RESILIENCE IN PEDIATRIC & CONGENITAL CARDIOVASCULAR DISEASE
Virtual Conference
FEB. 11 – 14, 2021
Learn more at chop.edu/cardiology2021
Yes, it has been a difficult time as we strive to care for ourselves as well as do our best to maintain and advance the health of our patients with pediatric and congenital cardiovascular disease. Solving new problems and creating new adaptations provides for both challenges and opportunities. Keeping up with our education and staying abreast of the latest information and innovations in our field has never been more important than now.

With this approach in mind, we present our multidisciplinary comprehensive conference, the 24th Annual Update on Pediatric and Congenital Cardiovascular Disease.

Our theme this year is “Resilience in Pediatric & Congenital Cardiovascular Disease.” The esteemed faculty of more than 100 experts will share their knowledge through lectures in plenary sessions, breakout sessions, moderated panels of experts, and lively discussion groups covering all areas and topics related to the comprehensive care of the unborn, neonate, child and young adult with cardiovascular disease.

The goals of our educational conference are to give healthcare providers the most up-to-date, knowledge-based tools necessary to effectively provide a normal quality and duration of life for individuals with pediatric and congenital cardiovascular disease.

Topics will include:

- Resilience in pediatric and congenital cardiovascular disease at the societal, community, institutional, individual, organ and cellular levels
- Collaborative organizational efforts in pediatric and congenital cardiovascular disease
- Update on single ventricle heart disease care and management
- Pediatric and congenital cardiovascular disease perspectives of care from the viewpoints of various providers and stakeholders
- Innovations in pediatric and congenital cardiovascular care and science: 2021
- A focus on the wellness and resilience of healthcare providers
- Deep dives into the topics of lymphatic circulation in congenital heart disease, arrhythmias, imaging, ambulatory cardiology, corrected TGA, truncus arteriosus, adult CHD, valvar disease and much, much more!

Why you should attend Cardiology 2021:

- One of the world’s premier high-quality conferences dedicated to pediatric and congenital cardiovascular disease
- Exposure to the latest updates in the field
- Hear state-of-the-art lectures from world class experts
- In-depth approach to new information as well as review of basic principles
- Dedicated sessions for nurses, perfusion specialists and healthcare administrators
- More than 20 credits for physicians, nurses and perfusion specialists

Course Objectives 2021

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

- Describe the science and knowledge base of information that supports clinical practice for the patient with pediatric and congenital cardiovascular disease
- Outline some of the latest innovations and their potential for changing care in pediatric and congenital cardiovascular disease
- Discuss the lessons learned over the past few decades of discovery and the future direction necessary to advance the field of pediatric and congenital cardiovascular disease
• Describe the latest body of information to emerge, as well as identify gaps in knowledge related to patients with single ventricle type of heart disease
• Appreciate the importance of healthcare provider wellness and learn strategies of well-being and self-care
• Describe the concept of resilience at multiple levels and comprehend how complex systems can develop resiliency to stress and adaptation
• Review the physiological consequences and importance of physical activity in single ventricle type of congenital heart disease
• Discuss the latest concepts in care and management of truncus arteriosus
• Outline key factors in decision-making related to imaging information in pediatric and congenital cardiovascular disease
• Describe the multiple options and strategies of care available for the condition of corrected transposition of the great arteries
• Describe the diagnostics, management and outcomes for heart valve disease in congenital and pediatric cardiovascular conditions
• Explain the latest updates in the rapidly developing field of the lymphatic circulation
• Find answers to the many common questions related to the ambulatory care of patients with congenital heart disease
• Describe the most recent developments in the care and management of the adult with congenital heart disease
• Discuss the latest techniques and developments in the field of pediatric cardiovascular perfusion
• Explain the underlying principles and best practices for nurses and other front-line providers for the patient with congenital heart disease

Call for Abstracts
Abstract Submission Deadline
Monday, Nov. 23, 2020 (11:59 p.m. EST)
Notification of Acceptance
Monday, Dec. 7, 2020
Poster Abstract Presentation
Friday, Feb. 12 – Sunday, Feb. 14, 2021

Course Fees
The registration fee for the four-day conference is $299 for physicians and $159 for other healthcare professionals and physicians-in-training.

