CARDIOLOGY 2024 27th Annual Update on Pediatric and Congenital Cardiovascular Disease

Actual (Not Artificial) Intelligence in Pediatric & Congenital Cardiovascular Disease

What do we know and what do we need to learn?

Presidents' Weekend FEB. 14 – 18, 2024

Learn more at www.chop.edu/cardiology2024







Dear Colleagues & Friends,

We are currently living through eventful and trying times. Technological innovation is rapidly influencing our models of healthcare in many ways. The development of artificial intelligence (AI) highlights many of the deficiencies, errors and misjudgments we exercise on a regular basis while at the same time clarifies the essence and value of the art of healing — skills irreplaceable by any algorithm or machine. In our field of pediatric and congenital cardiovascular disease, the evidence base is often limited, so good practice is commonly predicated on thoughtfulness and clinical "wisdom." It will be interesting to see how the wave of AI influences care in our space. Although unlikely we will see providers fully replaced by automated machines any time soon, it is safe to assume that practitioners who do embrace AI and explore its advantages, will replace those who do not!

It is with this in mind that we present our **27th Annual Update on Pediatric and Congenital Cardiovascular Disease.** Our theme this year is "Actual (Not Artificial) Intelligence in Pediatric & Congenital Cardiovascular Disease: What Do We Know and What Do We Need to Learn?" The course faculty will present multiple talks in plenary sessions, as well as presentations in subspecialty breakout sessions and a series of moderated panel conversations, covering all areas and topics related to the comprehensive care of the unborn, neonate, child, teen and young adult with cardiovascular disease. Many of the presentations will be given through the lens of artificial intelligence as a mechanism of care, with exploration of its impact specific to our field.

Through **learning**, **sharing**, **networking and professional socializing**, the goals of our educational conference are to give healthcare providers the tools necessary — within the new world we live in — to best deliver a normal quality and duration of life for our patients with pediatric and congenital cardiovascular disease.

We are extremely pleased to welcome you to this year's collaborative, multidisciplinary conference.

A warm welcome for joining us!

Jack Rychik, Course Director for the Organizing Committee, Cardiology 2024

GENERAL INFORMATION

Topics will include:

- Applications of intelligence in pediatric and congenital cardiovascular disease: What do we know and what do we need to learn?
- What's old is new again: Timeless principles in the practice of pediatric and congenital cardiovascular care
- Wisdom, evidence and experience in managing complex clinical scenarios: A panel discussion of methodological approaches to challenging problems
- A patient and family roundtable perspective on compassion, innovation and life challenges in cardiovascular disease
- Valves in congenital heart disease
- An open and honest discussion amongst the nation's chiefs of pediatric cardiology on challenges and opportunities heading into the future
- Innovations in congenital heart care
- A conversation on clinical wisdom in a host of real-world scenarios: Perhaps there is evidence, perhaps there is not ... but this is what I do in these circumstances
- Case-based experiences that helped form who I am as a care provider
- The liver in congenital heart disease
- The role of data in current healthcare practices: Data tells the story!
- Quality improvement: Are we making a difference?
- What can we do at the start to make sure we reach our destination? Perspectives on optimizing the life trajectory of congenital heart disease from fetus to adult
- Update on heart failure and transplantation: Case-based principles and practice
- Ambulatory cardiology in pediatric and congenital cardiovascular disease
- Lymphatics 101: Case-based principles and practice
- Healthcare administration in pediatric and congenital cardiovascular disease
- Genetics, syndromes and pediatric cardiovascular disease
- · Nursing topic-specific breakout sessions
- Perfusion specialist-specific breakout sessions
- Featured lecture presentations by chosen luminaries in the field within the areas of cardiology, cardiac surgery, cardiac intensive care, basic cardiovascular science research and nursing

Other benefits of attending include:

- Special dedicated session tracks for nursing, perfusion specialists and healthcare administrators
- Preconference session CHD primer and review course for nurses and frontline providers
- Opportunities to network and enjoy Scottsdale attractions: Old Town Scottsdale, Musical Instrument Museum, Desert Botanical Gardens and much, much more!
- 5K Heart Run
- More than 25 credits for physicians, nurses and perfusion specialists
- Abundant opportunities for socializing and networking with colleagues from around the world!

Call for Abstracts

Abstract Submission Deadline: Friday, Dec. 22, 2023 (11:59 p.m. EST)

Notification of Acceptance: Monday, Jan. 8, 2024

Oral Abstract Presentations: **Thursday, Feb. 15, 2024** Poster Abstract Presentations: **Thursday, Feb. 15,** through **Saturday, Feb. 17, 2024**

Course Objectives 2024

At the completion of this program, the healthcare team will be better able to:

- Outline the knowns and unknowns within the knowledge base that informs on how best to understand and care for the patient with pediatric and congenital cardiovascular disease
- Explain the methods for acquisition and sources of data and knowledge that currently exist and that need to be further developed to provide the means to offer optimal care for patients with pediatric and congenital cardiovascular disease
- Describe the science and knowledge base of information that supports current state-of-the art clinical practice for the patient with pediatric and congenital cardiovascular disease
- Recall the concepts and new strategies of care and practice for conditions unique to cardiovascular disease ranging from the fetus to adult with congenital heart disease

continued>

Course objectives (continued)

- Explain the concepts and new strategies of care and practice for systemic conditions outside of the heart that affect the child with cardiovascular disease
- Recognize the unique challenges of the single ventricle and Fontan circulation, their origins and management
- Review the latest approach to advanced cardiac therapies for the failing circulation in the young
- Describe the current tools and methods available for optimal characterization of the cardiovascular system in the young utilizing the latest advanced technologies
- Outline the most recent developments in diagnosis and treatment of lymphatic conditions in the young
- Describe the many conditions affecting myocardial pump function in the young
- Discuss the latest updates on challenges and opportunities in understanding organ dysfunction, such as liver disease and kidney disease, when there is congenital heart disease
- Recall the underlying principles and best practices for postoperative care by nurses and other front-line providers for the newborn/infant with congenital heart disease
- Review the strategies of management related to perfusion during open heart surgery in the operating room and during mechanical circulatory support outside of the operating room
- Describe the challenges and opportunities in team building among varied specialists and providers to optimally deliver care to the young with cardiovascular disease
- Explain the value of administrative team collaboration in offering optimal healthcare to the community of pediatric and congenital cardiovascular disease
- Discuss the ideal strategies for provider team integration of outpatient community-based ambulatory care into the spectrum of cardiac care

Registration

The conference will be held Wednesday, Feb. 14, through Sunday, Feb. 18, 2024, at the **Hyatt Regency Scottsdale Resort and Spa at Gainey Ranch**, Scottsdale, Ariz. On-site registration is from 6:30 a.m. to 6 p.m. Wednesday, Feb. 14, and Thursday, Feb. 15.

