EuroELSO 2017
6th EuroELSO Congress on ECMO-ECLS
FINAL PROGRAMME
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Welcome

On behalf of the local organizing and scientific committees it is a great pleasure to welcome you all to the 6th Euro-ELSO Congress.

Your host city Maastricht, is a city of culture, education and business. Maastricht is one of the three leading conference cities in the Netherlands. It is the oldest, most Southern city in the Netherlands and has a population of 125,000 inhabitants. With a history reaching back some 2,000 years, the Romans, Spaniards, French and Germans have all left their mark in Maastricht. The city has been at the crossroads of culture and trade for thousands of years.

In the same spirit, this meeting will be an important platform for education and networking opportunities for intensivists, neonatologists, cardiologists, cardiac surgeons, paediatric surgeons, general surgeons, perfusionists, thoracic surgeons, respiratory therapists, intensive care nurses, emergency medicine doctors, nurses and industry representatives, and all other professionals interested in the care of patients with both cardiac and respiratory failure.

We will build on the excellent learning opportunities shared at the previous five meetings and aim to deliver a comprehensive programme on all aspects of ECMO and ECLS. The focus of the congress will lay on the positive impact of team cohesion, of quality training and safe ECMO/ECLS transfer. Finally, current state-of-the-art technology will be presented to see what it can bring to our patients. Thus, the final programme for the 6th Euro-ELSO congress is looking very exciting, and I therefore hope to welcome you all in Maastricht in 2017 for some days of intense intellectual engagement, meeting old friends and making new ones while enjoying our southern hospitality, perhaps with a glass or two of our national drinks.

Prof. Jos Maessen, MD, PhD
2017 Euro-ELSO Congress Chairman

Maastricht University Medical Centre
Heart & Vascular Centre
Maastricht, The Netherlands
## Overview Scientific Programme

### THURSDAY - MAY 4TH Pre-Congress Courses

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 08</th>
<th>Room 04/05</th>
<th>Room 09</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-14:00</td>
<td>Pre-ECLS Considerations</td>
<td>Pre-ECLS Considerations</td>
<td>ECMO for beginners</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>Interactive clinical Scenario Part 1</td>
<td>Interactive clinical Scenario Part 1</td>
<td>The ECMO system</td>
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<tr>
<td>15:00-15:30</td>
<td>Coffee break</td>
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<tr>
<td>15:30-16:00</td>
<td>Interactive clinical Scenario Part 2</td>
<td></td>
<td>The VA-ECMO</td>
</tr>
<tr>
<td>16:30-17:30</td>
<td>Skill demonstration Part 1</td>
<td>Skill demonstration</td>
<td>The VV-ECMO</td>
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<tr>
<td>17:30-18:00</td>
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<td>The Hybrid ECMO</td>
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</tbody>
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### FRIDAY - MAY 5TH Pre-Congress Courses

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 08</th>
<th>Room 04/05</th>
<th>Room 09</th>
<th>Room 02/03</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00-09:00</td>
<td>Post-ECPR management Part 1</td>
<td>Post-ECPR Management Part 1</td>
<td>How to prepare team &amp; tools Training and education</td>
<td></td>
</tr>
<tr>
<td>09:00-10:00</td>
<td>Post-ECPR management Part 2</td>
<td>Post-ECPR Management Part 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Coffee break</td>
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<tr>
<td>10:30-11:30</td>
<td>In-hospital cardiac arrest</td>
<td>In-hospital cardiac arrest</td>
<td>How to face first clinical series</td>
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</tr>
<tr>
<td>11:30-12:00</td>
<td>Skill demonstration Part 2</td>
<td>Out-of-hospital cardiac arrest</td>
<td>How to cope first failures &amp; complications</td>
<td></td>
</tr>
</tbody>
</table>

### Room 02/03

Pre-Congress Nursing ECMO Course
### FRIDAY - MAY 5TH Annual Congress

**Auditorium 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30-14:00</td>
<td>Opening ceremony</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>A year in review</td>
</tr>
<tr>
<td>15:00-15:30</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>15:30-16:00</td>
<td>Euro-ELSO Grants</td>
</tr>
<tr>
<td>16:00-17:15</td>
<td>Best abstracts</td>
</tr>
<tr>
<td>17:15-18:15</td>
<td>ECMO 2017</td>
</tr>
</tbody>
</table>

### SATURDAY - MAY 6TH Annual Congress

**Auditorium 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-10:00</td>
<td>Can we reduce complication in cardiac arrest patients?</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>10:00-12:00</td>
<td>Is it possible to set up a randomized controlled trial in ECMO?</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>ECMO for respiratory distress</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>Lunch sessions</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>VA-ECMO in cardiogenic shock</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>Complications in VV-ECMO</td>
</tr>
<tr>
<td>16:00-16:30</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>16:30-17:30</td>
<td>Reporting outcomes and results in ECMO patients</td>
</tr>
<tr>
<td>17:30-18:30</td>
<td>ECCO2R</td>
</tr>
</tbody>
</table>

