A comprehensive post-graduate course for pediatric cardiologists, surgeons, nurses, intensivists, anesthesiologists, sonographers, neonatologists, perfusionists and all those involved in the care of neonates, children and young adults with cardiovascular disease.
Dear Colleague,

On behalf of the Cardiology 2011 organizing committee, and the Cardiac Center at The Children's Hospital of Philadelphia, I am pleased to present the final program for the 15th Annual Update on Pediatric and Congenital Cardiovascular Disease. This course is designed for physicians, nurses, sonographers, perfusionists, administrators, clinical pharmacists, respiratory therapists and all others involved in the care of neonates, infants, children and young adults with cardiovascular disease.

I recently attended the South African Heart Association Annual Congress: Holistic Heart Care. The term “Holistic Medicine” has become somewhat synonymous with “Alternative Medicine.” However, the word holistic is derived from the Greek ὅλος (holos), meaning all, whole, total. Holism is the idea that all the properties of a given system cannot be determined from its component parts alone. Instead, the system as a whole determines in an important way how the parts behave.

In this context, providing optimal care for our patient population mandates a multidisciplinary team approach, including a variety of physicians as well as specialized nurses, sonographers, social workers, nutritionists, counselors and many, many others. All of these practitioners must be experts in their own areas, but should also be knowledgeable about what the other members of the team provide to the overall care of the patient.

Pediatric and congenital cardiovascular diseases are rarely isolated events that can be cured or treated by a single practitioner. Instead, our patients have chronic conditions with uncertain prognoses and life-long challenges, require care from a number of practitioners, and their disease evolves over decades and beyond. While their care may be acute and intensive during an inpatient admission, the outcomes of our treatments require a much longer time frame to understand. Although an increasing number of our patients are now adults, our knowledge of the truly long-term sequelae of our past and current treatments is only in its infancy.

I am particularly excited about the topics and faculty this year. The international faculty will present more than 50 talks in Plenary Sessions as well as over 300 talks in small-group, subspecialty breakout sessions, covering all areas necessary for comprehensive care of neonates, children and young adults with cardiovascular disease.

New this year: A systematic approach for all defects will be modeled on three common (and complex) lesions: TOF, TGA and single ventricle. Current data on management and long-term outcomes will be reviewed, as well as issues common in the surgical survivors of all ages. In addition to the didactic and interactive sessions, there will be live real-time patient assessment including fetal imaging, surface echocardiography and exercise testing.

Although there are many successful meetings for subspecialists who care for children and young adults with heart disease, this course employs an interdisciplinary faculty from multiple institutions to present a balanced approach to diagnosis and management.

We trust you will leave this conference with a more in-depth understanding of your own discipline and with new ways to improve your practice, as well as with a better appreciation of what your colleagues are accomplishing. You will return home with ideas to strengthen your team and to provide life-long, holistic care to your cardiac patients.

Looking forward to seeing you in Scottsdale!

Gil Wernovsky, M.D., R.C.
Course Director
Course Highlights

- **New this year**: Using three common (but complex) congenital lesions — transposition of the great arteries, tetralogy of Fallot and single ventricle — a framework for diagnosis, treatment and outcome assessment will be built that can be applied to essentially all forms of CHD.
  - Each morning will start with a focused review of the previous day’s plenary session, followed by extended panel discussions.
  - An audience response system will be used throughout the meeting to provide real-time feedback, build consensus on management, provide assessment of learning objectives, and to complete course evaluations and continuing education credits.
  - Real-time case studies including live echocardiographic imaging and exercise testing
  - Interactive sessions in exercise physiology and mechanical circulatory support
  - Expanded topics in ambulatory cardiology, transition to ACHD and lifelong care, cardiac surgery, basic cardiovascular science, and inpatient care
  - Special opportunities for residents, fellows and junior faculty: A unique pre-conference is planned for trainees and junior faculty early in their career to provide guidance on career choices, financial security, work-life balance and other practical guidelines for long-term success in cardiovascular medicine.

Course Objectives:

At the completion of the course, participants will be able to:

- review the short-term management strategies and expected long-term outcomes for children and young adults with transposition of the great arteries, tetralogy of Fallot and various forms of single ventricle.
- develop surveillance strategies for outpatients who have undergone surgical intervention for complex congenital heart disease.
- understand the risk factors, pathophysiology and current treatment strategies in children and young adults with pulmonary hypertension.
- recognize important elements in a team approach to caring for children and young adults with cardiovascular disease.

Call for Abstracts

**Timeline**

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<td>Abstract Submission Deadline</td>
<td>Nov. 5, 2010</td>
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<tr>
<td>Notification of Acceptance</td>
<td>Nov. 15, 2010</td>
<td>Moderated Nursing Posters: Feb. 4, 2011</td>
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Course participants are encouraged to submit abstracts for consideration for the Annual Outstanding Investigator and Nursing Scientist Awards. Abstracts will be accepted in all aspects of cardiovascular care, including cardiac issues in the neonatal and pediatric intensive care units, cardiovascular nursing, inpatient and outpatient cardiology, surgical, anesthesia and perfusion research, as well as basic cardiovascular science. The abstracts will be graded by the course faculty in a blinded fashion.

Accepted Abstracts:

- Accepted abstracts will be published in early 2011, in the *World Journal for Pediatric and Congenital Heart Surgery* (visit [http://pch.sagepub.com](http://pch.sagepub.com)).

- On Friday, Feb. 4, 2011, the top six abstracts will be presented as eight-minute oral presentations and the top six Nursing abstracts in a moderated poster session. The remaining accepted abstracts will be presented in one of three poster sessions during the meeting.

- The international course faculty will select the recipients of the Eighth Annual Outstanding Investigator Award and the Fourth Annual Nursing Scientist Award. The two award winners will each receive:
  - recognition at the featured plenary session on Feb. 5, 2011.
  - a complimentary registration for Cardiology 2012.
  - a $500 travel grant.

Electronic submission only. See [www.chop.edu/cardiology2011](http://www.chop.edu/cardiology2011) for details. Abstract acceptance does not include course registration fee or hotel accommodations.
Special Interest Sessions

To help you easily identify relevant speaker topics and breakout sessions, all presentations are color-coded according to discipline. Use this guide to quickly find your way around.

**Plenary Sessions**

Plenary sessions are designed to meet the needs of all those who care for neonates, children and young adults with cardiovascular disease. Sessions are broad in scope and presented by a multidisciplinary faculty.

**Adult Congenital Heart Disease**

It is estimated that the number of adults with CHD will soon outnumber children with CHD. These sessions focus on the changing landscape of ACHD care, as the “products of our successes” reach adulthood. Topics will include challenges of diagnosis and management, transition, psychosocial support and adequate healthcare delivery.

**Administrative Topics in Cardiovascular Disease**

Increasingly complex guidelines, hospital requirements and government mandates have changed the landscape of providing care for children with heart disease. Throughout the conference, hospital administrators and nursing and physician leaders will discuss challenges and solutions to these complex problems.

**Ambulatory and General Pediatric Cardiology**

Throughout the meeting, breakout sessions will focus on important issues for outpatients with heart disease and the practitioners who care for them. Featured sessions will include acquired heart disease in children, long-term outcomes, electrophysiology, pulmonary hypertension and exercise physiology.

**Basic Science**

These sessions feature leaders in the fields of basic science and translational research, with an emphasis on bringing the “bench to bedside” in cardiovascular medicine.

**Cardiac Intensive Care**

An international, multidisciplinary faculty has been assembled to review current management, controversies in care and new research in cardiac intensive care and cardiac anesthesia. Featured breakout sessions will supplement the plenary sessions on late-breaking clinical trials, and will include mechanical support of the failing circulation, new methods of invasive and non-invasive monitoring, new technology and infection control. *PCICS members are entitled to a $50 discount.*

**Special Topics in Cardiovascular Nursing**

A course-long track, including a special preconference on the principles of perioperative care, will highlight contemporary issues facing nurses caring for neonates, infants, children and young adults with heart disease. Sessions will encompass all aspects of pediatric cardiovascular nursing, from the bedside through long-term follow-up. Special sessions will focus on advanced practice nursing, nursing research and nursing administration.

**Updates on Congenital Heart Surgery and Pediatric Perfusion**

These sessions will focus on state-of-the-art surgical therapy and perioperative support for the neonate, infant and child with congenital heart disease. Surgeons, anesthesiologists and perfusionists will discuss controversies in management and new modes of treatment. *Members of the International Society for Pediatric Mechanical Circulatory Support are entitled to a $50 discount.*

**Special Track for Residents, Fellows and Junior Faculty**

A special track is planned for trainees and junior faculty early in their careers to provide guidance on career choices, financial security, work-life balance and other practical guidelines for long-term success in cardiovascular medicine. Cardiology 2011 provides an excellent opportunity to network and interact with practitioners in training or early in their careers.
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**Featured Lectures**
- Live Exercise Testing: TOF, TGA and SV
- Live Fetal Imaging: TOF, TGA and SV

**Breakout Sessions**
- Transposition of the Great Arteries Part I
- Oral Abstract Competition
- Tetralogy of Fallot Part 2
- Course Introduction Opening Talks
- Single Ventricle Part I
- Opening Reception

**Plenary Sessions**
- AM Plenary Talk
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- AM Plenary Talk

**Breakout Sessions**
- Transposition of the Great Arteries Part 2
- Oral Abstract Competition
- Tetralogy of Fallot Part 2
- Course Introduction Opening Talks
- Single Ventricle Part I
- Opening Reception
PRE-CONFERENCE #1: How to Plan and Navigate a Successful Career

