

THIS MONTH'S FOCUS: **JUNIOR FACULTY AND TRAINEES** **BASIC SCIENCE & TRANSLATIONAL RESEARCH**

President's Halftime Report for an Unprecedented Meeting in Nice

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I cannot believe that I am already halfway through my term as president! This must be a sign that I really enjoy this duty, although our server at the University Hospital is close to a collapse, since I receive between 20 and 40 extra international emails on my account per day. Fortunately, phone bills have come down over the past years, otherwise I may have been dismissed already from my hospital due to the high number of international phone calls.

Just a little insight into the President's job: There is a weekly (very pleasant!) conference call with the Executive Director, Amanda Rowe, and a monthly call of the Executive Committee consisting of the President, the President Elect, the Past President, the Secretary-Treasurer, one appointed member from the board (Jeff Teuteberg) and the Executive Director. There is also a lot of interaction on the Board-level with individual correspondence, as well as a two hour telephone-conference meeting in July. For the first time this year, we had our Fall Board-meeting in October, instead of December, as we have had it in the past.. By moving it to October, this gives us more time between now and the annual meeting for the preparation of important projects. The meeting took place in Boston and I would have enjoyed it even more if I had not have been suffering from a terrible cold. Fortunately, Susie Newton took good care of me and provided me with lots of Kleenex.

In addition, there are regular calls with the 2015 Program Chair Andreas Zuckermann, who is doing a fabulous job in preparing for our next annual meeting in Nice, France. We work very closely together and I can promise you a great meeting in April with lots of surprises! Andreas will provide a little more information himself. Don't forget to book your hotels early, since Nice is not waiting for us and will sell out quickly!

We are expecting an excellent Master Academy which has been prepared by the Council of Mechanical Circulatory Support as well as the Education Committee under the great guidance of Chris Wigfield and Ulrich Jorde.

So great talking to all of you, now I have to get back to my computer. Amanda is waiting for quite a few replies ;-). There is still a lot to accomplish within the next months and I wish the day had more than 24 hours! Anyway - I still thoroughly enjoy my time as president of the greatest society and time will continue to fly....

Hermann

Disclosure statement: The author has no conflicts of interest to disclose.

WOW WHAT A RIDE! ONE YEAR WE WILL NEVER FORGET

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Those who have driven a motorcycle on a winding road know not only the thrill, but also the anxiety it brings. If you happen to go into a curve too hard, you become panicked that you aren't going to make it through without crashing and are relieved when you make it out alive.

The past year has been a ride like no other. November 10, 2014 marks the one year anniversary of my heart attack. A year ago, life was flying by at full throttle; then came the curve that changed my world. I remember some of that Sunday evening's events. I still thought it was a minor heartburn but when I was told I had a heart attack, things spiraled out of control. At 51 years old the last thing a person thinks of is a massive heart attack, let alone a stroke.

I will never forget the day Jeffrey was life-flighted to our ICU in critical condition after failure to wean from bypass surgery. He arrived in a flurry of ventricular ectopy, with an open chest, VA-ECMO in place, having suffered from an acute CVA – all within hours of presentation. A tall man, he was dwarfed by the machines that surrounded him- all serving a critical purpose: keeping the blood flowing. I said hello to him, trying to give him a reassuring smile and he blinked in response. Then a single tear rolled down his eye as he tried to take it all in...

I have gone through a lot...massive heart attack, triple bypass, a stroke, a life flight helicopter ride, having my chest left open for one week, a defibrillator placed in my chest, being shocked in the chest many times, x-Rays, MRIs, heart catheterizations, EKGs...

It became quickly apparent that we would be unable to wean him from ECMO support without a durable pump as his entire left ventricle had infarcted. But an implanted pump in someone we had never met before, with an active stroke and no way of getting a truly informed consent? We turned to his wife and family to try to get to know him better. They told us he worked full time, never smoked or abused his health and just...loves life! Cherie (his wife), then pulled out a picture taken a fortnight ago – Jeff with his Mustang, on a road trip with his brothers.