Register online: chop.cloud-cme.com

Course Fees

The registration fee for this 5-day conference is \$995 for physicians and \$595 for other healthcare professionals and physicians-in-training. The registration fee includes tuition, online presentations, daily continental breakfast, lunch and opening reception.

Full Conference: 4 p.m. Wed., Feb. 14, to noon, Sunday, Feb. 18

Physicians \$99	5
Nurses, Medical Students, Residents, Fellows and	
Other Healthcare Professionals \$59	5

Optional Preconference Seminars

You must be registered for the full conference to register for a preconference.

Accreditation



In support of improving patient care, this activity has been planned and implemented by the Children's Hospital of Philadelphia. The Children's Hospital of Philadelphia is jointly

accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Designation of Credit

Physicians: Children's Hospital of Philadelphia designates this live activity for a maximum of *35 AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity. **Nurses:** This program provides 35 ANCC contact hours.

Joint Accreditation IPCE Credit Statement

This activity was planned by and for the healthcare team, and learners will receive 35 Interprofessional Continuing Education (IPCE) credit for learning and change.

Perfusion Accreditation Statement

An application for CEU Category 1 hours will be submitted.

Services for People with Disabilities

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

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, Children's Hospital of Philadelphia will refund registration fees, but is not responsible for any related costs or charges assessed by airlines and travel agencies. To process refunds for course withdrawals, cancellations must be received **in writing** by Thursday, Feb. 1, 2024. Refunds will be issued for the amount of registration, less a \$100 service charge.

Hotel Information

A block of rooms has been reserved at the **Hyatt Regency Scottsdale Resort and Spa at Gainey Ranch**, Scottsdale, AZ. The group rate is \$399 per room, per night for single or double occupancy. There is an additional 14.02% state and local tax. Participants must reserve their own hotel accommodations by calling 480-444-1234.

For the reduced conference rate, mention the "Cardiology 2024 Conference" when making your reservation. The conference rate begins on Monday, Feb. 12, 2024. This rate will only be available until **Jan. 15, 2024**. Reservations made after Jan. 15 will be accepted on space and rate availability.



CONFERENCE PROGRAM

♥ WEDNESDAY, FEB. 14

Congenita Managem and Frontl	Preconference: 7:30 a.m. — 3:30 p.m. I Heart Disease and Postoperative ent: A Master Class for Nurses, APPs ine Providers s: Kathryn M. Dodds, Lisa Laddish, Patty Ozuna	11 a.m.	Complete Common Atrioventricular Canal Defect Anatomy/morphology – <i>Lindsay S. Rogers</i> Surgery – <i>James E. O'Brien</i> Postoperative Care and Outcomes – <i>Lisa Laddish</i>
and Carina Room: Arro	Perez	11:20 a.m.	Tetralogy of Fallot Anatomy/morphology — <i>Lindsay S. Rogers</i> Surgery — <i>James E. O'Brien</i>
7:30 a.m.	What is "Normal" Cardiac Anatomy? <i>Meryl S. Cohen</i>		Postoperative Care and Outcomes – Lisa Laddish
7:45 a.m.	Screening, Diagnosis and Preoperative Assessment <i>Kathryn M. Dodds</i>	11:40 a.m.	Truncus Arteriosus Anatomy/morphology – Lindsay S. Rogers Surgery – Daniel A. Velez
8 a.m.	Open Heart Surgery: What is CPB, X Clamp, Circulatory Arrest?	Noon	Postoperative Care and Outcomes — <i>Kathryn M. Dodds</i> Lunch
8:15 a.m.	<i>Christy K. Bosler</i> Early Postoperative Management Issues and Concerns <i>David A. Hehir</i>	12:30 p.m.	Coarctation of the Aorta Anatomy/morphology – <i>Lindsay S. Rogers</i> Surgery – <i>Daniel A. Velez</i> Postoperative Care and Outcomes –
8:30 a.m.	Temporary Pacing: Who and How <i>Christopher Janson</i>		Lisa Laddish
8:45 a.m. 9 a.m.	Break ECHO: Effusions, Function, Evaluation of Surgical Operation David J. Goldberg	12:50 p.m.	Transposition of the Great Arteries/Arterial Switch Anatomy/morphology — <i>Lindsay S. Rogers</i> Surgery — <i>Jonathan Chen</i> Postoperative Care and Outcomes — <i>Kathryn M. Dodds</i>
9:15 a.m.	What the Chest X-ray Can and Cannot Show You <i>David A. Hehir</i>	1:10 p.m.	Total Anomalous Pulmonary Venous Return Anatomy/morphology — <i>Lindsay S. Rogers</i>
9:30 a.m.	How to Decipher Cardiac Catheterization Data Andrew C. Glatz		Surgery — J <i>ames E. O'Brien</i> Postoperative Care and Outcomes — <i>Carina Perez</i>
9:45 a.m.	Postoperative Arrhythmias: SVT, JET, Heart Block, VT <i>Maully J. Shah</i>	1:30 p.m.	Single Ventricle: Stage 1, Bidirectional Glenn, Fontan
10 a.m.	ECMO and Mechanical Support in Children with CHD <i>Chitra Ravishankar</i>		Anatomy/morphology — <i>Lindsay S. Rogers</i> Surgery — <i>Jonathan Chen</i> Postoperative Care and Outcomes — <i>Kathryn M. Dodds</i>
10:15 a.m.	Sedation and Pain Management After Cardiac Surgery <i>Michael P. Goldsmith</i>	2:30 p.m.	Growing Up with Congenital Heart Disease Yuli Y. Kim
10:30 a.m.	Break	2:45 p.m.	A Patient Perspective <i>Meg Didier</i>
10:40 a.m.	Anatomy/morphology — <i>Lindsay S. Rogers</i> Surgery — <i>Daniel A. Velez</i>	3 p.m. 3:30 p.m.	Q & A with Faculty ADJOURN
	Postoperative Care and Outcomes — Patty Ozuna		Wednesday program continued on next page>

WEDNESDAY, FEB. 14 (continued)

Opening Plenary Session: 4 – 6 p.m.

