

## Original Article

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# Introduction to the Supplement: Innovation Associated with the Treatment of Patients with Congenital and Pediatric Cardiac Disease

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THIS SUPPLEMENT TO CARDIOLOGY IN THE YOUNG represents the seventh annual Supplement generated from the two meetings that compose “Heart Week in Florida”<sup>1–6</sup>. As I have emphasized in previous supplements, Florida is the fourth largest state in the United States of America. The programme for care of children with congenital cardiac malformations at Children's Hospital of Philadelphia is one of the largest, and most prestigious and comprehensive, in the world. The Congenital Heart Institute of Florida, in turn, is the largest and most comprehensive programme providing services for patients with congenital cardiac disease in Florida. “Heart Week in Florida”, the joint collaborative project sponsored by the Cardiac Center at the Children's Hospital of Philadelphia, together with the All Children's Hospital of Saint Petersburg and the Congenital Heart Institute of Florida, averages over 1000 attendees every year and is now recognized as one of the major planks of continuing medical and nursing education for those working in the fields of diagnosis and treatment of cardiac disease in neonates, infants, children, and adults.

All institutions involved with the organization of the events of “Heart Week in Florida” are very grateful to Bob Anderson, and the team at

Cardiology in the Young, for their ongoing support, and for the opportunity to publish this Supplement, as well as the six prior Supplements. On a personal note, I would like once again to congratulate Bob for his ability to remain massively involved in the academic world of professionals caring for patients with congenitally malformed hearts, even after his official so-called “retirement”. I would again like to thank Bob for his support, friendship, mentorship, professional guidance, and advice over the past 12 years. Bob has played a major role in the development of my own career, and I am appreciative for all that he has done for me. He placed an amazingly high level of trust in me when I was very young, and I appreciate this support. Bob has also been a strong supporter and advocate of our programme at All Children's Hospital and The Congenital Heart Institute of Florida for quite some time. In 2010, Bob will be a featured speaker at our annual February meeting for the ninth consecutive year. Every morning for all nine of these years, we begin our sessions with an anatomy lesson from Bob. On a daily basis, he sets the stage for the rest of the day, and raises the academic level of our meeting.

The Cardiac Center at the Children's Hospital of Philadelphia hosted their 12th Annual Postgraduate Course in Atlantis Resort, Nassau, Paradise Island, The Bahamas, from February 6–10, 2009. This annual meeting organized by The Cardiac Center at the Children's Hospital of Philadelphia, under the direction of Gil Wernovsky and Tina Mannices, is typically attended by over 750 professionals and exhibitors gathered from around the globe to hear late-breaking research, to discuss controversial topics,

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to review current practices, and to enjoy each others' company and insight<sup>7</sup>. Physicians make up approximately half of the attendees, and include representatives from all disciplines involved in the care of children with cardiac disease, including cardiologists, intensivists, surgeons, anaesthesiologist, neonatologists and maternal fetal specialists. The remaining attendees include advanced practice, operating room, catheterization lab and bedside nurses, sonographers, physician assistants, respiratory therapists, perfusionists, and administrators. A highlight of the meeting organized by Children's Hospital of Philadelphia is the featured lectures in Cardiology, Cardiac Surgery, and Nursing (Table 1). Over the last several years, this meeting has alternated annually between being held on the east coast of the United States of America, usually in Orlando, Florida, and being held on the west coast, usually in Scottsdale, Arizona. As stated above, however, in 2009, from February 4 through 8, the Cardiac Center at the Children's Hospital of Philadelphia hosted their 12th Annual Update on Pediatric and Congenital Cardiovascular Disease: Strategies to Improve Care Through a Multidisciplinary Approach at Atlantis in Paradise Island, The Bahamas from February 4–8, 2009. In February 2010, the 13th Annual Update on Pediatric Cardiovascular Disease: Bringing Interdisciplinary Evidence-Based Practice to the Patient, organized by Children's Hospital of Philadelphia, will return once more to Orlando, Florida, from February 10 through 14, 2010, and will be housed in the newly renovated Contemporary Resort and Convention Center in Walt Disney World. To view the entire programme and register for the meeting, please visit the following web site: [www.chop.edu/cardiology2010]. For detailed information, please e-mail Tina Mannices at: [mannices@email.chop.edu].