Just think, while I was on this ride, my wife, Cherie, was there too, to be part of things and to have some her own experiences. This has made her a very strong person. She had to deal with so many emotions, the up and down; she was not sure that I was going to survive. Aside from emotional rollercoaster, she had had to spend weeks away from home, drive everywhere, change countless bandages, make appointments, go to appointments with me, continue to work, and still keep everyone informed of things. Today, I am sure that without her I would not have survived long.

Almost against our better judgment, with every fact pointing 'INTERMACS level – crash and burn', we proceeded with a durable LVAD placement. Jeff was extubated 3 days later, started physical therapy soon after and fully recovered from his stroke in the weeks to follow. He was listed for a cardiac transplant and received his gift a few months later.

At every turn there have been people that I will never forget. Each one has been in place to serve a purpose. I cannot forget about the one individual, someone I know nothing about but is the most close to me every moment: my heart donor. Without the gift of their heart I would not be here today. It still amazes me that someone else's heart is inside of my chest and without it I would be dead instantly. Though I have never had the opportunity to meet my donor's family, I still hope that they might still make contact.

Jeff was back to work part time in 6 weeks and then full time by 3 months post-transplant. He continues to amaze us with his passion for life and his desire to give back.

On the one year anniversary of these events I will be carefully removing the many cards sent to me to wish me wellness and encouragement. I still look at how many there are and think of how lucky I am to have that many people who care about me. I must thank everyone for being there. I must thank God for his mercy to give me the opportunity to remain on this earth. I have become active in several organizations that I believe are worthy of my time. I solicited money this summer for the American Heart Association's walk. Let it be known that due to everyone's generosity, I was the top fundraiser. Another group I am involved in is CORE. CORE is one of 58 federally designated not-for-profit organ procurement organizations (OPOs) in the United States. If anyone reading this is not a donor, please become one. Remember that without a donor I would be no longer here.

In closing, I look forward to whatever I may find around each corner as I we travel on a trip called "LIFE". With God's guidance and the support of everyone I am sure I can handle just about anything. Just remember, I got through this much in a year and ended up 40 pounds lighter and a have a newer heart. I don't think that was too bad after all.

We look forward to celebrating Jeffrey's one year anniversary early 2015!

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Linking Primary Immunodeficiencies with Transplant Medicine: Basic Science from ESID Meeting

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[The 16th Biennial Meeting of the European Society for Immunodeficiencies \(ESID\)](#), held in Prague, Czech Republic on October 26, 2014, encompassed innovations in immunobiology, genetics, diagnostics and treatment of primary immunodeficiencies (PID). Advances in medical research have led to the identification of more than 240 genes which cause different forms of PID. Defects in such processes are often responsible for life-threatening disorders.

Understanding the essential signals that govern development and maturation of T, B, NK, other lymphocytes and cells may help us to understand the function of the distinct effector functions that are involved in solid organ transplantation.

The ubiquitin-proteasome pathway has a critical role in maintaining the homeostasis of cells and is believed to be involved in the development and progression of inflammatory diseases. Recent observations suggest that the ubiquitin-proteasome system contributes to the pathophysiology of myocardial ischemia-reperfusion injury. During the first plenary session, Aaron Ciechanover, winner of the 2004 Nobel Prize in Chemistry, reviewed the two step ubiquitin mediated proteolytic activation of NF- κ B. The transcription factor NF- κ B controls many processes including allograft rejection.

How do we integrate microRNA into our current understanding of the networks that govern gene expression and cellular identity? Can we discover new genes and pathways involved in biological processes of interest through the study of microRNAs and their targets? Mark Ansel answered these questions in his talk about understanding the immune system through microRNA. Within the past decade, the field of immunology has increasingly intersected with the field of microRNA biology. The relationships between microRNAs and their gene targets, in the context of heart and lung transplantation, warrants further investigation.

Gillian Griffiths talked about the Immunological Synapse. Her talk was amazing; from TCR recognition to centrosome polarization for killing of target cells. You were able to see how centrosome scans the synapse and identifies the point for secretion of cytotoxicity mediators.