Intelligence in Pediatric & Congenital Cardiovascular Disease: What Do We Know, What Do We Need to Learn? *Moderators: Joseph Rossano and Jonathan Chen*

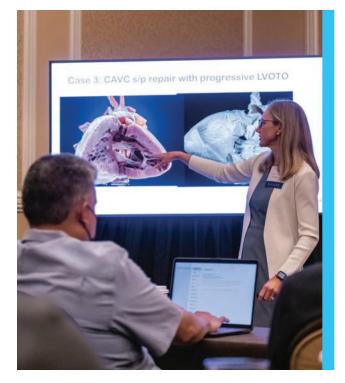
Room: Vaquero A-D

4 p.m.	Welcome to our 27th Anniversary and
	Introduction to our Conference
	Jack Rychik, Course Director
4:10 p.m.	A Primer on Artificial Intelligence: What the
	Congenital Cardiac Care Provider Needs to Know
	Cedric Manlhiot
4:25 p.m.	Artificial Intelligence: Is Imaging the Place
	Where It Can Have the Greatest Impact in
	CHD Care?
	Anita J. Moon-Grady
4:40 p.m.	Striking a Balance: Data, Wisdom and Wit $-$
	Pulling It All Together to Make Good
	Decisions in the Sick Child with Congenital
	Heart Disease
	Kiona Y. Allen
4.55 p.m.	Emotional Health and Patient-Family
	Well-being in Congenital Heart Disease:
	Current and Future Models of Care
	Nadine Kasparian
5:10 p.m.	Let's Not Ignore the Economic Costs!
	The Financial Impact of Congenital Heart Disease
	Diane M. Pickles
5.05	
5:25 p.m.	The Best Care for the Most: How to Extend Congenital Heart Healthcare to Those with
	Limited Resources – Does AI Solve or Deepen
	this Problem?
	Keila Lopez
5:40 p.m.	The Organ of Inspiration: The Heart in Art
0.10 p	Throughout History
	Shira Brisman
5:55 p.m.	Closing Remarks
6 p.m.	ADJOURN
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Opening Reception

6 – 8 p.m. • Palm Court





 As one of the world's largest and most prestigious conferences focused on pediatric and congenital cardiovascular disease, we offer a warm welcome to our many returning participants and greetings to new friends for joining us.

Ϋ THURSDAY, FEB. 15

Sunrise Session I

 7 - 8 a.m. Case-based Presentations Highlighting Practical Principles and Clinical Pearls: How to Read the Electrocardiogram Mitchell Cohen, Christopher Janson and

Maully J. Shah Room: Vaquero A-D

Breakfast sponsored by



Plenary Session II: 8 – 10 a.m.

What's Old is New Again Moderators: Paul F. Kantor and Paul J. Chai

Room: Vaquero A-D

8 a.m.	The Pott's Operation Lives Again! <i>Pirooz Eghtesady</i>
8:15 a.m.	An Old Disease But Still a Nagging Global Problem — Rheumatic Fever: Prevention and Early Detection in 2024 Andrea Z. Beaton
8:30 a.m.	Pulmonary Arterial Banding: When, How and in Whom? <i>Katsuhide Maeda</i>
8:45 a.m.	High-tech Imaging Can't Seem to Settle the Matter in a Complex Case – What to Do? Let's Get an ECG! <i>Maully J. Shah and Jack Rychik</i>
9 a.m.	New Horizons in the Therapy of Heart Failure: SGLT2 Inhibitors and Beyond <i>Daniel P. Kelly</i>
9:15 a.m.	A Concept Revisited: Diastole in the Single Ventricle Mark Friedberg
9:30 a.m.	Exercise — Is It the Key to Fontan Circulatory Success? <i>Jesse Hansen</i>
9:45 a.m.	Panel and Discussion <i>Faculty</i>
10 a.m.	ADJOURN

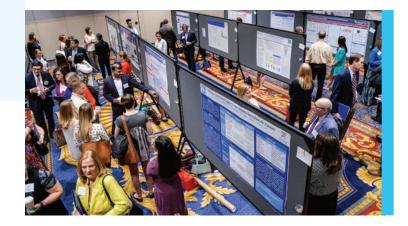
Simultaneous Breakout Sessions: 11 a.m. – 1 p.m.

They Have Come for Your Liver... but You're Not Done with It! The Liver in Congenital Heart Disease *Moderators: Elizabeth B. Rand and Salil Ginde*

Room: Vaquero A-D

11 a.m.	Oh My Gosh! My Patient has Biliary Atresia, Alagille Syndrome or a Fontan Circulation: When the Pediatric Cardiologist Needs a Hepatologist – We Can Help! <i>Elizabeth B. Rand</i>
11:15 a.m.	Modalities for Imaging the Liver When There are Cardiovascular Concerns in the Young <i>Jonathan Dillman</i>
11:30 a.m.	Fontan-associated Liver Disease: Making Progress Through a QI Project <i>Salil Ginde</i>
11:45 a.m.	Prospective Surveillance of the Liver and Association of Fibrosis with Other Systems in the Fontan Circulation <i>Taylor Hartzel Houlihan</i>
Noon	Mechanistic Insights into Liver Fibrosis in the Fontan Circulation <i>Moira B. Hilscher</i>
12:15 p.m.	Novel Means for Characterizing the Cellular Impact of Fontan-associated Liver Disease <i>Liming Pei</i>
12:30 p.m.	Novel Functional Characterization of the Liver in the Fontan Circulation and the Risk of Hepatocellular Carcinoma <i>Yuli Y. Kim</i>
12:45 p.m.	Panel and Discussion <i>Faculty</i>
1 p.m.	ADJOURN
	Thursday program continued on part pages

Thursday program continued on next page>



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Break/Visit the Exhibits 10 – 11 a.m.