In 2009, the component of the joint programme organized by The Congenital Heart Institute of Florida (CHIF), along with All Children's Hospital, and representing our own ninth annual International Symposium on Congenital Heart Disease, was held from February 13 through 17, 2009, with its focus being *Cardiac Septal Defects*. Our Annual International Symposium on Congenital Heart Disease with Echocardiographic, Anatomic, Surgical, and Pathologic Correlation is held every February, and is now entering its tenth year. This meeting is sponsored by All Children's Hospital [www.allkids.org], The Congenital Heart Institute of Florida [www.chif.us], and the University of South Florida. Our meeting in 2009 was our ninth annual meeting and, for the first time, was co-sponsored by The American Association for Thoracic Surgery [http://www.aats.org/CME/Programs.html]. Our meeting to be held in 2010 will again be co-sponsored by The American Association

Table 1. The Featured Lectures given thus far during the Annual Postgraduate Course in Pediatric Cardiovascular Disease organized by Children's Hospital of Philadelphia.

<b>The "C. Walton Lillehei" Lecture</b>	
2000	Thomas R. Karl
2001	Marc de Leval
2002	Aldo R. Castaneda
2003	Thomas L. Spray
2004	William G. Williams
2005	Edward L. Bove
2006	Martin Elliott
2007	Pedro J. del Nido
2008	Frank L. Hanley
2009	Scott M. Bradley
<b>The "William J. Rashkind"</b>	
2002	Thomas P. Graham
2003	Welton M. Gersony
2004	Jane W. Newburger
2005	Norman H. Silverman
2006	Andrew Redington
2007	Philipp Bonhoeffer
2008	Robert Shaddy
2009	Lynn Mahony
<b>The "T. Garrett Rauch" Memorial Nursing Lecture</b>	
2000	Jane Barnsteiner
2001	Nancy Eckle
2002	Catherine K. Madigan
2003	Patricia A. Hickey
2004	Mary Fran Hazinski
2005	Elisabeth C. Smith
2006	Kathleen Mussatto
2007	Martha A.Q. Curley
2008	Cynda Hylton Rushton
2009	Philip Moons
<b>John C. Downes Lecture in Pediatric Anesthesia and Critical Care Medicine</b>	
2008	William J. Greeley
2009	Peter C. Laussen

for Thoracic Surgery and will have its focus on *Rare and Challenging Lesions*, with sessions aimed specifically at multidisciplinary issues related to the following topics:

- Pulmonary atresia with intact ventricular septum in the presence of fistulous connections with the coronary arteries,
- Hypoplastic left heart syndrome in the presence of fistulous connections with the coronary arteries,
- Anomalous pulmonary origin of coronary artery,
- Anomalous aortic origin of coronary artery,
- Aortopulmonary window,
- Aortico-ventricular tunnels, and
- Congenital cardiac disease associated with tracheal stenosis

The overall emphasis of the meeting is multidisciplinary, with involvement of paediatric cardiac

surgery, paediatric cardiology, paediatric cardiac critical care, paediatric cardiac anaesthesia, nursing, perfusion, and ultrasonography. Attendance at our meeting is typically between 250 and 300 participants.

- Our 2007 meeting had 269 attendees from 30 states and 14 countries. Attendees were 43% physicians, 41% nurses, perfusionists, and ultrasonographers, and 16% allied health care professionals. The University of South Florida designated this educational activity for a maximum of 24.25 AMA PRA Category 1 Credits.
- Our 2008 meeting had 270 attendees from 32 states and 16 countries. Attendees were 52% physicians, 31% nurses, perfusionists, and ultrasonographers, and 17% allied health care professionals. The University of South Florida College of Medicine designated this educational activity for a maximum of 30.25 AMA PRA Category 1 Credits.
- Our 2009 meeting had 270 attendees from 32 states and 16 countries. Attendees were 40% physicians, 49% nurses and physicians assistants, and 11% perfusionists, ultrasonographers, and allied health care professionals. The University of South Florida College of Medicine designated this educational activity for a maximum of 29.5 AMA PRA Category 1 Credits (Program #BD2009399/1170).

In Table 2, I highlight the featured topics and speakers from the meeting held in St Petersburg. The true summit of this meeting is the George Daicoff Lecture, given by the featured speaker to honour the founder of our surgical programme in Saint Petersburg. Previous and future Daicoff Lectures are presented below:

- (2003) Leonard L. Bailey and his wife Nancy from Loma Linda University Medical Center, California
- (2004) Martin J. Elliott from The Great Ormond Street Hospital for Children, London, United Kingdom
- (2005) Marc deLeval from The Great Ormond Street Hospital for Children, London, United Kingdom
- (2006) Ross M. Ungerleider and his wife Jamie Dickey from Oregon Health Sciences University, Oregon
- (2007) Constantine Mavroudis and Carl Backer from Children's Memorial Hospital, Chicago
- (2008) Tom Spray from Children's Hospital of Philadelphia, Philadelphia
- (2009) Marshall Lewis Jacobs, Drexel University College of Medicine, Philadelphia, Pennsylvania
- (2010) Roberto Canessa, Montevideo, Uruguay

