

## Original Article

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# Introduction: a lifelong interdisciplinary approach to common arterial trunk, transposition of the great arteries, and other evolving challenges in paediatric and congenital cardiac disease

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**Abstract** This December Issue of *Cardiology in the Young* represents the tenth annual publication generated from the two meetings that compose “HeartWeek in Florida”. “HeartWeek in Florida”, the joint collaborative project sponsored by the Cardiac Center at the Children’s Hospital of Philadelphia, together with All Children’s Hospital of Saint Petersburg and Johns Hopkins Medicine, 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 the fetus, neonate, infant, child, and adult. “HeartWeek in Florida” combines the International Symposium on Congenital Heart Disease, organised by All Children’s Hospital and Johns Hopkins Medicine and entering its 13th year, with the Annual Postgraduate Course in Pediatric Cardiovascular Disease, organised by The Children’s Hospital of Philadelphia and entering its 17th year. The theme of this supplement generated from the 2012 HeartWeek in Florida is “A Lifelong Interdisciplinary Approach to Common Arterial Trunk, Transposition of the Great Arteries, and Other Evolving Challenges in Paediatric and Congenital Cardiac Disease”. We would like to acknowledge the tremendous contributions made to medicine by Richard Jonas; and therefore, we dedicate this HeartWeek 2012 Supplement to him.

**T**HIS ISSUE OF *CARDIOLOGY IN THE YOUNG* represents the tenth annual publication in *Cardiology in the Young* generated from the two meetings that compose “HeartWeek in Florida”.<sup>1–9</sup> The nine previous publications were free-standing Supplements to *Cardiology in the Young*; however, this year we have transitioned to publishing these proceedings as a regular Issue of *Cardiology in the Young*, the December Issue. Many of the manuscripts published in the nine previous Supplements rank among the most referenced manuscripts in *Cardiology in the Young*. Consequently, we intend to keep the

proceedings from HeartWeek as the December Issue of *Cardiology in the Young* in the future.

As I have emphasised in the 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 The Children’s Hospital of Philadelphia is one of the largest and most comprehensive programmes in the world. Similarly, Johns Hopkins Children’s Heart Surgery is one of the largest and most comprehensive programmes in the world. “HeartWeek in Florida”, the joint collaborative project sponsored by the Cardiac Center at The Children’s Hospital of Philadelphia and Johns Hopkins Children’s Heart Surgery at All Children’s Hospital of Saint Petersburg, averages over 1000 attendees every year and is now recognised as one of the major planks of continuing medical and nursing education for those working in the fields of diagnosis and

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treatment of cardiac disease in neonates, infants, children, and adults.

In 2013, the two HeartWeek Meetings will not be held in the United States of America. Gil Wernovsky and I, and the leaders of HeartWeek, have decided to cancel the North American HeartWeek Meetings to support the 6th World Congress of Paediatric Cardiology and Cardiac Surgery that will be held in Cape Town, South Africa, in 2013, under the leadership of Christopher Hugo-Hamman [<http://www.pccs2013.co.za/>]. Gil and I are hopeful that ALL of the usual attendees of HeartWeek will attend the World Congress, which truly is the "Olympics of our profession"!!

- The 6th World Congress of Paediatric Cardiology and Cardiac Surgery takes place in Cape Town, South Africa between 17 and 22 February, 2013. The Paediatric Cardiac Society of South Africa is the host and organiser of this prestigious Congress, which takes place at the Cape Town International Convention Centre. For information and to register, please visit: [<http://www.pccs2013.co.za/>].

All institutions involved with the organisation of the events of "HeartWeek in Florida" are very grateful to Ted Baker, Bob Anderson, and the team at *Cardiology in the Young*, for their support and for the opportunity to publish this HeartWeek Issue of *Cardiology in the Young*, as well as the nine 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 15 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 for quite some time. In February of 2012, Bob was a featured speaker at our annual February meeting for the 11th consecutive year. Every morning for all 11 of these years we have started 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 16th Annual Postgraduate Course at Loews Portofino Bay Hotel at Universal

Orlando<sup>®</sup> in Orlando, Florida, from February 22 through 26, 2012. This annual meeting organised 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, to review current practices, and to enjoy each others' company and insight.<sup>10</sup> Physicians make up approximately half of the attendees, and include representation from all disciplines involved in the care of children with cardiac disease, including cardiologists, intensivists, surgeons, anaesthesiologist, neonatologists, and maternal foetal specialists. The remaining attendees include advanced practice, operating room, catheterisation lab and bedside nurses, sonographers, physician assistants, respiratory therapists, perfusionists, and administrators. A highlight of the meeting organised by The Children's Hospital of Philadelphia is the featured lectures in Cardiovascular Surgery, Cardiology, Nursing, Anesthesia and Critical Care, and Basic Sciences (Table 1). Over the last several years, this meeting has typically alternated annually between an east coast meeting, usually in Orlando, Florida, and a west coast meeting, usually in Scottsdale, Arizona. In February, 2012, the meeting organised by The Children's Hospital of Philadelphia returned to Orlando, Florida. The 16th Annual Update on Pediatric and Congenital Cardiovascular Disease: *Developing a Lifelong Interdisciplinary Strategy for Your Patient with Congenital Heart Disease*, organised by Children's Hospital of Philadelphia, was held in Orlando, Florida, from February 22 through 26, 2012.

