

## Coordination:

**Mirjana Cvetkovic (pediatrics)**

[illegible]

<b>EuroELSO/EBCP join workshop with European Board of Cardiovascular Perfusion</b>		1a. Understand how and when to hand crank, difference between hand crank and back up pump. 1b. Identify air embolism and accidental decannulation and know first steps in trouble shooting. 1c. Recognize and resolve drainage problem. 2a. Understand how to spot and recognize the early signs of oxygenator failure. 2b. Learn how to check the whole system, and spot the difference between air supply and oxygenator failure	26 April 2024 Friday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	max 15 students
<b>Dark squared discovery:</b> <b>Mechanical ventilation during ECMO</b> - Simulation of PV Loops - Simulation of oesophageal and transpulmonary pressure	Luigi Camporota; London, UK Domenico Grieco; Rome, Italy	To understand bedside and advanced techniques of respiratory monitoring and targets for lung protective ventilation: Concepts of compliance, elastance, normalized elastance and specific elastance; Driving pressure to set tidal volume; Pitfalls of driving pressure (AOP, Inspiratory time) <b>Simulation (1) PV Loops</b> - Meaning of pressure volume curve inspiratory/ expiratory): lung hysteresis - Hysteresis to evaluate alveolar recruitment and PEEP - Airway closure and airway opening pressure - Recruitment-to-inflation ratio to assess recruitability <b>Simulation (2) Oesophageal &amp;transpulmonary pressure</b> - How to measure it at the bedside: oesophageal pressure monitoring and catheter placement - Meaning of Pes measurement: vertical gradient and transpulmonary pressure heterogeneity in the lungs: elastance-derived vs. direct methods. - How to establish the upper limit of ventilation: elastance-derived end-inspiratory transpulmonary pressure - How to (possibly) set peep: end-expiratory transpulmonary pressure.	25 April 2024 Thursday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	2.003
			26 April 2024 Friday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	max 15 students
<b>Capturing on the edge:</b> <b>Tips and pitfalls in ultrasound guided ECMO cannulation</b>	Tobias Wengenmayer, Dawid Staudacher, Alexander Supady, Asieb Sekandarzad Freiburg, Germany	The participants should get a good overview of the safe cannulation using ultrasound guidance with focus on the right jugular insertion of dual lumen cannula. Demonstration, practical guidance, and simulation of ultrasound-guided cannulation for V-V and V-A ECMO with single- and double-lumen cannulae, jugular and inguinal access with focus on echocardiographic guidance and tricks for the implantation of double-lumen cannula. Criteria and requirements for successful jugular cannulation. Potential periinterventional complications will be explained and complication management will be practiced during the sessions. Finally, replacement strategies for relocation of dislocated cannulas during ongoing ECMO support will be trained. High-end simulators will allow training close to real-life conditions. All participants should be able to understand benefits, caveats, and challenges of different cannulation strategies; participants with prior experience in ECMO cannulation will be able to adopt the strategies for their clinical practice.	25 April 2024 Thursday	11:45-12:45 12:45-13:45	2.004
			26 April 2024 Friday	12:45-13:45	max 15 students