The 2010 Daicoff lecture will be given by Roberto Canessa, MD, and will be titled: "*The Value of Life –*

*Lessons from the Andes*". Dr Canessa is considered the best paediatric cardiologist in Uruguay, and is "one of 16 Uruguayan rugby players, friends, and relatives who survived for two months after their plane crashed in the Andes and are forever bound to one another. The details of their story, made famous in the book and movie *Alive*, are too gruesome to forget: With just the remnants of the plane's contents at their disposal, the group had no choice but to turn to cannibalism. Three of the young men, Roberto Canessa, Nando Parrado, and Antonio Vizintín, made a daring trek through the mountains to reach help. While Vizintín returned to the fuselage, Canessa and Parrado made human contact in Chile after ten days. Their friends back at the wreckage were back home in time for Christmas." [<http://nationalgeographic.org/adventure/alive/survivors.html>]

At the time of the plane crash, Dr Canessa was a 2nd year medical student. After the plane crash, he continued studying Medicine. He is married to Laura, and has two sons and a daughter. He is considered the best paediatric cardiologist in Uruguay. He ran for the Uruguayan Presidency in the 1994 elections but lost. [<http://members.aol.com/PorkinsR6/now.html>]

In 2010, the Congenital Heart Institute of Florida and All Children's Hospital will host our 10th annual meeting, which will take place from February 6 through 9. The focus will be Rare and Challenging Lesions. To view the entire program and register for the meeting, please visit the following web site: [[www.allkids.org/conferences](http://www.allkids.org/conferences)]. For detailed information, please e-mail Melodye Farrar at: [[FarrarM@allkids.org](mailto:FarrarM@allkids.org)].

We have now reached the situation whereby the proceedings of the meetings held in 2003, 2004, 2005, 2006, 2007, 2008, and 2009 were published as supplements to *Cardiology in the Young*.<sup>1-6</sup> This supplement is the fifth that we have produced jointly with Children's Hospital of Philadelphia, our prior joint efforts gathering together the written account of the activities of the meetings held in 2004, 2006, 2007, and 2008.<sup>2,4-6</sup>

The part of the joint programme organized by the Congenital Heart Institute of Florida and All Children's Hospital will continue to take place in Saint Petersburg, even in the years when the part designed by the team from Children's Hospital of Philadelphia will be held outside of Florida, as occurred in 2009 in the Bahamas, and as will occur in 2011, when the meeting will return to Arizona. Even during these years when the meeting organized by Children's Hospital of Philadelphia is held outside of Florida, "Heart Week" will continue to be a collaborative project as manifest by the collaborative

Table 2. Featured Topics and Speakers during the Symposiums organized by the Congenital Heart Institute of Florida and All Children's Hospital.