NK cell-mediated cytotoxicity is involved in allograft rejection and autoimmune diseases. Deletion of the dedicator of cytokinesis 2 (DOCK2), a regulator of actin cytoskeleton in lymphocytes, suppresses cardiac allograft rejection in mice. In the plenary session entitled "PID without borders", Luigi Notarangelo outlined that DOCK-2 deficiency affects NK cell cytotoxicity by perturbing multiple signaling pathways including impaired degranulation. Because DOCK2 expression is limited to hematopoietic cells, DOCK2 might be considered as a potential novel therapeutic target for controlling rejection.

In the parallel session, "The Border between Innate and Adaptive Immunity", James Di Santo reviewed the definition of innate-like lymphocytes (ILCs). ILCs belong to an emerging family of innate immune cells that have been implicated in playing critical roles in human health and disease. ILC populations can be divided into three groups based on shared phenotypic and functional properties: ILC1 (including classical NK cells, non NK CD127+ and CD127- cells), ILC2 and ILC3 cells.

Eric Vivier discussed differential control of extracytoplasmic bacterial infections by subsets of ILCs. Common variable immunodeficiency patients who develop pneumonia, sepsis or granuloma, are found to have lower levels of NK cells (<50 cells/mL). This is an interesting observation. Low NK cell levels have also been observed following heart transplantation.

The protein cytotoxic T lymphocyte antigen-4 (CTLA-4) is an essential negative regulator of immune responses. CTLA-4 deficiency was presented as a novel autosomal dominant immune dysregulation syndrome by Desiree Schubert (abstract 360). Mutations in CTLA4 resulting in CTLA-4 haploinsufficiency or impaired ligand binding result in disrupted T and B cell homeostasis and a complex immune dysregulation syndrome (decreased circulating B cell numbers, hypogammaglobulinemia, recurrent infections, impaired T-reg suppressive function and multiple autoimmune clinical features).

Toll interleukin 1 receptor domain containing adaptor (TIRAP) is an adaptor acting downstream from TLR2 and TLR4. TIRAP-dependent TLR2 immunity is important for the control of staphylococcal infection in children lacking anti-staphylococcal lipoteichoic acid antibodies (anti-LTA). Anne Puel presented this interesting example of how the combined effect of two inherited deficiencies, anti-LTA and TIRAP, which is redundant in host defense, accounts for staphylococcal disease (abstract 92).

The transfer of knowledge from PID basic science to other clinical areas might improve our level of understanding of old and emerging problems.

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DCD Hearts at a Distance

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St Vincent's Hospital, Sydney announces the world's first heart transplants from DCD donors using normothermic ex vivo heart perfusion with the Transmedics Organ Care System.

Professors Peter Macdonald and Kumud Dhital from St Vincent's Hospital in Sydney Australia recently announced that the Heart Transplant Unit had performed 3 successful heart transplants from DCD donors. All 3 recipients have recovered well and have been discharged from the hospital. The first patient is now over 4 months post-transplant. In contrast to previous DCD heart transplants, in which donor and recipient were co-located in the same hospital, the donors for these transplants were located in separate hospitals. This includes two instances where the donor hospital was in another state and air transport was required to convey the donor heart to St Vincent's Hospital.

Key steps to establishing a clinical heart transplant service from DCD donors are (i) the development of a flush solution that 'post-conditions' the DCD heart, increasing its tolerability to warm ischemia, (ii) use of ex vivo oxygenated blood perfusion to prevent further myocardial ischemia, and (iii) use of normothermic ex vivo perfusion to allow reanimation of the heart and assessment of its viability. Preclinical studies to establish these steps were conducted at the Victor Chang Cardiac Research Institute. The results of these studies were published this year in the *American Journal of Transplantation* and provided the scientific underpinning to allow successful translation of DCD heart transplantation into the clinic. By going the distance, utilization of DCD donors has been projected to increase heart transplant numbers up to 30%.

A symposium on heart transplantation from DCD and marginal brain dead donors will be one of the highlights of the upcoming Nice Meeting.

