The Society’s New Brand: Social Responsibility

Mandeep R. Mehra, MD, President ISHLT (2008-2009)

Words are, of course, the most powerful
drug used by mankind
— Rudyard Kipling

As we set our sights on winter, change is progressing rapidly in our society. This inaugural issue of the Society’s Communication Newsletter is but one small step forward in realizing our dream of a cohesive collegial environment for propelling our portfolio of enhancing science, dissemination through education and policy advocacy. In today’s age, the brand of any entity is not effectively expressed by its name but its community actions of social responsibility. We must first re-brand ourselves internally.

One of the key tenets that emerged from our strategic plan was the need to develop a seamless portal for communication between society members and the leadership. In this vein, our offering of this newsletter as well as the new ISHLT members-only website—which includes online discussion forums and the ability to easily locate and communicate with other members with similar professional or research interests, or from specific geographic areas—is another means by which we are achieving the Society’s communications goals.

In my last bulletin, I asked for a CALL-TO-ACTION by our members. Since then scores of members have written to me and put their money where their mouth is! Our strategic goals are clearly being realized slowly but surely. Great progress is being made as members have contacted their Council leaders and volunteered to serve on their Council workforces. We are moving ahead in developing a presence in international advocacy; our post transplant guidelines process is forging ahead; new guidelines and educational statements on issues related to the coming onslaught of generic drugs, pulmonary hypertension and cardiac allograft vasculopathy are being initiated; and the crown jewel, our annual meeting is progressing beyond all expectations. In fact, we have set a lifetime record of abstract submissions for the upcoming meeting of more than 1100 scientific papers (the last record was 840 in 2004). I hope you can feel this energy just as I can, and I encourage each and every one of you to get engaged and demonstrate social responsibility.

Communication is a tool, not a substitute for action.
So let us act together!
Plans for the 2009 Annual Meeting in April in Paris are almost complete. Look for the Preliminary Program in your mail and on the ISHLT website in early December.

Following are some highlights of the meeting that you can look forward to:

**Plenary Session Highlights**
Several excellent Plenary Sessions have been organized, all of which are formatted to profile the best of the abstract submissions and invited lectures by experts on topics related to the abstracts.

The plenary session themes include basic science and long term outcomes, mechanical support for the heart and lung, and important data from a variety of clinical trials. Of special note is the Pioneer Lecture that will be given by Christian Cabrol during the Opening Plenary Session.

Dr. Cabrol performed the first heart transplant in Europe in 1968, performed the first heart-lung transplant in Europe in 1982, and performed the first Jarvik total artificial heart implant in Europe in 1986. He was the President of ISHLT during the last ISHLT Annual Meeting in Paris in 1991.

**Lunch Symposia Highlights**
This year, ISHLT will again offer three lunch symposia. The first is oriented toward the treatment of non-traditional PH patients, the second will address coronary artery vasculopathy, and the third will address generics in transplantation. The CAV luncheon is designed as a complement to a CAV Diagnostic Grading Scale that ISHLT is developing. The generics in transplantation symposium is designed as a complement to a white paper on the use of generics in transplantation that ISHLT is developing.

**Lung Transplant Highlights**
As a result of the enthusiasm and support of all members of the pulmonary council, Lung Transplantation will be very strongly represented in the program for the forthcoming meeting in Paris. There are three satellite symposia of specific relevance to pulmonary council members.

There is a symposium dedicated to furthering our understanding of immunomodulation strategies after lung transplantation, including both drug based and non drug based approaches to immunosuppression. In addition, the symposium will review evolving technologies for monitoring those on immunosuppression.

A second symposium will focus on maximizing donor and candidate management prior to lung transplant. This will provide a state of the art review of key donor-related issues including the role of new approaches to increase donor lung supply and optimize donor lung management. This symposium will culminate in a debate on the relative value of high urgency listing for lung transplant which promises to be lively.

A third symposium is being held jointly with our colleagues from the Infectious Diseases council and will focus on the role of infection in the development and worsening of Bronchiolitis Obliterans Syndrome. The program will evaluate evidence supporting the importance of non-alloimmune injury to the lung allograft due to infection and its consequences on graft function.

In addition to our three symposia, there will be an impressive seven concurrent oral sessions during the meeting covering a wide range of clinical, translational and basic science studies in lung transplantation. These sessions represent the very best contemporary work being performed in the lung transplant community at present. Finally there are two mini-oral sessions and numerous posters specific to lung transplant to complete what promises to be an excellent and very exciting program for ISHLT Paris 2009.
Clinical Heart Transplantation Highlights
There was a record number of abstracts submitted about clinical heart transplantation this year; the standard of the submissions was very high. We will be having seven oral sessions covering clinical outcomes, immunosuppressive strategies including induction therapy, new perspectives in the diagnosis of cardiac rejection, the role of antibodies, long-term issues including CAV as well as specific clinical challenges.

There will also be an entire mini-oral session devoted to heart transplantation. Among the pre-meeting satellite symposia, there will be a session devoted to the diagnosis and management of right ventricular failure both before and after transplantation and a session reviewing issues related to adult congenital heart disease and transplantation.

Infectious Disease Highlights
The infectious disease content of the meeting is focused on presentations and discussions balanced between clinical and basic scientific work in transplantation. How infection accelerates the pathway to rejection is explored using the BOS model and pseudomonas, respiratory viruses, and CMV, investigating the possibility of a common pathway.

Advances in the understanding of CMV’s role at the cellular and molecular level will be presented in several elegant studies along with several new diagnostic and therapeutic strategies to control infection in the transplant and VAD patient. Clinical studies will present data on varied CMV prophylaxis strategies, unique viral pathogenesis and fungal activity pre- and post-transplantation as well as impact of different immunosuppression agents on clinical outcome. Donor infection issues will be discussed.

Junior Faculty Highlights
The newly-formed Junior Faculty and Trainees Council (JFTC) would like to highlight some offerings at the ISHLT meeting for our younger members. To begin with, trainees should know that the ISHLT will be offering travel awards for between 10 and 25 attendees. Awardees must be residents or fellows in training, and applications will be available in early 2009. Our new council is hoping to grow, and an organizational meeting will be held in Paris of our group, where new workforce committee members will be selected, including a new chair-elect.