<b>2002:</b>	<b>Second Annual Symposium:</b>
Focus:	Abnormalities of the Ventricular Inlets and Atrioventricular Valves
Day 1:	Echocardiography
Day 2:	Tricuspid valve
Day 3:	Mitral valve
Day 4:	Common atrioventricular valve
Featured Guest Speaker:	Bob Anderson, Great Ormond Street, London, United Kingdom
<b>2003:</b>	<b>Third Annual Symposium</b>
Focus:	Hypoplastic Left Heart Syndrome
Day 1:	Echocardiography
Day 2:	Staged palliation and the Norwood Operation
Day 3:	Replacement therapy and Cardiac Transplantation
Day 4:	Biventricular Repair
Featured Guest Speakers:	Leonard L. Bailey and his wife Nancy Loma Linda University Medical Center, Loma Linda, California
<b>2004:</b>	<b>Fourth Annual Symposium</b>
Focus:	Controversies concerning the Ventriculo-arterial Junctions
Day 1:	Echocardiography
Day 2:	Pulmonary Valve and Reconstructions of the Right Ventricular Outflow Tract
Day 3:	The Aortic Valve and the Ross Procedure
Day 4:	The Arterial Switch Procedure
Featured Guest Speaker:	Martin J. Elliott, Great Ormond Street, London, United Kingdom
<b>2005:</b>	<b>Fifth Annual Symposium</b>
Focus:	The Functionally Univentricular Heart
Day 1:	Echocardiography
Day 2:	Shunts and Bands
Day 3:	Glenn and Fontan Procedures
Day 4:	Cardiac Transplantation
Featured Guest Speaker:	Marc deLeval, Great Ormond Street, London, United Kingdom
<b>2006:</b>	<b>Sixth Annual Symposium</b>
Focus:	Ventricular inlets and atrioventricular valves
Day 1:	Echocardiography
Day 2:	Tricuspid valve
Day 3:	Mitral valve
Day 4:	Common atrioventricular valve
Day 5:	Discordant Atrioventricular connections
Featured Guest Speakers:	Ross M. Ungerleider, and his wife Jamie Dickey, Doernbecher Children's Hospital, Oregon Health Sciences University, Portland, Oregon
<b>2007:</b>	<b>Seventh Annual Symposium</b>
Focus:	Hypoplastic Left Heart Syndrome
Day 1:	Echocardiography
Day 2:	Staged palliation and the Norwood Operation
Day 3:	Replacement therapy with Cardiac Transplantation, Biventricular Repair and Hybrid Procedures
Day 4:	Adults with Congenital Heart Disease
Featured Guest Speakers:	Constantine Mavroudis and Carl Backer Children's Memorial Hospital, Chicago, Illinois
<b>2008:</b>	<b>Eighth Annual Symposium</b>
Focus:	Tetralogy of Fallot
Day 1:	Echocardiography
Day 2:	Tetralogy of Fallot with pulmonary stenosis
Day 3:	Complex Tetralogy of Fallot
Day 4:	Adults with Congenital Heart Disease – Late problems with TOF Pediatric Cardiac Critical Care
Featured Guest Speaker:	Tom Spray, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania
<b>2009:</b>	<b>Ninth Annual Symposium</b>
Focus:	Cardiac Septal Defects
Day 1:	Critical Care Symposium
Day 2:	Echocardiography

Table 2. *Continued*

Day 3:	Atrial Septal Defects
Day 4:	Ventricular Septal Defects
Day 5:	Atrioventricular Septal Defects
Featured Guest Speaker:	Marshall Lewis Jacobs, MD, Drexel University College of Medicine, Philadelphia, Pennsylvania
<b>2010:</b>	<b>Tenth Annual Symposium</b>
Focus:	Rare and Challenging Lesions
Day 1:	Echocardiography
Day 2:	Pulmonary atresia-intact ventricular septum with coronary fistulas or sinusoids present, and Hypoplastic left heart syndrome with coronary artery fistulas or sinusoids present
Day 3:	Anomalous pulmonary origin of coronary artery, and Anomalous aortic origin of coronary artery
Day 4:	Aortopulmonary window, Aortico-left ventricular tunnel, and Congenital cardiac disease associated with tracheal stenosis
Featured Guest Speaker:	Roberto Canessa, MD, Montevideo, Uruguay

publication of this Supplement, as well as the various shared members of our international faculties. As has been stated on the web site for the programme coordinated by Philadelphia, "Providing optimal care for neonates, children and young adults with heart disease requires a multidisciplinary team approach, including physicians (from cardiology, cardiac surgery, cardiothoracic anesthesia, neonatal and paediatric critical care medicine, and multiple consulting services), nurses, perfusionists, respiratory therapists, social workers and many others. All of these various practitioners must be experts in their own area, but should also be knowledgeable in what the other members of the team provide to the overall care of the patient." This statement presents the rationale for not only the annual part of the meeting emanating from Philadelphia, but also for "Heart Week in Florida". Both meetings are proud to emphasize collaboration that spans traditional geographic, subspecialty, and professional boundaries.

In recent years, we have dedicated this "Heart Week Supplement" to leaders in the field of caring for patients with paediatric and congenital cardiac disease. The Supplement from the 2007 Heart Week was dedicated to Professor Robert Anderson. The Supplement from the 2008 Heart Week was dedicated to Hiromi Kurosawa of The Heart Institute of Japan and Tokyo Women's Medical University, Tokyo, Japan, and Norman Silverman of Stanford University and Lucile Packard Children's Hospital, Palo Alto, California, United States of America.

The theme of this Supplement generated from the 2009 Heart Week is "Innovation Associated with the Treatment of Patients with Congenital and Pediatric Cardiac Disease". Innovation is associated with transition and change! We would like to dedicate this Supplement to two physicians who are both leaders in the field of caring for patients with paediatric and congenital cardiac disease and who have both recently undergone significant transition and change: Charles S. Kleinman, MD, and Marshall Lewis Jacobs, MD.



