



33rd Annual Meeting and Scientific Sessions



DAILY

April 24-27, 2013 • Montréal, Canada

Links

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Schedule at a Glance

Thursday,
April 25, 2013

6:00 AM – 6:30 PM

SPEAKER READY
ROOM OPEN

6:30 AM – 6:30 PM

REGISTRATION DESK
OPEN

7:00 AM – 8:00 AM

SUNRISE SYMPOSIUM
1:

Are the Pathology
Working Formulations the
Gold Standard for
Diagnosing AMR in Heart
and Lung in
2013?
(513DEF)

SUNRISE SYMPOSIUM
2:

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

SUNRISE SYMPOSIUM
3:

Controversies in
Lung Allocation Around
the World
(514C)

8:00 AM – 10:00 AM

OPENING PLENARY
SESSION
(517CD)

This issue of Daily
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Dr: Define and Refine your Diction

This year's ISHLT meeting marks the beginning of the end of my second year as your Editor of *The Links* and the upcoming end of the beginning of my third year. As a prelude (**prel** – rhymes with fell, sell and hell and **lude** – rhymes with lewd, crude and rude) to this upcoming third year, I believe it is time to fine-tune the words we use and how we use them. The words we choose tell others a lot about who we are and the communities with which we identify. Sometimes words fail us, some idea at times leaves us groping around for words. Words can be powerful and have caused, can cause, and will cause more ruin than sticks and stones. In fact, there are words that are so powerful we dare not say them. What's constant about words is that they change.

In Montreal, some of us will have our diction, vocal expression, and enunciation on display for others to learn and at times to be judged. The clarity and distinctness of your speech and communication skills comprise your diction. Your diction is your choice of words; the better your diction means your language use is clear, accurate, varied and apposite. Not opposite, here I am referring to apposite which means both appropriate and relevant. An example of the opposite of good diction, which is poor diction, can be seen with the word **irregardless**. **Irregardless** means not without regard or actually means with concern for. The snooty supercilious (high-browed) snob thoughtlessly uses **irregardless** when he intends to use regardless. Take heed and say what you mean. You will hear irregardless at the meeting this week. Some words have two meanings, take for instance peruse and unpack. From the August 2012, Volume Issue 4, I gave you

Perusing, Learning, Unlearning and Travel. In that article we examined the word peruse. On your travels to Montreal few of you

I am sure perused through the Abstract issue in preparation for the meeting. So my question to you is - Did you peruse this issue (examine in detail) or did you peruse this issue (skim through it in a cursory manner)? Peruse appears to have come from Middle English made up of the Latin prefix **Per**-meaning thoroughly, throughout or through to the end and the Middle English **usen** to use. Therefore the original definition means to use up, to wear out through use, to exhaust. Its meaning has changed from everyday usage and probably abuse from **to examine in detail (scrutinize)** to now meaning **to browse**.

When you arrived and checked in to your hotel, I'm sure you brought your suitcase or many suitcases with you – whatever the case may be. Are you one who unpacks your suitcase immediately or are you one who leaves their suitcase unpacked? Only to unpack it later or leave it unpacked and live out of your suitcase at the annual ISHLT meeting. Is an unpacked suitcase ever packed? Or is a packed suitcase unpacked?

Now, I leave you with a couple of new words. Be sure to be on the look out for a **flexitarian** – a vegetarian who likes to eat meat on occasion or when it's convenient. And many of us after we were discombobulated through security at the airport have to put our belt and shoes back on and our laptops back in the **recombulation area**. Don't forget your **"Dracula sneeze"** when coughing or sneezing around others during the meeting.

