The Links newsletter welcomes Donald McRae, our Special Guest Editor for the September Issue. He is known by most of us as author of the first chapter of Volume 4 in the ISHLT monograph series: History of International Heart and Lung Transplantation. He should be known by all of us for his riveting work, Every Second Counts: The Race to Transplant the First Human Heart (2006). Mr McRae has distinguished himself as a two-time winner of the prestigious annual British literary award, William Hill Sports Book of the Year. His winning works are related to boxing and include Dark Trade: Lost in Boxing (1996) and In Black and White: The Untold Story of Joe Louis and Jesse Owens – which is also known as Heroes without a Country: America’s Betrayal of Joe Louis and Jesse Owens (2002). He is a respected, lively, articulate and knowledgeable author who is clearly full of passion about his subjects and topics. His other works include: Nothing Personal: The Business of Sex (1992), Winter Colours: Changing Seasons in World Rugby (1998) and The Great Trials of Clarence Darrow (2009). His next book, Under Our Skin, a memoir of life under apartheid in South Africa, will be published in March 2012. He was born and educated in South Africa and today lives with his family just outside London. His book Every Second Counts is a must read for all members of the ISHLT.

EVENY SECOND COUNTS
Donald McRae

Ten years ago this month, in September 2001, Christian Barnard died a lonely death in Cyprus. The reputation of the South African surgeon, who gained sudden and meteoric fame around the world when he transplanted the first human heart in 1967, had long since succumbed to controversy and even infamy. But a few days before the world changed forever, with the devastating attacks on 9/11, it was still possible to be struck by the pathos in one of Barnard’s final laments. Reflecting on the skin cancer which had begun to eat away his face, he said, “I now look more like the elephant man than the handsome guy who was once voted one of the world’s five greatest lovers by Paris Match.”

Barnard, in his last days before dying of bronchial blockage caused by a violent attack of asthma, had lost his health, his looks, his three divorced wives, his fleeting sense of glory and any remaining remnant of medical renown. Most obituaries highlighted the fact that he had travelled to Cyprus in the flailing hope of securing a contract to market olive oil as he declared that “growing old is humanity’s greatest tragedy.”

The 78-year-old surgeon struggled for his last painful breath in Paphos, close to the mythical birthplace of Aphrodite, the Greek goddess of love and beauty, but it seems appropriate now to remember a more obscure anniversary this month. Forty-five years ago, in September 1966, in the prosaic setting of a medical laboratory in Richmond, Virginia, Barnard watched with something approaching awe as Richard Lower used hypothermia and the surgical technique he had perfected with Norman Shumway to coolly transplant a heart from one dog to another.

Turning to his former perfusionist, Carl Goosen, who had moved to America and begun working in a lab next door to Lower, Barnard said in quiet but breathless Afrikaans: “My God, is that all it is?”

The pure simplicity of Lower’s operation had not happened by miraculous chance. Shumway and Lower had been working methodically in the then experimental field of cardiac transplant for eight long years. They were preparing for “the golden moment” when they would at last
“Every Second Counts” continued

attempt the feat in a human being – and were only prevented from plunging ahead by their own scientific caution, justified concerns about the inevitable immunological problems they would confront and the reality that US legislation would not permit them to procure the heart of a brain-dead patient.

Unshackled from such restraints in South Africa, where the government was more intent on bolstering the injustices of apartheid than debating antiquated medical ethics, Barnard resolved that he would return home and make history. Fifteen months later, in December 1967, a matter of days, hours, minutes and even seconds separated four rival teams in a race to transplant the first human heart. Shumway in Stanford, Lower in Richmond, Adrian Kantrowitz in New York and Barnard in Cape Town were all on the brink of “surgical immortality.” Barnard, the most audacious and least prepared of them all, “won” the race after a series of dramatic twists and turns of fate cleared his path. Celebrity soon devoured him as the world celebrated his success without really knowing much of the men whose groundbreaking research had made the operation possible.

Yet, by the time of his death in a different century, all the merits of Barnard’s bold intuition and unequivocal devotion and compassion for his patients had been distorted alongside his crumbling face. In medical circles Lower and, in particular, Shumway were revered for their perseverance as they overcame the immunological and legislative trials that made the early history of cardiac transplantation such a fraught and bloody business. The men who came “second” to Barnard also liked to remind us that, just as in ancient Greece, where Xerxes may have won his most famous battle before ultimately losing the war, history teaches us larger truths than stark facts.