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At the VAD Holiday Table

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Although the New Year has not yet arrived, the holiday cheer is abundant among all VAD team members. It is with great anticipation that preparations are taking place to celebrate the past, present and the future. One event typically planned is the Holiday dinner, to which one invites those that are so integral in contributing to his/her wholeness. In thinking what *new* guests for the year 2015 will be sitting at the VAD table, a few thoughts come to mind. The following "hot words" are being heard through-out VAD conferences and work settings. Only time will tell if these words do indeed become integral to our VAD world, but it is intriguing to "put them on the table" for discussion.

1) Thought partner – This concept challenges thinking and causes VAD team members to modify or change previously utilized paradigms, assumptions or actions [1]. An example of thought partners would be when a "seasoned" VAD Coordinator shares ideas and mentors those Coordinators new to the VAD world [1].

2) Mindfulness – This element involves holding painful thoughts and feelings in "balanced awareness", rather than hiding them with shame and close-mindedness. In caring for VAD patients over several years one may become attached, contrary to what the text books advise. As such, when the patients do die, it is productive to practice a balanced awareness. It is appropriate and human to feel the pain of loss but not to an extreme. In practicing mindfulness, we can more effectively process events and retain our current VAD team members [2].

4) Shared Care - This type of care model is a partnership between the VAD implant center and the patients' community health care team [3]. Shared Care is being presented at an increasing number of VAD conferences and the discussions among VAD team members predict this will indeed be a "hot word" for 2015.

5) Patient Satisfaction - The need to improve quality in healthcare delivery is imperative. A major component of quality of health care is patient satisfaction. Furthermore, patient satisfaction is critical to how well patients do; research has identified a clear link between patient outcomes and patient satisfaction scores. It is with this concept that VAD programs are now evaluating patients' satisfaction as an indicator of quality-of-life [4].

6) Third Generation VADs – The next generation of VADs are to be smaller and magnetically levitated, thus, eliminating wear and tear seen on current devices [5]. These devices are anxiously awaited by all team members, including the patient and caregivers.

Do you have predictions what words will be the "hot "words for 2015?

Disclosure statement: The author has no conflicts of interest to disclose.

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Don't Touch? Don't Kiss? Do Tell!

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On September 30, 2014, the CDC confirmed the first laboratory-confirmed case of Ebola in a Liberian man visiting Dallas, Texas, United States. He died one week later; cause of death: Ebola. At the same time, a healthcare worker involved in his care tested positive for the virus. Five days later, a second health care worker involved in the index patient's care also tested positive for Ebola. A week after the 3rd case, a 4th case of Ebola, in a physician working with **Doctors Without Borders**, was reported by the New York City Department of Health and Mental Hygiene [1]. The United States' government's reactions ranged from cooperation with the CDC's recommendations for infection prevention to more extreme reactions including orders to institute mandatory 21-day at home quarantine for all healthcare workers returning from endemic areas who had unprotected contact with a patient diagnosed with Ebola. Further, government agencies also enacted our legal institutions to block the ashes of Ebola victims entering specific states. We may never know whether these actions were beneficial or detrimental, but we do know this: all 3 cases of diagnosed Ebola following the index patient have since recovered and all definite exposure contacts and possible exposure contacts have completed a 21-day active surveillance period without a single new case reported. The United States has officially, and successfully, contained its Ebola virus outbreak, and the death of one Liberian man has effectively revealed the way Americans react to emerging biological threats from abroad.

Many kept up with the various Ebola virus news updates and had plenty of discussions with co-workers, family, and friends regarding potential plans if a patient with recent travel history to West Africa were to be encountered. On a similar note, how many conversations have been centered around Chagas disease? An infection arguably just as detrimental as Ebola. Why hasn't the media grasped and sensationalized this insidious infection? How do we counteract America's newfound expertise in regards to news surrounding the Ebola virus, but its relative naïveté in regards to the alarming news surrounding 5 newly identified cases of Chagas disease? No idea. Nonetheless, here's the most recent update on an important biological threat that received little attention during the "Fearbola" panic.