**Wednesday, Feb. 2**

### Session I: Career Pathways
*Moderators – Girish S. Shirali, M.B.B.S., and Barry J. Byrne, M.D.*

- **8:15 a.m.** Tracks and Promotion
  *Girish S. Shirali, M.B.B.S.*

- **8:30 a.m.** Careers in Basic/Translational Science
  *Robert J. Levy, M.D.*

- **8:45 a.m.** Combining Bench and Bedside: Lessons Learned
  *Barry J. Byrne, M.D.*

- **9 a.m.** Developing a Career Theme: Do’s and Don’ts
  *Lloyd Y. Tani, M.D.*

- **9:15 a.m.** Running a Single Center Clinical Trial: Lessons Learned
  *Caren S. Goldberg, M.D.*

- **9:30 a.m.** Clinician Administrator: A Viable Pathway?
  *Alan H. Friedman, M.D.*

- **9:45 a.m.** Private Practice: A Viable Pathway?
  *Mitchell I. Cohen, M.D.*

- **10 a.m.** Panel Discussion

- **10:15 a.m.** Break

### Session II: Career Planning
*Moderators: Robert E. Shaddy, M.D., and Jeffrey A. Towbin, M.D.*

- **10:45 a.m.** Selecting/Maintaining a Job: SWOT Analysis and Career Polymorphism
  *Anthony C. Chang, M.D.*

- **11 a.m.** Selecting a Mentor
  *Daniel J. Penny, M.D.*

- **11:15 a.m.** My Expectations as a Mentor
  *Robert E. Shaddy, M.D.*

- **11:30 a.m.** Mentee 101: How to Best Utilize and Capitalize on Your Mentor’s Skills and Experience
  *David J. Goldberg, M.D.*

- **11:45 a.m.** Avoiding Trouble in Paradise
  *Jeffrey A. Towbin, M.D.*

- **Noon** Panel Discussion

- **12:15 p.m.** Lunch Break (with Course Faculty)

### Session III: Visibility, Profile and Self-Promotion
*Moderators: Gil Wernovsky, M.D., and Stuart Berger, M.D.*

- **1 p.m.** Time Management
  *John Costello, M.D.*

- **1:15 p.m.** Compiling your CV: Do’s and Don’ts
  *Andrew Redington, M.B.B.S., M.R.C.P., F.R.C.P.*

- **1:30 p.m.** Interviewing Skills: Do’s and Don’ts
  *Tim Feltes, M.D.*

- **1:45 p.m.** Compiling an Abstract: Do’s and Don’ts
  *Sarah Tabbutt, M.D.*

- **2 p.m.** The 10-Minute Talk: Do’s and Don’ts
  *Gil Wernovsky, M.D.*

- **2:15 p.m.** Improving Public Speaking
  *Heidi Dalton, M.D.*

- **2:30 p.m.** Panel Discussion

- **3 p.m.** Adjourn

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"Cardiology 2010 has been one of the true highlights of my time as a pediatric cardiology fellow. It not only provided a wonderful opportunity to present my research to a large forum of international experts, it served as the perfect venue to attend a seemingly limitless number of excellent workshops and lectures by these same experts. I would highly recommend this annual conference to any junior faculty member or trainee as the best national conference in regards to specifically supporting their clinical and academic development within the field of pediatric cardiology."

Nicolas L. Madsen, M.D., M.P.H.
Fellow, Pediatric Cardiology
Seattle Children’s Hospital
PRE-CONFERENCE #2: Cardiac Anatomy and Surgery for the Bedside Nurse

NURSING

Part I: Fundamental Concepts in Caring for Infants and Children with Congenital Heart Disease
Moderators: Kathryn M. Dodds, C.R.N.P., and Kathleen Chavaru Gorman, R.N., M.S.N.
8:30 a.m. Anatomy of the Normal Heart – Robert H. Anderson, M.D.
8:50 a.m. History of Congenital Heart Surgery and Major Advances in the Field – Stephanie Fuller, M.D.
9:10 a.m. How A Diagnosis is Made in 2011: Fundamentals of Echocardiography and MRI – Alan H. Friedman, M.D.
9:40 a.m. Routine and Emergency Preparation at the Bedside – Susan Wall, R.N., B.S.N., C.C.R.N.
9:55 a.m. Pattern Recognition/Common Postoperative Issues/Long-term Outcomes – Gil Wernovsky, M.D., and Jill Sullivan, PA-C.
10:10 a.m. Heart Block, JET and SVT – Jennifer Shaffer, R.N., M.S.N., C.P.N.P.
11:05 a.m. More on the Normal Heart – Paul M. Weinberg, M.D., Jennifer C. Hirsch, M.D.
11:30 a.m. Break

Part II: Common Congenital Heart Disease Managed in Childhood
Moderators: Jo Ann Nieves, R.N., M.S.N., P.P.P.-B.C., and Jennifer Shaffer, R.N., M.S.N., C.P.N.P.
10:45 a.m. Atrial Septal Defect – Paul M. Weinberg, M.D., Jacqueline Kreutzer, M.D., and Kathryn M. Dodds, C.R.N.P.
11 a.m. Pulmonary and Aortic Stenosis – Paul M. Weinberg, M.D., and Jacqueline Kreutzer, M.D., and Virginia Jones, B.S.N., R.N.
11:30 a.m. Break

Part III: Common Congenital Heart Disease Managed in Infancy
Moderators: Kathryn M. Dodds, C.R.N.P., and Stephanie Fuller, M.D.
12:15 p.m. Tetralogy of Fallot (additional details in main conference) – Paul M. Weinberg, M.D., Stephanie Fuller, M.D., and Dawn Tucker, R.N., M.S.N., C.P.N.P.-P.C./A.C.

Part IV: Common Congenital Heart Disease Managed in the Neonate
Moderators: Kathryn M. Dodds, C.R.N.P., and Stephanie Fuller, M.D.
1:15 p.m. Truncus Arteriosus (common arterial trunk) – Robert H. Anderson, M.D., Martin Elliot, M.D., and Jo Ann Nieves, R.N., M.S.N., P.P.P.-B.C.
1:30 p.m. Total Anomalous Pulmonary Venous Return – Robert H. Anderson, M.D., Martin Elliot, M.D., and Jo Ann Nieves, R.N., M.S.N., P.P.P.-B.C.
1:45 p.m. Transposition of the Great Arteries (additional details in main conference) – Paul M. Weinberg, M.D., Stephanie Fuller, M.D., and Kathryn M. Dodds, C.R.N.P.
2:30 p.m. Single Ventricle (additional details in main conference) – Paul M. Weinberg, M.D., Marshall L. Jacobs, M.D., and Kathryn M. Dodds, C.R.N.P.
3 p.m. Adjourn

PRECONFERENCE #3: Advanced Imaging

Part I: Optimal Imaging During Catheter and Surgical Intervention
Moderators: Meryl S. Cohen, M.D., and Jeffrey F. Smallhorn, M.D.
9 a.m. What I Need from My Imager for an Optimal Catheterization (and What I Don’t Need) – Jacqueline Kreutzer, M.D.
9:20 a.m. What I Need from My Imager for an Optimal Operation (and What I Don’t Need) – Martin J. Elliot, M.D.
9:40 a.m. The Challenges of Intra-procedure Imaging – Meryl S. Cohen, M.D.
10 a.m. Anesthesia and Airway Considerations – Laura K. Diaz, M.D.
10:20 a.m. Panel Discussion: Team Approach to Image-guided Interventions and Surgery

Part II: New Technologies
Moderators: Girish Shirali, M.B.B.S., and Jonathan J. Rome, M.D.
10:40 a.m. Advances in Transesophageal Echocardiography – Girish S. Shirali, M.B.B.S.
11 a.m. The Role of Intracardiac Echo – Ziyad M. Hijazi, M.D.
11:20 a.m. The Role of XMR – Jonathan J. Rome, M.D.
11:40 a.m. What’s New in Imaging the Conduction System? – Larry A. Rhodes, M.D.
Noon Panel Discussion – Fitting the Technology to the Situation
12:15 p.m. Lunch Break

Part III: New Practices and Technology in Fetal Imaging
Moderators: Jack Rychik, M.D., and Mark Sklansky, M.D.
12:40 p.m. Role of the Nurse Coordinator in a Fetal Heart Program – Denise Donaghe, R.N., M.S.N.
1 p.m. Fetal Cardiovascular Imaging Before 15 Weeks Gestation: What Can We See? – Jack Rychik, M.D.
1:20 p.m. Analysis of Atrioventricular Valve Annular Dynamics: Can It Improve Understanding of Regurgitation in the Fetus? – Jeffrey F. Smallhorn, M.D.
1:40 p.m. Shared Care: Partnering with Maternal Fetal Medicine Specialists in Caring for Fetal Congenital Heart Disease – Alan H. Friedman, M.D.
2 p.m. Myocardial Strain and Strain Rate Analysis in the Fetus: Insights into Complex Physiology – Jack Rychik, M.D.
2:20 p.m. Applications of Doppler Echocardiography in the Fetus – David Goldberg, M.D.
2:40 p.m. Prenatal Detection of Congenital Heart Disease: The Superiority of Outflow Tracts Over the Four-chamber View – Mark Sklansky, M.D.
3 p.m. Panel Discussion
3:30 p.m. Adjourn
### Opening Remarks

**Developing a Holistic Strategy for CHD**

3:45 p.m. *Beyond “Cardiac Myopia” – The Ongoing Successes (and Missed Opportunities) in Pediatric Cardiovascular Care*
   
   Gil Wernovsky, M.D.

4:10 p.m. *The Brain in Complex CHD*
   
   Daniel J. Licht, M.D.

4:25 p.m. *What Pediatric Cardiac Practitioners Need to Know About Adolescents and Transition to Self-Care*
   
   Alison Knauth Meadows, M.D.

4:40 p.m. *The Surgeon as a Lifelong Partner*
   
   Stephanie Fuller, M.D.