“We never liked the idea of ‘a race,’” Lower told me once. “Norm [Shumway] and I thought in much broader terms – and that’s where Chris Barnard maybe differed to us. He had his eyes on the immediate ‘prize’. We wanted something that went far beyond that. But that doesn’t mean Barnard wasn’t a great character. I can understand why you wanted to write about him.”

Lower, as usual, was right. After his death I wanted to learn more about Barnard as a surgeon and a man. Even morepressingly, I wanted to discover who had preceded and followed him in the annals of transplantation. And the deeper I went, and the more I uncovered, the closer the connections became between all four men – Shumway, Lower, Kantrowitz and Barnard. They were closest friends or bitterest rivals, university classmates or surgical adversaries. But they were locked together in time as the pioneers of human heart transplantation. Their individual stories seemed to matter less than the overall journey they had shared as leaders of teams of men and women who transformed medical history.

Five years ago this month, in a much more humble and personal anniversary, my book about these four contrasting surgeons was finally published. I reluctantly called it Every Second Counts and, then, I squirmed a little at the apparent banality of the title. It appeared crass to me, as if I had traduced a surgical milestone into a coarse sporting event. I knew that Barnard being “the first” had ultimately ruined his life and disfigured his more easily forgotten contributions to medical science. Shumway, who had been hurt for forty years by “losing” to Barnard, was the real “hero” of cardiac transplant history – and yet Shumway himself pointed out that we owed much to the often reviled South African.

“What Chris Barnard did in focusing the
world’s attention on brain death should never be forgotten,” Shumway told me in 2004. “He paved the way on that issue and it became central to our whole early struggle in transplantation.”

I always think of that generosity of spirit every September when, in a small homage to the four surgeons who have all died in recent years, I read their words again. And when I look back at the transcripts of interviews I did with Shumway and Lower and Kantrowitz – the three unlucky “losers” in the transplant race – I see how often that phrase recurs with each of them. I did not notice it at the time but now it seems eerie to see how often, in their different ways, each of the great surgical pioneers told me that “every second counts.”

Kantrowitz, a compelling and charismatic New Yorker who added so much more with his work in developing the balloon pump, said it most colourfully: “Every second counts – every damn, beautiful one of ‘em – whether it’s on the [operating] table, in the [research] lab or just out there in real life. Sometimes we forget that. We’re too busy worrying to get on with living. But once we realize that every second of our life counts then we really are free. Chris Barnard, strangely enough, lived that philosophy to the fullest when immersed in the transplant race. I think we all did. That’s why we all felt so alive.”

I ended up writing obituaries of Shumway, Lower and Kantrowitz but, rather than feeling sad or deflated, I tried to remember the verve and the passion each of them, alongside the South African nemesis they eventually outstripped. And I also thought of the hundreds of thousands of people whose lives have been lengthened and enhanced by the now routine procedure of cardiac transplantation. I knew then, and even more clearly now, that the patients who have benefitted in some way from those raw early years of the transplant race never cared who was “the first” or “the most important” surgeon among a fading quartet of giants. It’s enough to accept that, at the start of another season, a new Fall, in this latest September of our lives, transplant patients can live on in the most significant tribute to those surgical innovators.

“Every Second Counts” continued

As one of the core disciplines of ISHLT, Heart Failure and Transplant Medicine will be among the most prominent topics discussed in Prague. With a record number of members’ proposals, this year’s invited sessions have been inspired by the concept that modern management of heart failure and transplant medicine is characterized more and more by a large mixture of topics ranging from pathology (with the forthcoming novelties of cardiac AMR), to basic science concepts (which are becoming necessary pieces of knowledge for the clinician). Clinical handling of advanced heart failure and heart transplant patients will remain the nucleus of the six dedicated concurrent sessions, two of which have been designed to foster interactivity between panel discussants and the audience. However, the invited speakers will additionally provide a broad perspective towards the basic mechanisms of the pathological processes to understand practical applicability of molecular biology techniques, clinical relevance of the novel immuno-biology processes involved in graft rejection, and a multidisciplinary outlook of patient’s care, involving LVAD and pharmacological management of PH.

