydney, Australia; Department of Microbiology and Clinical Infectious Diseases, St Vincent’s Hospital, Sydney, Australia; Lung Transplant Unit, St Vincent’s Hospital, Sydney, Australia.


4:45 PM (278) Treatment of Secondary Pulmonary Hypertension with Bosentan after Left Ventricular Assist Device Implantation; S.J. LaRue, R. Garcia-Cortes, S. Ray, A. Ravichandran, G.A. Ewald, I.-W. Wang, J. Schilling. Internal Medicine, Cardiology Division, Washington University School of Medicine, Saint Louis, MO; Cardiothoracic Surgery, Indiana University Health, Indianapolis, IN.

5:00 PM (279) Comparing Bortezomib to Traditional Therapies for Antibody-Mediated Rejection (AMR): Out with the Old?; T. Khuu, R.K. Cheng, M. Cadeiras, M. Allareddy, A. Baas, D. Cruz, E. Depasquale, A. Hickey, B. Kubak, A. Nsair, C. Holt, M.C. Fishbein, M.H. Kwon, A. Ardehali, R.J. Shemin, E.F. Reed, M.C. Deng. Medicine, Ronald Reagan UCLA Medical Center, Los Angeles, CA; Heart & Lung Transplant, Ronald Reagan UCLA Medical Center, Los Angeles, CA; Surgery, Ronald Reagan UCLA Medical Center, Los Angeles, CA; Pathology and Lab Med, Ronald Reagan UCLA Medical Center, Los Angeles, CA; Pathology-Immunogenetics Center, Ronald Reagan UCLA Medical Center, Los Angeles, CA.

5:15 PM (280) Population Pharmacokinetics and Bayesian Estimation of Mycophenolic Acid Exposure in Heart Transplant Recipients: Comparison of Two Approaches; R. Youdarene, J.B. Woillard, A. Prémault, A. Rousseau, J. Debord, M. Neely, G. Sinnasse-Raymond, P. Marquet, F. Saint-Marcoux, Laboratory of Applied Pharmacokinetics, University of Southern California Keck School of Medicine, Los Angeles, CA; ROCHE S.A.S., Boulogne-Billancourt, France.
Utility of Gene Expression Profiling Test (GEP) Score
INTERMACS Level at the Time of Transplant Assessment
Long-Term Outcomes of Orthotopic Heart Transplantation
Outcomes in Patients with Ischemic Cardiomyopathy
CRT before Transplant or VAD? The Role of CRT in
Long-Term Renoprotective Effect of Sirolimus-Based
Beyond TICTAC: “Real World” Consecutive Patient
The Added Value of Exercise Variables in Addition to
Increased Negative Impact of Anti-Angiotensin Type
Racial Disparities in Patients Bridged to Heart Transplantation
with a Ventricular Assist Device; C.A. Beaty,1 T.J. George,1 A. Kilic,1 R.J. Tedford,2 S.D. Russell,2 A.S. Shah,1 Division of Cardiac Surgery, Johns Hopkins Medical Institutions, Baltimore, MD; Division of Cardiology, Johns Hopkins Medical Institutions, Baltimore, MD.

5:30 PM – 6:30 PM

MINI ORAL SESSION 7

Mechanical Circulatory Support (513DEF)

CHAIRS: Gonzalo V. Gonzalez-Stawinski, MD and Nicolaas de Jonge, MD, PhD

5:30 PM (293) Dynamics of Galectin-3 Levels Following Left Ventricular Assist Device Implantation; E.J. Coromilas, 1 D. Moore, 1 T.S. Kato, 1 C. Wu, 1 H. Takayama, 1 Y. Naka, 2 D. Mancini, 1 P.C. Schulze, 1 1Division of Cardiology, Columbia University, New York, NY; 2Division of Cardiothoracic Surgery, Columbia University, New York, NY.

5:35 PM (294) Changes in Left Ventricular Ejection Fraction Following Implantation of Left Ventricular Assist Device as Destination Therapy; S.M. Dunlay, 1 S.J. Park, 2 K. Chandrasekaran, 3 J.O. Choi, 2 N.L. Pereira, 1 L.D. Joyce, 2 R.C. Daly, 2 J.M. Stulak, 2 S.S. Kushwaha, 1 1Internal Medicine/Cardiology, Mayo Clinic, Rochester, MN; 2Cardiothoracic Surgery, Mayo Clinic, Rochester, MN; 3Cardiology/Internal Medicine, Mayo Clinic, Scottsdale, AZ.

5:40 PM (295) Preoperative Moderate to Severe Tricuspid Regurgitation Does Not Affect Outcomes Following Placement of Continuous Flow LVADS; J.O. Robertson, 1 S. Okada, 1 S.M. Joseph, 2 A. Itoh, 1 G.A. Ewald, 2 R.J. Damiano, 1 S. Prasad, 1 S.C. Silvestry, 1 1Surgery (Division of Cardiothoracic Surgery), Washington University, St. Louis, MO; 2Medicine (Division of Cardiology), Washington University, St. Louis, MO.

5:45 PM (296) Meeting INR Targets for the Left Ventricular Assist Device Patient; S.A. Schaefer, 1 A.A. Schmitt, 1 J. Bjelkengren, 2 S. Lewey, 1 B. McLaughlin, 1 D. Sato, 2 S. Puhlman, 2 S. Pyo, 2 R. Oberst, 2 E.A. Lawrence, 2 P.D. Hester, 2 C. Sparks, 2 P.J. Kaley, 2 S. Blevins, 2 D.D. Sandler, 2 T.B. Icenogle. Inland Northwest Thoracic Organ Transplant Program, Providence Sacred Heart Medical Center, Spokane, WA.

5:50 PM (297) LVAD-Associated Coagulopathy: Contribution of Phosphatidylserine (PS+) Cellular Microparticles to the Risk of Hemorrhage and Thrombosis in Patients with Non-Pulsatile Left Ventricular Assist Devices; A. Nascimbene, 1 J. George, 1 V. Vjian, 1 J.-F. Dong, 2 R. Delgado, 1 1Cardiology, Texas Heart Institute, Baylor College of Medicine, Houston, TX; 2Thrombosis Reasearch Department, Baylor College of Medicine, Houston, TX.

5:55 PM (298) The Role of Echocardiography in Patients with Intravascular Hemolysis Due to Suspected Continuous-Flow Left Ventricular Assist Device Thrombus; N.M. Fine, 1 S.S. Kushwaha, 1 T. Hasin, 1 Y. Topilsky, 1 R.C. Daly, 2 L.D. Joyce, 2 J.A. Schirger, 1 B.S. Edwards, 1 S.J. Park, 2 1Division of Cardiovascular Diseases, Department of Medicine, Mayo Clinic, Rochester, MN; 2Division of Cardiovascular Surgery, Department of Surgery, Mayo Clinic, Rochester, MN.

6:00 PM (299) Hybrid ECMO Using AvalonElite DLC for Circulatory Support Guarantees Adequate Heart/Brain Oxygen Supply; J. Zhao, 1 D. Wang, 1 X. Zhou, 1 C. Ballard-Croft, 1 K. Rosenheim, 1 J. Zwischenberger, 1Cardiothoracic Surgery, University of Kentucky, Lexington, KY; 2Cardiopulmonary Bypass, Fujwai Cardiovascular Hospital, Beijing, China.

6:05 PM (300) Long-Term Results with Total Artificial Heart: Is It Prime Time for Destination Therapy?; G. Torregrossa, 1 G. Gerosa, 1 V. Tarzia, 1 V. Vida, 1 D. Duveau, 2 F. Arabia, 2 P. Leprince, 4 V. Kasirajan, 5 F. Beyersdorf, 6 A. Loforte, 7 F. Musumeci, 7 R. Hetzer, 8 T. Krabatsch, 8 J. Gummiert, 9 M. Morris, 9 J. Copeland, 10 1Cardiac Surgery, University of Padua, Padua, Italy; 2Department of Thoracic and Cardiovascular Surgery, Institut du Thorax, Nantes, France; 3Division of Cardiothoracic Surgery, Department of Surgery, Mayo Clinic, Phoenix, AZ; 4Service de Chirurgie Thoracique et Cardiovasculaire, Université Pierre et Marie Curie – Hospital LaPitié, Paris, France; 5Division of Cardiothoracic Surgery, Virginia Commonwealth University Health System, Richmond, VA; 6Department of Cardiovascular Surgery, University Hospital Medical Center, Freiburg, Germany; 7Department of Cardiology and Cardiovascular Surgery, Azienda Ospedaliera S. Camillo-Forlanini, Rome, Italy; 8Deutsches Herzzentrum Berlin, Berlin, Germany; 9Herz- und Diabeteszentrum NRW, Universitätsklinikum der Ruhr-Universität Bochum, Bad Oeynhausen, Germany; 10Cardiothoracic Unit Department of Surgery, University Medical Center, Tucson.

6:10 PM (301) Longitudinal Investigation of the Effect of Centrifugal Flow LVADS on Blood Haemostatic Parameters; K. Muthiah, 1,2,4 D. Connor, 2,3 K. Lyon, 2,3 D. Rutgers, 1 D. Robson, 1 P.S. Macdonald, 1,2,4 K. Dhital, 1,2 P. Jansz, 1 J. Joseph, 2,3 C.S. Hayward, 1,2,4 1Heart Failure and Transplant Unit, St. Vincent's Hospital, Sydney, Australia; 2University of New South Wales, Sydney, Australia; 3Department of Haematology, St. Vincent's Hospital, Sydney, Australia; 4Victor Chang Cardiac Research Institute, Sydney, Australia.

6:15 PM (302) Continuous-Flow Left Ventricular Assist Device Versus Heart Transplantation: A European Perspective; E. Ammirati, 1,2 F.G. Oliva, 1,2 T. Colombo, 1,2 C.F. Russo, M. Cipriani, A. Garascia, A. Verde, F. Macera, R. Paino, L. Martinielli, M. Frigerio. Cardiothoracic and Vascular Department, Niguarda Ca' Granda Hospital, Milan, Italy.

6:20 PM (303) The Characteristics and Outcomes of Advanced Heart Failure Patients with Hemodynamic Parameters Predictive of Right Ventricular Failure; R.J. Mentz, 1,2,4 M.A. Daneshmand, A.D. DeVore, C.A. Milano, J.G. Rogers, C.B. Patel. Duke University Medical Center, Durham, NC.

6:25 PM (304) WITHDRAWN
Impact of Heart Donor “Inotrope” Support on 30-Day Frailty and Early Mortality after Lung Transplantation: Survival after Lung Transplantation is Linked with a Donor-Recipient Size Mismatch in Lung Transplantation


Using 5-Year Survival Model Does Not Change LAS: Florian M. Wagner, MD and David P. Mason, MD

The Importance of Repeated Measurements To Assess Origin of Fibroblasts in Rejected Airway: Experiment Outcome after Lung Transplantation Is Comparable Centers for Disease Control ‘High-Risk’ Donors and

MINI ORAL SESSION 8
Lung Failure, Heart Donor Management and Lung Donor Management (5148)

CHAIRS: Florian M. Wagner, MD and David P. Mason, MD


5:40 PM (307) Using 5-Year Survival Model Does Not Change LAS Estimate of Transplant Benefit: M. Valapour, B. Heubner, M. Skeans, A. Israni, M. Hertz. Minneapolis Medical Research Foundation, Scientific Registry of Transplant Recipients(SRTR), Minneapolis, MN; University of Minnesota, Minneapolis, MN.

5:45 PM (308) The Impact of Severe Pulmonary Arterial Hypertension on Single Lung Transplantation in Patients with Chronic Obstructive Pulmonary Disease and Idiopathic Pulmonary Fibrosis: An Analysis of the UNOS Database: Z.N. Kon, G.J. Bittle, C.F. Evans, P.B. Wehman, B.P. Griffith. University of Maryland School of Medicine, Baltimore, MD.

5:50 PM (309) Survival after Lung Transplantation is Linked with a Genetic Polymorphism in Caveolin-1; E. Vandermeulen, D. Ruttens, E. Wauters, S.E. Verleden, A. Vaneylen, J. Somers, D.E. Van Raemdonck, D. Lambrechts, G.M. Verleden, R. Vos, T.S. Nawrot, B.M. Vanaudenaerde. The Leuven Lung Transplant Group, Katholieke Universiteit Leuven, Leuven, Belgium; Laboratory of Translational Genetics, Katholieke Universiteit Leuven, Vesalius Research Center, Leuven, Belgium; Centre for Environmental Sciences, Hasselt University, Diepenbeek, Belgium; Department of Public Health, Katholieke Universiteit Leuven, Leuven, Belgium.

5:55 PM (310) Origin of Fibroblasts in Rejected Airway: Experiment with Orthotopic Tracheal Allotransplantation Model Using Transgenic GFP Mice: C. Konoeda, D. Koinuma, Y. Morishita, K. Kitano, K. Nagayama, M. Anraku, K. Kakimi, K. Miyazono, J. Nakajima, T. Murakawa. Department of Thoracic Surgery, Graduate School of Medicine, The University of Tokyo, Bunkyo, Tokyo, Japan; Molecular Pathology, Graduate School of Medicine, The University of Tokyo, Bunkyo, Tokyo, Japan; Immunotherapeutics (Medinet), Graduate School of Medicine, The University of Tokyo, Bunkyo, Tokyo, Japan.

6:00 PM (311) Pharmacologically Induced Hypothermia with WIN55, 212-2 and Extracorporeal Life Support after Cardiac Arrest as a Preservation Strategy for Heart Transplantation: A. Rungatscher, S. Hallstroem, D. Linardi, A. Giacomazzi, M. Tessari, A. Mazzucco, G. Faggian. Department of Surgery, Division of Cardiac Surgery, University of Verona, Verona, Italy; Institute of Physiological Chemistry, Medical University of Graz, Graz, Austria.
MINI ORAL SESSION 9

5:30 PM – 6:30 PM

Nursing, Health Science and Allied Health (514C)

CHAIRS: Christiane Kugler, PhD and Samantha J. Anthony, PhD MSW

5:30 PM (317) Patients Expectations and Experiences of Rehabilitation after Lung Transplantation; L.M. Fuller,1 B. Button,1 B. Tarrant,1 G.I. Snell,2 A.E. Holland,1 C.R. Battistuzzo,1 1Physiotherapy Department, The Alfred Hospital, Melbourne, Victoria, Australia; 2Lung Transplantation Services, The Alfred, Melbourne, Victoria, Australia;


5:40 PM (319) Neurodevelopment Outcomes Following Heart Transplant; R.D. Deliva,1,2 S. Sollazzo,1,3 A. Graham,1 M. Harkness,1,4 C. Manlihot;1 1Medicine, 2Division of Cardiovascular Medicine, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania; 3SickKids Transplant and Regenerative Medicine Centre, Hospital for Sick Children, Toronto, ON, Canada; 4SickKids Transplant and Regenerative Medicine Centre, Hospital for Sick Children, Toronto, ON, Canada;

5:45 PM (320) Does Educational Level and Insurance Impact Mid-Term Survival after Left Ventricular Assist Device Implantation?; P.S. Combs,1 M.A. Sobieski,2 J.R. Trivedi,3 E.F. Creamer,3 K.C. McCants,2 E.J. Birks,1 R.R. Singh,2 M.S. Slaughter,2 1Ventricular Assist Device Program, Jewish Hospital, Louisville; 2Division of Thoracic and Cardiovascular Surgery, University of Louisville, Louisville; 3Division of Cardiovascular Medicine, University of Louisville, Louisville.

5:50 PM (321) Health Status and Emotional Distress in Patients with a Left Ventricular Assist Device and Their Partners: A Comparative Study; C. Brouwers,1 J. Denollet,1 K. Caliskan,1 N. de Jonge,2 Q. Young,2 J. Kealy,4 A. Kaan,4 C. Cannon,4 S.S. Pedersen,4 1Department of Medical and Clinical Psychology, Tilburg University, Tilburg, Noord-Brabant, Netherlands; 2Thoraxcenter, Erasmus Medical Center, Rotterdam, Zuid-Holland, Netherlands; 3Division Heart and Lung, University Medical Center Utrecht, Utrecht, Netherlands; 4Health Center, St. Paul's Hospital, Vancouver, Canada.

5:55 PM (322) Innovative Roles To Support Advanced Heart Failure & Transplant Program Growth; K.E. Nelson,1 H.C. Wright,2 E.C. Melrose,3 D.P. Nelson, W.H. Perry, T.A. Snyder, D.A. Horstmannshof, J.W. Long. Integris Advanced Cardiac Care, Integris Baptist Medical Center, Oklahoma City, OK.

6:00 PM (323) Exploring Palliative Planning for Device Patients: A Need for Patient Defined Criteria for Discontinuation of Support; A.M. Knapstein,1 C. Wiencek,1 P.J. Coyne,2 S.C. Harton,1 R.A. Volman,1 D. Norieka,1 E. Del Fabbro,2 M.S Smallfield,1 K.B. Shah,1 1Division of Cardiology, Virginia Commonwealth University, Richmond; 2Division of Hematology, Oncology and Palliative Care, Virginia Commonwealth University, Richmond.

6:05 PM (324) Analysis of Informed Consent for Heart Transplantation or Left Ventricular Assist Device Implantation; J. Maclver,1 H.J. Ross,2 V. Rao,1 M. McKneally,2 1Peter Munk Cardiac Centre and Multorgan Transplant Program, University Health Network, Toronto, ON, Canada; 2Department of Surgery, University of Toronto, Toronto, ON, Canada.

6:10 PM (325) Using Heart Failure Instruments To Determine When To Refer Heart Failure Patients to Palliative Care; J. Maclver,1 M. Timmons,2 A.C. Alba,1 A. Tibbles,1 S. Greenwood,1 H.J. Ross,1 1Peter Munk Cardiac Center, University Health Network, Toronto, ON, Canada; 2Faculty of Medicine, University of Toronto, Toronto, ON, Canada.

6:15 PM (326) Effect of Symptom Clusters on Quality of Life in Patients with Heart Failure; J. Salyer,1 M.P. Flattery,2 D.E. Lyon,3 1Adult Health & Nursing Systems, Virginia Commonwealth University School of Nursing, Richmond, VA; 2Heart Failure/Heart Transplant Program; Pauley Heart Center, Virginia Commonwealth University Health System, Richmond, VA; 3Family & Community Health, Virginia Commonwealth University School of Nursing, Richmond, VA.

6:20 PM (327) Differential Impacts of Implantable Ventricular Assist Device on Quality of Life and Depression in Patients with Heart Failure and Their Caregivers; N. Kato,1 K. Kinugawa,2 M. Endo,3 Y. Kagami,2 T. Imamura,1 H. Muraoka,1 S. Minatsuki,1 T. Inaba,1 H. Maki,1 T. Shiga,1 M. Hatano,1 A. Yao,1 S. Kyo,1 I. Komuro,1 M. Ono,4 1Dept of Cardiovascular Medicine, The University of Tokyo Graduate School of Medicine, Tokyo, Japan; 2Dept of Therapeutic Strategy for Heart Failure, The University of Tokyo Graduate School of Medicine, Tokyo, Japan; 3Dept of Organ Transplantation, The University of Tokyo Hospital, Tokyo, Japan; 4Dept of Cardiothoracic Surgery, The University of Tokyo Graduate School of Medicine, Tokyo, Japan.

6:25 PM (328) Prevalence of Psychological Distress and Stress Moderators in UK Transplant Candidates; Z.G. Malpus, A. Horn, N. Yonan. Heart and Lung Transplant Unit, University Hospital South Manchester, Wythenshawe, Manchester, United Kingdom.
5:30 PM (329) Bridge to Pediatric Heart Transplantation Using Mechanical Circulatory Support: An Analysis of the UNOS Database; B. Wehman, G. Bittle, Z.N. Kon, M. Gibber, C. Evans, K. Rajagopal, S. Kaushal, B.P. Griffith. Cardiac Surgery, University of Maryland School of Medicine, Baltimore, MD.

5:35 PM (330) The Effect of Nutritional Status on Heart Transplant Survival in Patients under Two Years of Age; J. Godown, J. Friedland-Little, R.J. Gajarski, S. Yu, J.E. Donohue, K.R. Schumacher. Pediatric Cardiology, University of Michigan, Ann Arbor, MI.


5:45 PM (332) Donor-Recipient Size Matching in Pediatric Heart Transplantation: Is Weight the Most Appropriate Parameter To Predict Outcomes in All Age Groups?; A.S. Bayoumi, H. Liu, F. Fynn-Thompson. Department of Cardiac Surgery, Boston Children's Hospital, Boston, MA.


6:00 PM (335) Prevention of Resistant CMV Infection Using Persistent Valganciclovir Therapy through Leukopenia and Extending the Duration; A. Wadhwa, L.J. Stuckey, D.R. Kaul, C.E. Bartos, H.A. McCullough, R.D. Florn, V.N. Lama, J. Lin, K.M. Chan. Department of Internal Medicine, Division of Pulmonary and Critical Care Medicine, University of Michigan Health System, Ann Arbor, MI; Department of Pharmacy Services, University of Michigan Health System, Ann Arbor, MI; Department of Internal Medicine, Division of Infectious Diseases, University of Michigan Health System, Ann Arbor, MI; Transplant Center, University of Michigan Health System, Ann Arbor, MI; Section of Thoracic Surgery, University of Michigan Health System, Ann Arbor, MI.

5:30 PM – 7:00 PM

INTERNATIONAL MCS REIMBURSEMENT
(512H) NOTE: CME CREDIT IS NOT PROVIDED FOR THIS SESSION

CHAIRS: Jeffrey Teuteberg, MD and Daniel J. Goldstein, MD

Reimbursement in the United States:
5:30 PM Perspective from the Payers, Dennis Irwin, MD, OptumHealth, Golden Valley, MN, USA
5:40 PM Updates on Reimbursement in the United States, Tina Ivovic, Thoratec Corporation, Potomac, MD, USA
5:50 PM Clinical Perspectives, Valluvan Jeevanandam, MD, University of Chicago Medical Center, Chicago, IL, USA
6:00 PM Q & A

The European Landscape:
6:30 PM Updates on Reimbursement in Europe, Timothy L. Homer, MPA, HeartWare Incorporated, Framingham, MA, USA
6:40 PM Clinical Perspectives, Stephan Schueler, MD, PhD, FRCS, Freeman Hospital, Newcastle upon Tyne, UK
6:50 PM Q & A

5:30 PM – 6:30 PM
GENERAL POSTER SESSION 3 (516)
(SEE PAGE 220 FOR LISTING OF POSTER PRESENTATIONS)

5:30 PM – 7:00 PM
PAST PRESIDENTS’ COUNCIL MEETING AND RECEPTION (519A)

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM 10

Congenital Heart Disease – Success and Failure (511)
CHAIRS: Robert DB Jaquiss, MD and Asif Hasan MD, FRCS (C/th)

SESSION SUMMARY: At the end of the session the attendees will be able to discuss the outcomes after heart transplant in patients with congenital heart disease, review the utility of mechanical circulatory support in patients with congenital heart disease and heart failure and learn from a case based discussion.

7:00 AM Outcomes After Heart Transplantation for Adult Congenital Heart Disease, Anne I Dipchand, MD, Hospital for Sick Children, Toronto, ON, Canada
7:15 AM Failed Fontan and Use of Mechanical Assist, David L.S. Morales, MD, Cincinnati Children’s Hospital Medical Center, The Heart Institute, Cincinnati, OH, USA
7:30 AM My Toughest Cases in Transplantation of ACHD, Jonathan M. Chen, MD, New York Presbyterian, New York, NY, USA
7:45 AM Discussion

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM 11

PH and the Lung Parenchyma (510)
CHAIRS: Oksana A. Shlobin, MD and Mardi Gomberg-Maitland, MD, MSc

SESSION SUMMARY: Pulmonary hypertension is commonly seen in patients with advanced interstitial and airway disease but is also seen in patients with relatively mild parenchymal destruction when it is regarded as out of proportion PH. This concept is well recognized but not so well defined. This symposium will discuss the evidence and clinical approaches to the use of targeted therapy for PAH in three common examples seen in clinical practice.

7:00 AM Sarcoidosis – More Than Granulomas?, Steven D. Nathan, Inova Fairfax Hospital, Falls Church, VA, USA
7:15 AM Scleroderma, Jeffrey A. Golden, MD, UCSF, San Francisco, CA, USA
7:30 AM Pulmonary Hypertension in Chronic Obstructive Pulmonary Disease – When to Treat?, Martin P. Iversen, MD, PhD, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark
7:45 AM Discussion
This session will discuss the role of pre-transplant Infectious Diseases Evaluations: Assessing Viral Infections in the Lung Transplant Candidate (HIV and HCV). The Dreaded Donor Call that Needs the Transplant Infectious Peri-Operative and Immediate Post-Operative Management. Pediatric Aspects of DCD Lung Donors – Where Are We In 2013? Treatment Options for BOS in Children After Lung Transplantation, and Specific pediatric aspects of treatment for Bronchiolitis Obliterans Syndrome (BOS).

**SESSION SUMMARY:** Advanced therapies including VADs and transplantation are increasingly being offered to older patients, while the average age of organ donors is also increasing. Therefore more frail patients are referred for lung transplant. As survivors of malignant disease increase, some of them require lung transplant and clinicians are facing difficult decisions on whether they are candidates. As extracorporeal technology for lung failure advances, transplants for patients on ECMO is being considered more and more. Finally, patients with viral infections, especially HCV and HIV are living longer and present special challenges as possible lung transplant candidates. This session will provide a state-of-the-art overview of special considerations and outcomes of providing advanced organ support and replacement to all these groups of challenging recipients.

**7:00 AM** Bridged or Ventilated Patients, Kenneth R. McCurry, MD, Cleveland Clinic, Cleveland, OH, USA

**7:10 AM** Lung Transplant Candidates with Malignancy, Macé M. Schuermans, MD, Zurich University Hospital Lung Transplantation Program, Zurich, Switzerland

**7:20 AM** The Frail and Debilitated Lung Transplant Candidate, David J. Lederer, MD, MS, Columbia University Medical Center, New York, NY, USA

**7:30 AM** Viral Infections in the Lung Transplant Candidate (HIV and HCV), Lara Danziger-Isakov, MD, MPH, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, USA

**7:40 AM** Discussion

**8:00 AM – 9:30 AM**

**PHARM SYMPOSIUM**

**A Lifecycle Journey in Cystic Fibrosis and Lung Transplantation (512A-G)**

**CHAIRS:** Christopher R. Ensor, PharmD, BCPS-CV and Allan R. Glanville, MBBS, MD, FRACP

**SESSION SUMMARY:** After the successful symposium “A Lifecycle Journey In Advanced Heart Failure And Transplantation” at the 2012 meeting, we will continue this innovative session for the 2013 meeting, sponsored by the ISHLT Pharmacy and Pharmacology Council. Traditional symposia are presented either in pure didactic tracks or cases with panel discussions. This series is a practical hybrid depicting an enduring case interspersed with a best practice based discussion at predefined key “journey intervals.” The symposium will be rounded off by a panel assisted and audience supported anchoring discussion. For the 2013 Montreal meeting, we will focus on the lifecycle of Cystic Fibrosis and Lung Transplantation with special emphasis on four “journey points:” 1) considerations for listing and management of pre-transplant infections such as multi-drug resistant Burkholderia cepacia complex and Mycobacterium abscessus, 2) peri and immediate post-operative management issues, 3) metabolic and interaction considerations to drug dosing in the CF lung transplantation patient, and 4) management of bronchiolitis obliterans syndrome that demands innovative immunomodulatory strategies. The focus of this series will be on therapeutics that uniquely involve emerging or established knowledge in the pharmacology and pharmacy aspects of the interval disease states or situations.

