



NEWSLETTER

Message from the President

Welcome to the June 2024 ELSO newsletter.

The 12th EuroELSO conference in Krakow, Poland, was an unqualified success and we would like to extend our thanks to the organizing committee, in particular Dr Konstanty Szuldrzynski.



IN THIS ISSUE

President 's Message	1
Conferences	3
Committee Roundup	4
Member Spotlight	9
FELSO & Communities	11
Bedside with Bartlett	12
Chapter Updates	13
ELSO Updates & CEO Remarks	16

During his opening address, Dr Szuldrzynski acknowledged and thanked the people of Ukraine, some of whom spoke at the conference about their experiences in the war to the east. As I followed him onto the podium, I felt compelled to acknowledge the evil of this war, the largest in Europe since 1945. Despite its beauty and culture, Krakow is inextricably caught up in the history of World War II, being only an hour's drive east of the Nazi death camp at Auschwitz.

Before the conference began, some colleagues suggested that I accompany them to visit Auschwitz. I was very ambivalent because gawping at the site of such an overwhelming atrocity might be a disservice to the memory of one and a half million people who were murdered there. In hindsight, two comments mitigated my concerns. One was made by Giles Peek,

"No," he said. "We must bear witness to what happened."

The other was made by our guide,

"Auschwitz is not a tourist attraction, it is a mass grave,"

a point driven home when walking through the entrance gates with the words 'Arbeit Macht Frei' above them, surely a cruel joke by the SS.

Her comment set the tone for a visit which I am still struggling to deal with. Walking through the stone huts where young children were stuffed five to a bed before being killed is an experience impossible to articulate.

What does all this have to do with ELSO and ECMO?

It is a reminder. ELSO is not a political organization but a medical one, committed only to healing the sick irrespective of their creed or color. Amidst the ruins of Auschwitz-Birkenau, we are reminded of this anew and given a fresh sense of purpose.

Again, Giles summed it up well as we left,

"I've never been so glad to see something I hated so much."

The words of Scotland's national poet, Robert Burns, are also often quoted,

"... Man's inhumanity to man,

Makes countless thousands mourn."

But nothing anyone has to say can adequately frame what happened there. All we can do is everything in our power to ensure that it never happens again.

Graeme MacLaren, President, ELSO





CONFERENCES



35th Annual ELSO Conference

Location: Huntington Place, Detroit, MI

Dates: September 28th - October 1st, 2024

Ann Arbor 35th Anniversary Event: October 2nd, 2024

Registration Information:

https://web.cvent.com/event/dd3b3aaa-5f8b-4677-bc04-4c8339df04f8/summary_



6th LATAM Conference

Location: Buenos Aires Argentina

Dates: November 14th - November 16th, 2024

Registration Information: <http://www.elsolatam2024.org>



11th Annual SWAAC ELSO Conference

Location: Conrad at Etihad Towers, Abu Dhabi, UAE

Dates: February 6th - February 8th, 2025

Pre-Conference Workshop: February 4th - February 5th, 2025

Registration Information: <https://swaacelso2025.com/>



13th Annual EuroELSO Conference

Location: Milan, Italy

Dates: April 23rd - April 26th, 2025

The latest information on ELSO & Collaborative Meetings can be found [here](#).

COMMITTEE ROUNDUP

ELSO Conference Committee

Preparations for the 35th Annual ELSO conference in Detroit are well underway. The Conference Committee has been hard at work, and we look forward to showcasing their efforts during this impactful four-day event.

Exciting plans are in progress for our 35th Anniversary Celebration in Ann Arbor on October 2nd! Our lineup includes various speakers reflecting on our organization's rich history, originating from Dr. Bartlett's significant contributions to the field. To narrate this tale, we will host a panel discussion covering diverse topics such as the early days of ECMO from a global perspective, past and upcoming clinical trials, industry advancements, and the evolution of ELSO as an organization. The celebration will take place at the significant Rackham Auditorium, a picturesque venue on the University of Michigan campus.

We look forward to welcoming you to Detroit and Ann Arbor this upcoming Fall. Please visit our [conference website](#) for further details on registering for all conference activities!



Rackham Auditorium in Ann Arbor, MI

The latest information on ELSO & Collaborative Meetings can be found [here](#).