Poster Session No. I



→ NewYork-¬ Presbyterian

Cardiology 2024

THURSDAY, FEB. 15 (continued)

Data Tells the Story ...

Moderators: Michael Gaies and Michael P. Goldsmith

Room: Arroyo C-E

11 a.m.	Data Acquisition: Challenges and Opportunities from the Frontline in Development of a Birth Defects Registry and Biorepository <i>Stacy Woyciechowski</i>
11:15 a.m.	Data Presentation and Analytics in Congenital Heart Care <i>Michael Gaies</i>
11:30 a.m.	Data Collection and Machine Learning to Improve Perioperative Care in the Pediatric Population Jayant "Nick" Pratap
11:45 a.m.	eHealth Technologies for CHD and Pediatric Patients <i>David White</i>
Noon	Wearables in Pulmonary Hypertension <i>Catherine Avitabile</i>
12:15 p.m.	Risk Modelling in Congenital Heart Surgery <i>Tara Karamlou</i>
12:30 p.m.	Can Machine Learning Help Inform Acute Patient Care? <i>Michael P. Goldsmith</i>
1 p.m.	ADJOURN

Quality Improvement (QI): Are We Making a Difference? Moderators: Jeffrey B. Anderson and Shobha S. Natarajan

Room: Dunes AB

11 a.m.	Principles of QI and Impact in the Pediatric Cardiology Realm <i>Jeffrey B. Anderson</i>
11:15 a.m.	QI 2.0 in the Pediatric Cardiac Center: Addressing the Next Level of Challenges <i>Shobha S. Natarajan</i>
11:30 a.m.	QI Work: Challenges and Progress in the Cardiac Intensive Care Unit <i>David A. Hehir</i>
11:45 a.m.	QI Work: Challenges and Progress in the ECHO Lab <i>Anitha Parthiban</i>
Noon	NPC-QIC – What Have We Achieved and What Does the Future Hold? <i>David Brown</i>
12:15 p.m.	Pediatric QI Work as a Model for the Fontan Outcomes Network: What Can We Learn from Other Networks and What are the Possibilities for Single Ventricle Care? <i>Carole Lannon</i>

12:30 p.m.	ACTION – QI Work in Advanced CHD Therapies:
	Challenges and Progress
	Angela Lorts
12:45 p.m.	Building a Culture of Quality in the Acute Care
	Pediatric Cardiology Setting
	Dana Gal
1 p.m.	ADJOURN

Perfusion Breakout Session I

Current Trends in Pediatric Cardiopulmonary Bypass Moderators: Jordan Brimhall and Justin Farr Room: McDowell

11 a.m. Data Capture and QI: Evaluating and Improving Performance Tom Klein 11:20 a.m. Cardiopulmonary Bypass Prime: Optimizing for Neonates Aaron Schreck 11:40 a.m. What's Working and What Isn't: Pediatric Survey Results Tami Rosenthal Noon FFP Dilemma; To Use it in the CPB Prime or Not? Asif Padiyath 12:20 p.m. Systemic Cardioplegia: When All Else Fails Tom Klein 12:40 p.m. Adult Congenital Open-Heart Surgery: Before and After Surgery, What Should We Be Considering? Joseph W. Turek 1 p.m. ADJOURN

Thursday program continued on next page>



THURSDAY, FEB. 15 (continued)

Thursday Nursing Breakout Session

Old and New Questions: What Does the Evidence Say? Moderators: Sherry Kubis and Katherine Harrison

Room: Vaquero D

11 a.m.	Sometimes More is Not More: Does Every Patient Need Famotidine? <i>Meghan Long</i>
11:20 a.m.	Is Sotalol the Best Treatment for JET? <i>Stacy L. Reynolds</i>
11:40 a.m.	Ductal Dependent Feeds: Does Which Way the Duct Flows Matter? <i>Molly K. King</i>
Noon	Parental Engagement and Neurodevelopmental Outcomes <i>Angela Gooden</i>
12:20 p.m.	What Is Best Practice for Managing Surgical Site Infections — A Role for Wound Vac? <i>Christy K. Bosler</i>
12:40 p.m.	Can a Learning Network Improve Outcomes? <i>Linda Lambert</i>
1 p.m.	ADJOURN

Outdoor Luncheon

1 – 2 p.m.

Terrace Court and Lawn Court

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Children's Mercy KANSAS CITY

Moderated Panel of Experts

- 2 3 p.m. This is My Approach to the Following Challenging Problem ... Moderator: Stephanie Fuller Panelists: Joseph W. Turek, Daniel A. Velez, Paul J. Chai, Emile A. Bacha and Tara Karamlou Room: Vaquero A-D
- 3 4 p.m. Oral Abstracts Moderators: Andrew C. Glatz and Laura M. Mercer-Rosa
- 4 4:45 p.m. Break/Poster Session/Moderated Poster Professor Rounds 1

Plenary Session III: 4:45 – 5:45 p.m.

Case-based Experience that Helped Form Who I am as a Cardiac Care Provider ... *Moderator: Alan H. Friedman*

Panelists: Meryl S. Cohen, James E. O'Brien, Jack Rychik, Daniel J. Penny, Jonathan J. Rome and William T. Mahle

Plenary Session IV: 5:45 – 6:45 p.m.

Patient & Family Roundtable: A Perspective on Compassion, Innovation and Life Challenges in Cardiovascular Disease *Moderator: Daniel J. Penny*

Panelists: Scott Leezer, Taylor Hartzel Houlihan, Lacie Patterson and Thomas Glenn

6:45 p.m. ADJOURN



♥ FRIDAY, FEB. 16

Sunrise Session II

 7 - 8 a.m. Case-based Presentations Highlighting Practical Principles and Clinical Pearls: Optimizing Care and Outcomes in Complex CHD Jesse J. Esch, Thomas Glenn, Jesse Hansen and Anita Parthiban
 Room: Arroyo C-E

Nursing Breakfast Session

7-8 a.m. Cardiac Medication Update: Diuretics, Heart Failure, Anticoagulation *Lisa Laddish, Stacy L. Reynolds and Kathryn Dodds*

Room: Vaquero A-D



Plenary Session V: 8 – 10 a.m.