**8:00 AM** Pre-transplant Journey: Considerations With Multi-Drug Resistant Infections in the Lung Transplant Candidate With Cystic Fibrosis, Denis Hadjiliadis MD, MHS, University of Pennsylvania, Philadelphia, PA, USA

**8:20 AM** Peri-Operative and Immediate Post-Operative Management of Lung Transplant Patient With Cystic Fibrosis, Joseph M. Pilewski, MD, University of Pittsburgh, Pittsburgh, PA, USA
8:40 AM  Middle Post-transplant Journey: Metabolic and Interaction Considerations to Drug Dosing in the Cystic Fibrosis Lung Transplant Recipient, Haifa Lyster MSc, BPharm(Hons), Royal Brompton & Harefield NHS Foundation Trust, London, UK

9:00 AM  Late Post-transplant Journey: Prevention and Management Strategies for OB in Cystic Fibrosis, Assoc. Prof. Peter MA Hopkins, The Prince Charles Hospital, Brisbane, QLD, Australia

9:20 AM  Moderated Panel Discussion
### Scientific Program

#### Saturday • April 27

**8:00 AM – 9:30 AM**

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<td><strong>Clinical Case Dilemmas in Thoracic Transplantation</strong>&lt;br&gt;(513DEF)</td>
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<td><strong>CHAIRS:</strong> Pali Shah and Keyur Shah</td>
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<td><strong>Expert Panel:</strong></td>
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<td>Fernanda Silveira, MD, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, USA</td>
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<td>James K. Kirklin, MD, University of Alabama at Birmingham, Birmingham, AL, USA</td>
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<td>Mandeep R. Mehra, MD FACC FACP, Brigham and Women's Hospital, Boston, MA, USA</td>
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<td>Francis D. Pagani, MD, PhD, University of Michigan, Ann Arbor, MI, USA</td>
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<td>Glen P. Westall, MD, Alfred Hospital, Melbourne, Australia</td>
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<td><strong>8:00 AM (359) Heart Transplant: A Mystery in the Myocardium:</strong> V. Cotarlan, D. Firchau, M. Icardi, J. Goerbig, O. Iqbal, K. Light-McGroary, F. Johnson. Cardiomyopathy Treatment Program, University of Iowa, Iowa City, IA.</td>
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<td><strong>8:12 AM</strong> Discussion by Expert Panel</td>
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<td><strong>8:22 AM (360) Mechanical Circulatory Support: When Less Is More:</strong> D.B. Leviner,¹ A. Keidar,² T. Ben Gal,² B. Medalion.¹¹¹ Cardiopulmonary Surgery, Rabin Medical Center, Beilinson Campus, Petach Tiqva, Israel; ²General Surgery B, Rabin Medical Center, Beilinson Campus, Petach Tiqva, Israel; ¹¹¹Cardiology, Rabin Medical Center, Beilinson Campus, Petach Tiqva, Israel.</td>
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<td><strong>8:34 AM</strong> Discussion by Expert Panel</td>
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<td><strong>8:44 AM (361) Unforeseen Events: Seizures Following Lung Transplant:</strong> I.S.J. Henriksen,¹ M. Østergaard,¹ M.-L.M. Talman,² C.B. Andersen,² J. Carlsen,³ M. Zemtsovski,¹ M. Iversen,¹ Department of Cardiothoracic Anaesthesia, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark; ²Department of Pathology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark; ³Department of Lung Transplantation, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark.</td>
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<td><strong>8:56 AM</strong> Discussion by Expert Panel</td>
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<td><strong>9:06 AM (362) Rapid Respiratory Failure after Heart Transplant:</strong> B. Mani,¹ H. Clauss,² R. Alvarez,³ E. Hamad,³ L. Nikolaidis,¹ J. Fitzpatrick,¹ M. Ahmed,¹ Division of Cardiology, Temple University School of Medicine, Philadelphia, PA; ²Division of Infectious Diseases, Temple University School of Medicine, Philadelphia, PA.</td>
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<td><strong>9:18 AM</strong> Discussion by Expert Panel</td>
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**9:30 AM – 9:45 AM**

| COFFEE BREAK (517 FOYER) |

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<th>9:45 AM – NOON</th>
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<td><strong>PLENARY SESSION</strong></td>
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<td><strong>From Bench to Bedside</strong>&lt;br&gt;(511)</td>
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<td><strong>CHAIRS:</strong> Jason D. Christie, MD, MS and Allan R Glanville, MBBS, MD, FRACP</td>
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<td><strong>SESSION SUMMARY:</strong> The final plenary session on Saturday represents one of the clear highlights of the meeting in Montréal and one you will miss at your peril. The session opens with great examples of translational science from the Society represented by two consensus reports on major areas in cardiac transplantation namely primary graft failure and a review of listing criteria based on a thorough review of the latest data. Marlene Rabinovitch, one of our most invited speakers with a fantastic reputation throughout the scientific world, will then illustrate her basic research on BMPRII is offering new targets for much needed therapy in PAH in classic bench to bedside story. She will be followed by Mary Amanda Dew presenting novel data on recognizing the importance of mental health as well as physical health in all aspects of the Society’s interests. The session ends in a flourish with a grand debate on an extended role of VAD implantation in acute heart failure by two of the Society’s most respected daughters. This plenary is a true synthesis of many facets of translational science at its best.</td>
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<td><strong>9:45 AM</strong> Awards Presentations</td>
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<td><strong>10:00 AM</strong> ISHLT Consensus Conference Report: Primary Graft Failure in Heart Transplantation, Jon A. Kobashigawa, MD, Cedars-Sinai Heart Institute, Los Angeles, CA, USA</td>
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<td><strong>10:08 AM</strong> ISHLT Consensus Conference Report: 2013 Heart Transplantation Listing Criteria, Mandeep R. Mehra, MD, Harvard Medical School, Boston, MA, USA</td>
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<td><strong>10:15 AM</strong> BMPR2: From Mutation to Manipulation, Marlene Rabinovitch, MD, Stanford University School of Medicine, Stanford, CA, USA</td>
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<td><strong>10:40 AM</strong> FEATURED ABSTRACT: (363) Survival in Pulmonary Arterial Hypertension Patients Awaiting Transplant: M. Gomberg-Maitland,¹ C. Glassner-Kolmin,² S. Watson,² R. Frantz,³ M. Park,³ A. Frost,³ R. Benza,⁶ F. Torres,⁶ F. Johnson. Cardiomyopathy Treatment Program, University of Iowa, Iowa City, IA; ²Department of Medicine, University of Chicago, Chicago, IL; ³Department of Health Studies, University of Chicago, Chicago, IL; ⁶Mayo Clinic College of Medicine, Rochester, MN; ³Department of Medicine, University of Maryland School of Medicine, Baltimore, MD; ⁶Department of Internal Medicine, Baylor College of Medicine, Houston, TX; ³Department of Medicine, Allegheny General Hospital, Pittsburgh, PA; ³Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX; ⁶Scientific Council on Pulmonary Hypertension, International Society for Heart and Lung Transplantation, Addison, TX.</td>
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<td><strong>10:55 AM</strong> The Mind Matters, Mary Amanda Dew, PhD, University of Pittsburgh School of Medicine and Medical Center, Pittsburgh, PA, USA</td>
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<td><strong>11:15 AM</strong> FEATURED ABSTRACT: (364) Frailty Index Predicts Mortality but Not Rehospitalization after Destination Left Ventricular Assist Device, S.M. Dunlay,¹ S.J. Park,² L.D. Joyce,² R.C. Daly,² J.M. Stulak,² S.M. McNallan,² V.L. Roger,¹ K. Kushwaha,¹ Internal Medicine, Cardiology, Mayo Clinic, Rochester, MN; ²Department of Cardiothoracic Surgery, Mayo Clinic, Rochester, MN; ³Health Sciences Research, Mayo Clinic, Rochester, MN</td>
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<td><strong>11:30 AM</strong> The President’s Debate</td>
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<td><strong>MODERATOR:</strong> David O. Taylor, MD</td>
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<td><strong>VAD Support Leads to Recovery</strong></td>
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<td><strong>Partial Support Works</strong></td>
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<td><strong>Heart Failure Patients Should be Implanted Earlier</strong></td>
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<td><strong>PRO:</strong> Emma Birks, FRCP, PhD, University of Louisville, Louisville, KY, USA</td>
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<td><strong>CON:</strong> Mariell Jessup MD, University of Pennsylvania, Philadelphia, PA, USA</td>
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CONCURRENT SESSION 42

Heart 10: Can We Improve Transplant Risk Assessment and Outcome Prediction? (510)

CHAIRS: Michael Zakliczynski, MD and Eric Epailly, MD


12:39 PM (373) Contemporary Prognosis in Moderate to Severe Heart Failure with Reduced EF: Who Should Be Referred for Advanced Therapy?; T. Thorvaldsen, L. Bensson, M. Ståhlberg, U. Dahlström, M. Edner, L.H. Lund, Karolinska Institute, Stockholm, Sweden; Linkoping University Hospital, Linkoping, Sweden.

12:51 PM (374) Outcomes of Adult Heart (HT) Versus Heart-Kidney (H+K) Transplant: Influence of CKD (Chronic Kidney Disease) Stage; E.C. DePasquale, R.K. Cheng, A. Baas, M. Cadeiras, D. Cruz, M. Kwon, T. Khuu, A. Nsair, D.L. Jacoby, M.C. Deng, Medicine, UCLA Medical Center, Los Angeles, CA; Division of Cardiology, UCLA Medical Center, Los Angeles, CA.

1:03 PM (375) Risk Factors of Death for Patients with UNOS 2 Status Listed for OHT; T. Zielinski, M. Sobieszczanska-Malek, A. Browarek, J. Korewicki, Haert Failure and Transplantology, Institute of Cardiology, Warsaw, Poland.

1:15 PM (376) Cost-Effectiveness of Ventricular Assist Device Therapy as a Bridge to Transplant in Comparison to Non-Bridged Cardiac Recipients; A.C. Alba, L.F. Alba, D.H. Delgado, V. Rao, H.J. Ross, R. Goeree, Toronto General Hospital, University Health Network, Toronto, Canada; National University of Cuyo, Mendoza, Argentina; Clinical Epidemiology and Biostatistics, Hamilton, Canada.
CONCURRENT SESSION 43

Lung 6: Transplant Complications and Outcomes (512A-G)

CHAIRS: Jens Gottlieb, MD and Cecilia Chaparro, MD

12:15 PM (377) Increased Incidence of PTLD in Adult Lung Transplant Recipients with Cystic Fibrosis: Analysis of the International Society for Heart and Lung Transplantation Registry; E.M. Lowery,¹ S. Grim,¹ E. Mahoney,¹ R.B. Love,² N. Clark,¹ J.E. Layden.¹ ¹Medicine, Loyola University Medical Center, Maywood, IL; ²Surgery, Medical College of Wisconsin, Milwaukee, WI.

12:27 PM (378) Center Volume Impacts Survival in Pediatric Lung Transplantation; M.S. Khan,¹ W. Zhang,¹ I. Adachi,¹ E.D. McKenzie;² G.B. Mallory,² J.S. Heinle.¹ ¹Congenital Heart Surgery, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; ²Pediatric Pulmonology, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX.

12:39 PM (379) Lung Size Mismatch and Survival after Bilateral Lung Transplantation for Idiopathic Pulmonary Arterial Hypertension; M. Eberlein,¹ C.A. Beaty,¹ A. George, A. Kilic, J.V. Conte. Division of Cardiac Surgery, Johns Hopkins Medical Institutions, Baltimore, MD.


1:03 PM (381) Utility of Six-Minute Walk Distance in Predicting Outcomes after Lung Transplant: A Nationwide Survival Analysis; A.W. Castleberry,¹ B.R. Englum,¹ L.D. Snyder,² M. Worni,² A.A. Osho,¹ R.S. Pietrobon,² S.M. Palmer,² R.D. Davis,² M.G. Hartwig.¹ ¹Division of General Surgery, Duke University Medical Center, Durham, NC; ²Division of Pulmonary and Critical Care, Duke University Medical Center, Durham, NC.

1:15 PM (382) Outcomes in Lung and Combined Heart-Lung Transplantation for Congenital Heart Disease; C.A. Beaty,¹ T.J. George, A. Kilic, J.V. Conte. Division of Cardiac Surgery, Johns Hopkins Medical Institutions, Baltimore, MD.

CONCURRENT SESSION 44

MCS 11: Translational Science and New Devices (513ABC)

CHAIRS: James K. Kirkin, MD and Nader Moazami, MD

12:15 PM (383) RNA Sequencing Identifies Novel Genes That Could Modulate Bleeding Risk in Heart Failure Patients after LVAD Placement; A. Mitchell,¹ R. Staggès,¹ W. Guan,² S. Grindle,² N. Adhikari,² S. Hozayan,¹ R. John,² J.L. Hall,² P. Eckman,¹ ¹University of Minnesota, Minneapolis; ²Lillehei Heart Institute, Minneapolis.

12:27 PM (384) LVAD-Induced Improvement in Myocardial Function Is Associated with a Unique Pattern of Circulating microRNAs; O. Galenko,² A.G. Kfoury,¹ C.H. Selzman,¹ J. Stehlik,¹ B.B. Reid,¹ S.P. Samineni,¹ K.D. Bruniholz,¹ R. Alharethy,¹ N. Diakos,¹ O. Weyer-Pinzen,¹ D. Budge,¹ J. Nativi-Nicolau,¹ S. McKellar,¹ D.Y. Li,¹ J.C. Carlquist,² S.G. Drakos,² ¹UTAH Cardiac Transplant Program, Salt Lake City, UT; ²Intermountain Heart Institute, Intermountain Medical Center, Salt Lake City, UT; ³University of Utah Molecular Medicine, Salt Lake City, UT.

12:39 PM (385) CIRCULITE SYNERGY System for the Treatment of Intermacs ≥4 Heart Failure; B. Meyns,¹ F. Rega,¹ A. Barbone,² D. Oranghi,² M. Streeber,² A. Simon,² E. Vitali,² K.U. Leuven Gasthuisberg University Hospital, Leuven, Belgium; ³Istituto Clinico Humanitas, Rozzano, Italy; ⁴Herzzentrum Leipzig – Universitätsklinikum, Leipzig, Germany; ⁵Harefield Hospital, Harefield, United Kingdom.

12:51 PM (386) In Vivo Testing of a Novel Blood Pump for Short-Term Extracorporeal Life Support; N.R. Teman,¹ D.S. Demos,¹ B.S. Bryner,¹ B. Faliks,² E.M. Fracz,² D.E. Mazur,² A. Rojas-Pena,² R.H. Bartlett,² J.W. Haft.¹ ¹University of Michigan Health System, Ann Arbor, MI; ²Michigan Critical Care Consultants, Inc., Ann Arbor, MI.

1:03 PM (387) The HeartWare Transvalvular Miniature Ventricular Assist Device Used for Right Ventricular Support; M. Connel,¹ A. Iyer, D. Robson, E. Granger, K. Dhital, P. Spratt, P. Jansz. Department of Cardiothoracic and Transplant Surgery, St Vincent’s Hospital, Darlinghurst, NSW, Australia.

1:15 PM (388) Artificial Heart Patients Discharged Home with a Portable Pneumatic Driver – The Pivotal US Clinical Trial Experience; V. Kasirajan,¹ F. Arabia,² D. Tang,¹ D.E. Jarowski,² C.W. Hoopes,¹ F. Esmailian,¹ L. Joyce,¹ M.F. McGrath,² M.L.S. David,² C. Smith,² G. Jennifer,² M. Bowdish,¹ N. Mokadam,¹ J. Long.¹ ¹Virginia Commonwealth University, Richmond, VA; ²Mayo Clinic, Phoenix, AZ; ³University of Kentucky, Lexington, KY; ⁴Cedars Sinai Heart Institute, Los Angeles, CA; ⁵Sentara Heart Hospital, Norfolk, VA; ⁶Texas Childrens Hospital, Houston, TX; ⁷University of Arizona Health Science Center, Tucson, AZ; ⁸University of Iowa, Iowa City, IA; ⁹University of Southern California Keck School of Medicine, Los Angeles, CA; ¹⁰University of Washington, Seattle, WA; ¹¹Integris Advanced Cardiac Care, Oklahoma City, OK.
12:15 PM – 1:30 PM

**CONCURRENT SESSION 45**

### PEDS 3: Heart and Lung Transplantation (513DEF)

**CHAIRS:** Marc G. Schecter, MD and Simon Urschel, MD

**12:15 PM (389)** *Time from Development of De Novo Donor-Specific HLA Antibodies to Rejection or Graft Loss in Pediatric Cardiac Transplantation;* C. Irving,1 V. Carter,2 A. Gennery,1 G. Parry,1 M. Griselli,1 A. Hasan,1 R. Kirk,1 Transplant Institute, Freeman Hospital, Newcastle upon Tyne, Tyne and Wear, United Kingdom; 2National Health Service Blood and Transplant, Newcastle upon Tyne, Tyne and Wear, United Kingdom.

**12:27 PM (390)** *The Regulatory Capacity of Interleukin-10 Producing B Cells and Their Possible Role on Graft Acceptance in Children;* Y. Ling,1,3 E. Dijke,1 B. Motyka,1 L.J. West,1,3 S. Urschel,1,3 1Pediatrics, University of Alberta, Edmonton, AB, Canada; 2Surgery, University of Alberta, Edmonton, AB, Canada; 3Medical Microbiology and Immunology, University of Alberta, Edmonton, AB, Canada.

**12:39 PM (391)** *Cytomegalovirus Specific Immunity in Paediatric Cardiac Transplantation;* M.C. Jacobsen,1 M.D.I. Manunta,1 E.S. Pincott,2 N.J. Klein,1 M. Burch,2 1Institute of Child Health, University College London, London, United Kingdom; 2Department of Cardiology, Great Ormond Street Hospital for Children, London, United Kingdom.


**1:03 PM (393)** *The Lung Microbiome and Development of Bronchiolitis Obliterans Syndrome after Pediatric Lung Transplantation;* M. Sagar,1 S.A. Crabtree,1 E.B. Hollister,2 J.K. Runge,2 Y. Shang,2 J.S. Heinle,3 E.D. McKenzie,3 G.B. Mallory,1 R.A. Luna,2 M.G. Schecter,1 Pulmonology, Texas Children’s Hospital, Houston, TX; 2Pathology, Immunology, Microbiome Center, Texas Children’s Hospital, Houston, TX; 3Surgery, Cardiovascular, Texas Children’s Hospital, Houston, TX.

**1:15 PM (394)** *Pediatric Thoracic Multiorgan Transplantation in the United States;* M.S. Khan,1 C.D. Fraser III,1 D.L.S. Morales,2 E.D. McKenzie,1 I. Adachi,1 M.G. Schecter,1 G.B. Mallory,1 J.S. Heinle,1 1Congenital Heart Surgery, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; 2Pediatric Cardiothoracic Surgery, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH; 3Pediatric Pulmonology, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX.

1:30 PM – 3:00 PM

**COUNCIL AND COMMITTEE REPORTS TO THE BOARD AND MEMBERSHIP (513DEF)**

3:00 PM – 10:00 PM

**ISHLT BOARD OF DIRECTORS MEETING (514C)**
GENERAL POSTER SESSION 1 (516)
Wednesday, April 24, 2013

NOTE: Poster presenters and poster moderators will be present in the poster hall from 6:30 pm – 7:30 pm

LUNG DONOR MANAGEMENT/ORGAN ALLOCATION
(395) Metabolites in Human Ex Vivo Lung Perfusates Are Differentially Affected in Brain Death (BDD) vs. Cardiac Death Donors (DCD) and Modified by Duration of Normothermic Perfusion; M.K. Hsin, M. Cypel, R. Zamet, T. Machuca, M. Chen, M. Liu, S. Keshavjee, Latner Thoracic Surgical Research Laboratory, University of Toronto, Toronto, ON, Canada.
(396) Pulmonary Edema and Biomarkers of Inflammation and Lung Epithelial Dysfunction Are Associated with Donor Smoking in the Ex Vivo Donor Lung; L.B. Ware, J.W. Lee, M. Landeck, N. Wickersham, M.A. Matthey, C.S. Caffee, The California Transplant Donor Network, Vanderbilt University, Nashville; University of California, San Francisco; California Transplant Donor Network, Oakland; Oakland, CA.
(397) Impact of Duration of “Agonal Time” during the Controlled Donation after Circulatory Death (DCD) on Early and Mid-Term Results of Lung Transplantation (LTX); B. Zych, P. Mohite, D. Garcia-Saez, A. Sabashnikov, A. Moza, F. De Robertis, M. Amrani, T. Bahrami, A. Reed, M. Carby, A.R. Simon. Department of Cardiothoracic Transplantation and Mechanical Circulatory Support, Harefield Hospital. Royal Brompton and Harefield NHS Foundation Trust, Harefield, Middlesex, United Kingdom.
(398) Prednisolone as Preservation Additive Prevents from Ischemia Reperfusion Induced Graft Dysfunction in a Rat Model of Orthotopic Lung Transplantation; P. Paulus, A. Urbatsch, H. Mutlak, K. Zacharowski, B. Scheller, J. Hofeld. Clinic of Anesthesiology, Intensive Care Medicine, University of Padova, Padova, Italy; Clinic of Urology, Goethe-University Hospital, Frankfurt, Germany; Clinic of Cardiac Surgery, Innsbruck Medical University, Innsbruck, Austria.
(400) WITHDRAWN
(401) Transplantation of Initially Rejected Donor Lungs after Ex-Vivo Lung Perfusion; A. Wallinder, S.-E. Ricksten, G.C. Riise, M. Silverborn, H. Liden, C.S. Falk, Department of Cardiothoracic Surgery, Sahlgrenska University Hospital, Gothenburg, Sweden; Transplant Institute, Sahlgrenska University Hospital, Gothenburg, Sweden; Cardiothoracic Anaesthesia and Intensive Care, Sahlgrenska University Hospital, Gothenburg, Sweden.
(403) Australia’s Experience with Ex-Vivo Lung Perfusion of Highly Marginal Donors; P.M. Hopkins, D.C. Chambers, R. Naidoo, D.A. Wall, I.J. Smith, W.G. Hunt, Queensland Lung Transplant Service, The Prince Charles Hospital, Brisbane, Queensland, Australia; School of Medicine, University of Queensland, Brisbane, Queensland, Australia; Department of Perfusion and Anaesthetics, The Prince Charles Hospital, Brisbane, Queensland, Australia.
(405) Single Lung Transplantation Using Donors with Heavy Smoking History Can Be Safely Performed; S. Taghavi, S. Jayarajan, E. Komaroff, T. Horai, S. Brann, F. Cordova, G. Griner, S. Guy, Y. Toya. Department of Surgery, Temple University Hospital, Philadelphia, PA; Department of Public Health, Temple University, Philadelphia, PA; Department of Cardiovascular Surgery, Temple University Hospital, Philadelphia, PA; Department of Internal Medicine, Temple University Hospital, Philadelphia, PA.

HEART DONOR MANAGEMENT/ORGAN ALLOCATION
(408) Retrograde Machine Perfusion for Long-Term Preservation of Canine Hearts; M.L. Cobert, S. Brant, L.M. West, M.E. Jessen, M. Peltz. Cardiovascular and Thoracic Surgery, University of Texas Southwestern Medical Center, Dallas, TX.
(409) Donor Hearts Not Offered or Rejected for Transplantation – A Lost Opportunity?; J.M. DiMaio, M. Morse, W.A. Teeter, M.L. Cobert, L.M. West, M.E. Jessen, M. Peltz. Cardiovascular and Thoracic Surgery, University of Texas Southwestern Medical Center, Dallas, TX.
(410) Ex-Vivo Perfusion of Human Donor Hearts Reduces Cold Ischemia Time; M. Deng, E. Soltesz, E. Hsich, Y. Naka, D. Mancini, F. Esmaeilian, J. Kobashigawa, M. Camacho, J. Baran, J. Madson, P. LePrince, A. Ardehali. Department of Surgery, Division of Cardiothoracic Surgery, David Geffen School of Medicine at University of California, Los Angeles, Los Angeles, CA; Department of Medicine, Division of Cardiology, David Geffen School of Medicine at University of California, Los Angeles, Los Angeles, CA; Department of Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH; Department of Surgery, New York Presbyterian Hospital/Columbia Medical Center, New York, NY; Cedars-Sinai Heart Institute, Cedars-Sinai Medical Center, Los Angeles, CA; Department of Cardiothoracic Surgery, Barnabas Health Heart Center of Newark Beth Israel Medical Center, Newark, NJ; Department of Heart Failure and Transplant, Barnabas Health Heart Center of Newark Beth Israel Medical Center, Newark, NJ; Department of Surgery, Cardiac Surgery, Massachusetts General Hospital, Boston, MA; Department of Surgery, Groupe Hospitalier Pitie-Salpetriere, Paris, France.
(411) Is Lactate Level during Warm Perfusion a Predictor for Post Transplant Outcomes?; M. Deng, E. Soltesz, E. Hsich, Y. Naka, D. Mancini, F. Esmaeilian, J. Kobashigawa, M. Camacho, D. Baran, J. Madson, P. LePrince, A. Ardehali. Department of Surgery, Division of Cardio-
The United States Heart and Lung Transplant “Social” Network.

1. Development of Coronary Atherosclerosis in Older Donor Hearts
2. Characterizing the Agonal Phase of the Non-Heart Beating Evaluation of End-Stage Heart Failure Patients on Inotropic Aggregate Annual Health Care Expenditures Associated with Continuous Monitoring of Right Ventricular Function with a 3-Safety and Feasibility of Surgical AF Ablation in Patients with Non-Transplantation of Hearts When There Is Consent for Donating.

HEART FAILURE

M. Valente, G. Thiene, A. Angelini. Cardiac, Thoracic and Vascular Science, University of Padua, Padua, Italy.

(431) Use of Global Functional Index in the Assessment of Diastolic Dysfunction; N. Nair,1 D. Jupiter,2 E. Gongora,3 S. Thotakura,1 S. John.1 1Division of Cardiology/Department of Medicine, Scott & White Hospital/TAMHSC College of Medicine, Temple, TX; 2Department of Surgery, Scott & White Hospital/TAMHSC College of Medicine, Temple, TX; 3Department of Cardiothoracic Surgery, Drexel College of Medicine/Hahnemann University Hospital, Philadelphia, PA.

(432) Risk Prediction Models for Mortality in Ambulatory Heart Failure Patients: A Systematic Review; A.C. Alba,1 T. Agoritsas,2 M. Jankowski,3 D. Courvoisier,4 S. Walter,5 G.H. Guyatt,6 H.J. Ross.1 1Toronto General Hospital, University Health Network, Toronto, Canada; 2Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Canada; 3Department of Internal Medicine, Jagiellonian University Medical College, Krakow, Poland; 4Center for Health Behavior Monitoring and Intervention, University of Rhode Island, RI.

(433) Impact of Different Indications for HU Listing of VAD Patients on Survival after Heart Transplantation; U. Schulz,1 M. Morshuis,2 C. Oezpekler, K. Hakim-Imbod,3 S. Ensminger, J. Borgemann,4 J. Gummert. Thoracic and Cardiovascular Surgery, Heart and Diabetes Center NRW, Bad Oeynhausen, Germany.

(434) Liver Dysfunction and Early Mortality after Heart Transplant; J. Kobulnik, L. Goldraich, D. Delgado, M. McDonald, C. Alba, H. Ross. Multi-Organ Transplant, Toronto General Hospital, University of Toronto, ON, Canada.

(435) Hepatic Dysfunction in Ambulatory Patients with Heart Failure – Application of the MELD Scoring System for Outcome Prediction; T.S. Kato, M.S. Kim, M. Farr, C. Wu, R. Givens, E. Collado, D.M. Mancini, P.C. Schulze. Department of Medicine, Division of Cardiology, Columbia University Medical Center, New York, NY.

(436) Outpatient Inotropes: An Ever-Lengthening Bridge to Transplant; S.A. Hall,1 J. Kuiper, B. Hardaway. Baylor Univ. Medical Center, Dallas, TX.

(437) Outcome of Adults with Congenital Heart Disease Evaluated for Heart Transplant: A Multi-Center Study; D. Boucek,1,2 A.T. Yetman,3 E. Yeung,4 S. Miyamoto,5 A.G. Klouy,6 E.M. Gilbert,7 J. Stahl,7 K. Brunisholz,8 J.N. Nativi,2,9 S. Drakos,10 R. Alharethi,11 D. Budge,1,2 A.K. Kaza,1,2 K.M. Molina,1,2 M.D. Everitt,1,2 UTAH Cardiac Transplant Program, Salt Lake City, UT; 2University of Utah, Salt Lake City, UT; 3Intermountain Medical Center, Salt Lake City, UT; 4Children’s Hospital Colorado, Aurora, CO.

(438) Influence of Pre-Transplant Chronic Kidney Disease (CKD) on Adult Heart Transplant (HT) Outcomes; E.C. DePasquale,1 R.K. Cheng,1 A. Ardehali,2 A. Baas,3 M. Cadeiras,1 D. Cruz,4 T. Khoo,5 A. Nsair,6 D.L. Jacoby,7 M.C. Deng.8 1Division of Cardiology, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA; 2Division of Cardiology, Yale University School of Medicine, New Haven, CT.

(439) Predictors of Mild Cognitive Dysfunction in an Advanced Heart Failure Population; C. Chien, J. Mudd, J. Gelow, C. Lee. Cardiovascular Medicine, Oregon Health and Science University, Portland, OR.

(440) Triage for Advanced Heart Failure: Effect of Regional Wait Time Disparity; M.M. Kittleson,1 G.C. Stewart,2 J. Cowger,3 C. Patel,4 E. Rame,5 J. Testani,6 M. Mountis,7 P. Patel,8 F. Johnson,8 M. Guglin,9 J. Teuteberg,10 J.A. Kobashigawa,11 L.W. Stevenson,12 M.A. Hamilton.13 Cedars-Sinai Heart Institute, Los Angeles, CA; 2Brigham and Women’s Hospital, Boston, MA; 3University of Michigan, Ann Arbor, MI; 4Duke, Durham, NC; 5University of Pennsylvania, Philadelphia, PA; 6Cleveland Clinic, Cleveland, OH; 7University of Texas Southwestern, Dallas, TX; 8University of Iowa, Iowa City, IA; 9University of South Florida, Tampa, FL; 10University of Pittsburgh, Pittsburgh, PA.