The cutting edge of cellular and antibody-mediated acute rejection will be covered in three consecutive Satellite Symposia. The first will deal with the changing patterns and clinical manifestations of acute rejection, the role of endomyocardial biopsy monitoring in the modern era, and the clinical reliability of novel non-invasive tools based on molecular biology techniques. The second and third symposia, focusing on AMR, will discuss novel targets for treatment and updates of the pathological classification.

Donald McRae’s book, Every Second Counts: The Race to Transplant the First Human Heart, was first published in 2006.

ISHLT ANNUAL MEETING, APRIL 18-22, 2012, PRAGUE

HEART FAILURE AND TRANSPLANT MEDICINE SESSION HIGHLIGHTS

Luciano Potena, MD, PhD
2012 Program Committee Member

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The Links editorial board calls ISHLT members to participate in a new section of our monthly newsletter. The aim of the “Debate Corner” is to foster an interactive exchange of opinions and experiences regarding hot topics or controversies that will be posted in each Links issue. We believe that the cultural growth and the mission of our International Society is not only supported by scientific advancements but also by building the awareness of our responsibility as highly specialized healthcare providers towards the management of economic and human resources in the various healthcare systems around the world: our profession not only deals with the technical aspects of medicine, but also with the complex decision making on how to allocate precious and rare resources, of which donated allografts are the most representative example.

The October issue of the Links will be devoted to mechanical circulatory devices. We would like to invite members to share their opinions, and local experiences, about the economical and ethical policy that should drive MCS implants. As opposed to transplantation, this therapeutic option is virtually unlimited, and the newest technologies may allow a growing use of these devices as destination therapy, more than bridge to transplant. It is obvious that MCS implant as destination therapy in all patients with severe refractory CHF would lead most healthcare systems to bankruptcy. However we, as doctors, have the moral obligation to provide our patients with the most effective therapy available. Thus, how do you think MCS implant should be regulated, or how is it regulated in your country (e.g. free access or government restricted)? Who should benefit from MCS? Should MCS implant be allowed only to transplant centers or to any cardiothoracic centers? Which future do you envision for this therapeutic option? Please send your opinions and experiences in a short letter format (200 to 300 words maximum) to vgvalent@utmb.edu or susie.newton@ishlt.org. The most representative letters about the extent to which economics and ethics should drive MCS implants will be published in the next issue of the newsletter. Deadline for submission is September 22.
You finally feel that you have at least glanced at the most prominent and important landmarks in Prague … and it is time today to venture to a slightly less touristy corner of the city: the Petrin Orchard (“Petřínské Sady”) with its hilly gardens, funicular railway, Mirror Maze, and the Petrin Lookout Tower built in 1891, reminiscent of the Eiffel tower. The clear day will make for unobstructed views of the Prague skyline. After climbing the Petrin Hill paths and the 299 steps of the 197-foot tower, you feel that you have definitely deserved the view!

You spend a long time looking down at the Prague Castle, the Vltava River, the innumerable spires. And then you turn around. As you study the horizon, you notice a large structure that looks like a stadium but just seems freakishly big. You are so perplexed about it that you overcome your shyness and ask an old gentleman standing next to you. “Oh … that’s the Strahov Stadium,” says the man in broken but intelligible English. “You’re not from here, are you … It’s big. It’s the largest stadium in the world and can seat 220,000 and holds 9 football fields … That’s where our best football team, Sparta, practices. Did you see that great match they had against the Slavia team last Sunday? They also have some concerts in the stadium. But, really, it was built this big for events called ‘Sokol Slet’ before World-War II.”

You now remember that your Czech friend is part of a local branch of Sokol USA. Good thing your hotel room has internet, so you can fill all those holes in your Czech knowledge. Sokol means falcon. The Sokol organization was founded in 1862 as a youth movement of physical, moral, and intellectual training for the Czech nation. Its motto is “A sound mind in a sound body.” This organization is thought to have been the precursor to the Scout movement. The Strahov Stadium served primarily for displays of synchronized gymnastics during Sokol Slets: thousands of people performing the same routine to music in a synchronized fashion, creating patterns and formations on the field. Sokol played an important role in development of Czech nationalism and Sokol members even participated in the military during the two World Wars, taking part in the national resistance to the Austro-Hungarian Empire, the Nazi occupation, and the Communist Regime. After WWII, Sokol continued to function clandestinely in Czechoslovakia and mainly abroad, holding sports classes, youth camps, and smaller versions of Sokol Slets in many countries. After the fall of Communism in 1989, a Sokol revival has taken place in the Czech Republic and a comeback Sokol Slet was held in the Strahov Stadium in 1994.