ACCME Accreditation Statement
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
Children’s Hospital of Philadelphia designates this live activity for a maximum of 22 AMA PRA Category 1 credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Nursing Continuing Professional Development Approved Provider Statement
Children’s Hospital of Philadelphia is approved as a provider of nursing continuing professional development by the Pennsylvania State Nurses Association, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation.

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

Cancellation and Refund Policy
Children’s Hospital of Philadelphia reserves the right to cancel or postpone any course due to unforeseen circumstances. In order to process refunds for course withdrawals, cancellations must be received in writing by Monday, Feb. 1, 2021. Refunds will be issued for the amount of registration less a $50 service charge.

Register online: chop.cloud-cme.com
THURSDAY, FEB. 11

Opening Plenary Session 6 – 8 p.m.
Resilience in Pediatric & Congenital Cardiovascular Disease 2021
Moderators: Jonathan Chen and Joseph Rossano

6 p.m. Opening Remarks
Jack Rychik

6:15 p.m. Resilience at the Societal Level: Governmental Response to the Unfolding Crisis of COVID-19
Howard Zucker

6:30 p.m. First Exposures in the U.S. and the Congenital Heart Community Response to COVID-19: Seattle Experience
Mark Lewin

6:45 p.m. COVID-19: Impact on Nursing Practices
Sherri Kubis

7 p.m. Vaccine Development for COVID SARS-2: Promise and Perils
Paul Offit

7:15 p.m. Mechanisms and Models of Cellular Resilience in Pediatric and Congenital Cardiovascular Disease
Shelley Miyamoto

7:30 p.m. What Are We Battling? Resilience Beyond Mortality: The Fight to Reduce Morbidity in Cardiac Surgery
Katherine Brown

7:45 p.m. Psychological Resilience in the Patient with CHD
Adrienne Kovacs

8 p.m. Panel Discussion Q & A
Faculty

8:15 P.M. ADJOURN

FRIDAY, FEB. 12

9 – 10 a.m. “Coffee and Talk” — chat room discussions and opportunity for engagement with the faculty

10 – 11 a.m. ECG Review: How to Read an ECG and Never Get it Wrong!
Mitchell Cohen and Maully Shah

Plenary Session II 11 a.m. – 1 p.m.
Collaborative Organizational Efforts in Pediatric and Congenital Cardiovascular Disease: How Do We Get to Where We Want to Be?
Moderators: Daniel Penny and Robert Shaddy

11 a.m. Challenges and Opportunities in Disseminating Discovery and Knowledge: Building a Quality Journal Specific to the Needs of our Global Community
Marshall Jacobs

11:15 a.m. The NIH and the Pediatric Heart Network
Gail Pearson

11:30 a.m. What Role Can the FDA Play?
Vasum Peiris

11:45 a.m. The Cardiac Neurodevelopmental Outcomes Collaborative
Caren Goldberg

Noon Additional Ventures: A Foundation Intent on Changing Outcomes for Single Ventricle
Kirstie Keller

12:15 p.m. ACTION: A Pediatric Heart Failure Learning Collaborative
Angela Lorts

12:30 p.m. The Fontan Outcomes Network: A Registry and a Learning Network
Alexander Opotowsky

12:45 p.m. Panel Discussion Q & A
Faculty

1 P.M.  ADJOURN

1 – 2 p.m. Break: Visit our Virtual Exhibits, Supporting Satellite Events, and E-Abstract Posters
E-Abstract Poster Session #1
SIMULTANEOUS BREAKOUT SESSIONS 2 – 4 P.M.