**Auditorium 2**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-10:00</td>
<td>Pathophysiology issues in VV-ECMO</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>10:00-12:00</td>
<td>Controversies in VA-ECMO</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Designing a better ECMO-system: clues for the future</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td><strong>Lunch sessions</strong></td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>Complications in VA-ECMO how to handle them?</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>ECMO in pediatric patients: where are we?</td>
</tr>
<tr>
<td>16:00-17:15</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>17:15-18:15</td>
<td>Reporting outcomes and results in ECMO patients</td>
</tr>
<tr>
<td>18:15-19:15</td>
<td>ECGO2R</td>
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**Room 04/05**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>10:30-11:00</td>
<td>ECMO in non-cardiovascular disease patients</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>Post-Cardiotomy ECMO in neonates/children</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Monitoring on ECMO part 1</td>
</tr>
</tbody>
</table>

### SUNDAY - MAY 7TH Annual Congress

**Auditorium 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30-09:30</td>
<td>ECMO in war zones</td>
</tr>
<tr>
<td>09:30-10:30</td>
<td>Not so common, but emerging indications in ECMO</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>What should I do if...</td>
</tr>
<tr>
<td>12:00-12:30</td>
<td>Training and simulation in “fast conditions”</td>
</tr>
<tr>
<td>12:30-13:00</td>
<td>Closing remarks</td>
</tr>
</tbody>
</table>
Pre-Congress Course, “ECPR: How we do it”, Pediatric Path.

THURSDAY - MAY 4TH Room 08

13:00-14:00 Pre-ECLS Considerations (new CPR guidelines, indications for ECPR, how to establish a proper ECLS program and ECLS tools and equipment)
Ravi Thiagarajan (Boston, Massachusetts) - Peter R. Roeleveld (Leiden, The Netherlands) - Laurence Lequier (Edmonton, Canada) - Aparna Hoskote (London, UK) - Mirjana Cvetkovic (Leicester, UK)
Chair: Giles Peek (New York, NY)

14:00-15:00 Interactive Clinical Scenarios: what to do and what not to do, starting ECLS, deciding VA or VV or hybrid ECMO, where to implant, how to implant, how to manage multidisciplinary tasks in emergency - Part 1
Mark Davidson (Glasgow, Scotland) - Tim Antonius (Nijmegen, The Netherlands) - Heidi Dalton (Falls Church, Virginia) - Kenneth Palmer (Stockholm, Sweden)
Chair: Mike McMullan (Seattle, Washington)

15:00-15:30 Coffee Break

15:30-16:30 Interactive Clinical Scenarios: what to do and what not to do, starting ECLS, deciding VA or VV or hybrid ECMO, where to implant, how to implant, how to manage multidisciplinary tasks in emergency - Part 2
Mark Davidson (Glasgow, UK) - Tim Antonius (Nijmegen, The Netherlands) - David Cooper (Cincinnati, Ohio) - Tom Brogan (Seattle, Washington) - Chris Harvey (Leicester, UK)
Chair: Carl Davis (Glasgow, Scotland)

16:30-18:00 Skill Demonstration (cannulation technique, troubleshooting, simulation, training) - Part 1
Giles Peek (New York, NY) - Carl Davis (Glasgow, Scotland) - Mike McMullan (Seattle, Washington) - Bjorn Frenckner (Stockholm, Sweden) - Piero David (Rome, Italy)
Chair: James Fortenberry (Atlanta, Georgia)

FRIDAY - MAY 5TH Room 08

08:00-09:00 Post-ECPR Management (hypothermia, reperfusion injury, diagnostics, neuromonitoring, prognostication) - Part 1
Peter P. Roeleveld (Leiden, The Netherlands) - Aparna Hoskote (London, UK) - Piero David (Rome, Italy) - Kenneth Palmer (Stockholm, Sweden)
Chair: Ravi Thiagarajan (Boston, Massachusetts)

09:00-10:00 Post-ECPR Management (hypothermia, reperfusion injury, diagnostics, neuromonitoring, prognostication) - Part 2
Piero David (Rome, Italy) - Aparna Hoskote (London, UK) - Mirjana Cvetkovic (Leicester, UK) - Kenneth Palmer (Stockholm, Sweden)
Chair: Hanneke IJsselstijn (Rotterdam, The Netherlands)

10:00-10:30 Coffee Break

10:30-11:30 In-Hospital Cardiac Arrest Organization - Outcome and Post-Discharge Follow-up Management
Ravi Thiagarajan (Boston, Massachusetts) - Bahaaldin Alsoufi (Atlanta, Georgia) - Tom Brogan (Seattle, Washington) - Hanneke IJsselstijn (Rotterdam, The Netherlands)
Chair: Aparna Hoskote (London, UK)

11:30-12:30 Skill Demonstration (cannulation technique, troubleshooting, simulation, training) - Part 2
Giles Peek (New York, NY) - Mike McMullan (Seattle, Washington) - Carl Davis (Glasgow, Scotland) - Bjorn Frenckner (Stockholm, Sweden) - Chris Harvey (Leicester, UK) - Tim Antonius (Nijmegen, The Netherlands)
Chair: Heidi Dalton (Falls Church, Virginia)
Pre-Congress Course, Adult Path.