Figure 1.  
*Charles S. Kleinman, MD.*

### Tribute to: Charles S. Kleinman, M.D. A Ben Adam (בן אדם) of Pediatric Cardiology By James Huhta, MD

The first time I met Charlie Kleinman (Figs 1 and 2), he was presenting an abstract at the 29th annual meeting of the American College of Cardiology held in Houston, Texas, from March 9 through 13, 1980. Rising to the podium, he presented, in ten minutes, the normal findings of fetal echocardiography from data from Yale University. Following him at the podium was Lindsey Allan, from the United Kingdom, who also presented, in ten minutes, the normal findings of fetal echocardiography from data gathered at Guy's Hospital in London. Lastly, I went forward and presented, in ten minutes, the normal findings of fetal echocardiography from data from my fellowship at Mayo Clinic! (I think that all three of us guessed that we had invented fetal echocardiography prior to that meeting). There is no doubt that the inventor of modern fetal echocardiography using real time scanning is the subject of this tribute: Charles S. Kleinman, MD. There may have been others who identified the fetal heart on

ultrasound and who could be referred to as the first to do it, but it was Dr Kleinman who reduced to practice the concept of fetal echocardiography. In his first paper on the subject, published in *Pediatrics* in 1980,<sup>8</sup> he states “The use of echocardiographic studies to evaluate cardiac structure and rhythm in utero assists in counseling prospective parents and in planning postnatal management for their offspring.” This approach has become a mantra for the subsequent 30 years of development of the practice of fetal echocardiography.

Perhaps, Dr Norman S. Talner could be named the father of fetal echocardiography, because it was he who directed Charlie away from the basic science lab at Yale University (where he was not well suited even though he trained at the foremost centre of research in Pediatric Cardiology at the time under Abraham Rudolph) to the Obstetrical Department at Yale to work with Dr John C. Hobbins, who was attempting to visualize the fetal heart.

As the author of over 120 peer reviewed articles in the literature and many books and book chapters, Dr Kleinman ranks as one of the most prolific paediatric cardiologists. Recently, Dr Kleinman and his co-authors documented the impact of fetal echocardiography. They showed, over a 10-year time span, that the change in frequency of establishing a prenatal cardiac diagnosis in infants requiring cardiac surgery in the newborn period increased from 8% to 57%, resulting in earlier postnatal diagnosis and a shift toward delivery in a centre of tertiary care.<sup>9</sup>

Why do I refer to Dr Kleinman as the Ben Adam of Pediatric Cardiology? Growing up, Charlie heard that it was good to ‘Be a mensch.’ Literally, a mensch is an upstanding person who takes responsibility for his actions...a person having admirable characteristics, such as fortitude and firmness of purpose. As stated by James Atlas, “He radiates the kind of fundamental decency that has a name in Yiddish; he’s a mensch”. Leo Rosten, the Yiddish maven and author of *The Joys of Yiddish*, defines mensch this way: Someone to admire and emulate, someone of noble character. The key to being “a real mensch” is nothing less than character, rectitude, dignity, sense of what is right, responsible, decorous. In Yiddish (from which the word has migrated into American English), mensch roughly means “a good person.” A “mensch” is a particularly good person, like “a stand-up guy,” a person with the qualities one would hope for in a dear friend or trusted colleague. Ben Adam (בן אדם) is used as an exact translation of Mensch. Though it usually means simply “a person” (literally, “son of Adam”) in general, it is used to mean “a nice guy” in the same way as mensch. This usage may have developed by analogy with Yiddish

or by adaptation from Arabic (from which colloquial Israeli Hebrew takes much vocabulary), in which the cognate construction Bani Adam (בן אדם) has the same meaning.

Charles S. Kleinman epitomizes the meaning of Mensch in his personal life and in Paediatric Cardiology. The list of trainees and visiting fellows that he has mentored numbers over 150. The personal attention and professional guidance that he gives his fellows to help them achieve success in Paediatric Cardiology is legendary.

How does one achieve “Menschdom” in your professional life?