In February, 2014, the meeting organised by The Children's Hospital of Philadelphia will again return to Orlando, Florida. The 17th Annual Update on Pediatric and Congenital Cardiovascular Disease, organised by The Children's Hospital of Philadelphia, will be held at the Disney's Yacht and Beach Club<sup>®</sup> Resorts in Lake Buena Vista, Florida, from February 19 through 23, 2014. To view the entire programme and register for the meeting, please visit the following web site: [[heart.chop.edu/cardiology2014](http://heart.chop.edu/cardiology2014)]. For detailed information, please e-mail Tina Mannices at: [[mannices@email.chop.edu](mailto:mannices@email.chop.edu)], or call +1 (215) 590-5263. The preliminary programme will be available in June, 2013. The abstract submission deadline is November 25, 2013.

In 2012, the component of HeartWeek in Florida organised by Johns Hopkins Children's Heart Surgery at All Children's Hospital, and representing our own 12th annual International Symposium on Congenital Heart Disease, was held from Friday February 17, 2012 through Tuesday February 21, 2012, with its

Table 1. The Featured lectures given thus far during the Annual Postgraduate Course in Paediatric Cardiovascular Disease organised by The Children's Hospital of Philadelphia.

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The Annual "C. Walton Lillehei" Memorial Lecture in Cardiovascular Surgery

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
2010	J. William Gaynor
2011	Carl L. Backer
2012	James Tweddell

The Annual "William J. Rashkind" Memorial Lecture in Pediatric Cardiology

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
2010	Robert Campbell
2011	Jeffrey A. Towbin
2012	Gil Wernovsky

The Annual Featured Lecture in Cardiovascular Nursing: "Thomas Garrett Rauch" Memorial Lecture

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
2010	Afaf I. Meleis
2011	Kathleen Chavanu Gorman
2012	Jean Chatzky

The Annual "John J. Downes" Lecture in Cardiac Anesthesia and Critical Care

2008	William J. Greeley
2009	Peter C. Laussen
2010	David L. Wessel
2011	Frank X. McGowan
2012	Allan Goldman

The Annual Featured Lecture in the Cardiovascular Basic Sciences

2011	Jonathan Epstein
2012	Barry Byrne

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focus being on *Common Arterial Trunk and Transposition of the Great Arteries*. Our Annual International Symposium on Congenital Heart Disease with

Echocardiographic, Anatomic, Surgical, and Pathologic Correlation is held every February, and is now entering its 13th year. The first 11 meetings were sponsored by All Children's Hospital [www.allkids.org], The Congenital Heart Institute of Florida [www.chif.us], and the University of South Florida. The 2012 meeting was presented by All Children's Hospital and Sponsored by Johns Hopkins Medicine, and all future meetings organized by All Children's Hospital will also be Sponsored by Johns Hopkins Medicine. Our meetings in 2009, 2010, 2011, and 2012 were co-sponsored by The American Association for Thoracic Surgery [http://www.aats.org/CME/Programs.html], and our 2014 meeting will also be co-sponsored by The American Association of Thoracic Surgery. Our meeting in 2012 had as its focus *Common Arterial Trunk and Transposition of the Great Arteries*, with sessions aimed specifically at multi-disciplinary issues related to the following topics:

- Anatomy of Common Arterial Trunk and Transposition of the Great Arteries;
- Echocardiography of Common Arterial Trunk and Transposition of the Great Arteries;
- Critical care of patients with Common Arterial Trunk and Transposition of the Great Arteries;
- Surgery for Common Arterial Trunk and Transposition of the Great Arteries; and
- Ethics.

We also continued two exciting new symposia that we first held in 2011:

- Nursing Symposium
- Ethics Symposium

Finally, we continued several of our popular features:

- Hands-on demonstrations,
- Panel discussions,
- Q&A sessions, and
- Pathologic heart specimens on exhibit.

