Program Overview:

The UPMC Procirca Adult ECLS Training Course is a 3.5-day course designed for health care professionals interested in a foundational education in the care of the adult ECLS patient. Course content includes lecture on topics ranging from understanding the components of the ECLS circuit, patient selection, cannulation strategies, management of various ECLS patient groups to weaning and decannulation. Panel discussions with ECLS experts from UPMC will allow for exploration of topics including complex patient management as well as the more practical concerns related to creating and maintaining a successful ECLS program. Lecture will be supported with 12 hours of simulation-based learning, including ECLS circuit basics, a high-fidelity ECLS cannulation simulation, handling ECLS emergencies, and high-fidelity case simulation scenarios to help develop patient management and troubleshooting skills. Hands on time with multiple ECLS systems will be available.

This course has been designed to follow the ELSO Guidelines for Training and Continuing Education for adult ECMO Specialists.

In support of improving patient care, the University of Pittsburgh is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME) and the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physicians
The University of Pittsburgh School of Medicine designates this live activity for a maximum of 24.5 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Other health care professionals
Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity. Perfusionists: This course has been approved by the American Board of Cardiovascular Perfusion for 29.2 Category I CEUs.
Course Objectives:

Upon completion of the course, learners should be able to:

- Understand basic principles of ECLS
- Identify indications and contraindications for ECLS support in the adult patient
- Have a foundational understanding of the function of the components of the ECLS circuit
- Understand concerns of managing patients on ECLS
- Describe complications that may occur while on ECLS support
- Understand the cannulation, weaning and decannulation of the ECLS patient
- Respond to the most common ECLS emergencies
- Demonstrate ECLS knowledge in high fidelity simulation scenarios

The information presented at this CME program represents the views and opinions of the individual presenters, and does not constitute the opinion or endorsement of, or promotion by, the UPMC Center for Continuing Education in the Health Sciences, UPMC / University of Pittsburgh Medical Center or Affiliates and University of Pittsburgh School of Medicine. Reasonable efforts have been taken intending for educational subject matter to be presented in a balanced, unbiased fashion and in compliance with regulatory requirements. However, each program attendee must always use his/her own personal and professional judgment when considering further application of this information, particularly as it may relate to patient diagnostic or treatment decisions including, without limitation, FDA-approved uses and any off-label uses.

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UPMC Presbyterian Hospital

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Stephen Winowich
President, UPMC Procirca
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We gratefully acknowledge support from the following for this activity:

Exhibitors:

Tandem Life | LivaNova

Abbott

Medtronic
Course Agenda

Day One: Wednesday November 6, 2019

0700 - 0800  Registration and Breakfast

0800 - 0830  Welcome and Overview of Course
   Michael Anselmi CCP

0830 - 0900  Physiology of ECLS
   Brian Rosborough MD

0900 - 0930  Indications/Contraindications for Adult ECLS, Patient Selection Criteria
   Penny Sappington MD

0930 - 0945  BREAK

09:45 - 1015  Management of the Cardiogenic Shock Patient
   Christopher Sciortino MD

1015 - 1100  Cannulation
   Pablo Sanchez MD

1100 - 1200  LUNCH

1200 - 1300  Management of the Respiratory Failure Patient
   Penny Sappington MD

1300 - 1330  Principles of ECLS circuit, Components and Design
   Brandon D’Aloiso CCP

1330 - 1345  BREAK

Hands on Learning: ECLS Circuit and Cannulation Basics: Visit 4 stations for 45 min each

1345 - 1430  Station 1: Centrimag
   Wendy James CCP

1430 - 1515  Station 2: CardioHelp
   Danielle Freeman CCP

1515 - 1525  BREAK

1525 - 1610  Station 3: Basic Cannulation Workshop
   Penny Sappington MD, Brandon D’Aloiso CCP, Michael Anselmi CCP