The old news is this: Chagas disease is an infection which manifests as cardiomyopathy and gastrointestinal disease, and is caused by the protozoan parasite *Trypanosoma cruzi*, spread by the

bite of triatomines, or “kissing bugs”, which are primarily found in the Americas. Less often, Chagas disease is spread vertically via congenital infection from mother to infant. Recently, 5 cases of Chagas disease were all reported near Houston, Texas - a 240 mile distance from Dallas, where the first Ebola case was confirmed. All 5 Chagas disease cases were confirmed to be autochthonous, or originating in the place where found [2]. Because Chagas disease was previously believed to be a remote disease primarily affecting rural and poor populations of Central and South America (i.e., a disease of immigrants) autochthonous cases of Chagas disease are especially alarming. However, in light of these 5 autochthonous cases found in Texas, Chagas disease *must* now be considered when a patient native to the southern United States presents with cardiac conduction system abnormalities, apical aneurysm in the left ventricle, or progressive dilated cardiomyopathy with congestive heart failure [3].

In news that should have made headlines, Melissa N. Garcia and researchers from Baylor College of Medicine have published data collected between 2008 and 2012 which supports an estimate of 1 in 6,500 Texan blood donors tested positive for *T. cruzi* [4]. Required screening for the Chagas parasite began in 2007 and the CDC estimated in 2012 that 1 in 354,000 nationwide blood donations test positive for *T. cruzi* [5]. The implication of these findings is that the United States is currently unprepared to address the rising incidence of *T. cruzi* infections, as well as rarer forms of transmission of *T. cruzi* via blood transfusions, organ transplantations and also vertical transmission. The acute infection of Chagas disease is primarily clinically silent, with rare symptomatic manifestations of fever, malaise and chagomas. For 8 to 12 weeks, circulating trypomastigotes are detectable by microscopy of fresh blood or buffy coat smears [6]. If undetected in the acute phase, the chronic phase of Chagas disease is characterized by undetectable circulating trypomastigotes; however, infected persons are still able to transmit trypomastigotes via blood components, organ donation and congenitally.

Thus far, the odds of transmission are relatively low for recipients of liver and kidney transplants, between 13-22%, while the risk of transmission for heart transplants is 75-100% [7]. However, there have been few studies examining blood product and organ donation transmissions. With increasing autochthonous cases, we may see a rise in these numbers in the United States. Another consideration is whether or not patients suffering from Chagas cardiomyopathy are candidates for heart transplant, especially with possible immunosuppression induced Chagas disease reactivation. Those undergoing organ transplantation due to manifestations of Chagas disease are monitored for life. In addition, delineation between disease reactivation and acute organ rejection must be prompt.

PLoS Neglected Tropical Diseases termed Chagas disease “The New AIDS of the Americas” [8]. We can't force the media to dramatize the reduviid kissing bug, but we can be our own informants. As health care workers, we have a responsibility to prevent the development of desperation and panic that will lead to a new generation of Buyers Clubs. After all, 'tis the season to be warm and big hearted.

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

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Pediatric eBook Release

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Hi folks,

I am writing to share exciting news!

First it was the online community, now it is the advent of e-books from ISHLT! Anyone can buy, you don't need to be a member (but you should join!).

Information at your fingertips!

The [ISHLT Monographs](#) are great but when you are rounding, do you have them with you? To answer the need for information where you are, when you need it, the authors of the [ISHLT Guidelines for the Management of Pediatric Heart Failure](#) have converted the paper monograph to a **fully searchable digital e-book!**

Even better, you can download it via Apple iBooks (on the iBookstore), or Amazon Kindle, Barnes and Noble Nook or even the Kobo!

I use it on my iPhone and it is terrific! **The cost is \$14.99 and it is available now!**

On Apple devices (iPhone, iPad, iPod Touch), go to the iBooks icon and search for ISHLT.

On Android, download the Kindle App on your Apple device, Android device or your Kindle and search for ISHLT.

Or you can download the Nook App on your Nook, Tab, iPad or any Android device and search for ISHLT.

If anyone needs help, just drop me an email dbaran@barnabashealth.org and I will be happy to help.