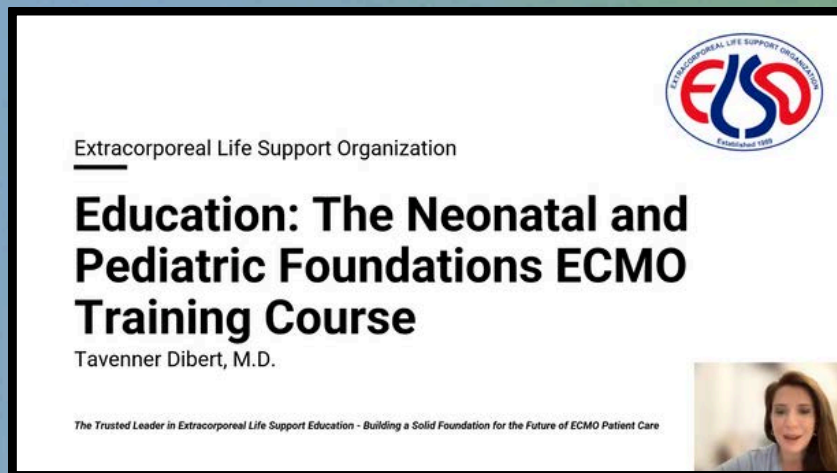


Education Committee/ELSO Academy

ELSO Foundations

The ELSO Foundations: Adult ECMO Training Course is a self-paced program with 53 modules, covering over 80 learning objectives that focus on foundational concepts and clinical skills necessary for Adult ECMO. Over 1600 individuals have already participated in the ELSO Foundations Course.

Recently, the ELSO Education Committee conducted a webinar-style Neonatal and Pediatric Foundations Course on June 3rd. This session was a valuable opportunity for participants to build a strong foundation in neonatal and pediatric ECMO patient care skills. We are thrilled to announce that this content will soon be accessible as a self-paced course, similar to the Adult ECMO Training Course. Please stay tuned for future announcements regarding the release of this course!



ELSO – Adult ECMO Certification (E-AEC) Exam

ELSO has outlined standardized educational criteria and launched an online application process via ELSO Academy for ECMO clinicians who have demonstrated satisfactory completion of criteria listed on our website. This journey is designed to be inclusive of the entire ECMO interprofessional team. Certification is valid for three years; upon which time a renewal can be pursued to maintain certification. For additional information, please visit: <https://www.elseo.org/Education/certificationexam.aspx>



UPCOMING COURSES

ECMO Cannulation Workshop (1-Day Workshop)

Dates: June 21st, June 22nd and June 23rd, 2024

Location: ELSO Headquarters

Address: 3001 Miller Road Ann Arbor, MI, USA

ELSO Extracorporeal Membranous Oxygenation (ECMO) Neo/Peds Simulation Course

Dates: October 17th - 18th, 2024 (Session 1) October 19th - 20th, 2024 (Session 2)

Location: ELSO Headquarters

Address: 3001 Miller Road Ann Arbor, MI, USA

ELSO Extracorporeal Membranous Oxygenation (ECMO) Adult Simulation Course

Dates: November 7th-8th, 2024 (Session 1) November 9th-10th, 2024 (Session 2)

Location: ELSO Headquarters

Address: 3001 Miller Road Ann Arbor, MI, USA

2025 Course Dates will be announced soon!

All non-ELSO courses/events can be found [HERE](#).



Quality Committee - Award of Excellence



Applications for the Center for Excellence in Life Support and the Path for Excellence in Life Support wrapped up for this application cycle. Site visits are going on now for selected centers.

If you are thinking of applying for next year, please take a look at "[Before you apply](#)". We have developed a tool that should help any center review their program and how they may answer specific questions. Click [HERE](#) to find the "Award Evaluation and Improvement Tool".

Announcements for 2025 winners will be available in the coming months. Award recipients will be honored at the 35th Anniversary ELSO Conference in September 2024 at the Detroit Institute of Arts, rated the best art museum in the US for the 3rd year.

Publications Committee

ELSO has a growing list of publications available.