10:00 AM – 10:30 AM
COFFEE BREAK

10:00 AM – 4:00 PM
EXHIBITS OPEN

10:30 AM – NOON
CONCURRENT
ABSTRACT SESSIONS

10:00 AM – 6:30
POSTER HALL OPEN

POSTER SESSION 2
(516)
Basic Science
Heart
Diagnostics/Therapeutics
Heart Post Transplant
Complications
Lung Failure,
Diagnostics,
Therapeutics
Mechanical Circulatory
Support
Pathology
Pediatrics
Pulmonary Hypertension

10:30AM – 12:00 PM
CONCURRENT
SESSION 1: MCS 1:
VADS in the Real World
– Clinical Outcomes
(517CD)
CONCURRENT
SESSION 2: Heart 1:
News from the Registries
– What We Need to
Learn to Achieve Long-
Long Term (511)
CONCURRENT
SESSION 3: DONOR:
Management 1: Lung
(510)
CONCURRENT
SESSION 4: PH 1: All
about Outcomes (512-A-
G)
CONCURRENT
SESSION 5: Path AMR:
Exploring the New
Frontier (513ABC)
CONCURRENT
SESSION 6: Heart 2:
Heart Failure – Focus on
the Right Heart
(513DEF)

NOON – 2:00 PM
LUNCH BREAK

NOON – 2:00 PM
COUNCIL MEETINGS
JHLT EDITORIAL
BOARD LUNCH (514C)



REVIEW: What Lies Beneath the Truth

There are three sides to every argument; your side, my side, and the truth. That was clearly evident today in the **Pediatric Heart Transplantation Symposium: Art, Science or Voodoo**. Dr. Kirk and Dr. Webber started off the discussions on the power of the immune system. Far from advocating the use of voodoo dolls to handle patients with positive cross-match, Dr. Webber argued for careful selection and proper management of these patients while Dr. Kirk spoke to the perils of under appreciating the importance of the immune system in cardiac rejection.

Part 2 of the session looked at the role of antibody mediated rejection in pediatric heart transplant patients. Dr. Rodriguez advocated that histopathology trumps all and that immunostains C4d and CD68 are the key tools to the diagnosis of AMR. Dr. Rodriguez challenged that view with the notion that clinical parameters such as symptoms, as well as graft dysfunction and circulating antibody levels must all be taken into account before making a diagnosis of antibody mediated rejection.

Finally the session came to an end with a debate about surveillance post transplantation. Dr. Canter, while addressing an empty chair in an obvious parody of Clint Eastwood's Republican convention speech, argued for routine angiographic surveillance in transplant patients stating that non-invasive techniques suffered from too much inter-observer bias. Dr. Parisi countered with the notion in that absence of other clinical parameters of graft failure or dysfunction, treating all forms of even minor rejection is counterproductive, as some especially in the early stages, will spontaneously remit.

Comments from the audience after each session reflect the obvious divergence of opinion but also underscored that the two sides are closer together than a cursory examination would suggest. Dr. Canter summarized it best when he said that even after a disagreement and debate, both sides can still respect each other's position because they are both trying to do what is best for their patient.



PREVIEW: A Breath of Fresh Air

While lung transplantation is life saving in many patients, a donor shortage exists in many areas and use of techniques such as donation after cardiac death (DCD) have been proposed. During **Concurrent Session 3, "Donor Management 1: Lung,"** data on this practice will be provided. Thomas et al report that this practice is becoming more common in the United Kingdom, with up to 14% of recipients receiving DCD lungs. However, lung transplant physicians are concerned that this process can increase the risk of primary graft dysfunction and early mortality. In a porcine model, Wittwer et al will provide data that instillation of mesenchymal stem cells endobrochially can help decrease pulmonary vascular resistance and dynamic lung compliance. Furthermore, Cypel et al will report on a multi-center cohort study of 224 patients who received DCD lungs, with no difference in 30 day or one year mortality. The other major issue in donor management in lung transplantation is the use of ex-vivo lung perfusion to allow for the use of marginal lungs. Cypel et al report their data showing good short-term and intermediate outcomes, and data from the NOVEL and INSPIRE trials will be provided.