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ISHLT Grants and Awards Applications Now Online - APPLY TODAY

The 2014 ISHLT Grants and Awards applications are now available online at www.ishlt.org/awards. Deadline for receipt of applications is Thursday, January 15, 2015. Grants will be awarded at the ISHLT 35th Annual Meeting and Scientific Sessions, April 15-18, 2015 in Nice, France. Grants for which we are accepting applications are listed below.

NORMAN E. SHUMWAY CAREER DEVELOPMENT AWARD

A two-year grant, awarded in the amount of \$160,000 (\$80,000 per year).

TRANSPLANT REGISTRY EARLY CAREER AWARD

Awarded every other year in the amount of \$5,000. Up to three awards available.

NURSING & SOCIAL SCIENCES RESEARCH GRANT AWARD

Awarded annually in the amount of \$12,000.

RESEARCH FELLOWSHIP AWARD

Awarded every year in the amount of \$40,000.

INTERNATIONAL TRAVELING SCHOLARSHIP AWARD

Has two submission deadlines annually: August 1 and December 1. Awards are up to \$6,000 and up to 10 awards are available each year.

ISHLT/BAYER PULMONARY HYPERTENSION RESEARCH GRANT AWARD

Awarded every other year in the amount of \$100,000. This next award will be available in 2016.

HEARTWARE AWARD FOR TRANSLATIONAL RESEARCH IN MCS

A one-year award in the amount of \$65,000.

Grants will be awarded at the ISHLT 35th Annual Meeting and Scientific Sessions, April 15-18, 2015 in Nice, France. Grants for which we are accepting applications are listed below.

Outta This World Links

Interesting, Inspiring and Intriguing Links from Around the Globe

FROM AUSTRALIA:

Third Groundbreaking 'Dead Heart' Transplant at St Vincent's Hospital a Success

<http://www.dailytelegraph.com.au/newslocal/inner-west/third-groundbreaking-dead-heart-transplant-at-st-vincents-hospital-a-success/story-fngr8h4f-1227134065070?nk=b63b417b0bf8cd70eaa1666fa80016a4>

FROM CANADA:

Ryley Mitchell Receives Award from Canadian Transplant Association

<http://www.woodstocksentinelreview.com/2014/11/24/ryley-mitchell-receives-award-from-canadian-transplant-association>

FROM IRELAND:

Galway Heart Transplant Man Runs Dublin City Marathon

<http://connachttribune.ie/galway-heart-transplant-man-runs-dublin-city-marathon-987/>

FROM JAPAN:

Transplant Success: Boy Under 10 Gets Heart of Girl Under 6

<http://www.japantimes.co.jp/news/2014/11/25/national/science-health/transplant-success-boy-10-gets-heart-girl-6/#.VHTEJovF-Qw>

FROM USA:

Family Hears Son's Heartbeat in Another Man's Chest

<http://www.kare11.com/story/news/local/2014/11/25/family-hears-sons-heartbeat-in-another-mans-chest/70072740/>

Red-Hair, Passion, Fury, Shakespeare, Beethoven, Goethe and Opium

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In keeping with the form and structure of our December Issues of the Links, we turn our attention to Great Musical Composers and how they relate to the ISHLT (see [Romanticism, Nationalism, and Exoticism](#), [Hair, Lead, Deafness: The Heart of the Matter](#) and [The Magical, Mystical and Mythical Music of Mozart: The Mere Mortal](#)).

Hector Berlioz was born on December 11, 1803, just shy of 33 years after Beethoven's birth (December 17, 1770), in the Rhône-Alpes region of France situated between Vienne, Grenoble and Lyon in La Côte-Saint-André. His father sent him to Paris to study medicine with every intention of him returning home to the family medical practice. His passport to Paris described him as follows: five foot three or four in height, red hair, red eyebrows, deep-set gray eyes, high forehead and early beard growth. In his *Mémoires* Berlioz cited music and love, "the two wings of the soul", as the mainspring of his existence, and his distaste for medicine.

"When I entered that fearful human charnel-house, littered with fragments of limbs, and saw the ghastly faces and cloven heads, the bloody cesspool in which we stood, with its reeking atmosphere, the swarms of sparrows fighting for scraps, and the rats in the corners gnawing bleeding vertebrae, such a feeling of horror possessed me that I leapt out of the window, and fled home as though Death and all his hideous crew were at my heels. It was twenty-four hours before I recovered from the shock of this first impression, utterly refusing to hear that words anatomy, dissection, or medicine, and firmly resolved to die rather than enter the career which had been forced upon me."