- New guidelines - always free and available to our community
- The ELSO Red Book - 6th Edition
- ECMO Specialist Training Manual - 4th Edition (5th Edition in development)
- ECPR and Resuscitative ECMO
- Post-Cardiotomy ECLS and other Temporary Mechanical Circulatory Supports in Adult Patients, with Roberto Lorusso as Senior Editor and a robust team of international authors.
- Neonatal and Pediatric ECMO Simulation Scenarios - developed in partnership with IPSS
- A Korean translation of the ELSO Red Book - 5th Edition
- Spanish translations of the ELSO Red Book - 4th Edition and ECMO Specialist Training Manual - 4th Edition

Visit our website for the full list of available [HERE](#).



Registry Committee

A friendly reminder that the registry will close on July 15th and is expected to reopen shortly thereafter.

We are constantly enhancing the ELSO Registry by taking into account your feedback, security measures, and data structure considerations.

Data Use Agreements

All center signed Data Use Agreements can be found within the manage center details, located under the manage tab for all ELSO center administrators. If you have not submitted your center's Data Use Agreement, please do so as soon as possible.

Research Committee

ELSO Research Grant Applications

Research Grant applications are now open and can be accessed [here](#). All applications must be received by September 30th, 2024. Notifications will be announced around December 1, 2024. Applicants may apply for one of two levels of award: awards with a maximum total budget of \$5,000 or a maximum of \$10,000, depending on the scope of work the research involves. Most grants are not anticipated to require the maximum amount in either category and all budgets should be justified by the investigators and will be reviewed by the ELSO Grants Subcommittee. Please note that applicants for the \$5,000 option will have increased odds of acceptance given the limited number of grants to be awarded.

Research Committee Initiatives

Research initiatives are forming now! Please contact research@elso.org for any suggestions you might have for the committee.

Nominations & Membership Committee (N&M)

Member Spotlight



Jenelle Badulak, MD

Assistant Professor, Department of Emergency Medicine,
University of Washington, Seattle, WA, USA

What is your current job/role?

I am an Emergency Medicine intensivist, working in our Cardiothoracic ICU, Medical ICU, Emergency Room, and on our ECMO Consult team at our university and county hospitals. I am also the Associate Program Director for ECMO, focusing on operations and education.

How did you first get involved in ELSO?

I was a Critical Care Medicine fellow and was contemplating how to develop myself as an academic physician, looking for my niche. I was fascinated by ECMO physiology and my clinical interest combined with my desire to be an educator led me to develop an ECMO education curriculum. I remember combing the internet for existing resources, which is where I discovered ELSO and reached out asking to partner in this curriculum development. Through this I ended up leading several education efforts, including work on ELSO Foundations and the E-AEC exam.

What is your current role within ELSO?

I spent the past 3 years as the Chair of the Nominations & Membership committee whose goal is to build the foundation of ELSO membership at the individual & institutional level, across all phases of career and specialty. I also continue to work with the Education Committee, collaborating with leaders across the world on assessment and didactic curriculum development.



How would you recommend others interested in ELSO get plugged in?

Find a committee where your interests most align and become a member. It's important to come with a sense of self and what you can commit to. If you can drive an idea congruent with ELSO's interests, you can be supported with ELSO's tremendous network, even as a very junior person.

What has been the most valuable aspect of your involvement with ELSO?

Networking, community, mentorship. ELSO is my happy place. I get to work with this small, international community of energetic, innovative, selfless, kind people who have done incredible things in the field. ELSO makes me feel like I belong somewhere, contributing to my job satisfaction and longevity.

Rapid fire questions!

- **Heparin, bivalirudin, or argatroban?**

VA – heparin. VV – bivalirudin.

- **IABP, Impella, LAVA, none?**

If needed, IABP.

- **Favorite ECMO indication?**

Hypothermic cardiac arrest. I like good outcomes!

- **Favorite ECMO story?**

During my training, I remember caring for a woman in her 20s who presented to the ED with a massive PE and died. It felt terrible; like a life that modern medicine should have been able to save. Just a few months ago the exact same thing happened to a patient in their 30s – massive PE, cannulated, discharged home 1 week later. It really felt like everything had come full circle.

We are excited to begin featuring an ELSO member in each edition of the newsletter. If you want to highlight an ELSO member, please reach out at membership@elso.org.