The Damn Doors Don't Work! Valves in Congenital Heart Disease Moderators: Matthew A. Jolley and Daniel A. Velez

Room: Vaquero A-D

8 a.m.	Characterizing Valve Dysfunction: Delicately Engineered and More Complex Than You Think! <i>Matthew A. Jolley</i>
8:15 a.m.	Nuances in Characterizing Valvular Incompetence – ECHO <i>Lindsay S. Rogers</i>
8:30 a.m.	Nuances in Characterizing Valvular Incompetence – MRI Mark A. Fogel
8:45 a.m.	Solutions to Aortic Insufficiency Jonathan Chen
9 a.m.	Solutions to the Stubbornly Incompetent Systemic Atrioventricular Valve in Single Ventricle Defects <i>Emile A. Bacha</i>
9:15 a.m.	Catheter-based Solutions for Atrioventricular Valve Insufficiency <i>Matthew J. Gillespie</i>
9:30 a.m.	Creating Pulmonary Valve Competence in the Cath Lab: In Whom and How? <i>Christopher Petit</i>
9:45 a.m.	Panel Discussion Q & A Faculty
10 a.m.	ADJOURN

Break/Visit the Exhibits: 10 – 11 a.m. Poster Session No. II



Simultaneous Breakout Sessions: 11 a.m. – 1 p.m.

What Can We Do at the Start to Make Sure We Reach Our Destination? Perspectives on Optimizing the Life Trajectory From Fetus/Newborn to the Adult with CHD *Moderators: Stephanie Fuller and Christopher L. Lindblade*

Room: Vaquero A-C

11 a.m.	TGA — Fetus/Newborn Sheetal R. Patel
11:15 a.m.	TGA — Long Term Toby A. Rockefeller
11:30 a.m.	TOF — Fetus/Newborn Anita J. Moon-Grady
11:45 a.m.	TOF — Long Term <i>Yuli Y. Kim</i>
Noon	HLHS – Fetus/Newborn Amanda J. Shillingford
12:15 p.m.	HLHS – Long Term Alexander "Sasha" Opotowsky
12:30 p.m.	Heterotaxy — Fetus/Newborn Christopher L. Lindblade
12:45 p.m.	Heterotaxy — Long Term <i>Jordan Awerbach</i>
1 p.m.	ADJOURN

Update on Heart Failure & Transplantation: Case-based Principles and Practice

11 a.m. – 1 p.m. Panel of Case Presentations Moderators: Aliessa P. Barnes and Matthew J. O'Connor Panelists: Steven D. Zangwill, Joseph Spinner, Jennifer Su, Angela Lorts, Irene Lytrivi, Antonio G. Cabrera and Roosevelt Bryant

Room: Arroyo C-E

Ambulatory Cardiology in Pediatric and Congenital Cardiovascular Disease

Moderators: Vivek Allada and Deepti P. Bhat

Room: Dunes AB

- 11 a.m. Case-based Learning: Intuition vs. Evidence in Pediatric Cardiology: Discordance or Synergy? Zvi S. Marans
- 11:15 a.m. Telemedicine in Pediatric Cardiology No Longer Revolution but Evolution *Tamar J. Preminger*

Friday program continues on next page >

FRIDAY, FEB. 16 (continued)

11:30 a.m.	Management of Pediatric Chest Pain: How to Make the Patient — and the Pediatrician — Happy Jeffrey B. Anderson
11:45 a.m.	What's New in Impact of COVID-19 on the Pediatric Cardiovascular System <i>Matthew Elias</i>
Noon	Building a Multidisciplinary Fontan Clinic: Challenges and Opportunities <i>Deepti P. Bhat</i>
12:15 p.m.	Exercise Testing: Is It the Gold Standard for Assessing Outcomes in Congenital Heart Care? <i>Stephen Paridon</i>
12:30 p.m.	Chat-GPT and AI Generated Ambulatory Care <i>Robert Palermo</i>
12:45 p.m.	Strain Imaging in Pediatric & Congenital Cardiovascular Conditions: Clinical Value and Utility in Decision Making <i>Jamie Harrington</i>
1 p.m.	ADJOURN

Perfusion Breakout Session II

Transformation in Pediatric Mechanical Circulatory Support *Moderators: Tami Rosenthal and Tom Klein* Room: McDowell

- 11 a.m. Berlin Heart Active Experience Justin Farr
- 11:15 a.m. From Philadelphia to Phoenix: A Berlin Heart Active Case Report Jordan Brimhall

11:30 a.m.	Impella: A Pediatric Experience <i>Katsuhide Maeda</i>
11:45 a.m.	Temporary MCS; How Do We Decide When One Size Does Not Fit All? <i>Angela Lorts</i>
Noon	HM3 Bivad — How Small Can We Go and Is It Worth the Challenge <i>Matthew J. O'Connor</i>
12:15 p.m.	Panel Discussion <i>Faculty</i>
1 p.m.	ADJOURN

Friday Nursing Breakout: Nursing Oral Abstracts 11 a.m. – 1 p.m. Room: Vaquero D

Oral Presentations of the Top 8 Nursing Abstracts: New Knowledge and Innovative Practice *Moderators: Kathryn Dodds, Lisa Laddish and Linda Lambert*

Adjourn for the day! Visit Scottsdale and all it has to offer!



EXERCISE YOUR BODY AND YOUR MIND!

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6:15 – 8 a.m.



Plenary Session VI: 8 – 10 a.m.

