

# 11th Adult ECMO Training Course Regensburg 2025

15 September – 19 September 2025

[www.ecmo-regensburg.de](http://www.ecmo-regensburg.de)

SPITZE IN DER MEDIZIN.  
MENSCHLICH IN DER BEGEGNUNG.



ECMO-Center University Hospital Regensburg

## 11th ECMO Training Course Regensburg

15.09. – 19.09. 2025

Lecture Theatre A2 (Entrance West)

Dear Colleagues,

extracorporeal life support (ECLS) has by now globally become an accepted therapeutic option for many critically ill patients. We are confident that well managed ECMO can save lives in severe circulatory and respiratory failure in all age groups. While many consider this new technology as the most important innovation in modern Intensive Care Medicine, recent randomized controlled trials also have raised new questions.

ECMO technique is complex, and patients, who need ECMO, are generally in a life-threatening condition. To successfully use ECMO in clinical practice, training and experience are indispensable. Both the knowledge of physiology and efficiency of ECMO, but also of potential complications is needed. Selection of patients, who potentially may profit from extracorporeal support is not easy. Therefore, since 2018 we offer national and international training courses on ECMO in Regensburg. These courses have been endorsed by ELSO and receive support by the German medical societies DIVI, DGfK and DGTHG.

The course will include both lectures in the morning and simulation, hands-on and discussions in the afternoon. It shall be an introduction into ECMO therapy in Critical Care today, embedded within state-of-the-art conventional treatment, which will cover both respiratory and circulatory support for adult patients. The main target audience are physicians and perfusionists already involved with ECMO; for nurses a separate course is offered. A printed and electronic script in combination with the ELSO Red Book will supplement the course and allow ongoing training.

On Wednesday we again will include an Evening Symposium called "ECMO - State of the Art 2025", where our international faculty will present their thoughts and experiences on controversial topics relevant for clinical practice.

Regensburg had hosted the 4th international congress of the EuroELSO ten years ago with participants from 65 different nations. Historically, our city was an important mediaeval trading center and served as a bridge from South to North and West to East. In 2006 it was declared a World Heritage Site, and you will surely enjoy the beauty of our Old City in the evenings.

We are looking forward to cordially welcome you in Regensburg,

Thomas Müller  
Dirk Lunz

Matthias Lubnow  
Maik Foltan

Alois Philipp  
Georg Trummer

ECMO Centers Regensburg and Freiburg



## Monday, 15.09.

		Entrance West	
8:00 – 8:30		Registration	
8:30 – 8:45	Müller T	Lecture Theatre A2 Welcome and introduction	
8:45 – 9:05	Müller T	Basics 1: history of ECMO and ELSO	
9:10 – 9:35	Philipp A	Basics 2: technique of ECMO - oxygenator, pump, cannula	
9:40 – 10:00	Donker D	Basics 3: Physiology of gas transfer	
10:05 – 10:30	Foltan M	Maintenance of oxygenator and pump, indications for exchange	
10:30 – 11:00	Coffee Break		
11:00 – 11:25	Lubnow M	Conventional therapy of ARDS	
11:30 – 11:55	Müller T	VV-ECMO in severe ARDS: indications, contra-indications, initiation	
12:00 – 12:25	Malfertheiner M	ECCO2R in clinical practice 2025	
12:30 – 12:55	Müller T	Mechanical ventilation on VV-ECMO	
13:00 – 14:00	Lunch Break		
14:00 – 16:00	<b>Kursraum 1</b>  <b>Group 1</b> <b>Simulation</b> Case scenarios and Trouble-Shooting <i>Malfertheiner M, Heinze J, Preiss A</i>	<b>Kursraum 2</b>  <b>Group 2</b> Management of Cannulas: tips and tricks <i>Wiest C, Lubnow M, Petermichl W, Heinrich M</i>	<b>ICU 93/B3 or ICU 97/C4</b>  <b>Group 3</b> Ward round <i>Dietl A, Müller T, Lunz D, Kees M</i>
16:00 – 16:30	Coffee Break		
16:30 – 18:30	<b>Kursraum 1</b>  <b>Group 2</b> <b>Simulation</b> Case scenarios and Trouble-Shooting <i>Malfertheiner M, Heinze J, Preiss A</i>	<b>Kursraum 2</b>  <b>Group 3</b> Management of Cannulas: tips and tricks <i>Wiest C, Lubnow M, Petermichl W, Heinrich M</i>	<b>ICU 93/B3 or ICU 97/C4</b>  <b>Group 1</b> Ward round <i>Dietl A, Müller T, Lunz D, Kees M</i>
20:00	Welcome Dinner in Town: “who is who”  Bischofshof, Krauterermarkt 3		