FELSO Award Nominations

Do you know someone who has a lifetime of achievement in delivering ECMO care to patients, educating about ECMO, researching ECMO, developing ECMO technology or contributing to ELSO's mission? If so you may want to nominate the ECMOlogist in your life for the Fellowship of The Extracorporeal Life Support Organization "FELSO"

FELSO nominations are being accepted through June 30, 2024. Application can be found [HERE](#).

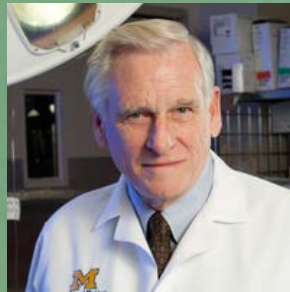
Self nominations are not accepted. Please do not inform those being nominated that they are up for consideration.

ELSO Communities - Real-Time Support & Collaboration on WhatsApp

WhatsApp communities have taken off! Several have ~1,000 participants. The participation and real-time collaboration are exceeding expectations. If you have a question or need advice, please join one of the discussions. Help comes from so many people. Please also contribute your own practices and advice to help your ELSO colleagues.

To join a community visit the ELSO [website](#). You will be required to download WhatsApp on your phone. Communities are designed to be a support for our members that want to connect, collaborate, and support each other on a topic.

BEDSIDE WITH BARTLETT



Robert Bartlett, MD

Founder, Board of Directors Emeritus

ELSO Professor Emeritus of Surgery University of Michigan

Case Study

During a recent simulation course one of the new ECMO students asked why we have a gas blender in the sweep gas—the answer is different for VV and VA access.

In VV ECMO, the blood from the circuit mixes with the venous blood in the right atrium, so the resultant arterial blood will never be fully saturated. We want the oxygen content of the blood from the circuit to be as high as possible. It mixes with the oxygen content of the venous blood (typically around 15 cc/dL). The normal oxygen content of saturated blood is 20 cc/dL. We usually ignore the amount of dissolved oxygen in clinical practice, however, using 100% oxygen as the sweep gas we can increase the outlet oxygen content to 21 cc/dL. The PO_2 will be around 500 mmHg which is quickly diluted to around 50 in the right atrium. There is no deleterious effect of high PO_2 in the circuit blood.

The sweep gas should always be 100% oxygen in VV ECMO until the patient is ready to be weaned off.

Maximal circuit O_2 content assumes hemoglobin 15 mg/dL, which is the best Hb for any ECMO case.

During weaning we use the blender to mix oxygen with air, decreasing the circuit oxygen content, so patient oxygenation is via the lungs. Blood flow can continue at a high level to avoid thrombosis without adding oxygen. Also, during weaning, the sweep gas flow rate is gradually decreased to allow CO_2 clearance via the patient's lungs.

In VA ECMO, the circuit blood goes directly to the brain, the heart and other organs where PO_2 in the 500's may have inflammatory effects. Therefore, we use the blender to keep the circuit PO_2 less than 200 mmHg in VA access.



ELSO CHAPTER UPDATES: ECMO AROUND THE WORLD

SWAAC ELSO UPDATES

As part of our mission to provide continuous education in extracorporeal life support, SWAAC ELSO is pleased to announce that the lectures presented during this year annual meeting in Kuwait City can be accessed for free by the whole extracorporeal life support community. To access the lectures, please register through the link below and you will receive your personalized access code which can be entered through the [SWAAC ELSO 2024 website](#).



The "Crossing Boundaries" video beautifully captures the history of ELSO, the inauguration of the SWAAC ELSO region, and other remarkable global accomplishments. Check out this documentary when you have a moment – it's truly worth watching! Kudos to the team behind this production for kicking off 2024 with such a successful chapter meeting!



Huda Alfoudri, MD, SWAAC ELSO Chair

APELSO Updates

The AP ELSO Chapter is busy planning the 2025 Conference, which will take place in China. Location to be finalized soon.

More details will be coming to allow adequate time for planning and robust participation.

By Shingo Ichiba, MD, PhD, APELSO Chair





EUROELSO Updates

We are excited to announce the appointment of Mirko Belliato, MD, PhD, as the new President of EuroELSO! With a wealth of experience gained from his active involvement in different committees and workgroups dedicated to innovation and outcomes, we are eager to witness his contributions to the ELSO Community during his tenure.



