



The 15th International Conference on **Pediatric Mechanical Circulatory Support Systems & Pediatric Cardiopulmonary Perfusion**



May 9-11, 2019

NewYork-Presbyterian/
Columbia University Irving Medical Center
New York City

Conference Co-Chairs:

Paul J. Chai, MD
Sabrina Law, MD
Akif Ündar, PhD



PennState Health
Milton S. Hershey Medical Center

 **NewYork-Presbyterian Kids**
Morgan Stanley Children's Hospital



COLUMBIA
COLUMBIA UNIVERSITY
IRVING MEDICAL CENTER

Overview

Mechanical support in congenital heart disease (CHD) is becoming standard of care, with 20% - 30% of children bridged to transplant with extracorporeal membrane oxygenation (ECMO), ventricular assist devices (VAD) or a combination of both. In referral hospitals this number approaches 50%. Particularly challenging are single ventricles (SV) in terms of their varying combinations of anatomy and physiology, multiple surgeries and co-morbidities, as well as their smaller size. This conference focuses on bringing together experts in the field to discuss innovations, foster collaboration and share support strategies, so that as a community we can enhance the care of this challenging group of patients.

Target Audience

An international symposium for cardiothoracic surgeons, cardiologists, perfusionists, ECMO specialists, bioengineers, basic scientists and other healthcare professionals. This meeting will give attendees the opportunity to network with over 200 healthcare providers. The overall objective of the conference is to collaborate and discuss effective ways to bring mechanical support strategies for complex CHD patients to the bedside, as well as, how best to manage the therapies once they are instituted. There will also be a focus on the deeper understanding of complications, interventions that are available and ways to enhance the comfort level of clinicians taking care of these patients.

Accreditation Statement

In support of improving patient care, this activity has been planned and implemented by Columbia University Department of Surgery and Amedco LLC. Amedco LLC 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.

Credit Designation Statement



JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

PHYSICIANS

Amedco LLC designates this live activity for a maximum of 17.50 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

PHYSICIAN ASSISTANTS

AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credits*™ from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of 17.50 *AMA PRA Category 1 Credits*™ for completing this activity.

NURSE PRACTITIONERS

The American Academy of Nurse Practitioners Certification Board (AANPCB) recognizes the Accreditation Council for Continuing Medical Education (ACCME) and the American Nurses Credentialing Center (ANCC) as approved accreditors and allow reciprocity for AANPCP continuing education credit.

American Board of Cardiovascular Perfusion

This course has been awarded 18.70 American Board of Cardiovascular Perfusion (ABCP) CEU's. In order to receive your credits, you must sign in each day you attend. You will be given a letter of certification prior to your departure which you are required to submit to the ABCP. Credit breakdown is as follows:

Thursday, May 9 = 7.40

Friday, May 10 = 6.20

Saturday, May 11 = 5.10

Satisfactory Completion

Learners must complete an evaluation form to receive a certificate of completion. Your chosen sessions must be attended in their entirety. Partial credit of individual sessions is not available. If you are seeking continuing education credit for a specialty not listed above, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.

Support

We expect support for this program through grants from medical device and pharmaceutical companies.

Course Organizers

Hearan Choo, MD

Director of CME

Columbia University Irving Medical Center

Department of Surgery, CME Office

Jessica Mead

Director of Special Events

Columbia University Irving Medical Center

Department of Surgery, CME Office

Phone: 212.304.7817

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Program Agenda

Wednesday, May 8, 2019

2:00pm – 5:00pm On-site Registration (only if space is available) & Exhibit Set-up

Thursday, May 9, 2019

7:00am – 8:00am Registration, Breakfast & Vendor Exhibits

8:00am – 8:05am Welcome Remarks
Emile Bacha, MD, FACS (New York, NY)

8:05am – 10:00am PLENARY SESSION #1:
Pediatric Mechanical Support Systems:
What's New on the Menu in 2019?
Moderators: Paul J. Chai, MD (New York, NY) & Marc E. Richmond, MD, MS (New York, NY)