(441) Long-Term Survival and Prognostic Markers in 1000 Patients with Advanced Heart Failure. A Single-Center Analysis; P. Lesny,1 M. Luknar,1 I. Varga,1 P. Solik,1 S. Wimmerova,1 E. Gonda,1 Heart Failure and Transplant Department, National Cardiovascular Institute, Bratislava, Slovakia (Slovak Republic).

LUNG FAILURE

(442) Appearance of Posttransplant De Novo Anti-HLA Antibodies in Living-Donor Lobar Lung Transplantation; A. Ohsumi,1 F. Chen,2 K. Yurugi,2 T. Maekawa,2 T. Yamada,1 M. Sato,1 A. Aoyama,1 T. Sato,1 M. Sonobe,1 O. Omasa,1 T. Bando,1 I. Matsumoto,1 H. Date.1 1Thoracic Surgery, Graduate School of Medicine, Kyoto University, Kyoto, Japan; 2Center for Cell and Molecular Therapy, Kyoto University Hospital, Kyoto, Japan.

(443) Radiation Exposure and Attribute Cancer Risk after Lung Transplantation; D. Rosengarten,1 Y. Raviv,2 V. Rosanov,1 O. More-Rahav,2 O. Fruchter,3 A.M. Allen,4 M.R. Kramer.1 1Institute of Pulmonology, Rabin Medical Center, Petach Tikwa, Israel; 2Radiology Department, Rabin Medical Center, Petach Tikwa, Israel; 3Institute of Oncology, Rabin Medical Center, Petach Tikwa, Israel.


(445) Role of HLA-6 Expression as a Predictive Marker of a Low Risk of Bronchiolitis Obliterans Syndrome in Lung Transplant Recipients: A 3-Year Prospective Study; O. Brugiere,1,2 G. Thabut,1 I. Krawiec,2 E. Carosella,3 N. Rouas-Freiss.2 1Service de Pneumologie B et Transplantation Pulmonaire, Hôpital Bichat, Paris, France; 2Laboratoire d’Hémato-Immunologie, CEA, Hôpital Saint-Louis, Paris, France.

(446) A Phase One, Open Label, Multi-Dose Study To Evaluate the Safety, Tolerability, and Biologic Effects of Three Doses of IW001 in Patients with Idiopathic Pulmonary Fibrosis (IPF); K. Rothhaar,1 T. Chew,2 S. Frye,2 M. Kiem,1,2 W. Lange,1,2 D.S. Wilkes,1 ImmuneWorks, Indianapolis, IN; 2Indiana University School of Medicine, Indianapolis, IN.

(447) Predicting Lung Transplant Waitlist Survival with the Lung Allocation Score in British Columbia, Canada; A. Hirji,1 J. Cifrian,1 R. Laporta,1 P. Ussetti,1 C. Bravo,1 S. Lopez,1 P. Morales,1 A. de Pablos,1 M. Jaramillo,1 J. Navarro,1 J. Rodriguez-Molina,1 J. Carbone,1 Hospital General Universitario Gregorio Marañon, Madrid, Spain; 2Hospital Marqués de Valdecilla, Santander, Spain; 3Hospital Universitario Puerta de Hierro, Madrid, Spain; 4Hospital Vall de Hebron, Barcelona, Spain; 5Hospital La Fe, Valencia, Spain; 6Hospital Universitario Doce de Octubre, Madrid, Spain.

(448) Cytochrome P450 3A5 Genotype Is Associated with Early Post-Operative Tacrolimus Serum Levels in Lung Transplant Patients; J.D. Flesch,1 B.L. Strom,2 R.J. Shah,3 J.M. Diamond,1 V.N. Ahya,1 E. Cantu,3 T.E. Claridge,4 J.D. Christie.1 1Division of Pulmonary, Allergy, and Critical Care Medicine, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA; 2Department of Epidemiology and Biostatistics, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA; 3Department of Cardiovascular Surgery, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA; 4Pharmacy Department, Hospital of the University of Pennsylvania, Philadelphia, PA.
Histological Findings of Bronchial Biopsy and De Novo Donor Specific HLA Antibodies: Comparing Notes; M. Askar, P. Reville, L. Klingman, A. Zhang, J. Schold, J. Daghestani, M. Budev, K. McCurry, C. Farver. Transplant Center, Cleveland Clinic, Cleveland, OH.

Lung Transplantation: Making Sense of the Sensitized; G.P. Westfall, M. Paraskeva, A. Paul, B. Levvey, G.I. Snell. Lung Transplant Service, Alfred Hospital, Melbourne, Australia; Department of Pathology, Monash University, Melbourne, Australia.

Tacrolimus Level Variability Is a Novel Measure Associated with Increased Acute Rejection in Lung Transplant (LTX) Recipients; C.Y. Chiang, H.G. Schneider, B. Levvey, L. Mitchell, G.I. Snell. Pathology, Alfred Hospital, Prahran, VIC, Australia; Lung Transplant Service, Alfred Hospital, Prahran, VIC, Australia.

HLA Allosensitization in ECMO as a Bridge to Lung Transplantation; S. Zeltzer, R. Fadul, M. Askar, C. Lane, P. Garcha, O. Akindipe, A. Tang, J. Schold, K. McCurry, G. Pettersson, D.P. Mason, S. Murthy, D. Johnston, M. Budev. Cleveland Clinic Lerner College of Medicine, Case Western Reserve University, Cleveland; Respiratory Institute, Cleveland Clinic, Cleveland, OH; Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; Allograft Laboratories, Cleveland Clinic, Cleveland, OH; Transplantation Center, Cleveland Clinic, Cleveland, OH; Quantitative Health Sciences, Cleveland Clinic, Cleveland, OH.

Antibody Directed Therapy after Lung Transplantation; A.L. Gray, Z. Wang, N. Patel, J.M. Reynolds, R.D. Davis, S.M. Palmer, L.D. Snyder. Medicine, Duke University Medical Center, Durham, NC; Surgery, Duke University Medical Center, Durham, NC.


Palliative Care Referral and Outcomes in Lung Transplant Candidates; R.E. Colman, L.G. Singer, R. Barua, J. Downar. Division of Respiratory, University of Toronto, Toronto, ON, Canada; Toronto Lung Transplant Program, University Health Network, Toronto, ON, Canada; Faculty of Medicine, Queens University, Kingston, ON, Canada; Division of Palliative Care Medicine, University of Toronto, Toronto, ON, Canada.

Comparison of an Innovative Everolimus-Containing Quadruple Immunosuppressive Regimen versus a Standard Triple Regimen in Lung Transplant Recipients and Its Impact on Renal Function, Safety and Efficacy: The 4EVERLUNG Study Design; J. Gottlieb, T. Deuse, C. Witt, C. Neuhoff, J. Mueller-Quernheim, U. Sommerweck, H. Wirtz, P. Wimmer, E.-M. Paulus, M. Strueber, Hannover Medical School, Hanover, Germany; University Heart Center Hamburg, Hamburg, Germany; Charité Campus Mitte, Berlin, Germany; Klinikum Grosshadern LMU, Munich, Germany; University Hospital Freiburg, Freiburg, Germany; University Hospital Essen, Essen, Germany; University Hospital Leipzig, Leipzig, Germany; Novartis Pharma GmbH, Nuernberg, Germany; Heart Center Leipzig, Leipzig, Germany.

Survival Benefit of Lung Transplantation in Japan: Extreme Donor Shortage and the Potential Role of Living Transplantation; M. Sato, K. Ohm- Matsuda, T. Kondo, M. Chida, H. Date, M. Okumura, T. Oto, T. Shiraiishi, T. Nagayasu. Thoracic Surgery, Kyoto University Hospital, Kyoto, Japan; Centre for Research on Inner City Health, St. Michael's Hospital, Toronto, ON, Canada; Institute of Development, Aging and Cancer, Division of Cancer Control, Thoracic Surgery, Tohoku University, Sendai, Miyagi, Japan; Department of Thoracic and Cardiovascular Surgery, Dokkyo Medical University, +Imerschu, Tochigi, Japan; Department of General Thoracic Surgery, Osaka University Graduate School of Medicine, Suita, Osaka, Japan; Department of Thoracic Surgery, Okayama University Hospital, Okayama, Okayama, Japan; Department of Surgery, Division of Thoracic Surgery, Fukuoka University Hospital, Fukuoka, Japan; Division of Surgical Oncology, Nagasaki Graduate School of Biomedical Sciences, Nagasaki, Japan.

The Impact of Repeat HLA Mismatches on the Development of De Novo Donor Specific HLA Antibodies (DSA) in Lung Re-Transplants; M. Askar, P. Reville, J. Daghestani, L. Klingman, K. McCurry, M. Budev. Allograft Laboratories, Cleveland Clinic, Cleveland, OH; Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; Pulmonary, Allergy and Critical Care Medicine, Cleveland Clinic, Cleveland, OH.

MECHANICAL CIRCULATORY SUPPORT

Autoantibodies after LVAD: Profiling with Antigen Microarrays; A. Chrucinski, L. Loe, L. Grosman-Rimon, J. Hu, R. Pierson, V. Rao, H. Ross. Multi-Organ Transplant, Toronto General Hospital, Toronto, ON, Canada; Cardiovascular Surgery, University of Maryland Medical Center, Baltimore, MD.


Does Gender Influence Survival of Heart Transplant (HT) Recipients Bridged with LVAD Support?; E.C. DesPouge, R.K. Cheng, A. Ardeshali, A. Baas, M. Cadeiras, D. Cruz, T. Khur, A. Nsair, M. Deng. Division of Cardiology, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA.

Non-Responders to Antiplatelet Therapy in Patients with Left Ventricular Assist Devices; J. Riebandt, S. Mair, T. Habeler, S. Panzer, H. Schima, G. Lauffer, D. Zimper. Department of Cardiac Surgery, Medical University of Vienna, Vienna, Austria; Department of Blood Group Serology and Transfusion Medicine, Medical University of Vienna, Vienna, Austria; Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria.

Development of a Novel Tissue-Compatible Apical Inflow Cannula for an Implantable VAD; T. Mizuno, T. Kondo, M. Chida, H. Date, M. Okumura, T. Oto, M. Okumura, T. Oto, M. Okumura. European Hospital George Pompidou, Paris, France; Thorax Institute, Laennec Hospital, Nantes, France; National Veterinary School, Nantes, France; Anesthesia and Intensive Care, European Hospital George Pompidou, Paris, France; Carmat SA, Velizy, France.

NovoSeven Use To Reduce Peri-Operative Bleeding Following HeartMate II Implant; T.A. Snyder, S.P. Howell, K.E. Nelson, N.M. Chellikani, A.E. Gholoom, P.J. Kannaly, C.C. Elkins, D.A. Horstmann, J.W. Long. Integris Advanced Cardiac Care, Integris Baptist Medical Center, Oklahoma City, OK.

Influence of Partial Mechanical Left Ventricular Support on Metabolism of Neuroendocrine Hormones and Exercise Capacity; H.A. Welp, A. Rukosujew, J.R. Sindermann, A. Hoffmeier, M. Scherer, S. Martens. Department of Cardiac Surgery, University Hospital Münster, Münster, NRW, Germany.

Structured Rehabilitation Program in LVAD Patients Leads to Shortened Lengths of Stay; R.R. Bunge, C. Perme, T. Motomura, M. Loebe, B.A. Bruckner. Cardiovascular Surgery, The Methodist Hospital DeBakey Heart & Vascular Center, Houston, TX; Physical Therapy, The Methodist Hospital, Houston, TX.
(468) Heartmate II Inflow Cannula Position on Chest X-Ray Predicts Inotrope Dependence; K.A. Sell,1 B.C. Sheridan,1 A. C. Kiser,1 A. Bowen,1 J.N. Katz,2 W.E. Stansfield,1 1Surgery, University of North Carolina School of Medicine, Chapel Hill, NC; 2Medicine, University of North Carolina School of Medicine, Chapel Hill, NC.


(470) Is Intermittent Hemodialysis Safe in Patients with a Continuous Flow Left Ventricular Assist Device?; M.A. Quader,1 D. Kumar,2 K.B. Shah,3 Y.I. Fatani,2 G. Klataps,1 V. Kasirajan,1 1Cardiothoracic Surgery, Virginia Commonwealth University, Richmond, VA; 2Nephrology, Virginia Commonwealth University, Richmond, VA; 3Cardiology, Virginia Commonwealth University, Richmond, VA.

(471) Temporary Mechanical Circulatory Support for Acute Right Ventricular Failure; A. Cheung,1 C.W. White,2 M. Davis,2 D.H. Freed. 1Cardiac Surgery, St. Paul’s Hospital, University of British Columbia, Vancouver, Canada; 2Cardiac Surgery, St. Boniface Hospital, University of Manitoba, Winnipeg, Canada; 3Cardiology, St. Paul’s Hospital, University of British Columbia, Vancouver, Canada.

(472) Different Impact on the Coagulation System of Two Continuous Flow LVADs: Axial Versus Centrifugal Flow; V. Tarzia,1 F. Vasques,1 G. Bortolussi,1 J. Bejko,1 M. Gallo,1 M. Carrozzini,1 M. Comiso,1 E. Buratto,1 M. De Franceschi,1 E. Campello,2 L. Spiezia,2 P. Simioni,2 T. Bottoli,1 G. Gerosa.1 1Department of Cardiac, Thoracic and Vascular Sciences – Cardiac Surgery, University Hospital of Padua, Padua, Italy; 2Department of Cardiac, Thoracic and Vascular Sciences – Second Chair of Internal Medicine, University Hospital of Padua, Padua, Italy.

(473) Molecular Definition of the Multiorgan Dysfunction Syndrome in Mechanical Circulatory Therapy for Advanced Heart Failure; M. Cadeiras,1 Y. Korin,1 B. Galina,1 C. Richard,2 C. Eleanor,1 W. Nicholas,3 M. Joseph,1 L. Farhana,2 S. Khurrham,1 R. Elain,1 D. Mario,1 1University of California Los Angeles, Los Angeles; 2University of Copenhagen, Copenhagen, Denmark.

(474) Oxidative Stress Induced DNA Damage and Repair in Heart Failure Patients Supported by Continuous Flow Ventricular Assist Devices; N.K. Mondal,1 E.N. Sorensen,2 N. Hiivala,3 E.D. Feller,2 B.P. Griffith,1 Z.J. Wu.1 1Department of Surgery, Artificial Organ Lab, University of Maryland School of Medicine, Baltimore, MD; 2Department of Clinical Engineering, University of Maryland Medical Center, Baltimore, MD; 3Department of Medicine, University of Maryland School of Medicine, Baltimore, MD.

(475) Racial Differences in over 1000 Patients with Continuous Flow Left Ventricular Assist Devices; G. Bhat,1 A. Aggarwal,1 A. Tatooles,1 M. Slaughter,2 U. Jorde,3 R. Brewer,4 L. Chen,3 K. Sundareswaran,6 D. Farrar.6 1Advocate Christ Medical Center, Oak Lawn, IL; 2University of Louisville, Louisville, KY; 3Columbia University Medical Center, New York; 4Henry Ford Hospital, Detroit; 5University of Rochester Medical Center, Rochester; 6Thoratec Corporation, Pleasanton.

(476) Home INR Monitoring: Does It Help Reduce the Chance of Re-Admission for LVAD Patients?; J. Han,1 N. Nahumi,1 M. Yuzefpolskaya,1 R. Te-Frey,1 A.R. Garan,1 M. F.R. Torres,1 H. Takayama,2 P.C. Colombo,1 Y. Naka,2 U.P. Jorde,1 N. Uriel.1 1Medicine, Columbia University, New York, NY; 2Surgery, Columbia University New York, NY.

(477) LV Unloading with Continuous-Flow Left Ventricular Assist Devices: The Association Between Left Ventricular Size and Late Survival; A.D. Nagpal,1 N. Moazami,1 D. Kalavrouziotis,1 M.Z. Tong,1 K.J. Hoercher,1 S. Lee.2 1Cardiothoracic Surgery, Cleveland Clinic Foundation, Cleveland; 2Cardiology, Cleveland Clinic Foundation, Cleveland.

(478) Outcomes of Minimally Invasive vs. Conventional Implantation of Continuous Flow Left Ventricular Assist Device: A Single Center Experience; M. Toma,1 J. Bashir,1 A. Kaan,1 S.S. Cowan,1 A. Cheung,2 S. Virani,1 1Department of Medicine, Division of Cardiology, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada; 2Department of Surgery, Division of Cardiovascular Surgery, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada; 3Department of Nursing, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada.

(479) Device Thrombogenicity Emulation: A Novel Methodology To Predict “Hot Spot” Sites of Thrombus Formation in Continuous Flow VADs; M.J. Sleiman,1 P. Chiu,1 J. Sheriff,1 P. Tran,1 D. Bluestein.2 1Medicine and BioMedical Engineering, University of Arizona, Tucson, AZ; 2BioMedical Engineering, Stony Brook University, Stony Brook, NY.

(480) Left Ventricular Assist Device (LVAD) Outcomes Are Not Adversely Affected by Geographic Variables; J.M. Vader,1 S. LaRue,2 G. Ewald,1 S. Silvestry,2 S. Prasad,2 S. Joseph,1 1Internal Medicine, Cardiovascular Division, Washington University, St Louis, MO; 2Surgery, Division of Cardiothoracic Surgery, Washington University, St Louis, MO.

(481) The Clinical Inaccuracy of Estimated Flow in Continuous Flow Ventricular Assist Devices; T. Thenappan,1 A. Anderson,1 S. Fedson,1 A. Akhter,1 V. Jeevanandham,1 J. Rich.1 1Cardiology, University of Chicago, Chicago, IL; 2Cardiothoracic Surgery, University of Chicago, Chicago, IL.

(482) Safety and Effectiveness of Exercise Training in Patients with Continuous Flow Ventricular Assist Devices; F. Moscato,1,2 G. Danziger-Isakov,1 M. Käferbäck,1 T. Lackner,2 D. Zimpfer,2 H. Schima,1,2,3 C. Marko,4 1Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Vienna, Austria; 2Department of Cardiac Surgery, Medical University of Vienna, Vienna, Austria; 3Ludwig Boltzmann Cluster for Cardiovascular Research, Vienna, Austria; 4Rehabilitation Clinic Felbring, Muthmannsdorf, Austria.

(483) The Effect of Percutaneous Lead Placement on Drive Line Exit Site Infections in HeartMate II Patients; W.H. Perry, N.M. Chelikani, T.A. Snyder, K.E. Nelson, P.J. Kannaly, J.S. Chaffin, C.C. Elkins, D.A. Horstmannshof, J.W. Long.1 Integrus Advanced Cardiac Care, Integris Baptist Medical Center, Oklahoma City, OK.

(484) Infection Control and Prevention Practices for Mechanical Circulatory Support: An International Survey; S. Kusne,1 L. Danziger-Isakov,2 M. Mooney,1 P. Grossi,1 S. Husain,1 F. Pagani,1 F.P. Silveira,2 M.M. Hannan,1 S. Huprikar,2 D.E. Jarzewska,1 Y.H.H. Chang,1 L. Staley,1 F. Arabia,1 Mayo Clinic in Arizona, Phoenix, AZ; 2Cincinnati Children’s Hospital Medical Center, Cincinnati, OH; 3Eastern Virginia Medical School, Norfolk, VA; 4University of Insibria, Varese, Italy; 5University of Toronto, Toronto, ON, Canada; 6University of Michigan Health System, Ann Arbor, MI; 7University of Pittsburgh Medical Center, Pittsburgh, PA; 8Mater Misericordiae University Hospital, Dublin, Ireland; 9The Mount Sinai Medical Center, New York, NY.

(485) ECMO as a Bridge to Decision in “Crash and Burn” Patients: 8-Years Experience; F. Jungheier, N. Rousse, C. Banfi, C. Pincon, M. Alibrahim, A. Prat. A. Vincentelli. Cardiac Surgery, Cardiologic Hospital, Lille University Hospital, Lille, France.

(486) Long-Term Outcomes for LVAD Patients Who Underwent Speed Optimization Using Pre-Discharge Ramp Test; N. Uriel,1 J. Han,1 N. Nahumi,1 P.C. Colombo,1 S.S. Thomas,1 A.R. Garan,1 M. Yuzefpolskaya,1 F. Latifi,1 S.W. Restaino,1 H. Takayama,2 Y. Naka,2 U.P. Jorde,1 1Medicine, Columbia University, New York, NY; 2Surgery, Columbia University, New York, NY.

(487) Incidence and Pre-Implant Predictors of Late Right Ventricular Failure in Patients Supported with Continuous-Flow LVADs; M. Aldeiri,1 R.P. Vivo,1 D. Hall,2 A.M. Cordero-Reyes,1 A. Soliman,1 M. El-Behaye,1 A. Bhimaraj,1 B.A. Bruckner,2 M. Loebe,3 B.H. Trachtenberg,1 G. Torre-Amione,1 J.D. Slaughter,2 U.J.orde,3 R. Brewer,4 L. Chen,3 K. Sundareswaran,6 D. Farrar.6 1Advocate Christ Medical Center, Oak Lawn, IL; 2University of Louisville, Louisville, KY; 3Columbia University Medical Center, New York; 4Henry Ford Hospital, Detroit; 5University of Rochester Medical Center, Rochester; 6Thoratec Corporation, Pleasanton.
(488) The Utility of 320 Row Multi-Detector Computed Tomography in Evaluating Patients with Left Ventricular Assist Devices; G.S. Chrysant, D.A. Horstmannshof, A. Brittsan, P. Fisher, J.W. Long. INTEGRIS Baptist Medical Center, Oklahoma City, OK.

(489) Improved Outcomes in Left Ventricular Assist Device Therapy for Patients between 65 and 70 Years; S. Deo,1 J.M. Stulak,1 J. Cowger,2 S.J. Park,1 L.D. Joyce,1 R.C. Daly,2 K. Aaronson,2 F.D. Pagani,2 Cardiovascular Surgery, Mayo Clinic College of Medicine, Rochester, MN; 3Cardiac Surgery, University of Michigan Health System, Ann Arbor, MI.

(490) Regression of Inflammation in the Failing Human Heart after Continuous Flow Left Ventricular Assist Device-Induced Mechanical Unloading?; N.A. Diakos,1 C.H. Selzman,1 C.-G. Yen,1,2 A.G. Klouy,1 B.B. Reid,1 D. Budge,1 J. Nativi-Nicolau,1 W. Johnson,3 V. Chen,3 D.V. Miller,1 M.P. Revelo,1 S. McKellar,1 D.Y. Li,2 J. Stehlík,1 S.G. Drakos,1,2,6 UTAH Cardiovascular Medicine, Salt Lake City, UT; 2University of Utah Molecular Medicine, Salt Lake City, UT; 3Sanford-Burnham Medical Research Institute, La Jolla, CA.

(491) Improvements in Pulmonary Hemodynamics Persist after Heart Transplant in Patients Bridged with Continuous-Flow LVAD (CF-LVAD); F. Kamdar,1 A. Klaassen Kamdar, P.M. Eckman, M. Colvin-Adams, K. Liao, R. John. Division of Cardiology and Cardiovascular Surgery, University of Minnesota, Minneapolis, MN.

(492) Hemodynamic Evaluation of HeartWare MVAD in Normal and Infarct Swine Models; P.T. Pham, V. Paruchuri, M. Esposito, D.P. Schauf-nagel, D. McSparron, D. Ciwiello, V. Todd-Elliott, C. Vassallo, B. Murphy, L. Reyelt, C.N. Beale, D. Tamez, N.J. Nunez, N. Voskoboynikov, N.K. Kapur, 2Cardiac Surgery, Tufts Medical Center, Boston, MA; 3Cardiology, Tufts Medical Center, Boston, MA; 4HeartWare, Inc., Miami Lakes, FL.


(495) Extracorporeal Membrane Oxygenation Support System as Bridge to Solution in Refractory Cardiogenic Shock; A. Loforte, E. Pilato, S. Martin-Suarez, A. Montalto, P. Lilla Della Monica, L. Potena, F. Grigioni, G. Marinelli, F. Frascaroli, A. Menichetti, F. Musumeci, G. Arpesella. Cardiovascular Surgery and Transplantation, S. Orsola Hospital, Bologna University, Bologna, Italy; 2Cardiac Surgery and Transplantation, S. Camillo Hospital, Rome, Italy.

(496) Comparison of Post Implant Hemodynamics with 2nd Versus 3rd Generation Continuous Flow Left Ventricular Assist Device; D. Spiegelstein, C.M. Rosner, C.W. May, S.S. Desai, L.G. Edwards, T. Elliott, N.A. Burton, A.J. Rongione. 2Heart Failure/Heart Transplant, Inova Heart and Vascular Institute at Inova Fairfax Hospital, Falls Church, VA; 3Cardiac Surgery, Inova Heart and Vascular Institute at Inova Fairfax Hospital, Falls Church, VA.

(497) Management and Outcomes of Ventricular Assist Device Patients with Suspected Pump Thrombosis; A.J. Lenneman, P. Combs, S. Rhode, K. Vessels, K. McCants, R. Singh, E. Birks, M. Slaughter. Cardiovascular Medicine, University of Louisville, Louisville, KY; 2Cardiovascular Surgery, University of Louisville, Louisville, KY.

(498) Late Onset Infection in Patients with Ventricular Assist Devices: Etiology, Management and Outcomes; M.Z. Tong, D. Kalavrouziotis, D.A. Nagpal, T. Chamgeorgakis, E.G. Soltesz, N.G. Smedira, S. Lee, N. Moazami. Thoracic Cardiovascular Surgery, Heart and Vascular Institute, Cleveland Clinic, Cleveland, OH.


(500) First-in-Man Transfemoral Transcatheter Aortic Valve Implantation for Severe Aortic Regurgitation in a Patient with Left Ventricular Assist Device; J. Lavee, A. Segev, S. Reisman, D. Freimark, V. Guetta. Heart Transplantation Unit, Department of Cardiovascular Surgery, Leviev Heart Center, Sheba Medical Center, Ramat Gan, Israel; 2Department of Cardiology, Leviev Heart Center, Sheba Medical Center, Ramat Gan, Israel; 3Department of Anesthesia, Sheba Medical Center, Ramat Gan, Israel; 4Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel.

(501) Micro-And Macrovascular Function in End-Stage Heart Failure: Influence of Mechanical Circulatory Support and of Heart Transplant; R. Sansone, B. Stanske, D. Schuler, A. Lichtenberg, D. Saeed, A. Albert, U. Boeken, R. Westenfeld, M. Kelm, C. Heiss. 2Division of Cardiology, Pulmonology, and Vascular Medicine Division of Cardiology, Pulmonology, and Vascular Medicine, Medical Faculty, University Duesseldorf, Duessel-dorf, Germany; 3Department of Cardiovascular Surgery, Medical Faculty, University Duesseldorf, Duesseldorf, Germany; 4Department of Cardiovascular Surgery, Medical Faculty, University Duesseldorf, Duesseldorf, Germany.

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(503) Rhinovirus Infection in Adult Lung Transplant Recipients: A Case-Controlled Study; K.M. Vandervest, M.R. Zamora. Lung Transplantation, University of Colorado Health Sciences Center, Aurora, CO.


Insights into Heart Transplantation for Protein Losing Enteropathy: Impact of Adolescent Age on Graft Survival in Patients with Development of De Novo Anti-HLA Antibodies in Pediatric Heart Transplantation; A. Jeewa, 1S.K. Sexon-Tejtel, 1R. Pignatelli, 1Q. Cui, 1A.G. Cabrera, 1J. Price, 1D. Mitchell, 1W.J. Dreyer, 1A. Jeewa, 1S. Denfield, 1Pediatric Cardiology, Texas Children’s Hospital, Houston, TX.

(509) Noninvasive Predictors of Diastolic Dysfunction in Patients after Cardiac Transplant; A. DiPietro, 2S.K. Sexon-Tejtel, 2R. Pignatelli, 1Q. Cui, 1A.G. Cabrera, 1J. Price, 1D. Mitchell, 1W.J. Dreyer, 1A. Jeewa, 1S. Denfield, 1Pediatric Cardiology, Texas Children’s Hospital, Houston, TX.

(510) The Utility of Speckle Tracking Echocardiography (STE) Derived Strain for the Detection of Acute Rejection after Pediatric Heart Transplantation; A. Jeewa, 1S.K. Sexon-Tejtel, 1Q. Cui, 1W.J. Dreyer, 1J. Price, 1A. Cabrera, 1K. Zarua, 1C. Looney, 1S. Sami, 1S. Denfield, 1R. Pignatelli, 1Baylor College of Medicine, Houston; 2Texas Children’s Hospital, Houston, Houston, TX.

(511) Impact of Adolescent Age on Graft Survival in Patients with Congenital Heart Disease Versus Myocarditis; J.P. Savia, 1K.Y. Lin, 1D.S. Lefkowitz, 1S.M. Paridon, 1J. W. Gaynor, 1R. Hammond, 1R.E. Shaddy, 1J.W. Rossano. Division of Cardiology, Children’s Hospital of Philadelphia, Philadelphia, PA.