The overall emphasis of the meeting is multi-disciplinary, 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 meeting held in 2007 had 269 attendees from 30 states of the United States of America and 14 countries. The 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 meeting held in 2008 had 270 attendees from 32 states of the United States of America and 16 countries. The 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 meeting held in 2009 had 270 attendees from 32 states of the United States of America and 16 countries. The attendees were 40% physicians, 49% nurses and physician 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 number BD2009399/1170).
- Our meeting held in 2010 had 230 attendees from 29 states of the United States of America and 18 countries. The attendees were from the following categories: physicians (115), physician assistants (7), nurse practitioners (17), registered nurses (35), sonographers (16), perfusionists (4), and others (36).
- Our meeting held in 2011 had 263 attendees including 116 physicians and 147 non-physicians. The highlight of the 2011 conference was the George R. Daicoff Dinner Presentation, which was presented by Edward L. Bove, MD, titled: "Innovation and Regulation: Can They Both Exist in Today's Medical Environment?" Dr Bove is the Helen and Marvin Kirsch Professor and Head of the Section of Cardiac Surgery, which includes Divisions of Pediatric and Adult Cardiac Surgery, at the University of Michigan C. S. Mott Children's Hospital. The Division of Pediatric Cardiac Surgery is one of the busiest congenital heart programmes in the United States, performing over 900 procedures annually. Additional featured speakers included William I. Norwood, Leonard L. Bailey, Robert Anderson, Tom Spray, and Constantine Mavroudis.
- Our meeting held in 2012 had 309 attendees including 112 physicians and 187 non-physicians from 27 countries including the United States of America. The highlight of the 2012 conference was the George R. Daicoff Dinner Presentation, which was presented by Richard A. Jonas, MD, and was titled: "A View of Shanghai from Washington, DC: 25 Years of Change". Dr Jonas is Chief of Cardiac Surgery, Co-Director of the Children's National Heart Institute, and Cohen Funger Professor of Cardiac Surgery at Children's National Medical Center in Washington, District

of Columbia. He is a world-renowned paediatric cardiac surgeon specialising in optimising the developmental and cognitive outcomes of patients after surgery for congenital heart disease. Dr Jonas has also helped in the development of a number of international cardiac surgical programmes around the world and is a coveted international speaker and guest surgeon. Additional featured speakers included Robert Anderson, Tom Spray, and Constantine Mavroudis.

Table 2 highlights the featured topics and speakers from the meeting held in Saint 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 The Children's Hospital of Philadelphia, Philadelphia
- (2009) Marshall Lewis Jacobs from Drexel University College of Medicine, Philadelphia, Pennsylvania
- (2010) Roberto Canessa from Montevideo, Uruguay
- (2011) Edward L. Bove from the University of Michigan, Ann Arbor, Michigan
- (2012) Richard A. Jonas from Children's National Medical Center, Washington, District of Columbia
- (2013) 6th World Congress of Paediatric Cardiology and Cardiac Surgery in Cape Town, South Africa, under the leadership of Christopher Hugo-Hamman [<http://www.pccs2013.co.za/>]
- (2014) John Brown from Indiana University School of Medicine, Indianapolis, Indiana

In 2014, our 14th annual meeting will take place from February 14 through 18, 2014, presented by All Children's Hospital, Sponsored by Johns Hopkins Medicine, and co-sponsored by The American Association of Thoracic Surgery. The focus will be



Table 2. Featured topics and speakers during the symposiums organised 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
Day 3	Atrial Septal Defects

Table 2. *Continued*

Day 4	Ventricular Septal Defects
Day 5	Atrioventricular Septal Defects
Featured Guest Speaker	Marshall Lewis Jacobs, 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, Montevideo, Uruguay
<b>2011</b>	<b>Eleventh Annual Symposium</b>
Focus	Hypoplastic Left Heart Syndrome
Day 1	Echocardiography and Transesophageal (TEE) Symposium: Hypoplastic Left Heart Syndrome (HLHS)
Day 2	The Hybrid Approach
Day 3	The Norwood Operation
Day 4	The Role of Cardiac Transplantation & Ethics of Caring for Patients with HLHS
Featured Guest Speaker	Edward L. Bove, The University Of Michigan, Ann Arbor, Michigan
<b>2012</b>	<b>Twelfth Annual Symposium</b>
Focus	Truncus and Transpo
Day 1	Echocardiography and Transesophageal (TEE) Symposium: Truncus and Transposition
Day 2	Common Arterial Trunk (Truncus Arteriosus)
Day 3	Transposition of the Great Arteries
Day 4	Adults with Truncus and Transposition & Ethics of Caring for Patients with Truncus and Transposition
Featured Guest Speaker	Richard A. Jonas, Children's National Medical Center, Washington, DC
<b>2013</b>	<b>Thirteenth Annual Symposium</b>
Focus	The Birth of Heart Surgery – Lessons Learned from Tetralogy: Past, Present, and Future
Dinner symposium on Thursday, February 21, 2013 during the 6th World Congress of Paediatric Cardiology and Cardiac Surgery in Cape Town, South Africa at the Cape Town International Convention Centre	
Featured Guest Speaker	Duke Cameron, MD, The Johns Hopkins Hospital, Baltimore, Maryland
<b>2014</b>	<b>Fourteenth Annual Symposium</b>
Focus	Valvar Disease from the Neonate to the Adult
Day 1	Echocardiography and Transesophageal (TEE) Symposium: Cardiac Valves
Day 2	Stenosis of the Aortic Valve
Day 3	Stenosis of the Mitral Valve
Day 4	Stenosis of the Tricuspid Valve and Pulmonary Valve and Ethics of Caring for Patients with Valvar Cardiac Disease
Featured Guest Speaker	John Brown, Indiana University School of Medicine, Indianapolis, Indiana
<b>2015</b>	<b>Fifteenth Annual Symposium</b>
Focus	Congenital Coronary Anomalies
Day 1	Echocardiography and Transesophageal (TEE) Symposium: Congenital Coronary Anomalies
Day 2	Anomalous Aortic Origin of the Coronary Artery
Day 3	Anomalous Pulmonary Origin of the Coronary Artery
Day 4	Acquired Coronary Anomalies in the Setting of Congenital Cardiac Disease & Ethics of Caring for Patients with Congenital Coronary Anomalies

