VINCENT’S GRADUATING SENSE – OR IS IT COMMENCEMENT (COMMON SENSE)

We return to the old world with a common sense of feat and appreciation from the success of our 37th Annual Meeting. For those unable to attend, this issue serves as a second-hand high with contributions reflecting and summarizing several of the sessions. For those able to attend, we hope you remember the ignited discussions and debates involving mechanical circulatory devices (VADS and ECMO), primary graft dysfunction, antibody-mediated rejection, interstitial lung disease, cardiopulmonary hemodynamics, chronic thromboembolic pulmonary hypertension, Zika virus and Mycobacteria abscessus to name a few. San Diego was nice and mellow which resulted in a promising attendance and sets the stage for next year's meeting in Nice.

This May, we commence with cogitating and ruminating the universal contentions that were raised in Sunny San Diego. Speaking of commencements and contentions, let’s talk about today’s politics.

Controversies abound ranging from illegal drugs to the National Defense Authorization Act have exposed problems with global communication and foreign policies. One issue involves the militarization of human controlled weapons to the employment of artificial intelligence for great international discussion. Can you say MOAB?

It was Robert Taylor, who recently died in Woodside, CA just outside of Stanford on the edge of Silicon Valley, who is ultimately responsible for near instantaneous, mass communication. You might ask, who is Robert Taylor? Aside from causing a new sedentary lifestyle complicated by musculoskeletal, vision and stress problems, he is the unsung hero of the internet and millennial communication at your fingertips. His innovation shaped modern day computing and international networking: Myspace, Facebook, LinkedIn, Instagram, Twitter and Snapchat just to name a few.

Also, the Defense Advanced Research Projects Agency (DARPA) has been responsible for the development of emerging technologies for the military. DARPA later devolved to ARPA and because of Taylor linked with the evolving Stanford Research Institute SRI. The spin-off company from SRI, Siri, Inc. was acquired by Apple in 2010 commencing with a modern and connected world of communication along with a U.S. President who now tweets.

Back to Nice as we look ahead, some nice people live there including Elton John, Tina Turner, Bono and Keith Richards. The Stranglers’ 1980 song "Nice in Nice"...
IN THE SPOTLIGHT: Welcome to the New Age of High Tech Communication: Kudos to the Few for so Many

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It is funny how quickly technological changes become an essential part of the fabric of our lives. Email has largely supplanted “snail mail,” just as online manuscript processing has replaced paper submissions. We live in a world where even the future of magazines and daily newspapers is in question. The advent of the world wide web and more recently the proliferation of social media has fundamentally changed our world view. We hear about events in near real time with Twitter and Facebook Live. We “pin” our favorites and catalog our daily lives on Instagram (some of us describing every mundane aspect of our day).

While social media had its roots in teenagers chatting on Myspace and later Facebook, it has expanded to encompass the medical field with professionals sharing ideas, cases and papers all at the speed of Twitter. About 2 years ago, Dr. Mandeep Mehra asked me to bring the Journal of Heart and Lung Transplantation into the Social age, and I set about recruiting a team to take on the daunting challenge.

Our initial members were Dr. Shelley Hall, the Chief of the Heart Transplant Program at Baylor Dallas, and Dr. Brian Lima, Cardiothoracic Transplantation Research also at Baylor Dallas. I enjoyed reading Dr. Hall’s posts on social media particularly during 2014 when their program exceeded 100 transplants!

I added Dr Jaime Hernandez-Montfort, my former fellow who is heading efforts to treat cardiogenic shock at Baystate Medical Center in Springfield Massachusetts. Jaime added insights on the Spanish language aspects of social media, and helped us recruit Dr. Alejandro Bertolotti, a heart and lung transplant surgeon from Foundation Favoloro in Argentina. He has been instrumental in translating posts into proper Spanish each month and helping us reach our Latin American colleagues.

At the ISHLT, I was introduced to Dr. Theodoros Kofidis, a cardiothoracic surgeon from “the antipode of the world” in Singapore. Theo is the author of an innovative multimedia textbook of Minimally Invasive and Hybrid Cardiac Surgery that is breaking new ground in surgical education. He has added a great perspective from Asia to our team.

Around this time, I asked my colleague Kelly Stelling, RN from Newark Beth, Israel to join our group as a representative of Nursing Science and Allied Heath. She has done a great job of bringing new ideas to the group and as a result, she has been named the Associate Chair going forward. She will be developing new initiatives that will roll out over the next months and is always looking for new team members with diverse skill sets.
Dr. John Ryan joined us from the University of Utah, where he practices transplant cardiology with an interest in pulmonary hypertension. He is also very involved in the social media activities of circulation, and we were privileged to have his help for the last year on the Workforce. He has stepped down due to the demands of his other activities, but we appreciate his contributions.

We also added Dr. Matthew Fenton, a pediatric cardiologist from Great Ormond Street Hospital in the UK, and he has added the perspective from the pediatric transplant world, as well as a view from Britain.