8:05am – 8:20am PumpKIN Trial Updates
Christopher Almond, MD (Palo Alto, CA)

8:20am – 8:35am Heartmate 3 in the Pediatric Patient
Katsuhide Maeda, MD (Palo Alto, CA)

8:35am – 8:50am Heartware: What Constitutes a Tight Squeeze?
How Small is Too Small?
Christina J. VanderPluym, MD (Boston, MA)

8:50am – 9:05am An Introduction to ACTION
Angela Lorts, MD (Cincinnati, OH)

9:05am – 9:20am Syncardia in Pediatrics
David L.S. Morales, MD (Cincinnati, OH)

9:20am – 9:35am Anticoagulation: Are DTI's the Magic Bullet?
Jennifer Conway, MD (Edmonton, Alberta)

9:35am – 10:00am Panel Discussion

10:00am – 10:45am Break, Vendor Exhibits & Digital Posters

10:45am – 11:15am Key Note Lecture #1
What's Really Changed in 35 Years?
A Brief History of Time
Linda J. Addonizio, MD (New York, NY)



11:15am – 11:45am

Key Note Lecture #2

The Economics of Mechanical Support,
Heart Failure and Transplantation
Joseph Rossano, MD, MS, FAAP, FACC
(Philadelphia, PA)

11:45am – 12:00pm

Presentation of Young Investigators' Awards

12:00pm – 1:00pm

Lunch & Vendor Exhibits

1:00pm – 3:00pm

**PLENARY SESSION #2:
ECMO**

*Moderators: Eva Cheung, MD (New York, NY) &
William Middlesworth, MD (New York, NY)*

1:00pm – 1:15pm

Current ECPR
(Extracorporeal Membrane Resuscitation)
Eva Cheung, MD (New York, NY)

1:15pm – 1:30pm

Extracorporeal Membrane Oxygenation in
Single Ventricles
Ravi Thiagarajan, MD, MPH (Boston, MA)

1:30pm – 1:45pm

Veno-Venous ECMO in Single Ventricles
Scott I. Aydin, MD, FAAP (New York, NY)

1:45pm – 2:00pm

Ambulatory Extracorporeal Membrane Oxygenation
Koji Takeda, MD, PhD (New York, NY)

2:00pm – 2:15pm

ELSO (Extracorporeal Life Support Organization):
Using Registry Data to Refine Outcomes in Single
Ventricles
D. Michael McMullan, MD, FACS (Seattle, WA)

2:15pm – 2:30pm

Columbia ECMO Program
William Middlesworth, MD (New York, NY)

2:30pm – 3:00pm

Panel Discussion

3:00pm – 3:45pm

Break, Vendor Exhibits & Digital Posters

3:45pm – 5:00pm

Regular Slide Presentations #1

*Moderators: Warren Zuckerman, MD (New York, NY)
& Damien J. LaPar, MD, MSc (New York, NY)*

*5 abstracts will be selected for a 15 minute slide
presentation (10 minute presentation + 5 minute
discussion)*