(512) Outcomes of Third Heart Transplants in Pediatric and Young Adult Patients; J.M. Friedland-Little, 1R.J. Gajarski, 1S. Yu, 1J.E. Donohue, 1M. Zamberlan, 1K.R. Schumacher. Division of Pediatric Cardiology, University of Michigan, Ann Arbor, MI.

(513) Impact of Immunosuppressive Therapy on Anti-EBV Specific CD8+ T-Cells in Pediatric Heart Transplant Recipients; S. Hingler, 1B. Peters, 1M. Yigitbasi, 1F. Berger, 1S. Schubert. Department of Congenital Heart Disease/Pediatric Cardiology, Deutsches Herzzentrum, Berlin, Germany.

(514) Impact of Donor-Recipient Sex Matchup on Survival after Heart Transplantation in Children: An Analysis of >6000 Pediatric Heart Transplants; M. Kemna, 1E. Albers, 1P. Sullivan, 1S. Law, 1L. Permut, 1Y. Law. Seattle Children’s Hospital, Seattle.

(515) Long-Term Outcome of Renal Function with Everolimus Treatment in a Pediatric Center; K. Behnke-Hall, 1J. Bauer, 1J. Thul, 2N. Mazhari, 1D. Schranz. Pediatric Cardiology, Pediatric Heart Center, Giessen, Germany.

(516) Detection of Cardiac Allograft Vasculopathy with the New Optical Coherence Tomography in Pediatric Heart Transplant Recipients – Initial Experience; S. Schubert, 1B. Peters, 2M. Kanaan, 1M. Huebler, 2R. Hetzer, 1F. Berger. 1Congenital Heart Disease/Pediatric Cardiology, Deutsches Herzzentrum, Berlin, Germany; 2Department of Cardiothoracic and Vascular Surgery, Deutsches Herzzentrum, Berlin, Germany.

(517) Development of De Novo Anti-HLA Antibodies in Pediatric Heart Transplant Recipients; C.K. Chen, 1C. Manhiot, 1J. Conway, 1T. Allain-Rooney, 1B.W. McRindle, 1K. Tinckam, 1A.I. Dipchand. 1Pediatrics, Hospital for Sick Children, Toronto, ON, Canada; 2Multiorgan Transplant Program, University Health Network, Toronto, ON, Canada.

(518) Insights into Heart Transplantation for Protein Losing Enteropathy: A 24 Year Experience; K. Gambetta, 1C. Backer, 1B. Deal, 1H. Russel, 1E. Pahl. Department of Pediatric Cardiology, Ann and Robert H Lurie Children’s Hospital, Chicago, IL.

(519) Incidence and Importance of New Postoperative Right Bundle Branch Block after Pediatric Orthotopic Heart Transplantation; J. Ramey, 1S. Stark, 1W. Zuckerman, 1R. Singh, 1L. Addonizio, 1M. Richmond. Pediatric Cardiology, Columbia University; New York-Presbyterian / Morgan Stanley Children’s Hospital, New York, NY.

(520) Extracorporeal Photopheresis in Pediatric Heart Transplantation; W.F. Carl, 1F.B. Pearce, 1J.K. Kirklin, 1J.F. George. 1Pediatrics, University of Alabama at Birmingham, Birmingham, AL; 2Cardiovascular Surgery, University of Alabama at Birmingham, Birmingham, AL.

Noninvasive Predictors of Diastolic Dysfunction in Children after Cardiac Transplant; A. DiPietro, 2S.K. Sexon-Tejtel, 2R. Pignatelli, 1Q. Cui, 1A.G. Cabrera, 1J. Price, 1D. Mitchell, 1W.J. Dreyer, 1A. Jeewa, 1S. Denfield. Pediatric Cardiology, Texas Children’s Hospital, Houston, TX.

Impact of Adolescent Age on Graft Survival in Patients with Congenital Heart Disease Versus Myocarditis; J.I. Savia, 2K.Y. Lin, 3D.S. Lefkowitz, 3S.M. Paridon, 2J. W. Gaynor, 2R. Hammond, 2R.E. Shaddy, 2J.W. Rossano. Division of Cardiology, Children’s Hospital of Philadelphia, Philadelphia, PA.

Outcomes of Third Heart Transplants in Pediatric and Young Adult Patients; J.M. Friedland-Little, 1R.J. Gajarski, 1S. Yu, 1J.E. Donohue, 1M. Zamberlan, 1K.R. Schumacher. Division of Pediatric Cardiology, University of Michigan, Ann Arbor, MI.

Impact of Immunosuppressive Therapy on Anti-EBV Specific CD8+ T-Cells in Pediatric Heart Transplant Recipients; S. Hingler, 1B. Peters, 1M. Yigitbasi, 1F. Berger, 1S. Schubert. Department of Congenital Heart Disease/Pediatric Cardiology, Deutsches Herzzentrum, Berlin, Germany.

Impact of Donor-Recipient Sex Matchup on Survival after Heart Transplantation in Children: An Analysis of >6000 Pediatric Heart Transplants; M. Kemna, 1E. Albers, 1P. Sullivan, 1S. Law, 1L. Permut, 1Y. Law. Seattle Children’s Hospital, Seattle.

Long-Term Outcome of Renal Function with Everolimus Treatment in a Pediatric Center; K. Behnke-Hall, 1J. Bauer, 1J. Thul, 2N. Mazhari, 1D. Schranz. Pediatric Cardiology, Pediatric Heart Center, Giessen, Germany.

Detection of Cardiac Allograft Vasculopathy with the New Optical Coherence Tomography in Pediatric Heart Transplant Recipients – Initial Experience; S. Schubert, 1B. Peters, 2M. Kanaan, 1M. Huebler, 2R. Hetzer, 1F. Berger. 1Congenital Heart Disease/Pediatric Cardiology, Deutsches Herzzentrum, Berlin, Germany; 2Department of Cardiothoracic and Vascular Surgery, Deutsches Herzzentrum, Berlin, Germany.

Development of De Novo Anti-HLA Antibodies in Pediatric Heart Transplant Recipients; C.K. Chen, 1C. Manhiot, 1J. Conway, 1T. Allain-Rooney, 1B.W. McRindle, 1K. Tinckam, 1A.I. Dipchand. 1Pediatrics, Hospital for Sick Children, Toronto, ON, Canada; 2Multiorgan Transplant Program, University Health Network, Toronto, ON, Canada.
(529) Gender Differences in Health-Related Quality of Life and Adherence 5 Years After Heart Transplantation; K.L. Grady, 1 A.-C. Andrei, 1 Z. Li, 1 B. Rybarczyk, 2 C. White-Williams, 3 R. Gordon, 1 E. McGee, Jr., 1 Surgery/Division of Cardiovascular Surgery, Northwestern University, Chicago, IL; 2Psychology, Virginia Commonwealth University, Richmond, VA; 3Nursing, University of Alabama Medical Center, Birmingham, AL.

(530) Integration of Nurse Practitioner Clinical Practice Model into Outpatient Heart Transplant Clinic; S.V. Chambers, P.C. Slutman, M.A. Williams, D.M. Chojnowski, L.R. Goldberg. Heart Failure Transplant Program, Hospital of the University of Pennsylvania, Philadelphia, PA.

(531) The Utility of Psychosocial Assessment Tools in Predicting Cardiovascular Outcomes in Post Cardiac Transplant Patients; N.C. Sharma, D. Kim. Cardiology, Mazankowski Heart Institute, Edmonton, AB, Canada.

(532) Comparison of Surgical Wound Infection Etiology in Patients Treated with Short-Term Pulsatile Mechanical Circulatory Support, Receiving Heart Transplant, or Undergoing Other Cardiac Surgery Procedure; I. Copik, M. Zakliczynski, M. Siola, H. Piasurska, B. Urbanczyk, H. Gancarczyk, A. Larysz, J. Pacholewicz, M. Zembala. Dept. of Cardiovascular Surgery & Transplantation, Silesian Center for Heart Disease, Zabrze, Poland.


(534) Return to Work after Heart Transplantation: The New Zealand Experience; C.B. Samaranyake, P.N. Ruygrok, C.A. Wasywich, A. Coverdale. Green Lane Cardiovascular Service, Auckland City Hospital, Grafton, Auckland, New Zealand.

(535) A Practicable Public Private Partnership Model for Deceased Donor Transplantation – Tamil Nadu Experience; Mohan Thanikachalam, 1 C.E. Karunakaran, 2 J. Amalorpavanathan, 3 Cardiovascular Medicine, Ohio State University, Columbus, OH; 2National Network for Organ Sharing, Chennai, Tamil Nadu, India; 3Department of Surgery, Madras Medical College, Chennai, Tamil Nadu, India.

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**HEART DIAGNOSTICS/THERAPEUTICS**


(537) Alemtuzumab Induction Facilitates Steroid-Free Immunosuppression in Human Cardiac Transplantation: Five Year Outcomes; J.J. Teuteberg, 1 R. Zomak, 1 C. Yost, 1 C. Newman, 1 C. Grabowski, 1 J.K. Bhma, 1 R.L. Kornos, 1 D. McNamara, 1 C. Bermudez, 2 M.A. Shullo, 2 Heart and Vascular Institute, University of Pittsburgh, Pittsburgh, PA; 2Department of Pharmacy and Therapeutics, University of Pittsburgh, Pittsburgh, PA.

(538) Promising Outcomes after Long-Term Therapy with Everolimus: Two Years Results of the CERTIC Registry; L. Potena, 1 A. D’Armini, 2 R. Ficoci, 2 M. Frigerio, 4 G. Gerosa, 2 G. Leonardo, 4 U. Livi, 4 M. Maccherini, 8 C. Maiello, 4 M. Rinaldi, 10 D. Colombo, 11 R. Brusa, 21 F. Parisi. 12 Cardiovascu-

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**GENERAL POSTER SESSION 2 (516)**

**Thursday, April 25, 2013**

**NOTE:** Poster presenters and poster moderators will be present in the poster hall from 5:30 pm – 6:30 pm

**HEART DIAGNOSTICS/THERAPEUTICS**


(541) Adverse Events (AEs) Associated with Everolimus (EVR) or Mycophenolate Mofetil (MMF) in De Novo Heart Transplant (HTx) Recipients: Results from the North American (NA) Subpopulation of Study A2310; H. Eisen, 1 H. Ross, 2 D. Pauly, 2 A. Kfoury, 2 A. Van Bakel, 2 R. Starling, 2 D. Patel, 2 A. Wiland, 2 P. Lopez, 2 A. Balfour, 2 J. Kobashigawa. 3 Drexel University College of Medicine, Philadelphia, PA; 3University Health Network, Toronto General Hospital, Toronto, Canada; 2University of Florida College of Medicine, Gainesville, FL; 2Intermountain Medical Center, Salt Lake City, UT; 2Medical University of South Carolina, Charleston, SC; 2Kaufman Center for Heart Failure, Heart and Vascular Institute, Cleveland Clinic Foundation, Cleveland, OH; 2Novartis Pharmaceuticals Corporation, East Hanover, NJ; 2Novartis Pharma AG, Basel, Switzerland; 3Cedars-Sinai Heart Institute, Los Angeles, CA.

(542) North American Results from the Multicenter Randomized Trial of Everolimus vs Mycophenolate Mofetil in Heart Transplantation; J. Kobashigawa, 1 D. Pauly, 2 H. Ross, 2 A. Kfoury, 2 A. Van Bakel, 2 D. Patel, 2 A. Wiland, 2 P. Lopez, 2 A. Balfour, 2 R. Starling, 2 H. Eisen. 3 Cedars-Sinai Heart Institute, Los Angeles, CA; 2University of Florida College of Medicine, Gainesville, FL; 2University Health Network, Toronto General Hospital, Toronto, Canada; 2Intermountain Medical Center, Salt Lake City, UT; 2Medical University of South Carolina, Charleston, SC; 2Novartis Pharmaceuticals Corporation, East Hanover, NJ; 2Novartis Pharma AG, Basel, Switzerland; 3Cedars-Sinai Heart Institute, Los Angeles, CA.


(545) Lymphatic CD68+ Endothelial Cells in Cardiac Allograft Humoral Rejection; L.V. Beletskaya, 1 A.G. Kupriyanova, 2 V.A. Zaidenov, 2 S.V. Gaitor, 2 Federal V. Shumakov Research Center of Transplantology and Artificial Organs, Moscow, Moscow Region, Russian Federation; 2M. Sеченov First Moscow State Medical University, Moscow, Moscow Region, Russian Federation.

(546) Utility of Gene Expression Profiling Test Score Stability To Predict Future Clinical Events in Heart Transplant Recipients; M. C. Deng, 1 B. Elashoff, 2 D. Hiller, 2 M.X. Pham, 3 J. J. Teuteberg, 4 A.G. Kfoury, 5 R.C. Starling, 5 A. Kao, 6 A.S. Anderson, 5 W.G. Cotts, 4 G.A. Ewald, 10 D.A. Baran, 11 Y. J. Yee, 12 H.A. Valantine. 3 Department of Medicine – Division of Cardiology, UCLA Medical Center, Los Angeles, CA; 2New York Presbyterian...
Hospital – Columbia University, New York, NY; 3Stanford University Medical Center, Palo Alto, CA; 4University of Pittsburgh Medical Center, Pittsburgh, PA; 5Intermountain Medical Center, Salt Lake City, UT; 6The Cleveland Clinic, Cleveland, OH; 7Mid-America Heart Institute, Kansas City, MO; 8University of Chicago Medical Center, Chicago, IL; 9Northwestern University, Chicago, IL; 10Washington University School of Medicine, St. Louis, MO; 11Newark Beth Israel Medical Center, Newark, NJ; 12Xdx, Brisbane, CA; 13VA Palo Alto Health Care System, Palo Alto, CA; 14Advocate Christ Medical Center, Oak Lawn, IL.

(547) Clinical Consequences of Preoperative anti-HLA Antibodies and Panel Reactive Antibodies in Heart Transplantation; T. Gargi, M. Kubanek, E. Slimackova, A. Slavec, J. Pirk, I. Malek, 1Cardiology, Institute for Clinical and Experimental Medicine, Prague, Czech Republic; 2Immunogenetics, Institute for Clinical and Experimental Medicine, Prague, Czech Republic; 3Cardiac Surgery, Institute for Clinical and Experimental Medicine, Prague, Czech Republic.

(548) Results of a Randomized Trial of AlloMap vs Heart Biopsy in the 1st Year after Heart Transplant: Early Invasive Monitoring Attenuation through Gene Expression Trial; J. Kobashigawa, J. Patel, M. Kittleson, D.H. Chang, L. Czer, T. Daun, A. Trento, F. Esmailian, Cedars-Sinai Heart Institute, Los Angeles, CA.

(549) Clinical Significance of a Positive Cross Match in the Setting of Non-Complement Fixing Donor Specific Antibodies in Adult Heart Transplant Recipients; C. Eshelbrenner, C. Murphy, S. Robinson, M. Kwan, J. Pal, C. Kunavarapu, 2University of Texas Health Science Center at San Antonio, San Antonio, TX; 3Advanced Heart Failure and Heart Transplant Clinic, Methodist Hospital System, San Antonio, TX; 4Southwest Immunodiagnostics, San Antonio, TX.

HEART POST TRANSPLANT COMPLICATIONS

(550) Sympathetic Reinnervation of the Sinus Node Following Cardiac Transplantation: Time-Course and Prevalence; M. Das, S.W. Lord, G. Parry, J.H. Dark, J.M. McComb, 1Department of Cardiology, Freeman Hospital, Newcastle upon Tyne, United Kingdom; 2Department of Cardiopulmonary Transplantation, Freeman Hospital, Newcastle upon Tyne, United Kingdom.

(551) Accuracy of a New Method for Semi-Quantitative Assessment of Right Ventricular Ejection Fraction by Cardiac MRI: Right Ventricular Fractional Diameter Changes; E. Vermes, R. Nicolas, G. Olivier, A. Daniel. Cardiac Transplantation, University Hospital of Trousseau, Tours, France.

(552) Cardiopulmonary Bypass Is Associated with Pulmonary Artery Endothelial Dysfunction: Therapeutic Potential of Tezosentan; L.P. Per- rault, M.C. Aubin, A. Mommerot, J. Dupuis, M. Carrier, 1Research Center, Montréal Heart Institute, Montréal, QC, Canada; 2Department of Cardiovascular Surgery, Montréal Heart Institute, Montréal, QC, Canada; 3Department of Cardiac Surgery, University Hospital of Strasbourg, Strasbourg, France; 4Department of Anesthesiology, Montréal Heart Institute, Montréal, QC, Canada; 5Department of Medicine, Université de Montréal, Montréal, QC, Canada.

(553) The Value of Cardiorenal Biomarkers for Prediction of Renal Dysfunction after Heart Transplantation; L. Hoskova, J. Franekova, I. Malek, P. Secnik, J. Pirk, J. Kautner, O. Szarzosi, A. Jabor, 1Cardiology, Institute for Clinical and Experimental Medicine, Prague, Czech Republic; 2Cardiovascular Surgery, Institute for Clinical and Experimental Medicine, Prague, Czech Republic; 3Laboratory Methods, Institute for Clinical and Experimental Medicine, Prague, Czech Republic.

(554) Prevalence of Thrombophilia and Thrombogenic Factors Among 122 Heart Transplant Recipients; B. Salmea, M.-L. Hestlstedt, R. Lassila, J. Lommel, 1Coagulation Disorders Unit, Division of Hematology, Helsinki University Central Hospital, Helsinki, Finland; 2Cardiology, Helsinki University Central Hospital, Helsinki, Finland; 3Laboratory Services, Helsinki University Central Hospital, Helsinki, Finland.

(555) Observational Epidemiological Study To Assess Cardiovascular Risk Factors in Heart Transplant Recipients in Spain (CTC Study): Preliminary Results at 18 Months Post-Transplantation; G. Rábago, L. Almenar, J. Fernández-Yáñez, E. Lage, J.L. Lambert, F. González-Viché, M.G. Crespo-Leiró, J.F. Delgado, C. Clínica Universitaria de Navarra, Pamplona, Spain; 2Hospital La Fe, Valencia, Spain; 3Hospital Gregorio Marañón, Madrid, Spain; 4Hospital Universitario Virgen del Rocío, Sevilla, Spain; 5Hospital Universitario Central de Asturias, Oviedo, Spain; 6Hospital Universitario Marqués de Valdecilla, Santander, Spain; 7Complejo Hospitalario Universitario A Coruña, A Coruña, Spain; 8Hospital de la Princesa, Madrid, Spain.

(556) Post-Heart Transplant (HT) Survival for Adult Congenital Heart Disease (ACHD); R.K. Cheng, E. Depasquale, M. Allareddy, M. Cadeiras, T. Khruu, A. Baas, A. Nsair, D. Cruz, M.C. Deng, Medicine, Division of Cardiology, UCLA Medical Center, Los Angeles, CA.

(557) Heart Transplant Workup Medical Imaging and Resulting Radiation Exposure; S.C. McKenzie, M.R. Brown, D.G. Platts, J. Maddicks-Law, G. Javorsky, M. Whitty, 1Advanced Heart Failure and Cardiac Transplant Unit, The Prince Charles Hospital, Brisbane, Queensland, Australia; 2Biomedical Technology Services, The Prince Charles Hospital, Brisbane, Queensland, Australia; 3School of Medicine, University of Queensland, Brisbane, Queensland, Australia.


(559) The Fate of Atrioventricular Valve Function of Transplanted Heart; S.S. Kim, T.J. Yoon, J.J. Kim, S.J. Choo, C.H. Chung, J.W. Lee, S.-H. Jung, 1Thoracic and Cardiovascular Surgery, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; 2Cardiology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea.

(560) Sildenafil Improves Small Artery Elasticity in Heart Transplant Recipients; M.M. Colvin-Adams, N. Harcourt, D. Duprez, M. Pritzker. Cardiology, University of Minnesota, Minneapolis, MN.

(561) Increased Myocardial Extracellular Volume in New-Onset Non-Isoemic Cardiomyopathy Assessed by Cardiovascular Magnetic Resonance Imaging; U.K. Radunski, G.K. Lund, G. Adam, H. Reichen- spurner, S. Blankenberg, K. Muellerleile, 1University Heart Center Hamburg-Eppendorf, Hamburg, Germany; 2Department of Radiology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany.


(563) The Impact of Donor Benign Intimal Thickening on Cardiac Allograft Vasculopathy; J.J. Devitt, A.J. Rice, S.K. Murray, G.M. Hirsch, T.D.G. Lee, 1,2,3,4 1Surgery, Dalhousie University, Halifax, NS, Canada; 2Laboratory Medicine, Royal Brompton Hospital Trust, London, United Kingdom; 3Pathology, Dalhousie University, Halifax, NS, Canada; 4Microbiology & Immunology, Dalhousie University, Halifax, NS, Canada.

(564) An Improvement in Peripheral Endothelial Function Six Months after Heart Transplantation Is Associated with a Lower Incidence of Coronary Allograft Vasculopathy; M. Farrero, M. Cardona, A. Cuppoletti, S. Resi, V. Isabel, M. Masotti, R. Eulalia, P.-V. Felix. Heart Failure and Heart Transplantation, Hospital Clinic, Barcelona, Barcelona, Spain.

(565) Quantification of Lipid Burden in Heart Transplant (HT) Patients by Near-Infrared Spectroscopy (NIRS); R.K. Cheng, S. Bhatani, R. Gevor-
(566) **Insulin Growth Factor 1 and Cardiac Allograft Vasculopathy**; R. Alharethi, S. Knight, O. Galenko, J. Carligust, B. Horne, D. Budge, S. Frampton, K. Rassmusson, J. Nixon, J. Rolfo, K. Brunisholz, A.G. Kloury. UTAH Cardiac Transplant Program, Intermountain Heart Institute, Salt Lake City, UT.

(567) **Comparison of Optical Coherence Tomography (OCT) and Intravascular Ultrasound (IVUS) for the Early Diagnosis of Cardiac Allograft Vasculopathy in Heart Transplant Patients**; C.-M. Tissot, S. Guendouz, G. Mouillet, T. Damy, J.P. Couetel, E. Teiger, B. Gellen.

(568) **Cardiac Allograft Vasculopathy Is Less Frequent in Contemporary Heart Transplant Population**; J. Wei, B. Azarbal, R. Cheng, D. Gelft, M. Rafiei, J. Patel, L. Czer, J. Kobashigawa. Cedars-Sinai Heart Institute, Cedars-Sinai Medical Center, Los Angeles, CA.


(571) **Coronary Artery Fistulae after Orthotopic Heart Transplantation Are Associated with Decreased Prevalence of Transplant Coronary Artery Disease**; J. Wei, S. Singh, R. Cheng, A. Young, M. Rafiei, A. Hage, J. Patel, F. Esmailian, J. Currier, J. Kobashigawa, B. Azarbal.

(573) **Higher Donor Body Mass Index Is Associated with Higher Risk of Cardiac Allograft Vasculopathy**; W.I. Khalife, R.P. Vivo, P. Nalabothu, S. Garikipati, S. Johnson, K. Kisingburg, R. Sharif, A. Charif. Cardiology, University of Texas Medical Branch, Galveston, TX.


(575) **Ventricular Repolarization Dynamics and the Risk of Sudden Cardiac Death after Heart Transplantation**; B. Vrtovec, G. Pograjca, M. Fister, I. Knezevic, V. Starc, F. Haddad.


(577) **Primary Graft Dysfunction vs. Primary Graft Failure: Are All Graft Problems Created Equal?**; A.Z. Aliabadi, M. Groenmer, D. Wiedemann, D. Zimpfer, G. Lauffer, A.O. Zuckermann. Cardiac Surgery, Medical University of Vienna, Vienna, Austria.


(580) **WITHDRAWN**

(818) **Tranexamic Acid as Replacement Antifibrinolytic for Aprotinin – An Efficacy and Safety Study**; H. Ricky, S. Kathirvel, M. Jose, S. Erin, B. Christian. University of Pittsburgh Medical Center (UPMC), Pittsburgh, PA.


(584) **Estimation of Minimal Important Differences in Health-Related Quality of Life Measures for Lung Transplant Recipients**; L.G. Singer, N. Chowdhury.


(586) **Obesity and Lung Transplants – It’s an Age Thing**; G.I.O. Aruade, G. Parry, J.H. Dark.


(588) **Venous Thromboembolic Events after Recombinant Activin Factor VII in Lung Transplant Recipients**; J.A. Iuppa, R.R. Hachem, G.A. Patterson, E.P. Trulock, Pharmacy Department, Barnes-Jewish Hospital, St. Louis, MO.


Transplantation, Freeman Hospital, Newcastle-upon-Tyne, United Kingdom; 2Department of Surgery and Immunobiology, Institute of T Cell Medicine, University of Newcastle, Newcastle-upon-Tyne, United Kingdom; 3Medical Microbiology, Freeman Hospital, Newcastle-upon-Tyne, United Kingdom.


(591) Lung Transplantation from Donation after Cardiac Death – 3 Years Single Centre Experience: S.F. Hashmi, N. Khasati, A. Machaal, R. Venkateswaran, N. Yonan.


(598) Bridge to Lung Transplantation with Veno-Venous Extracorporeal Membrane Oxygenation for End-Stage Lung Disease: A Single Center Experience: C.F. Evans, Z.N. Kon, B.P. Wehman, M. Gibber, A.T. Iacono, J.P. Garcia, B.P. Griffith, Division of Cardiac Surgery, Department of Surgery, University of Maryland Medical Center, Baltimore, MD; Division of Pulmonary and Critical Care Medicine, Department of Medicine, University of Maryland Medical Center, Baltimore, MD.


(600) The SysCLAD- Systems Prediction of Chronic Lung Allograft Dysfunction Study: Aims, Strategy and First Data: C. Pison, A. Tissot, A. Magnan, K. Botturi, M. Stern, M. Reynaud-Gaubert, R. Kessler, S. Musso, C. Dromer, V. Boussaud, J.-F. Morner, G. Thabut, M. Dahan, J.-D. Aubert, A. Boehler, C. Knopp, J. Sève, S. Brouard, B. Marsland, K. Deplanche, D. Koubi, M. Maier, G. Oliveira, J.-P. Boissel, C. Auffray, L. Nicod, C. CHU, Grenoble, France; CHU, Nantes, France; Hôpital Coquard, Suresnes, France; AP Marseille, Marseille, France; CHU, Strasbourg, France; Hôpital Marie Lannelongue, Le Plessis Robinson, France; CHU, Bordeaux, France; HEGP, Paris, France; HCL, Lyon, France; CHU Bichat, Paris, France; CHU, Toulouse, France; CHU Lausanne-Genève, Lausanne, Switzerland; University Hospital Zurich, Switzerland; Hôpital Erasme, Bruxelles, Belgium; Finovatis, Lyon, France; Biomax, Planegg, Germany; Novadiscover, Lyon, France; European Institute of Systems Biology and Medicine, Lyon, France.


MECHANICAL CIRCULATORY SUPPORT

Pae. Heart and Vascular Institute, Penn State Hershey Medical Center, Hershey, PA.

(608) Overall Outcomes of Patients with Left Ventricular Assist Devices (LVADs) in Acute Rehabilitation Facility: How Safe Are These Patients at Rehabilitation Facilities? K.C. McCants, P.S. Combs, P. Raheja, S. Rhode, K. Vessels, A. Lenneman, E. Birks. Advanced Heart Failure, University of Louisville & Jewish Hospital, Louisville, KY.

(609) Weighted Gene Coexpression Network Analysis (WGCNA) Modeling of Multiorgan Dysfunction Syndrome after Mechanical Circulatory Support Therapy: N. Wisniewski, M. Cadeiras, G. Bondar, R.K. Cheng, K. Shahzad, D. Onat, F. Latif, Y. Korin, E. Reed, R. Fakhrro, M.C. Deng. 1Medicine, Division of Cardiology, UCLA Medical Center, Los Angeles, CA; 2Medicine, East Carolina University, Greenville, NC; 3Medicine, Columbia University Medical Center, New York, NY; 4Pathology, UCLA Medical Center, Los Angeles, CA.


(611) Hemolysis and Pump Thrombus in Continuous Flow Left Ventricular Assist Device Recipients Does Not Affect Survival: B.A. Whitson, P. Eckman, F. Kamdar, M. Colvin-Adams, K.K. Liao, M. Pritzker, R. John. 1The Ohio State University Wexner Medical Center, Columbus, OH; 2The University of Minnesota, Minneapolis, MN.

(612) Cost Comparison of Continuous-Flow Left Ventricular Assist Devices as Destination Therapy in Patients Over/Under Age 70: R.J. Koene, B. Milavitz, J.D. Roberts, S.N. Adatya, E. Tone, R. John, P.M. Eckman. Department of Medicine – Cardiovascular Division, University of Minnesota, Minneapolis, MN.


(614) Left Ventricular Assist Device Placement in Very Obese Patients: Proceed with Caution: S. Osaki, M.R. Johnson, P.S. Rahko, M.A. Murray, J.H. Blabaum, E.B. Lushaj, S. Ulschmid, L. Lozonschi, T. Kohmoto. 1Surgery, Division of Cardiothoracic Surgery, University of Wisconsin, Madison, WI; 2Cardiac Surgery, St. Peter’s Hospital, Albany, NY; 3Medicine, Heart Failure and Transplant Medicine, University of Wisconsin, Madison, WI.