This year we have added three new members. First, Dr. Eugene DePasquale, a Junior Faculty Trainee Council leader and cardiac transplant doctor at the University of California Los Angeles (UCLA) has joined. Eugene has been very active on social media and helped bring #ISHLT2017 to prominence during our most recent Annual Meeting. Also joining is Dr. Jacob Abraham, a young advanced heart failure cardiologist at Providence St. Vincent’s Medical Center in Portland, Oregon, who also did a stellar job of tweeting the ISHLT meeting to highlight the best science.

Last but not least is our newest recruit, Dr. Agnieszka Ciarka, a transplant cardiologist from Leuven, Belgium. She has innovative ideas about developing podcasts for transplant related matters. Stay tuned for developments this year.

In addition to the efforts on behalf of the Journal of Heart and Lung Transplant, where we post links to the Featured Papers each month, we added the mission of assisting the ISHLT last year. The Society had a longstanding Twitter account, but adding LinkedIn and working with Susie Newton, greatly added to the follower base.

Now we represent ISHLT and JHLT on Twitter, Facebook and LinkedIn with the JHLT having about 2,000 followers on Twitter, 4,800 on LinkedIn and 415 on Facebook. The ISHLT accounts have 1,400 followers on Twitter and 4,800 on LinkedIn.

A huge accomplishment was reached with #ISHLT2017 in San Diego with a high of over 600 mentions in one day of the conference on Twitter! This amazing achievement would not have been possible without this hardworking team. We have big plans in the works for this coming year. We are planning to translate more of our posts across all avenues of social media, we will be producing graphical tweets (be sure to see the first one going live in May!) and are working diligently towards being able to do an online journal club. It is a huge undertaking, but also a labor of love. We look forward to you following along with us as we continue to grow and expand!

To join in and keep up with all that is new, follow @TheJHLT and @ISHLT on Twitter as well as on LinkedIn and Facebook.

Disclosure statement: The author has no conflicts of interest to disclose.
Focus on the 2017 Annual Meeting – Heart Failure and Transplant Scientific Council

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Editorial Comments

1) There is a growth industry in registry mining that threatens the quality of registry-based abstracts. While the number of high quality registry-based abstracts remains constant, an increasing number draw conclusions from data inherently limited for the question asked.

2) Our Council has become a thing of beauty. It is superbly organized and run, and this year’s Council meeting was well attended, informative, had actively engaged membership, was productive and generated interesting and useful discussion.

3) It was noted during the Council meeting that more time needs to be allocated specifically to heart transplant training in the Academy courses. MCS volume at training programs creates experience, confidence and, therefore, interest amongst trainees. Transplant exposure is less at most programs, which is a gap that the Society can address through our council.

Favorite Session
The Primary Graft Dysfunction/Vasoplegia, symposium 3, produced well-directed shoptalk like a good consensus conference. Some take-home bullets for me were:

1) Recipient amiodarone, recipient obesity (with its associated inflammatory markers), continuous flow as opposed to pulsatile pumps, VADS in general, IV heparin and anything else expected to increase the inflammatory condition of the recipient (multiple redo, hepatic congestion) all suspected risk factors for either or both of these conditions (PGD/vasoplegia).

2) Plasmapheresis may improve the inflammatory state and outcomes from severe primary graft dysfunction, see favorite abstracts below.

3) There is an ongoing shift towards ECMO and away from VAD for PGD. I don’t mean that it is the predominant technological rescue yet, but it’s gaining in popularity. You can close the chest.

Favorite Abstracts
Note, this by no means suggests these were the best abstracts, they just happened to be the ones that got me the most excited at this time.

1) “Predicted Heart Mass is the Optimal Metric for Size Matching in Heart Transplantation,” Kransdorf E, et al #278 and “Donor Predicted Heart Mass is Superior to Total Body Weight in
Predicting Primary Graft Dysfunction in Undersized Donors,” Gong, TA et al, #375 - both these were good follow-ups to Reed’s JACC Heart Failure 2 (1), 2014:73-83.

2) “Sirolimus-based Immunosuppression Mitigates Propagation of Cardiac Allograft Vasculopathy and Improves Cardiac Outcomes after Heart Transplantation: A single center 15 year follow-up study,” Asleh, R et al #359 from Mayos is a great follow-up to Eisen’s editorial “A Novel Definition of Cardiac Allograft Vasculopathy” AJT 2012;12:2571-2.


**Favorite Comment**
Someone asked Jig Patel, Andreas Zuckerman and Howie Eisen what their MFI practices were and they responded:

Patel: “8-10,000 avoid”
Zuckerman: “1000 - have a discussion on a case by case basis; 5-10,000 - alarm bells go off”
Eisen: “Same as Zuckerman”

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Looking Back (and Forward to Nice) – Transplant ID Highlights from the 37th Annual Meeting and Scientific Sessions

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If I thought the job of summarizing the Meeting’s ID highlights was hard last year, I realized after about ten minutes that I was in for a welcome challenge this time around. Just like the Padre’s home opener, ISHLT hit this one out of the park. Was it the warm and sunny San Diego weather? Perceptively larger attendance? Session topics that were so exciting you had a hard time choosing which one to attend? In my mind, it was all of the above...and then some. While it is impossible to summarize all of the presentations and the incredible work of all of my colleagues in a few short paragraphs, one theme seemed to permeate my thoughts as I left San Diego – global challenges and opportunities.