<b>In between the destinations: Renal replacement (CRRT) and plasmapheresis during ECMO</b>	Jo-anne Fowles + 4 Trainers	Through theoretical presentation and simulation provide an understanding of CRRT/plasmapheresis during ECMO <ul style="list-style-type: none"><li>• indications for connecting CRRT/plasmapheresis to the ECMO circuit</li><li>• Demonstrate through simulation safe connection and disconnection</li><li>• Discuss complications and challenges of different approaches.</li><li>• Discuss prevention and troubleshooting of complications</li><li>• Identify indications for connecting CRRT/ plasmapheresis to the ECMO circuit</li><li>• Demonstrate safe connection and disconnection</li><li>• Understand the complications and challenges of different approaches.</li><li>• Understand prevention and troubleshooting of complications in the clinical area</li></ul>	25 April 2024 Thursday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	2.005
			26 April 2024 Friday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	max 15 students
<b>Interfering with the disappearing pieces: Managing complications during V-A ECMO for cardiac support</b>	Chris Meadows, Dan Taylor, Peter Sherren, Nicholas Ioannou, Stephen Tricklebank, Kathleen Daly, Nicola Agnew, Nigel Gooby, Janine Bulmer; London, UK	Participants will achieve a greater understanding of peripheral V-A ECMO circuit anatomy including retrograde blood flow, how to run peripheral V-A ECMO safely, to recognise when complications are occurring, and how to successfully manage them. Appreciation of clinical features, recognition of complications, symptomatology, and management options. Tutorial on complications of V-A ECMO: - Differential hypoxemia (Harlequin Syndrome): clinical features, causes, how to diagnose, and management options - LV distension: clinical features, causes, how to diagnose, and management options Opportunity to take part in simulation scenario to consolidate learning through direct experience and/or debriefing	25 April 2024 Thursday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	2.006
			26 April 2024 Friday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	max 15 students
<b>Capturing the trapped piece: Refractory hypoxemia during V-V ECMO for respiratory support</b>	Ibrahim Fawzy Hassan, Ali Ait Hssain, Nadir Kharma, Arzak Ahmad Doha, Qatar	This workshop provides a systematic approach how to recognize patient / ECMO interactions which may lead to severe hypoxemia on V-V ECMO. This workshop entails theoretical part combined with immersive high-fidelity simulation followed by debriefing on refractory hypoxemia on V-V ECMO. To define "hypoxemia" on V-V ECMO, to review the notions of oxygen transport and oxygen delivery, to understand the physiology of refractory hypoxemia on V-V ECMO, to assess a patient by using a systematic approach for refractory hypoxemia, to consider all the possible aetiologies of persisting hypoxemia while on V-V ECMO, to apply all the potential interventions to correct the persisting, refractory hypoxemia	25 April 2024 Thursday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	2.007
			26 April 2024 Friday	10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	max 15 students
<b>Virtual ECMO simulation experience – interfering with the future dreams and reality</b>					
<b>Simulate and cannulate in 3D: virtual ECMO model and digital twins</b>	Richard Tallman, Dave Machin, Irada Tews, Colin Ummerle, Simon Sonntag, Moritz Jung, Hans Seiler	Immersive, three-dimensional experience of ECMO cannulation perceived through a virtual reality device and transformation into augmented reality. The user will perform an ECMO cannulation in a computer-generated ICU environment with scenes and objects that appear in a simulated 3D environment that enables users to explore and interact with a virtual surrounding in a way that approximates reality, as it is perceived through the users' senses.	25 April 2024 Thursday	Both days: 10:30-11:30 11:45-12:45 12:45-13:45 14:00-15:00	2.017 - 2.018
			26 April 2024 Friday		max 25 students

<b>Let's learn hemodynamic with Harvi</b>  <b>Session 1: (25. April) V-A ECMO and loss of pulsatility:</b> the underlying physiology that informs management strategies with focus on the impact of V-A ECMO on LV function and explore strategies for addressing LV distension.  <b>Session 2: (26. April) Complex cases: BiVentricular failure and ischemic VSD:</b> explore the physiology of complex conditions, such as biventricular failure and mechanical support for the patient with an ischemic VSD.	Matteo DiNardo, Rome, Italy Marc L. Dickstein, USA	<b>Background:</b> Harvi is a set of online textbooks and a cardiovascular/pulmonary simulator that has been in development for over 30 years for research and education (harvi.online). The Harvi platform is currently used in an interactive program (TEACH, Training and Education in Advanced Cardiovascular Hemodynamic) for training in basic and advanced cardiac pathophysiology, Participants are encouraged to bring laptop computers and will be given detailed instructions and guided through specific scenarios to explore the hemodynamic seen in patients supported with many cannulation strategies, concurrent secondary devices, and a myriad of underlying (and rapidly changing) cardiopulmonary pathophysiologic conditions.	25 April 2024 Thursday	Session 1 11:45-12:45	2.015 - 2.016   
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<b>Help! Air in the ECMO circuit</b>	Sylvia Belda, Peter Roeleveld, GiacomCavallaro, Andrea Moscatelli, Poonam Malhotra, Victoria Molyneux, Francesc Torres, Maura O'Callaghan, Mirjana Cvetkovic		26 April 2024 Friday	12:45-13:15	VIP Room
<b>ECMO air transport</b>	Lisa Carson Price, Lars Mikael Broman, Sylvia Belda, Chris Harvey, Marisa Vieira, Arianne Willems, Giacomo Cavallaro, Stepan Maruniak, , Luca Marchetto, Alvise Tosoni, Maura O'Callaghan, Mirjana Cvetkovic		26 April 2024 Friday	14:00-15:00	VIP Room

**" Come with me where dreams are born, and time is never planned!" *Peter Pan***

Educational Corners are situated on 2<sup>nd</sup> floor backstage area 

Pass the exhibition foyers, up the stairs while having a view on Krakow castle and head to Chamber Hall and hall 4.



Signs will guide you to the Educational Corner's area at lobby 2 



Coffee will be available during all corner sessions 