Where Imaging Counts! — Common Mistakes and Pearls of Wisdom in Pediatric and Congenital Cardiovascular Imaging
Moderator: Meryl Cohen

2 p.m. Is this LV Sufficient? How Will We Know?
Kevin Friedman

2:15 p.m. DORV: What Tools to Tell Us if We Can Complete Successful Biventricular Repair
Piers Barker

2:30 p.m. AV Canal: How Much Residual AV Valve Regurgitation Is Too Much?
Michael Quartermain

2:45 p.m. Intraop TOF Decisions: There Is Residual Pulmonic Stenosis — Leave It or Fix It?
Laura Mercer-Rosa

3 p.m. Residual VSD: Should the Surgeon Go Back On?
Meryl Cohen

3:15 p.m. Panel Discussion: Trust, But Verify: The Surgeon’s Perspective on What to Accept and What to Question When Making Decisions
Meryl Cohen with Echo Faculty, and William DeCampli, Christopher Mascio and James Quintessenza

4 P.M. ADJOURN

Truncus Arteriosus: Management and Outcomes
Moderator: Craig Fleishman

2 p.m. Anatomical Variability in Truncus Arteriosus
Jill Savla

2:15 p.m. Fetal and Neonatal Imaging
Craig Fleishman

2:30 p.m. Surgical Strategies for Newborn Repair
Muhammad Nuri

2:45 p.m. Value-based Care
Joyce Johnson

3 p.m. Options on What to Do About Truncal Valve Dysfunction
Ram Subramanyan

3:15 p.m. Intermediate and Long-term Outcomes
Rachel Wald

3:30 p.m. Panel Discussion
Faculty Panel

4 P.M. ADJOURN

Advances in Ambulatory and Outpatient Care
Moderator: Vivek Allada

2 p.m. Challenges and Opportunities in Outpatient Pediatric and Congenital Heart Care
Vivek Allada

2:15 p.m. Outpatient Mechanical Circulatory Support
Danielle Burnstein

2:30 p.m. Surveillance Monitoring for the Patient with Fontan Circulation
Kathryn Dodds

2:45 p.m. Genetic Testing in the Clinic and How It Impacts Care I: Congenital Heart Disease
Elizabeth Goldmuntz

3 p.m. Genetic Testing in the Clinic and How It Impacts Care II: Cardiomyopathy
Paul Kantor

3:15 p.m. Home Monitoring and Mobile Health: Technology-based Care Models That Are Changing Practice
Nalaka Gooneratne

3:30 p.m. Quality Improvement in the Ambulatory Outpatient Setting
Matthew Elias, MD

3:45 p.m. Panel Discussion

4 P.M. ADJOURN

2 – 4 p.m. Nursing Abstract Presentations
Multicenter Nursing Oral Abstract Presentations

Nursing Abstracts Orally Presented
Moderators: Lisa Laddish and Kathryn Dodds

4 P.M. ADJOURN

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Looking Through a Different Lens: Pediatric Cardiopulmonary Bypass Surgery
Moderator: Tami Rosenthal
2 p.m. Integrating Contemporary Concepts and Clinical Significance of DO2 and VO2 in Pediatric Perfusion Practice
Isaac Chinnappan
2:15 p.m. Bloodless Arterial Switch in a 2.7 kg Jehovah’s Witness Patient
Dan Gomez
2:30 p.m. Collaborative Approach to Blood Management
Aymen Naguib
2:45 p.m. Quality Improvement: What Should We Be Focusing on in the Periop Area?
Muhammad Nuri
3 p.m. Integrating AMSECT Standards and Guidelines for Pediatric CPB
Molly Oldeen
3:15 p.m. FFP Use for CPB: Is There a Best Practice?
Asif Padiyath
3:30 p.m. Pump Room Advice: Virtual Discussion
Panel Q & A
4 P.M. ADJOURN

4 – 4:15 p.m. Break

Plenary Session III
Focus on the Healthcare Professional: Creating an Optimal Culture for Resilience, Wellness and Provider Quality of Life
Moderator: Girish Shirali and TBD
4:15 p.m. The Power of Reinvention
Audrey Marshall
4:30 p.m. Developing an Institutional Program for Physician Well-being
Miriam Stewart
4:45 p.m. Medice, Cura te Ipsum: Physician Heal Thyself
Stacey Drant
5 p.m. The Importance and Value of Retreat
Yoav Dori
5:15 p.m. Provider and Staff Well-being in 2021
Liz Crowe
5:30 p.m. Panel Discussion Q & A
6:15 P.M. ADJOURN

