

# ISHLT ACADEMY: MASTERS COURSE IN MECHANICAL CIRCULATORY SUPPORT

Monday, April 7-Tuesday, April 8, 2014 Loews Coronado Bay Resort, Coronado, CA, USA

#### 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 11 AMA PRA Category 1 Credits<sup>™</sup>. 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.

#### **Learning Objectives**

At the conclusion of this meeting, participants will have improved competence and professional performance in their abilities to:

- 1) Understand the latest information and advanced approaches regarding MCS research, surgical techniques, and patient management for mechanical circulatory support of patients suffering from advanced heart failure.
- 2) Integrate the state-of-the-art treatment approaches, risk factor stratification and patient selection criteria for patients receiving durable mechanical circulatory support devices.
- 3) Apply disease prevention strategies, outcome implications, and psychosocial management strategies in this patient population.
- 4) Understand emerging technologies, surgical advances, and the clinical applications of continuous flow devices in the management of end-stage heart failure.

### **Educational Goals**

The educational goals of this activity are to provide an in-depth exploration and application of current knowledge and practices that can lead to better outcomes with mechanical circulatory support. The ISHLT MASTERS Academy provides didactic plenary lectures as well as moderated debates, meet the expert panel discussions and case presentations on specific topics beyond core competencies via small group sessions.

### **Target Audience**

The target audience for this course is experienced MCS physicians and surgeons seeking to achieve a deeper understanding of the specialty and seeking to learn via the sharing of knowledge and experiences with other experts.

#### **SCIENTIFIC PROGRAM COMMITTEE**

Daniel J. Goldstein, MD, Montefiore Medical Center, Bronx, New York, USA Ulrich P. Jorde, MD, Columbia University, New York, NY, USA Jeff Teuteberg, MD, Co-Chair Jim K. Kirklin, MD, University of Alabama at Birmingham, Birmingham, AL, USA Robert L. Kormos, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA Stephan Schueler, MD, PhD, FRCS, Newcastle Upon Tyne, United Kingdom Martin Strueber, MD, University Heart Center, Leipzig, Germany

#### SCIENTIFIC PROGRAM SCHEDULE

### MONDAY, APRIL 7, 2014

12:00 PM - 1:00 PM REGISTRATION

1:00 PM - 1:55 PM PLENARY SESSION 1 (Commodore CD)

Chairs: James K. Kirklin, MD and Robert L. Kormos, MD

**1:00 PM Welcome, and Brief Overview,** Jim K. Kirklin, MD, University of Alabama at Birmingham, Birmingham, AL, USA

**1:05 PM Hemolysis after MCS: Causes, Quantification, and Relationship to Thrombosis,** Robert L. Kormos, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

#### 1:25 PM Q&A

1:30 PM Pump Thrombosis from an Engineering Perspective: Speculation on Recent Trends in Thrombosis Events, Walter Dembitsky, MD, Sharp Memorial Hospital, San Diego, CA USA

#### 1:50 PM Q&A

2:00 PM - 3:00 PM CONCURRENT SMALL GROUP BREAK OUT SESSIONS

A. MCS Options and Strategies for Acute Cardiogenic Shock (INTERMACS Level 1) (Commodore CD)

**Moderator:** Daniel J. Goldstein, MD **2:00 pm** *Case Presentations*, Charles W. Hoopes, MD, University of Kentucky, Lexington, KY, USA

2:20 pm Case Presentations, Nader Moazami, MD, Cleveland Clinic, Cleveland, OH, USA

2:40 pm Panel Discussion

B. Pediatric MCS Options (Commodore A)

Moderator: Jim K. Kirklin, MD

**2:00 pm** *Background and Experience with the Berlin Heart*, Asif Hasan, MD, Freeman Hospital, Newcastle Upon Tyne, United Kingdom