1. **Help people who cannot help you.** A mensch helps people who cannot ever return the favor. He doesn’t care if the recipient is rich, famous, or powerful. This concept does not mean that you should not help rich, famous, or powerful people (indeed, they may need the most help), but you should not help only rich, famous, and powerful people.
2. **Help without the expectation of return.** A mensch helps people without the expectation of return...at least in this life. What is the payoff? Not that there has to be a payoff, but the payoff is the pure satisfaction of helping others. Nothing more, nothing less.
3. **Help many people.** Menschdom is a numbers game: you should help many people, so you don’t hide your generosity under a bushel.
4. **Do the right thing the right way.** A mensch always does the right thing the right way. A bright, clear line exists between right and wrong, and a mensch never crosses that line.
5. **Pay back society.** A mensch realizes that he is blessed. For example, entrepreneurs are blessed with vision and passion, plus the ability to recruit, raise money, and change the world. These blessings come with the obligation to pay back society. The baseline is that we *owe* something to society...we are not doing a *favor* by paying back society.

So what are the three most important things that qualify Charlie to be a mensch in Paediatric Cardiology?

1. **Mentorship** and an outstanding career as a teacher, characterized by personal concern and a raucous sense of humor.
2. **Innovative ideas** about the pathophysiology of fetal disease. For example, he suggested recently that the in-utero closure or stenosis of the oval foramen (foramen ovale) may cause severe hydrops in the fetus (hydrops fetalis), despite a normal profile of systemic venous flow on

Doppler, due to alterations in lymphatic flow. This suggestion is a truly seminal observation.<sup>10</sup>

Similarly, Charlie's knowledge of fetal arrhythmias is famous all around the world<sup>11,12</sup>.

3. *Thoughtful reflection of how doctors relate to doctors, and how patients relate to doctors.*<sup>13</sup>

At our 7th Annual Meeting "Advances in Perinatal Cardiology" in Saint Petersburg, Florida, Charlie presented the James Henry Lecture entitled "Lessons learned from a denervated heart." As the recipient of a transplant heart, he has seen the gamut of cardiac treatments first hand as a patient. Not only can he speak from personal experience about the vicissitudes of antiarrhythmic therapy, but he has personally experienced almost every complication known in adult cardiology! In spite of this situation, we encounter a grateful soul who savors life each day and encourages those around him to do the same. What better definition of a mensch in Pediatric Cardiology can we imagine? As Charlie teaches us by his example, we are reminded to value spiritual things above possessions. Consider the story about a famous Rabbi living in Europe who was visited by a man who traveled by ship from New York to see him. The man came to the house of the great Rabbi and was directed to the room of the Rabbi, which was in the attic. He entered to find the master living in a room with a bed, a chair, and a few books. The man had expected much more and asked, "Rabbi, where are your things?" The rabbi asked in return, "Well, where are yours?" His visitor replied, "But, Rabbi, I'm only passing through," and the master answered, "So am I, so am I."

### Tribute to: Marshall Lewis Jacobs, M.D.

As discussed above, the theme of this Supplement is "Innovation", and innovation is associated with transition and change! Both Charlie Kleinman (Figs 1 and 2) and Marshall Lewis Jacobs (Figs 3–6), have recently had major transitions and changes in their lives. Charlie has had a successful heart transplant and Marshall has retired from clinical cardiac surgery and made the successful transition from operating surgeon to researcher, teacher, and clinical scientist. Certainly deciding to stop operating is not nearly of the same magnitude of deciding to replace your heart; however, both transitions involve parting with something precious.

As I read the definition of a mensch described above in the tribute to Charlie Kleinman written by my good friend Jim Huhta, I am reminded of Marshall Jacobs. Jim states, "...mensch roughly means "a good person." A "mensch" is a particularly good person, like "a stand-up guy," a person with



Figure 2.  
Charles S. Kleinman, MD.



Figure 3.  
Marshall Jacobs, Gordon Cohen, Martin Elliott, Petter S. Hagemo, Egil Seem, and various other dignitaries aboard the vessel "Off Call", after the completion of the day's meetings at the Third Annual International Symposium on Congenital Heart Disease in Saint Petersburg, Florida. Photo taken Monday, February 17, 2003.

the qualities one would hope for in a dear friend or trusted colleague." Jim goes on to state: "Charles S. Kleinman epitomizes the meaning of Mensch in his personal life and in Paediatric Cardiology."

I certainly agree with Jim, and both Jim and I would also add that Marshall L. Jacobs epitomizes the meaning of Mensch in his personal life and in Paediatric Cardiac Surgery. So what are the three most important things that qualify Marshall to be a mensch in Paediatric Cardiac Surgery?