### Single Ventricle – Part I

**Moderators:** Jack Rychik, M.D., and Kathryn M. Dodds, C.R.N.P.

4:55 p.m. *Fetal Imaging, Physiology and Counseling*
   
   Jack Rychik, M.D.

5:10 p.m. *Parental Stress Following a Prenatal Diagnosis of Complex CHD*
   
   Denise Donaghue, R.N., M.S.N.

5:20 p.m. *Anatomy of Single Ventricle*
   
   Robert H. Anderson, M.D., and Paul M. Weinberg, M.D.

5:35 p.m. *Preoperative Physiology, Assessment and Stabilization*
   
   Gil Wernovsky, M.D.

5:45 p.m. *Principles of Surgical and Peri-operative Management of the Newborn with Single Ventricle*
   
   Thomas L. Spray, M.D.

6:10 p.m. *After Discharge: Important Aspects in Caring for the Fragile Infant After Newborn Palliation for Single Ventricle*
   
   Karen Uzark, Ph.D., C.P.N.P.

6:20 p.m. **Break**

### Single Ventricle – Part II

**Moderators:** Jack Rychik, M.D., and Kathryn M. Dodds, C.R.N.P.

6:40 p.m. *The Bidirectional Glenn and Modified Fontan Procedures: Perioperative Management and Current Controversies*
   
   Sarah Tabbutt, M.D.

7 p.m. *What I’ve Learned About the Fontan Operation in 40 Years*
   
   John J. Lamberti, M.D.

7:15 p.m. *Catheter Interventions in Children with Single Ventricle: Coils, Fenestration Closure and Stents – We Can, But Should We?*
   
   Jacqueline Kreutzer, M.D.

7:30 p.m. *How Good Is a Good Fontan? Quality of Life and Exercise Capacity of Fontans Without Arrhythmias*
   
   Daniel J. Penny, M.D.

7:45 p.m. *Cardiac and Non-Cardiac Sequelae of the Fontan: Results of the PHN Study (and Beyond)*
   
   Brian McNindle, M.D.

8 p.m. *Management Challenges for the Adolescent and Young Adults with a Fontan Circulation: Case Presentations on Topics Including Fontan Conversion, Pregnancy, Arrhythmias, Transplantation and Others*  
   
   Panel: Carl L. Backer, M.D., Michael G. McBride, Ph.D., Mitchell I. Cohen, M.D., Charles E. Canter, M.D., and John J. Lamberti, M.D.

8:30 p.m. *Below the Surface: Hidden Morbidities After the Fontan Operation*
   
   Kathryn M. Dodds, C.R.N.P.

8:40 p.m. *Next Steps – Changing the Current Paradigm*
   
   Jack Rychik, M.D.

8:50 p.m. **Audience Response System and Submit Questions for Thursday A.M. Panel Discussion and Adjourn**

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“The CHOP meeting represents a unique opportunity for interaction amongst all disciplines within the profession of pediatric cardiac services (cardiologists, surgeons, anesthesiologists, practitioners/mid-level providers, hospital administration, nurses, etc.). There is a free-flowing exchange of ideas and expertise in an informal and more social atmosphere. It’s one of the best meetings of the year.”

Robert Campbell, M.D., *Chief of Cardiac Services, Children’s Sibley Heart Center, Children’s Healthcare of Atlanta*
Thursday, Feb. 3

Opening Plenary Session

7:15 a.m. What I Learned Last Night About Single Ventricle/Panel Discussion – Jack Rychik, M.D.
7:35 a.m. A.M. Plenary Talk: Commercializing and Marketing an “Idea” – Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.
7:55 a.m. Pathway to FDA Approval of Specific Drug Therapy for Fatal Cardiomyopathy in Infants: The Pompe Story – Barry J. Byrne, M.D.
8:15 a.m. Adjourn

Breakout Sessions • 8:30 – 10 a.m.

Catheterization in the Critically Ill Neonate and Infant
Moderators: Jonathan J. Rome, M.D., and Virginia Jones, R.N., B.S.N.
8:30 a.m. When to Cath: Decision Analysis in the Postoperative Patient
John Costello, M.D.
8:45 a.m. Anesthetic Considerations
Frank X. McGowan, M.D.
9 a.m. Bedside Preparation and Transport
Virginia Jones, R.N., B.S.N.
9:15 a.m. Catheter Interventions in the Neonate: Techniques and Results
Jonathan J. Rome, M.D.
9:30 a.m. Difficult Vascular Access for Catheterization and in the ICU
John Moore, M.D.
9:45 a.m. Current Results of Early Postoperative Interventions
Joseph Graziano, M.D.

Hot Topics in Cardiac Anesthesia and Perioperative Care
Moderators: Dean B. Andropoulos, M.D., and Antonio Most, M.D.
8:30 a.m. Optimal Sedation During Transthoracic Echocardiography in Uncooperative Patients
Laura Diaz, M.D.
8:45 a.m. Why Should We Measure Oxygen Consumption?
Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.
9 a.m. Intraoperative Neuromonitoring
Christopher E. Mascio, M.D.
9:15 a.m. Anesthetic and Sedative Neurotoxicity in Patients with Cardiac Disease: Myth or Reality?
Dean B. Andropoulos, M.D.
9:30 a.m. The Relationship Between Inflammatory Activation and the Postoperative Course
Frank X. McGowan, M.D.
9:45 a.m. The Impact of Intraoperative Anesthetic Management on the Postoperative Course
Sarah Tabbutt, M.D.

EP Syndromes, Genetics and Heart Disease
Moderators: Barry J. Byrne, M.D., and Elizabeth Goldmuntz, M.D.
8:30 a.m. Genetic Testing in 2011: State of the Art
Elizabeth Goldmuntz, M.D.
8:50 a.m. Clinical EP Syndromes: WPW, Brugada and Prolonged QTc
Linda Payne, R.N., B.S.N.
9:10 a.m. Consenting Families for Genetic Studies
Seema Mital, M.D.
9:30 a.m. Neurofibromatosis
Fraz Ismat, M.D.
9:45 a.m. How I Use Genetic Results from the Lab for Bedside Care and Family Counseling
Mitchell I. Cohen, M.D.
Invasive Electrophysiology and Pacing: 2011
Moderators: Maully J. Shah, M.B.B.S., F.A.A.C., and Larry A. Rhodes, M.D.

8:30 a.m.  Update on Cardiac Resynchronization Therapy
1. CRT for the Failing Systemic Left Ventricle – Peter Fischbach, M.D.
2. CRT for the Failing Systemic Right Ventricle – Mitchell I. Cohen, M.D.

9 a.m.  My Biggest Nightmare Ablation in an Adult with CHD
Ivana Zeltser, M.D.

9:15 a.m.  Pediatric and Adult EP: An Evolving Partnership
Maully J. Shah, M.B.B.S., F.A.A.C.

9:30 a.m.  Ablative Therapy in Adults with CHD: How Good Are We?
Larry A. Rhodes, M.D.

9:45 a.m.  Identifying Family Members with Channelopathies
Jennifer Shaffer, R.N., M.S.N., C.P.N.P.

New Technology and Concepts in Pediatric Perfusion
Moderator: David P. Bichell, M.D.

8:30 a.m.  pH Strategy and Cerebral Perfusion
James Groneck, C.C.P.

8:50 a.m.  The Impact of Intraoperative NIRS on Perfusion Management
Ronald Gorney, P.A.-C., C.C.P.

9:10 a.m.  New Technology for Cardiopulmonary Bypass
Tami Rosenthal, B.S., C.C.P., M.B.A.

9:30 a.m.  Correlation of Thromboelastography with Standard Tests of Anticoagulation in Pediatric Patients Receiving Extracorporeal Life Support
Lara Shekerdemian, M.D.

9:45 a.m.  Debate: Blood Cardioplegia is Standard of Care
PRO: Ronald Gorney, P.A.-C., C.C.P.
CON: Talya Frey, B.S., C.C.P., F.P.P.

Administrative (and Political) Issues in Ambulatory Pediatric Cardiovascular Disease
Moderators: Alan R. Cohen, M.D., and Lawrence W. Barnes, M.B.A.

Rapid-fire Session: Successes, Challenges and Lessons Learned from Four Different Interdisciplinary Clinics
8:30 a.m.  10-year Development of a Fetal Heart Program
Denise Donaghue, R.N., M.S.N.

8:40 a.m.  Implementation of a High-risk Congenital Clinic in a Mixed Private Practice/Academic Environment
Jo Ann Nieves, M.S.N., P.N.P.-B.C.

8:50 a.m.  Coordinating an Interdisciplinary NeuroCardiac Care Clinic for Seven Different Providers
Jean M. Carroll, R.N., M.S.N.

9 a.m.  Coordinating Interdisciplinary ACHD Care Across Two Institutions
Stephanie Fuller, M.D.

9:10 a.m.  Implementing “Best Practices” in a Large Group of Cardiologists
Robert Campbell, M.D.

9:25 a.m.  Implementing “Best Practices” in a Large Group of Anesthesiologists
Aubrey Maze, M.D.