1610 – 1655  Station 4: Rotaflow
   Ryan Dzadony CCP

1700  ADJOURNMENT DAY ONE
Day Two: Thursday November 7, 2019

0700 - 0800  Breakfast

0800 - 0845  Anticoagulation
*Penny Sappington MD*

0845 - 0915  Case Study
*Ryan Rivosecchi PharmD*

0915 - 0945  Daily Management of the ECLS Circuit by the ECLS Specialist
*Brandon D’Aloiso CCP*

0945 - 1000  BREAK

1000 - 1030  Daily Patient Management of the ECLS Patient by the Bedside RN
*Jenifer Rabuck RN, BSN*

1030 - 1100  Transport on ECLS
*David Palmer EdD, CCP*

1100 - 1115  Intro to Simulation
*Michael Anselmi CCP*

1115 - 1215  LUNCH

**Hands on Learning:** Visit each of the 4 stations for 60 min each.

1215 - 1315  Station 1: Circuit Checks and Daily Maintenance
*Danielle Freeman CCP, Megan Bayley RN, BSN*

1315 - 1415  Station 2: Pressures 101/CRRT
*Peter Arlia CCP, Jenifer Rabuck RN, BSN*

1415 - 1430  BREAK

1430 - 1530  Station 3: Cannulation and Initiation of ECLS
*Penny Sappington MD, Brandon D’Aloiso CCP, Michael P. Anselmi CCP*

1530 - 1630  Station 4: Mechanical Circulatory Support - Temporary VADS
*Oriana Hunter, MD, PhD*

1630  ADJOURNMENT DAY TWO
Day Three: Friday November 8, 2019

0700 - 0800  Breakfast
0800 - 0830  Ethical Concerns
             Richard Weinberg MD
0830 - 0900  Mechanical and Medical Emergencies: Troubleshooting on ECLS
             Peter Arlia CCP, LP
0900 - 0935  ECLS Outcomes
             Jane Guttendorf DNP
0935 – 0945  BREAK
0945 - 1030  Hybrid ECLS
             Penny Sappington MD
1030 - 1100  Financial Impact of ECLS
             Robert Dyga CCP Emeritus
1100 - 1200  LUNCH

High Fidelity Simulation Sessions – Visit each of the 4 stations for 60 min each.

1200 - 1300  Station 1:
             Case Simulation 1 – Oxygenator Failure/Changeout
             Danielle Freeman CCP, Ryan Dzadony CCP
1300 - 1400  Station 2:
             Case Simulation 2 – Air Entrainment /Circuit Changeout
             Melissa Grayson CCP, Wendy James CCP
1400 - 1415  BREAK
1415 - 1515  Station 3:
             Case Simulation 3 – Hybrid ECLS
             Penny Sappington MD, Brandon D’Aloiso CCP, Michael Anselmi CCP
1515 – 1615  Station 4: Mechanical Circulatory Support - Durable VADS
             Oriana Hunter MD, PhD
1615  ADJOURNMENT DAY THREE
1700 – 1900  Vendor Reception
Day Four: Saturday November 9, 2019

<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>0700 - 0800</td>
<td>Breakfast</td>
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| 0800 - 0830 | Rehabilitation on ECLS  
  *Melissa Grayson CCP*                           |
| 0830 – 0900 | Case Report  
  *Wendy James CCP*                                        |
| 0900– 0930 | ECLS Program Structure and QI  
  *Melissa Grayson CCP*                                      |
| 0930 – 1000 | Case Report  
  *Daniel Rowan, MD*                                           |
|          | **High Fidelity Simulation Sessions – Visit each of the 3 stations for 45 min each.** |
| 1000 - 1045 | **Station 1: Pump Failure**  
  *Ryan Dzadony CCP, Wendy James CCP*                           |
| 1045 - 1130 | **Station 2: ECLS Transport**  
  *Melissa Grayson CCP, Danielle Freeman CCP*                 |
| 1130 - 1230 | LUNCH                                                                  |
| 1230 - 1315 | **Station 3: VA ECLS Scenario**  
  *Penny Sappington MD, Brandon D’Aloiso CCP*               |
| 1315 - 1400 | **Station 4: TandemLife Demonstration**  
  *Michael Anselmi, CCP*                                    |
| 1400 | COURSE ADJOURNMENT, Q&A                                                 |