“Valvar Disease from the Neonate to the Adult”. The George Daicoff Lecture for 2014 will be given by John Brown, MD, Harris B. Shumacker Emeritus Professor of Surgery at Indiana University School of Medicine and current President of The Congenital Heart Surgeons' Society. To view the entire programme for our 2014 meeting and to register for the meeting, please visit the following website: [www.allkids.org/conferences]. For detailed information, please e-mail Melodye Farrar at: [Melodye.

Farrar@allkids.org], or contact us at +1 (727) 767-8584 or [cme@allkids.org]. Our preliminary programme will be available and posted on our website in June, 2013.

We have now reached the situation whereby the proceedings of the meetings held in 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, and 2012 have been published as supplements to *Cardiology in the Young*.<sup>1–9</sup> This December, 2012 HeartWeek Issue of *Cardiology in the Young*

is therefore the tenth Supplement or Issue of *Cardiology in the Young* that we have produced from the annual meeting held in Saint Petersburg; this December, 2012 HeartWeek Issue of *Cardiology in the Young* is also the eighth that we have produced jointly with The Children's Hospital of Philadelphia (2004, 2006, 2007, 2008, 2009, 2010, 2011, and 2012):<sup>2,4-9</sup>

1. 2003 Meeting: Controversies Relating To The Hypoplastic Left Heart Syndrome
2. 2004 Meetings: Controversies of the Ventriculo-Arterial Junctions and Other Topics
3. 2005 Meeting: Controversies and Challenges in the Management of the Functionally Univentricular Heart
4. 2006 Meetings: Controversies and Challenges of the Atrioventricular Junctions and Other Challenges Facing Paediatric Cardiovascular Practitioners and their Patients
5. 2007 Meetings: Controversies and Challenges Facing Paediatric Cardiovascular Practitioners and their Patients
6. 2008 Meetings: Controversies and Challenges of Tetralogy Of Fallot and Other Challenges Facing Paediatric Cardiovascular Practitioners and Their Patients
7. 2009 Meetings: Innovation Associated with the Treatment of Patients with Congenital and Paediatric Cardiac Disease
8. 2010 Meetings: Rare and Challenging Congenital Cardiac Lesions: An Interdisciplinary Approach
9. 2011 Meetings: A Holistic Approach to Hypoplastic Left Heart Syndrome and Other Evolving Challenges in Paediatric and Congenital Cardiac Disease
10. 2012 Meetings: A Lifelong Interdisciplinary Approach to Common Arterial Trunk, Transposition of the Great Arteries, and Other Evolving Challenges in Paediatric and Congenital Cardiac Disease

The part of the joint programme of HeartWeek organised by The Congenital Heart Institute of Florida and All Children's Hospital and Sponsored by Johns Hopkins Medicine will continue to take place in Saint Petersburg, even in the years when the part designed by The Children's Hospital of Philadelphia will be held outside of Florida, as occurred in 2009 in the Bahamas and in 2011 when the meeting organised by the team from The Children's Hospital of Philadelphia returned to Arizona. Even during these years when the meeting organised by The Children's Hospital of Philadelphia is held outside of Florida, "HeartWeek" will

continue to be a collaborative project as manifest by the collaborative publication of this December, 2012 HeartWeek Issue of *Cardiology in the Young*, as well the various shared members of our international faculties. As has been stated on the website for the programme coordinated by The Children's Hospital of Philadelphia, "Providing optimal care for neonates, children and young adults with heart disease requires a multi-disciplinary 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 not only for the annual part of the meeting emanating from The Children's Hospital of Philadelphia, but also for "HeartWeek in Florida". Both meetings are proud to emphasise collaboration that spans traditional geographic, subspecialty, and professional boundaries.