You start thinking that maybe it is this longstanding sports culture that has led the Czechs towards excelling in multiple sporting events throughout the years. Somehow, in spite of its tiny size, this little country manages to grab a few decent medals at the Olympic games and World Championships. Somehow, the Czech Hockey team makes it to the finals every few years and managed to win its first Olympic Gold in 1998 in Nagano. Somehow, those Czech Hockey players seem to have infiltrated all other nations’ hockey teams, particularly the NHL (e.g. Dominik Hasek (pictured at left), Patrik Elias, Jaromir Jagr, Ales Hemsky, Tomas Kaberle, Milan Michalek, Robert Lang, David Hajek, Martin Straka etc.). And somehow, many Czech athletes have repeatedly drawn the worlds’ attention over the years. Here are a few snippets:

Emil Zatopek was a long-distance runner. He won 3 gold medals at...
“Third Prague...” continued

the Summer Olympics in Helsinki in 1952 and was nicknamed the “Czech Locomotive”. His wife, Dana Zatopkova, was an Olympic Javelin Thrower.

Martina Sablikova (pictured at right) is a multiple World Champion in speed skating who won 2 Olympic golds and a bronze in Vancouver 2010. Her success is a breakthrough and a surprise for the small Czech speed skating team, as the Czech Republic does not even have a dedicated speed skating course and Sablikova had to practice on frozen fishponds and on roller skates.

Jarmila Kratochvilova is a sprinter and middle distance runner. She set the world record for the 400 and 800 meters and won the World Championship in 1983. Her 800 run time remains a world record today and is the longest standing individual world record in Track and Field history.

Vera Caslavska has won a total of 7 Olympic gold medals in gymnastics. She is well known for her quiet protest to the Communist Regime at the 1968 Olympic games. In opposition to the government, she signed a protest document (called the 2000 word manifesto) just before the 1968 Olympics. After 1968, Caslavska was banned from public sports competitions until the fall of Communism. After 1989, she became an adviser to President Havel of the Czech Republic.

Petra Kvitova (pictured at left) is a rising tennis star in the Czech Republic and won the 2011 Wimbledon. Her predecessors, Martina Navratilova and Ivan Lendl, rank among the best tennis players of all times. They both started playing for Czechoslovakia in the seventies and subsequently became US citizens and played for the USA.

Well …. You now feel quite inspired and determined to rent a bicycle and work on that “sound mind in that sound body” of yours by taking advantage of the many bicycle trails that have been recently added to the Prague topography. Then you can feel better about yourself as you and your friends go watch the Czechs vs Slovaks in the Euro Hockey tomorrow.
ORGAN ALLOCATION SYSTEM FOR HEART TRANSPLANTATION IN GERMANY AS PARTICIPATING EUROTRANSPLANT COUNTRY
Nicola E Hiemann, MD, PhD, Roland Hetzer, MD, PhD
and Evgenij V Potapov, MD, PhD
German Heart Institute

Europe has several national and multinational allocation systems for organ donation. Spain, Italy, France, Switzerland, Scandinavia and other countries have distinct systems as compared to Germany, which belongs to the Eurotransplant (ET) countries comprising Belgium, Luxembourg, The Netherlands, Austria, Slovenia and Croatia. In Germany, there are two central organisations involved in organ allocation, the ET Foundation (www.eurotransplant.org) and the German Foundation for Organ Transplantation (DSO, www.dso.de).

ET, located in Leiden, The Netherlands, manages organ allocation, i.e. it handles the organ-specific waiting lists for the participating countries. Allocation of organs is restricted to ET residents to prevent “organ tourism”. However, there is a so-called 5% rule, which means a center may transplant less than 5% of non-ET residents per year of the total number of patients who received a transplanted organ in the prior year at its respective center.

In September 2005, the high urgency (HU) and the urgency (U) status were introduced. HU status for heart transplantation requires a cardiac index of <2.2 l/min/m², a mixed venous saturation of <55% and a pulmonary wedge pressure of >12 mmHg while the patient is on inotropic support for at least 48 hours with dobutamine >7.5 μg/kg/min or equivalent inotropes or milrinone >0.5 μg/kg/min or equivalent phosphodiesterase inhibitor with signs of secondary organ failure, e.g. sodium <136 mmol/l, increase in creatinine during the clinical course in spite of treatment, increase of transaminases or symptomatic cerebral perfusion deficit documented in a neurological report.