The fellows luncheon will be held once again: a forum for fellows to present their most challenging cases for comment by leaders in the field. We hope this will once again be entertaining for all involved. Some of the more interesting educational offerings will involve insight into how we might be practicing organ transplantation in the years to come with discussions of lung assist devices, engineered hearts, ex-vivo lung resuscitation, and calcineurin-inhibitor free immunosuppression. We look forward to all of this, as well as excellent reviews of immunosuppression, long-term survival, and donor management. Finally, don’t miss the presentation of the Philip K. Caves Award where the society recognizes the best abstract presented by a trainee.

Nursing and Social Science Highlights
The Nursing and Social Sciences Council will be very comprehensively and internationally represented at the ISHLT Meeting and Scientific Sessions in Paris, 2009. Our 2009 program has been designed, considering prior program evaluations from our council membership. Our exciting satellite symposium, “Hospital to Home: Life and Let Live” focuses on meeting the needs of our patients as they transition from hospital to home.

(continued on next page)
Topics include discharge planning, caregiver burden, and management of VAD, heart transplant, and lung transplant patients in the community setting, as presented by our expert international clinicians.

Oral, mini oral, and general poster sessions will address the topics of quality of life, social support, patient compliance, and more in both pediatric and adult populations who receive mechanical circulatory support devices or are recipients of heart or lung transplantation. These presentations will highlight the best research submitted this year by researchers from around the globe.

Our sessions in Paris will provide you with the opportunity to consult with expert clinicians and researchers regarding your own clinical practice and research projects. We look forward to seeing you in Paris at this outstanding scientific meeting. Paris is the perfect place to meet your Council leadership, volunteer to join committees, and help us to plan for future council programs.

Pulmonary Hypertension Highlights
Pulmonary Hypertension will be a major focus of the 2009 ISHLT Annual Meeting in Paris. The PH council is excited that with the support of an exciting international faculty, we are looking forward to a stimulating program.

A half-day satellite symposium covering several aspects of PAH is the most exciting feature of this year’s meeting. The session, entitled State of the Art Management Issues in PH and RV Failure: A Comprehensive International Perspective is comprised of three sub-sessions entitled Cardiovascular Consequence of PH: Focus on Preserving the Right Ventricle - Advanced Medical and Surgical Therapies, Universal Issues in Right Ventricular Failure and Pulmonary Hypertension: New Concepts in Pathophysiology, Imaging and Management, and Cardiovascular Consequence of PH: Focus on Non-Traditional PH Patients. This last sub-session is a luncheon symposium and includes a box lunch for all who register for it. There is no fee to register or to attend, but if you wish to receive a box lunch, you must register and pay in advance. These sessions include invited lectures as well as Pro-Con debates.

A record number of excellent pulmonary hypertension abstracts were both submitted and accepted this year. These original works will be highlighted in three oral sessions addressing prognostication, lessons learned from registries and the bench, and genes and peptides. Additionally, there will be one mini-oral session and a number of posters.

Finally, one of the featured abstracts in the closing Plenary Session will feature data from the ARIES trial. These sessions represent a significant increased commitment by ISHLT to the pulmonary hypertension community and will offer an inspiring international perspective on the diagnosis, management and treatment of PH.

(continued on next page)
Pediatric Highlights
There was a record number of submissions this year in the category of pediatric transplantation. **Three oral scientific abstract sessions, a mini-oral session and a poster session will be devoted to pediatric transplantation.**

The themes of the oral and mini-oral poster sessions include recipient factors that determine outcomes of pediatric heart and lung transplantation, early and late rejection in pediatric heart and lung recipients, late outcomes following heart and lung transplantation, mechanical circulatory support and the importance of alloantibodies in pediatric heart transplantation.

There will be several Satellite Symposia of particular interest to pediatric council members, including a session on "Heart Transplantation in the Adult with Congenital Heart Disease" a session entitled "Pediatric Transplantation- Looking beyond the graft" that covers topics such as nutrition, renal dysfunction, quality of life, adherence, cognition and transition of care in the pediatric transplant recipient and a session on **issues in transplantation in the patient with genetic diseases.** It should be a great meeting. We look forward to seeing everyone in Paris!

Heart Failure Highlights
The CHF council, in conjunction with the Pulmonary Hypertension Council, will sponsor a symposium entitled State of the Art Management Issues in PH and RV failure: A Comprehensive International Perspective which will review the current knowledge of right ventricular function and failure across the spectrum of pulmonary arterial hypertension, chronic heart failure, mechanical circulatory support and cardiac transplantation.

The Novel Alternative Therapies Session will focus upon emerging potential therapies for chronic heart failure and will feature an invited lecture on the potential role of gene therapy with SERCA 2A in advanced heart failure.

Pathology and Basic Science Highlights
The pathology and basic science professionals within ISHLT will have several sessions of interest to them. Satellite sessions of interest include: Antibody Mediated Rejection and Accommodation in Heart Transplantation, Molecular Profiling in Heart and Lung transplantation. Concurrent sessions of interest include: the role of regulatory T-cells in allograft rejection, complement activation products as markers of antibody mediated rejection, the opening plenary session presentations on B-cell biology, basic mechanisms of BOS, novel therapeutics targeting rejection and injury, and regulation in experimental immunosuppression.

Mechanical Support Highlights
Mechanical Circulatory Support will be well represented at the annual meeting. Sessions of note include the second sessions of the PH Symposium, Universal Issues in Right Ventricular Failure and Pulmonary Hypertension: New Concepts in Pathophysiology, Imaging and Management, which includes several lectures on RV failure, RVADS, and LVADS. There is also a satellite symposium entitled Prevention & Management of Adverse Events in VAD’s and TAH. The Friday Plenary Session is devoted to discussions about mechanical support for hearts and lungs.

There will be a lecture on Prospects for an Engineered Heart and a point counterpoint on Novalung and ECMO. Several featured abstracts will address improvements in quality of life after MCS implant, major clinical outcomes in children bridged to heart transplant using MCS, main predictors for long-term weaning success. Eight concurrent oral sessions, a mini-oral session, and numerous posters round out the MCS offerings at the meeting.

**See you in Paris!**

Randall C. Starling, Annual Meeting Commitee Chair
Call for ISHLT Links Editor Applications

ISHLT is seeking an Editor of the new quarterly ISHLT Links e-newsletter. Applicants must be a member in good standing of the ISHLT and should submit a letter of interest by December 19, 2008. The letter should explain the interest in this volunteer position and should outline previous experiences (managerial, leadership, editorial, etc.) that speak to the applicant’s qualifications for the position. A statement of the applicant’s vision for the development of the newsletter should also be included.

