

INTERNATIONAL SOCIETY FOR  
HEART AND LUNG TRANSPLANTATION  
a forum that includes basic science,  
the failing heart, and advanced lung disease

7TH FALL EDUCATION MEETING

# SYNERGY: Mechanical and Biological Cardiac Support Recovery, Replacement, Repair with Cellular Therapy



**NOVEMBER  
11-12, 2005**

**THE ADOLPHUS HOTEL  
DALLAS • TEXAS**

**Robert L. Kormos, MD, Chair**

James K. Kirklin, MD, Co-Chair Richard D. Weisel, MD, Co-Chair

This meeting has been co-sponsored by the Council on Cardiovascular  
Surgery and Anesthesia of the American Heart Association

## About this Meeting

This meeting will explore the potential synergy between the use of mechanical circulatory support and the newer field of cell transplantation. The spectrum of mechanical cardiac therapies now includes not only the utilization of LVAD's as a bridge to transplantation and destination therapy, but the new promise of LVAD's used to facilitate the recovery of the diseased myocardium. This meeting presents the participant with a state of the art review of best practices for the utilization of established devices as well as a glimpse into the future of novel newer cardiac pumps that are approaching clinical trials. There will be a practical session devoted to surgical strategies of LVAD implantation in adults and children. The recent preliminary reports of the clinical utility of cardiac cell transplantation opens the door to the use of adjuvant therapies for end-stage CHF that capitalize on the use of LVAD's to ameliorate the heart failure state. A review of the basic science advances in cell transplantation along with a summary of early clinical trials with stem cells will be presented by a panel of international experts.

## Goals

The goal of this meeting is to review the current and future status of mechanical circulatory support (MCS) as it pertains to therapy for end-stage cardiac failure and to provide a practical summary of best practices for the surgeon and cardiologist interest in the field of MCS. A second goal is to review the latest basic science reports on the use of stem cells for CHF and review cellular transplant methodologies as well as the latest in clinical trials in patients with cardiac disease.

## Learning Objectives

At the conclusion of this meeting, participants should be able to:

- understand what has been learned about MCS from bridge to transplant, destination therapy, and myocardial recovery
- be familiar with the devices available for both bridge to transplantation and long-term MCS and their indications
- understand the applicability of both pulsatile and rotary blood pumps
- identify the areas to be targeted in the future for research with chronic support
- be able to identify best practices for optimizing surgical implantation as well as post-implant care of the patient on MCS
- be brought up to date on future trials of devices for MCS
- be familiar with the variety of sources of stem cells and their applicability for cardiac disease intervention
- be familiar with the results of pre-clinical studies with various stem cells
- understand the results of early international clinical trials with autologous bone marrow derived as well as embryologic stem cells

## 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 the technology of MCS systems and the emergence of cell-based therapies, cardiac transplant professionals are in need of opportunities to update their knowledge of these advances. This meeting is designed to address this need.

## Target Audience

The audience for this program includes physicians, surgeons, scientists and nurses engaged in the management and treatment of patients with end-stage heart disease.

## Important Information About This Meeting

This meeting is not an official part of the official 78th Scientific Sessions as planned by the AHA Committee on Scientific Sessions Program. You are not required to register for the AHA meeting in order to register for this meeting.

## Meeting Location

The meeting will be held at the Adolphus Hotel, 1321 Commerce Street, Dallas, TX 75202. All sessions will take place in The Century Room unless otherwise noted.

## Hotel Accommodations

ISHLT has NOT blocked hotel rooms for this meeting. Hotel reservations must be made through the AHA Housing Bureau. Details can be obtained from the AHA Annual Meeting web site ([www.scientificsessions.org](http://www.scientificsessions.org)).

## Accreditation

This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education. The International Society for Heart and Lung Transplantation is accredited by the ACCME to provide continuing medical education for physicians. ISHLT designates this activity for a maximum of 14 hours in Category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Continuing Education Points have been applied for with the American Board of Transplant Coordinators (ABTC) and Critical Care Nurses (AACN).