Much to his father's dismay, his passion was music. As opposed to Beethoven or Mozart, the music education of Hector Berlioz was essentially self-taught, insomuch as he was sentenced by the proverbial "lousy teacher?" Autodidacts teach themselves what they think they need to know, but what they think they need to know is not necessarily what they need to know, but they can't teach themselves what they need to know, because they don't know that they need to know it. In actuality for Berlioz, ignorance was truly bliss. Having never learned to compose music the right way, he was capable and daring enough to take creative risks which a proper music education would have inhibited.

Not unlike Mozart, Berlioz fed on the emotional extremes and dramatic conflicts of opera. He was revolutionary and lived at the extreme edge of his emotions. As such, he pushed the boundaries and truly took the symphony outside Haydn's box. His individuality, originality and extremes of expression with little regard to the structured four movements of a symphony personalized the

expressive content of his famous symphony, the *Symphonies fantastique*, which instead had five movements and is now considered the "most remarkable first symphony ever written".

It was September 11, 1827 when Berlioz was thunderstruck by Harriet Smithson, an Irish actress who Berlioz insisted on calling Henriette, as she performed the role of Ophelia during a Parisian performance of Shakespeare's *Hamlet*. Berlioz writes:

"I come now to the supreme drama of my life. I shall not recount all its sad vicissitudes. I will only say this: an English company had come over to Paris to give a season of Shakespeare at the Odeon, with a repertory of plays then quite unknown in France. I was at the first night of Hamlet. In the role of Ophelia I saw Henriette Smithson. The impression made on my heart and mind by her extraordinary talent, nay, her dramatic genius, was equaled only by the havoc wrought in me by the poet she so nobly interpreted. That is all I can say."

Two and a half years later, he still had not met her, he further writes:

"No words can describe what I suffered. Even Shakespeare has never painted the horrible gnawing of the heart, the sense of utter desolation, the worthlessness of life, the torture of one's throbbing pulses and the wild confusion of one's mind, the disgust of life and the impossibility of suicide. I had left off composing. My mind was paralyzed as my passion grew. I could only suffer."

Perhaps it was this suffering that made Berlioz feel alive with an inspirational source, spewing out of his passion for Harriet Smithson. The *Symphonie fantastique* premiered in Paris on December 5th 1830, just six years after Beethoven's final symphony and only three years after his death. This was Berlioz's *avant-garde* autobiographical work that explored all emotions associated with love, from ecstasy to despair and his extravagant attempt to attract Harriet's attention. The audience was offered program notes with imaginative correlations with the music. In effect, the *Symphonie fantastique* was a program symphony, combining music with an extra-musical narrative. Its outline as follows:

First movement: "Rêveries – Passions"

Second movement: "Un bal" (A Ball)

Third movement: "Scène aux champs" (Scene in the Fields)

Fourth movement: "Marche au supplice" (March to the Scaffold)

Fifth movement: "Songe d'une nuit de sabbat" (Dreams of a Witches' Sabbath)

In 1830 France, at a time when Beethoven symphonies were just starting to be performed, it was a bold move to hand out such a program. A symphony was an abstract art form, not something that required a program to describe its movements. But Berlioz handed out this program and allowed the world to know what his [*Symphonie fantastique*](#) was all about: himself!

The first movement carried a sonata-form theme with the *Idée Fixe* – the fixed idea. This *Idée Fixe* represented his beloved image, Harriet Smithson, or rather his passion for her with rising and falling, sighing and drooping, wants and aches of unfulfilled passion with “moments of fury, of jealousy, its return to tenderness, its tears, its religious consolations...” the subject of the first movement, mood swings. The *Idée Fixe* found in all five movements bound the *Symphonie fantastique* together expressively and musically with thematic unity and continuity. The second movement had a dance, a waltz representing a party, as an exterior to the inner turmoil of the artist who cannot get the *Idée Fixe* out of his mind. The third movement, Berlioz’ middle movement of his five-movement scheme, was the scene in the country. This was where the drama of the first two movements turned hope into despair. He wondered if she ever really love him, “*Mon Dieu, sacre bleu!*” with a storm of doubt in his passionate heart.