The Meeting opened with the ISHLT Academy Core Competency Course in Infectious Diseases in Thoracic Transplantation and MCS. Led by Drs. Martha Mooney and Shahid Hussain, this hugely successful course provided a foundation of the overarching principles of infectious disease concerns in cardiothoracic transplantation and mechanical circulatory support. Universally, I believe that the more we learn, the more questions we ask. Along these lines, Drs. Mooney and Hussain certainly laid the groundwork for more international collaboration regarding evolving issues in transplant ID and, in alignment with the goals of the ISHLT Academy, complemented “the ISHLT’s existing activities in the promulgation of new science, registry analysis, guideline statements, and monograph series.” We really could not have gotten off to a better start.

Another highlight of the annual meeting was Ongoing Challenges in Transplant Infectious Diseases, a joint symposium supported by a collaborative effort between ISHLT and the European Society of Clinical Microbiology and Infectious Diseases (ESCMID). Members from both international organizations deftly described ongoing challenges we face on a daily basis, including non-cultural methods for the diagnosis and prevention of invasive fungal infections, the role of inhaled antimicrobials in the management of pneumonia, management issues for thoracic organ recipients on ECMO, hepatitis C in donors and thoracic transplant recipients, and experience with HIV in thoracic organ transplantation and MCS. The symposium also raised new questions about the role of EBV and annellovirus viremia as markers of infection risk in lung transplant recipients.

The global theme continued with Around the World in 80 Days: Infectious Challenges in Cardiotoracic Transplantation, in which we gained international perspectives on zika virus infection in solid organ transplant recipients, hepatitis B in thoracic organ recipients, screening and management of latent and active tuberculosis, and advice for organ transplant recipients planning international travel.
Finally, after a description of invasive *M. abscessus* infections in heart transplant recipients during *Cutting Edge Updates in Infectious Diseases*, the global and ongoing challenges posed by this pathogen were highlighted during *Taming of the Shrew: Mycobacterium abscessus in Lung Transplantation*. Not only did we learn more about the epidemiology and modes of transmission of the pathogen, implications for infection control measures, and challenges related to diagnosis, but rather we gained expert guidance on the pre-transplant management of patients with *M. abscessus* infection and colonization, and effective therapies for *M. abscessus* infections. Gregory Snell and Paul Corris concluded with a witty debate about the safety of lung transplantation in patients infected or colonized with this pathogen. No matter your take on the issue, *M. abscessus* is here to stay (at least for the foreseeable future).

Overall, I left San Diego with more questions than answers, which I believe is reflective of an incredible meeting. As Vincent Valentine said to me one evening, “it’s about asking the right questions,” and ISHLT is doing just that. I have always thought that one of the greatest (and obvious) strengths of the organization is its international focus, and as we collaborate to find answers to our questions, we will continue to improve outcomes for our patients. And *this* is really what it is all about. Thank you so much to all of my wonderful colleagues across all disciplines – you continue to inspire me on a daily basis, and I look forward to seeing you next year in Nice.

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Immunological Mechanisms, Biomarkers and Prediction of Rejection with DNA Sequencing, at the ISHLT Annual Meeting

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This year’s ISHLT annual meeting offered various symposiums, oral sessions, networking opportunities, science communication and other activities in which immunological mechanisms, biomarkers, and advances for the use of DNA sequencing to diagnose and detect heart and lung transplant rejection risks were developed. I will highlight some interesting topics that were presented.

Immunological mechanisms
Lori West showed that non-self ABH antigens (polysaccharide antigens) alone will not stimulate B-cell receptor without T-cell participation. This information suggests that antibody response to ABH structures is not T-cell independent. The potential role of CD19+CD27+IgM+ B-cells in tolerance induction of children with AB0 incompatible transplant was also suggested.

Biomarkers
A pilot whole urinary metabolite study using Omics to monitor cardiac transplant rejection was presented by Brendan Keating (Plenary Session 05 April). Previous studies suggested that acute cellular rejection detection using urinary biomarkers including CD3ε, perforin, granzyme B, proteinase inhibitor 9, CD103, IP-10 and CXCR3 mRNA is possible in kidney recipients.

Infection is a leading cause of death and morbidity in patients using VAD and ECMO. Low albumin levels have been presented as a risk factor of poor outcome in patients with VAD and ECMO. The potential role of decreased levels of other proteins warrants investigation.