PREVIEW: Journey to the Center of the Journal

Over the past year, many great articles have been published in the *Journal of Heart and Lung Transplantation*. While heart and lung transplant physicians may want to read the Journal from cover to cover, due to time constraints, this may not always be possible. That's why this year, Drs. Keyur Shah, Hanneke Kwakkel-van Erp, Christina Migliore, and Yishay Orr will review important articles published in 2012 in Friday's **Symposium 25: JHLT@ISHLT: The Year in a Capsule**. Topics discussed will include mechanical circulatory support, using extracorporeal support as a bridge to transplant, the role of mTOR inhibitors in preservation of renal function after transplant, and the latest on pulmonary hypertension. Lastly, challenges involved in pediatric heart and lung transplantation, including maximizing the donor pool, infant lung transplantation, and noninvasive assessment of chronic rejection will be discussed. This session will help ensure the heart and lung transplant physician knows the latest and greatest in the field.

2:00 PM – 3:30 PM
CONCURRENT
ABSTRACT SESSIONS

2:00 PM – 3:30 PM
CONCURRENT
SESSION 10: MCS 3:
Pump and Patient Cross
talk (512 A-G)
CONCURRENT

SESSION 11: Philip K.
Caves Award Candidate
Presentation (513 ABC)
CONCURRENT
SESSION 12: PEDS 1:
Heart Failure and
Transplantation
(513DEF)

CONCURRENT
SESSION 7: MCS 2:
How to Bridge Over
Troubled Waters
(517CD)

CONCURRENT
SESSION 8: Heart 3:
Coronary Artery
Vasculopathy in 2-13 –
Diagnosis, Prognosis
and Treatment (511)

CONCURRENT
SESSION 9: Lung 1:
Transplantation – Bench
to Bedside (510)

3:30 PM – 4:00 PM
COFFEE BREAK

4:00 PM – 5:30 PM
CONCURRENT
ABSTRACT SESSIONS

4:00PM – 5:30PM
CONCURRENT
SESSION 13: MCS 4:
VAD Clots – Beyond
LDS (517 CD)
CONCURRENT
SESSION 14: Heart 4:
Living with a
Transplanted Heart (511)
CONCURRENT
SESSION 15: Lung 2:
Primary Graft
Dysfunction (510)
CONCURRENT
SESSION 16: NHAH 1:
Implications and
Innovations throughout
the Lung Transplant
Trajectory (512 A-G)
CONCURRENT
SESSION 17: BSTR 1:
New Frontiers in
Cardiothoracic Organ
Regeneration (513ABC)



REVIEW: Junior Faculty Luncheon

“To hold him who has taught me this art as equal to my parents and to live in partnership to him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brother in male lineage and to teach them this art - if they deserve to learn it - without fee and covenant.”

Many of us hold true to the Hippocratic oath, even if fewer and fewer medical schools are actually using it these days, but even the most zealous would probably have issues of lending money to your medical school professors as the above quote would suggest.

Nevertheless, the importance of teachers and mentors in fostering a medical career cannot be overemphasized. In that vein, once again at the ISHLT lunch time is networking time. Junior Faculty have the opportunity to interact with more experienced members of the community to ask questions, gain information, benefit from their experience and meet with the big movers and shakers in the field over a relaxed lunch.



PREVIEW: Plenary O'Plenty

During today's opening plenary session, Ronald Collman will tackle the emerging topic of the microbiome and encourages us to think outside the box from the conventional wisdom of bacteria being important primarily for causing infections. The human body is host to billions of bacteria both good and bad, and that's just the ones we know about. It is increasingly recognized that changes in the microbiome can have effects on the host. What role does this microbiome have in both health and disease? Does changes in the respiratory microbiome contribute to disease and affect lung transplantation? Do changes in the microbiome in other sites, such as the gut, contribute to heart and lung disease? How are changes in the microbiome diagnosed? During this state-of-the-art plenary session, Dr. Collman will answer these and other questions.

Jack Copeland continues the theme of thinking differently in the Pioneer Lecture, “Cardiac Replacement, A Journey Outside the Box.” He will take the attendees through the challenges he encountered in heart transplantation and mechanical circulatory support and how he overcame them, often involving taking risks. He will discuss the first successful re-transplant, the challenges involved in ensuring insurance coverage for heart transplantation and the National Heart Transplant Study. He will end with a discussion about bridging to transplant and recovery, including the use of the total artificial heart and recovery after LVAD implantation in infants. George Santanya said that those who cannot remember the past are condemned to repeat it. On the other hand, when things are done well, repeating the past is a good thing. Join Dr. Copeland as he provides insight into how to continue the journey towards improving care of patients with end stage heart disease.