## Disclosure

Current guidelines state that participants in CME activities should be made aware of any affiliation or financial interest that may affect a speaker's presentation. Each speaker has been requested to complete a disclosure statement. The names of the speakers declaring such affiliations are shown below. 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.

## Anticipated Exhibitors/Meeting Supporters

The following companies have been invited to participate in the meeting and provide financial support for the meeting to enable us to invite preeminent experts from around the world to address the audience.

Abiomed	MicroMed
Acorn	Terumo
Arrow International	Thoratec
Cardiowest	Ventracor
Jarvik Heart	WorldHeart



# **SYNERGY: Mechanical and Biological Cardiac Support**

## **Recovery, Replacement, Repair with Cellular Therapy**

### **EDUCATIONAL PROGRAM SCHEDULE**

Speakers and Chairs have been invited but not confirmed as of the date of the printing of this program.

## **FRIDAY, NOVEMBER 11, 2005**

**7:45 am – 8:25 am**

### **CONTINENTAL BREAKFAST/VISIT EXHIBITS**

**8:25 am**

### **INTRODUCTION**

James K. Kirklin, MD, Birmingham, AL  
Robert L. Kormos, MD, Pittsburgh, PA

**8:30 am – 10:00 am**

### **MECHANICAL AND BIOLOGIC CONCEPTS IN MECHANICAL CIRCULATORY SUPPORT**

**CHAIRS:** Leonard Golding, MD and James K. Kirklin, MD

**8:30 am Engineering Concepts in Pump Design**

James W. Long, MD, PhD, LDS Hospital, Salt Lake City, UT

**8:50 am Biologic Barriers to Mechanical Circulatory Support**

Eric A. Rose, MD, Columbia Presbyterian Medical Center, New York, NY

**9:10 am Physiologic Response to Rotary Pumps**

Markus NMI Thalmann, MD, KH Lainz-Vienna University, Vienna, Austria

**9:30 am Design Considerations in the Total Artificial Heart**

Robert D. Dowling, MD, University of Louisville, Louisville, KY

**9:50 am Panel Discussion**

**10:00 am Break/Visit Exhibits**

**10:30 am – Noon**

### **SURGICAL CONSIDERATIONS IN DEVICE THERAPY**

**CHAIRS:** Michael A. Acker, MD and Daniel J. Goldstein, MD

**10:30 am Surgical Considerations in the Use of Rotary Pumps**

O. H. Frazier, MD, Texas Heart Institute, Houston, TX

**10:50 am Surgical Considerations in the Total Artificial Heart**

Jack G. Copeland, MD, University of Arizona, Tucson, AZ

**11:10 am Strategies to Simplify VAD Replacements**

Igor NMI Gregoric, MD, Texas Heart Institute, Houston, TX

**11:30 am Surgical Strategies and Options in Pediatric Mechanical Circulatory Support**

Roland Hetzer, MD, PhD, German Heart Institute, Berlin, Germany

**11:50 am Panel Discussion**

**Noon – 1:30 pm**

### **LUNCH/INVITED LECTURE**

**Governmental Strategies for Reimbursement and Selection of Centers for Destination VAD Therapy**

Steve R. Phurrough, MD, MPA, Centers for Medicare and Medicaid Services, Washington, DC

1:30 pm – 3:00 pm

**CLINICAL PRACTICE OF VAD THERAPY**

**CHAIRS:** Aly El-Banayosy, MD and Leslie W. Miller, MD

1:30 pm **Strategies to Improve Anti-coagulation Therapy in Rotary Pumps**  
Edward R. Teitel, MD, MicroMed Technology, Inc., Houston, TX

1:50 pm **Myocardial Recovery After VAD Support – Basis for Differing Institutional Results**  
Guillermo Torre-Amione, MD, PhD, Baylor College of Medicine, Houston, TX

2:10 pm **Strategies for Combining Mechanical Support with Cell Therapy**  
Francis D. Pagani, MD, PhD, University of Michigan, Ann Arbor, MI

2:30 pm **Update on Clinical Trials with Pulsatile Pumps**  
Nicholas G. Smedira, MD, Cleveland, OH

