

"...to boldly flow where no man has flowed before..."

-Charlie Stolar, MD

From the Chair:

The rapid growth of ELSO during the past few years parallels that of ECLS in general and reflects increased awareness of the benefits of extracorporeal support in expanding and increasingly heterogeneous patient populations. Data from more than 82,000 patients in the ELSO International Registry indicates that the number of adult ECLS patients each year has increased more than 10-fold during the past decade, making adult patients the most rapidly growing population of ECLS patients. This remarkable shift in ECLS care was very apparent to those of you who attended the 27th Annual ELSO Conference in San Diego last month. Many of the conference and pre-conference presentations focused on topics that are uniquely applicable to adult patients and a large proportion of the more than 740 conference attendees indicated that they care for adult ECLS patients. Dan Brodie, MD, chair of the Adult ECLS Working Group, organized the group's first meeting during the conference, which generated a great deal of interest and was very well attended.

The Annual meeting brought new faces and new roles to the ELSO leadership: Jim Fortenberry transitioned to Past-Chairman after accomplishing remarkable things as Chair during the past two years, Mark Ogino MD is the new Chairman-elect, Ryan Barbaro MD is the new Registry Committee Chair, Ravi Thiagarajan MD, Palle Palmer MD, Giles Peek MD, and Cara Agerstrand MD began terms as Members-at-large, and Kevin Charette CCP joined us as the new AmSECT Perfusion Representative. ELSO membership has grown to include over 900 individuals from every corner of the globe. We are in the process of reorganizing the ELSO committee structure to increase direct member participation, which should create exciting opportunities for those who wish to become more involved in ELSO activities and initiatives.

ECLS education remains an important part of the core mission of ELSO. Partnering with institutions and professional societies, ELSO currently offers more than ten local, regional, and international educational conferences and courses each year. Looking ahead, we plan to develop additional unique on-line educational resources to further our educational mission. We are also looking forward to the new, redesigned 5th Edition of Extracorporeal Cardiopulmonary Support in Critical Care in early 2017 and several translations of the "Red Book" are planned to better meet the needs of the growing global ELSO community.

It is a very exciting time to be involved in the world of extracorporeal life support and I am deeply honored to serve as Chairman of ELSO for the next two years. I encourage each member of the organization to become involved with ELSO's many excellent activities. I look forward to working with all of you and the excellent ELSO staff to maintain the momentum of the past few years and to further the vision and mission of ELSO.

D. Michael McMullan, MD, FACS
President, Extracorporeal Life Support Organization

Two Day ECMO Management Course

REGISTER NOW 01/20/2017—01/21/2017

Registration is through <http://www.sccm.org>

Location: Ala Moana Hotel in Honolulu, Hawaii





The new Registry Data Entry System is now up and running! Since rolling out the new registry a month ago we have made wonderful progress in continuing to improve the platform. Thank you so much to everyone who has taken the time to email questions and point out potential areas where we need to clarify or adjust the data entry interface. Please continue to send us your questions and share ways that things can be improved. We have heard feedback that a list of common ICD-10 codes would be helpful and we are starting to put those together now as well as new instructions and PDF versions of the fields we are collecting. Click [here](#) to login. Documentation will be available shortly.

27th Annual ELSO Conference



This year's 27th Annual ELSO Conference was held in sunny San Diego, California on September 15th-18th at the Manchester Grand Hyatt Hotel and it was a resounding success. There were over 280 pre-conference attendees, 720 main conference attendees, 16 exhibitors, and 98 abstract posters displayed. We have received many compliments and appreciation from those who attended the conference and we now have over 930 individual members.



We would like to thank all of the faculty, guest speakers, sponsors, planners, and attendees for making this year's conference a great success. The scheduling of the meetings, the selection of topics (all of the sessions were packed full), and even the local accommodation was all superbly arranged. It will be a hard act to follow but we are confident that next years conference will be just as successful. The 28th Annual ELSO Conference will be held at the Hilton Baltimore in Baltimore, Maryland on September 24-27, 2017. We look forward to seeing you in Baltimore!





2017 ELSO Research Grants

ELSO is pleased to offer grant funding for important research in the field of extracorporeal support. ELSO will award a limited number of research grants. 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. However, high quality research proposals that genuinely require the higher level of funding in order to be successful, will be strongly considered.