9:40 a.m.  Are There Too Many CV Programs? – Rationalizing or Rationing
Madeline Bell

Break/Visit the Exhibits • 10 – 10:45 a.m.
Poster Session #1
### My Worst Nightmare Case as a CV Nurse
*Moderator: Kathleen Chavanu Gorman, R.N., M.S.N.*

10:45 – Noon  Cases and Experiences That Have Made an Impact on Practice and Lessons Learned

*Nursing Faculty*

### Preventative and Ambulatory Cardiology
*Moderators: Caren S. Goldberg, M.D., and Jeffrey Boris, M.D.*

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<tr>
<th>Time</th>
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<tr>
<td>10:45 a.m.</td>
<td>Rheumatic Heart Disease in 2011</td>
<td>Lloyd Y. Tani, M.D.</td>
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<td>11 a.m.</td>
<td>Drug Therapy for Lipid Disorders in Children</td>
<td>Brian McCrindle, M.D.</td>
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<td>11:15 a.m.</td>
<td>Treating Hypertension</td>
<td>Samuel S. Gidding, M.D.</td>
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<td>11:30 a.m.</td>
<td>Nutritional Supplements That May Reduce Risk for Early Atherosclerosis</td>
<td>Caren S. Goldberg, M.D.</td>
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<td>11:45 a.m.</td>
<td>Sickle Cell Disease and the Heart</td>
<td>Alan R. Cohen, M.D.</td>
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### Basic and Translational Science
*Moderators: Fraz Ismat, M.D., and Jonathan Epstein, M.D.*

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<tr>
<td>10:45 a.m.</td>
<td>Nitric Oxide: From Bench to Bedside (and Back)</td>
<td>Jeffrey R. Fineman, M.D.</td>
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<td>11 a.m.</td>
<td>Drug Repurposing: From Bench to Bedside</td>
<td>Seema Mital, M.D.</td>
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<td>11:15 a.m.</td>
<td>Targeting Diastolic Dysfunction by Genetic Engineering of Calcium Handling Proteins</td>
<td>Jennifer C. Hirsch, M.D.</td>
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<td>11:30 a.m.</td>
<td>Myocardial Vascular and Metabolic Adaptations in Chronically Anemic Fetal Sheep</td>
<td>Christopher E. Mascio, M.D.</td>
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<td>11:45 a.m.</td>
<td>Nanotechnology in Pediatric Cardiology</td>
<td>Robert J. Levy, M.D.</td>
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### The Electronic Health Record and CV Disease
*Moderators: Geoffrey L. Bird, M.D., and Alan R. Spitzer, M.D.*

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<tr>
<td>10:45 a.m.</td>
<td>Challenges in Bedside Implementation</td>
<td>Susan Wall, R.N., B.S.N., C.C.R.N.</td>
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<td>11 a.m.</td>
<td>EPIC Implementation: Three Weeks Later at CHOP</td>
<td>Jeffrey Boris, M.D.</td>
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<td>11:15 a.m.</td>
<td>Stop Throwing Away Information: Methods and Pitfalls for Capturing and Using Data at the Bedside</td>
<td>Geoffrey L. Bird, M.D.</td>
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<tr>
<td>11:30 a.m.</td>
<td>The Role of Physician Assistants in Surgical Data Entry: Challenges and Implementation</td>
<td>Jill M. Sullivan, M.S., PA-C.</td>
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<tr>
<td>11:45 a.m.</td>
<td>Electronic Documentation of Cardiopulmonary Bypass: Lessons Learned</td>
<td>Tami Rosenthal, B.S., C.C.P, M.B.A.</td>
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</table>
Imaging the Heart in the Critically Ill Patient: The Importance of Collaboration
Moderators: Girish S. Shirali, M.B.B.S., and Sarah Tabbutt, M.D.

10:45 a.m.  Communication: Setting Up the Patient, Environment and Staff for Optimal Data Acquisition
Alan H. Friedman, M.D., and Anthony Rossi, M.D.

11:05 a.m.  Assessing the Heart While on Mechanical Support
David S. Cooper, M.D., and Meryl S. Cohen, M.D.

11:25 a.m.  Transporting Technology-dependant Patients to MRI and CT: Lessons Learned
Laura K. Diaz, M.D., and Theresa Schultz, R.N., M.B.A.

11:45 a.m.  MRI and/or CTA in the Critically Ill Cardiac Patient
Anthony M. Hlavacek, M.D., and Antonio Mott, M.D.

Interventional Catheterization
Moderators: Jonathan J. Rome, M.D., and John Moore, M.D.

10:45 a.m.  Treatment of Native and Recurrent Arch Obstruction
Ziyad M. Hijazi, M.D.

11 a.m.  Past, Present and Future Applications of Stents in CHD
John Moore, M.D.

11:15 a.m.  Pulmonary Arteriovenous Malformations in Heterotaxy: What’s New?
Jacqueline Kreutzer, M.D.

11:30 a.m.  Percutaneous Valve Implantation in Congenital Heart Disease: What Is Now and What Is Next?
Jonathan J. Rome, M.D.

11:45 a.m.  Panel Discussion for General Questions or Tough Cases
Cath. Faculty
Thursday, Feb. 3

### Box Lunch Sessions • 12:15 – 1:15 p.m.

**Session A:** Live Echocardiographic Imaging of Transposition, Tetralogy and Single Ventricle  
*Moderators: Meryl S. Cohen, M.D., and Bryan Sandweiss, M.D.*

**Session B:** Innovation in CHD  
*Moderator: Mitchell I. Cohen, M.D.*

- **12:15 p.m.** Meaningful Use of the Electronic Health Record: Lessons Learned from the Pediatrix Neonatology Experience and Future Applications in CHD  
  *Alan R. Spitzer, M.D.*

- **12:45 p.m.** We Can’t Do Prospective Randomized Trials for Everything: Other Ways to Make Robust Inferences About Challenging Issues in Patient Care  
  *Marshall L. Jacobs, M.D.*

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**Tetralogy of Fallot – Part I**  
*Moderators: Jonathan J. Rome, M.D., and Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.*

- **1:30 p.m.** Anatomy of Tetralogy of Fallot  
  *Robert H. Anderson, M.D., and Paul M. Weinberg, M.D.*

- **1:45 p.m.** Fetal Imaging and Counseling  
  *Nancy A. Ayres, M.D.*

- **2 p.m.** The Many Roads to Tetralogy of Fallot  
  *Elizabeth Goldmuntz, M.D.*

- **2:15 p.m.** Preoperative Physiology and Optimal Timing of Surgery  
  *Geoffrey L. Bird, M.D.*

- **2:30 p.m.** Surgical Repair of Tetralogy of Fallot: Techniques, Controversies and Early Results  
  *Jennifer C. Hirsch, M.D.*

- **2:50 p.m.** The Evolution of Practice Variation and Postoperative Care Over a Generation of TOF Patients at CHOP  
  *Roxanne E. Kirsch, M.D.*

3 –

**3:30 p.m.** Break

**Tetralogy of Fallot – Part II**  
*Moderators: Jonathan J. Rome, M.D., and Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.*

- **3:30 p.m.** Neurological and QOL Issues in TOF Survivors  
  *Bradley S. Marino, M.D.*

- **3:45 p.m.** Electrophysiologic and Hemodynamic Sequelae in TOF Survivors  
  *Maully J. Shah, M.B.B.S., F.A.A.C.*

- **4 p.m.** What Has Been Learned About Bioprosthetic Valve Degeneration in the Lab?  
  *Robert J. Levy, M.D.*

- **4:20 p.m.** Assessment of the Volume Load of Pulmonary Regurgitation: When (and How) to Intervene?  

- **4:40 p.m.** Assessment of Arrhythmias in Older TOF Patients: How and How Often?  
  *Panel: Paul Stephens Jr., M.D., Stuart Berger, M.D., and Mitchell I. Cohen, M.D.*

- **5 p.m.** Assessment of the Pulmonary Arteries and Vasculature in TOF Patients: Should It Be Routine?  
  *Panel: Jonathan J. Rome, M.D., Anthony M. Hlavacek, M.D., and Brian Hanna, M.D.C.M.*

- **5:20 p.m.** Heritability, Pregnancy and (Truly) Long-term Outcomes  
  *Candice Silversides, M.D.*

- **5:40 p.m.** Audience Response System and Submit Questions for Friday A.M. Panel Discussion

6 – 9 p.m. **Opening Reception/Baby Blue Sound Collective**
Friday, Feb. 4

7 a.m.  Special Breakfast Session: Unique Challenges Facing the Cardiovascular Advanced Practice Nurse

Plenary Session

8:10 a.m.  What We Learned Last Night About Tetralogy of Fallot/Panel Discussion

8:30 a.m.  Planning for U.S. Healthcare Reform in the Cardiovascular World
Madeline Bell

8:50 a.m.  Why Are We Still Doing It This Way? – Suggestions for Change as the Money Goes Away and the Trainees Go Home
Martin J. Elliott, M.D.

9:10 a.m.  Adjourn

Breakout Sessions • 9:15 – 10:45 a.m.

Hot Topics for the Critically Ill Neonate and Infant with Heart Disease
Moderator: Lara Shekerdemian, M.D.

9:15 a.m.  Ischemia-Reperfusion Injury in the Cardiac ICU
John R. Charpie, M.D.

9:30 a.m.  Update on Remote Ischemic Preconditioning
Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.

9:45 a.m.  Patient, Procedure and ICU Factors Affecting the Brain
Gil Wernovsky, M.D.

10 a.m.  Update from the STS Neuroprotection and Neuromonitoring Task Force
Jennifer C. Hirsch, M.D.

10:15 a.m.  New Optical Imaging Techniques for Monitoring Cerebral Physiology
Daniel J. Licht, M.D.

10:30 a.m.  Risks and Benefits of Activated Factor VII
Troy E. Dominguez, M.D.

Basic Science
Moderator: Fraz Ismat, M.D.

9:15 a.m.  You and Your Genome
Elizabeth Goldmuntz, M.D.

9:35 a.m.  Tools in Molecular Medicine: Gain or Loss of Gene Function in Animal Models and Patients
Barry J. Byrne, M.D.

9:55 a.m.  Site Specific Gene Therapy
Robert J. Levy, M.D.

10:15 a.m.  NOTCH and Cardiac Outflow Tract Development
Jonathan Epstein, M.D.

The ACHD Inpatient: Adults Are Not Just Big Kids
Moderators: Stephanie Fuller, M.D., and Karen K. Stout, M.D.
The growing population of hospitalized patients with ACHD poses unique challenges in a pediatric institution. Using adults with TGA as an example, the panel will review salient features to improve care of the adult with CHD in a pediatric institution.