For patients on assist devices, HU status requires life-threatening mainly pump-related complications defined as failure of the implanted device that could only be treated by device exchange, infection of the assist device with positive blood cultures or other proof of infection of the device (sole infection of driveline excluded) or
repeated assist-related cerebral events demonstrated on a CT scan (without neurological sequelae that represent a contraindication to heart transplant). Children under 16 yrs of age (<45 kg) are accepted for HU status. A special case is acute re-transplantation due to primary graft failure within a week after transplantation, which is not HU indication. HU status requires weekly re-evaluation.

U Status for heart transplantation requires continuous inotropic support, assist device complications, documented intractable recurrent ventricular rhythm disorders, end-stage transplant vasculopathy or persisting angina pectoris. U status requires monthly re-evaluation.

In 2009, about 12,000 patients awaited a transplant in Germany, whereas only 4,709 organs were transplanted during that period. The number of heart transplants in Germany decreased from 382 in 2008 to 363 in 2009. In 2009, 363 heart transplants were performed in 25 German hospitals, while 974 patients were listed actively for heart transplant during the same time (+11.9% as compared to 2008). The largest heart transplant centers are located in Bad Oeynhausen (Heart and Diabetes Center North-Rhine Westfalia), Berlin (German Heart Institute Berlin), Munich (LMU University Hospital, Campus Grosshadern) and Hannover (Hannover Medical School).

With introduction of urgency algorithms the proportion of patients transplanted on HU status increased dramatically to 70% of all heart transplants. That also led to an increase in median waiting time on HU from about 10 days in the old allocation system to 23 days in 2006 and 100 days in 2009 (ET data 2009). Also, the median waiting time with normal urgency increased from about 1 year to almost 3 years. Regional allocation decreased from 82% to 37%, and transportation distances increased from 179 to 441 km as did transportation costs from 1,858 to 4,472 Euros and ischemic times from 208 to 264 min (Groetzner J. 2002). Perioperative and survival results were not affected significantly by the allocation policy. However, there were trends towards a higher perioperative mortality (21% vs, 8%; p=0.06), longer ICU stay (26 days vs. 19 days; p=0.08) and a higher rate of primary graft failure (14% vs. 8%; p=0.07) under the new allocation policy.

Due to organ shortage the proportion of patients who undergo bridge-to-transplant is rising continuously. The increasing HU waiting list time, the end-stage heart failure criteria and the high inotropic support led to a greater number of patients suffering further clinical deterioration while waiting and the need to save their lives by implanting an assist device. Once the patient is on a circulatory pump, the HU criteria change and allot only patients with life-threatening complications for urgent heart transplantation. The majority of these patients suffer from severe deep thoracic infection, which leads to an increase in early infection-related deaths. Further, patients on assist devices often have panel-reactive antibodies detected and thus are at high immunologic risk of developing early and severe acute cellular and/or humoral rejection after transplantation.

Other mortality factors associated with organ shortage are the acceptance of marginal donor organs, including gender-mismatched organs, those from old donors and those involving long transportation distances, and especially the so-called center-related allocation, which is a rescue allocation if 3 centers did not accept the organ for transplantation. In that case, the center selects the recipient, who is in general the most critically ill blood-group-compatible patient.

All these factors contribute to poor survival rates in Germany as compared to international data, e.g. only 80% survival at 1 year post-transplant. The key solution is to increase the donor pool, which might be supported by a change in German law towards an "all-in" donor strategy as compared to consent-driven donorship, and the introduction of local transplant coordinators, who actively seek potential donors. It remains unclear whether the former allocation system, which considered waiting time and encouraged local donation, might improve survival in this era of novel therapeutic drugs and improved post-transplant management.
In today's world of cardiac transplantation, immunosuppression in the perioperative period appears to be more of an art than evidence-based practice. Based on the ISHLT consensus statement released in 2010, 54% of centers currently use induction therapy at the time of transplantation, yet the average 1-year survival is above 90 percent regardless of the induction regimen. So what truly are the benefits of induction therapy and which populations should be considered?