Plenary Session IV
2021 Featured Lectures
11 a.m. Introduction of the Annual Jack Downes Lecturer
Andreas Loepke
11:05 a.m. Annual Jack Downes Lecture
Andrew Costarino
11:20 a.m. Introduction of the Annual C. Walton Lillehei Lecturer
Jonathan Chen
11:25 a.m. Annual C. Walton Lillehei Lecture
Richard Ohye
11:40 a.m. Introduction of the Rauch Memorial Lecturer
Denise Donaghue
11:45 a.m. Annual Rauch Memorial Lecture
Jean Connor
Noon Introduction of the Annual Pediatric and Congenital Cardiovascular Basic Science Lecturer
J. William Gaynor
12:05 p.m. Annual Pediatric and Congenital Cardiovascular Basic Science Lecture
Christopher Brewer
12:20 p.m. Introduction of the Annual William J. Rashkind Lecturer
Joseph Rossano
12:25 p.m. Annual William J. Rashkind Lecture
A Dedication to Paul Weinberg
1 P.M. ADJOURN

1 – 2 p.m. Break: Visit our Virtual Exhibits, Supporting Satellite Events, and E-Abstract Posters
E-Abstract Poster Session #2
Case Scenarios in Congenitally Corrected TGA
Panel Discussion Lead: Daniel Penny
2 p.m.  Anatomical Considerations and Variability in Congenitally Corrected TGA \(\text{TGA}(S,L,L)\)
Lindsay Rogers
2:20 p.m.  Panel Discussion
Panelists: Craig Broberg, Wayne Franklin, Viktor Hraska, Richard Ohye, David Winlaw
4 P.M.  ADJOURN

Resilience in the ACHD Patient: Case-based Lessons
Panel Discussion Lead: Yuli Kim
2 p.m.  Panel Discussion
Panelist: Jamil Aboulhosn, Stephanie Fuller, Adrienne Kovacs, Eric Krieger, Alexander Opotowsky
4 P.M.  ADJOURN

Valvar Dysfunction in Congenital Heart Disease
Moderator: Jonathan Chen
2 p.m.  Anatomical and Physiological Considerations of Systemic AV Valve Insufficiency in the Single Ventricle Heart
Tarek Alsaeid
2:15 p.m.  The Spectrum of Options and Value of Advanced Echocardiographic Imaging
Lindsay Rogers
2:30 p.m.  Form and Function: Characterization of Valvar Abnormalities and Dysfunction Using MRI Techniques
Mark Fogel
2:45 p.m.  3D Computational Modeling for Valvar Disease
Matthew Jolley
3 p.m.  Novel Catheter-based Interventions for Valvar Insufficiency
Matthew Gillespie
3:15 p.m.  Aortic Valve Insufficiency: Surgical Strategies to Create Competence
Jonathan Chen
3:30 p.m.  Panel Discussion
Faculty
4 P.M.  ADJOURN

2 – 4 p.m. Nursing Case Studies: Cases of Resilience and Grit in a Pandemic
Case Presentations Highlighting Important Aspects of Care in Pediatric and Congenital Cardiovascular Disease During COVID-19
Taylor Demkin, Sarah Bond, Taylor Zulli, Jamie Fitzgerald, Nancy Rudd, Michelle Steltzer, Benjamin Jacob, Britt Fredriksen
Moderators: Kathryn Dodds and Nancy Rudd