**2:20 pm** *Emerging Devices, Jim K. Kirklin, MD, University of Alabama at Birmingham, Birmingham, AL, USA* 

2:40 pm Panel Discussion

C. Optimizing Pump Speed to Clinical Conditions (Commodore B)

Moderator: O. Howard Frazier, MD

2:00 pm Case Presentations, Ulrich P. Jorde, MD, Columbia University, New York, NY, USA

2:20 pm Case Presentations, Joseph G. Rogers, MD, Duke University, Durham, NC, USA

2:40 pm Panel Discussion

# 3:00 PM - 3:30 PM COFFEE BREAK

# 3:30 PM - 4:20 PM

#### **CONCURRENT SMALL GROUP BREAK OUT SESSIONS**

# A. Hemolysis and Pump Thrombosis: Diagnosis and Therapeutic Dilemmas (Commodore CD)

Moderator: James K. Kirklin, MD

**3:30 pm** Case Presentations, Nicholas R. Banner, FRCP, Harefield NHS Foundation, Harefield, United Kingdom

3:45 pm Case Presentations, Ulrich P. Jorde, MD, Columbia University, New York, NY, USA

4:00 pm Panel Discussion

# B. Device-Related Infection: Diagnosis, Prevention, and Management (Commodore A)

Moderator: Andreas Zuckermann, MD, PhD

3:30 pm Case Presentations, Margaret M. Hannan, MD, Mater Hospital, Dublin, Ireland

**3:45 pm** Case Presentations, Salpy V. Pamboukian, MD, MSPH, University of Alabama at Birmingham, AL. USA

4:00 pm Panel Discussion

### C. Weaning: How to Tell if the LV has Recovered (Commodore B)

Moderator: Robert L. Kormos. MD

3:30 pm Texas Heart Protocol, O. Howard Frazier, MD, Texas Heart Institute, Houston, TX, USA

3:45 pm Louisville Protocol, Emma Birks, MD, PhD, University of Louisville, Louisville, KY

4:00 pm Panel Discussion

4:30 PM - 5:30 PM

PLENARY SESSION 2 (Commodore CD)

Chairs: James K. Kirklin, MD and Robert L. Kormos, MD

# 4:30 PM Cardiorenal Syndrome and MCS Therapy: Terminology, Predictors, Management, and Outcomes,

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

### 4:50 PM Q&A

# 5:00 PM RV Failure Post-VAD: Definitions, Predictors, Evidence-based management, and Reversibility,

Andrew J. Boyle, MD, Cleveland Clinic Florida, Weston, FL, USA

5:20 PM Q&A

5:30 PM - 6:30 PM RECEPTION

# **TUESDAY, APRIL 8, 2014**

# 7:30 AM - 8:00 AM MORNING COFFEE

# 8:00 AM - 8:50 AM

#### CONCURRENT SMALL GROUP BREAK OUT SESSIONS

# A. Applications of Diagnostic Imaging and Echocardiography (Commodore CD)

Moderator: Jeffrey J. Teuteberg, MD

**8:00** am *Echo: Intraoperative Assessment of Pump Position and Performance*, Asif Hasan, MD, Freeman Hospital, Newcastle Upon Tyne, United Kingdom

8:15 am Imaging and Pump Malfunction: What is the Best Modality, Andrew J. Boyle, MD, Cleveland

Clinic Florida, Weston, FL, USA

8:30 am Panel Discussion

### B. ECMO: Strategies and Technical Considerations (Commodore A)

Moderator: Charles W. Hoopes. MD

8:00 am ECMO Weaning Strategies, Charles W. Hoopes, MD, University of Kentucky, Lexington, KY, USA

8:15 am Options for Institution ECMO, Nader Moazami, MD, Cleveland Clinic, Cleveland, OH, USA

8:30 am Panel Discussion

# C. DEBATE: TAH is the Best BTT Therapy for Severe Biventricular Failure (Commodore B)

Moderator: Robert L. Kormos, MD

8:00 am PRO, Francisco Arabia, MD, Cedars-Sinai Medical Center, Los Angeles, CA, USA