2:50 pm **Panel Discussion**

3:00 pm **Break/Visit Exhibits**

3:30 pm – 5:00 pm

**NEW DIRECTIONS IN MECHANICAL CIRCULATORY SUPPORT**

**CHAIRS:** Bartley P. Griffith, MD and J. Donald Hill, MD

3:30 pm **Destination Therapy – How Will We Assess the Impact of Devices vs. Current Medical Therapy?**  
Lynne W. Stevenson, MD, Brigham and Women's Hospital, Boston, MA

3:50 pm **Update on Clinical Trials with Pulsatile Pumps and Total Artificial Heart**  
Jack G. Copeland, MD

4:10 pm **Update on Clinical Trials with Rotary Pumps**  
William L. Holman, MD, University of Alabama, Birmingham, AL

4:30 pm **New Devices in Development**  
Robert L. Kormos, MD, University of Pittsburgh Medical Center, Pittsburgh, PA

4:50 pm **Panel Discussion**

5:00 pm – 6:00 pm

**RECEPTION IN EXHIBIT HALL**

**SATURDAY, NOVEMBER 12, 2005**

7:15 am – 7:55 am

**CONTINENTAL BREAKFAST/VISIT EXHIBITS**

7:55 am

**INTRODUCTION**

Richard D. Weisel, MD, Toronto, ON, Canada  
Robert L. Kormos, MD, Pittsburgh, PA

8:00 am – 10:00 am

**CELL THERAPY: BASIC SCIENCE**

**CHAIRS:** Ray J. Chiu, MD and Stephanie Dimmeler, PhD

8:00 am **Stem Cell Therapy: Allogeneic or Autologous? Marrow or Cardiac?**  
Joshua Hare, MD, Johns Hopkins Hospital, Baltimore, MD

8:20 am **Adipose Derived Stem Cells**  
John K. Fraser, PhD, MacroPore Biosurgery, San Diego, CA

8:40 am **Myoblast Cellular Therapy**  
Doris A. Taylor, PhD, University of Minnesota, Minneapolis, MN

9:00 am **Embryonic Stem Cells (TBD)**

9:20 am **Bone Marrow Stem Cells**  
Catherine Verfaillie, MD, University of Minnesota, Minneapolis, MN

9:40 am Panel Discussion

10:00 am Break/Visit Exhibits

10:30 am – Noon

**PRE-CLINICAL CELL THERAPIES**

**CHAIRS:** Robert C. Robbins, MD and Ren-Ke Li, MD

10:30 am **Effects of Endothelial Progenitor Cells on the Extracellular Matrix**  
Ren-Ke Li, MD, Toronto General Hospital, Toronto, ON, Canada

10:50 am **A Novel Muscle Derived Stem Cell in the Mouse**  
Johnny Huard, PhD, University of Pittsburgh School of Medicine, Pittsburgh, PA

11:10 am **Endothelial Cell Models in Small Animals**  
Robert C. Robbins, MD, Stanford University, Palo Alto, CA

11:30 am **Optimal Animal Model for Cell Therapy**  
Masashi Komeda, MD, Kyoto University, Kyoto, Japan

11:50 am Panel Discussion

Noon – 1:00 pm

**LUNCH/INVITED LECTURE**

**Controversies in Cardiac Cell Therapy**  
Douglas W. Losordo, MD, St. Elizabeth's Medical Center, Boston, MA

1:00 pm – 3:15 pm

**CLINICAL CELL THERAPIES**

**CHAIRS:** TBD

1:00 pm **Endothelial Progenitor Cells**  
Stefanie Dimmeler, PhD, University of Frankfurt, Frankfurt, Germany

1:20 pm **Catheter-Based Trials**  
Timothy D. Henry, MD, Minneapolis Heart Institute Foundation, Minneapolis, MN

1:40 pm **European Catheter-Based Trials**  
Andreas Zeiher, MD, PhD, University of Frankfurt, Frankfurt, Germany

2:00 pm **Surgical Trials**  
Amit N. Patel MD, University of Pittsburgh Medical Center, Pittsburgh, PA

2:20 pm **Asian EPC Therapies**  
Kit V. Arom, MD, PhD, Bangkok Heart Hospital, Bangkok, Thailand