(615) Prolactin – A New Marker for ECMO-Related Mortality: A. Newman, D. Hilfiker-Kleiner, C. Kühn, C. Fegbeutel, A. Hilfiker, A. Haverich, C. Barber. 1Department of Cardiac, Thoracic, Transplantation, and Vascular Surgery, Medical School Hannover, Hannover, Germany; 2Department of Cardiology and Angiology, Medical School Hannover, Hannover, Germany.

(616) Acquired Aortic Insufficiency with 2nd Versus 3rd Generation Continuous Flow Left Ventricular Assist Device: D. Spiegelstein, C.M. Rosner, S.S. Desai, L.G. Edwards, T. Elliott, N.A. Burton, A.J. Rongione. 1Heart Failure / Transplant Program, Inova Heart and Vascular Institute at Inova Fairfax Hospital, Falls Church, VA; 2Cardiac Surgery, Inova Heart and Vascular Institute at Inova Fairfax Hospital, Falls Church, VA.


(621) Type 2 Cardiorenal Syndrome in the Left Ventricular Assist Device (LVAD) Population: S. Feitell, J. Patel, P. Piratamarta, J. Whittier, E. Gongora, T. Rowe, S. Hankins, H.J. Eisen. 1Division of Cardiology, Drexel University College of Medicine, Philadelphia, PA; 2Center for Advanced Heart Failure Care, Hahnemann University Hospital, Philadelphia, PA.

(622) Whole Blood Gene Expression of Multiorgan Dysfunction (MOD) after LVAD Implantation: G. Bondar, M. Cadeiras, N. Wisniewski, R.K. Cheng, K. Shahzad, D. Onat, F. Latif, E. Chang, M.C. Deng. 1Medicine, Division of Cardiology, UCLA Medical Center, Los Angeles, CA; 2Medicine, East Carolina University, Greenville, NC; 3Medicine, Columbia University Medical Center, New York, NY.

(623) Acuity Adjustable Patient Care Unit Shortens Length of Hospital Stay after Ventricular Assist Device Placement: S. Osaki, N.M. Edwards, M.R. Johnson, M.A. Murray, J.H. Blabaum, S. Ulschmid, L. Lozonschi, T. Kohmoto. 1Surgery, Cardiothoracic Surgery, University of Wisconsin, Madison, WI; 2Cardiac Surgery, St. Peter’s Hospital, Albany, NY; 3Medicine, Heart Failure and Transplant Medicine, University of Wisconsin, Madison, WI.


(625) Endovascular Application of the CircuLite® Synergy® Circulatory Support System: S. Kar, J. Granada, G.H. Yi, R. Farnan, J. Budris, D. Burkoff, Cedars Sinai Medical Center, Los Angeles, CA; 2Skibbel Center for Cardiovascular Research, Orangeburg, NY; 3CircuLite, Inc., saddle Brook, NJ; 4Columbia University, New York, NY.

(626) Genomics of Myocardial Recovery in Patients with Mechanical Circulatory Support: H. Milting, A. Kassner, C. Oezpeker, M. Morhuis, B. Bohms, J. Boergemann, J. Gummert. Clinic of Thoracic and Cardiovascular Surgery, Erich & Hanna Klessmann-Institute, Ruhr-University Bochum, Heart & Diabetescnter NRW, Bad Oeynhausen, Germany.

(627) A Quantitative Assessment of Left Ventricular Assist Device Inflow Cannula Position with Contrast Enhanced Gated Cardiac Multiphase Computed Tomography and Its Clinical Correlation: P.A. Alvarez, M. Kassi, M. Loeb, J. Estep, A. Bhamiraj, S.M. Chang. 1Medicine, The Methodist Hospital, Houston, TX; 2Surgery, The Methodist Hospital, Houston, TX; 3Cardiology, The Methodist Hospital, Houston, TX.

(628) Contemporary Experience with Percutaneous and Surgical Right Ventricular Assist Devices: L. Uno, T. Ryan, M. Moulton. UNMC, Omaha.

(629) Does Acuity of Presentation Impact the Incidence of Right Ventricular Failure Following Left Ventricular Assist Device Implantation?: D. Kalavrouziotis, M.Z. Tong, D. Nagpal, S. Lee, E.G. Soltesz, N. Moazami. 1Department of Thoracic and Cardiovascular Surgery, Cleveland Clinic, Cleveland, OH; 2Department of Cardiovascular Medicine, Cleveland Clinic, Cleveland, OH.

(630) This abstract has been moved to Friday Poster Session 3
(631) Enhanced Ca2+ Influx through Cardiac L-Type Ca2+ Channels Maintains the Systolic Ca2+ Transient in Cardiac Unloading; A.P. Schwoerer,1 A.M. Bernhardt,2 T. Eschenhagen,3 H. Reichenspurner,2 H. Ehmke.1 1Department of Cellular and Integrative Physiology, University Hospital Hamburg- Eppendorf, Hamburg, Germany; 2Department of Cardiovascular Surgery, University Heart Center Hamburg, Hamburg, Germany; 3Institute of Experimental and Clinical Pharmacology and Toxicology, University Hospital Hamburg- Eppendorf, Hamburg, Germany.


(633) WITHDRAWN

(634) Characteristics and Survival of Patients with the Total Artificial Heart Implanted for Indications Other Than Biventricular Failure; K.L. Thanavaro,1 D.G. Tang,2 R.H. Cooke,2 A.C. Mankad,1 M.L. Hess,1 V. Kasirajan,2 K.B. Shah,1 1Department of Internal Medicine, Division of Cardiology, VCU Medical Center, Richmond, VA; 2Department of Cardiothoracic Surgery, VCU Medical Center, Richmond, VA.

(635) Renal Dysfunction Does Not Contraindicate Ventricular Assist Device as Destination Therapy or as Bridge to Single Heart or Combined Heart and Kidney Transplantation; A. Ruzza,1 F. Esmailian,1 R. Vespignani,1 R. Yanagida,3 M. Awad,1 J. Mirocha,1 D. Ramzy,1 J. Moriguichi,1 A. Trento,1 L.S.C. Czer,1,2 1Division of Cardiothoracic Surgery, Cedars-Sinai Heart Institute, Cedars Sinai Medical Center, Los Angeles, CA; 2Division of Cardiology and the Comprehensive Transplant Center, Cedars-Sinai Heart Institute, Cedars Sinai Medical Center, Los Angeles, CA; 3Division of Cardiothoracic Surgery, Department of Surgery, University of Kentucky, Lexington, KY.


(637) A Novel, Risk Stratification Model Using Bayesian Networks for Continuous Flow Left Ventricular Assist Device 90-Day Survival; N.A. Loghmanpour,1 M.K. Kanwar,2 Y. Wang,1 T.A. Snyder,1 D.A. Horstmannshofer,3 J.W. Long,3 J. Gorcsan,4 J.F. Antaki,1 S. Muraili.2 1Biomedical Engineering, Carnegie Mellon University, Pittsburgh, PA; 2Cardiology, Allegheny General Hospital, Pittsburgh, PA; 3Advanced Cardiac Care, Integris Baptist Medical Center, Oklahoma City, OK; 4Cardiology, University of Pittsburgh Medical Center, Pittsburgh, PA.


(639) Effect of Body Position on Continuous Flow Left Ventricular Assist Device Flow Dynamics; K. Mutthiah,1,2 S. Gupta,1,2 D. Robson,1 R. Walker,1 P.S. Macdonald,1,2 P. Jansz,1 C.S. Hayward.1,2,3 1Heart Failure and Transplant Unit, St. Vincent’s Hospital, Sydney, Australia; 2University of New South Wales, Sydney, Australia; 3Victor Chang Cardiac Research Institute, Sydney, Australia.

(640) Gastrointestinal Bleeding Was Rare with Centrifugal Type Continuous Flow Left Ventricular Assist Device EVAHEART; Y. Ichihara, T. Nishinaka, M. Komagamine, Y. Yamada, T. Miyamoto, K. Suzuki, H. Tsukui, S. Saito, K. Yamazaki. Cardiovascular Surgery, Tokyo Women’s Medical University, Tokyo, Japan.

(641) Potential Application of the CircuLite® Synergy® Circulatory Support System in the Treatment of Pulmonary Arterial Hypertension; B. Meyns,1 F. Rega,1 A. Simon,2 W. Kerkhoffs,3 E. Keyselitz,3 O. Marseille,3 M. Martin,3 J. Budris,4 D. Burkhoff,1 1K.U.Leuven Gasthuisberg University Hospital, Leuven, Belgium; 2Harefield Hospital, Harefield, United Kingdom; 3CircuLite, GmbH, Aachen, Germany; 4CircuLite, Inc., Saddle Brook, NJ.

(642) Continuous-Flow Ventricular Assist Devices Impact on Failing Heart’s Vasculature; C.G. Yen,1,2 N.A. Diakos,1,2 J. Stehlik,1 C.H. Selzman,1,2 A.G. Kfouri,1 B.B. Reid,1 M. Evertitt,1 O. Wever-Pinson,1 C. Myrick,1 M. Salama,1 E. Hammond,1 J.D. Symons,1 D.Y. Li,2 S.G. Drakos,2,3 1UTAC Cardiodynamic Program, Salt Lake City, UT; 2University of Utah Molecular Medicine, Salt Lake City, UT.

(643) Assessment of Right Ventricle before the Implantation of Left Ventricular Assist Device by Echocardiographic Parameters (ARVADE); N. Aissaoui,1,2 L. Paluszkievich,1 G. Martin Correa,1 M. Morshuis,1 B. Diebold,2 S. Joe Elie,2 J. Gummert,1 1Heart and Diabetes Center, Bad Oeynhausen, Germany; 2HEGP, Paris, France.


(645) Predicting RV Failure after LVAD Implantation: Utility of Echocardiographic Strain and Defining RV Failure; C.B. Link,1 R. Kormos,2 K. Jackson,1 J. Teuteberg,1,2 J. Bham,2 C. Bermudez,2 M.A. Simon,1,2 1Department of Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA; 2Heart and Vascular Institute, University of Pittsburgh Medical Center, Pittsburgh, PA; 3School of Medicine, University of Pittsburgh, Pittsburgh, PA.


(647) Clinical Outcomes for INTERMACS Profile 1 Patient Implanted with the Total Artificial Heart; K.B. Shah,1 K.L. Thanavaro,1 D.G. Tang,2 V. Kasirajan,2 1Division of Cardiology, Virginia Commonwealth University, Richmond; 2Division of Cardiothoracic Surgery, Virginia Commonwealth University, Richmond.

(648) Utility of Routine Right Heart Catheterization after LVAD Implantation; D. Spiegelstein,2 C.M. Rosner,1 S.S. Desai,1 L.G. Edwards,1 T. Elliott,1 N.A. Burton,2 A.J. Rongione.2 1Heart Failure/Heart Transplant, Inova Heart and Vascular Institute at Inova Fairfax Hospital, Falls Church, VA; 2Cardiac Surgery, Inova Heart and Vascular Institute at Inova Fairfax Hospital, Falls Church, VA.

(649) Improved Postoperative Clinical Outcomes after Ventricular Assist Device Implantation in Patients Older Than 60 Years of Age at the University of Wisconsin Hospital and Clinics; E.B. Lushaj, Y. Kotani, S. Osaki, L. Lozonschi, N.M. Edwards, T. Kohmoto. Surgery, University of Wisconsin, Madison, WI.

(650) Low Rate of Allosensitization Associated with the Syn cardia Total Artificial Heart and the Heartmate II LVAD; D.G. Tang, G.B. Reddy, M.P. Flattery, K.B. Shah, V. Kasirajan. Virginia Commonwealth University, Richmond, VA.

PEDIATRICS

(651) Congenital Heart Disease, HLA Sensitization, and Heart Transplantation; D.A. Dodd,1 B. Mettler.2 1Pediatric Cardiology, Vanderbilt University, Nashville, TN; 2Pediatric CT Surgery, Vanderbilt University, Nashville, TN.

Costs of Transplantation across a Positive Crossmatch; S.C. West, S.A. Webber, S.A. Miller, P.D. Wearden, V.O. Morell, B. Feingold. Pediatric Cardiology, Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA; Pediatrics, Vanderbilt University, Nashville, TN; Cardiothoracic Surgery, Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA.

Correlation of B-Type Natriuretic Peptide (BNP) with Echocardiographic and Catheterization Parameters in Pediatric Heart Recipients; B. Haileselassie, J. Allen, B. Soriano, A. Bhat, R. Boucek, M. Kemna, S. Law, E. Albers, M. McMullan, Y. Law. Pediatrics, Seattle Children’s Hospital, University of Washington, Seattle, WA; Surgery, Seattle Childrens Hospital, University of Washington, Seattle, WA.

PATHOLOGY

Long-Term Survival after Heart Transplantation depends on Proper Outward Remodeling of Epicardial Arteries with Cardiac Allograft Vasculopathy; M.M.H. Huibers, J. Kaldeway, A. Huisman, K. Timmermans, M.B. Leenders, M.E.I. Schippers, A. Vink, J.R. Lahpor, H.J.H. Kirkels, C. Klöpping, N. de Jonge, R.A. de Weger. Pathology, University Medical Center Utrecht, Utrecht, Netherlands; Anesthesiology & Intensive Care Medicine, Radboud University Nijmegen Medical Center, Nijmegen, Gelderland, Netherlands; Gastroenterology & Hepatology, University Medical Center Utrecht, Utrecht, Netherlands; Cardio Thoracic Surgery, University Medical Center Utrecht, Utrecht, Netherlands; Cardiology, University Medical Center Utrecht, Utrecht, Netherlands.

Changes of Plasma microRNAs in Heart Transplantation Patients Do Not Reflect MicroRNA Changes in the Cardiac Allograft Vasculopathy Vessel Wall; M.M.H. Huibers, H. Vroman, J. van Kuik, E. Siera-de Koning, N. de Jonge, R.A. de Weger. Pathology, University Medical Center Utrecht, Utrecht, Netherlands; Cardiology, University Medical Center Utrecht, Utrecht, Netherlands; Cardiology, University Medical Center Utrecht, Utrecht, Netherlands.


Fibroblast Growth Factor 23 is a Promising Marker of Myocardial Pathology; Y. Polyakova, M. Richter, T. Kubin, T. Walther. Heart Surgery, Kerckhoff-Clinic, Bad Nauheim, Germany; Cardiovascular Development and Remodelling, Max-Planck-Institute, Bad Nauheim, Germany.

A Specific Mechanism for Late Loss of Cardiac Allograft: The Antibody Mediated Rejection (AMR) as a Major Factor of Cardiac Allograft Vasculopathy (CAV); C. Toquet, A. Loupy, P. Rouvier, S. Varnous, A. Cazes, M. Tible, T. Beuscart, X. Jouven, P. Bruneval, J.P. Duong Van Huyen. CHU Nantes, Nantes, France; University Paris Descartes, Paris, France; Hospital La Pitie, Paris, France.

A Specific Mechanism for Late Loss of Cardiac Allograft: The Antibody Mediated Rejection (AMR) as a Major Factor of Cardiac Allograft Vasculopathy (CAV); C. Toquet, A. Loupy, P. Rouvier, S. Varnous, A. Cazes, M. Tible, T. Beuscart, X. Jouven, P. Bruneval, J.P. Duong Van Huyen. CHU Nantes, Nantes, France; University Paris Descartes, Paris, France; Hospital La Pitie, Paris, France.

C4d Immunostaining Is an Independent Predictor of Graft Dysfunction, Cardiac Allograft Vasculopathy and Death in Heart Transplant Recipients; A. Luk, C. Alba, J. Butany. Division of Cardiology, Department of Medicine, University Health Network, Toronto, ON, Canada; Departments of Laboratory Medicine and Pathobiology and Medicine, University of Toronto, Toronto, ON, Canada.


(673) Pathologic Findings in Explanted Pulmonary Allografts; L. Xu, 1 C. Drachenberg, 1 A. Iacono, 2 A. Burke, 1 Pathology, University of Maryland, Baltimore, MD; 2Pulmonary Medicine, University of Maryland, Baltimore, MD.

BASIC SCIENCE


(675) In Vitro Modeling of Duchenne Muscular Dystrophy (DMD) Cardiomyopathy Using Human Induced Pluripotent Stem Cells (hiPSC); F. Kamdar, 1,2 M.J. Doyle, 2 C. Chapman, 2 J. Loh, 1 N. Koyano Nakagawa, 2 D.J. Garry, 1,2 Division of Cardiology, University of Minnesota, Minneapolis; 2Lillehei Heart Institute, University of Minnesota, Minneapolis.

(676) T Cell Responses in Lung Transplantation — Role of Alloantigen Priming and Regulation on Development of Transplant Arteriosclerosis in a Humanized Mouse Model; A.-K. Knöfel, 1 N. Frank, 1 N. Madrahimov, 1 J. Salman, 1 W. Sommer, 1 K. Jansson, 1 P. Zehme, 1 D. Jonigk, 2 M. Avsar, 1 A. Haverich, 1 G. Warnecke, 1 JTTVM, Medical School of Hannover, Hannover, Germany; 2Pathology, Medical School of Hannover, Hannover, Germany.

(677) Rapid Tolerance Induction for Solid Organ Transplantation by Myeloid Progenitor Cells; J. Domen, 1 Y. Li, 1 L. Sun, 1 P. Simpson, 2 K. Gandy, 2 Cardiac Surgery, Children’s Mercy Hospital and Clinics, Kansas City, MO; 2Dept of Pediatrics, Medical College of Wisconsin, Milwaukee, WI.

(678) Targeting Steroid Resistant Peripheral Blood Pro-Inflammatory CD28null T Cells by Inhibiting CD137 Expression: Relevance to BOS; G. Hodge, 1,2 S. Hodge, 1,2 J. Ahern, 3 C.-L. Holmes-Liew, 1,2 N. P. Reynolds, 1,2 M. Holmes, 1,2,3 Lung Research, Hanson Institute and Thoracic Medicine, Royal Adelaide Hospital, Adelaide, South Australia, Australia; 3University of Adelaide, Adelaide, Australia; 4South Australian Lung Transplant Service, Adelaide, Australia.


(680) Protective Effect of Plasmin in Marginal Donor Lungs in an Ex Vivo Lung Perfusion Model; H. Motoyama, 1 J. Domen, 1 S. Jalilova, 1 Z. Wang, 1 B. Motsch, 1 N. Koch, 1 M. Ramsperger, 1 N. Burzlaff, 1 M. Weyand, 1 W. Bernhardt, 1 K.U. Eckardt, 2 S. Ensminger, 1 Pathology, University of Erlangen-Nuremberg, Erlangen, Germany; 2Department of Pathology, University of Erlangen-Nuremberg, Erlangen, Germany; 3Department of Nephrology, University of Erlangen-Nuremberg, Erlangen, Germany; 4Department of Nephrology, University of Erlangen-Nuremberg, Erlangen, Germany.

(681) Effect of Ex-Vivo Lung Perfusion (EVLP) on Metabolomic Profile of Human Lungs; C. Egan, 1 B. Dong, 1 A. Tikunov, 2 C. Semelka, 2 J. Blackwell, 1 W. Simmons, 1 P.-F. Kuan, 1 J. Macdonald, 1 Surgery, University of North Carolina, Chapel Hill, NC; 2Bioengineering, University of North Carolina, Chapel Hill, NC; 3Gillings Global School of Public Health, University of North Carolina, Chapel Hill, NC.

(682) Cardiac Transplantation Using Hearts from Donation after Circulatory Death (Dcd) Donors — A Viable Source of Organs?; A. Iyer, 1,2 L. Gao, 1 A. Doyle, 1 G. Kumarasinghe, 1,2 A. Jabbour, 1,2 M. Hicks, 1 P. Janssz, 1 K. Dhital, 2 P. Macdonald, 1 Heart Transplantation Lab, Victor Chang Cardiac Research Institute, Sydney, Australia; 2Heart & Lung Transplant Program, St Vincent’s Hospital, Sydney, Australia.

(683) The Role of Human Umbilical Cord Mesenchymal Stem Cells in Attenuating Ischemia-Reperfusion Injury in Rat Lung Transplantation Model; W. Mao, J. Chen. Department of Cardiothoracic Surgery, Wuxi People's Hospital, Nanjing Medical University, Wuxi, Jiangsu, China.

(684) Modifications of the Skeletal Muscle Ryanodine Receptor Type 1 and Exercise Intolerance in Heart Failure; E. Rullman, 1,2 D.C. Anderson, 1,2 M. Melin, 1,2 S. Reiken, 3,4 D. Mancini, 1 A.R. Marks, 3,4 L.H. Lund, 1,2 T. Gustafsson, 1,2 Medicine, Karolinska Institutet, Stockholm, Sweden; 2Karolinska University Hospital, Stockholm, Sweden; 3Medicine, Columbia University College of Physicians and Surgeons, New York; 4Physiology and Cellular Biophysics, Columbia University College of Physicians and Surgeons, New York.

(685) Resveratrol Attenuates Stimulated T Cells Activation and Proliferation: A Novel Therapy Against Cellular Rejection in Cardiac Transplantation; J. Nagendran, 1 C. Bleakley, 2 D.B. Ross, 1 L.J. West, 1 J.R.B. Dyck, 1 J. Nagendran. 1 Surgery, University of Alberta, Edmonton, AB, Canada; 2Biochemistry, University of Alberta, Edmonton, AB, Canada; 3Pediatrics, University of Alberta, Edmonton, AB, Canada.

(686) A Novel Humanized Model To Study the Development of Obliterative Airway Disease; X. Hua, 1 T. Deuse, 1 M. Stubbenbordoff, 1 F. Laenger, 2 R. Robbins, 2 H. Reichenpumer, 1 S. Schreper, 1,3 TSI-Lab. Cardiovascular Surgery, University Heart Center Hamburg-Eppendorf, Hamburg, Germany; 2Pathology, University Medical School Hannover, Hannover, Germany; 3CT Surgery, Stanford University School of Medicine, Stanford.

(687) Blood Group A Transgenic Mice: A Model for ABO-Incompatible (ABOi) Heart Transplantation (HTx); A. Kratovich, 1 B. Motyka, 1 F. Aizouki, 1 S. Wang, 1 K. Tao, 1 S. Tollenaar, 1 J. Bennett, 1 T. Marshall, 1 A.J.F. d’Apice, 2 P.J. Cowan, 2 J.I. West, 1 University of Alberta, Edmonton, Canada; 2St Vincent’s Hospital, Melbourne, Australia.

(688) Tacrolimus Causes Airway Mucociliary Clearance Impairment; M.P. Silva, 1 S.F. Soto, 1 T.T.K. Limonete, 1 F.M. Almeida, 1 F.B. Jatene, 1 P.M. Pego-fernandes, 1 R. Pazetti, 1 Thoracic Surgery Department, Heart Institute (InCor) — Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil; 2Pathophysiology Department, Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil; 3Medical Clinic Department, Faculdade de Medicina da Universidade de São Paulo, São Paulo, Brazil.

(689) Integrative Omics of Aspiration in Lung Transplantation; D.C. Neujahr, 1 K. Uppal, 1 C. Lockard, 1 K. Lee, 3 V. Tran, 2 D.P. Jones, 2 P. Youngja, 2 Emory Transplant Center, Emory University School of Medicine, Atlanta, GA; 2Emory Department of Medicine, Emory University School of Medicine, Atlanta, GA; 3Department of Industrial Engineering, Hanyang University, Seoul, Korea.

(690) Hypoxia-Inducible Transcription Factor Target Genes VEGF and TGF-β Modulate Transplant Arteriosclerosis in a Murine Aortic Allograft Model; C. Heim, 1 S. Jalliova, 1 Z. Wang, 1 B. Motsch, 1 N. Koch, 1 M. Ramsperger, 1 N. Burzlaff, 1 M. Weyand, 1 W. Bernhardt, 1 K.U. Eckardt, 2 S. Ensminger, 1 Department of Cardiac Surgery, University of Erlangen-Nuremberg, Erlangen, Germany; 2Department of Nephrology, University of Erlangen-Nuremberg, Erlangen, Germany; 3Department of Inorganic and Analytical Chemistry, University of Erlangen-Nuremberg, Erlangen, Germany; 4Department of Cardiac Surgery, Heart and Diabetes Centre NRW, Bad Oeynhausen, Germany.

(691) Ex Vivo Intracoronary Gene Transfer of Adeno Associated Virus Serotype 2 Is Superior to Serotypes 8 and 9 in Transflecting Heart Transplants in the Rat; A. Raissadati, 1 J.J. Jokinen, 1 S.O. Syrjälä, 1 R. Tuuminen, 1 R. Krebs, 1 R. Arnaudova, 1 M.A. Keränen, 1 A. Anisimov, 1 Thursday • April 25
PULMONARY HYPERTENSION

(692) Plasma Adiponectin in Patients Pulmonary Arterial Hypertension; N. Selimovic, B. Rundqvist, S.E. Bartfay, B. Andersson, S. Söderberg.

(693) Specific Therapy Modulate Circulating Levels of Adiponectin in Patients with Pulmonary Arterial Hypertension; N. Selimovic, B. Rundqvist, S.-E. Bartfay, B. Andersson, S. Söderberg.

(694) The Gradient between Diastolic Pulmonary Arterial Pressure and Pulmonary Wedge Pressure Is Important in the Evaluation of Post-Capillary Pulmonary Hypertension; S. Stettler, M. Prella, J.-D. Aubert, L. Nicod. Biology and Medicine Faculty, University of Lausanne, Lausanne, Switzerland; Pneumology Unit, Internal Medicine Department, University Hospital, Lausanne, Switzerland.

(695) Adjusting N-Terminal Pro-Brain Type Natriuretic Peptide Levels for Ventricular Mass Improves Prediction of Right Atrial Pressure and Cardiac Index in Patients with Pulmonary Arterial Hypertension; A. Raina, S.K.R. Soma, D. Ragveer, S. Prabhakar, R. Biederman. Cardiovascular Institute, Allegheny General Hospital, Pittsburgh, PA.

(696) Gender Differences in Response to PAH Therapy: 6MWD and Time to Clinical Worsening; J. Rusiecki, J. Clevland, D. Lam, H. Champion.


GENERAL POSTER SESSION 3

Friday, April 26, 2013

NOTE: Poster presenters and poster moderators will be present in the poster hall from 5:30 pm – 6:30 pm

HEART TRANSPLANT COMPLICATIONS

(698) Cancer in the Norwegian HTx Population: Risk Factors, Incidence and Mortality Compared to General Population; E. Gude, B. Aagnes, S. Tretli, L. Gullstad, S. Arora, A. Fiane, A. Andreassen. Department of Cardiology, Oslo University Hospital Rikshospitalet, Oslo, Norway; Department of Research, Cancer Registry of Norway, Institute of Population-Based Research, Oslo, Norway; Department of Cardiac Surgery, Oslo University Hospital Rikshospitalet, Oslo, Norway.

(699) The Impact of Donor Renal Function on Cardiac Allograft Survival: Insights into Reno-Cardiac Interactions; M.A. Brisco, O. Lauver, A. Kula, T. Gilliland, D.L. Jacoby, S.G. Coca, W.H.W. Tang, J.M. Testani. Cardiovascular Division, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA; Department of Medicine, Yale University School of Medicine, New Haven, CT; Department of Medicine, Cleveland Clinic, Cleveland, OH.

(700) Risk Factors and Response to Therapy in Heart and Lung Transplant Recipients with Post-Transplant Lymphoproliferative Disease; G. Kumarasinghe, O. Lavee, A. Parker, A. Keogh, C. Hayward, K. Kotlyar, A. Jabbour, A. Havyry, M. Malouf, M. Pilt, A. Glanville, P. MacDonald, J. Moore. Heart and Lung Transplant Unit, St. Vincent’s Hospital, Sydney, NSW, Australia; Dept of Haematology, St. Vincent’s Hospital, Sydney, NSW, Australia.

(701) Clinical and Echocardiographic Presentation of Rejection Episodes Following Heart Transplantation; N.L. Sudini, J. Huo, S. Pan, J. Montoya, S. Leon, T. Vu, R.E. Beygui, B. Vrtovec, J.C. Wu, M. Pham, K. Kush, G. Berry, S. Hunt, F. Haddad. Cardiovascular Medicine, Stanford University Medical Center, Stanford, CA; Cardiothoracic Surgery, Stanford University Medical Center, Stanford, CA; Cardiology, Stanford University Medical Center, Stanford, CA; Infectious Diseases, Stanford University Medical Center, Stanford, CA; Pathology, Stanford University Medical Center, Stanford, CA.


(703) Early Inflammatory Predictors of Post-Transplant Major Adverse Cardiac Events; C.A. Labarrere, J.R. Woods, J.W. Hardin, B.R. Jaeger, M. Zembala, M.C. Deng, P.C. Kirlin, D.E. Pitts. CBL Partners for Life, Noblesville, IN; Methodist Research Institute, Indiana University Health, Indianapolis, IN; Epidemiology and Biostatistics, University of South Carolina, Noblesville, SC; Dr. Stein and Kollegen, Münchenegladbach, Germany; Silesian Center for Heart Diseases, Zabrze, Poland; Ronald Reagan UCLA Medical Center, Los Angeles, CA; St Vincent Heart Center of Indiana, Indianapolis, IN.