J. Youn evaluated the impact of T-cell CMV-specific responses in heart recipients. Low CMV pp65 specific IFN-gamma spot number nadir levels had an impact on fatal outcomes of CMV infection.

C. Hernandez presented data demonstrating that higher donor CMV IgG optical density was associated with CMV infection in CMV seropositive lung recipients.

Other topics in this area were for example: DAMPS, PAMPS and innate immunity in CLAD (Scott Palmer); the relationship between KLRG1 gene expression by T-bet and its correlation with specific CD8 T-cell responses (John McDyer); the role of pre-transplant memory class-switched B-cells to predict severe infection after heart transplantation (Leticia Calahorra); and allergic predisposition in thymectomized children with reduced naïve regulatory T-cells and B-10 cells (T.B. Kim).

Prediction with DNA sequencing
In a plenary session (05 Apr), Sean Agbor Enoh suggested that donor derived, cell free DNA reliably quantitates graft failure and death risk in lung transplant recipients.

In a Lunch Symposium, Philip Halloran, Luciano Potena and Andreas Zuckermann moderated by Jon Kobashigawa discussed about the potential role of the Molecular Microscope (Tissue-based measurements of specific pathogenesis-based transcripts reflecting NK, T-cell and endothelial activation among others) for a more precise diagnosis of acute cellular rejection and antibody-mediated rejection in heart and lung recipients. Illustrative cases of agreement between Molecular Microscope results and local pathology were presented.

There was also an exciting session about Precision Medicine. Hannah Valentine presented data about cell free DNA in transplantation applications and future directions of potential for differentiation between acute cellular rejection and antibody mediated rejection. In the same session, a conference about microbial cell-free DNA was presented by Iwijn De Vlaminck, who disclosed information regarding virome temporal dynamics of anelovirus load in rejection versus non-rejection. Microbial cell-free DNA can also identify bacterial growth dynamics and profiles of resistance. There was a very interesting talk given by Howard Eisen, on micro-RNA as biomarkers in solid organ transplantation: distinct patterns that are associated with tumor suppression, acute cellular rejection, lung allograft disease and increased expression of micro RNA in cardiac allograft vasculopathy, among other information. Transcriptomic analysis of heart allograft was analyzed by Duong Van Huyen. Bruce McManies provided interesting information about emerging roles of next generation sequencing analysis, and finally, Christoff Fellman covered genome editing using CRISPR-cas9 tools.

This meeting also aimed to promote networking and exchange of ideas in the immunology area.

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Feeling the Beat in San Diego

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This year’s meeting was enticed by the weather, catching up with friends & colleagues and mastering the skills of transplant and VAD management. It was a remarkable meeting with newer developments in all the fields- donor allocation, pediatric transplantation, AMR and VAD technology. On the front of new device technology, device-blood interaction was the focus of a late breaking clinical trial sessions. The heartmate 3 (HM3) showed superiority over the HMII for freedom of hemocompatibility related events—bleeding, neurological events and pump thrombosis (69 % HM3 vs. 55% HMII). Improved survival at 6 months for freedom from disabling stroke or pump replacement was seen in the HM3 cohort compared to HMII. Among factors observed, younger age and adequate anticoagulation were independently associated with reduction in events. A hemocompatibility score stratified by tiers of severity of events was developed. Interestingly though, the reduction in events for the HM3 cohort was related to lower pump thrombosis and need for exchange. This reflects ongoing efforts for devices to improve rheological properties of blood flow paths to avoid thrombosis, while the Achilles’s heal remains on bleeding events. More research is needed to understand the interaction of bleeding and mechanical support through mechanistic studies, including impact of pulse on GI bleeding. On this note, one of the best symposia focused on the role of pulsatility in VAD patients. The session covered the benefits of pulsatility on endothelial function and regulation of flow through the microcirculation of end organs, the impact of continuous flow on vascular remodeling and function, the changes in central baroreceptor and sympathetic activity response to continuous vs. pulsatile flow with the former having increase sympathetic activity and ending on the value of pulsation relative to life’s existence. A unique symposium which made us more excited to venture onto new horizons in device technology that attempt to imitate our natural function. In this regard, symposia focused on exercise in the VAD patients revealed the effects of pulsatility and pump speed modulation to achieve improvements in exercise duration. However, despite changes in speed and allowing for more aortic valve opening, there are still marginal effects on achieving peak VO2 and exercise duration comparable to heart transplant recipients or controls. As many speakers conclude, one of the limitations seen with CF-VAD support is the peripheral muscle blood flow and oxygen extraction. Despite this, with exercise training many VAD patients continue to achieve good quality of life, greater distances on 6-minute walk test and improvement in NYHA class.

Every year after the ISHLT meeting, we reflect on the science behind new discoveries and the uphill challenges that need to be surpassed to advance the fields of heart failure, transplant, VAD and pulmonary hypertension to the next level. As Descartes once said, “Car ce n’est pas assez d’avoir l’esprit bon, mais le principal est de l’appliquer bien” (It is not enough to have a good mind, the main thing is to use it well). We are eager for next year’s meeting in Nice, not only because it is in Europe, but for the promising research and symposia that will be presented in such a fine city!