**THURSDAY - MAY 4TH Room 04/05**

13:00-14:00 Pre-ECLS Considerations (new CPR guidelines, indications for ECPR, how to establish a proper ECPR program and ECLS tools and equipment)
Mirko Belliato (Pavia, Italy) - Dirk Lunz (Regensburg, Germany) - Alain Combes (Paris, France) - Georg Trummer (Freiburg, Germany) - Alois Philipp (Regensburg, Germany) - Yhi-Sharng Chen (Taipei, Taiwan)
Chair: Roberto Lorusso (Maastricht, The Netherlands)

14:00-15:00 Interactive Clinical Scenarios: what to do and what not to do, starting ECLS, deciding VA or VV or hybrid ECMO, where to implant, how to implant, how to manage multidisciplinary tasks in emergency - Part 1
Jan Belohlavek (Prague, Czech Republic) - Alois Philipp - Shingo Ichiba (Tokyo, Japan) - Vincent Pellegrino (Melbourne, Australia) - Nicholas Cavarocchi (Regensburg, Germany)
Chair: Thomas Mueller (Regensburg, Germany)

15:00-15:30 Coffee Break

15:30-16:30 Interactive Clinical Scenarios: what to do and what not to do, starting ECLS, deciding VA or VV or hybrid ECMO, where to implant, how to implant, how to manage multidisciplinary tasks in emergency - Part 2
Jan Belohlavek (Prague, Czech Republic) - Alois Philipp (Regensburg, Germany) - Shingo Ichiba (Tokyo, Japan) - Vincent Pellegrino (Melbourne, Australia) - Nicholas Cavarocchi (Regensburg, Germany)
Chair: Alain Combes (Paris, France)

16:30-18:00 Skill Demonstration (cannulation technique, troubleshooting, simulation, training)
Justyna Swol (Kronach, Germany) - Matteo Pozzi (Lyon, France) - Jan Belohlavek (Prague, Czech Republic) - Steven Conrad (Shreveport, Louisiana) - Nicholas Cavarocchi (Philadelphia, Pennsylvania) - Carlo Banfi (Geneva, Switzerland) - Simon Sin Wai Ching (Hongkong, China)
Chair: Roberto Lorusso (Maastricht, The Netherlands)

**FRIDAY - MAY 5TH Room 04/05**

08:00-09:00 Post-ECPR Management (hypothermia, reperfusion injury, diagnostics, neuromonitoring, prognostication) - Part 1
Fabio Silvio Taccone (Bruxelles, Belgium) - Vincent Pellegrino (Melbourne, Australia) - Shingo Ichiba (Tokyo, Japan) - Dirk Lunz (Regensburg, Germany)
Chair: Graeme MacLaren (Singapore, Singapore)

09:00-10:00 Post-ECPR Management (hypothermia, reperfusion injury, diagnostics, neuromonitoring, prognostication) - Part 2
Georg Trummer (Freiburg, Germany) - Dirk Donker (Utrecht, The Netherlands) - Thijs Delnoij (Maastricht, The Netherlands) - Federico Pappalardo (Milan, Italy) - Thomas Mueller (Regensburg, Germany)
Chair: Jan Belohlavek (Prague, Czech Republic)

10:00-10:30 Coffee Break

10:30-11:30 In-Hospital Cardiac Arrest: organization, outcome, and post-discharge follow-up management
Christoph Benk (Freiburg, Germany) - Alois Philipp (Regensburg, Germany) - Alain Combes (Paris, France) - Mirko Belliato (Pavia, Italy) - Yhi-Sharng Chen (Taipei, Taiwan) - Dinis dos Reis Miranda (Rotterdam, The Netherlands)
Chair: Thomas Mueller (Regensburg, Germany)

11:30-12:30 Out-of-Hospital Cardiac Arrest: organization, reality, and controversies
Friedhelm Beyersdorf (Freiburg, Germany) - Alois Philipp (Regensburg, Germany) - Alain Combes (Paris, France) - Mirko Belliato (Pavia, Italy) - Yhi-Sharng Chen (Taipei, Taiwan) - Dinis dos Reis Miranda (Rotterdam, The Netherlands)
Chair: Federico Pappalardo (Milan, Italy)
### Pre-Congress Course “ECMO for Beginners”