(704) End of an Era: Reduced Severity of Tricuspid Regurgitation in Cardiac Transplant Recipients Managed with Molecular Diagnostic Testing; S. Feitell, J. Patel, P. Pirlamarla, J.W. Hardin, E. Gongora, T. Rowe, S. Hankins, H.J. Eisen. Division of Cardiology/Department of Medicine, Drexel University College of Medicine, Philadelphia, PA; Center for Advanced Heart Failure Care, Hahnemann University Hospital, Philadelphia, PA.

(705) Role of Donor-Recipient Match in Determining the Risk for Primary Graft Failure after Heart Transplantation; C. Lonetti, V. Manfredini, L. Potena, V. Pecc, M. Masetti, S. Martin-Suarez, E. Pilato, A. Loforte, G. Magnani, F. Grigioni, G. Arpesella, A. Branzi. Cardiovascular Department, University of Bologna, Bologna, Italy.

(706) Natural History of Tricuspid Valve Regurgitation (TR) Diagnosed Immediately after Heart Transplant; C. Zanotti, L. Shaw, A. Castleberry, J. Schroeder, E. Velazquez, J. Smawanathan, J. Rogers, C. Milano. Surgery, Duke University Medical Center, Durham, NC; DCRI, Duke University, Durham, NC; Medicine — Cardiology, Duke University Medical Center, Durham, NC; Anesthesiology, Duke University Medical Center, Durham, NC.

(707) Significance of Persistent EBV Viral Load in Pediatric Heart Transplant Recipients; B.B. Das, A. Barnes, D. Fixler. Division of Cardiology, Dept of Pediatrics, Children’s Medical Center, UT Southwestern Medical Center, Dallas, TX.

(709) Extra-Corporeal Membrane Oxygenation Support in Cardiac Transplantation; H.B. Bittner, J. Garbade, S. Lehmann, M.J. Barten, F.W. Mohr, Florida Hospital Orlando, Transplant Institute, Orlando, FL; Cardiovascular Surgery and Thoracic Transplantation, Heart Center of the University of Leipzig, Leipzig, Germany.


(711) Impact of Sex Mismatch on Overall and Survival Data in Male Heart Recipients: A 21-Year French Experience; E. Vermees, A. Sirinelli, J.F. Marliere, A. Mirza, M. Apurt. Cardiac Surgery, University Hospital of Trousseau, Tours, France.

(712) Risk Factors of Renal Dysfunction Following Cardiac Transplantation; K. Lachance, M. Carrier, A.M. Mansour, A. Ducharme, N. Racine, M. Lischkowskii, M. White, S. de Denuis, Montréal Heart Institute, Montréal, QC, Canada; Faculty of Pharmacy, Université de Montréal, Montréal, QC, Canada; Faculty of Medicine, Université de Montréal, Montréal, QC, Canada; Montréal Heart Institute Coordinating Center, Montréal, QC, Canada.


(714) Cardiac Surgery Is Successful in Heart Transplant Recipients; T.R. Holmes, C.S. Hayward, P. Macdonald, P. Spratt, P. Jansz, K. Dhital, E. Granger. Heart Lung Transplant Unit, St Vincent’s Hospital, Sydney, NSW, Australia.

(715) Assessment of Right Ventricular Systolic Function in Heart Transplant Patients: Correlation between Echocardiography and Cardiac Magnetic Resonance Imaging. Investigation of the Accuracy and Reliability of Echocardiography; E. Simsek, S. Nalbantgil, N. Ceylan, M. Zoghi, C. Engin, T. Yardı, M. Özbalan. Cardiology, Ege University School of Medicine, Izmir, Turkey; Radiology, Ege University School of Medicine, Izmir, Turkey; Cardiovascular Surgery, Ege University School of Medicine, Izmir, Turkey.

(716) Growth Differentiation Factor 15 (GDF-15) Is Related to Anemia and Iron Metabolism in Heart Allograft Recipients; P. Przybylowski, J. Malyszko, J.S. Malyszko. Department of Cardiovascular Surgery and Transplantology, Jagiellonian University, Krakow, Poland; Department of Nephrology and Transplantology, Bialystok Medical University, Bialystok, Poland.


(719) Primary Graft Failure after Heart Transplantation: Risk Factors Analysis and Long-Term Results; R. Marco, B. Massimo, A. Matteo, P. Daniela, R. Mauro. Cardiovascular Surgery, University of Turin, Torino, TO, Italy.


(723) Early Extubation in Operating Room after Heart Transplantation; V.N. Poptsov, E.A. Spirina, O.U. Vinogrodava. Anaesthesiology and Intensive Care, Shumakov Federal Research Centre of Transplantology and Artificial Organs, Moscow, Russian Federation.


(725) Renin-Angiotensin System (RAS) Blockade Reduces Proteinuria in Heart Transplant Recipients: An Observational, Longitudinal Analysis; C.K. Shakowsky, R.L. Page II, S. Shakar, A. Briere, E.E. Wolfel, L. Allen, A. Ambardekar, J. Lindenfeld. Pharmacy, University of Colorado Hospital, Aurora, CO; Clinical Pharmacy, University of Colorado Skaggs School of Pharmacy, Aurora, CO; Medicine, University of Colorado School of Medicine, Aurora, CO.

(726) Office and Home Systolic Blood Pressures Are Underestimated in Heart Transplant Recipients; C.L. Aquilante, R.L. Page II, A. Yu, N. Roscoe, E.E. Wolfel, J. Lindenfeld. Pharmaceutical Sciences, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO; Clinical Pharmacy, University of Colorado Skaggs School of Pharmacy and Pharmaceutical Sciences, Aurora, CO; Division of Cardiology, University of Colorado School of Medicine, Aurora, CO.


LUNG FAILURE, DIAGNOSTICS, THERAPEUTICS

(729) Interleukin-17 Tissue Expression Correlates with Severity of Acute and Chronic Allograft Rejection in Rat Orthotopic Lung Transplantation; E. Calabrese, N. Nannini, F. Lunardi, M. Vadori, E. Cozzi, F. Rea. Department of Cardiac, Thoracic and Vascular Sciences, University of Padova, Padova, Italy; Department of Medical and Surgical Sciences, University of Padova, Padova, Italy.
(752) Retrospective Review of PRES in Lung Transplantation; A.M. Alldred, 1 V. Kaza, 2 Department of Anesthesiology and Pain Management, UT Southwestern, Dallas, TX; 2Department of Pulmonary Critical Care, UT Southwestern, Dallas, TX.

(753) Hypogammaglobulinemia Post-Lung Transplant Is Associated with Deficient B Cell Function; S.T. Yerkovich, 1, 2 L. Franz, 1 M. Grant, 1 P.M.A. Hopkins, 1, 2 D.C. Chambers. 1, 2 Queensland Lung Transplant Service, The Prince Charles Hospital, Brisbane, QLD, Australia; 2School of Medicine, The University of Queensland, Brisbane, Qld, Australia.

(754) Increasing Creatine Phosphokinase and Myoglobin Levels Predict the Development of Acute Renal Failure Immediately after Combined Heart-Lung Transplantation; J. Salmon, 1, 2 A. Bertram, 3 C. Kuehn, 1 I. Tudorache, 1 M. Ayvar, 1 A.-K. Knoefel, 2 W. Sommer, 1 J. Gottlieb, 2 A. Haverich, 1 G. Warnecke. 1 Department of Cardiothoracic, Transplantation and Vascular Surgery, Hannover, Germany; 2Department of Pneumology, Hannover, Germany; 3Department of Nephrology, Hannover, Germany.

(755) Open Chest Epicardial Ablation of Ventricular Tachycardia Early after Left Ventricular Assist Device Implantation; F. Raissi Shabari, 1 J. Yousef, 1 W. Cohn, 1 I. Gregoric, 1 O.H. Frazier, 1 J. Cheng, 1 N. Mathuram, 1 Texas Heart Institute, Houston, TX; 2University of Texas Houston, Houston, TX.

(756) Substantial Recovery of Renal Function Is Uncommon Early Post Cardiac Transplant Irrespective of Pre-Transplant LVAD Support; M.A. Brisco, 1 E. Vorovich, 1 M.R. Molina, 1 J.M. Testani. 2 Cardiovascular Division, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA; 2Department of Medicine, Yale University School of Medicine, New Haven, CT.

(757) Impact of Early Adverse Events (AE’s) on Later Mortality in Patients Supported by Continuous-Flow Ventricular Assist Devices (CF-VAD); K. Jackson, 1 C. McAnaney, 1 J. Teuteberg, 2 M.A. Dew, 1 J. Bhamas, 2 C. Bermudez, 2 R. Ramani, 2 D. McNamara, 2 R. Kormos. 1 University of Pittsburgh Medical Center, Pittsburgh, PA; 2Heart and Vascular Institute, University of Pittsburgh, Pittsburgh, PA.


(759) Does Red Blood Cell Fragility Predict the Degree of Post-LVAD Hemolysis? J.L. Madden, 1 S.G. Drako, 2 J. Sthlak, 1 S.H. McKellar, 3 M.T. Rondina, 2 A.S. Weynich, 2 C.H. Selzman, 1 Cardiothoracic Surgery, University of Utah Hospitals & Clinics, Salt Lake City, UT; 2Cardiology, University of Utah Hospitals & Clinics, Salt Lake City, UT; 3Internal Medicine, University of Utah Hospitals & Clinics, Salt Lake City, UT; 4Bioscience, University of Utah Hospitals & Clinics, Salt Lake City, UT.

(760) Pre-Operative Velocity Vector Imaging To Predict the Need for Right Ventricular Support in Patients Undergoing Left Ventricular Assist Device Implantation; L. Wang, 1 C.G. Geide, 1 D.A. Baran, 1 J. Piretti, 2 C.Y. Guerrero-Miranda, 2 J.A. Weiss, 2 M. Camacho, 2 C. Chen, 2 T. Martin, 2 M.J. Zucker, 1 Division of Cardiology, Massachusetts General Hospital, Boston, MA; 2Heart Failure and Transplant Program, Newark Beth Israel Medical Center, Newark, NJ; 3Division of Cardiology, Nework Beth Israel Medical Center, Newark, NJ.


(762) The Effect of Continuous Flow Left Ventricular Assist Device (CF-LVAD) Implantation on Serum Uric Acid Levels; A.N. Rosenbaum, 1 S. Duval, 2 M.B. Khan, 3 M. Pritzker, 1 R. John, 4 P.M. Eckman. 1 Department of Medicine, Cardiovascular Division, University of Minnesota, Minneapolis, MN; 2Lilhei Clinical Research Unit and Cardiovascular Division, University of Minnesota Medical School, Minneapolis, MN; 3Department of Internal Medicine, Good Samaritan Hospital, Cincinnati, OH; 4Department of Surgery, Division of Cardiothoracic Surgery, University of Minnesota, Minneapolis, MN.

(763) Impact of Continuous and Pulsatile-Flow Left Ventricular Assist Devices on Post-Transplant Rejection; M. Urban, 1 O. Szarszoi, 1 J. Pirk, 1 H. Rika, 1 I. Netuka. 1 Cardiac Surgery, Institute for Clinical and Experimental Medicine, Prague, Czech Republic; 2Anesthesiology and Critical Care, Institute for Clinical and Experimental Medicine, Prague, Czech Republic.

(764) Improvement in Severe Kidney Dysfunction after Implantation of Continuous-Flow Left Ventricular Assist Devices; S. Saxena, 1 J. Um, 2 I. Dumitru, 1 B. Cookman, 1 S. Plimaier, 1 T. Ryan, 2 S. Yannone, 2 M. Moulton, 2 B. Lowes, 1 E. Raichlin. 1 Cardiology, University of Nebraska Medical Center, Omaha, NE; 2Surgery-Cardiovascular & Thoracic Surgery, University of Nebraska Medical Center, Omaha, NE.

(765) Elevated Levels of Inflammation in Patients on Long-Term Continuous Flow Left Ventricular Assist Device (CF-LVAD) Support; L. Grosman-Rimon, D.Z.I. Cherney, M.A. McDonald, S. Pollock Bar-Ziv, L. Tumiati, A. Mocornnita, A. Ghoshghai, A. Chrucinscski, V. Rao. Cardiovascular Surgery, Toronto General Hospital, Toronto, ON, Canada; The Graduate Department of Exercise Sciences, University of Toronto, Toronto, ON, Canada; Department of Surgery, University of Toronto, Toronto, ON, Canada.

(766) Renal Replacement Therapy in Patients Undergoing Continuous-Flow Left Ventricular Assist Devices (LVADs); O. Alsaied, A. Lacey, P. Eckman, S. Adatya, M. Colvin-Adams, K. Liao, R. John. University of Minnesota, Minneapolis, MN.

(767) Use of Antibiotic Beads in the Treatment of Left Ventricular Assist Device Infections; J. Kretlow, S.A. Izadoodost, 1 J. Ho, 2 O.H. Frazier. 2 Division of Plastic Surgery, Baylor College of Medicine, Houston, TX; 3Center for Cardiac Support, Texas Heart Institute at St. Luke’s Episcopal Hospital, Houston, TX.

(768) Echocardiographic Parameters Associated with Clinical Heart Failure Due to Partial Left Ventricular Unloading in Patients with Continuous-Flow LVAD; R.P. Vivo, 1, 2 M. Aldeit, 1 A.M. Cordero-Reyes, 1 S.R. Krim, 1 B.H. Trachtenberg, 1 A. Bhiraj, 1 G. Torre-Amione, 1 B.A. Bruckner, 1 M. Loeb, 1 J.D. Estep, 2 Cardiology, Methodist DeBakey Heart & Vascular Center, Houston, TX; 2Cardiology, University of Texas Medical Branch, Galveston, TX; 3Cardiology, John Ochsner Heart and Vascular Institute, New Orleans, LA.

(769) Regional Structural Uniformity of Left Ventricular Remodeling in Patients with Advanced Non Ischemic Cardiomyopathy; S.F. Passi, 1, 2 N.A. Diakos, 1, 2 A.G. Kfoury, 1 C.H. Selzman, 1 C.G. Geide, 1 D.A. Baran, 1 J. Piretti, 2 C.Y. Guerrero-Miranda, 2 J.A. Weiss, 2 M. Camacho, 2 C. Chen, 2 T. Martin, 2 M.J. Zucker, 1 Division of Cardiology, Massachusetts General Hospital, Boston, MA; 2Heart Failure and Transplant Program, Newark Beth Israel Medical Center, Newark, NJ; 3Division of Cardiology, Newark Beth Israel Medical Center, Newark, NJ.

(770) Favorable Outcomes Using Long-Term Implantable Left Ventricular Assist Devices in Patients Thirty Five Years of Age and Older; J.A. Morgan, 1 R.J. Brewer, 1 J. Borgi, 1 A. Tsouris, 1 H.W. Nemehe, 1 S.E. Henry, 1 C.T. Williams, 2 D.E. Lanfear, 2 C. Tita, 2 M. Velez, 2 Y. Selektor, 2 G. Poone, 1 Cardiothoracic Surgery, Henry Ford Hospital, Detroit, MI; 2Cardiology, Henry Ford Hospital, Detroit, MI.

(771) Aortic Insufficiency and Clinical Outcomes in Patients Undergoing Aortic Valve Procedures at the Time of Continuous Flow Left Ventricular Assist Device Implantation; N. Nahumi, 1 D. Bojar, 1 N. Uriel, 1 S. Thomas, 1 J. Han, 1 A. Garan, 1 M. Yuzefpolskaya, 1 P. Colombo, 1 M. Casenghi, 1
(772) Predicting Outcomes of Patients with Ventricular Assist Devices: Who Suffer Neurological Injuries? D.S. Ikeda, C.J. Powers, E. Sauvageau, S. Bansal, S. Emami, Y. Ravi, C.B. Sai-Sudhakar. 1Department of Neurological Surgery, Wexner Medical Center The Ohio State University, Columbus, OH; 2Division of Cardiac Surgery, Wexner Medical Center at The Ohio State University, Columbus, OH; 3Division of Cardiology, Wexner Medical Center at The Ohio State University, Columbus, OH.


(775) Pathological Analysis of the Aortic Valve after Long-Term Mechanical Circulatory Support: H. Hata, T. Fujita, Y. Shimahara, S. Sato, M. Yanase, O. Seguchi, Y. Murata, H. Ishibashi-Ueda, T. Nakatani, J. Kobayashi. 1Cardiovascular Surgery, National Cerebral and Cardiovascular Center, Suita, Osaka, Japan; 2Transplantation, National Cerebral and Cardiovascular Center, Suita, Osaka, Japan; 3Pathology, National Cerebral and Cardiovascular Center, Suita, Osaka, Japan.

(776) Do Racial and Sex Disparities Exist in Clinical Characteristics and Outcomes for Patients Undergoing Left Ventricular Assist Device Implantation?: J.M. Stulak, S. Deo, J. Cowger, K.D. Aaronson, S.J. Park, L.J. Joyce, R.C. Daly, F.D. Pagani. 1Cardiovascular Surgery, Mayo Clinic College of Medicine, Rochester, MN; 2Cardiac Surgery, University of Michigan Health System, Ann Arbor, MI.

(630) Predictive Value of Pulmonary Vascular Remodeling Indices after LVAD Implantation: S. Okada, J.O. Robertson, A. Itoh, S. Prasad, G.A. Ewald, S.M. Joseph, M.R. Moon, R.J. Damianno, S.C. Silvestry. 1Surgery (Division of Cardiothoracic Surgery), Washington University, St. Louis, MO; 2Medicine (Division of Cardiology), Washington University, St. Louis, MO.

(777) Pressure and Flow Sequelae to Kinking of the HeartWare HVAD® Outflow Graft: M. Connellan, K. Muthiah, D. Robson, G. Granger, K. Dhillon, P. Spratt, C. Hayward, P. Jansz. Cardiac Failure and Transplant Unit, St Vincent’s Hospital, Darlinghurst, NSW, Australia.

(778) Right Ventricular Failure Following Left Ventricular Assist Device Implantation: the Myth Is in the Management: K.L. Eleuteri, B. Soleimani, W. Pae, E. Stephenson, A. El-Banayosy. Penn State Hershey Medical Center, Hershey, PA.


(780) Routine Delayed Sternal Closure after Left Ventricular Assist Device Implantation with Vacuum Assisted Device: R. Yanagida, N. Rajagopalan, T.A. Tribble, M.A. Bradley, C.W. Hoopes. 1Division of Cardiothoracic Surgery, University of Kentucky, Lexington, KY; 2Division of Cardiology, University of Kentucky, Lexington, KY.

(871) Bridge-to-Decision LVAD Support Using the Impella 5.0 Via a Right Subclavian Artery Approach: A. Bansal, J.K. Bhamra, H. Patel, S. Desai, S. Mandras, U. Ahmad, S. Laudun, R. Patel, J. Reilly, H. Ventura, E. Parrino. 1Department of Surgery, Section of Cardiothoracic Surgery, Ochsner Clinic Foundation, New Orleans, LA; 2Department of Cardiothoracic Surgery, University of Pittsburgh Medical Center, Pittsburgh, PA.


(873) Abnormally High Levels of Inflammatory Markers in Recipients of Continuous Flow Left Ventricular Assist Devices: L. Grosman-Rimon, D. Cherney, S. Pollock Bar-Ziv, M. McDonald, L. Tumiatl, A. Mocorinita, A. Ghashghai, A. Chruscinski, V. Rao. Cardiovascular Surgery, Toronto General Hospital, Toronto, ON, Canada; The Graduate Department of Exercise Sciences, University of Toronto, Toronto, ON, Canada; Department of Surgery, University of Toronto, Toronto, ON, Canada.

(874) Outcome of Patients with Right Ventricular Failure on Milrinone after Left Ventricular Assist Device Implantation: L.A. Morgan, R.J. Brewer, H.W. Nemeh, S.E. Henry, C.T. Williams, D.E. Lanfear, C.T. Tita, V. Menez, Y. Selektor, G. Paone. 1Cardiothoracic Surgery, Henry Ford Hospital, Detroit, MI; 2Cardiology, Henry Ford Hospital, Detroit, MI.

(875) LVAD Explant to Recovery in Females Following Prolonged Support: C.A. Cheyne, D. Shannon, W.M. Hallinan, L. Chen. Artificial Heart Program, University of Rochester Medical Center, Rochester, NY.

(876) Alternative Approaches for the Surgical Treatment of Significant Mitral Regurgitation in Advanced Heart Failure: A.M. Ganapathi, M.A. Schechter, X. Wang, C.A. Milano, D.D. Glowar, J.G. Rogers, C.B. Patel, J.N. Schroder. 1Department of Cardiovascular and Thoracic Surgery, Duke University Medical Center, Durham, NC; 2Department of Cardiology, Duke University Medical Center, Durham, NC.


(879) Candida Bloodstream Infection in Left Ventricular Assist Device Recipients: T. Riaz, J.J.C. Nienaber, L.M. Baddour, R.C. Walker, S.J. Park, M.R. Sohail. 1Division of Infectious Diseases, Mayo Clinic College of Medicine, Rochester, MN; 2Division of Cardiovascular Surgery, Mayo Clinic College of Medicine, Rochester, MN.


(891) Age Is No Boundary to Long-Term Survival on Permanent MCS: A Multicentre Experience: V. Tarzia, T. Bottio, U. Livi, M. Maiani, G. Di Giammarco, G. Sani, M. Maccherini, M. Rinaldi, F. Alamanni, M. De Bonis, F. Gazzoli, A. Renzulli, G. Arpesella, G. Gerosa. 1Department of Cardiac, Thoracic and Vascular Sciences, Cardiac Surgery, University of Padova, Padova, Italy; 2Cardiac Surgery, University of Udine, Udine, Italy; 3Cardiac Surgery, University of Chieti, Chieti, Italy; 4Cardiac Surgery, University of Florence, Florence, Italy; 5Cardiac Surgery, University of Siena, Siena, Italy; 6Cardiac Surgery, University of Turin, Turin, Italy; 7Cardiac Surgery CCFM, University of Milan, Milan, Italy; 8Cardiac Surgery, San Raffaele Hospital, Milan, Italy; 9Cardiac Surgery, Policlinico San Matteo, Pavia, Italy; 10Cardiac Surgery, Magna Grecia University, Catanzaro, Italy; 11Cardiac Surgery, University of Bologna, Bologna, Italy.


(975) Home Discharge and Out-of-Hospital Follow-Up of Total Artificial Heart Patients Supported by a Portable Driver; A. El Banayosy, M. Slepian, L. Arusoglu, J. Gummert.


(977) Patient Directed Termination of Cardiac Mechanical Support: Is This Assisted Suicide?; F.E. Suarez, C. Bruce, H.L. Gordon, M. Loebe, R.R. Bunge, B.A. Bruckner.


(979) Unmarried Left Ventricular Assist Device (LVAD) Recipients Are More Likely To Experience Adverse Events; J.M. Vader, S. LaRue, G. Ewald, S. Silvestry, S. Prasad, S. Joseph.


(804) Pediatric Ventricular Assist Device Use as a Bridge to Transplantation Does Not Affect Long-Term Quality of Life; D.S. Eson, M.S. Khan, I. Adachi, A. Jeeva, S. Morris, C. Nagy, D. Morales, J.S. Heinle. Heart Center, Baylor College of Medicine, Texas Children’s Hospital, Houston, TX.

(805) Low Dose Factor Eight Inhibitor Bypassing Activity (FEIBA) for Incessant Bleeding in Pediatric Patients on Mechanical Circulatory Support (MCS); K. Maeda, R. Asija, S. Hollander, G. Williams, J. Yeh, D. Rosenthal, O. Reinhartz. Cardiothoracic Surgery, Stanford University, Stanford, CA; Pediatric Cardiology, Stanford University, Stanford, CA; Anesthesiology, Stanford University, Stanford, CA.


(807) Early Echocardiographic Predictors of Alveolar Capillary Dysfunction: A Case-Control Study; R. Arcinue, T. Stavroudis, S. Noori, S. Bhombal, J. Szmuszkovicz, P. Friedlich. Center for Fetal and Neonatal Medicine, Children’s Hospital Los Angeles, Los Angeles, CA; Pediatric Cardiology, Children’s Hospital Los Angeles, Los Angeles, CA.


(810) Early Time: The Use of Extracorporeal Membrane Oxygenation as a Bridge to Lung Transplantation in Pediatric Patients; G. Casswell, D. Pilcher, R. Martin, V. Pelligrino, S. Marasco, C. Robertson, W. Butt, G.I. Snell, G.P. Westall. Lung Transplant Service, The Alfred Hospital, Melbourne, Australia; Intensive Care Unit, The Alfred, Melbourne, Australia; Department of Respiratory Medicine, Royal Children’s Hospital, Melbourne, Australia; Intensive Care Unit, Royal Children’s Hospital, Melbourne, Australia.

(811) Is Ventricular Assist Device an Effective Tool To Support Children with a Failing Cardiac Graft?; L. Adachi, M.S. Khan, E.D. McKenzie, J.S. Heinle, C.M. Mery, A.G. Cabrera, A. Jeewa, S.W. Denfield, W.J. Dreyer, J.F. Price, C.D. Fraser, Jr., Congenital Heart Surgery, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; Pediatric Cardiology, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX.


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(802) Is Ventricular Assist Device an Effective Tool To Support Children with a Failing Cardiac Graft?; L. Adachi, M.S. Khan, E.D. McKenzie, J.S. Heinle, C.M. Mery, A.G. Cabrera, A. Jeewa, S.W. Denfield, W.J. Dreyer, J.F. Price, C.D. Fraser, Jr., Congenital Heart Surgery, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX; Pediatric Cardiology, Texas Children’s Hospital, Baylor College of Medicine, Houston, TX.

(815) A Single Center Transition of Care Model from Pediatric Heart to Adult Services; S. Adams, M. Wigger. Heart Transplant, Vanderbilt, Nashville, TN.

(816) Calcineurin Inhibitor-Free Immunosuppression in Pediatric Heart Transplantation Recipients: Sirolimus as a Primary Immunosuppressive Agent; R.W. Loar,1 D.A. Mauriello,2 P.W. O'Leary,1 D.J. Driscoll,2 S.S. Kushwaha,1 J.N. Johnson,2 Pediatric and Adolescent Medicine, Mayo Clinic, Rochester, MN; 2Pediatric Cardiology, Mayo Clinic, Rochester, MN; 3Cardiovascular Diseases, Mayo Clinic, Rochester, MN.

**BASIC SCIENCE**

(826) Reduction of Obliterative Bronchiolitis (OB) by Prolyl-Hydroxylase-Inhibitors Activating Hypoxia-Inducible Transcription Factors in an Experimental Mouse Model; C. Heim,1 B. Motsch,1 W. Bernhardt,2 S. Jähn,1 N. Koch,1 M. Ramsperger-Gleixner,1 N. Burzlaff,3 M. Wayne,1 K.U. Eckardt,2 S. Ensminger,1,4 Department of Cardiac Surgery, University Erlangen-Nuremberg, Erlangen, Germany; 2Department of Nephrology, University Erlangen-Nuremberg, Erlangen, Germany; 3Department of Inorganic and Analytical Chemistry, University Erlangen-Nuremberg, Erlangen, Germany; 4Department of Thoracic and Cardiovascular Surgery, Heart and Diabetes Center NRW, Bad Oeynhausen, Germany.

(827) Potential Role of XB130 in the Regulation of Airway Epithelium Repair and Regeneration after Transplantation; J. Zhao,1,2 X. Bai,1 Y. Wang,1 S. Keshavjee,1,3 M. Liu,1,3 Latner Thoracic Surgery Research Laboratories, Toronto General Research Institute University Health Network, Toronto, Canada; 2Department of Thoracic Surgery, Tandgho Hospital, Forth Military Medical University, Xi’an, China; 3Department of Surgery, University of Toronto, Toronto, Canada.

(828) Metabolomic Profile of Rat Lung Tissue after Death: Effect of Delayed Post-Mortem O2-Ventilation; T. Egah,1 B. Dong,1 A. Tikunov,2 C. Semelka,3 P.-F. Kuan,3 J. Macdonald,2 Surgery, University of North Carolina at Chapel Hill, Chapel Hill, NC; Biomedical Engineering, University of North Carolina at Chapel Hill, Chapel Hill, NC; Biostatistics, Gillings Global School of Public Health, UNC, Chapel Hill, NC.

(829) Regulatory T Cells (Tregs) in Neonatal Tolerance: Allogeneic Tregs Regulate the Neonatal Immune System and Prolong Heart Graft Survival; R.A. Bascom, K. Tao, S.L. Tollenaar, L.J. West, University of Alberta, Edmonton, Canada.