Awards and Featured Lectures

Room: Vaquero A-D

8 a.m.	Introduction of the 16th Annual John J. Downes Jr. Lecture in Cardiac Anesthesia and Critical Care Lecturer Andrew T. Costarino
8:05 a.m.	Technomomentum: The Effects of Our Insatiable Drive for Technological Solutionism <i>Roxanne E. Kirsch</i>
8:20 a.m.	Introduction of the 2nd Annual Thomas L. Spray Lecture in Pediatric & Congenital Cardiovascular Surgery Lecturer <i>Jonathan Chen</i>
8:25 a.m.	Reflections in a Crystal Ball <i>Tara Karamlou</i>
8:40 a.m.	Introduction of the 1st Annual Robert J. Levy Pediatric and Congenital Cardiovascular Basic Science Lecturer <i>Daniel P. Kelly</i>
8:45 a.m.	The Role of the Serotonin Transporter in the Progression of Heart Valve Disease <i>Robert J. Levy</i>
9 a.m.	Introduction of the 22nd Annual William J. Rashkind Memorial Lecture in Pediatric Cardiology Lecturer <i>Joseph Rossano</i>
9:05 a.m.	Understanding and Addressing Disparities in the Global Burden of Pediatric Heart Disease <i>Craig A. Sable</i>
9:20 a.m.	Introduction of the 23rd Annual Thomas Garrett Rauch Memorial Lecture in Nursing Lecturer <i>Sherri Kubis</i>
9:25 a.m.	From the Bedside to the Boardroom and Back Again: Leadership's Opportunity to Define the Value Proposition of Nursing <i>Jean Storey</i>
9:40 a.m.	Awards for Best Abstracts Kathryn M. Dodds and David J. Goldberg
10 a.m.	ADJOURN

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Break/Visit the Exhibits 10 – 11 a.m. Poster Session No. III



Simultaneous Breakout Sessions: 11 a.m. – 1 p.m.

Lymphatics 101: Case-based Principles & Practice

Case-based Principles and Practice Moderators: Yoav Dori and Jonathan J. Rome Faculty: Christopher L. Smith, Erin Pinto, Katsuhide Maeda and Jonathan J. Rome

Room: Vaquero A-C

Healthcare Administration in Pediatric & Congenital Cardiovascular Disease

Moderators: Lawrence Barnes, Lisa Graybill and Kay Stewart-Huey

Room: Arroyo C-E

11 a.m.	Approaching the New Challenges Facing Pediatric Healthcare: Perspective from the CEO of Phoenix Children's Hospital <i>Robert Meyer</i>
11:15 a.m.	Approaching the New Challenges Facing Pediatric Healthcare: Perspectives from the CMO at Children's Hospital of Philadelphia <i>Ron Keren</i>
11:30 a.m.	Fostering and Supporting a Spirit of Innovation and Maintaining Uniqueness in a Congenital Cardiac Center <i>Mark Schwartz</i>
11:45 a.m.	Topic TBD Speaker TBD
Noon	Leadership 101: Creating Change Through Stakeholder Engagement Daniel Hyman
12:15 p.m.	Meeting the Nursing Workforce Challenges of the Current Era <i>Sherri Kubis</i>
12:30 p.m.	Data-driven Operations in a Cardiac Center <i>Vivek Allada</i>
12:45 p.m.	Q & A Faculty
1 p.m.	ADJOURN

Genetics, Syndromes and Pediatric Cardiovascular Disease

Moderators: Elizabeth Goldmuntz and Jeffrey J. Kim Room: Dunes AB

11 a.m.	Hereditary Hemorrhagic Telangiectasia (HHT)
	Elizabeth Goldmuntz
11:15 a.m.	Aortopathies
	Stacey Drant
11:30 a.m.	LV Non-compaction
	Jeffrey J. Kim
11:45 a.m.	Arrhythmia & Channelopathies
	Mitchell Cohen

Saturday program continued on next page>

SATURDAY, FEB. 17 (continued)

Noon	Looking Towards the Future: Preventative Health and Avoiding Adult Metabolic Syndrome While Still Young <i>Carissa Baker-Smith</i>	
12:15 p.m.	What the Anesthesiologist Needs to Know About Any Genetics or Syndromes Before Putting a Cardiac Patient to Sleep? <i>Asif Padiyath</i>	
12:45 p.m.	Case-based presentations Faculty	
1 p.m.	ADJOURN	
Perfusion Breakout Session III		
Changing Dynamics in ECMO Care		
Moderators: Tom Klein and Aaron Schrek		
Room: McDowell		
11 a.m.	Euroset: U.S. Pediatric Experience	

11 a.m.	Euroset: U.S. Pediatric Experience
	Justin Farr
11:15 a.m.	ECPR Simulation: Is It Worth the Time
	and Effort – Optimizing Outcomes
	Kiona Y. Allen
11:30 a.m.	ECMO Equipment Selection: Circuit Components
	and Managing Backorders Post-COVID
	Tami Rosenthal
11:45 a.m.	Anticoagulation for ECMO $-$ The Debate Continues
	Michael Goldsmith
Noon	Ethical Dilemmas in Complex ECMO Patients
	Roxanne E. Kirsch
12:15 p.m.	Panel Discussion
	Faculty
1 p.m.	ADJOURN

Saturday Nursing Breakout Session

A Case: What I Needed to Learn and Pearls of Wisdom to Share

Moderators: Stacy Reynolds and Angela Gooden

Room: Vaquero D

11 a.m.	Pearls from a Patient <i>Marissa Mendoza Bremer</i>
11:20 a.m.	Combined Heart-Liver Transplant: An Unconventional Path to Success <i>Beth Lang</i>
11:40 a.m.	Between a Rock and A Hard Place Katherine Harrison
Noon	Never Close the Door <i>Carmen H. Watrin</i>
12:20 p.m.	Destigmatizing Mental Health Support in Nursing <i>Jamie Fitzgerald</i>
12:40 p.m.	The Complexities of Shones Complex Carina Perez and Molly King
1 p.m.	ADJOURN

Nursing Luncheon: 1 – 2 p.m. Sponsored by





(Boxed Lunch is available for non-Nursing Attendees)

2 – 3 p.m. Moderated Panel of Experts: A Conversation Amongst the Chiefs – Concerns, Challenges and Opportunities Right Now and for the Future of Pediatric Cardiology

Moderator: Joseph Rossano Panelists: Daniel J. Penny, Aliessa P. Barnes, Christopher Petit, William T. Mahle, Paul F. Kantor and Andrew C. Glatz Room: Vaquero A-D

3-4 p.m. Break/Poster Session/Moderated Poster Professor Rounds II

Plenary Session VII: 4 – 6 p.m.