**THURSDAY - MAY 4TH Room 09**

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00-14:00</td>
<td><strong>ECMO for beginners: very basic principles of physiology and pathophysiology of ECMO</strong></td>
<td>Bob Bartlett (Ann Arbor, Michigan) - Nick Barret (London, UK)</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td><strong>The ECMO system (cannulas, pump, oxygenator)</strong></td>
<td>Patrick Weerwind (Maastricht, The Netherlands) - Leen Vercaemst (Leuven, Belgium)</td>
</tr>
<tr>
<td>15:00-15:30</td>
<td><strong>Coffee Break</strong></td>
<td></td>
</tr>
<tr>
<td>15:30-16:30</td>
<td><strong>The VA-ECMO</strong></td>
<td>Davide Ghitti (Bergamo, Italy) - Thomas Mueller (Regensburg, Germany)</td>
</tr>
<tr>
<td>16:30-17:30</td>
<td><strong>The VV-ECMO</strong></td>
<td>Thijs Delnoij (Maastricht, The Netherlands) - Nick Barret (London, UK)</td>
</tr>
<tr>
<td>17:30-18:00</td>
<td><strong>The Hybrid ECMO (VAV - VVA)</strong></td>
<td>Simon Finney (London, UK) - Leen Vercaemst (Leuven, Belgium)</td>
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**FRIDAY - MAY 5TH Room 09**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00-09:00</td>
<td><strong>How to prepare the team and the tools</strong></td>
<td>Alois Philipp (Regensburg, Germany) - Leen Vercaemst (Leuven, Belgium) - Davide Ghitti (Bergamo, Italy) - Thomas Mueller (Regensburg, Germany)</td>
</tr>
<tr>
<td>09:00-10:00</td>
<td><strong>Training and education</strong></td>
<td>Mark Ogino (Wilmington, Delaware) - Francesca Stoppa (Rome, Italy) - Justyna Swol (Kronach, Germany)</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td><strong>Coffee Break</strong></td>
<td></td>
</tr>
<tr>
<td>10:30-11:30</td>
<td><strong>How to face the first clinical series: the importance of reference (ELSO)</strong></td>
<td>Mike McMullan (Seattle, USA) - Jim Fortenberry (Atlanta, Georgia) - Heidi Dalton (Falls Church, Virginia)</td>
</tr>
<tr>
<td>11:30-12:30</td>
<td><strong>How to cope with first failures and complications</strong></td>
<td>Nick Barret (London, UK) - Bob Bartlett (Ann Arbor, Michigan) - Simon Finney (London, UK) - Matteo Pozzi (Lyon, France)</td>
</tr>
</tbody>
</table>
Pre-Congress Nursing ECMO Course

THURSDAY - MAY 4th Room 02/03

  Roberto Lorusso (Maastricht, The Netherlands) - Mike McMullan (Seattle, Washington) -
  Margaret Farley (Birmingham, UK)

13:15-13:30  ECMO for beginners - indications for VA and VV in pediatric and adults
  Dirk Donker (Utrecht, The Netherlands)

13:30-13:40  Questions and answers - open to the audience

13:40-13:55  The impact of ECMO on the patients physiology - both VV and VA
  Ann Alexanderson (Stockholm, Sweden)

13:55-14:05  Questions and answers - open to the audience

14:05-14:20  Review of how the role of the ECMO nurse varies throughout Europe
  Jacqueline Janssen (Utrecht, The Netherlands)

14:20-14:30  Questions and answers - open to the audience

14:30-14:50  Getting the basics right. The importance of ensuring that the precise and skilled nursing care is
  delivered to the ECMO patient
  Jo-Anne Fowles (Cambridge, UK)

14:50-15:00  Questions and answers - open to the audience

15:00-15:30  Coffee Break

15:30-15:45  Routine patient and circuit monitoring in ECMO
  Tracy Morrison (Dayton, Ohio)

15:45-15:55  Questions and answers - open to the audience

15:55-16:10  Supporting and updating the family. Ethical challenges
  Bianca Osborne - Ricketts (Birmingham, UK)

16:10-16:20  Questions and answers - open to the audience

16:20-16:35  Trouble shooting the circuit
  Maximilian Halbe (Zurich, Switzerland)

16:35-16:45  Questions and answers - open to the audience

16:45-17:00  Getting the balance right - clotting vs bleeding
  Jacqueline Jannsen (Utrecht, The Netherlands)

17:00-17:10  Questions and answers - open to the audience
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:10-17:25</td>
<td>Growing and developing your ECMO specialist nurse team</td>
<td>Kath Daly (London, UK)</td>
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<tr>
<td>17:25-17:35</td>
<td>Questions and answers - open to the audience</td>
<td></td>
</tr>
<tr>
<td>17:35-17:50</td>
<td>Moving the ECMO patient within your hospital</td>
<td>Ann Alexanderson (Stockholm, Sweden)</td>
</tr>
<tr>
<td>17:50-18:00</td>
<td>Questions and answers - open to the audience</td>
<td></td>
</tr>
<tr>
<td>18:00-18:15</td>
<td>Neuro monitoring and assessment of the ECMO patient</td>
<td>Aparna Hoskote (London, UK)</td>
</tr>
<tr>
<td>18:15-18:25</td>
<td>Questions and answers - open to the audience</td>
<td></td>
</tr>
<tr>
<td>18:25-18:40</td>
<td>Managing the awake patient in adults and pediatric</td>
<td>Chirine Mossadegh (Paris, France)</td>
</tr>
<tr>
<td>18:40-18:50</td>
<td>Questions and answers - open to the audience</td>
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</table>
**FRIDAY - MAY 5TH Room 02/03**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:00-08:15</td>
<td><strong>Simulation as part of your training strategy</strong>&lt;br&gt;Chirine Mossadegh (Paris, France)</td>
</tr>
<tr>
<td>08:15-08:25</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>08:25-08:40</td>
<td><strong>Add on extracorporeal circuits and how to manage the challenges</strong>&lt;br&gt;Guy Cadwalleder (Leicester, UK)</td>
</tr>
<tr>
<td>08:40-08:50</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>08:50-08:55</td>
<td><strong>E-CPR who should have it? All or none?</strong>&lt;br&gt;Dirk Donker (Utrecht, The Netherlands)</td>
</tr>
<tr>
<td>09:05-09:15</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>09:15-09:30</td>
<td><strong>When and how to wean VA</strong>&lt;br&gt;Charlie Beetham (Rome, Italy)</td>
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<tr>
<td>09:30-09:40</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>09:40-09:55</td>
<td><strong>When and how to wean VV</strong>&lt;br&gt;Francesca Broccati (Rome, Italy)</td>
</tr>
<tr>
<td>09:55-10:00</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td><strong>Coffee Break</strong></td>
</tr>
<tr>
<td>10:30-10:45</td>
<td><strong>Review of ventilation strategies - too much or too little</strong>&lt;br&gt;Gillian Wylie (Glasgow, Scotland)</td>
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<tr>
<td>10:45-10:55</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>10:55-11:20</td>
<td><strong>VV/VA/V-VA What is it all about?</strong>&lt;br&gt;Dirk Donker (Utrecht, The Netherlands)</td>
</tr>
<tr>
<td>11:20-11:30</td>
<td>Questions and answers - open to the audience</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td><strong>ELSO - How can it be of benefit to my patient</strong>&lt;br&gt;Margaret Farley (Birmingham, UK)</td>
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<td>11:45-11:50</td>
<td>Questions and answers - open to the audience</td>
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<td><strong>Closing Remarks</strong></td>
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Annual Congress