The ISHLT Links’ Editor position will initially be a one year appointment, with the option of being renewed. The Editor will have the ability to appoint associate editors as needed. The Editor’s primary responsibilities will be to develop and implement a strategic vision and scope for the newsletter, determine the content for each issue and task the appropriate individuals to deliver that content, solicit contributions to the newsletter, provide editorial guidance to the associate editors and other contributors, work with the ISHLT staff and newsletter production firm to produce the newsletter, and work with the Communications Committee and Board of Directors to ensure that the newsletter meets the communications goals and objectives of the Society. Please send all letters of interest to Amanda Rowe (amanda.rowe@ishlt.org). The final selection of the Editor will follow a telephone interview process in late December/early January. Responsibility for the newsletter will begin at the time of the appointment.

A sincere Thank You to the members of the Communications Committee who helped write, edit, and produce this inaugural issue of the newsletter:

- Maryl R. Johnson, MD, Committee Chair
- James B. Atkinson, MD, PhD, Pathology/Basic Science Council Communications Workforce Leader
- Nicholas R. Banner, FRCP, Education Committee Representative
- Susan Chernenko, RN, MN, Nursing Social Science Council Communications Workforce Leader
- Anne I. Dipchand, MD, Pediatric Transplant Council Communications Workforce Leader
- Christine L. Lau, MD, Pulmonary Transplant Council Communications Workforce Leader
- Deborah J. Levine, MD, Pulmonary Hypertension Council Communications Workforce Leader
- David W. Markham, MD, Junior Faculty And Trainee Council Communications Workforce Leader
- David P. Nelson, MD, Heart Failure Council Communications Workforce Leader
- Evgenij V. Potapov, MD, Mechanical Support Council Communications Workforce Leader
- Vincent G. Valentine, MD, Infectious Diseases Council Communications Workforce Leader
- David Weill, MD, Standards and Guidelines Committee Representative

Can You Provide The Missing Link?
A Call for Member Submissions to ISHLT Links

This first issue of ISHLT Links was produced by the ISHLT Communications Committee. However, this is just the beginning of the development and growth of ISHLT Links. As an ISHLT member, this is your newsletter, and for future editions we invite your creative input.

Possible topics that the Communications Committee has considered for member submission include information concerning ongoing or completed clinical trials in thoracic transplantation, important basic research findings with implications for the care of thoracic transplant recipients, news from industry or other societies that is important to ISHLT members, and the presentation of “provocative” ideas or approaches in thoracic transplantation or advanced heart and lung disease (similar to previous presentations in Aristotle’s corner).

If you have a message you believe would be of interest to your fellow members, please submit a brief article (400-500 words) to Susie Newton (susie.newton@ISHLT.org) at the ISHLT Headquarters, and it will be reviewed for possible inclusion in the next edition of ISHLT Links. Perhaps we will find the missing link through you!

Click Here to Return to the Table of Contents
The ISHLT Board of Directors is pleased to announce the appointment of Mandeep R. Mehra, MD as the incoming Editor of the Journal of Heart and Lung Transplantation. Dr. Mehra will assume editorship in July 2009.

Dr. Mehra’s appointment was made following a search process that yielded eight initial candidates and three finalist candidates. Dr. Mehra serves as The Herbert Berger Professor and Chief of Cardiology at the University of Maryland School of Medicine. He has served the Society in incremental levels of responsibility ranging from Scientific Program Chair (2004), Education Committee Chair (2004-2006), Founding Chair of the Guidelines Committee (2005-2007), Chair of the Development Committee (2005-current), Member of the Board of Directors, Treasurer of the Society and currently as ISHLT President (2008-2009).

He has served as an Associate Editor of the Journal of Heart and Lung Transplant (9 years), American Journal of Transplant (5 years), Journal of Cardiac Failure (3 years), editorial consultant to the Mayo Clinic Proceedings (3 years) and Journal of the American College of Cardiology (5 years) thus, he has the requisite experience that includes understanding the inner workings of various journals, intimate knowledge of their strengths and weaknesses and strategies employed to maintain competitive and economic advantage.

Dr. Mehra brings to the JHLT a number of excellent ideas and ambitious plans for ensuring that the quality and ranking of the JHLT continue to improve and for maximizing its value to the Society’s members.

The Society is most grateful to the members of the Editorial Search Committee for the time and energy they devoted to this project: Mark Barr, Maria Rosa Costanzo, James Kirklin, Alan Menkis, Susan Stewart, Stuart Sweet, James Young.

Dr. Mehra follows the editorial contributions of the previous editors of the JHLT:

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

Dr. Mehra’s Principle for the Journal is: “ownership of the journal by one and all.” His 3-year Core Strategic Direction will be focused on the following:

• Develop a scientific administration of excellence
• Transform the journal into an interactive medium for academic exchange
• Create mechanisms for rapid review and turnaround and seek impact papers
• Populate the journal with new solicited perspective and clinician-oriented sections
• Propel the journal into a “digital journal” and use multimedia to transform the identity while constantly seeking ways to maximize revenue recovery
Following are two articles which appeared in the November issue of the *Journal of Heart and Lung Transplantation* that are particularly noteworthy.

**The Modification of Diet in Renal Disease (MDRD) and the Prediction of Kidney Outcomes After Lung Transplantation**

Al-Naamani N, Maarouf OH, Wilt JS, et al.

Chronic kidney disease (CKD) is common after non-renal transplantation, especially lung transplantation. Investigators at Columbia University in New York evaluated predictors for the onset of CKD Stage 3 or higher at one year post-transplant in 122 lung transplant recipients surviving at least 3 months with an estimated GFR of >60 ml/min per 1.73m² BSA pre-transplant. Older age, female gender, a diagnosis of sarcoidosis, and diabetes mellitus independently predicted CKD. The MDRD equation was superior to creatinine clearance in predicting CKD at one year post-transplant. Although the identified risk factors for post-transplant CKD are not modifiable, they could be used in identifying lung recipients in whom preventive strategies to retard the progression of CKD could be defined and tested.