Friday, May 10, 2019

7:00am – 7:55am	Registration, Breakfast & Vendor Exhibits
7:55am – 8:00am	Welcome Remarks <i>Linda J. Addonizio, MD, (New York, NY)</i>
8:00am – 10:00am	PLENARY SESSION #3: VAD in Single Ventricles <i>Moderators: Iki Adachi, MD (Houston, TX) & Sabrina Law, MD (New York, NY)</i>
8:00am – 8:15am	Heart Failure in Single Ventricles <i>Jack F. Price, MD (Houston, TX)</i>
8:15am – 8:30am	Support Strategies for Stage 1 & Stage 2 Single Ventricle Palliation <i>Jonathan M. Chen, MD (Philadelphia, PA)</i>
8:30am – 8:45am	Support Strategies for Stage 3 Single Ventricle Palliation <i>Yoshifumi Naka, MD, PhD (New York, NY)</i>
8:45am – 9:00am	What Constitutes the “Ideal” Fontan Pump? <i>Mark D. Rodefeld, MD (Indianapolis, IN)</i>
9:00am – 9:15am	Dual Organ Transplant in Single Ventricles <i>Sharon F. Chen, MD (Palo Alto, CA)</i>
9:15am – 9:30am	Destination Therapy <i>Angela Lorts, MD (Cincinnati, OH)</i>
9:30am – 10:00am	Panel Discussion
10:00am – 10:45am	Break, Vendor Exhibits & Digital Posters
10:45am – 11:20am	Key Note Lecture #3 Virtual Fit Technology <i>David L.S. Morales, MD (Cincinnati, OH)</i>
11:20am – 11:55am	Key Note Lecture #4 Pediatric Specific Modifications for Device Implantations <i>Iki Adachi, MD (Houston, TX)</i>
11:55am – 1:00pm	Lunch & Vendor Exhibits
1:00pm – 3:00pm	Regular Slide Presentations #2 <i>Moderators: David M. Kalfa, MD, PhD (New York, NY) & Arthur J. Smerling, MD (New York, NY)</i> <i>8 abstracts will be selected for a 15 minute slide presentation (10 minute presentation + 5 minute discussion)</i>
3:00pm – 3:45pm	Break, Vendor Exhibits, Digital Posters & Hands-on Demonstrations

- 3:45pm – 5:45pm Parallel Sessions**
(Advanced Registration is Required for Both Sessions)
- 3:45pm – 5:45pm Hands-on Demonstrations**
Moderators: Michael P. Brewer, MS, CCP, FPP (New York, NY) & Dana Apsel, MS, CCP, LP (New York, NY)
 Simulation Experience with the Pediatric ECLS Systems
- 3:45pm – 5:45pm Hospital Tours**

Saturday, May 11, 2019

- 8:00am – 10:00am PLENARY SESSION #4:
Perfusion and Potpourri**
Moderators: Akif Ündar, PhD (Hershey, PA), Teresa M. Lee, MD, MS (New York, NY) & Michael P. Brewer, MS, CCP, FPP (New York, NY)
- 8:00am – 8:15am Everything and the Kitchen Sink:
Multimodal Mechanical Support in Two Unique Patients
Michael P. Brewer, MS, CCP, FPP (New York, NY)
- 8:15am – 8:30am Temporary Devices in Single Ventricles
Alejandro J. Torres, MD (New York, NY)
- 8:30am – 8:45am Impella Use in the Adolescent Population
Dafne Chianella, CCP (Charleston, SC)
- 8:45am – 9:00am Neuro Protection on CPB: What “Matters”
Tami M. Rosenthal, BS, MBA, CCP, LP, FPP (Philadelphia, PA)
- 9:00am – 9:15am Mini Circuits and Mini MUF:
Keep the Volume in the Baby!
Kevin Charette, CCP (Seattle, WA)
- 9:15am – 9:30am Weaning, End of Life Care & the Ethics of Ventricular Assist Devices
Roxanne Kirsch, MD, MBE (Toronto, Canada)
- 9:30am – 10:00am Panel Discussion
- 10:00am – 10:45am Break, Vendor Exhibits & Digital Posters
- 10:45am – 1:00pm Regular Slide Presentations #3**
Moderators: Tarif A. Choudhury, MD (New York, NY) & Ganga Krishnamurthy, MD (New York, NY)
9 abstracts will be selected for a 15 minute slide presentation (10 minute presentation + 5 minute discussion)
- 1:00pm – 1:05pm Closing Remarks
Paul J. Chai, MD, Sabrina Law, MD and Akif Ündar, PhD

Conference Co-Chairs:

Akif Ündar, PhD

Professor of Pediatrics, Surgery, and Bioengineering, Penn State College of Medicine, Penn State Children's Hospital, Founder & Director, Penn State Hershey Pediatric Cardiovascular Research Center, Founder & President, International Society for Pediatric Mechanical Cardiopulmonary Support