Innovations in Congenital Heart Care

Moderator: Matthew J. Gillespie

	_
4 p.m.	Fostering and Sustaining Innovation in Pediatric Healthcare Technologies <i>Vinay Vaidya</i>
4:15 p.m.	Wearable Biosensors in Pediatric Cardiovascular Disease and AI Analytics <i>Animesh Tandon</i>
4:30 p.m.	Update on the Artificial Placenta — Where Are We Heading? <i>Jack Rychik</i>
4:45 p.m.	Partial Heart Transplantation Joseph W. Turek
5 p.m.	Novel Neuromonitoring and Neuroprotection in CHD Jennifer M. Lynch
5:15 p.m.	Can Biomarkers Help Us Improve our

Understanding of Congenital Heart Disease? Laura M. Mercer-Rosa

5:30 p.m. Advances in Pacemaker Technologies Maully J. Shah

5:45 p.m. Audience Q & A *Faculty Panel* 6 p.m. ADJOURN

♥ SUNDAY, FEB. 18

7 - 8 a.m. Breakfast with Our Nursing Executives: What Should We Keep Doing? What Should We Start Doing? What Should We Stop Doing? A moderated panel discussion Moderators: Kathryn Dodds, Katherine Harrison Panelists: Jill Haydusko, Katie Penson, Sherri Kubis, Lisa Laddish, Jean Storey, Carmen H. Watrin and Jill Haydusko
Room: Vaquero A-D

Sunrise Session III

 7 - 8 a.m. Case-based Presentations Highlighting Practical Principles and Clinical Pearls: Imaging in Complex Congenital Heart Disease Andrew Cheng, Amanda J. Shillingford, Shubhika Srivastava

Room: Arroyo C-E

Plenary Session VIII: 8 a.m. – 12:15 p.m.

Clinical Wisdom: Perhaps There is Evidence, or Perhaps Not, But This is What I Do... *Moderators: Wayne J. Franklin and Chitra Ravishankar* Room: Vaquero A-D

8 a.m.	PDE-5 Inhibition Following Fontan Circulation David J. Goldberg
8:15 a.m.	Digoxin Use in Single Ventricle Michael L. O'Byrne
8:30 a.m.	Bivalirudin Use in Ventricular Assist Devices Deepa Mokshagundam
8:45 a.m.	Surgery for Vascular Ring <i>William J. Gibson</i>
9 a.m.	CC-TGA With and Without Tricuspid Valve Regurgitation <i>Meryl S. Cohen</i>
9:15 a.m.	PVCs in a Structurally Normal Heart <i>Philip M. Chang</i>
9:30 a.m.	Fenestration Creation for Those Undergoing Fontan Operation <i>Daniel A. Velez</i>
9:45 a.m.	Use Sirolimus to Treat Cardiac Rhabdomyoma in the Fetus <i>Jack Rychik</i>
10 a.m.	BREAK
10:15 a.m.	To Decide When My Patient Needs a VAD <i>Matthew J. O'Connor</i>

10:30 a.m.	For Serial Surveillance of My Patient with a Fontan Circulation <i>Andrew Cheng</i>
10:45 a.m.	When My Patient with Single Ventricle Needs Anesthesia as an Inpatient or Outpatient <i>Andreas W. Loepke</i>
11 a.m.	For My Patient with Wolff-Parkinson-White Syndrome <i>Christopher Janson</i>
11:15 a.m.	To Decide When My Patient with a Low Qp:Qs Ratio Needs to Have Surgery <i>Alan H. Friedman</i>
11:30 a.m.	To Identify the Fetus with a Questionable Aortic Arch — Do I Start Prostaglandin Infusion After Birth or Not? <i>Shubhika Srivastava</i>
11:45 a.m.	Developing a Nursing Research Role: The Path is Often Crooked <i>Linda Lambert</i>
Noon	ADJOURN

Maintaining the best outcomes for our patients throughout the lifespan can only be achieved through continuous update and education. Our community must strive to avail itself of the educational resources necessary to maintain and advance the skills and knowledge base required to provide the best outcomes possible.

FACULTY

Faculty

Vivek Allada Children's Hospital of Philadelphia

Kiona Y. Allen Lurie Children's Hospital of Chicago

Jeffrey B. Anderson Cincinnati Children's Hospital Medical Center

Catherine Avitabile Children's Hospital of Philadelphia

Jordan Awerbach Phoenix Children's Hospital

Emile A. Bacha New York-Presbyterian Morgan Stanley Children's Hospital

Carissa Baker-Smith Nemours Children's Cardiac Center, (Wilmington, DE)

Aliessa P. Barnes Children's Mercy Kansas City

Lawrence Barnes Children's Hospital of Philadelphia

Andrea Z. Beaton Cincinnati Children's Hospital Medical Center

Deepti P. Bhat Phoenix Children's Hospital

Jordan Birmhall Phoenix Children's Hospital

Christy K. Bosler Children's Hospital of Philadelphia

Marissa Mendoza Bremer Children's Hospital of Philadelphia

Shira Brisman University of Pennsylvania

David Brown Boston Children's Hospital

Roosevelt Bryant Phoenix Children's Hospital Antonio G. Cabrera Intermountain Primary Children's Hospital (Salt Lake City, UT)

Paul J. Chai Children's Healthcare of Atlanta

Philip M. Chang Children's Mercy Kansas City

Jonathan Chen Children's Hospital of Philadelphia

Andrew Cheng Children's Hospital Los Angeles

Meryl S. Cohen Children's Hospital of Philadelphia

Mitchell Cohen Inova L.J. Murphy Children's Hospital, (Falls Church, VA)

Andrew T. Costarino Children's Hospital of Philadelphia

Meg Didier Patient Engagement, Global Liver Institute

Jonathan Dillman Cincinnati Children's Hospital Medical Center

Kathryn M. Dodds (Planner) Children's Hospital of Philadelphia

Yoav Dori Children's Hospital of Philadelphia

Stacy Drant *Children's Hospital of Philadelphia*

Pirooz Eghtesady St. Louis Children's Hospital

Matthew Elias Children's Hospital of Philadelphia

Jesse J. Esch Boston Children's Hospital

Justin Farr Children's Hospital of Philadelphia

Jamie Fitzgerald Children's Hospital of Philadelphia Mark A. Fogel Children's Hospital of Philadelphia

Wayne J. Franklin Phoenix Children's Hospital

Mark Friedberg The Hospital for Sick Children (SickKids), (Toronto, Canada)