Registration for the principal investigator of an awarded grant will be waived at the next annual ELSO meeting.

Applicants

Any individual from an active ELSO center may apply for the research grant. Director's approval is required.

Conditions

1. These grants are intended to support small projects related to ECMO.
2. The research must address an important question which can be answered within the time and budget constraints.
3. Preference is giving to projects which use the ELSO Registry.
4. The research must be completed in time to present at the annual ELSO meeting. It is expected that the project will be presented at the meeting.
5. The results must be submitted for publication within one year of receiving the grant.

Submission Dates

Grant applications must be submitted before December 1st 2016. The applications will be judged by the steering committee and the awards will be announced around January 15th 2017.

Budget

The grant will be awarded in a single disbursement. The individual budget items are up to the investigator. Grants will be judged on merit. However ELSO would like to support as many good projects as possible, so cost-effectiveness will be considered.

Registry Access

Applicants can request data from the registry and analysis of data from the registry. Peter Rycus will supply the information and help the applicant with follow-up question and analysis. Usually this can all be done electronically although the applicant can come to Ann Arbor to work with the registry directly if needed. If the project will need additional information that is not in the registry, the investigator can contact the member centers through the ELSO office for additional information. However, the likelihood of gaining this information within the allotted time frame must be justified in the application.

Mechanics of the Award

The applicant should define whether the grant should go to the individual, to the institution, or to a specific section of the institution. IRB approval will be determined by each institution's own guidelines.

Application

Access the application [here](#)

How to apply

Email the completed application to prycus@elso.org





ELSO MEMBERSHIPS



ELSO Membership

- ECMO clinicians, research scientists, and members of regulatory and public health institutions are now eligible for membership in ELSO
- Membership allows physicians, nurses, perfusionists, respiratory therapists, researchers and others healthcare professionals to become more directly involved in the world's largest ECMO community
- Affiliation with an ELSO Member Center is not necessary to apply
- Members receive benefits separate from Member Center privileges.

Benefits of membership include:

- Direct participation in the world's largest ECMO community
- ELSO Member Newsletters
- ELSO Registry Data Reports– July 2016 Reports available on website!
- Discounts on one copy of the ELSO Red Book (\$20 off list price) and one copy of the ECMO Specialist Manual (\$5 off)
- 10% discount on Annual ELSO Conference Registration fee
- Official Certificate of ELSO Membership
- Admission to the Members-Only Business Meeting at the Annual ELSO Conference
- Discounted registration rates for global ELSO Chapter Conferences (EuroELSO, Asia-Pacific ELSO, Latin-America ELSO, South & West Asia ELSO)
- Access to the ELSO Online Discussion Board
- Access to ELSO Online ECMO Knowledge Assessment Examination (Certificate of Completion included upon successful completion)
- Eligibility to participate in ELSO Committees and Working groups

Please visit us at <http://www.else.org/members/individualMembership.aspx>

Please note that for the 10% discount on the Annual North American ELSO conference it can take up to 2 weeks to import your discount code into the CVENT registration program.

Upcoming Meeting and Courses



ELSO Adult ECMO Training Course
11/02/2016 - 11/05/2016 (Registration Closed)
Location: Emory Conference Center, Atlanta GA



2nd Annual Latin American ELSO Conference
11/30/2016 - 12/02/2016
<http://elsocancun2016.com/>
Location: Cancun, Mexico

ELSO / SCCM ECMO Management Workshop
01/20/2017 - 01/21/2017
<http://www.sccm.org>
Location: Honolulu, Hawaii

**33rd Annual Children's National Symposium:
ECMO and the Advanced Therapies for Respiratory Failure**
02/26/2017 - 03/02/2017
<http://www.cvent.com/d/1fqxtc>
Location: Keystone, Colorado USA

27th Annual Specialist Education in Extracorporeal Membrane Oxygenation (SEECMO) Conference
06/02/2017 - 06/04/2017
Alexandria Wilkinson 720-777-6948 alexandria.wilkinson@childrenscolorado.org
Location: Children's Hospital Colorado - Aurora, CO

28th Annual ELSO Conference
09/24/2017 - 09/27/2017
Peter Rycus, MPH 734-998-6601 prycus@elso.org
Location: Hilton Baltimore, Baltimore, MD

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MEETINGS

Management Moments



Hello everyone,

Being a new member to the editing board, I would like to take a minute to share my vision with you for this corner of the ELSO Newsletter. As the ECMO community continues to evolve and support patients with cutting edge technology, the ECMO managers, coordinators, and lead specialists face a myriad of daily challenges. The vision for this column is to use it to share ideas, comments and moments that have made your team the success that it is and share those moments with the ELSO community via this newsletter. I hope to address some of the challenges that ECMO leadership may face and share any answers that I receive.