Paul J. Chai, MD

Surgical Director, Pediatric Cardiac Transplantation and Mechanical Assistance Programs, NYP/Morgan Stanley Children's Hospital; Associate Professor of Surgery at CUIMC, NYP/Columbia University Irving Medical Center

Sabrina Law, MD

Medical Director of the Pediatric Ventricular Assist Device (VAD) Program, NYP/Morgan Stanley Children's Hospital; Assistant Professor of Pediatrics at CUIMC, NYP/Columbia University Irving Medical Center

Key Note Lecturers:

Iki Adachi, MD, Texas Children's Hospital

Linda J. Addonizio, MD, NYP/Morgan Stanley Children's Hospital

David L.S. Morales, MD, Cincinnati Children's Hospital Medical Center

Joseph Rossano, MD, MS, FAAP, FACC, Children's Hospital of Philadelphia

Invited Speakers:

Christopher Almond, MD, Stanford Children's Health

Scott I. Aydin, MD, FAAP, Kravis Children's Hospital at Mount Sinai

Kevin Charette, CCP, Seattle Children's Hospital

Jonathan M. Chen, MD, Children's Hospital of Philadelphia

Sharon F. Chen, MD, Stanford Children's Health

Dafne Chianella, CCP, Medical University of South Carolina

Jennifer Conway, MD, University of Alberta

Roxanne Kirsch, MD, MBE, Hospital for Sick Children

Angela Lorts, MD, Cincinnati Children's Hospital Medical Center

Katsuhide Maeda, MD, Stanford Children's Health

D. Michael McMullan, MD, FACS, Seattle Children's Hospital

Jack F. Price, MD, Texas Children's Hospital

Mark D. Rodefeld, MD, Indiana University School of Medicine

Tami M. Rosenthal, BS, MBA, CCP, LP, FPP, Children's Hospital of Philadelphia

Ravi Thiagarajan, MD, MPH, Boston Children's Hospital

Christina J. VanderPluym, MD, Boston Children's Hospital

Local Faculty:

Dana Apsel, MS, CCP, LP, NYP/Columbia University Irving Medical Center

Emile Bacha, MD, FACS, NYP/Morgan Stanley Children's Hospital

Michael P. Brewer, MS, CCP, FPP, NYP/Columbia University Irving Medical Center

Eva Cheung, MD, NYP/Morgan Stanley Children's Hospital

Tarif A. Choudhury, MD, NYP/Morgan Stanley Children’s Hospital
David M. Kalfa, MD, PhD, NYP/Morgan Stanley Children’s Hospital
Ganga Krishnamurthy, MD, NYP/Morgan Stanley Children’s Hospital
Damien J. LaPar, MD, MSc, NYP/Morgan Stanley Children’s Hospital
Teresa M. Lee, MD, MS, NYP/Morgan Stanley Children’s Hospital
William Middlesworth, MD, NYP/Morgan Stanley Children’s Hospital
Yoshifumi Naka, MD, PhD, NYP/Columbia University Irving Medical Center
Marc E. Richmond, MD, MS, NYP/Morgan Stanley Children’s Hospital
Arthur J. Smerling, MD, NYP/Morgan Stanley Children’s Hospital
Koji Takeda, MD, PhD, NYP/Columbia University Irving Medical Center
Alejandro J. Torres, MD, NYP/Morgan Stanley Children’s Hospital
Warren Zuckerman, MD, NYP/Morgan Stanley Children’s Hospital

Important Dates

February 7, 2019	<i>Deadline for abstract submission</i>
February 11, 2019	<i>Notification of accepted abstract</i>
March 7, 2019	<i>Early registration ends</i>
March 29, 2019	<i>Final day for manuscript submissions being considered for conference awards</i>
May 7, 2019	<i>Late registration ends</i>
May 8–11, 2019	<i>On-site registration (only if space is available)</i>

Meeting Location & Travel Information

NYP/Columbia University Irving Medical Center
Vivian and Seymour Milstein Family Heart Center
173 Fort Washington Avenue, First Floor
New York, NY 10032

SUBWAY

Take the A or C lines to 168th Street – Washington Heights/Broadway

PARKING

Parking is available at the NYP/Columbia University Irving Medical Center parking garage, located on the southwest corner of Fort Washington Avenue and West 165th Street. Parking fee is NOT included with registration.