REVIEW: For What It's Worth

On display yesterday **Aggregate Annual Healthcare Expenditures associated with Heart Transplantation in the US: 1980-2011** was a must see! In summary, the economics of heart transplantation have become increasingly adverse. The average billed charge for a heart transplant in 1983 was \$96,538. In the ensuing years, the figure has continued to increase. The actual billed charge in 2011 was \$782,400. Based on inflation, the expected average charge in 2011 was just over \$200,000.

There is no obvious explanation for the observed variation between actual and expected charges, other than inflated hospital markups intended to address substantial third party payer discounts. Inappropriate patient selection is the primary service of excessive charges.

In short, current allocation policies virtually guarantee the worst possible outcome at the highest possible cost. As a result, heart transplantation is becoming increasingly cost-ineffective. This, in turn, threatens the viability of heart transplant programs at a time when hospital administrators are considering their options to cut costs.

To address these issues, organ allocation based on treating the “sickest first” must be abandoned, with palliative care being considered both a necessary and desirable alternative. Alternatively, preference should be given to the transplantation of relatively healthy patients, which in turn, enhances cost-effectiveness. The obvious should be clear. Equity comes at a price society can no longer afford.

CONCURRENT
SESSION 18: ID 1:
From Fungus to Virus
(513DEF)

5:30 PM – 6:30 PM

MINI ORAL POSTER
ABSTRACT SESSIONS
POSTER
VIEWING/WINE AND
CHEESE

5:30PM – 6:30PM

GENERAL POSTER
SESSION 2 (516)
MINI ORAL SESSION 1:
Heart Post Transplant
(513ABC)
MINI ORAL SESSION 2:
Mechanical Circulatory
Support 1 (513DEF)
MINI ORAL SESSION 3:
Lung Failure, Diagnosis
and Therapy (514B)
MINI ORAL SESSION 4:
Pulmonary
Hypertension (514C)
MINI ORAL SESSION 5:
Basic Science (512D)



REVIEW: To Young to be Old, to Old to be Young

Sir William Osler, arguably the most prestigious of McGill's physicians over its entire storied history, once said, "It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has." That very notion was the topic of a

Psychosocial Issues in Pediatric Cardiothoracic Transplantation (joint session with IPTA) on Wednesday.

Dr. Wray began the session with a review of what the psychosocial pre-transplant work-up should entail. Through a series of case studies, the audience saw that prospective studies are limited and more research is required. Also, there is clearly a need for standardized screening protocols and it is important to begin the psychosocial evaluation prior to the initiation of the heart transplantation work-up.

Dr. Shelmer echoed (pun intended) many of the same issues with adolescents, another group for whom not much research is available. Fundamentally, all the issues associated with normal teenage angst will also affect patient compliance with the often complicated regimen required post transplantation. Dr. Shelmer stressed that we need to have realistic expectations of what adolescents will and will not accept.

Dr. Singh presented evidence that socioeconomic factors also play a significant role in prognosis post transplant. Variables such as race and socioeconomic status, which are sadly often related, need to be assessed and taken into account.

Dr. Dellon had a very thoughtful presentation about the role of palliative care in transplant medicine. Although transplants are occasionally performed in previously well children who have suffered an acute illness, more likely is the patient with a chronic medical illness such as cystic fibrosis or congenital heart disease. In light of this reality, we need to be more mindful of symptom control and quality of life in patients with these chronic conditions and realize that curative and palliative treatments do co-exist and can be provided.