2:40 pm **South American Human Embryonic Cell Trial**  
Federico Benetti, MD, Benetti Foundation, Rosario, Argentina

3:00 pm Panel Discussion

3:15 pm Coffee Break/Visit Exhibits

3:45 pm – 5:00 pm

**THE FUTURE OF CELL THERAPY**

**CHAIRS:** TBD

3:45 pm **Clinical Cell Therapy: Working with the FDA**  
Stephen Grant, MD, Office of Cellular, Tissue and Gene Therapies, CBER, Rockville, MD

4:05 pm **Cardiac Regeneration from Bench to Bedside**  
Phillippe Menasche, MD, PhD, Hospital European Georges Pompidou, Paris, France

4:25 pm **Cells and VADS**  
Robert L. Kormos, MD, University of Pittsburgh Medical Center, Pittsburgh, PA

4:45 pm Panel Discussion

5:00 PM Meeting Adjourns



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November 11-12, 2005 • The Adolphus Hotel, Dallas, TX

# **SYNERGY: Mechanical and Biological Cardiac Support**

## **Recovery, Replacement, Repair with Cellular Therapy**

### **Registration Policies and Instructions for Completing the Registration Form**

1. The registration fee includes a syllabus and attendance at the meeting, coffee breaks, reception, and lunches.
  2. Please photocopy this form if you need additional copies.
  3. Non-members who wish to join the Society may register at the discounted member rate if they submit a completed membership application and membership fee **WITH** their registration form and fee. The membership fee for individuals joining the Society after July 1 is reduced by 50% and covers membership for the remainder of 2005.
  4. Registration forms received without payment will not be processed and will be returned for payment.
  5. **DO NOT** fax your registration form if you are paying by check or bank draft. Registration forms are not accepted unless accompanied by payment.
  6. Individuals whose registration and payment are not postmarked by October 21, 2005 must register on-site and pay an additional \$50. Registration fees are determined by the date when payment in full is postmarked/faxed. Registration forms sent without payment in full or with invalid credit card numbers are subject to the registration fee in effect at the time payment in full is postmarked/faxed or when the correct credit card information is provided.
  7. Cancellations must be submitted in writing in order to qualify for any refund. For written cancellation notices received prior to October 7, 2005, a full refund of the registration fees paid will be given, less a \$50 handling fee. For written cancellation notices received between October 7 and November 4, 2005 a 50% refund of the registration fees paid will be given. For cancellations received after November 4, 2005, no refund will be given.
  8. The Allied Health rate is available only to nurses, transplant coordinators, pharmacists, social workers, perfusionists, and engineers. MDs, PhDs, individuals with doctorates, their equivalents, and pharmaceutical and device company employees/consultants must register at the full member or non-member rate. Non-member allied health registrants must include with their registration forms a letter signed by the chief/dean of their transplant program verifying their employment and allied health status. **Non-member allied health registration forms submitted without this letter will not be processed.**
  9. The Student/Resident registration rate is available only to residents, fellows, medical students, nursing students, and graduate students. Non-member student/resident registrants must include with their registration forms a letter signed by the chief/dean of their program verifying their training status. **Non-member student/resident registration forms submitted without this letter will not be processed.**
  10. Registration fees are determined by the date when payment in full is postmarked/faxed. Registration forms sent without payment in full or with invalid credit card numbers are subject to the registration fee in effect at the time payment in full is postmarked/faxed or when the correct credit card information is provided.
  11. Full payment in **US funds only** must accompany your registration. Checks must be made payable to ISHLT and must be drawn on a US bank. Any bank fees incurred for the processing of your payment will be billed to you.
  12. **Wire transfers must be received by October 24, 2005. There will be an additional fee for wire transfers in the amount of \$35 which must be paid by the sender.** No Exceptions. Wire Transfers should be sent to Chase Bank, NA, Quorum Branch, Addison, TX, ABA # 11001150, Phone: 972-934-6969, Account # 31607609076, Account Name: International Society for Heart and Lung Transplantation, For Further Credit to: (indicate here the name of the individual for whom you are paying), Swift Code: TCBKUS24. In order to insure that the transfer is applied to the proper individual, you must include the name of that individual in the wire transfer instructions as explained above and you must fax us the registration form and a copy of your wire transfer bank documentation. **Non-compliance with these instructions may result in an inability to process your payment. Wire transfer payments are not valid until the funds have been received into the ISHLT bank account.**
  13. Travel agencies/Sponsoring agencies will not be allowed to pick up multiple registrants' name badges. Only the person registered for the meeting may pick up his/her name badge.
- QUESTIONS???** Call the ISHLT Headquarters Office at 972-490-9495, or email us at [meetings@ishlt.org](mailto:meetings@ishlt.org), or fax us at 972-490-9499.