9:15 a.m.  Case in Point: Surgical Reinterventions Following Senning/Mustard
Glen Van Arsdell, M.D.

9:35 a.m.  Anesthesia and Vascular Access Issues
Dean B. Andropoulos, M.D.

9:45 a.m.  Perspectives from the Pump: Perfusion
Scott Lawson, M.S., C.C.P.

10 a.m.  Immediate Postoperative Nursing Care
David Drajpuch, M.S.N., R.N., C.R.N.P.

10:15 a.m.  Intensive Care Delivered by a Pediatric Subspecialist: Lessons Learned
Anthony Rossi, M.D.

10:30 a.m.  Stepdown Care and Discharge Planning
Donna L. Rust, R.N., M.S.N., C.R.N.P.
Heart Failure for the General Cardiologist
Moderator: Robert E. Shaddy, M.D.

9:15 a.m. What the General Cardiologist Should Know About Heart Failure
Anthony Chang, M.D.

9:30 a.m. Update on Post-Transplant Lymphoproliferative Disease
Timothy M. Hoffman, M.D.

9:45 a.m. Update on Hypertrophic Cardiomyopathy
Robert M. Campbell, M.D.

10 a.m. Clinical and Basic Aspects of LV Non-Compaction
Jeffrey A. Towbin, M.D.

10:15 a.m. Biomarkers in Pediatric Heart Failure: What Do They Mean?
Daphne Hsu, M.D.

10:30 a.m. Q&A/Panel

Fetal Cardiology
Moderators: David J. Goldberg, M.D., and Nancy A. Ayers, M.D.

9:15 a.m. Starting a Fetal Cardiac Intervention Program from Scratch: Lessons Learned
Jacqueline Kreutzer, M.D.

9:30 a.m. Formal Guidelines for Fetal Echocardiography: Time to Raise the Bar
Mark Sklansky, M.D.

9:45 a.m. How to Follow the Fetus with Congenital Heart Disease
Nancy A. Ayers, M.D.

10 a.m. Fetal Diagnosis of Heterotaxy Syndrome: The Comprehensive Exam
Meryl S. Cohen, M.D.

10:15 a.m. Fetal Cardiovascular Manifestations of Twin Gestation Pregnancy
Jack Rychik, M.D.

10:30 a.m. My Most Challenging Case
Panel

Administration/CEO Roundtable
Moderator: Madeline Bell

9:15 – 10:45 a.m. Join The Children’s Hospital of Philadelphia CEO Steven M. Altschuler, M.D., and Phoenix Children’s Hospital CEO Robert Meyer for an informal discussion of contemporary topics related to the administration of cardiovascular services.

Topics to be covered include: Successful Fundraising; Service Delivery; Organizational Structure; and The Future of CV Services in the Era of Healthcare Reform

Break/Visit the Exhibits • 10:45 – 11:30 a.m.
Poster Session #2

“An excellent meeting for pediatric cardiac administrators to develop a better understanding of the clinical aspects of the service to support the program needs. It is the only meeting where we can meet our colleagues across the nation, and allow program benchmarking and development of collaborative relationships with peers in the field.”

Mary Beth Martin, R.N., Senior Director, Heart Center, Children’s Medical Center, Dallas
Cardiac Surgery Potpourri
Moderator: Paul J. Chai, M.D.
11:30 a.m. How Is “Competence” Determined in Pediatric Cardiac Surgery
Emile Bacha, M.D.
11:45 a.m. Thrombosis, Infection and Central Venous Access in Neonates Undergoing Congenital Cardiac Surgery
David P. Bichell, M.D.
Noon Improving Longevity of Bioprosthetic Valves in Children: What Has Been Learned?
Robert J. Levy, M.D.
12:15 p.m. Beyond Aprotinin: Strategies to Minimize Postoperative Bleeding
James Tweddell, M.D.
12:30 p.m. Brain Immaturity vs. Dysmaturity: Implications for Surgical Intervention
Daniel S. Licht, M.D.
12:45 p.m. Inotropic Support: Hot New Stuff or Same Old-Same Old?
Timothy M. Hoffman, M.D.

Basic Science: What Can Animals Tell Us About CHD?
Moderator: Elizabeth Goldmuntz, M.D.
11:30 a.m. From Flipper to Baby Beluga: Transthoracic, Transesophageal and Fetal Echocardiography in Dolphins and Whales
Mark Sklansky, M.D.
11:55 a.m. Insights from a Model of Pulmonary Overcirculation in Lambs
Jeffrey R. Fineman, M.D.
12:20 p.m. What Can Zebrafish Tell Us?
Jonathan Epstein, M.D.

Non-invasive Imaging
Moderators: Jack Rychik, M.D.
11:30 a.m. Non-invasive Indicators to Determine Timing of Intervention for Aortic Insufficiency in Children
Lloyd Y. Tani, M.D.
11:45 a.m. The Neo Aorta in Congenital Heart Disease
Nancy A. Ayres, M.D.
Noon Unbalanced Atrioventricular Canal Defect: Noninvasive Criteria for Successful Biventricular Repair
Meryl S. Cohen, M.D.
12:15 p.m. Assessment of Ventricular Performance in the Single Ventricle
David J. Goldberg, M.D.
12:30 p.m. Echocardiographic Assessment of the Sano Versus BT Shunt in Hypoplastic Left Heart Syndrome
Girish Shirali, M.B.B.S.
12:45 p.m. 2-D and 3-D Imaging of the Atrioventricular Valve: Mechanisms of Regurgitation
Jeffrey S. Smallhorn, M.D.
EP for the General Cardiologist
Moderators: Larry A. Rhodes, M.D., and Maully J. Shah, M.B.B.S., F.A.A.C.

11:30 a.m. Exercise-related Syncope
1. The Work-up from the Position of the Exercise Physiologist – Stephen Paridon, M.D.
2. The Work-up as Viewed from the Electrophysiologist – Ilana Zeltser, M.D.

11:50 a.m. Asymptomatic PVCs in Structurally Normal Heart: Should I Treat?
Susan Etheridge, M.D.

12:05 p.m. When Should I Refer for an Ablation?
Maully J. Shah, M.B.B.S., F.A.A.C.

12:25 p.m. Pro/Con Debate: Asymptomatic WPW in a Child Under 12
1. All Patients Should Undergo Risk Stratification – Mitchell I. Cohen, M.D.
2. Risk Stratification Is “Bunk” – Peter Fischbach, M.D.

12:45 p.m. Genetic Results: How I Organize Families
Jennifer Shaffer, M.S.N., C.P.N.P.

Late Outcomes, Problems and Innovation in ACHD
Moderator: Candice Silversides, M.D.

11:30 a.m. Risk Stratification in Heart Transplantation: The Adult with CHD
Charles E. Canter, M.D.

11:50 a.m. Surgical Challenges in ACHD Transplantation
John J. Nigro, M.D.

12:05 a.m. The Hypoxic, Polycythemic Patient: What to Do About Iron from a Hematologist’s Perspective
Alan R. Cohen, M.D.

12:25 p.m. Home Therapy Using a Novel Pulsed Nasal Nitric Oxide Delivery System in Children and Young Adults with Pulmonary Hypertension: Is It Applicable in ACHD?
Steven H. Abman, M.D.

12:40 p.m. The Impact of Common Adult Medical Conditions on CHD
Karen K. Stout, M.D.

Measuring and Improving Quality of Care
Moderators: Geoffrey L. Bird, M.D., and Mary Beth Martin, R.N., B.S.N.

11:30 a.m. Quality Improvements in Inpatient Care
John R. Charpie, M.D.

11:45 a.m. Outcomes of In-hospital Pediatric Cardiac Arrest
Heidi J. Dalton, M.D.

Noon The Congenital Cardiac Catheterization Project on Outcomes (C3PO) Registry
Jacqueline Kreutzer, M.D.

12:15 p.m. Database Initiatives in Cardiac Anesthesia
Laura K. Diaz, M.D.

12:30 p.m. Lessons Learned from Safety Net Initiatives
Theresa Schultz, R.N., M.B.A., R.R.T.

12:45 p.m. Assessing Team Performance During Non-simulated Resuscitation
Antonio Mott, M.D.

1 – 2:30 p.m. Box Lunch
Friday, Feb. 4

1:20 – 2:20 p.m.

Session A: Live Exercise Testing in Patients with TOF, TGA and Single Ventricle
Michael G. McBride, Ph.D., Todd Nowlen, M.D., Stephen Paridon, M.D., and Paul Stephens Jr., M.D.

Session B: Live Imaging of Fetal Cases: TOF, TGA and Single Ventricle
Nancy A. Ayres, M.D., Meryl S. Cohen, M.D., Jack Rychik, M.D., and Mark Sklansky, M.D.

Session C: Featured Nursing Poster Session
Kathleen Mussatto, Ph.D., R.N., and Karen Uzark, Ph.D., C.P.N.P.

Transposition of the Great Arteries – Part I
Moderators: Gil Wernovsky, M.D., and Martin J. Elliot, M.D.

2:30 p.m. Fetal Imaging, Physiology and Counseling
David J. Goldberg, M.D.

2:45 p.m. Anatomy
Robert H. Anderson, M.D., and Paul M. Weinberg, M.D.

3 p.m. Preoperative Physiology, Assessment and Stabilization
Gil Wernovsky, M.D.

3:10 p.m. BAS: Indications, Technique and Controversies
Jonathan J. Rome, M.D.

3:25 p.m. The Arterial Switch Operation – Technique and Early Results
Emile Bacha, M.D.

3:45 p.m. Anesthetic and Perioperative Management of the Neonate Undergoing the Arterial Switch Operation: What Is Most Important?
Dean B. Andropoulos, M.D.

Featured Oral Abstract Competition
Moderators: Gil Wernovsky, M.D., and Martin Elliot, M.D.