4 P.M.  ADJOURN

Tools of the Trade: Methods for Optimizing ECMO Care
Moderator: Tami Rosenthal
2 p.m.  Cardiohelp® in Pediatrics: Lessons Learned
Michael Brewer
2:15 p.m.  Anticoagulation for Pediatric ECMO: Does One Strategy Work for All Cardiac Patients?
Marissa Brunetti
2:30 p.m.  Pharmacokinetics: Things to Consider for Cardiac ECMO Patients
Haley Collier and Alyssa Hager
2:45 p.m.  Managing COVID ECMO at a Children’s Hospital
Michael Pizzi
3 p.m.  Impella and ECMO in the Pediatric Patient: Winning Combo or More of a Challenge?
Amy Romer
3:15 p.m.  ECMO Cannula Preservation for High-risk Transition off ECMO
Tami Rosenthal
3:30 p.m.  Faculty Panel Discussion
Faculty
4 P.M.  ADJOURN

4 – 4:15 p.m.  Break

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Plenary Session V
These are Three Important Things I Need You to Know: Sharing My View on What Is Important in Pediatric and Congenital Heart Care
Moderator: James Steven and Alan Friedman
4:15 p.m. Hospital Administrator ... to Cardiology Division
   Thomas Dole
4:30 p.m. Nurse ... to Physician
   Natalie Bernard
4:45 p.m. Surgeon ... to Cardiologist/Echocardiographer
   James O’Brien
5 p.m. Perfusionist ... to Surgeon
   Tami Rosenthal
5:15 p.m. Cardiac Catheterization Specialist ... to All Other Providers
   Jacqueline Kreutzer
5:30 p.m. Cardiac Intensivist ... to Step-down Unit and Outpatient Cardiologist
   Kiona Allen
5:45 p.m. Panel Discussion Q & A
   Faculty
6 P.M. ADJOURN

SUNDAY, FEB. 14
9 – 10 a.m. “Coffee and Talk” – chat room discussions and opportunity for engagement with the faculty
10 – 11 a.m. First Up ... Cases /Live or Videotaped

Plenary Session VI
Innovations in Diagnostics and Care for Pediatric and Congenital Cardiovascular Disease 2021
Moderators: J. William Gaynor and Andrew Glatz
11 a.m. 3D Imaging for Fetal Coarctation of the Aorta
   John Simpson
11:15 a.m. Artificial Placental Support: A New Approach to Prenatal Cardiovascular Disease
   Jack Rychik
11:30 a.m. Noninvasive Optical Monitoring Techniques in Congenital Heart Disease: Insights and Potential Impact on Practice
   Daniel Licht
11:45 a.m. Development of Novel Materials Used for Cardiac Surgery
   David Hoganson
Noon New Concepts in Conduit Design for CHD Care
   David Winlaw
12:15 p.m. Catheter-based Rerouting of Blood Flow in Complications Related to the Fontan Circulation
   Jonathan Rome
12:30 p.m. How Do We Best Go About Optimizing Mental Health and Quality of Life in CHD?
   Nadine Kasparian
12:45 p.m. Panel Discussion Q & A
   Faculty
1 P.M. ADJOURN

1 – 2 p.m. Break: Visit our Virtual Exhibits, Supporting Satellite Events and E-Abstract Posters
E-Abstract Poster Session #3

2 – 4 P.M. BREAKOUT SESSION
The Evolving Form and Function of Future Practice in Pediatric and Congenital Heart Care (Impact of Healthcare Economics, COVID-19, Shift in Patient Populations, etc.)
Panel Discussion
2 – 4 p.m.
Moderator: Joseph Rossano
Panelists: Stuart Berger, Denver Sallee, Daniel Penny, Joseph Rossano, Mark Schwartz, Robert Shaddy, Girish Shirali, Paul Viviano
**Lymphatics 2021**

**Moderator: Aaron DeWitt**

2 p.m. Genetic Influences on the Lymphatic Circulation  
*Hakon Hakonarson*

2:15 p.m. Understanding the Unique Physiology of the Lymphatic Circulation in Cardiovascular Disease  
*Vibeke Hjortdal*

2:30 p.m. Mapping and Changing Lymphatic Flow in CHD  
*Yoav Dori*

2:45 p.m. Challenges and Opportunities in Developing Catheter-based Lymphatic System Interventions  
*Christopher Smith*