FRIDAY - MAY 5TH Auditorium 1

13:30-14:00 Opening Ceremony
Jos Maessen (Maastricht, The Netherlands) - Mike McMullan (Seattle, Washington) - Roberto Lorusso (Maastricht, The Netherlands) - Centres of Excellence Awards (Michael Heards - ELSO)

14:00-15:00 A year in review
Chairs: Jos Maessen (Maastricht, The Netherlands) - Mike McMullan (Seattle, Washington) - Roberto Lorusso (Maastricht, The Netherlands)

• Best adult VV-ECMO papers. Thomas Mueller (Regensburg, Germany)
• Best adult VA-ECMO papers. Alain Combes (Paris, France)
• Best pediatric papers. Peter P. Roeleveld (Leiden, The Netherlands)
• Best experimental papers. Xiaotong Hou (Beijing, China)

15:00-15:30 Coffee Break

15:30-16:00 Euro-ELSO Grants Presentations and 2017 winners
Chairs: James Fortenberry (Atlanta, Georgia) - Leen Vercaemst (Leuven, Belgium)

• Characterizing changes in muscle quantity and quality in critically ill patients receiving veno-venous ECMO for severe respiratory failure. Bronwen Connolly (London, UK)
• Neuroimaging to evaluate outcomes in neonates following ECMO treatment (NEONET). Dullipala Anand (Glasgow, Scotland)
• Attenuation of ischemia reperfusion injury after ECPR with selective adenosine agonist. James H. Mehaffey (Charlottesville, Virginia)
• Announcement of 2017 Euro-ELSO Research Grants winners

16:00-17:15 Best Abstracts
Chairs: Patrick Weerwind (Maastricht, The Netherlands) - Carl Davis (Glasgow, Scotland)

• Incidence and risk factors of venous thrombosis after venovenous extracorporeal membrane oxygenation in patients with acute respiratory distress syndrome: a prospective observational study. Christoph Fisser (Regensburg, Germany)
• Impact of cannula size on clinical outcomes in peripheral venoarterial extracorporeal membrane oxygenation. Jang Hoon Kim (Seoul, South Korea)
• Severity Assessment of Brain Damage with rSO2 monitoring for Extracorporeal Cardiopulmonary Resuscitation after Out-of-hospital Cardiac Arrest. Kei Nishiyama (Kyoto, Japan)
• Single Centre Experience of Post-Traumatic Stress Symptoms in Adult Ecmo Survivors - Prevalence and Risk Factors. Caroline Sampson (Glenfield, UK)
• Can We Predict Veno-Venous Extra-Corporeal Membrane Oxygenation Duration? Juuying Xu (London, UK)
• Muscle oxygenation as a predictor for successful separation from ECLS. Kenneth A. Schenkman (Seattle, Washington)
• Effects on Oxygenator Performance during pulsatile blood Flow. Lotte Schraven (Aachen, Germany)
17:15-18:15  ECMO 2017: where are we and what should industry look at?
Chairs: Bob Bartlett (Ann Arbor, Michigan) - Alois Philipp (Regensburg, Germany)

- What kind of pumps should we have? One-fits-all or individualized system?
  Maximilian Halbe (Zurich, Switzerland)
- Are cannulas really improving?
  Joseph Zwischenberger (Lexington, Kentucky)
- The ideal oxygenator: the actual facts and the dream.
  Philip De Somer (Gent, Belgium)

Panel Discussion

18:15-19:15  Get together (cocktail reception)
   Expo Foyer
   Presentation of the 5th Edition of the ELSO “Red Book”
   Opening Historical Exhibition: History of Extracorporeal Circulation and Life Support

20:00-20:45  Concert St. John Church (Vrijthof, Maastricht)
**SATURDAY, MAY 6TH**

**8:30-10:00**  
**Can we reduce complication in cardiac arrest patients?**  
**Auditorium 1**  
**Chairs:** Giles Peek (New York, NY) - Alain Vuylsteke (Cambridge, UK)