**Infectious Complications in Extended Criteria Heart Transplantation**


Mortality in extended criteria heart transplant recipients is higher than in standard list recipients, but this increased mortality is not associated with increased primary graft dysfunction or acute rejection. This paper from the Duke Cardiac Transplant Program describes a retrospective comparison of 285 standard list vs. 68 extended criteria adult heart recipients transplanted from January, 2000 to June, 2007. The authors found that infectious complications (including pneumonia, bacteremia, and sepsis) were significant predictors of overall mortality. Pneumonia occurred at a higher rate in extended criteria recipients, while only a trend towards increased bacteremia and sepsis was observed. Survival in the extended criteria population, but not the standard list cohort, was significantly affected by major infectious complications. Also, extended criteria recipients did not suffer an increased risk of > 3A rejection. Therefore, the effect of less aggressive immunosuppressive strategies on outcomes of alternate list heart transplant recipients deserves further study.

[Link to Full Text Articles](www.jhltonline.org)  
Username and Password Required
During 2007 and early 2008, ISHLT engaged in a Strategic Planning process that resulted in a number of important goals and objectives for the Society over the next 3-5 years. At the conclusion of the planning process, it became apparent that, to achieve these goals, ISHLT would require a more robust and representative volunteer infrastructure that would engage more of our membership in its workings and would provide a more effective mechanism to ensure the Society delivers its aims. This infrastructure was approved in April 2008 and has since then been implemented throughout the Society. The new infrastructure includes the creation of five new ISHLT Committees as well as a formalized structure for the Scientific Councils and for work forces within the Councils that mirror the ISHLT Committees. The role of the Scientific Councils and the Committees is greatly enhanced under the new structure, and this will allow the Board to focus on strategic direction and policy initiatives.

This new infrastructure was designed to encourage more members to become involved in the workings of the Society. The workforces of the Scientific Councils are now the true engine of the Society. Please be sure to become a member of those Scientific Councils that are important and relevant to you professionally (easy online sign up is available at www.ishlt.org) and get involved on one of the Council Work forces. This is YOUR Society, and the talents and aspirations of the members will define the future of the Society.

Following is a more detailed explanation of the new infrastructure as well as an organizational chart. Complete descriptions of the ISHLT Committee responsibilities, as well as contact information for all Committee and Council leaders is also available at the ISHLT web site (www.ishlt.org).

**ISHLT INFRASTRUCTURE SUMMARY**

1) The ISHLT will continue to be led by an elected Board of Directors.

2) The work of the Board will be supported by the following Committees

- Executive Committee
- Bylaws Committee
- Finance Committee
- Nominating Committee
- Development Committee
- Grants and Awards Committee
- Annual Meeting Scientific Program Committee
- Thoracic Transplant Registry Steering Committee
- Education Committee (new)
- Communications Committee (new)
- Standards and Guidelines Committee (new)
- Registries and Databases Committee (new)
- Advocacy and Public Policy Committee (not yet approved by the Board)

(Continued on next page)
3) The specific interests of the various professional specialties within the ISHLT membership are addressed through the work of the Scientific Councils. The work of the Committees is supported by associated Workforces organized within each Scientific Council. Each Council appoints members to serve on a workforce in each of the areas identified below and nominates a leader of that workforce who will serve on the related ISHLT committee. Thus, the Scientific Councils serve as a resource for the Committees through the following Workforces within each Council:

- Development Liaison
- Education Workforce
- Communications Workforce
- Standards and Guidelines Workforce
- Registries and Databases Workforce
- Advocacy and Public Policy Workforce

(once approved by the Board)

4) The leadership structure of the Scientific Councils has been standardized across all Councils and is called an Operating Board. The Operating Board consists of the Council Chair, past-Chair, Vice-Chair, as well as the leaders of the Council Workforces (education, communications, standards and guidelines, registries and databases). Councils are permitted to omit those Workforces that are not relevant to them and to add Workforces that are necessary to the work and interests of the members.

5) The work of the Society is undertaken as follows: The Committees make recommendations to the Board and receive charges from the Board. The Council Workforces make recommendations to the Committees and receive charges from the Committees. This is a two-way street. Initiatives can be generated at any level: Council Workforce, Committee, Board.

The purpose of the new infrastructure is to enable the Board to delegate much of the leg work to the Committees and Councils, which are the more appropriate entities to engage in the work. The role of the Board is to set overall strategy and policy, to evaluate the Society’s progress, and to consider activity proposals in light of whether they further the strategic goals of the Society.

The role of the Committees is to help implement the strategic goals of the Society, keeping the needs of the Society as a whole in mind. The Committee’s work includes initiating projects to be implemented either by the Committee or by the appropriate Scientific Council, as well as reviewing projects proposed by the Council Workforces. The Committee’s role will also be to establish policies and procedures and standards for the implementation of the work of ISHLT, so that all ISHLT output has a coherent and consistent level of quality and style across all areas of ISHLT endeavor.

The Council’s role is to execute the specialty-specific work of the Society through the Council Workforces, offer wider opportunities for the membership to work actively in the Society, thus generating concepts for new ISHLT programs and activities that meet the needs of the members. The Council Workforces bring forward proposals for projects that meet the needs of the Council members and implement projects delegated to it by the Committees or the Board.
Communications Committee

Welcome to the first ISHLT Newsletter! The Communications Committee decided during its first conference call to proceed with writing an issue of the newsletter to get the ball rolling (while working to select a newsletter editor), and here it is. The newsletter editor will ultimately work with the committee to establish a newsletter editorial board, which will be responsible for designing and developing what is planned to be a quarterly update to the ISHLT membership.

The purpose of the newsletter is to inform and engage all ISHLT members. Each issue will include the President’s Message, Council News, Committee News, summaries from ISHLT Board Meetings, highlights of important articles published in the Journal of Heart and Lung Transplantation, an update of recent Society activities, and information concerning future Society events and deadlines. The intent is to also have the newsletter update ISHLT members concerning industry news, clinical trial news, and regulatory news important to Society members. In the future it is anticipated that the newsletter will also include invited editorials and articles concerning topics of interest to ISHLT members.

“This newsletter is only the beginning of a revitalized and member-involved ISHLT.”

Maryl Johnson, Committee Chair

Standards and Guidelines Committee

The Standards and Guidelines Committee has formed. Members include:

Mariell Jessup, Philadelphia, Pennsylvania
Susan Moffatt-Bruce, Columbus, Ohio
Nicholas Banner, Harefield, UK
Michael Petty, Minneapolis, Minnesota
Lara Danziger-Isakov, Cleveland, Ohio
David Weill, Stanford, California
Diego Delgado, Toronto, Canada
Marisa Crespo-Leiro, La Coruna, Spain
Daniela Pini, Milano, Italy
Okan Elidimir, Houston, Texas
Evelyn Horn, New York, New York
Stephanie Moore, Boston, Massachusetts

Thus far, we have reviewed two new proposals for guideline/consensus development, which have helped to "grease the wheels" of our committee. We are currently developing a general outline and organization for guidelines that will henceforth published under the ISHLT logo, for more uniformity of style and content. More to come on this task.