Alan H. Friedman Yale New Haven Hospital

Stephanie Fuller *Children's Hospital of Philadelphia*

Michael Gaies Cincinnati Children's Hospital Medical Center

Dana Gal Children's Hospital Los Angeles

William J. Gibson Children's Mercy Kansas City

Matthew J. Gillespie Children's Hospital of Philadelphia

Salil Ginde Children's Wisconsin

Andrew C. Glatz St. Louis Children's Hospital

Thomas Glenn Texas Children's Hospital

David J. Goldberg Children's Hospital of Philadelphia

Elizabeth Goldmuntz Children's Hospital of Philadelphia

Michael P. Goldsmith Children's Hospital of Philadelphia

Angela Gooden Texas Children's Hospital

Lisa Graybill Phoenix Children's Hospital

Jesse Hansen C.S. Mott Children's Hospital, (Ann Arbor, MI)

Faculty continued on next page>

FACULTY (continued)

Jamie Harrington Children's Hospital Los Angeles

Katherine Harrison Phoenix Children's Hospital

David A. Hehir Children's Hospital of Philadelphia

Moira B. Hilscher Mayo Clinic (Rochester, MN)

Taylor Hartzel Houlihan C.S. Mott Children's Hospital (Ann Arbor, MI)

Jill Haydusko Phoenix Children's Hospital

Daniel Hyman Children's Hospital of Philadelphia

Christopher Janson Children's Hospital of Philadelphia

Matthew A. Jolley Children's Hospital of Philadelphia

Paul F. Kantor Children's Hospital Los Angeles

Tara Karamlou Cleveland Clinic

Nadine Kasparian Cincinnati Children's Hospital Medical Center

Daniel P. Kelly Perelman School of Medicine, University of Pennsylvania

Ron Keren Children's Hospital of Philadelphia

Jeffrey J. Kim Texas Children's Hospital

Yuli Y. Kim Children's Hospital of Philadelphia

Molly K. King Phoenix Children's Hospital

Roxanne E. Kirsch The Hospital for Sick Children (SickKids), (Toronto, Canada) **Tom Klein** Cincinnati Children's Hospital Medical Center

Sherri Kubis Children's Hospital of Philadelphia

Lisa Laddish Children's Mercy Kansas City

Linda Lambert Intermountain Primary Children's Hospital (Salt Lake City, UT)

Beth Lang Children's Mercy Kansas City

Carole Lannon Cincinnati Children's Hospital Medical Center

Scott Leezer Cura Strategies (Arlington, VA)

Robert J. Levy Children's Hospital of Philadelphia

Christopher L. Lindblade Phoenix Children's Hospital

Andreas W. Loepke Children's Hospital of Philadelphia

Meghan Long Children's Hospital of Philadelphia

Keila Lopez Texas Children's Hospital

Angela Lorts Cincinnati Children's Hospital Medical Center

Jennifer M. Lynch Children's Hospital of Philadelphia

Irene Lytrivi NewYork-Presbyterian Morgan Stanley Children's Hospital

Katsuhide Maeda Children's Hospital of Philadelphia

William T. Mahle Children's Healthcare of Atlanta **Cedric Manlhiot** Johns Hopkins School of Medicine

Zvi S. Marans NewYork-Presbyterian Morgan Stanley Children's Hospital

Laura M. Mercer-Rosa Children's Hospital of Philadelphia

Robert Meyer Phoenix Children's Hospital

Deepa Mokshagundam St. Louis Children's Hospital

Anita J. Moon-Grady UCSF Benioff Children's Hospital, (San Francisco, CA)

Shobha S. Natarajan Children's Hospital of Philadelphia

James E. O'Brien Children's Mercy Kansas City

Michael L. O'Byrne Children's Hospital of Philadelphia

Matthew J. O'Connor Children's Hospital of Philadelphia

Alexander "Sasha" Opotowsky Cincinnati Children's Hospital Medical Center

Patty Ozuna Phoenix Children's Hospital

Asif Padiyatha Children's Hospital of Philadelphia

Robert Palermo Children's Hospital of Philadelphia

Stephen Paridon *Children's Hospital of Philadelphia*

Anitha Parthiba Texas Children's Hospital

Sheetal R. Patel Lurie Children's Hospital of Chicago

Lacie Patterson Sisters by Heart (Valley Center, CA)

Faculty continued on next page>

FACULTY (continued)

Liming Pei Children's Hospital of Philadelphia

Daniel J. Penny Texas Children's Hospital

Katie Penson Phoenix Children's Hospital

Carina Perez *Phoenix Children's Hospital*

Christopher Petit NewYork-Presbyterian Morgan Stanley Children's Hospital

Diane M. Pickles Additional Ventures (Boston)

Erin Pinto Children's Hospital of Philadelphia

Jayant "Nick" Pratap Children's Hospital of Philadelphia

Tamar J. Preminger Children's Hospital of Philadelphia

Elizabeth B. Rand Children's Hospital of Philadelphia

Chitra Ravishankar Children's Hospital of Philadelphia

Stacy L. Reynolds Children's Mercy Kansas City

Toby A. Rockefeller *Children's Mercy Kansas City*

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Joseph Rossano Children's Hospital of Philadelphia

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Jack Rychik (Course Director) Children's Hospital of Philadelphia

Craig A. Sable Children's National Hospital (Washington, DC)

Aaron Schreck Phoenix Children's Hospital

Mark Schwartz Children's Hospital of Philadelphia

Maully J. Shah Children's Hospital of Philadelphia

Amanda J. Shillingford Children's Hospital of Philadelphia

Christopher L. Smith *Children's Hospital of Philadelphia*

Joseph Spinner Texas Children's Hospital

Shubhika Srivastava Nemours Children's Cardiac Center (Wilmington, DE)

Kay Stewart-Huey Children's Hospital of Atlanta

Jean Storey Children's Health (Dallas)

Jennifer Su Children's Hospital Los Angeles

Animesh Tandon Cleveland Clinic

Joseph W. Turek Duke Children's Hospital & Health Center (Durham, NC)

Vinay Vaidya Phoenix Children's Hospital

Daniel A. Velez Phoenix Children's Hospital

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Carmen H. Watrin *Texas Children's Hospital*

David White Children's Mercy Kansas City

Stacy Woyciechowski Children's Hospital of Philadelphia

Steven D. Zangwill *Phoenix Children's Hospital*