8:10 am CON, Martin Strueber, MD, University Heart Center, Leipzig, Germany

8:20 am PRO Rebuttal

8:25 am CON Rebuttal

8:30 am Discussion

#### 9:00 AM - 10:00 AM

#### PLENARY SESSION 3 – EMERGING DEVICES (Commodore CD)

Chairs: James K. Kirklin, MD and Robert L. Kormos, MD

9:00 AM Circulite, Daniel J. Goldstein, MD, Montefiore Medical Center, Bronx, New York, USA

9:20 AM Q&A

9:30 AM Evaheart, Satoshi Saito, MD, PhD, Tokyo's Women's Medical University, Tokyo, Japan

9:50 AM Q&A

10:00 AM - 10:30 AM COFFEE BREAK

10:30 AM - 11:20 AM

#### **CONCURRENT SMALL GROUP BREAK OUT SESSIONS**

# A. DEBATE: Ideal LVAD Implant Includes a Non-Sternotomy Approach (Commodore CD)

Moderator: James K. Kirklin, MD

10:30 am PRO, Martin Strueber, MD, University Heart Center Leipzig, Germany

10:40 am CON, Stephan Schueler, MD, PhD, FRCS, Newcastle Upon Tyne, United Kingdom

10:50 am PRO Rebuttal

10:55 am CON Rebuttal

11:00 am Discussion

### B. Adaptive Anticoagulation for LVAD's (Commodore A)

Moderator: Lee R. Goldberg, MD, MPH

**10:30 am** Case Presentations: Anticoagulation Strategies Early Post Implant: Is Heparin Necessary? David Feldman, MD, Abbott Northwestern Hospital, Minneapolis, MN, USA

**10:45 am** Case Presentations: Anticoagulation Long Term: Striking the Balance Between Bleeding and Thrombosis, Vivek Rao, MD, PhD, Toronto General Hospital, Toronto, Canada

11:00 am Panel Discussion

## C. Preparing for Pump Explant at Implant (Commodore B)

Moderator: Scott C. Silvestry, MD

**10:30** am Case Presentations: Preparing for Transplant at VAD Implant, Scott C. Silvestry, MD, Washington University School of Medicine, St. Louis, MO, USA

10:45 am Case Presentations: Pump Explant: When Should the Pump be Left in Place? Evgenij V.

Potapov, MD, PhD, German Heart Institute, Berlin, Germany

11:00 am Panel Discussion

#### 11:30 AM - 12:30 PM

#### **CONCURRENT SMALL GROUP BREAK OUT SESSIONS**

# A. MCS Options and Strategies for Acute Cardiogenic Shock (INTERMACS Level 1) (Commodore CD)

Moderator: Mark S. Slaughter, MD

**11:30 am** Case Presentations, Francisco Arabia, MD, Cedars-Sinai Medical Center, Los Angeles, CA, USA

**11:50** am Case Presentations, Pascal N. Leprince, MD, PhD, Pitie Salpetriere, Paris, France **12:10** pm Panel Discussion

# B. Unloading the Heart with an LVAD: Effects on the Left vs the Right Ventricle (Commodore A) Moderator: Nicholas R. Banner, FRCP

**11:30 am** *LV Unloading: Physiology and Impact on RV*, Francis D. Pagani, MD, PhD, University of Michigan. Ann Arbor. MI. USA

**11:50 am** *Post-op RV Dysfunction with Pulmonary Hypertension: Therapeutic Options*, Stephan Schueler, MD, PhD, FRCS, Newcastle Upon Tyne, United Kingdom **12:10 pm** *Panel Discussion* 

#### C. Applications of Diagnostic Imaging and Echocardiography (Commodore B)

Moderator: Shashank S. Desai, MD

**11:30 am** *Echo: Intraoperative Assessment of Pump Position and Performance*, Shashank S. Desai, MD, Inova Fairfax Hospital, Falls Church, CA, USA