12

www.ISHLT.com
This year marks the 25th anniversary of the Registry; since 1983 the Registry has collected and reported data regarding more than 80,000 heart transplants and more than 29,000 lung and heart-lung transplants. The past year has also been our most active to date, with 5,276 transplants added to the Registry from more than 200 centers worldwide.

The Registry encourages ISHLT members to suggest and participate in in-depth analyses of heart and lung transplant data. During the past year, three such studies resulted in publications examining determinants of survival after adult lung transplantation:


Last year the ISHLT Board approved a new category of research award, the ISHLT Registry Junior Faculty Award. This is designed to enable use of the ISHLT Transplant Registry data set to explore, in detail, a topic of relevance to the heart and lung transplant communities.

This year, three Junior Faculty Awards were presented to:

1) Cynthia J. Gries, MD, MSc for her project, “Focusing on the Future: Development of a Predictive Model for Long-term Survival after Heart Transplantation”

2) Scott D. Halpern, MD, PhD for his project: “A Decision Analysis of Single versus Double Lung Transplant Strategies for Patients with Chronic Obstructive Pulmonary Disease”

3) Josef Stehlik, MD, MPH for his project “Interactions Among Donor and Recipient Characteristics and their Impact on Survival after Heart Transplantation”.

Individuals who wish to learn more about the Junior Faculty Award may do so at www.ishlt.org/awards. The deadline for award applications is February 1, 2009.
Several of the Scientific Councils have proposed collection of data that is outside the scope of the existing Heart and Lung Transplant Registry. While simple in concept, this will entail considerable effort to assure optimal data quality and completeness; ensure protection of patient confidentiality; and optimally utilize ISHLT resources. The Registries and Databases Committee was created to address these needs; specific charges to the Committee are to:

1) develop criteria, policies, and standards to which all ISHLT registries and databases must conform;

2) ensure, to the greatest extent possible, uniformity across registries and databases in terms of data fields, data definitions, patient identifiers, etc.;

3) review and evaluate proposals for registries and databases generated by the Scientific Councils, determine priorities and costs, and make recommendations to the Board regarding approval of such proposals;

4) oversee the implementation of new registries and databases and monitor ongoing progress, participation rates, and cost benefit ratio;

5) conduct regular evaluations regarding the need to continue to operate existing registries and databases;

6) act as liaison between the Scientific Council Workforces on Registries and Standards and the Board to facilitate the presentation of well structured proposals for the board’s consideration, with appropriate budget proposals.

The Committee membership includes representatives selected by each Scientific Council, and additional members with specific skills and interests that are relevant to its work. The Committee will convene for the first time in Quarter 4, 2008, and will be in contact with the Scientific Councils subsequent to that meeting.

**Education Committee**

I am delighted to be writing to you as the first Chair of the ISHLT’s Education Committee. The Committee was established as a result of the ISHLT’s recent strategic planning exercise. The provision of educational services to Society’s membership and others is a key part of ISHLT’s mission.

The Committee has conducted an up-to-date survey of members’ educational needs and the results are eagerly awaited. This survey will help inform our planning for the next several years. Committee members are currently involved in the planning of the 2009 Annual Meeting in Paris. The Committee will play an ongoing role in the Annual Meeting working with future Program Chairs to enhance the format of future meetings.

We are developing a template to collect information about training opportunities available at individual institutions; this will be used to develop a training directory that will be a resource for ISHLT members.

Future activities will include the development of training resources beyond the Annual Meeting such as Master Classes to provide training in key areas of cardiothoracic transplantation. The Committee also plans to develop an international curriculum in cardiothoracic transplantation and to tailor our educational efforts to help trainees cover that curriculum. In the future Master Classes could be held in conjunction with active transplant centers to provide practical experience or clinical/lab training coupled with formal teaching.

The Society has just gone through a period of organizational change and the new committee structure will help provide the membership with improved benefits and services. The Education Committee is proud to be taking a leading role in this process, and we are keen to receive your suggestions and feedback about the Society’s Education activities.
ISHLT is pleased to recognize the recipients of this year’s grants and awards. The application deadline for the 2009 grants and awards is February 1, 2009.

**Phillip K. Caves Award**
Satish N. Nadig, MD, University of Oxford
“Ex-Vivo Expanded Human T-regs Inhibit the Development of Transplant Arteriosclerosis in a Humanized In-Vivo Model”

**Nursing/Social Sciences Research Grant**
Stacey M. Pollock-BarZiv, PhD, The Hospital for Sick Children
“Personality, Body Image, and Disordered Eating in Pediatric Heart and Lung Transplant”

**Transplant Registry Junior Faculty Awards**
Cynthia Gries, MD, MSc, University of Washington
“Focusing on the future: Development of a Predictive Model for Long Term Survival”
Scott Halpern, MD, PhD, University of Pennsylvania School of Medicine
“A Decision Analysis of Single versus Double Lung Transplant Strategies for Patients with Chronic Obstructive Pulmonary Disease”
Josef Stehlik, MD, MPH, University of Utah School of Medicine
“Interactions among donor and recipient characteristics and their impact on post-transplant survival”

**Norman E. Shumway Career Development Award**
Glen Westall, MD, PhD, Alfred Hospital
“Ex vivo Assessment of Pulmonary Xenografts”

---

**ISHLT/Novartis Research Fellowship Award**
Tereza Martinu, MD, Duke University
“Role of CXC chemokines at the innate-adaptive interface of alloimmune lung injury”

**ISHLT/XDx Research Fellowship Award**
Jonathan Choy, PhD, Yale University
“Regulation of iNOS in human T cells: Role of SDF-1”

**ISHLT/Roche Research Fellowship Award**
Seiichiro Sugimoto, MD, PhD, Washington University in St. Louis School of Medicine
“The Role of IL-6 in Ischemia Reperfusion Injury-Induced Abrogation of Mouse Lung Transplant Acceptance”