Proposed Benefits:
• Enhanced immunosuppression in the immediate post-op period.
• Reduced acute rejection.
• Delayed use of nephrotoxic calcineurin inhibitors.
• Decreased cardiac allograft vasculopathy

Populations Potentially Benefitting:
• BTT with LVAD
• Re-transplant
• African-Americans with 4 or more donor mismatches
• Glomerular filtration rate less than 50

Perhaps the most logical approach is to use induction therapy in the absence of contraindications as opposed to having indications.

Contraindications:
• Active infection
• Previous allergic reaction
• Bone marrow suppression i.e. marginal CD2/CD3 counts or thrombocytopenia

Furthermore, with increased utilization of LVADS and increasing propensity for drive line infections, what induction therapy if any should be used in these patients at the time of transplantation? At our institution it is well documented in a retrospective analysis, that when drive line infection is the causative factor for transplantation, induction therapy has no bearing on 6 month mortality or post-transplant LOS. However, there was a trend towards hospital readmission for infection unrelated to the pre-existing driveline infection within the first 6 months.

Regardless of the induction agent used, more clinical thought needs to go into the decision whether to use induction therapy or not. Ultimately the evidence would say there is a 50 percent chance that an artist will choose to paint.

The presidents of the ASTS, AST, AOPO, and NATCO delivered a joint letter August 23 to Assistant Secretary of Health, Howard Koh, MD, urging revision of the “PHS Guideline for Reducing HIV/HBV/HCV Transmission”, which is expected to be published soon in the Federal Register.

The letter charges that the guideline “has significant deficiencies, espousing firm recommendations that are impractical and not evidence-based. Most significantly, the proposed guideline has the potential to unnecessarily reduce the availability of organs for transplantation, an outcome inconsistent with HHS’ broader policy objectives and with the needs of our patients…the draft guideline reflects the CDC’s focus on complete elimination of the risk of disease transmittal, without adequate consideration of the need to balance this objective against the need to increase the availability of organs for transplantation. In our view, if the guideline is finalized as proposed, organ wastage will increase and many of our patients will be unnecessarily deprived of life-saving transplants. Quite simply, as the consequence of a misguided effort to completely eliminate all risk of disease transmittal, more patients will die of organ failure than will be saved by avoiding donor-derived infection.”

The professional groups (ASTS, AST, AOPO, NATCO) had participated in the development of the new guidelines but the resulting document so deviated from their expert recommendations that most of these experts withdrew their names from it and sent a dissenting letter to Assistant Secretary Koh.

Perhaps even more importantly, the letter expresses "our broader concern is that this document, like many that are issued by various
There have been concerns about the potential negative immunologic effects vaccines might have on transplant patients. Anecdotes defined the notion that vaccines could increase the risk for allograft rejection by “revving” up recipient cell-mediated immune responses or inducing clinically relevant donor-specific antibody (DSA) production. While a recent study has shown an increased rate of de novo DSA after adjuvanted H1N1 vaccination, safety studies of influenza vaccine use in transplant patients have shown no convincing data between receiving a vaccine and subsequent clinically relevant rejection (1-3).

Another concern about vaccine use in transplant recipients is their overall effectiveness in immunosuppressed individuals. Although it is true that a smaller antibody-generating response to influenza vaccine may be seen in patients on immunosuppressive therapies compared to the “normal” healthy population, those response rates aren’t zero (3). Many contributing factors may affect those serological results, including timing in relation to the procedure and overall degree of immunosuppression. Some data exist, however, that serology may not always reflect effective immune responses in transplant recipients. Even with no significant antibody response, some cell-mediated response may be induced by receipt of vaccination (4). If that translates into any clinical benefit at all, then we shouldn’t ignore the possibility that some clinical effects may be induced in our transplant patients receiving vaccines. I’ll take a small chance over a zero chance just about any day. And so will your patients.

Whatever potential problems we may run into with vaccines in our heart and lung transplant populations, the potential risks of severe infections such as influenza and others, need to be considered. Possible complications and less-than-ideal responses must be balanced with the overall potential good of preventing and spreading these serious diseases. Influenza vaccination, in particular, has the potential to save thousands of lives every year. Vaccinating healthcare workers and household contacts remains a constant pressing need, and should be emphasized among ourselves and our colleagues who bear the responsibility of working with transplant patients. Hopefully, future prospective studies in transplant patients will shed even more light on how to optimize our approach to preventing life-threatening infections with vaccines. In the meantime, maybe we should all be a little more like Jenner and roll up our own sleeves to protect our patients.