1. **Mentorship:** The personal attention and professional guidance that Marshall provides to many younger cardiac surgeons deserves recognition. Through leadership positions in the Congenital Heart Surgeons' Society and the Society of Thoracic Surgeons, Marshall has provided superb academic mentorship to many younger paediatric cardiac surgeons. Kamal K. Pourmoghadam,



**Figure 4.**  
*Marshall and GERALYN JACOBS and Gil Wernovsky at the Gala "Black Tie" Dinner at the 17th Annual Meeting of The European Association for Cardiothoracic Surgery in Vienna, Austria. Photo taken Tuesday, October 14, 2003.*



**Figure 6.**  
*Marshall Jacobs, Bill Norwood, Jim Quintessenza, and Francois Lacour-Gayet at the Seventh Annual International Symposium on Congenital Heart Disease in Saint Petersburg, Florida. Photo taken Monday, February 19, 2007.*



**Figure 5.**  
*Marshall and GERALYN JACOBS shown with a beautiful Crevalle Jack (*Caranx hippos*) caught with live shrimp on the vessel "Off Call" in Tampa Bay, Florida. Much to the surprise of Jeff Jacobs and Gus Mavroudis, GERALYN caught the only fish that day! Photo taken Saturday, July 9, 2005.*

Frank Scholl, and Christian Pizarro are all Chiefs of their own paediatric cardiac surgical programs; however, they all place tremendous value on the mentorship they have received and continue to receive from Marshall. Marshall provides them and me with many tools that facilitate the successful development of our careers.

2. **Innovative ideas** about the science of congenital and paediatric cardiac surgery. Marshall Jacobs has had a distinguished academic career as a paediatric cardiac surgeon that has spanned several decades. He has authored hundreds of manuscripts and made substantial contributions to our profession. His important publications relating to hypoplastic left heart syndrome date back to when I was in high school and college. In addition to the numerous contributions that

Marshall has made to the science of paediatric cardiac surgery, Marshall has been a true leader of our profession. He has been an advocate for professional globalization.

Marshall graduated from college from Yale with a Bachelor of Science. He graduated medical school from Harvard and completed his training in General Surgery and Cardiac Surgery at Massachusetts General Hospital. In 1982, he also served as a Senior Registrar in Cardiothoracic Surgery in Southampton, England. He is the author of over 150 peer reviewed articles in the literature and many book chapters. His first publication about the heart was in 1975 when I was in elementary school!<sup>14</sup> He has co-authored numerous manuscripts with Bill Norwood, dating back to 1985.<sup>15</sup> Bill Norwood and Marshall published many of the seminal papers about the management of hypoplastic left heart syndrome and related malformations,<sup>16,17</sup> one of which was selected to be the prestigious Maxwell Chamberlain Memorial Paper and was presented at the Twenty-eighth Annual Meeting of the Society of Thoracic Surgeons in Orlando, Florida, on February 3, 1992.<sup>16</sup> Marshall also has been a leader in the multi-institutional congenital cardiac surgical research of the Congenital Heart Surgeons' Society and the Society of Thoracic Surgeons.<sup>18,19</sup> I remember reading all these papers by Norwood and Jacobs when I was in residency and thinking "I have got to meet this Jacobs"!

3. **Thoughtful reflection of how doctors relate to doctors, and how patients relate to doctors.**<sup>20</sup>

Although Marshall has retired from operating, he continues to be massively involved with multiple



professional activities related to the care of patients with congenital and paediatric cardiac disease:

- Marshall is Editor-in-Chief of the new *World Journal for Pediatric and Congenital Heart Surgery* [www.wspchs.org].
- Marshall is Chair of the Research Committee of the Congenital Heart Surgeons' Society
- Marshall is a major leader in the Congenital Heart Surgery Database Taskforce of the Society of Thoracic Surgeons

Although his clinical activity in the early part of his career, in and of itself, creates a permanent and lasting legacy, Marshall's current productivity continues to build on that legacy. On a personal note, my wife and children consider Marshall and his wife GERALYN dear friends and we thank them for all that they have done for us.

Marshall is the paediatric cardiac surgeon with absolutely the BEST vocabulary of any surgeon that I know. He has spent hundreds of hours teaching me how to think logically, create slides properly, present data accurately, and write scientifically. Many of these lessons were learned sitting in my hotel room practicing my presentation for a national or international meeting or reviewing my manuscript prior to submission. I am better at presenting data and writing papers because of Marshall.

Marshall has been a loyal and consistent supporter of our meeting in Saint Petersburg. Originally, Marshall was scheduled to present the Daicoff Lecture at our 2010 meeting and Roberto Canessa was going to present the Daicoff Lecture at our 2009 meeting; however, Roberto could not attend in 2009 because the wedding of his daughter was at the same time as the meeting in Saint Petersburg. Without any hesitation, Marshall agreed to switch years and present the Daicoff Lecture at our 2009 meeting. This Lecture was extremely well received and is published in Supplement.<sup>20</sup> Marshall has been a repetitive faculty member at our meeting and has made important contributions to both the scientific programme and the social programme. Marshall has been a friend, colleague and mentor to me. People often ask me if Marshall is my cousin.... in my mind, and in the mind of my family, he is!