(831) IL-17 Regulate the Polarization of Macrophages To Promote the Development of Obliterative Bronchiolitis in Murine Trachea Transplantation Model; X. Zhou,1,2 Q. Meng,1,2 J.W. Wang,1 H. Cao,1 Q. Shi,1 Y. Ni,1 Z. Liu,1 H. Fan,1,2 Cardiac Surgery, Shanghai East Hospital, Tongji University School of Medicine, Shanghai, China; 2Research Center for Translational Medicine, Tongji University School of Medicine, Shanghai, China.

(832) Mitigating Lung Ischemia-Reperfusion Injury in Miniature Swine; M.C. Gilligan,1 S. Sihag,1 D.H. Ross,1 J.D. Gottschall,1 E.A. Farkash,2 M.S. Haas,3 M.C. Carroll,3 J.S. Allan,1 Cardiothoracic Transplantation Laboratory, Transplantation Biology Research Center, Massachusetts General Hospital and Harvard Medical School, Boston, MA; 2Department of Pathology, Massachusetts General Hospital and Harvard Medical School, Boston, MA; 3Department of Immunology, Harvard Medical School, Boston, MA.

(833) Human Leukocyte Antigen-G Inhibits Human Coronary Artery Smooth Muscle Cell Proliferation; A.G. Morrison,1 L.C. Tumiati,1 P.C. Papageorgiou,1 L. Grosman,1 A. Ghaghi,1 H.J. Ross,1 R.K. Li,2 D.H. Delgado,1 V. Rao,1 Peter Munk Cardiac Centre, Toronto General Hospital, Toronto, ON, Canada; 2Toronto General Research Institute, Toronto, ON, Canada.

(834) Dynamic Changes in Dominant Antigen Responses Following Primary CMV Infection in Lung Transplant Recipients; M.R. Pipeling,1 I.D. Popenescu,1 J.B. Orens,2 J.M. Pilewski,1 J.F. McIver,1 University of Pittsburgh, Pittsburgh, PA; 2Johns Hopkins University School of Medicine, Baltimore, MD.

(836) Left Internal Thoracic Artery (LITA) Anastomoses with Coronary Microcirculation in Rat: Vineberg Procedure Revisited; O.M. Villet,1,2 Y. Imanishi,3,2 E. Kankuri,2 A. Suzuki,2 T. Päätäli,3 A. Vento,1 A. Harjula.1 1Department of Cardiothoracic Surgery, Helsinki University Meilahti Hospital, Helsinki, Finland; 2Department of Pharmacology, University of Helsinki, Helsinki, Finland; 3Department of Cardiovascular Surgery, Osaka City University, Osaka, Japan.

(837) Development and Evaluation of a Novel Combined Perfusion Decellularization Heart-Lung Model; A. Weymann,1 B. Schmack,1 S. Korkmaz,1 S. Li,1 T. Radovits,1,2 P. Soós,1,2 M. Karck,1 G. Szabó.1,1Heart Surgery, University of Heidelberg, Heidelberg, Germany; 2Center for Decellularization Heart-Lung Model, Comprehensive Heart Failure Center, University Hospital Würzburg, Würzburg, Germany.

(838) Does Age Matter? Immunogenic and Biologic Differences between Young and Old Mesenchymal Stromal Cells; M. Stubbendorff,1 T. Deuse,1 X. Hua,2 C. Lange,2 H. Reichenspurner,1 R.C. Robbins,2 S. Schrepfer,1,3 TSI-Lab, Cardiovascular Surgery, University Heart Center Hamburg-Eppendorf, Hamburg, Germany; 2Bone Marrow Transplantation, University Medical Center, Hamburg, Germany; 3CT Surgery, Stanford University School of Medicine, Stanford, California, USA.

(839) Human Leukocyte Antigen-G Inhibits Neutrophil Adhesion to Coronary Artery Endothelial Cells Injured by Tumor Necrosis Factor Alpha; A.G. Mociornita,1 L.C. Tumiati,1 P.C. Papageorgiou,1 L. Grosman-Rimon,1 A. Ghashghai,1 H.J. Ross,1 R.K. Li,2 D.H. Delgado,1 V. Rao.1 Peter Munk Cardiac Centre, Toronto General Hospital, Univeristy Health Network, Toronto, ON, Canada; 2Toronto General Research Institute, Toronto General Hospital, Toronto, ON, Canada.

(840) A New Lung Preservation Technique through Bronchial Artery Perfusion on Ex-Vivo Lung; Y. Tanaka,1 N. Shimemura, K. Noda, C.A. Bermudez. Department of Cardiothoracic Surgery, University of Pittsburgh Medical Center, Pittsburgh, PA.

(841) Serum Amyloid A (SAA) Is a Sensitive Surrogate Marker for IL-6R Blockage by Therapeutic IL6R Antibody: A Study in a Mouse Model of Allosensitization; G. Wu, N.-N. Chai, A. Chen, S. Jordan, A. Klein. Comprehensive Transplant Center, Cedars-Sinai Medical Center, Los Angeles, CA.

(842) Refinement of Perioperative Management in Lung Transplantation in Patients with Pulmonary Hypertension: A Single Center Experience; P. Nierlich, B. Ghanim, P. Jaksh, S. Taghavi, C. Aigner, G. Lang, W. Klepetko. Division of Thoracic Surgery, Department of Surgery, General Hospital Vienna, Medical University Vienna, Vienna, Austria.

(843) PDT Targeting Pulmonary Hypertension: Implications Prevention and Treatment by Photodynamic Therapy; Y. Zhao,1 J. Peng,1 J. Zhao,1 Z. Yun,1 L. Wu,1 E. Moriyama,1 M. Liu,1 B. Wilson,1 M. de Perrot,1 Latner Thoracic Surgery Research Laboratories, University Health Network, Toronto, ON, Canada; 2Division of Biophysics and Imaging, Princess Margaret Hospital, Toronto, ON, Canada; 3Division of Thoracic Surgery, Toronto General Hospital, Toronto, ON, Canada.

(844) Impact of Enoximone on Ischemia Reperfusion Injury-Induced Myocardial Mitochondria Damage; S.P. Sommer, S. Sommer, M. Leistner, I. Aleksic, T. Walles, C. Schimmer, R.G. Leyh. Thoracic and Cardiovascular Surgery, University Hospital Würzburg, Comprehensive Heart Failure Center, University Hospital Würzburg, Würzburg, Germany.

(845) Treatment Outcomes in Pulmonary Arterial Hypertension (PHA) Associated with Systemic Sclerosis (Sscl.) in Matched Groups Using Either Bosentan or Sildenafil Monotherapy; R.M. Crackett,1 A. Hall,1 M.B. Day,1 J.R. Desoyza,1 T. Small,1 A.J. Fisher,1,2 J.L. Lordan,1 G. Macgowan,1 P.A. Corris.1,2 1National Pulmonary Hypertension Service (Newcastle), Newcastle Hospitals NHS Foundation Trust, Newcastle upon Tyne, United Kingdom; 2Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, United Kingdom.

(846) Assessment of Right Ventricular Pressure-Volume Relationships Using 256-Slice CT in an Experimental Model of Acute Pulmonary Hypertension; B. Schmack,1 A. Weymann,1 K.U. Klein,2 S. Boehme,2 W. Stiller,2 E. Hartmann,3 S. Stadtfeld,1 J. Mayer,3 K. Markstaller,4 U.K. Kauczor,5 M. Karck,1 G. Szabó.1 1Department of Cardiac Surgery, University Hospital Heidelberg, Heidelberg, Germany; 2Department of Anesthesiology, University Christoph Herder University Hospital Heidelberg, Heidelberg, Germany; 3Anesthesiology, University Hospital Mainz, Mainz, Germany.

(847) Rising NT-proBNP Is More Reflective of an Enlarging Right Ventricle Than of Changing RVEF in PAH; A. Hamadah,1 G.C. Kane,2 R.F. Frantz.2 1Department of Internal Medicine, Mayo Clinic College of Medicine, Rochester, MN; 2Division of Cardiovascular Diseases, Mayo Clinic College of Medicine, Rochester, MN.

(848) Pro-Inflammatory HDL Result from Altered HDL Oxidized Lipid Mediators in Both Idiopathic and Associated Types of Pulmonary Arterial Hypertension; D.J. Ross,1 G. Hough,2 K. Navab,4 J. Aboulhosn,2 B.J. Van Lenten,2 A. Ardehali,2 M. Eghbali,3 U. S. Umar,3 A.M. Fogelman,2 M. Navab,2 Pulmonary and Critical Care, David Geffen School of Medicine at UCLA, Los Angeles, CA; 2Cardiology, David Geffen School of Medicine at UCLA, Los Angeles, CA; 3Cardiothoracic Surgery, David Geffen School of Medicine at UCLA, Los Angeles, CA; 4Anesthesiology, Ronald Reagan UCLA Medical Center, Los Angeles, CA.


(850) Pulmonary Hypertension Associated to Sarcoidosis: Data from the Swiss PH Registry; G. Verdi,1 H. Stricker,2 J.D. Aubert,3 1Faculté de Biologie et Médecine, Université de Lausanne, Lausanne, Switzerland; 2Medicina Interna, Ospedale La Carita, Locarno, Switzerland; 3Service de Pneumologie et Centre de Transplantation, CHUV et Université de Lausanne, Lausanne, Switzerland.


(852) Pulmonary Endarterectomy in Patients with Borderline Pulmonary Hypertension; M. Berman,1 D. Taboada,2 K. Sheares,2 J. Pepke-Zaba,2 T. Carmen,3 J. Dunning,1 S. Tsui,2 D. Jenkins,1 Cardiothoracic Surgery, Papworth Hospital, Cambridge, United Kingdom; 2Pulmonary Vascular Diseases Unit, Papworth Hospital, Cambridge, United Kingdom.

(853) Functional and Quality of Life Improvements in Treated Patients with Chronic Thromboembolic Pulmonary Hypertension; M. V. Thakrar,1,2 A. Hall,1 M. Day,1 G. Macgowan,1 J.L. Lordan,1 A.J. Fisher,1,2 C. Treacey,1 J. Pepke-Zaba,2 P.A. Corris.1,2 Pulmonary Vascular Disease Unit, Freeman Hospital, Newcastle-upon-Tyne Hospitals, Newcastle-upon-Tyne, United Kingdom; 2Pulmonary Vascular Disease Unit, Papworth Hospital, Cambridge, United Kingdom; 3Southern Alberta Pulmonary Hypertension Clinic, University of Calgary, Calgary, AB, Canada; 4Institute of Cellular Medicine, University of Newcastle, Newcastle, United Kingdom.

(854) Clinical Outcomes and Activation of Circulating Endothelial Progenitor Cells Following Application of ABO Ocluder in Patients with Flow-Induced Pulmonary Hypertension; C.-H. Hsu,1 J.-N. Roan,2
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(859) **Bilateral Thoracic Sympathetic Block for Refractory Ventricular Tachycardia after Left Ventricular Assist Device;** R.J. Corswell,1 E. Missov,1 J. Hutchins;2 P. Eckman;2 W. Adkisson,1 1Cardiology, University of Minnesota, Minneapolis, MN; 2Anesthesia, University of Minnesota, Minneapolis, MN.


(862) **Twist and Shout: Acute Right Ventricular Failure;** E.R. Fenstadt,1 N.S. Anavekar,1 C. Deschamps,2 S.L. Kopecky.1 1Cardiovascular Diseases, Mayo Clinic, Rochester, MN; 2Thoracic Surgery, Mayo Clinic, Rochester, MN.

(863) **In the Thick of It;** S. Law, R. Kapur, T. Chun, L. Merritt, Y. Law. Seattle Children’s Hospital, Seattle.

(864) **Bortezomib Desensitization Therapy in a Highly Sensitized Heart/Kidney Candidate with Severe Cardiac Allograft Vasculopathy;** A.J. Sauv,1 R.C. Walsh,2 E. McGee,2 A.R. Tambor,3 K. Grady,2 Y. Tsao,3 R. Gordon,1 1Department of Internal Medicine, Division of Cardiology, Northwestern University Feinberg School of Medicine, Chicago, IL; 2Department of Surgery, Division of Cardiothoracic Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL; 3Department of Internal Medicine, Division of Immunology, Northwestern University Feinberg School of Medicine, Chicago, IL.

(865) **Antibody-Mediated Allograft Rejection Presenting with QT Prolongation and Malignant Torsade-de-Points;** P.S. Nijjar,1 C. Brown,2 H. Roukoz,2 E. Missov,1 1Cardiology, University of Minnesota Medical School, Minneapolis; 2Medicine, University of Minnesota Medical School, Minneapolis.


(868) **Selective Main Bronchus Clamping and Utilization of Incremental PEEP To Recruit a Total Right Lung Collapse during Ex Vivo Lung Perfusion;** D.M. Wheeler,1 T. Okomoto,2,4 K.R. McCurry,1,4 1Cardiothoracic Anesthesia Respiratory Therapy, The Cleveland Clinic, Cleveland, OH; 2Cardiovascular Institute, The Cleveland Clinic, Cleveland, OH; 3Cardiovascular Institute, The Cleveland Clinic, Cleveland, OH; 4The Learner Research Institute.

(869) **Bortezomib for the Treatment of Persistent Antibody-Mediated Rejection Complicated by Obliterative Bronchiolitis after Lung Transplantation;** S.G. Kaasnadak,1 J.M. Pilewski,1 A. Zaeve,2 M.R. Morrell,1 C.A. Bermudez,3 C.J. Gries,1 Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA; 2Pathology, University of Pittsburgh, Pittsburgh, PA; 3Cardiothoracic Surgery, University of Pittsburgh, Pittsburgh, PA.

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**Junior Faculty Clinical Case Reports (516)**

**Wednesday, April 24, 2013**

(859) **Bilateral Thoracic Sympathetic Block for Refractory Ventricular Tachycardia after Left Ventricular Assist Device;** R.J. Corswell,1 E. Missov,1 J. Hutchins;2 P. Eckman;2 W. Adkisson,1 1Cardiology, University of Minnesota, Minneapolis, MN; 2Anesthesia, University of Minnesota, Minneapolis, MN.


(862) **Twist and Shout: Acute Right Ventricular Failure;** E.R. Fenstadt,1 N.S. Anavekar,1 C. Deschamps,2 S.L. Kopecky.1 1Cardiovascular Diseases, Mayo Clinic, Rochester, MN; 2Thoracic Surgery, Mayo Clinic, Rochester, MN.

(863) **In the Thick of It;** S. Law, R. Kapur, T. Chun, L. Merritt, Y. Law. Seattle Children’s Hospital, Seattle.

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(869) **Bortezomib for the Treatment of Persistent Antibody-Mediated Rejection Complicated by Obliterative Bronchiolitis after Lung Transplantation;** S.G. Kaasnadak,1 J.M. Pilewski,1 A. Zaeve,2 M.R. Morrell,1 C.A. Bermudez,3 C.J. Gries,1 Pulmonary, Allergy, and Critical Care Medicine, University of Pittsburgh, Pittsburgh, PA; 2Pathology, University of Pittsburgh, Pittsburgh, PA; 3Cardiothoracic Surgery, University of Pittsburgh, Pittsburgh, PA.
(870) Bortezomib in a Patient with Four Episodes of Acute Antibody-Mediated Rejection (AMR) Early after Single Lung Transplantation; S. Ohdah,1 C. Baum,1 B. Sill,2 M. Oldigs,3 C. Oelschner,2 H. Reichenspurner,2 T. Deuse.2 1Department of General and Interventional Cardiology, University Heart Center Hamburg, Hamburg, Germany; 2Department of Cardiovascular Surgery, University Heart Center Hamburg, Hamburg, Germany; 3Department of Pneumology, Center of Pneumology and Thoracic Surgery, Großhansdorf, Germany.

(871) Successful Cardiac Transplantation in a Girl with Alström Syndrome; B. Kosmac,2 S. Vesel,1 T. Podnar,1 P. Kotnik,2 I. Knezevic,3 G. Poglajen,1 B. Vrtovec,4 1Pediatric Cardiology Unit, University Children’s Hospital, University Medical Centre Ljubljana, Ljubljana, Slovenia; 2Department of Pediatric Endocrinology, Diabetes and Metabolism, University Children’s Hospital, University Medical Centre Ljubljana, Ljubljana, Slovenia; 3Department of Cardiovascular Surgery, University Medical Centre Ljubljana, Ljubljana, Slovenia; 4Advanced Heart Failure and Transplantation Programme, Department of Cardiology, University Medical Centre Ljubljana, Ljubljana, Slovenia.

(872) Pharmacokinetic Ramifications of Bariatric Surgery for Transplant Recipients; L. Nikolaidis, Y. Pigeon, C. Ruggia-Check. Temple University School of Medicine, Philadelphia, PA.


(874) Orthotopic Heart Transplantation in Two Infants with Histiocytoid Cardiomyopathy and Left Ventricular Noncompaction; S.L. Siehr, D. Bernstein, J. Yeh, D.N. Rosenthal, S.A. Hollander. Pediatric Cardiology, Stanford University, Stanford, CA.

(875) Beware Cold Agglutinins in Organ Donors: Ex-Vivo Lung Perfusion (EVLP) of Lungs from a Category 1 Non-Heart-Beating Donor (NHBDD) with a Cold Agglutinin; A. Venkataraman,1 J. Blackwell,1 W. Simmons,1 S. Beamer,1 L. Forrest,1 S. Randell,2 T. Egan.1 1Surgery, University of North Carolina, Chapel Hill, NC; 2Cystic Fibrosis Center, UNC, Chapel Hill, NC.

(876) Acute Tamponade of the Left Paracorporeal Pump House Due to Membrane Defect in a Patient with Berlin Heart EXCOR® Biventricular Assist Device; S. Völz,1 J. Gabel,2 M. Holmberg,1 B. Redfors,2 G. Dellgren,3 1Cardiology, Sahlgrenska University Hospital, Gothenburg, Sweden; 2Cardiothoracic Surgery, Sahlgrenska University Hospital, Gothenburg, Sweden; 3Anesthesiology and Intensive Care, Sahlgrenska University Hospital, Gothenburg, Sweden.


(878) CMV Duodenitis Mimicking Duodenal Cancer in Cardiac Transplant; J.-C. Youn,1 J.H. Nahm,2 H. Lee,3 S.-M. Kang.1 1Division of Cardiology, Severance Cardiovascular Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea; 2Department of Pathology, Yonsei University College of Medicine, Seoul, Republic of Korea; 3Division of Gastroenterology, Yonsei University College of Medicine, Seoul, Republic of Korea.

(879) Successful Cardiac Re-Transplantation in Acute Antibody Mediated Rejection (AMR) Following Aggressive Immune Modulation; L. Nikolaidis, H. Parekh, M. Birkenbach, J. Fitzpatrick. Temple University School of Medicine, Philadelphia, PA.

(880) Multiple and Fatal Epstein-Barr Virus-Associated Smooth Muscle Tumors in a Heart Transplant Recipient; C.D. Tan,1 G.J. Boyle,2 E.R. Rodriguez.1 1Anatomic Pathology, Cleveland Clinic, Cleveland, OH; 2Pediatric Cardiology, Cleveland Clinic, Cleveland, OH.

(881) Diagnosis of Left Ventricular Assist Device Infection Using (F-18)FDG PET/CT: An Underutilize Imaging; S.C. Masri, E.D. Missyov, R. John, M.M. Colvin-Adams. Cardiovascular Division, University of Minnesota, Minneapolis, MN.


(883) Acute Pancreatitis as a Presentation of Severe LVAD-Induced Hemolysis; J.O. Robertson,1 S. Okada,2 S.M. Joseph,3 A. Itoh,2 G.A. Ewald,2 R.J. Damiano,3 S. Prasad,2 S.C. Silvestry.1 1Surgery (Division of Cardiothoracic Surgery), Washington University, St. Louis, MO; 2Medicine (Division of Cardiology), Washington University, St. Louis, MO.

(884) Successful Treatment with Leflunomide as Part of Treatment for Multidrug Resistant Cytomegalovirus Disease after Lung Transplantation; R.A.S. Hoek,1 N.J. Verkaik,2 H. Van Bergeijk,3 M.E.I. Schipper,4 P.W.H. Van Hal,1 S.D. Pas,2 T.F.C. Beersma,1 C.A.B. Boucher,1 B. Van den Blink,1 J.-L. Murk,2 1Pulmonary Medicine, Erasmus MC, Rotterdam, Netherlands; 2Virology, Erasmus MC, Rotterdam, Netherlands; 3Medical Microbiology and Infectious Diseases, Erasmus MC, Rotterdam, Netherlands; 4Pathology, Erasmus MC, Rotterdam, Netherlands.

(885) Restrictive Cardiomyopathy and Sickle Cell Disease – Management after Pediatric Heart Transplantation; T. Thomas,1 C. Castleberry, T. Ryan, A. Lorts, J.L. Jefferies, J. Tobbin, D. Morales, A. Phillips, C. Chin. The Heart Institute, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH.

(886) Paecilomyces lilacinus Skin Infection in a Heart Transplant Patient; J.B. Cutsell,1 D. Cavuto,2 S. Wada.1 1Internal Medicine-Infectious Diseases, University of Texas-Southwestern, Dallas, TX; 2Pathology, University of Texas-Southwestern, Dallas, TX.


(889) Pulmonary Nocardiosis Presenting as an Endobronchial Lesion; A.M. Emtiazjoo,1 D.W. Roe.2 1Department of Medicine, Division of Pulmonary and Critical Care, Indiana University, Indianapolis, IN; 2Thoracic Transplant Program, IU Health, Methodist Hospital, Indianapolis, IN.

(890) Can a Patient with a Left Ventricular Assist Device (LVAD) Be a Suitable Donor for a Lung Transplantation?; J. Schmidt,1 J. von Spiczak,1 B. Redwan,1 W. Rainer,2 M. Mohr,2 K. Wiebe.1 1Dept. of Cardiothoracic Surgery, University Hospital of Muenster, Muenster, Germany; 2Dept. of Medicine/Pneumology, University Hospital of Muenster, Muenster, Germany.

(891) Concomitant Transcathether Aortic Valve and Left Ventricular Assist Device Implantation; U. Radunski,1 C. Baum,1 M. Seiffert,1 H. Treede,2 H. Reichenspurner,2 T. Deuse.2 1Department of General and Interventional Cardiology, University Heart Center Hamburg, Hamburg, Germany; 2Department of Cardiovascular Surgery, University Heart Center Hamburg, Hamburg, Germany.

(892) Belatacept in Lung Transplant; C. Hui,1 R.M. Kern,2 D. Wojciechowski,2 J. Kukreja,1 S.R. Hays,2 J.A. Golden,2 J. Singer.1 1Pharmaceutical Services, University of California, San Francisco, San Francisco, CA; 2Medicine, University of California, San Francisco, San Francisco, CA; 3Surgery, University of California, San Francisco, San Francisco, CA.

(893) Chagas Disease Reactivation after Heart Transplantation: A Successful Alternative Therapy; F. de S. Brito,1,2 A.T.V. Araujo,3 E.R. Alves,3 D.R. de Almeida,2 J.N.R. Branco,3 A.C.C. Carvalho,2 E. Buffolo,3 R.D. Lopes.1,2 1Duke Clinical Research Institute - DCRI, Duke University, Durham, NC; 2Department of Cardiology, Federal University of Sao Paulo – UNIFESP, Sao Paulo, Sao Paulo, Brazil; 3Department of Cardiovascular Surgery, Federal University of Sao Paulo – UNIFESP, Sao Paulo, Sao Paulo, Brazil.
(894) Successful Heart Transplant of a Sensitized Adult with Single Ventricle Anatomy, Bilateral SVC’s, TAPVR, and Heterotaxy; T. Shah, M. Mitchell, R. Woods, J. Tweddell, S. Zangwill. Medical College of Wisconsin/Children’s Hospital of Wisconsin, Wauwatosa, WI.

(895) Sildenafil for Exercise Induced Pulmonary Arterial Hypertension; L. Nikolaidis, N. Memon, B. O’Murchu. Temple University School of Medicine, Philadelphia, PA.


(897) WITHDRAWN


(899) Aortic Insufficiency Secondary to Impella® and Apparent LVAD Malfunction in a Bridge-to-Transplant Patient; S.S. Cowan, W. Chiu, S. Virani, S. Bell, M. Toma, J. Bashir. Department of Medicine, Division of Cardiology, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada; Department of Nursing, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada; Department of Anesthesiology, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada; Department of Surgery, Division of Cardiovascular Surgery, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada.

(900) Normoxic Left Ventricle Retraining after Arterial Switch Operation with Mechanical Assist Device; F. Gandolfo, L. Di Chiara, Z. Ricci, G. Brancaccio, A. Carotti, A. Amodeo. Pediatric Cardiac Surgery, Bambino Gesù Children Hospital, Rome, Italy.

(901) Extrinsic Compression of a Malacic Bronchial Suture by a Giant Native Pulmonary Artery after Lung Transplantation for Pulmonary Hypertension: Successful Treatment by Interventional Endoscopy; I. Wellemans, D. Leduc, B. Rondelet, A. Belhaj, C. Knoop, G. Vandermoten. Chest Medicine, Erasme, Brussels, Brussels, Belgium; Heart and Lung Transplantation Surgical Clinic, Erasme, Brussels, Belgium.

(902) Endobronchial Valve Implantation for Endoscopic Lung Volume Reduction Resulting in Severe Aspergillus Infection at Subsequent Lung Transplantation; B. Redwan, V. Koesek, L. Schmidt, B. Bedetti, M. Mohr, R. Wiewrodt, K.M. Mueller, K. Wiebe. Division of Thoracic Surgery, University Hospital of Muenster, Muenster, Germany; Division of Pulmonary Medicine, University Hospital of Muenster, Muenster, Germany; Institute of Pathology, University Hospital of Muenster, Muenster, Germany.


(904) Rapidly Progressive Coronary Allograft Vasculopathy Following Post-Viral Eosinophilic Rejection; P.T. Thrush, J.G. Gossett, C.L. Backer, E. Pahl. Division of Cardiology, Ann & Robert H. Lurie Children’s Hospital of Chicago, Northwestern University Feinberg School of Medicine, Chicago, IL; Division of Cardiovascular and Thoracic Surgery, Ann & Robert H. Lurie Children’s Hospital of Chicago, Northwestern University Feinberg School of Medicine, Chicago, IL.

(905) Transition from ECMO to Left Ventricular Support Using a Single CentriMag Device; W.F. DeNino, C.J. Yeager, J.M. Toole, A.G. Shackelford, J.L. Peura. Internal Medicine/Cardiology, Medical University of South Carolina, Charleston, SC; Surgery, Medical University of South Carolina, Charleston, SC; Cardiovascular Perfusion, Medical University of South Carolina, Charleston, SC.

(906) Levosimendan Reverted Severe Pulmonary Hypertension in a Patient on Waiting List for Heart Transplantation; F. Ammirati, F.G. Oliva, A. Garascia, L. D’Angelo, V. Pacher, A. Verde, F. Macera, M. Cipriani, M. Frigerio. Cardiothoracic and Vascular Department, Niguarda Ca’ Granda Hospital, Milan, Italy.

(907) Combined Heart and Liver Transplantation Against Positive Crossmatch in Hypoplastic Left Heart Syndrome; S. Saxena, E. Raichlin, J. Um, K. Duncan, D. Dimitru, B. Lowes, J. Hammel. Cardiology, University of Nebraska Medical Center, Omaha, NE; Surgery-Cardiovascular & Thoracic Surgery, University of Nebraska Medical Center, Omaha, NE.


(909) Biventricular Assist Device Placement in Dextrocardia; D.J. Kaczorowski, J. Woo, J.W. Wald, M.A. Acker, P. Aitluri. Division of Cardiovascular Surgery, University of Pennsylvania, Philadelphia, PA; Division of Cardiovascular Medicine, University of Pennsylvania, Philadelphia, PA.

(910) Use of Pentoxiphylline for Hemolytic Anemia in a Patient with a Continuous-Flow Left Ventricular Assist Device; D.L. Jennings, C. Vanderstelt, C.T. Williams. Pharmacy Services, Henry Ford Hospital, Detroit, MI; Cardiovascular Medicine, Henry Ford Hospital, Detroit, MI.

(911) Obstructive Sleep Apnoea in Chronic Heart Failure with near Resolution after Implantation of a Left Ventricular Assist Device; M. Voortman, F.Z. Ramjankhan, J.R. Lahpor, N. de Jonge, J.M. Kwakkel-van Erp. Pulmonology, University Hospital Utrecht, Utrecht, Netherlands; Cardiothoracic Surgery, University Hospital Utrecht, Utrecht, Netherlands; Cardiology, University Hospital Utrecht, Utrecht, Netherlands.

(912) Immediate Post Cardiac Transplantation Thrombotic Thrombocytopenic Purpura; M.A. Hadi, Y. Hellman, A. Malik, I. Gradus-Pizlo, J. O’Donnell, S. Beganovic, I.W. Wang, Z. Hashmi, T. Wozniak, D. Roe. Indiana University, Indianapolis, IN; Cardiology and Cardiovascular Surgery, Indiana University Health, Indianapolis, IN; Pulmonary and Critical Care, Indiana University Health, Indianapolis, IN.