**11:50** am *Imaging and Pump Malfunction: What is the Best Modality,* Andrew J. Boyle, MD, Cleveland Clinic Florida, Weston, FL, USA

12:10 pm Panel Discussion

# 12:30 PM - 1:30 PM BOX LUNCH/NETWORKING

### 1:30 PM - 2:20 PM

# **CONCURRENT SMALL GROUP BREAK OUT SESSIONS**

# A. Hemolysis and Pump Thrombosis: Diagnosis and Therapeutic Dilemmas (Commodore CD)

Moderator: Robert L. Kormos, MD

**1:30 pm** Case Presentations, Nicholas R. Banner, FRCP, Harefield NHS Foundation, Harefield, United Kingdom

**1:45 pm** Case Presentations, James K. Kirklin, MD, University of Alabama at Birmingham, Birmingham, AL, USA

2:00 pm Panel Discussion

# B. Palliative Care: Involvement, Referral, Quality of Life: Challenging Cases (Commodore A) Moderator: Jeffrey J. Teuteberg, MD

**1:30 pm** Case Presentations, David Feldman, MD, Abbott Northwestern Hospital, Minneapolis, MN, USA **1:45 pm** Case Presentations, Salpy V. Pamboukian, MD, MSPH, University of Alabama at Birmingham, AL, USA

2:00 pm Panel Discussion

### C. Optimizing Pump Speed to Clinical Conditions (Commodore B)

Moderator: Stephan Schueler, MD

1:30 pm Case Presentations, O. Howard Frazier, MD, Texas Heart Institute, Houston, TX, USA

1:45 pm Case Presentations, Pascal N. Leprince, MD, PhD, Pitie Salpetriere, Paris, France

2:00 pm Panel Discussion

#### 2:30 PM - 3:30 PM

#### **CONCURRENT SMALL GROUP BREAK OUT SESSIONS**

#### A. Solutions for Aortic Valve Insufficiency (Commodore CD)

Moderator: Vivek Rao, MD, PhD

**2:30 pm** De novo Aortic Insufficiency: Etiology, Pregression, and Management, Scott C. Silvestry, MD, Washington University School of Medicine, St. Louis, MO, USA

2:50 pm Aortic Insufficiency at Implant: Surgical Approaches, Daniel J. Goldstein, MD, Montefiore Medical Center, Bronx, New York, USA

3:10 pm Panel Discussion

# B. GI Bleeding: Diagnosis, Management, Algorithm, and Restarting Antithrombotic Therapy (Commodore A)

Moderator: Jeffrey J. Teuteberg, MD

**2:30 pm** Case Presentations, Nicholas R. Banner, FRCP, Harefield NHS Foundation, Harefield, United Kingdom

**2:50 pm** Case Presentations, Shashank S. Desai, MD, Inova Fairfax Hospital, Falls Church, CA, USA **3:10 pm** Panel Discussion

#### C. Desensitization: Strategies and Outcomes (Commodore B)

Moderator: James K. Kirklin, MD

**2:30 pm** Case Presentations, Salpy V. Pamboukian, MD, MSPH, University of Alabama at Birmingham, AL. USA

**2:50 pm** Case Presentations, Joseph G. Rogers, MD, Duke University, Durham, NC, USA **3:10 pm** Panel Discussion

3:30 PM - 4:00 PM COFFEE BREAK

#### 4:00 PM - 5:00 PM

#### PLENARY SESSION 4 (Commodore CD)

Chairs: James K. Kirklin, MD and Robert L. Kormos, MD

4:00 PM REVIVE-IT, Francis D. Pagani, MD, PhD, University of Michigan, Ann Arbor, MI, USA

4:20 PM Q&A

4:30 PM INTERMACS Profiles 4-7, Jeffrey J. Teuteberg, MD, University of Pittsburgh, USA

4:50 PM Q&A

#### 5:00 PM SUMMARY/ADJOURN