References
Transplant professionals should be aware of the kind of problems heart recipients may experience long after transplantation. A basic knowledge of a patient’s everyday life is important when planning individual counseling and rehabilitation. Health-related quality of life (HRQoL) outcomes after transplantation have been investigated. The concept of HRQoL and its determinants have evolved since the 1980s encompassing those aspects of overall quality of life that can be clearly shown to affect health—either physical or mental.

Researchers wishing to assess the HRQoL of heart recipients have a range of questionnaires to choose from. These include generic questionnaires (e.g. Medical Outcomes Study 36-Item Short Form [SF-36] Health Survey and EuroQol-5D questionnaire [EQ-5D]) and disease or treatment-specific questionnaires (e.g. Transplant Effects Questionnaire [TxEQ], Kansas City Cardiomyopathy Questionnaire [KCCQ] or the Minnesota Living with Heart Failure Questionnaire [MLHFQ]). The SF-36 consists of eight scaled scores: vitality, physical functioning, bodily pain, general health perceptions, physical role functioning, emotional role functioning, social role functioning and mental health (www.sf-36.org). The EQ-5D questionnaire measures states of health in five dimensions: mobility, self care, usual activities, pain or discomfort, and anxiety or depression (www.euroqol.org). TxEQ is a questionnaire assessing the responses of transplant recipients to the receipt of an organ, including their self-care behavior (Ziegelmann JP et al. Br J Health Psychol. 2002; 7: 393-408). KCCQ is a 23-item, self-administered instrument that quantifies physical function, symptoms (frequency, severity and recent change), social function, self-efficacy and knowledge, and quality of life (Faller H et al. Psychother Psychosom Med Psychol. 2005; 55:200-8). The content of the MLHFQ was selected to represent the ways heart failure and treatments can affect key physical, emotional, social and mental dimensions of quality of life (www.license.umn.edu/Products/Minnesota-Living-With-Heart-Failure-Questionnaire).


Because of increasing survival rates among transplant recipients, there is growing attention on evaluating and enhancing patient HRQoL during these extended years of survival. Taking into account the relative scarcity of donor hearts and the high cost of these procedures, it might be useful to examine pre-operative predictors of HRQoL. Longer term and longitudinal follow-up of these and similar cohorts will further identify patterns of HRQoL, and might identify areas for the improvement of medical or other supportive protocols (Saeed I et al. J Heart Lung Transplant. 2008; 27: 675-81).
**MEETING LINKS**

Click on society names for more information about the meeting.

### SEPTEMBER ’11
- **European Society for Organ Transplantation** (ESOT)  4th – 7th  Glasgow
- **Heart Failure Society of America** (HFSA)  18th – 21st  Boston
- **European Respiratory Society** (ERS)  24th – 28th  Amsterdam

### OCTOBER ‘11
- **European Association for Cardiothoracic Surgery** (EACTS)  1st – 5th  Lisbon
- **Cleveland Clinic Foundation Heart Failure Summit** (CCF)  20th – 21st  Cleveland
- **American College of Chest Physicians** (ACCP)  22nd – 27th  Honolulu

### NOVEMBER ‘11
- **Southern Thoracic Surgical Association** (STSA)  9th – 12th  San Antonio
- **American Heart Association** (AHA)  13th – 16th  Orlando

### JANUARY ’12
- **Society of Thoracic Surgeons** (STS)  Jan 30th – Feb 1st  Fort Lauderdale

### FEBRUARY ’12
- **Canadian Society for Transplantation** (CST)  23rd – 25th  Quebec City

### MARCH ’12
- **American College of Cardiology** (ACC)  24th – 27th  Chicago

### APRIL ’12
- **International Society for Heart and Lung Transplantation**  18th – 21st  Prague
- **American Surgical Association** (ASA)  26th – 28th  San Francisco
- **American Association for Thoracic Surgery** (AATS)  Apr 28th – May 2nd  San Francisco

### MAY ’12
- **American Association of Immunology** (AAI)  4th – 8th  Boston
- **American Thoracic Society** (ATS)  18th – 23rd  San Francisco