### This Heart Week 2009 Supplement

Both Marshall Jacobs and Charlie Kleinman promote collaboration that spans traditional geographic, subspecialty, and professional boundaries. This concept is the very essence of Heart Week! It is our honour to dedicate this Supplement to these two special doctors.

It is gratifying for me, as a representative of the Congenital Heart Institute of Florida and All Children's Hospital, to confirm our ongoing commitment to continue "Heart Week in Florida", combining the International Symposium on Congenital Heart Disease organized by All Children's Hospital and The University of South Florida with the annual postgraduate course in Pediatric Cardiovascular Disease organized by Children's Hospital of Philadelphia. I thank Gil Wernovsky, Director of the meeting organized by Children's Hospital of Philadelphia, as well as Tina Mannices, Manager of Continuing Medical Education at the Children's Hospital of Philadelphia, and also Tom Spray and Bill Gaynor, for their support. The Supplement that you are now about to read, therefore, focuses on "*Innovation Associated with the Treatment of Patients with Congenital and Pediatric Cardiac Disease*". It has been prepared to give a flavour of the presentations given in the Bahamas and Florida in February of 2009.

The theme of the Supplement is *Innovation*. After this Introduction, the next series of articles focus on innovation in cardiac morphology, echocardiography, interventional cardiology, electrophysiology, basic science, critical care, and nursing. These articles are followed by the publication of three of the named lectures from Heart Week 2009:

- The 2009 Annual "T. Garrett Rauch" Memorial Nursing Lecture: Congenital cardiovascular nursing: Preparing for the next decade presented by Philip Moons
- The 10th Annual C. Walton Lillehei Lecture: Good Things in Small Packages: Meeting Challenges in the Low-volume Program presented by Scott M. Bradley MD
- The 2009 Annual George R. Daicoff Lecture: The Morality of Innovation: A Twentieth Century Surgical Legacy presented by Marshall Lewis Jacobs MD

Then, the final portion of the Supplement is the publication of abstracts from Cardiology 2009, 12th Annual Update on Pediatric and Congenital Cardiovascular Disease: Strategies to Improve Care Through a Multidisciplinary Approach, Atlantis Resort, Nassau, Paradise Island, The Bahamas, February 4–8, 2009.

Over the years, Heart Week in Florida has provided many opportunities for the excellent scientific exchange of ideas, and the development of awesome friendships. I would like to again thank Bob Anderson for all of his help, support, trust, and patience during the preparation of this Supplement. I would also like to thank my good friends and co-editors of this Supplement, Gil Wernovsky, and

David S. Cooper. Finally, I would like to welcome David Goldberg, MD, to our Editorial team. Both David Cooper and David Goldberg are rising stars in the field of paediatric cardiac critical care. David Goldberg has prepared and edited the abstracts that are published in this Supplement from the meeting in the Bahamas in 2009.

I am especially grateful to Jean Francis and Michael Epstein, Vice Presidents of All Children's Hospital, for facilitating the publication of this Supplement. I would also like to thank several additional members of our team at All Children's Hospital, namely Gary Carnes, President and Chief Executive Officer of All Children's Hospital, Joel Momberg, Cindy Rose, Pat Clark, Melodye Farrar, Tina Merola, Kas Sheehan, Jean Wilhelm, and all our cardiac nurses. I would also like to thank the other Directors of our St. Petersburg meeting, namely James C. Huhta, Richard Martinez, David S. Cooper, James S. Tweddell, and my partner James Anthony Quintessenza, as well as Gul Dadlani, the All Children's Hospital Faculty Chair.

Jim Huhta initiated this meeting, and I am grateful that he gave me the opportunity to work with him. The meeting would not have been possible without his leadership and vision. Finally, I would like to thank my current partners, Jim Quintessenza and Paul Chai, and, my former partners, Victor Morell and Harald Lindberg, for their constant support and guidance, and my wife Stacy, and children Jessica and Joshua, for their understanding and patience. It continues to be an ongoing fact, as I have emphasized in previous introductions to Supplements, that all of the family members of the authors of the reviews included in this Supplement are owed a debt of gratitude, because writing manuscripts markedly decreases the time available with them.

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