Disclosure statement: The author has no conflicts of interest to disclose.
The Nursing, Health Science and Allied Health Council was well represented again at this year’s ISHLT Meeting in San Diego. The sessions covered patient reported outcomes, overcoming adherence and frailty, as well as psychosocial outcomes in transplant and MCS. There were also several hot topics including pregnancy in complex patients and marijuana use in transplant. The poster session included almost two dozen submissions from the NHSAH Council looking at everything from frailty, nutrition and quality of life screening, to caregiver gender burden and how psychosocial stressors affect the multidisciplinary team. San Diego had plenty to offer attendees in their spare time including harbor cruises, strolls along the water and spectacular sunsets – the margaritas and tacos weren’t half bad either. Next year’s meeting in Nice is sure to be a crowd pleaser, don’t forget to get those symposium and plenary proposals in by the June 1st deadline. As a final plug, please reach out to any of the operating board members if you are looking to be more involved in the council. All of our contact information can be found on the council web page: http://ishlt.org/councils/nursing.asp.

Disclosure statement: The author has no conflicts of interest to disclose.
The Highs and Lows of ISHLT Annual Meeting Symposia

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First, let us say a genuine “thank you” to all those responsible for planning and delivering another fantastic annual meeting. It is difficult to imagine all the thought, time and effort that goes into this endeavor every year. We appreciate the opportunity to offer a few thoughts on this year’s meeting from the combined perspectives of a regular attendee and new member attending for the first time.

We titled this submission “The Highs and Lows of ISHLT Annual Meeting Symposia” after our favorite session of the entire meeting (and the first “high”) – “Weeding Out Fact from Fiction - the Highs and Lows of Marijuana Use in Transplant.” This session approached an extremely delicate and controversial aspect of transplantation with a balance of seriousness and humor that was frankly unexpected in this forum. The presenters were successful in approaching the subject with a focus on the clinical and regulatory aspects of marijuana use in transplantation, while incorporating just enough comedy to provide all in attendance with a thoroughly educational and engaging experience.

We would like to thank Dr. Page, Dr. Smith, Dr. Singer, Dr. Leard, Dr. Zamora, Dr. Verschuuren, Adam and of course Vincent, one more time for an extremely memorable and educational symposium.

One of the reasons the aforementioned symposium was so fantastic was due to the debate between Dr. Zamora and Dr. Verschuuren, which brings us to our second “high” of the annual meeting symposia. The invited debate format is absolutely fantastic, and we’d like to see more of these at future meetings. In the weed symposium, Dr. Zamora and Dr. Verschuuren went back and forth about what to do with transplant candidates identified to use cannabis pre-transplant. This format allows the audience to really evaluate the differing positions of two esteemed and respected members of the Society and decide for themselves. The traditional debate was spiced-up with some good-natured character attacks that were unexpected and brought humor to the forum. The same can be said for the debates in the “Dealing with Antibodies Before and After Heart Transplant: Do We Have New Arrows in Our Quiver?” session. Dr. Pisani, Dr. Goldberg, Dr. Chih and Dr. Shah all put on a great show. The debate format really adds value to the sessions because the audience doesn’t just hear one position on a controversial issue that declares something “right” and everything else, well, “not right.” Instead, it offers a more comprehensive assessment of the issue where both sides may be reasonable in their approach. This symposium format literally raises the level of debate.

As far as the “lows” are concerned, there are really only two things that stick out. The first is the ongoing issue of sessions going over on time. This ranges from mildly to extremely irritating, depending on what is to follow, and often it isn’t the last presenter that caused the session to get behind schedule. As an audience member, one doesn’t want to have to choose between staying late
out of respect for the last presenter and potentially being late to whatever is next (e.g., a council meeting). We feel there is more that the moderators can do to ensure the sessions end on time. If not, maybe more definitive gaps can be built into the schedule.

The last “low” we’d like to mention is the currently undervalued state of the mini-oral sessions. These sessions can be fun because they offer the attendee the chance to catch 12 talks in an hour (each is only 5 minutes in duration), and the information provided is pared down to the absolute core of the research project (i.e., this is what we did and why, this is what we found…). These presentations are often delivered by more junior clinicians and trainees, and they may be a potential member’s first real contact point with the society. Unfortunately, sometimes these presentations are delivered to a sparsely-filled room. We say these sessions are undervalued because the 6-7pm time slot has a lot of competition from poster and networking sessions and is at the end of a long day when everyone is craving a bite to eat and something to drink. Beyond a different time-slot, another possible suggestion would be to consider splitting a given mini-oral session between two councils in an effort to generate a larger audience. A nice example of the type of research that can come out of a mini-oral session is an abstract presented by Gavalas and colleagues at the 2016 meeting in Washington D.C. They presented a mini-oral in a combined Pharmacy/MCS session on the use of home urine dipsticks to measure hemoglobin and detect hemolysis in VAD patients. The authors have since published a full manuscript on their work in JHLT. The mini-oral sessions may offer the audience a glimpse of interesting research ideas that are still in-process or potentially on their way to a print submission.