In recent years, we have dedicated this "HeartWeek Supplement" to leaders in the field of caring for patients with paediatric and congenital cardiac disease:

- The Supplement from the 2007 HeartWeek was dedicated to Professor Robert Anderson.
- The Supplement from the 2008 HeartWeek 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 Supplement from the 2009 HeartWeek was dedicated to Marshall Lewis Jacobs and Charles S. Kleinman.
- The Supplement from the 2010 HeartWeek was dedicated to Constantine Mavroudis and Gerald Marx.
- The Supplement from the 2011 HeartWeek was dedicated to Martin Elliott and Gil Wernovsky.
- This December, 2012 HeartWeek Issue of *Cardiology in the Young* is dedicated to Richard A. Jonas.

#### Tribute to: Richard A. Jonas

The theme of this December, 2012 HeartWeek Issue of *Cardiology in the Young* generated from the 2012 HeartWeek in Florida begins with the phrase: "A Lifelong Interdisciplinary Approach...". We would like to dedicate this December 2012 HeartWeek

Issue of *Cardiology in the Young* to a physician who exemplifies the “*Lifelong Interdisciplinary Approach*” and who is a global leader in the field of caring for patients with paediatric and congenital cardiac disease: Richard Jonas.

In the final manuscript of the HeartWeek 2010 Supplement,<sup>11</sup> Robert Campbell, Chief of Pediatric Cardiology at Children’s Healthcare of Atlanta Sibley Heart Center, Emory University School of Medicine in Atlanta, Georgia, presented his 9th Annual William J. Rashkind Memorial Lecture in Paediatric Cardiology: “The Reimbursement Tsunami: Preserving the Passion”. In this manuscript, Robert Campbell describes the “quintuple threat” professional as the health-care professional, with excellence in the five following domains:

- clinical care,
- teaching,
- research,
- business leadership, and
- alignment.

Richard Jonas is truly a “quintuple threat” professional, with sustained excellence in all five of these areas. It is our honour to dedicate this December 2012 HeartWeek Issue of *Cardiology in the Young* to Richard Jonas (Fig 1).

Richard A. Jonas, MD, is Chief of Cardiac Surgery, Co-Director of the Children’s National Heart Institute, and Cohen Fungler Professor of Cardiac Surgery at Children’s National Medical Center in Washington, District of Columbia. On Wednesday, May 30, 2012, I had the pleasure to visit with Dr Jonas and his team at Children’s National Medical Center as a Visiting Professor, when I had the opportunity to speak about: “Outcomes Analysis and Quality Improvement for the Treatment of Patients with Pediatric and Congenital Cardiac Disease”. During this visit, I had the chance to spend time with Richard and his team. It was obvious to me that Richard’s programme at Children’s National Medical Center excels in patient care, research, teaching, and leadership, alignment, and service. The clinical programme is equal to any centre in the world and achieves excellent results with the most complex of neonates. Under the leadership of Dr Jonas, the Children’s National Heart Institute has active and productive programmes in laboratory and clinical research. The programme also excels in training students and young physicians. Dr Jonas also excels at training junior surgeons, and many practising paediatric cardiac surgeons throughout the world owe a portion of their success to lessons learnt from Richard. Indeed, as pointed out by my partner Paul Chai, even surgeons who did not train



**Figure 1.**

*Richard A. Jonas, MD, is Chief of Cardiac Surgery, Co-Director of the Children’s National Heart Institute, and Cohen Fungler Professor of Cardiac Surgery at Children’s National Medical Center in Washington, District of Columbia.*

with Richard, and maybe do not even know him personally, are influenced by his teaching; his classic book, *Comprehensive Surgical Management of Congenital Heart Disease*, is now in its second edition and is a valuable resource to paediatric cardiac surgeons throughout the world. Dr Jonas is a true leader among cardiac surgeons: he is a former President of both The American Association for Thoracic Surgery and The Congenital Heart Surgeons’ Society, and a current Vice President and future President of The World Society for Pediatric and Congenital Heart Surgery. The efforts of Dr Jonas to develop paediatric cardiac surgery at Shanghai Children’s Hospital in China are a model for overseas charitable surgical missions. Richard Jonas has excelled in multiple professional domains throughout his career. On a personal note, Richard has been a mentor to me and offered me important advice over the years in several areas including cardiac surgery, leadership, the STS Congenital Heart Surgery Database, and The Congenital Heart Surgeons’ Society, where I was Chair of the Program Committee and Richard was President.



At the All Children's Hospital faculty dinner in Saint Petersburg during HeartWeek 2012, several faculty members made important toasts to Richard Jonas. Marshall Jacobs has given me permission to reproduce his toast in this article.

### Tribute to Richard A. Jonas, MD, written by Marshall Lewis Jacobs, MD

#### *"A Toast to a Teacher – Richard Jonas"*

"Dr. Jonas has been acknowledged and saluted as a great surgeon, investigator, leader and humanitarian. I want to talk about him as a teacher. It is my good fortune to have met Richard Jonas back in 1984, on the first day of my final year of training at Boston Children's Hospital.