- **Brain injury and selective brain cooling.**  
  Yih-Sharng Chen (Taipei, Taiwan)
- **Left ventricular and pulmonary stasis: the role of LV unloading**  
  pro: Federico Pappalardo (Milan, Italy)  
  cons: Christof Schmid (Regensburg, Germany)
- **Controversies in ECMO flows:**  
  Pulsatile or non-pulsatile flow. Xiaotong Hou (Beijing, China)
  High or low flow. Matthias Lubnow (Regensburg, Germany)
- **Post-cardiac arrest ECMO patient management: a new science for improvement?**  
  Graeme MacLaren (Singapore, Singapore)

**Panel discussion**

**08:30-10:00**  
**Pathophysiology issues in VV-ECMO**  
**Auditorium 2**  
**Chairs:** Paul Roekaerts (Maastricht, The Netherlands) - Annemieke Oude Lansink-Hartgring (Groningen, The Netherlands)

- **Ventilator-induced lung injury in ECMO.**  
  Gernot Marx (Aachen, Germany)
- **My target for lung-protective mechanical ventilation in ECMO patients.**  
  Antonio Pesenti (Milan, Italy)
- **Low paO2 and arterial saturation: how low can we go?**  
  Bob Bartlett (Ann Arbor, Michigan)
- **Right ventricular dysfunction in ARDS. How to manage it.**  
  Dinis dos Reis Miranda (Rotterdam, The Netherlands)

**Panel Discussion**

**08:30-10:00**  
**ECMO in non cardiovascular disease patients**  
**Room 04/05**  
**Chairs:** Ehsan Natour (Maastricht, The Netherlands) - Steven Conrad (Shreveport, Louisiana)

- **ECMO in trauma.**  
  Justyna Swol (Kronach, Germany)
- **ECMO and lung transplant: Is ambulatory ECMO the right solution?**  
  Jose Garcia (Boston, Massachusetts)
- **ECMO and lung surgery.**  
  Jos Maessen (Maastricht, The Netherlands)
- **ECMO and pediatric surgery.**  
  Carl Davis (Glasgow, Scotland)
- **The role of perfusionist in a multidisciplinary and an outside-cardiac surgery world.**  
  Leen Vercaemst (Leuven, Belgium)

**Panel Discussion**

**10:00-10:30**  
**Coffee Break**
10:30-12:00  Is it possible to set up a Randomized Controlled Trial in ECMO?
Auditorium 1  

- What did we learn after almost 100 randomized patients?
  Jan Belohlavek [Prague, Czech Republic]
- Designing a multicentre study on ECPR.
  Thijs Delnoij [Maastricht, The Netherlands]
- A large multicenter study in Asia: the Save II Study.
  Shingo Ichiba [Tokyo, Japan]
- The importance of well-designed study in cardiac arrest: the CHEER study.
  Vincent Pellegrino [Melbourne, Australia]
- The SUPERNOVA and EOLIA studies. Is randomizing in respiratory patients easier?
  Alain Combes [Paris, France]

Panel Discussion

10:30-12:00  Post-Cardiotomy ECMO in neonates/children
Room 04/05  

- Post-cardiotomy ECMO in children: trends and outcome.
  Jon Smith [Newcastle, UK]
- What should I do in these situation? Tips and tricks for effective cannulation and ECMO run.
  Mike McMullan [Seattle, Washington]
- How long should I wait for heart recovery, or for other therapies?
  Heidi Dalton [Falls Church, Virginia]
- Post-cardiotomy ECPR rescue in neonates and children. When to do it?
  Bahaaldin Alsoufi [Atlanta, Georgia]
- A roadmap for improving the results on postcardiotomy ECMO in children:
  Malaika Mendonca [Abu Dhabi, UAE]

Panel Discussion

10:30-12:00  Controversies in VA ECMO
Auditorium 2  
Chairs: Matthias Lubnow [Regensburg, Germany] - I-Wen Wang [Indianapolis, Indiana]

- Distal Limb perfusion: always, never, sometimes.
  Nicholas Cavarocchi [Philadelphia, Pennsylvania]
- ECMO weaning: shunting or not shunting.
  Zaheer Babar [Maastricht, The Netherlands]
- ECMO and cytokine absorption - Rational and clinical experiences.
  Karl Träger [Ulm, Germany]
- Dealing with the Harlequin Syndrome: When and how to act
  Sienn Whitman [Baltimore, Maryland]
- Inotropes, vasoconstrictors or no drugs on ECMO?
  Fabio Guarracino [Pisa, Italy]

Panel Discussion
12:00-13:00  ECMO for respiratory distress
Auditorium 1

Chairs: Thomas Mueller [Regensburg, Germany] - Bill Lynch [Ann Arbor, Michigan]

- Single Dual-Lumen Cannula or Double Cannulation for VV-ECMO?
  Daniel Herr [Baltimore, Maryland]
- Is the awake patient the right solution?
  Jonas Lindholm [Stockholm, Sweden]
- Recent insights in regenerative potentials of lung parenchyma: be patient, and lungs will recover!
  Bob Bartlett [Ann Arbor, Michigan]