**Tuesday, 16.09.**

		Lecture Theatre A2	
8:30 – 8:55	Müller T	Cannulation for VV-ECMO and VA-ECMO: an overview	
9:00 – 9:25	Fisser C	Complications 1: leg ischemia, thrombosis, HIT	
9:30 – 9:55	Wiest C	Complications 2: bleeding and neurological problems	
10:00 – 10:25	Müller T	Hypoxemia on ECMO: what can be done? /Threshold for transfusion	
10:30 – 11:00	Coffee Break		
11:00 – 11:40	Vandenbriele C	Anticoagulation for ECMO: standards and alternatives, monitoring today	
11:45 – 12:10	Lubnow M	Weaning VV-ECMO, weaning failure and further options	
12:15 – 12:35	Fisser C	Quality assessment of an ECMO center: what is needed	
12:40 – 13:30	Lunch Break		
13:30 – 15:30	<div>Kursraum 1</div> <div>Group 3</div> <div>Simulation</div> <div>Case scenarios and Trouble-Shooting</div> <div>Malfertheiner M, Heinze J, Preiss A</div>	<div>Kursraum 2</div> <div>Group 1</div> <div>Management of Cannulas: tips and tricks</div> <div>Wiest C, Lubnow M, Petermichl W, Heinrich M</div>	<div>Kursraum 3</div> <div>Group 2</div> <div>E-CPR Simulation:</div> <div>Theory and practice</div> <div>Trummer G, Lunz D, Brixius S, Pooth S</div>
15:30 – 16:00	Coffee Break		
16:00 – 18:00	<div>Lecture Theatre A2</div> <div>Group 1</div> <div>Case discussions: how would you decide?</div> <div>Lubnow M, Philipp A</div> <div>Kursraum 1</div> <div>Group 1</div> <div>Hands-on: Priming, emergency management, trouble shooting</div> <div>Foltan M, Dembianny J</div>	<div>ICU 93/B3 or ICU 97/C4</div> <div>Group 2</div> <div>Ward round</div> <div>Wiest C, Müller T, Lunz D, Kees M</div>	<div>Kursraum 3</div> <div>Group 3</div> <div>E-CPR Simulation:</div> <div>Theory and practice</div> <div>Trummer G, Lunz D, Brixius S, Pooth S</div>
Evening	no obligations		

**Wednesday, 17.09.**

		Lecture Theatre A2	
8:30 – 8:55	Dietl A	Cardiogenic shock: an introduction	
9:00 – 9:25	Lubnow M	(Patho-) physiology of VA-ECMO	
9:30 – 9:55	Brechot N	VA-ECMO: indications, contra-indications, efficiency	
10:00 – 10:25	Lubnow M	Patient management on VA-ECMO 1: monitoring the organs and dialysis	
10:30 – 11:00	Coffee Break		
11:00 – 11:25	Brechot N	Patient management on VA-ECMO 2: hemodynamics and ventilation	
11:30 – 11:55	Staudacher D	Impella: indications and limits	
12:00 – 13:00	Broomé M	Enhancing our understanding: Case simulation with Aplysia	
13:00 – 14:00	Lunch Break		
14:00 – 16:00	Kursraum 1	Kursraum 2	Kursraum 3
	Meet the Industry: Getinge Proven and news: hands-on	Meet the Industry: Fresenius Proven and news: hands-on	Meet the Industry: Resuscitec Proven and news: hands-on
	xxx	yyy	zzz
	Meet the Industry: Medtronic Proven and news: hands-on	Meet the Industry: EuroSets Proven and news: hands-on	Meet the Industry: Life Motion Proven and news: hands-on
	Atrium, Lecture Theatre A2		
16:00 – 16:30	Coffee Break		
16:30 – 18:30	Lecture Theatre A2		
	Symposium: ECMO - State of the Art 2025		
	Moderation: Müller T, Lubnow M		
	Broome M Balik M Reuthner K/Dietl A Staudacher D Donker D Brechot N	Ventilation on VV-ECMO: rest the lung and promote healing Ventilation on VV-ECMO: preserve what can be kept open within safe limits A case of severe orthodeoxygenia and right heart failure Refractory cardiogenic shock: ECPELLA is the future Refractory cardiogenic shock: ECMO will do it if done well Severe capillary leakage on ECMO: reasons and remedies	
18:30 - 19:00	Get Together with Brezel and Beer		