# SYNERGY: Mechanical and Biological Cardiac Support

## Recovery, Replacement, Repair with Cellular Therapy

### OFFICIAL REGISTRATION FORM

TO REGISTER ONLINE, GO TO WWW.ISHLT.ORG AND FOLLOW THE INSTRUCTIONS AND LINKS.

Name: Last \_\_\_\_\_ First \_\_\_\_\_ Middle Initial \_\_\_\_\_

Credential (MD, RN, etc.) \_\_\_\_\_ Nickname for Badge (if desired) \_\_\_\_\_

Institution/Organization Name for Inclusion on Badge: \_\_\_\_\_

Preferred Mailing Address. Please indicate if this is a home or business address:  Home  Business

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**Please indicate your professional classification (check one box only):**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> A. Cardio-Thoracic/Vascular Surgeon | <input type="checkbox"/> G. Transplant Coordinator | <input type="checkbox"/> M. Cardiologist     |
| <input type="checkbox"/> B. Heart Transplant (only) Surgeon  | <input type="checkbox"/> H. Nurse (Surgical)       | <input type="checkbox"/> N. Pulmonologist    |
| <input type="checkbox"/> C. Lung & Heart Transplant Surgeon  | <input type="checkbox"/> I. Administrative         | <input type="checkbox"/> O. Immunologist     |
| <input type="checkbox"/> D. Pediatric Transplant Surgeon     | <input type="checkbox"/> J. Pathologist            | <input type="checkbox"/> P. Perfusionist     |
| <input type="checkbox"/> E. Lung Transplant (only) Surgeon   | <input type="checkbox"/> K. Para-Medical           | <input type="checkbox"/> Q. Anesthesiologist |
| <input type="checkbox"/> F. Researcher                       | <input type="checkbox"/> L. Pharmacist             | <input type="checkbox"/> Z. Other: _____     |

**Please mark the box for the appropriate registration category and enter the amount in the right-hand column.**

	Postmarked On or Before October 21	Postmarked After October 21/ON-SITE	Total Enclosed
<b>ISHLT MEMBERS</b>			
Regular Member	<input type="checkbox"/> \$350	<input type="checkbox"/> \$400	\$ _____
Allied Health Member*	<input type="checkbox"/> \$250	<input type="checkbox"/> \$300	\$ _____
Student/Resident Member**	<input type="checkbox"/> \$175	<input type="checkbox"/> \$225	\$ _____
<b>NON-MEMBERS</b>			
Regular Non-Member	<input type="checkbox"/> \$450	<input type="checkbox"/> \$500	\$ _____
Allied Health Non-Member* (include letter)	<input type="checkbox"/> \$350	<input type="checkbox"/> \$400	\$ _____
Student/Resident Non-Member** (include letter)	<input type="checkbox"/> \$225	<input type="checkbox"/> \$275	\$ _____
			\$ _____
<b>TOTAL PAYMENT DUE AND ENCLOSED</b>			\$ _____

**PAYMENT** See instructions on the back of this form for Wire Transfer Instructions. Full payment in US funds only must accompany your registration. Checks must be made payable to ISHLT and must be drawn on a US bank. Any bank fees incurred for the processing of your payment will be billed to you. If you prefer to pay by credit card, please complete the following and EITHER mail or fax so that your card does not get charged twice.

Credit Card:  VISA  Mastercard  American Express  JCB

Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

(be sure to include the last 4 digits of your card number)

Card Holder Signature: \_\_\_\_\_ Card Holder Name: \_\_\_\_\_