3 p.m. Post-procedural Care Following Lymphatic Intervention  
*Aaron DeWitt*

3:15 p.m. Surgical Decompression of the Lymphatic System in the Fontan Circulation  
*Christian Kreutzer*

3:30 p.m. Nutritional Aspects of Lymphatic Disorders  
*Melanie Savoca*

3:45 p.m. Panel Discussion  
*Faculty*

4 P.M. ADJOURN

**Arrhythmia Focus 2021**

**Moderator: Maully Shah**

2 p.m. Ventricular Arrhythmias: Significance and Management  
*Mitchell Cohen*

2:15 p.m. Fetal Tachyarrhythmia Management  
*Edgar Jaeggi*

2:30 p.m. Prenatal Diagnosis and Treatment of Congenital Complete Heart Block  
*Jay Pruitt*

2:45 p.m. Ablation Fortachyarrhythmias: Indications and Tricks of the Trade  
*Ramesh Iyer*

3 p.m. Innovations in Imaging for Mapping Ablation for WPW  
*Christopher Janson*

3:15 p.m. What We Have Learned — and Unlearned — About Channelopathies  
*Shubhayan Sanatani*

3:30 p.m. Arrhythmia in Hypertrophic Cardiomyopathy and in Arrhythmogenic Right Ventricular Cardiomyopathy  
*Maully Shah*

3:45 p.m. Panel Discussion  
*Faculty*

4 P.M. ADJOURN

**2 – 4 p.m. Nursing Breakout — Cardiovascular Drug Update: Antiarrhythmics, Pain & Sedation, Anticoagulation, Pulmonary Hypertension, Diuretics and Transplant**

*Melissa Olen, Jenna Heichel, Rachel Keasen, Pam Finn, Grace George, Trudi Barry, Stacy Reynolds*

**Moderators: Kathryn Dodds and Stacy Reynolds**

4 P.M. ADJOURN

**Thinking Outside the Box: Mechanical Circulatory Assist**

**Moderator: Kellie Schiavo**

2 p.m. VADs for Babies; Berlin Heart vs. Pedimag  
*Tracy Geoffrion*

2:15 p.m. HVAD vs. HM3 in the Pediatric Congenital Population  
*Katsuhide Maeda*

2:30 p.m. Optimizing Anticoagulation for Mechanical Support: Is There a One-size-fits-all Strategy?  
*Matthew O’Connor*

2:45 p.m. Centrimag Use in Pediatrics: Optimizing Use  
*James Reagor*

3 p.m. Pedimag Long-term Care on a Short-term Device: Case Report  
*Kellie Schiavo*

3:15 p.m. Tools to Streamline Care and Timing of Discharge for Mechanical Assist Patients  
*Rachel White*

3:30 p.m. Panel Discussion  
*Faculty*

4 P.M. ADJOURN

**4 – 4:15 p.m. Break**

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Plenary Session VII
What’s New in Single Ventricle Care?
Moderator: Ram Subramanyan and Jack Rychik

4:15 p.m. Prenatal Factors Influencing Postnatal Outcomes
Jill Savla

4:30 p.m. Mechanical Support as Rescue: When and with What Tools?
Katsuhide Maeda

4:45 p.m. Impact and Value of Systematic Inter-stage Monitoring
Monique Gardner

5 p.m. Tricks of the Trade: ICU Strategies to Optimize Neuro-outcomes at Each Phase of Staged Reconstructive Care
Maryam Naim

5:15 p.m. Thromboprophylaxis: For Whom and with What Agents?
Alexander Egbe

5:30 p.m. Evidence Base for Drug Therapies in Management of Fontan Circulation
David Goldberg

5:45 p.m. Exercise and Fontan Circulation
Catherine Avitabile

6 p.m. Panel Discussion Q & A
Faculty

6:15 P.M. ADJOURN
See You Next Year  CARDIOLOGY 2022

Presidents’ Day Weekend!
FEBRUARY 16 – 20, 2022
Huntington Beach, California