The Annual Meeting continues to be a “high” for the Society, and it was certainly a “high” for a pharmacy residency program director bringing a first-time attendee. We look forward to seeing everyone in Nice.

Disclosure statement: The authors have no conflicts of interest to disclose.

References:


Sleepless in San Diego: Reflections on the 2017 ISHLT Sessions from the Perspective of Pulmonary Hypertension

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Late nights and early mornings; evening poster sessions and sunrise symposia; a conference so energetic that it never seems to rest. All this on the backdrop of picturesque and perennially sunny San Diego meant that for those of us from other time zones, sleep was at a premium. If these were my initial memories of the meeting, they were also colored by thoughtful conversations with colleagues, collaborators and mentors, not just during the sessions, but over coffee or at many of the affiliated events. I think that all participants left the meeting with a sense of satisfaction.

On secondary reflection, this year’s ISHLT sessions were perhaps among the most significant from the perspective of pulmonary hypertension. The week began with the PH Masters Academy, an engaging forum for the discussion of complex and controversial cases in pulmonary hypertension. There are very few PH forums like this internationally, where participants can discuss complex management decisions with world experts in pulmonary hypertension in a small group setting!

Beyond the Masters Academy, this year’s meeting was also particularly memorable for developments in Chronic Thromboembolic Pulmonary Hypertension (CTEPH). This year marked the formation of the CTEPH Council at the ISHLT, led by Dr. William Auger, and the first CTEPH council meeting. We also heard preliminary insights from the US CTEPH Registry by Dr. Kim Kerr, a colorful presentation of the assessment of right heart function in CTEPH by Dr. Paul Forfia and evaluation of the REVEAL risk score in CTEPH patients by Dr. Raymond Benza.

Dr. Benza also presented data on an updated REVEAL risk calculator in PAH with changes in the included variables to better delineate mortality risk in patients previously deemed moderate risk by the original calculator. Once again, we had a vibrant session on mechanical circulatory support in PH patients, with Elie Fadel discussing peripheral vs. central ECMO in PAH patients.

Dr. Ryan Tedford chaired a key session in cardiopulmonary hemodynamics and discussed the importance of right ventricular reserve in patients with PH. Finally, as always, some of the most memorable sessions were the ‘great debates’ in pulmonary hypertension, with a variety of spirited debates (even when the combatants were not always familiar with each other) involving treating or not treating PH due to interstitial lung disease (Dr. Steven Nathan vs. Dr. Marius Hoeper), treating or not treating borderline PAH (Dr. Bradley Maron vs. Dr. Jean-Luc Vachiery) and adding combination therapy to a stable patient on monotherapy (Dr. Rogerio Souza vs. Dr. Veronica Franco). I leave it to those present to judge the winners!

I look forward to seeing everyone in Nice 2018!

Disclosure statement: The author has no conflicts of interest to disclose.
Call for ISHLT 2018 Symposium Proposals

Christian Benden, MD, FCCP
ISHLT 2018 Scientific Program Chair

Although the 37th Annual Meeting in San Diego has just finished, it is already time to start developing content for the ISHLT 38th Annual Meeting & Scientific Sessions to be held in Nice, France, April 11-14, 2018.

As program chair for the 2018 meeting, I just wanted to follow up on my brief presentation at the council meetings and encourage you to submit ideas for pre-meeting and sunrise symposia and/or invited Plenary talks. Although well-worked, complete symposium proposals are preferred, we also welcome suggestions for potential plenary speakers from outside the transplant community who might give an engaging talk that brings perspectives, insights or experiences with widespread appeal to members.

Your input into this process is critical to the Symposium Planning Committee since the majority of the invited scientific content for the Annual Meeting originates from proposals submitted by ISHLT Members through the Scientific Councils.

Below are links to the symposium proposal submission site and the plenary lecture proposal form:

- 2018 Symposium Proposal Submission Site
- 2018 Plenary Lecture Proposal Form

*Please note that only current ISHLT members can submit proposals

You are strongly encouraged to consult with the Education Workforce Chair(s) and Council Chair(s) appropriate to your topic before submitting a proposal. They will provide guidance regarding educational areas identified as priorities for the Annual Meeting. You are also encouraged to develop proposals that will encourage collaboration among the different ISHLT councils. The list of current committees and councils can be found at www.ishlt.org under the "Boards and Committees" and "Councils" tabs. Ideally the symposia proposals should have a diversity in the institutions, geography, expertise, and gender for the speakers and chairs, and offer opportunities for both senior and junior members of the society.

The deadline for receipt of proposals is Thursday, June 1, 2017.