4 - 5 p.m. The Top 6 Rated Abstracts will be Featured as 8-minute Presentations

5 – 5:30 p.m. Break

Transposition of the Great Arteries – Part II
Moderators: Gil Wernovsky, M.D., and Martin Elliot, M.D.

5:30 p.m. Neurological and QOL Issues in TGA Survivors
Gil Wernovsky, M.D.

5:45 p.m. Longer-term Cardiac Sequelae of the Arterial Switch
Meryl S. Cohen, M.D.

6 p.m. Assessment of the Neo-aortic Root: How and How Often?
Panel: Meryl S. Cohen, M.D., Daniel J. Penny, M.D., and Alison Knauth Meadows, M.D.

6:20 p.m. Panel: Assessment of Myocardial Perfusion: How and How Often?
Panel: Stephen Paridon, M.D., Anthony M. Hlavacek, M.D., Jeffrey F. Smallhorn, M.B.B.S., and Jonathan J. Rome, M.D.

6:40 p.m. The ACHD Patient with TGA: Surgical Approaches and Their Sequelae Prior to Arterial Switch Era
Thomas L. Spray, M.D.

7 p.m. Maternal and Fetal Outcomes of Pregnancy in Women with TGA
Candice Silversides, M.D.

7:15 p.m. Late Reoperations After the Arterial Switch
John J. Lamberti, M.D.

7:30 p.m. Submit Questions for Saturday A.M. Panel Discussion

7:30 p.m. Adjourn
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| 7:45 a.m. | Panel Discussion: What We Learned Yesterday About Transposition  
Gil Wernovsky, M.D., and Martin Elliot, M.D. |
| 8:15 a.m. | First-ever Featured Lecture in the Cardiovascular Basic Sciences  
How Broken Hearts Are Made  
Jonathan Epstein, M.D. |
| 8:40 a.m. | 12th Annual Featured Lecture in Cardiovascular Nursing: Thomas Garrett Rauch Memorial Lecture  
Changing the Culture of Safety: An Imperative for Front-line Clinicians  
Kathleen Chavannu Gorman, M.S.N., R.N. |
| 9:05 a.m. | 12th Annual C. Walton Lillehei Memorial Lecture in Cardiovascular Surgery  
Fontan Conversion: The Chicago Experience  
Carl L. Backer, M.D. |
| 9:30 a.m. | 10th Annual William J. Rashkind Memorial Lecture in Pediatric Cardiology  
Myocarditis in 2011: What’s Known and What Needs to Be Known?  
Jeffrey A. Towbin, M.D. |
| 9:55 a.m. | Fourth Annual John J. Downes Lecture Cardiac Anesthesia and Critical Care  
How Come We Don’t Know What We Still Don’t Know?  
Frank X. McGowan, M.D. |
| 10:20 a.m. | Presentation of the Outstanding Investigator and Nursing Scientist Awards  
Gil Wernovsky, M.D., and Kathryn Dodds, C.R.N.P. |
| 10:30 a.m. | Adjourn |

Break/Visit the Exhibits • 10:30 – 11:30 a.m.  
Poster Session #3
Breakout Sessions • 11:30 a.m. – 1 p.m.

Holistic Topics in Cardiac Intensive Care
Moderators: Antonio Mott, M.D., and Jill Sullivan, M.S., P.A.-C.

11:30 a.m.  Reducing Family Stress Following Surgery Through Hospital Discharge and Beyond  
Jean M. Carroll, R.N., M.S.N.

11:45 a.m.  How to Keep Your Interstage Patient Alive (and Well-fed)  
David A. Hehir, M.D.

Noon  Fluid Overload and Acute Kidney Injury  
David S. Cooper, M.D.

12:15 p.m.  Noninvasive Monitoring of Cardiac Output  

12:30 p.m.  Perceptions Regarding Surgical Outcomes  
Anthony Rossi, M.D.

12:45 p.m.  Goal-directed Therapy in the Management of the Complex Cardiac Neonate  
James Twedell, M.D.

Nursing Research: Barriers and Strategies to Overcome Them
Moderators: Kathleen Mussatto, R.N., Ph.D., and Karen Uzark, Ph.D., C.R.N.P.

11:30 a.m.  Nursing Research and Evidence-based Practice: Barriers “Perceived” by Nurses  
Kathryn M. Dodds, C.R.N.P.

11:50 a.m.  Multi-institutional Feeding and Growth Study: Pitfalls and Pearls  
Karen Uzark, Ph.D., C.R.N.P.

12:10 p.m.  Research Methods: Lessons Learned in the Family Adaptation Study  
Kathleen Mussatto, R.N., Ph.D.

12:30 p.m.  Maternal Stress Following a Fetal Diagnosis of CHD: Research That Takes a “Village”  
Denise M. Donaghue, R.N., M.S.N.

12:50 p.m.  Panel Discussion

Perfusion/Cardiac ECMO
Moderator: Heidi J. Dalton, M.D.

11:30 a.m.  Salvage ECMO in Postoperative Cardiac Arrest Patients: Results and Indications  
Paul J. Chai, M.D.

11:45 a.m.  Quality of Life After Pediatric Cardiac ECMO  
John M. Costello, M.D.

Noon  A Comparison of ECMO Practices in the United Kingdom and United States  
Troy E. Dominguez, M.D.

12:15 p.m.  Cost vs. Outcome: What We Know and What We Need to Know  
Heidi J. Dalton, M.D.

12:30 p.m.  Improving Institutional Outcomes for ECMO in Children  
Lara Shekerdemian, M.D.
Imaging in ACHD

Moderator: Brian M. Sandweiss, M.D.

11:30 a.m. Myocardial Perfusion as Assessed by MRI in Adults with CHD
Alison Knauth Meadows, M.D.

11:55 a.m. Imaging the Pregnant Woman with Congenital Heart Disease
Candice Silversides, M.D.

12:20 p.m. Bicuspid Aortic Valve Disease: Risk Factors for Aortic Dilation
Karen K. Stout, M.D.

12:45 p.m. Noninvasive Assessment of the Atrial Switch Operation
Alan H. Friedman, M.D.

Exercise and the Cardiac Patient

Moderators: Marshall L. Jacobs, M.D., and Michael G. McBride, Ph.D.

11:30 a.m. Postural Orthostatic Tachycardia Syndrome
Jeffrey Boris, M.D.

11:45 a.m. What Is True Exercise Restriction in Patients with Congenital Heart Disease?
Paul Stephens Jr., M.D.

Noon Physiologic and Anatomic Evaluation During Exercise: Early Results of an MRI Compatible Cycle Ergometer
Stephen Paridon, M.D.

12:15 p.m. The Role of Exercise Testing in Diagnosis and Follow-up of Anomalous Coronary Arteries from the Aorta
Julie Brothers, M.D.

12:30 p.m. Update on the Congenital Heart Surgeons Society Anomalous Coronary Artery Registry
Marshall L. Jacobs, M.D.

Cardiovascular Administration

Moderators: Mary Jo Timlin-Hoag, R.N., B.S.N., M.P.H., and Mary Beth Martin, R.N., B.S.N.

11:30 a.m. The “Problem” Faculty Member
Stuart Berger, M.D.

11:45 a.m. Top 10 Ideas and Concepts for Healthcare Leaders
Anthony Chang, M.D.

Noon Optimal Design of a Cardiac Intensive Care Unit: Lessons Learned
Lara Shekerdemian, M.D.

12:15 p.m. Assessing and Improving Outcomes “Dynamically”
Jeffrey Pearl, M.D.

12:30 p.m. Strategies for Professional and Leadership Development
Mary Beth Martin, R.N., B.S.N.

Advanced Catheter Techniques or Standard-of-Care Surgery?

Moderators: Jonathan J. Rome, M.D., and John J. Lamberti, M.D.

11:30 a.m. ASD Closure in Small Infants Should Be Done with Catheter Devices
PRO: Ziyad M. Hijazi, M.D.            CON: Marshall Jacobs, M.D.

11:50 a.m. What Will Be the Role of Device Closure of VSD?
PRO: John Moore, M.D.            CON: James A. Quintessenza, M.D.

12:10 p.m. Radiofrequency Perforation of Atretic Pulmonary Valves Should Be the Standard Approach
PRO: Joseph Graziano, M.D.            CON: Emile Bacha, M.D.

12:30 p.m. Detente: Why I Like the Hybrid Procedure
John J. Lamberti, M.D., and John Moore, M.D.