(913) An Unusual Case of Gastrointestinal Bleeding Post Heart-Lung Transplantation; M.I. Birader, M.D. Holmes, C.-L. Holmes-Liew. South Australian Lung Transplant Unit, Royal Adelaide Hospital, Adelaide, South Australia, Australia.

(914) Paradoxical Drop in the Pump Flow and Power Consumption in the Presence of Severe Ventricular Assist Device Thrombosis; D. Saeed, A. Albert, B. Maxhera, H. Kamiya, U. Boeken, R. Westenfeld, A. Lichtenberg. Cardiovascular Surgery, Düsseldorf University Hospital, Düsseldorf, Germany; Cardiology, Pneumology and Angiology, Düsseldorf University Hospital, Düsseldorf, Germany.

(915) Percutaneous Closure of the Aortic Valve to Treat Severe Aortic Insufficiency in a Patient with a HeartWare Left Ventricular Assist Device; A.J. Sauer, E. Mcgee, C. Davidson, C.W. Yancy, K. Meehan, A. Morse, T. Provisas, H. Vidula, R. Gordon. Department of Internal Medicine, Cardiology Division, Northwestern University Feinberg School of Medicine, Chicago, IL; Department of Surgery, Cardiothoracic Surgery Division, Northwestern University Feinberg School of Medicine, Chicago, IL.

(917) Left Ventricular Assist Device Implantation to a Biventricular Failure Patient of Corrected Transposition of the Great Arteries after Anatomical Repair; M. Komagamine,1 T. Nishinaka,1 Y. Ichihara,1 T. Miyamoto,1 K. Suzuki,1 H. Tsukui,1 S. Saito,1 M. Nagashima,1 K. Yamazaki,1 T. Shimohara,2 M. Shimizu,2 T. Nakanishi,2 Cardiovascular Surgery, Tokyo Women's Medical University, Tokyo, Japan; Pediatric Cardiology, Tokyo Women's Medical University, Tokyo, Japan.

(918) A Case for Right Ventricular Assist Device Outflow Graft Restriction in a Patient with HeartWare HVADs as Biventricular Assist Devices; R.D. Kociol,1 C. Jouhouirian,2 M.S. Kiernan,2 N.K. Kapur,2 D. McSparran,1 K.G. Warner,1 D. DeNofrio,2 D.T. Pham,1 Cardiology, Beth Israel Deaconess Medical Center, Boston, MA; Cardiology, Tufts Medical Center, Boston, MA; Cardiac Surgery, Tufts Medical Center, Boston, MA.

(919) Case Report: Heartmate II Implantation in D-Transposition of the Great Vessels; K.P. Mody,1 S.H. Lee,1 S.W. Restaino,1 H. Takayama,2 Y. Naka,3 U.P. Jorde,1 N. Uriel,1 Heart Failure and Transplant, Columbia University Medical Center, New York, NY; Department of Cardiothoracic Surgery, Columbia University Medical Center, New York, NY.


(921) Scopulariopsis chartarum/trigononporus Porous Pulmonary Infection in Lung Transplant Recipient; K.E. Scheepplar,1 N.M. Northcutt,2 D.M. Lyu,3 G.R. Barber,1 G. O'Malley Schroeder,4 M.R. Zamora.1 Pharmacy, University of Colorado Hospital, Aurora, CO; Medicine, University of Colorado Health Sciences Campus, Aurora, CO; Pulmonary Sciences and Critical Care Medicine, University of Colorado Health Sciences Campus, Aurora, CO; Clinical Laboratory, University of Colorado Health Science Campus, Aurora, CO.

(922) Complication Profile of the Berlin Heart EXCOR Biventricular Support in Children; M. Schweiger,1 J. Schrempf,2 A. Wasler,2 G. Brenner,2 M. Sereinigg,2 K. Tscheiessnigg,2 I. Knez. Division of Congenital Cardiovascular Pediatric Surgery, University Children's Hospital, Zurich, Switzerland; Division of Heart Surgery, Medical University Graz, Graz, Austria.

(923) A Perilous Course Following a Myocardial Infarction: Ischaemic Ventricular Septal Defect in a Transplanted Heart; E.L. Senanayake,1 H. Singh,2 C. McGrath,2 N.J. Howell,1 A.M. Ranasinghe,1 S.J. Rooney,1 J. Mascaro,1 I.C. Wilson,1 Cardiiothoracic Surgery, Queen Elizabeth Hospital, Birmingham, United Kingdom; Cardiac Anaesthesia, Queen Elizabeth Hospital, Birmingham, United Kingdom.

(924) Dyspnea Following MAZE Procedure; J.Y. Park,1 E.R. Fenstad,1,2 S.S. Kushwaha,1,2 Department of Internal Medicine, Mayo Clinic, Rochester, MN; Department of Medicine, Division of Cardiovascular Diseases, Mayo Clinic, Rochester, MN.

(925) Obliterative Bronchiolitis after Heart Transplantation: Bug or Drug; S.D. Patel, S.K. Shah, N. Boroumand, S. Lick, V.G. Valentine. Texas Transplant Center, University Texas Medical Branch, Galveston, TX.

(926) High-Output Heart Failure Due to an Aorto-Pulmonary Fistula in a Heart Transplant Patient; P.S. Nijjar, J. Roberts. Cardiology, University of Minnesota Medical School, Minneapolis, MN.

(927) Coronary Allograft Vasculopathy Associated with Hepatitis B Infection; G. Postlajen, M. Sebestyen, R. Okrajesk, G. Zemljic, S. Frijak, V. Androvec, B. Vrtovec. Advanced Heart Failure and Transplantation Programme, University Medical Center Ljubljana, Ljubljana, Slovenia.

(928) Cardiac Allograft Vasculopathy and Acute Cellular Rejection Resolved with OKT3; N.K. Gandhi, B. Chokkalingam Mani, P. Mather. Department of Medicine, Thomas Jefferson University Hospital, Philadelphia, PA.

(929) Completion Pneumonectomy and Thoracoplasty in a Single-Lung Transplant Recipient with Refractory Fungal Infection of the Native Lung; J. Lin,1 T.C. Ojo,2 Section of Thoracic Surgery, Dept of Surgery, University of Michigan, Ann Arbor, MI; Division of Pulmonary Critical Care Medicine, University of Michigan, Ann Arbor, MI.

(930) Airway Complication Contributing to Disseminated Fusariosis after Lung Transplantation; J.M. Terasaki, S.K. Shah, G.A. Lombard, M.A. James, D.L. Beckles, S. Lick, V.G. Valentine. Texas Transplant Center, University of Texas Medical Branch, Galveston, TX.

(931) Mycobacterium Abscessus Infections in Lung Transplant Recipients; R.R. Zapata Gonzalez,1 I.I. Lopez Sanz,1 J.J. Sole Montserrat,1 M.M. Deu Martin,1 L.L. Romero Velva,1 A.A. Jauregui Aburalach,1 J.J. Perez Velez,1 M.M. Wong Jaen,1 C.C. Berastegui Garcia,2 M.M. Caneva Cardona,1 Thoracic Surgery and Lung Transplantation, Vall d’Hebron Universitary Hospital, Barcelona, Spain; Pneumology and Lung Transplantation, Vall d’Hebron Universitary Hospital, Barcelona, Spain.

(932) Liver Transplantation and Cirrhotic Cardiomyopathy; S. Murphy. M. Farr. Cardiology, Columbia University Medical Center, New York, NY.

(933) Constrictive Physiology Complicating Cardiac Transplantation; N. Panagioutopoulos, A. Page, C. Lewis, J. Parameshwar, S. Tsui, C. Sudarsan, Cardiothoracic Transplant, Papworth Hospital, Cambridge, United Kingdom.

(934) Successful Treatment of Pulmonary Zygomycosis after Orthotopic Heart Transplant; D.B. Graham,1 J.D. Mishkin,2 D.W. Markham,2 M.H. Drazen,3 M.A. Wait,4 S.Y. Wada.4 Department of Cardiovascular and Thoracic Surgery, University of Texas - Southwestern Medical Center, Dallas, TX; Department of Internal Medicine, Division of Cardiology, University of Texas - Southwestern Medical Center, Dallas, TX; Department of Internal Medicine, Division of Infectious Disease, University of Texas - Southwestern Medical Center, Dallas, TX.

(935) Tracheomalasia Requiring Several Interventions Following Successful Left Ventricular Assist and Cardiac Transplantation; O. Yurdakok,1 U. Kervan,1 S.A. Kucukker,1 E. Yekeler,2 M. Pac.1 Cardiovascular Surgery Clinic, Turkiye High Specialization Hospital, Ankara, Turkey; Thoracic Surgery Clinic, Turkiye High Specialization Hospital, Ankara, Turkey.

(936) CD4 Challenge: CMV Viremia and Antibody Mediated Rejection in the Orthotopic Heart Recipient; N. Krishna, J. Gluck, J. Radojevich, A. Ricci, R. Danialan, D. Wencker. Center for Advanced Heart Failure and Transplant, Hartford Hospital, Hartford, CT.

(937) Berlin Heart Right Ventricular Assist Device as a Bridge to Recovery Post Heart Transplantation for Failed Fontan-Circulation; S. Seitz, H. Buchholz, I. Rebejka, L. West, D. Ross, S. Urschel. Department of Pediatrics, University of Alberta, Edmonton, AB, Canada; Division of Cardiothoracic Surgery, University of Alberta, Edmonton, AB, Canada.

(938) Eight Years of Lung and Heart-Lung Transplantations in Malaysia: Institute of Respiratory Medicine and National Heart Institute Initial Experience; O. Amran,1 Z. Bakar,2 S. Tahir,2 R. Sanusi,2 E. Taib,2 A. Yunus.1 Lung Transplant Unit, Institute of Respiratory Medicine, Kuala Lumpur, Wilayah Persekutuan, Malaysia; Cardiothoracic Department, National Heart Institute, Kuala Lumpur, Wilayah Persekutuan, Malaysia.

(939) Pulmonary Vein Allograft Can Serve as a Nidus for Septic Emboli: Report of 2 Cases; K.F. Catlyn,1 J.C. Salgado,3 P. Sarkar,1 H. Dababneh,2 M.A. Baz.1 Medicine - Division of Pulmonary, Critical Care and Sleep Medicine, University of Florida, Gainesville, FL; Neurology, University of Florida, Gainesville, FL.
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### LIST OF EXHIBITORS by BOOTH NUMBER

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Alere Home Monitoring

30 S. Keller Road
Suite 100 B
Orlando, FL  32810

Web Address: www.alere.com

Alere Home Monitoring, through its Alere VADCare® Program, provides equipment and services for VAD patients and hospital VAD departments. Our newest offering, the Alere VADWatch® Telemonitoring service allows VAD Coordinators to monitor patients after discharge by providing them with alerts when critical patient values are outside of a pre-established acceptable range. The VADWatch® Tele-monitoring service is principally designed to reduce hospital readmission. VAD equipment lines supported include the HeartWare HVAD®, Thoratec Heart-Mate II® and Thoratec TLC II®. In addition, we enable VAD patients to monitor their INR at home using our industry leading home anticoagulation monitoring services.

Bayer Pharma AG

Müllerstr. 178,
13353  Berlin, Germany


About Bayer HealthCare
The Bayer Group is a global enterprise with core competencies in the fields of health care, agriculture and high-tech materials. Bayer HealthCare, a subgroup of Bayer AG with annual sales of EUR 17.2 billion (2011), is one of the world’s leading, innovative companies in the healthcare and medical products industry and is based in Leverkusen, Germany. The company combines the global activities of the Animal Health, Consumer Care, Medical Care and Pharmaceuticals divisions. Bayer HealthCare’s aim is to discover, develop, manufacture and market products that will improve human and animal health worldwide. Bayer HealthCare has a global workforce of 55,700 employees (Dec 31, 2011) and is represented in more than 100 countries.


BiologicTx

40-D Commerce Way
Totowa, New Jersey  07512

Web Address: www.biologictx.com

BiologicTx is the first, solely focused, infusion and pharmacy provider of biologic and oral transplant therapy management, specializing in the administration of intravenous biologic therapies. After the patient has been successfully transplanted, BiologicTx will provide comprehensive management of their oral immunosuppressive regime, ensure compliance and provide necessary biologic interventions. At BiologicTx, our fundamental philosophy is to lead, manage and care for transplant patients with the highest level of respect, integrity and dignity.

CardiacAssist, Inc.

240 Alpha Drive
Pittsburgh, PA  15238

Web Address: www.Cardiacassist.com

CardiacAssist’s TandemHeart, extracorporeal circulatory support system, provides a steady, high flow supply of oxygenated blood to the organs while also decompressing the left ventricle to unload and rest the heart.
Centurion Medical Products

100 Centurion Way
Williamston, MI  48895
Web Address: www.centurionmp.com

Centurion Medical Products specializes in creating customized sterile procedural trays (e.g., dressing change trays, line maintenance bundles) designed to meet your special requirements. We also develop and manufacture catheter dressings featuring SorbaView SHIELD, an all-in-one catheter dressing with a built-in stabilization device that prevents catheter movement and dislodgement. In addition to the SHIELD, we offer a full line of unique securement devices, including our Foley Anchor designed to stabilize urinary catheter tubing and LVAD drivelines. Centurion products help lower the risk of infection, reduce hospital readmissions, increase efficiency, lower costs per procedure and improve outcomes for medical professionals and patients.

CircuLite, Inc.

250 Pehle Avenue, Park 80 West
Suite 403, Plaza 1
Saddle Brook, NJ  07663
Web Address: www.circuLite.net

CircuLite® is developing disruptive solutions to improve the treatment of chronic heart failure. The Company’s minimally-invasive circulatory support systems are intended to work in conjunction with the native heart to enhance clinical outcomes and improve quality of life for patients and their families. The SYNERGY® Surgical System, which has received CE Mark approval in Europe, features the world’s smallest surgically implanted blood pump designed for long-term use in ambulatory patients diagnosed with chronic heart failure. Next-generation circulatory support systems in development that incorporate CircuLite’s micro-pump technology include an endovascular system, a right-heart system, a pediatric system and an all-support system.

CorMatrix Cardiovascular, Inc.

1100 Old Ellis Road
Roswell, GA  30076
Web Address: www.cormatrix.com

CorMatrix® Cardiovascular markets its ECM® Technology biomaterial devices for pericardial closure, cardiac tissue repair, and carotid repair and is currently conducting preclinical studies to evaluate future applications in heart failure as well as other cardiovascular applications.

CSL Behring

1020 First Ave
King of Prussia, PA  19406
Web address: www.cslbehring.com

CSL Behring is a global leader in the plasma protein therapeutics industry. Committed to saving lives and improving the quality of life for people with rare and serious diseases, the company manufactures and markets a range of safe and effective plasma-derived and recombinant therapies worldwide. These therapies are used to treat coagulation disorders including hemophilia and von Willebrand disease, primary immune deficiencies, hereditary angioedema and inherited respiratory disease. Additional therapies are used in cardiac surgery, organ transplantation, burn treatment and to prevent hemolytic diseases in the newborn.

Elsevier

1600 JFK Blvd-Suite 1800
Philadelphia, PA  19103
Web Address: www.elsevierhealth.com

Elsevier is a leading publisher of health science publications, advancing medicine by delivering superior reference information and decision support tools to doctors, nurses, health practitioners and students. With an extensive media spectrum-print, online and handheld we are able to supply the information you need in the most convenient format.
HeartWare, Inc.
205 Newbury Street
Framingham, MA 01701
Web address: www.heartware.com

HeartWare is dedicated to delivering safe, high-performing and transformative therapies that enable patients with heart failure to get back to life. The company's innovative technologies are creating advances in the miniaturization of Ventricular Assist Devices (VADs) leading to less invasive surgical procedures and increasing the patient population who may be suitable for VAD therapy. HeartWare's breakthrough innovations begin with the HVAD® Pump, designed to be implanted next to the heart in the pericardial space avoiding the more invasive surgical procedures required with older LVAD technologies. The HVAD Pump is commercially available around the world.

ImaCor, Inc.
839 Stewart Ave, Suite 3
Garden City, NY 11530
Web Address: imacorinc.com

ImaCor, an innovator in critical care solutions, has developed the first hemodynamic transesophageal echocardiography (hTEE™) device designed for management of hemodynamically unstable patients. hTEE is the only technology which provides continuously available direct visualization of cardiac performance, enabling the intensivist to effectively manage the hemodynamics of critically ill patients.

ISHLT Registry for Mechanically Assisted Circulatory Support (IMACS)
790 Lyons-Harrison Research Building
701 19th Street South
Birmingham, AL 35294-0007
Web Address: www.ishlt.org/registries/mcsdDatabase.asp

The International Society for Heart and Lung Transplantation Registry for Mechanically Assisted Circulatory Support (IMACS) is an international registry intended to enroll and follow patients who receive durable mechanically assisted circulatory support devices (MCSD) in all countries and hospitals that wish to participate. Durable devices are defined as those devices that are capable of allowing patient discharge with the device in place. Devices are defined on a country by country basis. The registry records pre-implant patient information, device information and tracks the major post implant clinical events.

EUROMACS

c/o German Heart Institute Berlin
Augustenburgerplatz 1
13353 Berlin, Germany
Web address: www.euromacs.org

Euromacs runs a registry for data from patients with mechanical circulatory support systems. The data collected will be made available for research purposes. Euromacs has 124 individual and 37 institutional members in 26 countries.

GlaxoSmithKline
7333 Mississauga Rd
Mississauga, ON, Canada L5N 6L4

Custodiol® HTK organ preservation solution, originally developed for cardiac surgery, offers superior convenience due to its easy handling characteristics, water like viscosity and no need for additives or filters which makes it a preferred solution for many transplant centers. Please visit us at our booth and at www.custodiol.com
**Exhibitors**

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<th>Company</th>
<th>Booth Number</th>
<th>Address</th>
<th>Web Address</th>
<th>Description</th>
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<tr>
<td>Jarvik Heart</td>
<td>519</td>
<td>333 West 52nd S, New York, NY 10019</td>
<td><a href="http://www.jarvikheart.com">www.jarvikheart.com</a></td>
<td>Jarvik Heart, Inc. is a privately held, New York based company that develops and manufactures miniaturized heart assist devices for the treatment of severe heart failure. The Jarvik 2000 is a battery-powered axial-flow left ventricular assist device (LVAD). It is the smallest implantable blood pump available for the long-term treatment of Heart Failure.</td>
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<td>MAQUET</td>
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<td>Kehler Str. 31, 76437 Rastatt, Germany</td>
<td><a href="http://www.maquet.com">www.maquet.com</a></td>
<td>As a trusted partner for hospitals and clinicians since 1838, MAQUET is a global leader in medical systems that advance surgical interventions, cardiovascular procedures and critical care. MAQUET develops and designs innovative products and therapeutic applications for the operating room, hybrid OR/cath lab, intensive care unit and patient transport within acute care hospitals, improving outcomes and quality of life for patients. Cardiovascular specialties include intra-aortic balloon counterpulsation (IABC) therapy for cardiac assist; coronary artery bypass surgery; aortic and peripheral vascular surgery; and extracorporeal circulation.</td>
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<tr>
<td>ISHLT Registry</td>
<td>305</td>
<td>700 North 4th Street, Richmond, VA 23219</td>
<td><a href="mailto:www.ishlthelp@unos.org">www.ishlthelp@unos.org</a></td>
<td>The ISHLT Transplant Registry was created to collect ongoing, current information on the worldwide thoracic organ transplantation experience. Our registry is the only one of its kind. The data we maintain is utilized for scientific study and contributes to the body of knowledge regarding thoracic transplantation. Our goal is to identify overall and best practices for improving cardiothoracic patient care. This year the exhibit will make center-specific information available for review by ISHLT Transplant Registry participants. In addition, data screens can be reviewed and we will provide guidance on enrollment, submission of data and data request services.</td>
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<td>Novartis Pharma AG</td>
<td>205</td>
<td>Forum 1, Novartis Campus, 4056 Basel, Switzerland</td>
<td><a href="http://www.novartis.com">www.novartis.com</a></td>
<td>Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, eye care, cost-saving generic pharmaceuticals, preventive vaccines and diagnostic tools, over-the-counter and animal health products. Novartis is the only global company with leading positions in these areas. In 2011, the Group achieved net sales of USD 58.6 billion, while approximately USD 9.6 billion (USD 9.2 billion excluding impairment and amortization charges) was invested in R&amp;D throughout the Group. Novartis Group companies employ approximately 127,000 full-time-equivalent associates and operate in more than 140 countries around the world.</td>
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One Lambda Inc. – a Part of Thermo Fisher Scientific, Inc.

21001 Kittridge Street
Canoga Park, CA 91303
Web Address: www.onelambda.com

Post-Transplant monitoring is about identifying factors that may suggest the development of donor specific antibodies (DSA). Routine monitoring with One Lambda’s LABScreen® Single Antigen may help determine early development of DSA. Visit the One Lambda booth to discover how we can help you improve the standard of care in post-transplant monitoring with our collection of Antibody Detection products. Also learn about the roles of anti-AT1R, complement (C1q) binding and IgM antibodies. Our experts will be available to discuss the role of DSA and post-transplant monitoring.

Orthodynamics Company, Inc.

155 Carey Drive
Noblesville IN 46060
Web Address: www.od-inc.com

Orthodynamics is an industry leader in the outsourcing of Ventricular Assist Devices, associated equipment and supplies. Focused on patient care and a team approach, our VADTrac® Solution equipment management and individual account managers allow VAD Coordinators and hospitals to focus on what they do best! Patients benefit by access to Orthodynamics 24/7, providing services through manufacturers we represent nationwide. Our strategic alliances with hospitals, clinicians and major insurance carriers, give us the ability to provide a high level of service to patients and healthcare professionals.

ReinHeart Total Artificial Heart

Dept. of Cardiovascular Engineering
Institute of Applied Medical Engineering
RWTH Aachen University
University Hospital Aachen
Pauwelsstr. 20
52074 Aachen, Germany
Web Address: www.reinheart.de

The Total Artificial Heart ReinHeart is designed to treat terminal heart failure as an alternative to heart transplantation. The fully implantable system functions completely maintenance-free within the human body and is intended to be small enough to be implanted in the majority of patients. Among its unique features are its durable linear motor and the anatomically optimized configuration of the vascular prostheses. The configuration of the motor and membrane allow for a pressure controlled filling, thus avoiding suction related problems.

The system is being validated extensively in laboratory tests and chronic animal studies to prove hydraulic performance, durability and hemocompatibility.

Scanlan International, Inc.

One Scanlan Plaza
Saint Paul, Minnesota 55107
Web Address: www.scanlaninternational.com

Highest quality surgical products designed and manufactured by the Scanlan family since 1921. Over 3,000 titanium and stainless steel instrument designs including needle holders, forceps, scissors, clamps and specialty instruments. Featured instruments include the SCANLAN® LEGACY titanium needle holders and forceps, full line of VATS / MIS Thoracoscopic instruments including the Chitwood Clamp, Knot Pusher and SUPER CUT™ Suture Cutter; Axial Handle needle holders and forceps, SUPER CUT™ Scissors and Rendina needle holder. Single-use products include: VASCU-STAT® bulldog clamps, Aorta/Vein Punch and A/C Locator graft markers. Also offering custom instrument designs and modifications for your individual needs.
### Scholten Surgical Instruments, Inc.  
**170 Commerce St., Suite 101**  
Lodi, CA  95240  
**Web Address: www.bioptome.com**

For more than thirty years SSI has manufactured high quality endomyocardial biopsy forceps. The Scholten disposable Bioptome model is called the Novatome™ and, like its predecessors, is specially designed to acquire maximum specimen size for more accurate pathology results. Our device has earned a reputation for its ease of use, heart rhythm feedback and considered the “gold standard” by many. With our innovative design paired with over three decades of clinical experience makes our device the best choice for safety and performance. With the Novatome™ SSI continues to provide reliability, value, and forceps of the highest quality to your industry.

### Sunshine Heart  
**12988 Valley View Road**  
Eden Prairie, MN  55344  
**Web Address: www.sunshineheart.com**

The **C-Pulse® Heart Assist System** is an extra-aortic balloon pump using counterpulsation technology to treat moderate to severe heart failure (Class III/IVa). It is placed outside the bloodstream, can be implanted minimally invasively and the patient has the ability to disconnect from the system. It is designed to improve heart function by increasing coronary blood flow and decreasing afterload. C-Pulse’s goal is to halt the progression of heart failure. The FDA feasibility clinical study results showed promising results with the reduction of NYHA classification in 80% of the patients. CE Mark has been received.

### SynCardia Systems, Inc.  
**1992 E. Silverlake Road**  
Tucson, AZ  85713  
**Web Address: www.syncardia.com**

The **SynCardia temporary Total Artificial Heart (TAH-t)** is the world’s only FDA, Health Canada and CE approved Total Artificial Heart. The TAH-t is currently approved as a bridge to transplant for patients dying from end-stage biventricular failure. The 13.5 lb Freedom™ portable driver has received CE approval in Europe and is undergoing an IDE clinical study in the U.S. The Freedom driver is designed to provide mobility for stable TAH-t patients both inside and outside the hospital. Visit our booth for updates on the clinical study, the 50cc TAH-t and destination therapy.

### Thoratec Corporation  
**6035 Stoneridge Drive**  
Pleasanton, CA  94588  
**Web Address: www.thoratec.com**

Thoratec is the world leader in mechanical circulatory support with the broadest product portfolio to treat the full range of clinical needs for patients suffering from advanced heart failure. The company’s products include the **HeartMate LVAS** and **Thoratec VAD**, with more than 20,000 devices implanted in patients suffering from heart failure. Thoratec also manufactures and markets the CentriMag and PediMag/PediVAS product lines. Thoratec is headquartered in Pleasanton, California. For more information, visit www.thoratec.com.
United Therapeutics
55 TW Alexander Drive
Research Triangle Park, NC  27709
Web Address: www.unither.com

United Therapeutics Corporation is a biotechnology company focused on the development and commercialization of unique products to address the unmet medical needs of patients with chronic and life-threatening cardiovascular and infectious diseases and cancer.

Vivoline Medical AB
Scheelevägen 17
SE-223 70 Lund
Sweden
Web Address: www.vivoline.se

Vivoline Medical develops and manufactures systems for ex-vivo lung perfusion. The system Vivoline® LS1 is CE-marked and in clinical use. It’s intended for reconditioning, evaluation and cold preservation of lungs after donation and prior to transplantation. It provides a simplified method to perform evaluation in a safe and controlled way. The possibility to test marginal lungs provides the opportunity to increase the number of organs available for transplantation. Vivoline LS1 is a compact system which can be set up quickly, is flexible and very user friendly. System for research is also available and used in Europe, Australia and US.

XVIVO Perfusion AB
Box 53015
SE – 400 14 Göteborg
Sweden

Visiting address/deliveries:
Mässans gata 10
SE-412 51 Göteborg
Sweden
Web address: www.xvivoperfusion.com

XVIVO Perfusion AB manufactures and markets solutions and equipment for transplantation and thoracic surgery, designed to preserve, evaluate and recondition organs and tissues prior to transplantation. Two of our principle solutions are Perfadex® for hypothermic flushing and preservation of donor lungs during transport and STEEN Solution™ for normothermic ex vivo organ evaluation and reconditioning.
(Approved in US for research purposes only).

XVIVO aims to:
- minimize ischemia-reperfusion injury by improving the solutions used for ex-vivo preservation of organs and tissues.
- extend the safe ex-vivo preservation time for organs and tissues prior to transplantation.
- increase organ availability and transplantation success rates by introduction of new transplantation concepts and techniques.

XDx
3260 Bayshore Blvd
Brisbane, CA  94005
Web Address: www.XDx.com

AlloMap has been used in 100 Heart Transplant Centers, on over 10,000 patients, and reimbursed by over 200 payers. AlloMap is the Standard of Care for the management of stable Heart Transplant Patients. During the 2013 ISHLT; investigators will be presenting AlloMap studies on the clinical utility for testing starting at 55 days post-transplant, use in steroid tapering and additional findings from the European CARGO II study. This non-invasive blood test is now offered in the EU. Please stop by our booth and attend the symposiums/posters to learn more about the use of AlloMap in stable heart transplant patients.
IT’S BEEN A

MONTREAL GOOD TIME!

SEE YOU NEXT YEAR!

SAN DIEGO
2014
34th ISHLT Annual Meeting and Scientific Sessions
April 9-12, 2014

NICE, FRANCE
2015
35th ISHLT Annual Meeting and Scientific Sessions
April 14-18, 2015

WASHINGTON DC
2016
36th ISHLT Annual Meeting and Scientific Sessions
April 27-30, 2016

FUTURE ANNUAL MEETINGS
Improving Patient Care

At Gilead, we are working to discover, develop and commercialize innovative therapeutics in areas of unmet medical need. Through our portfolio of marketed products and our pipeline of investigational compounds, we strive to set new standards that can ultimately change the way diseases are treated with the goal of improving patient care around the world.

Gilead is proud to support the International Society for Heart & Lung Transplantation.

For more information, please visit www.gilead.com.

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