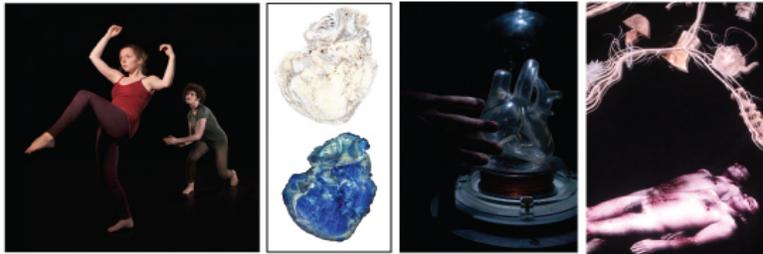
REVIEW: Duct Tape and WD-40

On the flight to Montreal, we noticed duct tape helping to hold up a light fixture on the plane. Although there was some initial concern, actually, duct tape and WD-40 can be used to fix anything. If it moves and it should not, use duct tape. If it does not move and it should, use WD-40. Well, almost anything. Unfortunately, duct tape and WD-40 do not work too well for right ventricular failure in the lung transplant patient. As any physician involved in taking care of patients with advanced lung disease knows, right ventricular failure can lead to significant morbidity and mortality before, during, and after lung transplantation. During Wednesday's **Symposium 16, "Mapping the Management of the RV in Lung Transplantation,"** international experts came to the rescue. Dr. Steven Kawut started off the session discussing non-invasive methods of assessing the right ventricle using various echocardiography, magnetic resonance imaging, and radionuclide angiographic techniques. The bottom line is that right ventricular dysfunction predicts morbidity and mortality but no one measure or imaging modality has been proven to be superior in prognostication, especially in patients who are critically ill. Dr. Karen McRae followed with a discussion of the management of the failing right ventricle in patients with pulmonary hypertension undergoing lung transplantation in the preoperative, intraoperative, and postoperative period. She discussed the challenges including myocardial depression due to most general anesthesia agents, although some agents including etomidate and ketamine may be safer in these patients. She discussed the importance of preventing worsening of the RV failure by avoiding hypoxemia, hypercarbia, and hypothermia. She also discussed the use of extracorporeal support during surgery as well as a bridge to transplant. Lastly, Drs. Walter Klepetko and Elie Fadel debated on whether the right ventricle recovers after isolated lung transplantation for pulmonary hypertension. This is important as a transplant physician decides whether to perform an isolated lung transplantation or heart-lung transplantation for pulmonary hypertension. While most of the audience agreed with Dr. Klepetko that the right heart always recovers, Dr. Fadel provided evidence that while this is most likely true, the recovery may be slow, and the patient may not have time to wait. He suggested that combined heart-lung transplantation be considered for patients with a right ventricular ejection fraction less than 25%, long standing pulmonary hypertension, or a need for extracorporeal support. On second thought, these experts were the duct tape and WD-40 to get the right heart moving and stopping the heart failure and the information gained during this session belongs in the toolbox of all heart and lung transplant physicians.

The Art of Science

This provocative art exhibit is an extrapolation by world renowned artists of the results from a qualitative study on heart transplant recipients experience with transplantation.

Explore the art-science collaboration project headed by Studio Arts Associate Professor Ingrid Bachmann, in association with colleagues including Professor of Medicine Dr. Heather Ross (University of Toronto). The project, Hybrid Bodies: An Artistic Investigation into the Experience of Heart Transplantation, focuses on understanding and improving the healing process for transplant patients, a novel approach to recovery.



HYBRID BODIES PROJECT – WORKSHOP EXHIBITION

1515 St Catherine Street between Guy and Mackay
Concordia University – Sir George Williams Campus
Hexagram Black Box – room S3. 845



STAIRS:

enter at Mackay entrance
straight down hallway
down stairwell to your right-hand side, all the way to the bottom level
Black Box is immediately on the left.

ELEVATOR:

enter at Mackay entrance
take first set of elevators on your right – ONLY freight elevator reaches S3.
(button for freight elevator is directly to the right within the frame of the elevator itself) push button "S3".
exit elevator, turn left, and Black Box is directly ahead.

Questions? Contact Emily Jan @ emily@emilyjan.com or 514. 557. 4229

HOURS:

Wednesday, April 24
11am – 3pm, 4pm – 8pm

Thursday, April 25
11am – 3pm, 4pm – 8pm

Friday, April 26
11am – 3pm, 4pm – 6pm