**Thursday, 18.09.**

		Lecture Theatre A2	
8:30 – 8:55	Lunz D	E-CPR in IHCA and OHCA	
9:00 – 9:25	Trummer G	Post resuscitation treatment	
9:30 – 9:55	Müller T	Neuro prognostication and diagnosis of brain death on ECMO	
10:00 – 10:25	Trummer G	Post-cardiotomy ECMO and mechanical cardiac assist devices	
10:30 – 11:00	Coffee Break		
11:00 – 11:25	Dietl A	ECMO in the Cath Lab	
11:30 – 11:55	Balik M	Ultrasound and ECMO	
12:00 – 12:25	Müller T	Unloading the left ventricle: when and how?	
12:30 – 13:00	Donker D	Weaning from VA-ECMO, weaning-failure and further options	
13:00 – 14:00	Lunch Break		
14:00 – 16:00	<b>Kursraum 3</b>  <b>Group 3</b> Hands-on: Priming, emergency management, trouble shooting <i>Foltan M, Dembianny J</i>	<b>ICU 90/C2</b>  <b>Group 2</b> Proning on ECMO: practical aspects <i>Steinmann J and Team 90, Hoibl E, Schettler F</i>	<b>Kursraum 2</b>  <b>Group 1</b> <b>E-CPR Simulation:</b> Theory and practice <i>Trummer G, Lunz D, Brixius S, Pooth S</i>
	<b>Kursraum 3</b>  <b>Group 2</b> Hands-on: Priming, emergency management, trouble shooting <i>Foltan M, Dembianny J</i>	<b>ICU 90/C2</b>  <b>Group 3</b> Proning on ECMO: practical aspects <i>Steinmann J and Team 90, Hoibl E, Schettler F</i>	
16:00 – 16:30	Coffee Break		
16:30 – 17:30	<b>Kursraum 3</b>  <b>Group 2</b> Case discussions: how would you decide? <i>Müller T, Lubnow M</i>	<b>ICU 90/C2</b>  <b>Group 1</b> Proning on ECMO: practical aspects <i>Steinmann J and Team 90, Hoibl E, Schettler F</i>	<b>Lecture Theatre A2</b>  <b>Group 3</b> Case discussions: how would you decide? <i>Lunz D, Philipp A</i>
from 18:00	<b>Cases, Questions, Discussions, Bavarian Beer and Food</b> <i>Müller T, Lubnow M, Dietl A</i>  Hubertushöhe, Wilhelm Raabe Str.1		

**Friday, 19.09.**

8:30 – 8:55	<i>Philipp A</i>	Complications 3: blood cell trauma and technical failure	Lecture Theatre A2
9:00 – 9:25	<i>Wiest C</i>	Long-term outcome: what can be expected	
9:30 – 9:55	<i>Broome M</i>	Ethical challenges in ECMO therapy	
10:00 – 10:25		Questions and discussion	
10:30 – 11:00	<b>Coffee Break</b>		
11:00 – 11:25	<i>Müller T</i>	ECMO in septic shock and massive pulmonary embolism	
11:30 – 11:55	<i>Lubnow M</i>	Hybrid ECMO: when, which, what problems?	
12:00 – 12:25	<i>Birkeneder M, Philipp A</i>	Transport on ECMO	
12:30 – 13:00	<i>Müller T</i>	Summary and review of the most Important	
13:00 – 14:00	<b>Lunch Break and group photo</b>		
14:00 – 14:30	Knowledge Assessment <i>Lubnow M, Lunz D, Philipp A, Müller T.</i>		Lecture Theatre A2
14:30 – 15:00	Course Evaluation, final discussion <i>Lubnow M, Lunz D, Philipp A, Müller T.</i>		Lecture Theatre A2
15:00	<b>Coffee Break and Fare Well</b>		

**Faculty:**

Prof. Dr. Martin Balik, Dept. of Anaesthesia and Intensive Care, 1st Medical Faculty, Charles University, Prague

Dr. Melanie Birkeneder, Department for Anesthesiology, University Hospital Regensburg

Prof. Dr. Nicolas Brechot, Médecine Intensive-Réanimation, AP-HP.Centre – Université Paris Cité, France

Dr. Sam Brixius, University Hospital Freiburg, Germany

Prof. Dr. Michael Broomé, ECMO ICU, Karolinska University Hospital, Stockholm, Sweden

Jan Dembianny, Perfusion Department, Department for Cardio-thoracic Surgery, UK Regensburg

PD Dr. Alexander Dietl, Department for Internal Medicine II, University Hospital Regensburg

Prof. Dr. Dirk Donker, Department of Biomedical Imaging & Sensing (BIS), TechMed Centre | Faculty of Science & Technology | University of Twente

Prof. Dr. Christoph Fisser, Clinic for Pulmonology Donaustauf, Germany

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Alois Philipp, University Hospital Regensburg

Dr. Steffen Pooth, University Hospital Freiburg, Germany

Dr. Adrian Preiss, Department for Nephrology, University Hospital Regensburg

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Prof. Dr. Dawid Staudacher, Interdisciplinary Center for Intensive Care Medicine, University Hospital Freiburg, Germany

Dr. Johannes Steinmann, Department for Surgery, University Hospital Regensburg

Prof. Dr. Georg Trummer, University Cardiac Center, Freiburg-Bad Krozingen

Prof. Dr. Christophe Vandenbriele, Cardiovascular Center Aalst, Belgium and Royal Brompton/Harefield Hospitals, London

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