All proposals will be reviewed by program committee representatives from the relevant discipline areas. The final development of invited scientific content will take place during the Symposium Planning Committee meeting in July.

If you have any questions about the submission process, please contact Susie Newton (susie.newton@ishlt.org) at the ISHLT office.

Please accept my thanks in advance for your valuable input. I look forward to seeing you at ISHLT 2018 in Nice!

Disclosure Statement: The author has no conflicts of interest to disclose.
2017 Annual Meeting: Daily Links

For those who missed the meeting, are looking for a recap or just want to refresh your memory, the Daily Links can be a valuable source. View the articles written by our Roving Reporters, Cassandra Baker, Alexander Bernhardt, C.T. Gan, Emily Stimpson and Erin Wells, and put together by Vincent Valentine, Lauren Daniels and Naomi Rios for an up to date guide on the daily happenings of the 37th ISHLT Annual Meeting and Scientific Sessions.

Below are the links to both the original PDFs and web versions of each day’s Links Newsletter.

Wednesday, April 5 Newsletter
Wednesday, April 5 Newsletter (PDF)

Thursday, April 6 Newsletter
Thursday, April 6 Newsletter (PDF)

Friday, April 7 Newsletter
Friday, April 7 Newsletter (PDF)

Saturday, April 8 Newsletter
Saturday, April 8 Newsletter (PDF)
ISHLT 2017 Grants & Awards Recipients

Congratulations to all of our 2017 Grants & Award Recipients, including Stuart Jamieson who received the ISHLT Lifetime Achievement Award. We would also like to extend congratulations to the winners of the abstract awards, grants & scholarships, and travel awards that were announced during the Saturday Plenary Session. Below you will see a complete list of the award winners from this presentation.

Norman E Shumway Career Development Award (supported by a gift from Enduring Hearts)

Nicole Valenzuela, PhD, D(ABHI)
UCLA Immunogenetics Center
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Joel D. Cooper Career Development Award

Keki Balsara, MD
Washington University in St. Louis
St. Louis, MO, USA

Research Fellowship Grant Award

Ramiro Fernandez, MD
Feinberg School of Medicine
Chicago, IL, USA

ISHLT/Enduring Hearts Research Fellowship Grant Award

Jane O, MD
Massachusetts General Hospital
Boston, MA, USA

ISHLT/O.H. Frazier Award in MCS Translational Research Sponsored by Medtronic

Yasuhiro Shudo, MD, PhD
Stanford School of Medicine
Stanford, CA, USA

Transplant Registry Early Career Award

Laith Alshawabkeh, MD, MSc
Brigham & Womens/Boston Children’s Hospital/Harvard Medical School
Boston, MA, USA

Yuka Furuya, MD
Washington University in St. Louis
St. Louis, MO, USA

Christian Heim, MD
University of Erlangen
Erlangen, Germany

Monique Robinson, MBBS, MRCP, DPhil
University Hospitals Cleveland Medical Center
Cleveland, OH, USA

Lorenzo Zaffiri, MD, PhD
Duke University
Durham, NC, USA

ISHLT Nursing, Health Sciences & Allied Health Research Grant Award

Samantha Anthony, PhD, MSW
The Hospital for Sick Children
Toronto, ON, Canada

Philip K. Caves Award

Stephen Chiu, MD
Northwestern University
Chicago, IL, USA

Early Career Scientist Award in Transplantation

Hsi-Min Hsiao, PhD
Washington University in St. Louis
St. Louis, MO, USA
Junior Faculty Clinical Case Dilemmas in Thoracic Transplantation Best Presentation Award

Robert Gottlieb, MD, PhD
Baylor University Medical Center
Dallas, TX, USA

Nursing, Health Sciences & Allied Health Excellence in Research Award

Maral Bakir, RN, PHN
University of California Los Angeles
Los Angeles, CA, USA

ISHLT International Traveling Scholarship Award

August 2016
Lucas Van Aelst, MD, PhD

December 2016
Espeed Khoshbin, MD, FRCS (CTh)

Leach-Abramsom-Imhoff Links Travel Awards

Writer of the Year
Quincy Young, PhD, RPsych
St. Paul's Hospital, Vancouver, BC, Canada

First Runner-Ups
Monica Horn, RN
Los Angeles, CA, USA

Honorable Mention
Melissa Cousino Hood, PhD
University of Michigan, Ann Arbor, MI, USA

Erin Wells, RN, BSN, CPN
Northwestern Memorial Hospital, Chicago, IL, USA
ISHLT Annual Scientific Meeting Travel Grant

- Nader Aboelnazar
- Vanessa Blumer
- Mary Bradbury, PharmD
- Hong Chew, MD
- Timothy Gong, MD
- Samson Hennessy-Strahs
- Lisa Hofste, BSc
- Teruhiko Imamura, MD, PhD
- Amit Iyengar, MS
- Takashi Kanou
- Rebecca Kelly
- Liran Levy, MD
- Hasina Maredia
- Ei Miyamoto
- Daisuke Nakajima, MD
- Annelore Sacreas
- Amrit Singh
- Wiebke Sommer, MD
- Jaimin Trivedi, MD, MPH

Again, congratulations to all of our award winners! If you would like to view the PDF of the slides presented during the ceremony, please click here.