Having previously trained in Melbourne, Australia and Auckland, New Zealand, Dr. Jonas had come to Boston to serve a fellowship at the Peter Bent Brigham Hospital. This led to his serving as Chief Resident in Cardiovascular Surgery at Children's Hospital in 1983 under Aldo Castaneda and William Norwood. Having demonstrated exceptional skill and maturity as a Chief Resident, Richard was a natural choice to become Dr. Castaneda's associate when Dr. Norwood departed Boston for Philadelphia. As a result, Richard stepped into what was probably the busiest and most demanding position that could have been contemplated at the time by a young man or woman pursuing a career as a congenital heart surgeon.

My impressions of Richard Jonas as a young attending surgeon can be described in terms of an analogy to a newly minted coin – on one side is found the smooth, gracefully sculpted profile of a presidential head; that was the Aldo side. On the other side is found the great seal; the eagle with sharp eyes and sharp talons, grasping a bunch of arrows. I think perhaps that was the Bill Norwood side. But it also became clear very quickly that there were more than those two dimensions, and Richard was definitely his own man. Very early on, I remember him explaining to Dr. Castaneda the approach to repair of total anomalous pulmonary venous connection that he'd learned from Sir Brian Barratt Boyes, and how it was superior to the approach utilised in Boston.

It quickly became evident to everyone around him that Richard had extraordinary natural gifts and was rapidly developing into a congenital heart surgeon of the very top echelon. To those of us who assisted him in the operating theatre, his movements were fluid, and apparently effortless – the kind of economy of motion that we'd heard described in relation to Denton Cooley or Sir Magdi Yacoub. But it was on the occasions when he helped one of us perform an operation that we became aware of the

thoughtful, methodical approach to the operation, as his patient tutelage belied the fact that he had studied the conduct of each operation as the conductor of a philharmonic orchestra studies the score. To help a young individual in training to successfully perform a Senning operation or to repair a complete common atrioventricular canal defect in an infant requires much more than is involved in doing it oneself. In his first year as a teacher, it was evident that Richard combined an intensity that left no room for equivocating or fuzzy thinking, with a generosity and commitment to the education and training of his pupils and junior colleagues that anticipated his eventual role as one of the outstanding mentors in the field of surgery for congenital heart disease.

Well, that is what was apparent nearly thirty years ago. The legacy of Richard's immense contributions as a teacher are merely exemplified by the remarkable story of the development of congenital heart surgery at Shanghai Children's Hospital, where his leadership and guidance have had such an important impact. Over the course of his prodigiously productive years in Boston and Washington, and through nearly three decades of dedication to the advancement of the care of patients with congenital heart disease in all corners of the world, Richard has directly touched the lives of tens of thousands, and indirectly through his generosity as a teacher, has literally improved the lives of millions of children and their families".

– Presented by Marshall L. Jacobs, MD

### This December, 2012 HeartWeek Issue of *Cardiology in the Young*

We are pleased and honoured to dedicate this December, 2012 HeartWeek Issue of *Cardiology in the Young* to Richard Jonas. As stated above, the theme of this theme of this December, 2012 HeartWeek Issue of *Cardiology in the Young* generated from the 2012 HeartWeek in Florida begins with the phrase: "A Lifelong Interdisciplinary Approach...". Richard Jonas is a huge advocate of the interdisciplinary approach to patients with paediatric and congenital cardiac disease. Throughout his career, he has promoted collaboration that spans traditional geographic, subspecialty, and professional boundaries. This concept is the very essence of HeartWeek in Florida! It is our honour to dedicate this December 2012 HeartWeek Issue of *Cardiology in the Young* to Richard Jonas.

All manuscripts in this December, 2012 HeartWeek Issue of *Cardiology in the Young* underwent formal peer review and were reviewed by the Editor-in-Chief of *Cardiology in the Young*: Professor Edward Baker, Medical Director, Oxford Radcliffe Hospitals NHS Trust, John Radcliffe Hospital, Headington,

Oxford, United Kingdom. All manuscripts in *Cardiology in the Young*, and all manuscripts in all Supplements to *Cardiology in the Young*, including this December, 2012 HeartWeek Issue of *Cardiology in the Young*, are listed in MEDLINE<sup>®</sup>, which is the premier bibliographic database of the National Library of Medicine of the United States of America covering the fields of medicine, nursing, dentistry, veterinary medicine, the health-care system, and the preclinical sciences. All manuscripts in *Cardiology in the Young*, and all manuscripts in all Supplements to *Cardiology in the Young*, including this December, 2012 HeartWeek Issue of *Cardiology in the Young*, are assigned a Digital Object Identifier, which is a unique and persistent digital identification code for any object of intellectual property. The references to these articles and their Digital Object Identifier can be found in PubMed, which comprises more than 20 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations in PubMed may include links to full-text content from PubMed Central and publisher websites.