### JUNE ’12
- **American Transplant Congress** (ATC)  2nd – 5th  Boston
- **American Society for Artificial Internal Organs** (ASAIO)  14th – 16th  San Francisco
- **Western Thoracic Surgical Association** (WTSA)  28th – 30th  Maui

### JULY ’12
- **The Transplantation Society Bi-Annual Congress** (TTS)  15th – 19th  Berlin

### AUGUST ’12
- **European Society of Cardiology** (ESC)  25th – 29th  Munich
About 2500 years ago in August (not really in existence) or September on the field of Marathon, Greece, a pivotal moment in human history occurred. It was a moment when the roots of democracy sprouted, a moment that government must rest upon the consent of the governed. British thinker John Stuart Mill claimed this monumental moment on the battlefield of Marathon as more important in the evolution of English Liberty than the Battle of Hastings (1066 CE), where William the Conqueror won England.

It was at Marathon where the Athenians chose to conquer, fight and die for freedom rather than be enslaved by the Persians. It was here in Greece where the idea of government of the people, by the people and for the people was conceived. On this battlefield of Marathon the outnumbered Athenians routed the Persians and their Master Darius I.

Herodotus, considered the father of history, recited his true work of history to an Athenian audience nearly a generation later around 444 BC and warned “do not go the way of the Persians – you study history to learn from the lessons of the past and avoid the hubris that had destroyed every great nation before it.” Memories fade with time and stories differ. Herodotus chronicles Phidippides (a runner, perhaps a messenger – their means of communication) running between Athens and Sparta. It was not until Plutarch who describes a runner from Marathon to Athens. Over two millennia, the stories are further altered and interpreted leading to Robert Browning’s poem in the 19th century leaving us with Phidippides running 26 miles from Marathon to Athens telling the Athenians, “…rejoice, we conquer!…” and with those words his great heart “bursts,” he dies. Or was it simply, “…joy in his blood bursting his heart, - the bliss!? Was this hubris, sinful pride (we won! we won!) that led to his death? Or what we have here is the first description of death from heart failure or takotsubo.

Hubris was a concept emphasized during the classical Greek period. A better example of hubris comes from the playwright Aeschylus with the oldest surviving play in theater, The Persians. In this Athenian tragedy Aeschylus teaches us the primary reasons why the Athenians defeated the Persians. First, they were fighting for freedom and secondly, the Persian King, Xerxes, committed hubris, showing outrageous arrogance when he lashed out at the waters when nature defied him at the Hellenspont (Dardenelles). Perhaps the Persian army “feared” Xerxes, more than they feared the Athenians. There was irrational fear or “panic” as alluded to from Herodotus to Aeschylus to Plutarch to Polybius and finally to Robert Browning. The word panic derives from the Greek god Pan.

From this seminal time, this seminal culture, and seminal location we have the birth of history and hubris, and the birth of freedom and probably fitness. We have a Greek city-state, Athens, which trained and exercised all that stood together. From this we know that history is made by ideas, by great men and women, and by great events. Our own short history in heart failure and transplantation should be studied carefully and understood. We learn from the experiences of the past in order to keep ourselves from making the same mistakes. From this we have a birth of national freedom and to have autonomy to live under our own laws so we can also live as we choose balanced by what’s best for all. This leads to our freedom of inquiry and conscience. All the while we must contain our own foolish pride as we promote sport and exercise. As I link this newsletter with the August issue, take note of defending ourselves against two important human frailties, hubris and bias. I should write about these frailties. Pardon me; Jane Austen beat me to it a couple centuries ago, Pride and Prejudice.

The human trait of story-telling has been with us forever. The origin of the Olympics reveres Phidippides and the marathon. Our attention to great athletes and physical prowess leaves us in awe. Take note of Babe Ruth, Jesse Owens, Joe Louis, Muhammed Ali, and Michael Jordan. What about hubris in their lives? My vote to the greatest athlete of all time goes to Secretariat (Big Red). Take note of the story-telling and the hubris involved in the recent motion picture, Secretariat. In this movie, the owner of Sham, Secretariat’s rival, displayed outrageous arrogance. Also, Secretariat’s jockey, Ron Turcotte supposedly rode a thoroughbred so hard that its heart “burst” when in fact the horse expends more energy if the jockey holds it or keeps the horse from running freely. We tell (fabricate) great stories today as done 2500 years ago. What’s the truth? Exercise and proper diet are our best and least expensive forms of prevention. And, every second truly counts.