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Just a few short weeks ago, ISHLT members convened in sunny San Diego to take in another year of fantastic educational content. Our council had four sponsored symposia during the meeting, and we were invited to be part of three others. Among these sessions, I would like to focus on two symposia that were conducted: Lifecycle Journey of Thrombosis in Mechanical Circulatory Support Patients and Weeding out Fact from Fiction - The Highs and Lows of Marijuana Use in Transplant. Both of these symposia provided interesting educational content of a commonly encountered issue of MCS thrombosis, as well as a novel perspective into the increasingly frequent dilemma of dealing with marijuana use in our transplant population.

The Lifecycle Journey is one of the main PHARM symposiums that is provided at the ISHLT annual meeting and encompass a patient’s journey through a particular disease state. In past years, our council has examined therapeutic dilemmas with pulmonary hypertension, hepatitis C in transplantation and cystic fibrosis in lung transplantation. This year’s Lifecycle Presentation surrounded thrombosis in mechanical support patients, but focused on specific aspects to patient care that are encountered in patients with this issue. This session was chaired by Dr. Christina Doligalski and Dr. Stephan Schueler. Dr. Daniel Zimpfer highlighted the importance of pristine surgical techniques during implantation and how pump positioning can lend itself to thrombosis. Our patient case was developed with nuances related to anticoagulation – particularly dealing with heparin induced thrombocytopenia in the setting of MCS. I was fortunate enough to be afforded the opportunity to discuss this issue, as well as the use of novel anticoagulant agents in MCS. Lastly, Dr. Lisa Baumann Kreuziger reviewed pathologic mechanisms of thrombosis in MCS and what insights can be gained by examining clots under the pathologists’ microscope.

Clinical Pearls from the Lifecycle Journey in Thrombosis in MCS Session:

- Surgical technique is paramount in reducing thrombosis risk.
- There are potential mechanisms by where direct thrombin inhibitors may limit thrombin production more readily in MCS.
- Data surrounding the use of direct acting oral anticoagulants is scarce in MCS; however, existing data suggests that they may serve as an alternative in select situations.
- Thrombosis appears to consist of layers of fibrin-based clot in patients with early thrombosis, whereas late thrombosis has an element of platelet-based clot. The implications on antithrombotic therapy are unknown at this time, but suggest targeting fibrin production or platelet activation could depend on the timing of thrombosis occurrence after MCS implant.
“Weeding out Fact from Fiction,” the PHARM council sponsored symposium elaborating on the use of marijuana, both medically and recreationally in thoracic transplant recipients, yielded a wealth of information on how to attack this dilemma from a pharmacologic, psychosocial, legal and medical perspective. Dr. Adam Cochrane and Dr. Vincent Valentine chaired this session, with presentations from Drs. Robert Page, Patrick Smith, Lianne Singer and Lorriana Leard. Lastly, Dr. Martin Zamora and Dr. Erik Verschuuren engaged in an entertaining, yet thought provoking, pro-con debate on the use of marijuana in the thoracic transplant recipient community. Dr. Page discussed the pharmacology of cannabis by reviewing the multiple metabolites present with this agent and their impact on immunosuppression with respect to drug interactions. Dr. Smith discussed screening and monitoring techniques to detect which patients may be at risk for adverse psychological effects with cannabis use. Dr. Singer reviewed data surrounding the anti-inflammatory effects and immunomodulation properties of cannabis and the potential impact on graft function. Lastly, Dr. Leard presented on the legal and regulatory issues surrounding cannabis use in transplant recipients, specifically discussing the Medical Cannabis Organ Transplant Act in California. This symposium was certainly buzz worthy, given recent stories in the media surrounding potential transplant recipients and how transplant centers have handled this issue. All of the speakers presented data to help the audience be more educated regarding the physiologic impact of cannabis in transplant patients, tools to monitor psychological effects, and how to navigate the complicated legal and regulatory aspects of use.

Clinical Pearls from “Weeding out Fact from Fiction:”

- Cannabis is metabolized into over 50 compounds with a variety of physiologic and metabolic effects. The main compounds, THC and CBD, are metabolized through CYP3A4, CYP2C9 (THC) and CYP2C19 (CBD) – which can adversely affect the metabolism of multiple immunosuppressants.
- Questionnaires and surveys are available to providers to better help identify which patients could be at risk of the adverse psychological effects of cannabis use.
- Regulatory and legal considerations surrounding cannabis are confusing to navigate – while cannabis remains regulated as a schedule I agent (no medical use), states have passed legislation for both medicinal and recreational use. State and federal regulations continue to be at odds, only confusing the matter with respect to how this is to be handled in a regulated medical field, such as transplantation.

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