It is gratifying for me, as a representative of Johns Hopkins Children's Heart Surgery, All Children's Hospital and Florida Hospital for Children, to confirm our ongoing commitment to continue "HeartWeek in Florida", combining the International Symposium on Congenital Heart Disease now organised by All Children's Hospital and Johns Hopkins Medicine, with the annual postgraduate course in Pediatric Cardiovascular Disease organised by The Children's Hospital of Philadelphia. I thank Gil Wernovsky, Director of the meeting organised 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 December 2012 Issue of *Cardiology in the Young* that you are now about to read, therefore, focuses on "A Lifelong Interdisciplinary Approach to Common Arterial Trunk, Transposition of the Great Arteries, and Other Evolving Challenges in Paediatric and Congenital Cardiac Disease". It has been prepared to give a flavour of the presentations given during the two meetings that composed HeartWeek in Florida, in Saint Petersburg and Orlando, in February, 2012.

The theme of the December 2012 HeartWeek Issue of *Cardiology in the Young* is *Common Arterial Trunk and Transposition of the Great Arteries*. After this Introduction, the Issue is divided into four Parts:

1. Part 1 contains two manuscripts about The World Congress of Paediatric Cardiology and Cardiac Surgery: The first is written by Christopher Hugo-Hamman and Jeffrey P. Jacobs and

describes the Sixth World Congress of Paediatric Cardiology and Cardiac Surgery in South Africa. The second is written by Jane Somerville and provides a beautiful and powerful summary of the history and development of The World Congress (part of Jane's legacy) – true documentation of living history and very AWESOME!

2. Part 2: A Holistic Approach to Common Arterial Trunk and Transposition of the Great Arteries
3. Part 3: Ethical Considerations
4. Part 4: Featured Topics

The second Part above includes a series of articles that focus on a multi-disciplinary approach to patients with common arterial trunk and transposition of the great arteries. Multiple disciplines will be considered including:

- nomenclature,
- cardiac morphology,
- echocardiography,
- interventional cardiology,
- cardiac surgery,
- critical care,
- primary care, and
- longitudinal follow-up.

The third Part above includes two manuscripts discussing ethical issues:

- ethical considerations for post-cardiotomy extracorporeal membrane oxygenation, and
- the role of research for sustainable paediatric cardiac programmes in developing countries.

The fourth Part above includes two manuscripts related to three featured topics that influence many patients with congenital cardiac disease including those with common arterial trunk and transposition of the great arteries:

- centre variation in cost and outcomes for congenital cardiac surgery, and
- computational fluid dynamics.

The final three articles in this December, 2012 HeartWeek Issue of *Cardiology in the Young* is the publication of three named lectures from the CHOP meeting held in Orlando:

- 13th Annual Featured Lecture in Cardiovascular Nursing: T. Garrett Rauch Memorial Lecture – One Parent's Perspective: Helping Families Deal With The Non-Medical Challenges of Congenital Heart Disease by Jean Chatzky.
- 11th Annual William J. Rashkind Memorial Lecture in Pediatric Cardiology – A Short History of Progress: Where we've been, where we are, where we're going by Gil Wernovsky, MD.

- 13th Annual C. Walton Lillehei Memorial Lecture in Cardiovascular Surgery – Invisible Problems: What can we learn from prospective observational studies? by James Tweddell, MD.

Over the years, HeartWeek in Florida has provided many opportunities for the excellent scientific exchange of ideas, and the development of awesome friendships. I would like again to thank Bob Anderson and Ted Baker for all of their help, support, trust, and patience during the preparation of this December 2012 Issue of *Cardiology in the Young*. I would also like to thank my good friends who compose the Editorial Board of this December, 2012 HeartWeek Issue of *Cardiology in the Young*: David S. Cooper, Gul Dadlani, Allan D. Everett, William M. DeCampli, Gil Wernovsky, and Robert H. Anderson. Each of the members of the Editorial Board of this December 2012 HeartWeek Issue of *Cardiology in the Young* has made important and valued contributions.

I would especially like to thank Nicki Marshall of *Cardiology in the Young* for her incredible editorial support during the creation of this December, 2012 HeartWeek Issue of *Cardiology in the Young*. I would also like to thank Ted Baker, the Editor in Chief of *Cardiology in the Young*, and Sarah Maddox, Editor, Commercial and Special Projects, Cambridge University Press for their support. Without their help, this project would not have been possible.