**ISHLT/Transmedics Research Fellowship Award**
Satoshi Itoh, MD, PhD, Stanford School of Medicine
“Nanoscale therapeutics: A novel approach to cardiac protection – PMM2.1.2 Nanoparticles attenuate Cardiac Allograft Vasculopathy”

**ISHLT/Astellas Research Fellowship Award**
Atsushi Shiozaki, MD, PhD, University of Toronto
“Roles of XB130, a novel regulator of PI3K/Akt pathway, in airway epithelial injury and repair post lung transplantation”

**ISHLT/Gilead Research Fellowship Award**
Deepti Saini, PhD, Washington University in St. Louis School of Medicine
“Immune mechanisms of rejection in human lung allografts”

**Grants and Awards Committee**
Mark Barr, Committee Chair

---

**Click Here to Return to the Table of Contents**
The Pulmonary Hypertension (PH) Council has been working diligently to increase PH visibility within our Society. We thank the Society for supporting our efforts to develop the ISLHT into a strong and valued assembly for the PH international community. The ISHLT offers a unique opportunity for scientists, pulmonologists, cardiologists, surgeons and nurses involved with PH to meet in a common forum. Such a forum facilitates and fosters strong collaborations among these specialties allowing for enhanced communications and more effective strategies to treat our patients.

In this last year, we have succeeded in our goals of increasing PH as a focus topic for our Society. There were fifty high quality abstracts submitted for review this year. This number of abstracts has significantly increased from years past and demonstrates our commitment to the goal of attracting high quality basic and clinical scientific studies to the ISHLT. This year’s meeting will contain several exciting satellite symposia on PAH, and there are preliminary discussions that the fall ISHLT meeting might be dedicated to PAH.

The PH Council has formed our individual work forces. Each of these groups are developing and working on several priority projects. Here is a breakdown of our work forces including the members and projects they are spearheading.

Education
Members: Omar Minai (lead), Kevin Chan, Jackie Szmuszkovkz, Jnaresh Tacker
This workforce is currently working on the agenda for PH sessions for the 2009 Paris meeting. They are focusing on several proposals for this session including:
- Medical, non-medical and surgical therapies for pulmonary hypertension.
- Non-PAH disease: Pulmonary hypertension in lung and heart disease.

Professional Standards and Guidelines
Members: Evelyn Horn (lead), Mirta Diez, Lilian Favaloro, Veronica Franco
The goal is for this group to develop broad-based PH Guidelines that encompass not only recommendations about medical therapy, but more detailed descriptions for interventional and transplant options. Importantly, these guidelines will attempt to develop a sensible and sound strategy for follow-up, including the proper use of imaging and exercise modalities as well as biomarkers and hemodynamics.

Registries and Database
Members: Adanni Frost (lead), Robert Schilz, Roham Zamanian
Continue with this workforce’s ongoing effort to work with UNOS and ISHLT databases to assist in formulating and modifying the LAS score for PH patients listed for transplantation. Members of our society led by Ray Benza have already met with UNOS at this year’s Thoracic meeting in July. Their presentations have demonstrated a way for UNOS to modify the LAS to allow more judicial listing for our patients.

Communications
Members: Debbie Levine (lead), Myung Park, Jeff Edleman, Robert Scott
Create quarterly emails to all ISHLT members updating them on activities of the PH Council. Work to establish a Pulmonary Hypertension “network” between ISHLT and other relevant societies (ie. HFSA, ATS, ACCP) for possible joint projects, meetings and collaboration.

Development and Liason
Members: Srinivas Murali (lead), Ray Benza, Myung Park
Work towards establishing educational and training programs focused on PH and garner appropriate industry support to allow dissemination and timely integration of our ideas to the scientific and clinical community at large.
The Junior Faculty and Trainee Council was established to recruit, maintain, and nourish Fellows and Junior Faculty. Our initial mission has focused on education, career development and increasing junior faculty members and trainees involvement within the ISHLT. We have been working closely with the Education Committee, Program Committee and the Board of Directors in order to accomplish these goals. Several of our proposed and ongoing projects that pertain to junior faculty and trainees include:

**Communication and Participation**

Our first task has been to improve communication and participation within the ISHLT. In order to do so:
- We have recently been granted several travel awards that will be available for trainees to attend the upcoming ISHLT meeting. More information will be available soon regarding the application process.
- For the second year in a row we will hold the “Fellow’s Clinical Case Conference” at the Fellow’s Luncheon. At this conference, junior members would present interesting cases to expert discussants from pathology, infectious diseases, surgery, pulmonary, and cardiology.
- We will hold the Junior Faculty/Trainee Council at the Annual Meeting.

**Education**

In collaboration with the education committee, we are interested in developing resources for training transplant clinicians. In particular, we are working towards developing:
- Clinical training courses and/or web based education modules on the ISHLT website (www.ishlt.org) for pulmonary and cardiac transplantation
- An international list of transplant training sites for both clinical and basic science researchers.

**Career Development**

This is of major importance for our council. We are interested in proposing the following ideas for next year:
- Symposium to discuss grant writing, career advancement, and mentoring issues
- “Meet the Professor Workshop” to build relationships between junior faculty members and more senior members of the ISHLT

If you are interested in getting involved, please contact one of the below members of the Junior Faculty and Trainee Council leadership:

**Chair:** Cynthia J. Gries, MD MSc, University of Washington Lung Transplant Program, Seattle, WA
**Vice-Chair:** Lorriana E. Leard, MD, University of California, San Francisco, San Francisco, CA
**Standards And Guidelines Workforce:** Susan D. Moffatt-Bruce, MD, PhD, Ohio State University Medical Center, Columbus, OH
**Education Workforce:** Daniel F. Dilling, MD, Loyola University Medical Center, Maywood, IL
**Registries and Databases Workforce:** Steven R. Hays, MD, UCSF Medical Center, San Francisco, CA
**Communications Workforce:** David W. Markham, MD, UT Southwestern Medical Center, Dallas, TX
**Development Liaison:** Arezu Z. Aliabadi, MD, Medical University of Vienna, Vienna, Austria

**PULMONARY TRANSPLANTATION COUNCIL**

Currently we are working on the following projects:

1) BOS phenotyping management position paper (G Verleden): This will be a joint project between ISHLT, ATS and ERS. There will be a paper on lung transplantation in general, and a second paper on BOS phenotyping.