Box Lunch/Visit the Exhibits • 12:45 – 2:30 p.m. • Classical Music Ensemble • 1:15 – 2:15 p.m.
## Saturday, Feb. 5

### Breakout Sessions • 2:30 – 4 p.m.

**Update on ECMO, VAD and Other Mechanical Circulatory Support**  

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Keynote Address: Current Status of ECMO in Pediatric Cardiac Patients</td>
<td>Heidi J. Dalton, M.D.</td>
</tr>
<tr>
<td>3 p.m.</td>
<td>ECMO Cannulation Percutaneously by the Cath Team</td>
<td>Joseph Graziano, M.D.</td>
</tr>
<tr>
<td>3:15 p.m.</td>
<td>Pediatric-appropriate Membrane Oxygenators: Finally!</td>
<td>Scott Lawon, M.S., C.C.P.</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>Determining Non-candidacy for Cardiac ECMO</td>
<td>David A. Hehir, M.D.</td>
</tr>
<tr>
<td>3:45 p.m.</td>
<td>Current Status of Ventricular Assist: Indications, Complications and Outcomes</td>
<td>Talya Frey, B.S., C.C.P., F.P.P.</td>
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</tbody>
</table>

**Imaging in CHD**  
*Moderator: Meryl S. Cohen, M.D.*

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>How to Incorporate Routine 3-D Imaging into Your Practice</td>
<td>Girish S. Shirali, M.B.B.S.</td>
</tr>
<tr>
<td>2:45 p.m.</td>
<td>CT Angiography: Safety and Applications</td>
<td>Anthony M. Hlavacek, M.D.</td>
</tr>
<tr>
<td>3 p.m.</td>
<td>Echocardiography in the Assessment of Cardiovascular Risk</td>
<td>Samuel S. Gidding, M.D.</td>
</tr>
<tr>
<td>3:15 p.m.</td>
<td>Practice Variation in the Ordering of Echocardiograms in the Evaluation of Innocent Murmurs</td>
<td>Jeffrey Boris, M.D.</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>Advanced Techniques in the Assessment of the Fetus with Congenital Heart Disease</td>
<td>Jack Rychik, M.D.</td>
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<tr>
<td>3:45 p.m.</td>
<td>Twist Mechanics in Congenital Heart Disease</td>
<td>Jeffrey F. Smallhorn, M.B.B.S.</td>
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</tbody>
</table>

**Improving Safety Across the Cardiac Care Continuum**  

<table>
<thead>
<tr>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Increasing Quality Assurance and Safety in CHD: Need to Get Onboard</td>
<td>Timothy F. Felts, M.D.</td>
</tr>
<tr>
<td>2:45 p.m.</td>
<td>A Cardiologist, Pilot and Astronaut Walk into a Bar…(Lessons Learned from Four Years of “Risky Business”)</td>
<td>Geoffrey L. Bird, M.D.</td>
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<tr>
<td>3 p.m.</td>
<td>Improving Handovers</td>
<td>Antonio Mott, M.D.</td>
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<tr>
<td>3:15 p.m.</td>
<td>Making It Safe for the Large Patient in a Pediatric Institution</td>
<td>Donna L. Rutt, R.N., M.S.N., C.R.N.P.</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>Improving Perioperative Communication Within a Multidisciplinary Team</td>
<td>James Tweedell, M.D.</td>
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<tr>
<td>3:45 p.m.</td>
<td>Panel Discussion</td>
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## Sudden Cardiac Death

*Moderators: Robert M. Campbell, M.D., Stuart Berger, M.D., and Mitchell Cohen, M.D.*

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Screening for Sudden Cardiac Death in Children: Is Now the Right Time?</td>
<td>Stuart Berger, M.D.</td>
</tr>
<tr>
<td>2:50 p.m.</td>
<td>Objectively Measured Quality of Life in Children and Adolescents with Implanted Defibrillators</td>
<td>Bradley S. Marino, M.D.</td>
</tr>
<tr>
<td>3:10 p.m.</td>
<td>It’s All in the History; Sports Participation Forms</td>
<td>Robert M. Campbell, M.D.</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>Update on Channelopathies</td>
<td>Susan Ethridge, M.D.</td>
</tr>
<tr>
<td>3:45 p.m.</td>
<td>Regional Differences in Screening for Sudden Cardiac Death</td>
<td>Mitchell I. Cohen, M.D.</td>
</tr>
</tbody>
</table>

## Basic Science Insights into Ventricular Function

*Moderator: Jonathan Epstein, M.D.*

<table>
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<tr>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Preserving Diastolic Function: Reversing Fibrosis</td>
<td>Seema Mital, M.D.</td>
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<tr>
<td>3 p.m.</td>
<td>Apoptosis in Pressure Overload Hypertrophy</td>
<td>Frank X. McGowan, M.D.</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>The Role of Cardiomyocyte-specific Neurofibromin in Hypertrophy</td>
<td>Fraz Ismat, M.D.</td>
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## The Adolescent with CHD

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>2:30 p.m.</td>
<td>Depression</td>
<td>Karen Uzark, Ph.D., C.P.N.P.</td>
</tr>
<tr>
<td>2:45 p.m.</td>
<td>Health Risk Behavior in Adolescent Girls with Heart Disease: Impact of Mother-Daughter Communication</td>
<td>Kathleen Mussatto, Ph.D., R.N.</td>
</tr>
<tr>
<td>3 p.m.</td>
<td>Patient Education Tools for Promoting Lifelong Care</td>
<td>Jo Ann Nieves, M.S.N., P.N.P.-B.C.</td>
</tr>
<tr>
<td>3:15 p.m.</td>
<td>Empowering Self Care in the Adolescent with Congenital Heart Disease</td>
<td>David Drajpuch, M.S.N., R.N., C.R.N.P.</td>
</tr>
<tr>
<td>3:30 p.m.</td>
<td>Challenges of Heart Transplantation in Adolescents</td>
<td>Laura Orfanelli, R.N., C.R.N.P.</td>
</tr>
<tr>
<td>3:45 p.m.</td>
<td>Panel Discussion</td>
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### 4 – 4:45 p.m.

Break
Hot Topics

Moderators: Jennifer C. Hirsch, M.D., and Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.

4:45 p.m.  Developing the Evidence Base for the New NHLBI Cardiovascular Risk Reduction Guideline
  Samuel S. Gidding, M.D.

5 p.m.  The Evidence Base for the New Guidelines for Cardiopulmonary Resuscitation

5:15 p.m.  The Patient Protection and Affordable Care Act: What It May Mean for the Health of Pediatric Cardiac Centers
  Timothy F. Feltes, M.D.

5:30 p.m.  Current Outcomes in Children with Myocarditis
  Charles E. Canter, M.D.

5:45 p.m.  Update from the Pediatric Heart Network
  Daphne Hsu, M.D.

6 p.m.  Case Discussions with Audience Response System

6:40 p.m.  Debate: The Double Switch is the Best Option for cc-TGA/VSD
  PRO: Jennifer C. Hirsch, M.D.
  CON: Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.

7 p.m.  Adjourn/Dinner on Your Own
Sunday, Feb. 6

Course in Review • 8 a.m. – Gil Wernovsky, M.D., Robert E. Shaddy, M.D., and Thomas L. Spray, M.D.

Closing Plenary Session – New Advances in Pulmonary Hypertension
Moderators: Brian Hanna, M.D.C.M., and Jeffrey R. Fineman, M.D.
8:15 a.m. Is Pulmonary Hypertension a “Biventricular” Disease? Andrew N. Redington, M.B.B.S., M.R.C.P., F.R.C.P.
8:30 a.m. Pulmonary Hypertension in Chronic Lung Disease of Prematurity Steven H. Ahman, M.D.
8:45 a.m. Pulmonary Vascular Endothelial Dysfunction in CHD: Therapeutic Implications Jeffrey Fineman, M.D.
9 a.m. Effect of Therapy on Pulmonary Vascular Capacity Brian D. Hanna, M.D.C.M.
9:40 a.m. Practical Aspects of Home Management of Pulmonary Hypertension Kim L. Patterson, R.N., M.S.N., C.P.N.P.
10 a.m. Panel Discussion
10:15 a.m. Break

Breakout Sessions • 10:40 a.m. – Noon

ACHD Potpourri
Moderators: David Drajpuch, M.S.N., R.N., C.R.N.P., and Stephanie Fuller, M.D.
10:40 a.m. Providing ACHD Care in Rural Areas in the United States Larry A. Rhodes, M.D.
11 a.m. Pregnancy and Contraception Candice Silversides, M.D.
11:20 a.m. Special Consideration for Interventional Catheterization in ACHD Patients Ziyad M. Hijazi, M.D.
11:40 a.m. Exercise in the ACHD Patient Karen K. Stout, M.D.

Closing Session for Trainees and Junior Faculty
Moderators: Girish S. Shirali, M.B.B.S., and Meryl S. Cohen, M.D.
10:40 a.m. Outcomes Research: How to Get Started Brian McCrindle, M.D.
11 a.m. Transition to a Career After Fellowship Timothy M. Hoffman, M.D.
11:20 a.m. Negotiating Up the Chain of Command Geoffrey L. Bird, M.D.
11:40 a.m. How to Stay Academically Active in a Non-academic Setting Mitchell I. Cohen, M.D.

My Favorite Operation in the Neonate and Infant
Moderators: Thomas L. Spray, M.D., and Gil Wernovsky, M.D.
10:40 a.m. The Nikaidoh Procedure Emile Bacha, M.D.
10:50 a.m. Anatomic Repair of Congenitally Corrected TGA James Tweddell, M.D.
11 a.m. Ross Procedure and Arch Reconstruction in the Neonate Paul J. Chai, M.D.
11:10 a.m. Tracheal Reconstruction Martin J. Elliot, M.D.
11:20 a.m. “The Arch” David P. Bichell, M.D.
11:30 a.m. The 1½ Ventricle Repair Glen Van Arsdell, M.D.
11:40 a.m. Repair of TOF with Valve Sparing Leaflet Augmentation James A. Quintensenza, M.D.
11:50 a.m. Transplantation in Complex CHD Jeffrey Pearl, M.D.

Noon Adjourn
The conference will be held Wednesday, Feb. 2 through Sunday, Feb. 6 at the Hyatt Regency Scottsdale Resort and Spa at Gainey Ranch, Scottsdale, Ariz. Registration will take place Wednesday, Feb. 2, from 6:30 a.m. to 6 p.m. and Thursday, Feb. 3, from 6:30 a.m. to 9 a.m. The registration fee for the five-day conference is $795 for physicians and $550 for other healthcare professionals and physicians-in-training.

In addition to the comprehensive program and course syllabus, the registration fee includes daily continental breakfasts, lunches, receptions, access to the conference presentation site and access to an exclusive exhibit of cardiovascular products and educational materials specific to pediatric cardiovascular disease.

A block of rooms has been reserved at the Hyatt Regency Scottsdale Resort. The group rate is $269 single or double occupancy plus an 11.67 percent room tax. Participants are required to reserve their own hotel accommodations by calling the hotel directly at 888-421-1442.

For the reduced conference rate, mention the name of this conference when making your reservation. The conference rate covers Jan. 31 – Feb. 9, 2011, and will be available only until Thursday, Jan. 6, 2011. Reservations made after Jan. 6 will be accepted on space and rate availability.