I am especially grateful to Jonathan Ellen, MD, President and Physician-in-Chief at All Children's Hospital and Vice Dean and Professor of Pediatrics, The Johns Hopkins University School of Medicine, for facilitating the publication of this December 2012 HeartWeek Issue of *Cardiology in the Young*. I would also like to thank several additional members of our team at All Children's Hospital, namely Arnie Stenberg, Bill Horton, Cindy Rose, Pat Clark, Melodye Farrar, Suzanne Anderson, Susan Collins, Jean Wilhelm, and all our cardiac nurses. I would also like to thank the Co-Chairs of our Saint Petersburg meeting, namely, Emile Bacha, MD, David S. Cooper, MD, MPH, Gul H. Dadlani, MD, Allan D. Everett, James C. Huhta, MD, Richard M. Martinez, MD, James A. Quintessenza, MD, and James S. Tweddell.

Jim Huhta and I have now collaborated on this meeting for 13 years. The meeting would not have been possible without the leadership and vision of Jim. Finally, I would like to thank my current partners, Jim Quintessenza, Paul Chai, Gus Mavroudis, Duke Cameron, and Luca A. Vricella, 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 emphasised in previous introductions to Supplements, that all of the family members of the authors of the reviews included in this December, 2012 HeartWeek Issue of *Cardiology in the Young* are owed a debt of gratitude, because writing manuscripts markedly decreases the time available with them.

## References

1. Jacobs JP, Anderson RH (eds.). Supplement to *Cardiology in the Young*: controversies relating to the hypoplastic left heart syndrome. *Cardiol Young* 2004; 14 (Suppl 1): 1–130.
2. Jacobs JP, Wernovsky G, Gaynor JW, Anderson RH (eds.). Supplement to *Cardiology in the Young*: controversies of the ventriculo-arterial junctions and other topics. *Cardiol Young* 2005; 15 (Suppl 1): 1–198.
3. Jacobs JP, Wernovsky G, Gaynor JW, Anderson RH (eds.). Supplement to *Cardiology in the Young*: controversies and challenges in the management of the functionally univentricular heart. *Cardiol Young* 2006; 16 (Suppl 1): 1–104.
4. Jacobs JP, Wernovsky G, Gaynor JW, Anderson RH (eds.). Supplement to *Cardiology in the Young*: controversies and challenges of the atrioventricular junctions and other challenges facing paediatric cardiovascular practitioners and their patients. *Cardiol Young* 2006; 16 (Suppl 3): 1–156.
5. Anderson RH, Jacobs JP, Wernovsky G (eds.). Supplement to *Cardiology in the Young*: annual heart week in Florida supplement number 5 – controversies and challenges facing paediatric cardiovascular practitioners and their patients. *Cardiol Young* 2007; 17 (Suppl 2): 1–174.
6. Jacobs JP, Wernovsky G, Cooper DS, Gaynor JW, Anderson RH (eds.). Supplement to *Cardiology in the Young*: annual heart week in Florida supplement number 6 – controversies and challenges of tetralogy of Fallot and other challenges facing paediatric cardiovascular practitioners and their patients. *Cardiol Young* 2008; 18 (Suppl S3): 1–83.
7. Jacobs JP, Cooper DS, Wernovsky G, Goldberg D, Anderson RH (eds.). Supplement to *Cardiology in the Young*: annual heart week in Florida supplement number 7 – innovation associated with the treatment of patients with congenital and pediatric cardiac disease. *Cardiol Young* 2009; 19 (Suppl S2): 1–162.
8. Jacobs JP, Cooper DS, Goldberg D, Wernovsky G, DeCampli WM, Anderson RH (eds.). Supplement to *Cardiology in the Young*: annual heart week in Florida supplement number 8 – rare and challenging congenital cardiac lesions: an interdisciplinary approach. *Cardiol Young* 2010; 20 (Suppl S3): 1–204.
9. Jacobs JP, DeCampli WM, Cooper DS, et al. Supplement to *Cardiology in the Young*: Annual Heart Week in Florida supplement number 9 – a holistic approach to hypoplastic left heart syndrome and other evolving challenges in pediatric and congenital cardiac disease. *Cardiol Young* 2011; 21 (Suppl 2): 1–176.
10. Wernovsky G. Foreword: *cardiology 2007 – 10th annual update on pediatric cardiovascular disease*. *Cardiol Young* 2007; 17 (E-Suppl 1): 1–9.
11. Campbell R. 9th Annual William J. Rashkind Memorial Lecture in Paediatric Cardiology: “The Reimbursement Tsunami: Preserving the Passion”. In: Jacobs JP, Cooper DS, Goldberg D, Wernovsky G, DeCampli WM, Anderson RH (eds.). 2010 Supplement to *Cardiology in the Young*: Annual Heart Week in Florida Supplement Number 8 – Highlights of Heart Week in Florida 2010 – Rare and Challenging Congenital Cardiac Lesions: An Interdisciplinary Approach. *Cardiol Young*, 2010; 20 (Suppl S3): 154–159, December 2010.