2) Bronchoalveolar Carcinoma working group (C Hoopes): The goal is to design a data collection protocol for BAC patients as an adjunct to Registry data including pathology, markers, recurrence etc.

3) QOL symposium and outcomes working group (R Yusen; L Singer): The first QOL working group meeting took place on April 9, 2008. The council approved the creation of a QOL workforce. One of this workforce’s first initiatives is a QOL registry. A short, web-based QOL assessment will be developed using brief, translated and validated instruments such as the EQ-5D. Several international centers will participate and the QOL data would be linked to ISHLT registry data.

4) Donor management - ACCP project: There will be a meeting about this at the ATS meeting in Toronto.

5) Extracorporeal lung support registry, NHB donor registry, clinical trials, respiratory viruses, humoral rejection are other areas of interest to be further discussed.
What is the Council on Pediatric Transplantation? As most of you are aware, the Council was reorganized as part of a much larger ISHLT infrastructure modification this past spring which included Scientific Councils, Committees and Workforces.

The goals of the Council on Pediatric Transplantation are:

1) To ensure that priorities related to pediatric heart and lung transplantation are effectively communicated to the ISHLT Board
2) To assist the ISHLT Board in implementing society initiatives related to pediatric heart and lung transplantation.

The Council is working within the new ISHLT infrastructure to ensure that there is pediatric representation across all committees and workforces including:

Communications Workforce: Anne Dipchand (chair), Robert Vincent, Susan Daneman, Michael Koerner, Luca Vricella

Standards and Guidelines Workforce: Okan Elidimir (chair), Bob Boucek, Sam Goldfarb, Michael Carboni, Debra Dodd

Education Workforce: Daphne Hsu (chair), Jeff Towbin, Erik Edens, Paul Kantor, Janet Scheel, George Mallory

Registries and Databases Workforce: Richard Chinnock (chair), TP Singh, David Rosenthal, Dausna Daneman, Elfi Pahl, Paul Aurora, Richard Kirk

Activities have included involvement in the development of both this newsletter and a more wide-reaching communication strategy. You all will have received an email regarding a new online members-only website. We encourage you to log on, check your information and explore the content. Coming soon will be a pediatric-specific online discussion forum – more to follow about this exciting new initiative.

In addition, in cooperation with the ISHLT Heart Failure and Transplant Council, work has begun on Guidelines for Patient Care after Heart Transplantation. Pediatric co-leaders for the guidelines include Michael Burch, Steve Webber and Anne Dipchand. A number of you are involved in writing sections of the guidelines with our adult colleagues with anticipated publication in the JHLT in 2009.

With regards to the ISHLT registry, we are pleased that Richard Kirk (heart) and Paul Aurora (lung) have accepted the daunting task of spearheading the annual pediatric registry report.

We are all looking forward to the upcoming annual meeting in Paris in April 2009. Pediatric representation and input into the program is being provided on our behalf by Daphne Hsu and Lori West. As we move closer, we will be putting together the agenda for the annual meeting of the Council and look forward to discussing a number of these initiatives in person with all of you.

Upcoming meetings of interest include the 5th Congress of the International Pediatric Transplant Association (IPTA) taking place in Istanbul, Turkey from April 18-21st, immediately prior to the annual ISHLT meeting (for more details visit www.iptaonline.org); and Cardiology in the Young taking place in London from April 20-22 and containing a transplant-specific session on April 21 (for more details visit www.ich.ucl.ac.uk).

Stay tuned for information and updates from the Council of Pediatric Transplantation including activities, new initiatives, and upcoming meetings and events.
Membership Development Workforce
Kevin Carney, RN, CCTC
Email: kevin.carney@uphs.upenn.edu
The goal of the membership development workforce is to increase participation in the Nursing and Social Sciences Council (NSSC), and increase the number of allied health professionals within the ISHLT membership. With input from other NSSC members, an introductory letter will be sent to all allied health registrants from the last five annual meetings. Contact with other transplant organizations was made, with a plan to reciprocally share member information. If you are aware of any transplant organizations that represent health professionals who care for patients with advanced heart and lung disease, please feel free to forward them to our attention.

Education Workforce
Workforce Leader
Sharon A. Beer, RN, MSc, Cert Coun.
Email: sharon.beer@uhb.nhs.uk
The ISHLT Education Committee conducted its first conference call this fall. The following priorities for 2008-2009 were established:
1. Conduct a needs assessment survey of the members, the findings from which will be used to determine future educational direction and content for the Society.
2. Develop a list of international, institutional training specialties that the ISHLT will use to develop a master list of centers and their respective training opportunities, which will serve as a resource for Society members.
3. Establish standards of training for transplantation. Each Council will be asked to contribute to the development of these standards and to submit any existing training standards that they are aware of locally.

Grants and Awards Workforce
Workforce Leader
Bernice Coleman, PhD, RN
Email: bernice.coleman@cshs.org

Communications Workforce
Susan Chernenko, RN, MN
Email: susan.chernenko@uhn.on.ca
The NSSC Communication Workforce is working towards improving the communication amongst its membership and as such, has worked with ISHLT Communications Committee to develop this first ISHLT e-newsletter. One of the key features on this e-newsletter is disseminating Council News to its members. Secondly, ISHLT has a new and improved online membership database that has just gone live. One of the key features of this new database is the online discussion forum. Each Committee, Workforce, and Council of the Society will be set up with an online discussion forum. Council forums will be open to all members while committee and workforce forums will be open to members only of those committees and workforces. Within each forum, there will be a list of discussion topics to which people can add their own comments and read the comments of others. This forum allows for online discussion and preservation of posts, all of which will not cause congestion in your e-mail inbox. Further, documents can be attached to the discussion for review and comment by viewing members. As leader for the Nursing Social Science Communications Workforce and on behalf of the workforce members, we warmly anticipate these new initiatives will improve communication amongst our membership. We encourage members to visit the ISHLT website (www.ishlt.org) and join in on the on-line discussion forum. This forum will be an excellent communication mechanism linking members from around the world who share an interest in heart and lung transplantation.

Standards and Guidelines Workforce
Workforce Leader
Michael G. Petty, PhD, RN, CCNS, CNS
Email: mpetty1@fairview.org
I encourage everyone involved in the NSSC to submit ideas for standards and guidelines that you think would be useful to the Council members as a whole and would benefit the Society. I would be happy to carry those ideas forward and work with members to develop an action plan for putting some of those guidelines to paper. This is an exciting time for the NSSC and we have an opportunity to make some significant contributions. We are limited only by our imagination.