Valet parking is available at the entrance of the Milstein Hospital Building located at 177 Fort Washington Avenue.

HOTELS

For a listing of local area hotels, visit:
www.ColumbiaSurgeryCME.org and select *The 15th International Conference on Pediatric Mechanical Circulatory Support Systems & Pediatric Cardiopulmonary Perfusion*.

Registration Categories & Fees

Early registration (ends March 7, 2019)

\$500 – MD, PhD

\$400 – RN, CCP, NP, PA & Respiratory Therapists

FREE – Students, Residents & Fellows

Late Registration (ends May 7, 2019)

\$600 – MD, PhD

\$500 – RN, CCP, NP, PA & Respiratory Therapists

FREE – Students, Residents & Fellows

On-site Registration (if space is available)

\$700 – MD, PhD

\$600 – RN, CCP, NP, PA & Respiratory Therapists

FREE – Students, Residents & Fellows

How to Register

ONLINE:

To make an online credit card payment please visit:

www.ColumbiaSurgeryCME.org.

For security purposes, credit card payments cannot be accepted in the mail or by phone. American Express, Discover, MasterCard and Visa only.

BY MAIL:

Complete the registration form and mail together with full payment to:

Columbia University Irving Medical Center

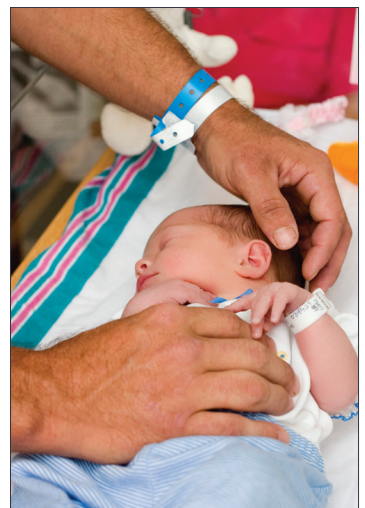
Department of Surgery, CME Office

Attention: Jessica Mead

400 Kelby Street, 9th Floor

Fort Lee, NJ 07024

Enclose a check or money order made payable to: Columbia University Department of Surgery/15th International Symposium. Checks must be in U.S. dollars drawn on a U.S. bank.



Registration

The 15th International Conference on Pediatric Mechanical Circulatory Support Systems & Pediatric Cardiopulmonary Perfusion

Space is limited, early registration is highly encouraged

Early registration (ends March 7, 2019)

- ☐ \$500 – MD, PhD
- ☐ \$400 – RN, CCP, NP, PA & Respiratory Therapists
- ☐ FREE – Students, Residents & Fellows

Late Registration (ends May 7, 2019)

- ☐ \$600 – MD, PhD
- ☐ \$500 – RN, CCP, NP, PA & Respiratory Therapists
- ☐ FREE – Students, Residents & Fellows

On-site Registration (if space is available)

- ☐ \$700 – MD, PhD
- ☐ \$600 – RN, CCP, NP, PA & Respiratory Therapists
- ☐ FREE – Students, Residents & Fellows

Please print or type

First Name	M.I.	Last Name	Degree(s)
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Company/Affiliation

Address

City	State	Zip
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Daytime Phone	Daytime Fax	E-mail (required for confirmation purposes)
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Specialty	Special Needs (specify accommodations needed)
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Attendee Signature	Date
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PLEASE NOTE: Registration is limited and will be handled on a first-come, first-served basis. Telephone registrations and/or cancellations cannot be accepted. Refund of registration fee, less a \$50 administrative charge, will be made if written notice of cancellation is received by April 25, 2019.

Columbia University Irving Medical Center
Department of Surgery, CME Office
400 Kelby Street, 9th Floor
Fort Lee, New Jersey 07024

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