In the fourth movement, the most famous of movements in this symphony and aptly named “March to the Scaffold”, Berlioz overdosed on opium and was on a psychedelic trip witnessing his own execution. Historical influences of the French Revolution and the Napoleonic-era of military marching were woven into this movement where he’s being carted around Paris during the “Reign of Terror” on his way to the guillotine. It was here where Berlioz’ genius emerged, creating something never heard before, the *Klangfarbenmelodie*. A technique that would not be used or described for another 100 years, the *Klangfarbenmelodie* occurs when different instruments play different notes of the theme which added color, tonality and spatial dimension to the melody.

In the fifth and final movement, “Dream of a Witches’ Sabbath”, Berlioz remained gripped in an opium-induced hallucination with more morbid fantasies concerning the unrequited love of a sensitive and passionate poet being murdered, executed and now tormented in hell. A ruined church with a broken, weed-infested graveyard, stinking sulfurous vapor permeates from the ground with a pine coffin containing a headless body of the artist and the ugly *idée fixe* approaches, greeted by the ghouls evoked by a parody of the *Dies irae* by Thomas of Celano. The *Dies irae* is considered one of the holiest and most important plainchants in the entire Catholic liturgy.

The clash of the red-headed, passionate Berlioz, who loved Shakespeare, Beethoven, Goethe and Opium as much as himself, resulted in the most original and modern symphony, the *Symphonie fantastique*. This symphony redefined the genre of symphony and it became a vanguard work for the romantic era, which ushered in the future music group of Franz Liszt and Richard Wagner.

It was two years after the premiere of the *Symphonie fantastique* in 1832 that Harriet Smithson and Hector Berlioz were married. He continued calling her Henriette, which drove her crazy. Shortly after their marriage, Harriet aged past the *ingénue* roles on which she had built her career on the stage, leaving her career awash. She turned to the bottle, became angry and shrewish, to the point that the small, poetic, delicate and pathetic Berlioz became physically afraid of her; not a storybook ending. His marriage to Smithson did not last, his second wife died in 1862 and his only child, Louis from Harriet, died in 1867. The lonely Berlioz died in Paris in 1868. He was buried in the Montmartre Cemetery with his two wives. His last words were reputed to be “Enfin, on va jouer ma musique”; “At last, they’re going to play my music”.

Recall that Voltaire's Enlightenment was characterized by the rise of the middle class individual with a true expression of individual freedom. The Classical-era composers were servants to their audience. Starting with Beethoven, and now Berlioz, they saw themselves as creative figures unto themselves beholden to nobody but themselves, epitomizing the Romantic era *artistes* who arose from the Enlightenment. Berlioz was a free spirit, responsible only to his muse, his talent and his genius. Thank God, he never learned to do things the "right" way, for his vision of music became incredibly influential. His critics referred to the *Symphonie fantastique* as a perfect example of his technical ignorance and his inability to do things correctly. His supporters described his symphony as an example of his unwillingness to adhere to any compositional imperative other than great storytelling. He created something much more compositionally adventurous and expressively uninhibited than he would have composed had he been worried about doing the right thing. He believed that the future of music was tied to making it a composite art form, blending literature and instrumental music with the whole to make it a thousand times greater than its parts. The whole of our ISHLT Society is a thousand times greater than the sum of its individual members. And maybe, just maybe, a few of us may check in or check out the Hotel Berlioz or Rue Berlioz while in Nice.

Finally, "abandon all hope ye who enter here," and to honor the 75th anniversary of the most beloved movies of all times, *The Wizard of Oz*, 1939 "haunted section with witches brew, I'd turn back if I were you" heed this warning before proceeding to examples of, [Symphonie fantastique – Dream of a Witches Sabbath](#), featured in [The Shining](#), 1980 and [Sleeping with the Enemy](#), 1990.

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