The 12th Annual EuroELSO Congress was held in Krakow, Poland from April 24th to 27th. The program included a diverse range of topics such as achievements from the past year, standardization of ECMO education and programs, ongoing clinical trials, and future research needs.

If interested, several of these sessions can be viewed at our [YouTube channel](#).



LATAM ELSO Updates

The 6th LAELSO Congress is scheduled to be held in Buenos Aires November 14 to 16, 2024. Hope to see you there!





ELSO OFFICE UPDATES FROM ANN ARBOR



Lauren Gardner, MHA, ATC
Project Manager, ELSO

The ELSO Team is excited to introduce Lauren Gardner as the new Project Manager at our Ann Arbor office. Lauren has been a valuable support as an Administrative Intern while pursuing her Master's in Health Services Administration at the University of Michigan. Prior to joining our team, she served as an athletic trainer and clinical practice manager in the Department of Orthopaedic Surgery at the University of Michigan.

Let's give her a warm welcome to the ELSO Community! For any inquiries, please contact her at lgardner@elso.org.

Our Ann Arbor Office welcomed our two 2024 Administrative Interns in May. We are thrilled to have Jenelle DeBaeke and Grace Andrix join us for the summer. They are diligently contributing to various projects throughout the organization, and we truly appreciate their valuable perspectives!



Picture from left to right: Victoria Turner, Jenelle DeBaeke, Grace Andrix, Christine Stead, and Peter Rycus



CHIEF EXECUTIVE OFFICER REMARKS

Change is in the air at ELSO.

Looking back at 35 years of ELSO history (and ECLS beforehand) is filled with noteworthy pioneers and global events that moved things forward. To name a few:

- 1972 - Don Hill's first ECMO patient, an adult;
- 1975 - Bob Bartlett's first neonate patient, Esperanza;
- 1979- first ECMO RCT study is published (Zapol, JAMA);
- 1985 - the randomized 'play the winner' ECMO RCT (Bartlett, Pediatrics) was published; results of which lead to adaptive two-phased RCT model;
- 1989 - ELSO is established; and
- 2009 - H1N1 expanded use of ECMO in adult patients; CESAR trial results published.

More recent history is better known. And yet, looking back at the early days reminds us of the bravery, camaraderie, and steep learning curve that brings us to today.

Graeme's opening remarks to this newsletter shine a light on a very dark time in world history - 'that bears remembering so as not to be repeated'. I have not been able to write much about the visit to Auschwitz, nor discuss it. The EuroELSO Conference was a striking contrast - brilliant scientific gathering with much friendship and collaboration from around the world. Our culture is supportive and collaborative - testimony to what is possible if we can work together.

The Conference Committee is preparing a very special 35th ELSO Conference in Detroit, with a few new initiatives and programs to announce. Thank you for those involved in making them possible! Detroit is a re-emerging city with an exciting future and we cannot wait to welcome you there! For those that want to reflect, appreciate, and celebrate ELSO specifically, we will have an engaging, fun program where ELSO began: Ann Arbor, Michigan at the University of Michigan.

Enjoy your summer (or winter in the Southern Hemisphere). We will see you this Fall in Detroit and Ann Arbor, Michigan!

Christine Stead, CEO



The Extracorporeal Life Support Organization

Our Mission

Providing global leadership in extracorporeal life support through innovation, advocacy, and advancing knowledge.

Our Vision

ELSO will be the premier organization for the advancement of extracorporeal life support throughout the world.

Guiding Principles

Innovation

Seeking to identify and promote advances for the application of extracorporeal therapies.

Expertise

Bringing together world leaders in the care of critically ill patients for collaboration to advance quality of care through education and publication.

Clinical Support

Maintaining a comprehensive registry of data to assist in reducing morbidity and improving survival of patients requiring extracorporeal therapies.

Community

Fostering communication and collaboration among professionals who apply advanced technologies in the treatment of refractory organ failure.



@ELSO.Org



@ELSOOrg



@elso_official



@ELSO

The Extracorporeal Life Support Organization (ELSO)
3001 Miller Road, Ann Arbor, Michigan 48103, USA

www.elseo.org

For editorial concerns related to this newsletter, please contact newsletter@elso.org.

Copyright © 2023 The Extracorporeal Life Support Organization. All Rights Reserved.