Course Fees
Physicians .............................................................$795
Nurses, Medical Students, Residents, Fellows and Other Healthcare Professionals .........$550
The registration fee includes tuition, online presentations, continental breakfast, lunch and receptions.

Optional Preconference Seminars
#1: Cardiac Anatomy and Physiology for the Bedside Nurse ........................................$100
#2: How to Plan a Successful Academic Career .........$100
#3: Hands-on Three-dimensional Echocardiography .................................................$100

Special Discount
Members of the Pediatric Cardiac Intensive Care Society (PCICS) and the International Society for Pediatric Mechanical Circulatory Support who register for Cardiology 2011 will receive a $50 discount.

Accreditation Statement
The Children’s Hospital of Philadelphia is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA Credit Designation Statement
The Children’s Hospital of Philadelphia designates this live activity for a maximum of 36.25 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. Physicians registered for one of the three optional preconferences being held Wednesday, Feb. 2, will be eligible to claim an additional maximum of 5.5 AMA PRA Category 1 Credit(s)™.

Nursing Accreditation
An application for Pennsylvania State Nurses Association (PSNA) contact hours will be submitted. The Children’s Hospital of Philadelphia is approved as a provider of continuing education in nursing by the PSNA, which is accredited as an approver of continuing education in nursing by the American Nurses Credentialing Center’s Commission on Accreditation.

Perfusion Accreditation
An application for CEU Category 1 hours will be submitted.

Services for the Disabled
If special arrangements are required for an individual with a disability to attend this meeting, please contact the Continuing Medical Education Department at 215-590-5263.

Cancellation and Refund Policy
The Children’s Hospital of Philadelphia reserves the right to cancel or postpone any course due to unforeseen circumstances. In the event of cancellation or postponement, The Children’s Hospital of Philadelphia will refund registration fees but is not responsible for any related costs or charges assessed by airlines, hotels and travel agencies. In order to process refunds for course withdrawals, cancellations must be received in writing by Feb. 1, 2011. Refunds will be issued for the amount of registration less a $75 service charge.

Ground Transportation
Shuttle service from Phoenix Sky Harbor Airport to the Hyatt Regency Scottsdale Resort and Spa at Gainey Ranch is available through SuperShuttle Shared-ride Van Service. Discounted round-trip tickets cost $40. A special-rate coupon will be mailed to you once your conference registration is received.

Reservations are not necessary for the SuperShuttle Van Service. Reservations are only needed if you require a wheelchair van. For wheelchair van reservations, please call 602-244-3000 or 800-258-3826 at least 24 hours in advance.

Follow the instructions below:
• Claim your baggage.
• Proceed outside Baggage Claim to the sign marked “Shared-ride Van Service.”
• A uniformed guest service representative will arrange SuperShuttle service to the hotel.
• Identify yourself to the SuperShuttle agent/driver and show your special-rate coupon. You then will be transported to the resort.
Faculty

Cardiology 2011 Organizing Committee

Geoffrey L. Bird, M.D., M.S.I.S.
Jeffrey Boris, M.D., F.A.C.C., F.A.A.P.
Meryl S. Cohen, M.D.
Mitchell I. Cohen, M.D.
Kathryn Dodds, C.R.N.P.
Alan H. Friedman, M.D., F.A.A.P.
David J. Goldberg, M.D.
Maryanne Kessel, M.S.N., M.B.A.
Christina Mannices

Cardiac Catheterization

Joseph Graziano, M.D.
Phoenix Children's Hospital
Ziyad M. Hijazi, M.D.
Rush Children's Hospital, Rush University Medical Center
Jacqueline Kreutzer, M.D.
Children's Hospital of Pittsburgh of UPMC

Adult Congenital Heart Disease

David Drajpuch, M.S.N., R.N., C.R.N.P.
The Children's Hospital of Philadelphia
Alison Knauth Meadows, M.D., Ph.D.
UCSF Benioff Children's Hospital, Northern California Kaiser Permanente

Anesthesia and Intensive Care

Dean B. Andropoulos, M.D.
Texas Children's Hospital
Geoffrey L. Bird, M.D., M.S.I.S.
The Children's Hospital of Philadelphia
Anthony Chang, M.D., M.B.A., M.P.H.
Children's Hospital of Orange County
John Charpie, M.D., Ph.D.
C.S. Mott Children's Hospital, University of Michigan
David S. Cooper, M.D., M.P.H.
The Congenital Heart Institute of Florida, All Children's Hospital
John M. Costello, M.D., M.P.H.
Children's Memorial Hospital, Chicago
Heidi J. Dalton, M.D., F.C.C.M.
Phoenix Children's Hospital
Laura K. Diaz, M.D.
The Children's Hospital of Philadelphia
Troy E. Dominguez, M.D.
Great Ormond Street Hospital for Children, London
David A. Hehir, M.D.
Children's Hospital of Wisconsin

Basic Science

Barry J. Byrne, M.D., Ph.D.
Congenital Heart Center, University of Florida
Jonathan Epstein, M.D.
Hospital of the University of Pennsylvania
Elizabeth Goldmuntz, M.D., F.A.A.P., F.A.C.C.
The Children's Hospital of Philadelphia

Candice Silversides, M.S., M.D.
University Health Network, Toronto
Karen K. Stout, M.D.
Seattle Children's Hospital

Anesthesiology

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Bradley S. Marino, M.D., M.P.P., M.S.C.E.
Cincinnati Children's Hospital Medical Center
Aubrey Maze, M.D.
Phoenix Children's Hospital
Frank X. McGowan, M.D.
Children's Hospital Boston
Antonio Mott, M.D.
The Children's Hospital of Philadelphia
Anthony Rossi, M.D.
Miami Children's Hospital
Lara Shekerdemian, M.D.
Texas Children's Hospital
Sarah Tabbutt, M.D., Ph.D.
UCSF Benioff Children's Hospital
Gil Wernovsky, M.D., R.C.
The Children's Hospital of Philadelphia

Fraz Ismat, M.D.
The Children's Hospital of Philadelphia
Robert J. Levy, M.D.
The Children's Hospital of Philadelphia
Seema Mital, M.D., F.A.C.C., F.A.H.A., F.R.C.P.(C)
The Hospital for Sick Children (SickKids), Toronto

Cardiovascular Medicine

John Moore, M.D., M.P.H.
Rady Children's Hospital-San Diego
Jonathan J. Rome, M.D., F.A.C.C.
The Children's Hospital of Philadelphia
# Faculty

## Cardiology

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Steven H. Abman, M.D.</td>
<td>The Children's Hospital Denver</td>
</tr>
<tr>
<td>Stuart Berger, M.D.</td>
<td>Children's Hospital of Wisconsin</td>
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<td>Jeffrey Boris, M.D., F.A.C.C., F.A.A.P.</td>
<td>The Children's Hospital of Philadelphia</td>
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<td>Robert M. Campbell, M.D.</td>
<td>Children's Healthcare of Atlanta</td>
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<tr>
<td>Timothy F. Feltes, M.D.</td>
<td>Nationwide Children’s Hospital</td>
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<td>Jeffrey R. Fineeman, M.D.</td>
<td>UCSF Benioff Children's Hospital</td>
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<td>Samuel S. Gidding, M.D.</td>
<td>A.I. duPont Hospital for Children</td>
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<td>Caren S. Goldberg, M.D., M.S.</td>
<td>C.S. Mott Children's Hospital, University of Michigan</td>
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<td>Brian Hanna, M.D.C.M., Ph.D.</td>
<td>The Children's Hospital of Philadelphia</td>
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<tr>
<td>Daphne Hsu, M.D.</td>
<td>Children's Hospital at Montefiore</td>
</tr>
<tr>
<td>Brian McCrindle, M.D., M.P.H.</td>
<td>The Hospital for Sick Children (SickKids)</td>
</tr>
<tr>
<td>Todd T. Nowlen, M.D.</td>
<td>Arizona Pediatric Cardiology Consultants</td>
</tr>
<tr>
<td>Stephen Paridon, M.D., F.A.A.P., F.A.C.C.</td>
<td>The Children's Hospital of Philadelphia</td>
</tr>
<tr>
<td>Daniel J. Penny, M.D., Ph.D., B.Sc. (hons), D.CH., F.R.C.P.I., F.R.A.C.P.</td>
<td>Texas Children's Hospital</td>
</tr>
<tr>
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## CT Surgery

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<th>Name</th>
<th>Institution</th>
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<tr>
<td>Emile Bacha, M.D.</td>
<td>Morgan Stanley Children's Hospital of New York</td>
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<td>Monroe Carell Jr. Children's Hospital at Vanderbilt</td>
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<td>Great Ormond Street Hospital for Children, London</td>
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<td>Rady Children's Hospital-San Diego</td>
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<td>Cleveland Clinic</td>
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<td>Kosair Children's Hospital</td>
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<td>Phoenix Children's Hospital</td>
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<td>St. Joseph's Hospital and Medical Center, Phoenix</td>
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## CV Administration

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<td>Steven M. Altschuler, M.D.</td>
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<td>Mary Beth Martin, R.N., B.S.N.</td>
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<td>Phoenix Children's Hospital</td>
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## Electrophysiology

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<tr>
<td>Mitchell I. Cohen, M.D.</td>
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<td>Susan Etheridge, M.D.</td>
<td>Primary Children's Medical Center, Salt Lake City</td>
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<td>Ilana Zeltser, M.D.</td>
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### Heart Failure and Transplantation

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<td>Cincinnati Children's Hospital Medical Center</td>
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### Imaging

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<td>Nancy A. Ayres, M.D.</td>
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<td>Jeffrey F. Smallhorn, M.B.B.S.</td>
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### Perfusion

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<td>James Groneck, B.S., C.C.P.</td>
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