Registries and Databases Workforce
Workforce Leader
Fabienne Dobbels, PhD
Email: fabienne.dobbels@med.kuleuven.be
The Heart Failure and Transplant Scientific Council, in association with the Pediatric Council, is developing Guidelines for Patient Care after Heart Transplantation under the direction of Dr. Nick Banner. The guidelines are being produced in stages, the first of which covers early post-operative care. This section is chaired by Dr. Maria Rosa Costanzo and co-chaired by Drs. Randall Starling and Anne Dipchand (pediatrics). It will be presented at the Annual Meeting in Paris in April 2009.

Dr. Costanzo reported that, “There are many exciting aspects regarding the preoperative guidelines. The first is the pleasure and honor of working with Co-Chairs such as Dr. Randall Starling and Anne Dipchand. Intellectually, the most exciting aspect is the knowledge that early postoperative care may have profound implications for long term outcomes. In addition, I am excited by the breadth of the topics included in this section. The subjects range from early postoperative monitoring and therapies, both pharmacologic and non-pharmacologic, evaluation of donor and recipient factors which impact early postoperative management, coordination of a multidisciplinary care team, to issues such as ABO incompatibility in pediatric recipients, coagulopathies and the use of ECMO. Our hope is that the work of the perioperative guidelines will prepare the foundation upon which subsequent sections will be built. Finally, I cannot think of a more important endeavor of our Society than that of helping clinicians provide the best possible care for their heart transplant recipients.”

An ISHLT Monograph “Advanced Heart Failure” edited by Drs. Nicolas Banner and Mariell Jessup will be available at the Annual Meeting in Paris for only $10.00. This is a remarkable value for this comprehensive thirty chapter text covering pathophysiology of the failing heart, cardiac evaluation of the patient with advanced heart failure, secondary organ dysfunction in heart failure, stabilization of heart failure syndrome and arrhythmias and electrical devices in the patient with advanced heart failure. Dr. Jessup described it as, “timely and informative,” and “authored by some of the world’s leading heart failure authorities.”

Advanced Heart Failure and Transplant Cardiology Certification will soon be available through the American Board of Internal Medicine (ABIM). In September, The American Board of Medical Specialties approved ABIM’s proposal to establish a secondary subspecialty certification in Advanced Heart Failure and Transplant Cardiology. This certification will establish standards for cardiologists with the experience and competencies necessary to treat patients with advanced or complex presentations of heart failure and those requiring cardiac transplantation. Details and policies for this secondary subspecialty certification are under development and will be available on www.abim.org soon.
The Infectious Disease Council has emerged as a vibrant part of the ISHLT over the last several years under the direction of Kate Gould from Freeman Hospital in Newcastle Upon Tyne, United Kingdom. Dr. Shahid Husain has been elected Chair of this council and is eager to assist in advancing the ISHLT to higher levels for our patients, physicians, surgeons, and programs worldwide.

Three important issues have been brought forth from the 2008 council meeting in Boston. First, Dr. Frauke Mattner from Hanover, Germany has been integral in developing a database ready for beta-testing focusing on infectious complications in thoracic organ transplant recipients. Additionally, a draft has been created with the intention to more accurately and precisely define infection syndromes to assist in uniformity of reporting of data for analysis, investigations, and clinical trials. This draft has been posted for review and comments. Third, Dr. Lara Danziger-Izakov of the Cleveland Clinic is spearheading an effort to create guidelines or “protocols” in managing infection syndromes in thoracic organ transplant recipients.

Since lung recipients have greater numbers of infectious complications after transplantation relative to other organ recipients, transplant infectious disease specialists cooperating with transplant pulmonologists are uniquely positioned to provide expertise in expanding these guidelines across all transplant disciplines with minor variations.

We can emerge as international leaders in infectious complications in transplant recipients as we explore these opportunities further with basic scientists and translational specialists.
**The CentriMag Right Ventricular Assist System**, which provides temporary support in helping the heart pump oxygen-depleted blood into the lungs to fill up on oxygen, has received Humanitarian Device Exemption (HDE). The system supports a function that is normally conducted by the right ventricle and does not usually require as much assistance as left ventricle failure, which can affect the moving of oxygen-filled blood throughout the body. Designations of HDE are meant to apply new treatments or diagnosis technology to conditions influencing fewer than 4,000 people annually in the U.S.

**FDA Approves AlloMap Test**

U.S. Food and Drug Administration has approved the use of AlloMap, a non-invasive test for molecular expression techniques. The test will assist in identifying heart transplant patients who may be susceptible to organ rejection post-surgery.

AlloMap specifically measures how DNA transcribes its genetic instructions to RNA (gene expression) of 20 different genes. This results in a score that will signify if the heart transplant patient will likely accept or reject the transplanted organ.

XDx created the AlloMap test using blood and biopsy samples, as well as other information that was collected from 153 heart transplant patients from the U.S. heart transplant centers participating in the Cardiac Allograft Rejection Gene expression Observational study.

**New Law Expands Funding For Organ Transplant Network**

Congress recently passed a law authorizing increased funding for the Organ Procurement and Transplantation Network (OPTN) from $2 million to $7 million. The bill to pass the law was signed by President Bush the week of October 13.

From S.3503: “The National Organ Transplant Act of 1984 amended the Public Health Service Act to require the Secretary of Health and Human Services to provide for, by contract with a private nonprofit entity, the establishment and operation of an Organ Procurement and Transplantation Network. The original authorization amount for the Organ Procurement and Transplantation Network has never been increased since the enactment of the National Organ Transplant Act of 1984, resulting in a greatly increased cost burden on the private sector contractor.”

The OPTN manages the national transplant lists and assists in finding matching organs from donors to those in need.

**Italians Find Treatment for Adult Congenital Heart Disease**

They move with difficulty, risk dying at the age of 50 and until today the only alternative they had was heart transplant and in the most serious cases this had to be combined with lung transplant. However new hope arrives from an old drug to fight this rare disease, a congenital heart ailment associated with pulmonary hypertension and known to doctors as the “Eisenmenger Syndrome”.

**Links**

- Levitronix Heart Pump Gets FDA Humanitarian Device Exemption
- FDA Approves AlloMap Test
- New law Expands Funding For Organ Transplant Network
- Italians Find Treatment for Adult Congenital Heart Disease
- ISHLT Links
- Regulatory News