Panel Discussion

12:00-13:00  Monitoring on ECMO. Part 1
Room 04/05

Chairs: Malaika Mendonca [Abu Dhabi, UAE] - Fabio S. Taccone [Bruxelles, Belgium]

- What’s new in on-line monitoring.
  Mirko Belliato [Pavia, Italy]
- Echocardiography in ECMO.
  Dirk Donker [Utrecht, The Netherlands]
- Neuromonitoring and neuroassessment.
  Aparna Hoskote [London, UK]

12:00-13:00  Designing a better ECMO system: clues for the future.
Auditorium 2

Chairs: Ludwig von Segesser [Lausanne, Switzerland] - Leen Vercaemst [Leuven, Belgium]

- View of the clinician.
  Filip De Somer [Gent, Belgium]
- View of the researcher
  Ludwig von Segesser [Lausanne, Switzerland]
- View of the industry.
  Claudius Diez [Getinge Group]

Panel Discussion

13:00-14:00  Lunch Sessions

14:00-15:00  VA ECMO in cardiogenic shock
Auditorium 1


- ECMO in AMI-cardiogenic shock patients: a must in the cath lab.
  Ivan Chavez [Minneapolis, Minnesota]
- The role of ECMO in non-AMI cardiogenic shock.
  Pascal Leprince [Paris, France]
- ECMO support for complicated cardiological procedures: an emerging role?
  Dierk Endeman [Regensburg, Germany]

Panel Discussion
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<th>Chairs</th>
<th>Presentations</th>
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</table>
| 14:00-15:00  | Complications in VA ECMO: how to handle them? | Auditorium 2   | Gil Bolotin (Haifa, Israel) - Yih-Sharng Chen (Taipei, Taiwan)                                   | • Complications in Cannulation.  
  Bart Meyns (Leuven, Belgium)  
  • Neurologic complications in VA-ECMO patients: Giving up?  
  Nick Barret (London, UK)  
  • The Harlequin Syndrome: are the heart and brain really suffering?  
  Bjorn Frenckner (Stockholm, Sweden)  
  Panel Discussion                                                                 |
| 14:00-15:00  | Simulation in ECMO                           | Room 04/05     | Mark Ogino (Philadelphia, Pennsylvania) - Matteo Di Nardo (Rome, Italy) - Cara Agerstrand (New York, NY) | Michael Broome (Stockholm, Sweden)  
  Panel Discussion                                                                 |
| 15:00-16:00  | Complications in VV-ECMO                    | Auditorium 1   | Thijs Delnoij (Maastricht, The Netherlands) - Dan Brodie (New York, NY)                         | • Lung consolidation and prone positioning.  
  Antonio Pesenti (Milan, Italy)  
  • How to optimize VV-ECMO and reduce neurologic events.  
  Ralf Muellenbach (Kassel, Germany)  
  • Are ECMO scores useful to predict outcome in complicated patient?  
  Alain Combes (Paris, France)  
  Panel Discussion                                                                 |
| 15:00-16:00  | Drug absorption, anticoagulation, and blood management | Room 04/05     | Heidi Dalton (Falls Church, Virginia) - Suneel Pobooni (Leicester, UK)                         | • Pharmacology on ECMO: is the pharmacokinetic known?  
  Enno Wildschut (Rotterdam, The Netherlands)  
  • What’s new in anticoagulation on ECMO.  
  Laurence Lequier (Edmonton, Canada)  
  • Hemolysis on ECMO: predictors and management.  
  Thomas Mueller (Regensburg, Germany)  
  Panel Discussion                                                                 |
| 15:00-16:00  | ECMO in pediatric patients: where are we?    | Auditorium 2   | Thomas Brogan (Seattle, Washington) - Arno van Heijst (Amsterdam, The Netherlands)             | • Trends and outcomes in VA-ECMO.  
  Ravi Thiagarajan (Boston, Massachusetts)  
  • Trends and outcomes in VV-ECMO.  
  Melania Bembea (Baltimore, Maryland)  
  • Impact on neurocognitive development: the importance of follow-up.  
  Anneke Lisselstijn (Rotterdam, The Netherlands)  
  Panel Discussion                                                                 |
| 16:00-16:30  | Coffee Break                                 |                |                                                                                                 |                                                                                                    |
16:30-17:30 Reporting Outcomes and Results in ECMO patients
Auditorium 1
Chairs: Bob Bartlett (Ann Arbor, Michigan) - Bart Meyns (Leuven, Belgium)

- ELSO Registry: what’s new.
  Ryan Barbaro (Ann Arbor, Michigan)
- Should we have just one Registry? Time for Global and Agreed Nomenclature in ECMO/ECLS: The ICECLE Project
  Steven Conrad (Shreveport, Louisiana)
- How to report mortality and morbidity in ECMO
  Sandro Gelsomino (Maastricht, The Netherlands).
Panel Discussion

16:30-17:30 Monitoring in ECMO. Part 2/Special Considerations
Auditorium 2
Chairs: Rodrigo Diaz (Santiago, Chile) - Ibrahim Fawzy (Doha, Qatar)

- Biomarkers on ECMO: how useful are they?
  Fabio Taccone (Bruxelles, Belgium)
- Anticoagulation monitoring.
  Gail Annich (Toronto, Canada)
- Hemodynamic monitoring.
  Marco Ranucci (Milan, Italy)
Panel Discussion