Our first topic is staffing. Close your eyes for a moment and think about those shifts when your team is supporting 2 or 3 ECMO patients and you are answering your 3rd potential ECMO consult of the day and all you can think about is staffing. Who do you have on the schedule that can sit bedside? Who completed all their competencies? Do we have an experienced mentor nearby for the night shift team? Is anyone NOT on vacation? Do you have any incentives to offer staff to come in and work? How will you cover these patients if they go on ECMO?



The technical aspects of ECMO you know you can handle, but staffing is the elephant in the room. For those centers with dedicated teams staffing challenges can be different than centers that have to pull staff from other cost centers. There have been many surveys over the years and discussion board posts about the right staffing model, but with each model presented there are challenges.

What is the right staffing model? Is there really an answer to this question that will apply to all centers; probably not, but we can learn from each other and share what has worked and most importantly what was a failure. Please share with me how you would have handled the clinical situation-how do you staff your ECMO's and do you have any special incentives that work?

Please submit your answers to me directly teka.siebenaler@nortonhealthcare.org. I will share them in the next newsletter. I would love to hear from all of the ECMO leaders on topic suggestions for this column!

Thanks, Teka

2016 Fellows of the Extracorporeal Life Support Organization

A select group of individuals were inducted as Fellows of the Extracorporeal Life Support Organization (FELSO) during a special awards ceremony at the ELSO Annual Conference on September 17, 2016 in San Diego. The distinction of FELSO is bestowed upon individuals who have made extraordinary and distinctive contributions to the art and science of extracorporeal support. Inductees are selected from multidisciplinary fields and from around the world. Contributions include groundbreaking care delivery, innovations in research and device development, and exemplary leadership.

2016 FELSO Inductees:

Warwick Butt MD

Robin Chapman RN

Jean-Yves Chevalier MD

J. Devn Cornish MD

Richard Firmin MD

Masahiro Nagaya MD

Giles Peek MD

Antonio Pesenti MD

Peter Rycus MPH

Charles Stolar MD

Warren Zapol MD

Jay Zwischenberger MD



Charter FELSO Inductees (2015):

Robert Bartlett

John Gibbon

Theodor (Ted) Kolobow

Konrad Falke

Robert E. Gross

Pearl O'Rourke

Luciano Gattinoni

J Dennis Hill

Billie Short

John Toomasian



Surveys and Studies - The Relationship of Patent Ductus Arteriosus Flow Patterns with Clinical Parameters in Neonates on Venovenous ECMO

Fellow ECMO centers,

Some of the ECMO providers at Cohen Children's Medical Center of NY are conducting a study looking at patent ductus arteriosus (PDA) size and blood flow patterns in neonates who are initially supported on VV ECMO, to see if it can be used as a prognostic indicator for conversion to VA ECMO and survival. Previously published data has found that a patent ductus arteriosus may lengthen the ECMO course in patients with resolving pulmonary disease. However, there is no published data regarding effects of the PDA in patients who are not improving, or in those who are being supported with VV ECMO. We are enrolling neonates who were initially supported with VV-ECMO between 2011 and 2015 for primary pulmonary hypertension of the newborn, congenital diaphragmatic hernia, meconium aspiration syndrome and sepsis. If your center is interested in joining this retrospective multicenter study, please email Aaron Kessel at akessel@northwell.edu for additional information.





Bedside with Dr. Bartlett

Dr. Bartlett has a vast amount of experience with ECMO and has faced many critical situations and decisions. In this newsletter series he will join us on ECMO rounds at the bedside.

Case Study #1. Leg ischemia

We put a 50 kg man on right femoral VA-ECMO for intractable ventricular fibrillation following an acute myocardial infarction. Two hours later he is well supported and waking up. His right foot is cool and pale.

What should we do?

We need to establish blood flow to the leg. If he can feel his feet and move his toes there is still a chance to save the leg.

The quickest and most reliable way is to cannulate the posterior tibial artery and perfuse the leg retrograde. The alternative is to cannulate the superficial femoral by direct cut down or ultrasound guided puncture. Flow is established by “Y-ing” off the arterial line at a stopcock. We need about 400 cc flow. If he cannot feel or move his foot we can still establish leg flow but we should turn on perfusion very slowly to avoid a sudden load of potassium and dead tissue juice. Watch for muscle necrosis which might require fasciotomies and eventual amputation. If the leg is clearly dead close it off with a high occlusive tourniquet, pack it in ice, and amputate when the patient is stable, after ECMO if possible. The way to avoid this problem is to always establish leg perfusion at the time of initial cannulation.

Reference.

A simple technique to prevent limb ischemia during veno-arterial ECMO using the femoral artery: the posterior tibial approach.

Spurlock DJ, Toomasian JM, Romano MA, Cooley E, **Bartlett** RH, Haft JW.

Perfusion. 2012 Mar;27(2):141-5. doi: 10.1177/0267659111430760. Epub 2011 Dec 5.

PMID: 22143092



Is there a question or clinical situation that you would like to consult Dr. Bartlett

with? Send your question to newsletter@elso.org

Website Corner

Subscribe to the latest in Topics!

Did you know you can subscribe and receive e-mail alerts when new questions and replies are posted to the Discussion Board? Once you log in, choose the discussion area (e.g., Clinical Topics) for which you would like to receive notifications. At the bottom of the Topic Area, check the box labeled “Email me when this forum has a new thread” (see figure below). You will receive emails each time a new thread and any replies are posted to that forum.



Discussion Board Topics of the Month

Here we will list the hottest topics on the web. Stop by and provide your input!

- [SVO₂ and PO₂](#): What should my oxygenator pO₂ and SVO₂ be?
- [Privileges](#): What are centers doing with respect to ensuring various departments have ECMO privileges?
- [VV Cannula Position Assessment](#): How do centers monitor this?

Discussion Board Contributor of the Month

Congratulations to Melissa Vigil-Frohman, RN from the University of New Mexico!

Logging On



All ELSO Member institutions have an Administrative Account for your ELSO Registry data entry. This account can create separate accounts for your local physicians and ECMO Specialists. Contact your local ECMO Coordinator to get your accounts set up!



Facebook

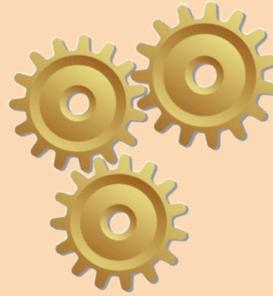
If you use Facebook please visit our sites and “like” us! We intend to use Facebook as a way to present information to not only ELSO members but , to anyone who is interested in our organization. www.facebook.com/ELSO.org

Euro-ELSO Facebook page:
www.facebook.com/EuroELSO



Twitter

Follow us on twitter!
www.twitter.com/ELSOOrg



Update from OriGen Biomedical regarding the Dual Lumen wire reinforced Catheters:

Our colleagues at OriGen Biomedical have been working tirelessly over the summer to increase supply and reduce defects. They have qualified two new vendors as suppliers of the reinforced tips. And they are getting production running again. Here is the current status:

VVDL catheter size	Time of availability
VV 13 Fr	after November 9th 2016
VV 16 Fr	after November 1st 2016
VV 19 Fr	after November 23rd 2016
VV 23 Fr	Available Now
VV 28 Fr	after November 29th 2016
VV 32 Fr	Available Now

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The ELSO Newsletter editorial team’s goal is to bring you a newsletter that is entertaining, informational, and educational. If you have any suggestions for improving the newsletter or would like to contribute content, please contact Joel Davis at jdavis@elso.org.

Thank you from the ELSO Newsletter editorial team

Joel Davis, Kennethia Banks-Borden, Teka Siebenaler, Omar Al-Ibrahim, Terri Wells,
Nandini Nair, Bruno Claro