16:30-17:30 Risk Management and Prevention in ECMO
Room 04/05
Chairs: Kostanty Szuldrynski (Krakow, Poland) - Simon Finney (London, UK)

- How to report complications and misconduct ("the ideal debriefing")?
  David Cooper (Cincinnati, Ohio)
- The ideal ECMO Team: periodical simulation and training programs.
  Matteo Di Nardo (Rome, Italy)
- The prolonged ECMO support. How to prevent complications.
  Leonardo Salazar (Floridablanca, Colombia)
Panel Discussion

17:30-18:30 Weaning from ECMO
Auditorium 2
Chairs: Nicholas Cavarocchi (Philadelphia, Pennsylvania) - Igor Kornilov (Novosibirsk, Russian Federation)

- Which strategy in VV.
  Giles Peek (New York, NY)
- Which strategy in VA.
  Dominik Hochter (Munich, Germany)
- If Weaning fails and bridge to nowhere...
  Carlo Banfi (Geneva, Switzerland)
Panel Discussion

17:30-18:30 ECCO2R
Auditorium 1
Chairs: Alain Combes (Paris, France) - Vincent Pellegrino (Melbourne, Australia)

- Update on its use.
  Dan Brodie (New York, NY)
- Pro: Alain Combes (Paris, France)
- Cons: Thomas Mueller (Regensburg, Germany)
Panel Discussion
17:30-18:30  **Post-cardiotomy ECMO in adults: facts, challenges, and new strategies**  
**Room 04/05**  
**Chairs:** Wolfgang Bhure (Maastricht, The Netherlands) - Michele De Bonis (Milan, Italy)

- Post-cardiotomy ECMO in adults: the worst results in ECMO?  
  Pascal Leprince (Paris, France)
- ECMO Configuration: Central/Peripheral, Venting/No Venting?  
  Glenn Whitman (Baltimore, Maryland)
- Prophylactic ECMO in complex cardiac surgery patients: a new strategy?  
  Roberto Lorusso (Maastricht, The Netherlands)

Panel Discussion

18:45-22:30  **Gala Dinner**  
Chateau Neercanne (Neercanne, Maastricht)

Tickets required, not available on site. Information at the registration desk.

Bus Transportation. Bus will leave from MECC conference centre from 18:45 on.
### SUNDAY, MAY 7TH

#### 08:30-09:30  
**ECMO in War Zones**  
**Auditorium 1**  
Chair: Matthew Bacchetta (New York, NY) - Thomas Mueller (Regensburg, Germany)

- Peculiar issues for ECMO in war zones.  
  Jeremy Cannon (San Antonio, Texas)
- ECMO Transport.  
  Jan R. Dirnberger (Wilmington, Delaware)
- Only for soldiers or also for local civilians? A new humanitarian action?  
  Justyna Swol (Kronach, Germany)

Panel Discussion

#### 09:30-10:30  
**Not so common, but emerging indications in ECMO**  
**Auditorium 1**  
Chair: Gail Annich (Toronto, Canada) - Claudio F. Russo (Milan, Italy)

- ECMO in severe infectious illnesses.  
  Jerry Capatos (Johannesburg, South Africa)
- ECMO in pregnancy.  
  Kenneth Palmer (Stockholm, Sweden)
- ECMO in intoxication.  
  Sandeep Dewan (New Delhi, India)
- ECMO in septic shock: new evidences?  
  Graeme MacLaren (Singapore, Singapore)

Panel Discussion

#### 10:30-11:00  
**Coffee Break**

#### 11:00-12:00  
**What should I do if…?**  
**Auditorium 1**  
Chair: Laurence Lequier (Edmonton, Canada) - Nicholas Barret (London, UK)

- ...there are thrombi in the heart?  
  Christof Schmid (Regensburg, Germany)
- ...there is severe pulmonary bleeding or severe desaturation on VV-ECMO?  
  Mikael Broman (Stockholm, Sweden)
- ...in post-cardiac arrest ECMO? LV vent or no vent? IABP or not?  
  I-wen Wang (Indianapolis, Illinois)

#### 12:00-12:30  
**Training and simulation in “fast conditions”**  
**Auditorium 1**  
Chair: Roberto Lorusso (Maastricht, The Netherlands) - Ehsan Natour (Maastricht, The Netherlands)

#### 12:30-13:00  
**Closing remarks**  
**Auditorium 1**  
Jos Maessen (Maastricht, The Netherlands) - Mike McMullan (Seattle, Washington) - Roberto Lorusso (Maastricht, The Netherlands) - Jan Belohlavek (Prague, Czech Republik)
## SATURDAY, MAY 6TH 2017, MORNING

<table>
<thead>
<tr>
<th>Room 1</th>
<th>Hong Kong (cannulation in adult)</th>
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<th>Room 2</th>
<th>UK Nurses (pediatric simulation)</th>
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<tr>
<td>09:30-10:15</td>
<td>Adding CRRT (hemofiltration) to your ECMO circuit, ECMO Specialists Birmingham Children's Hospital</td>
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<tr>
<td>10:30-11:15</td>
<td>'Air in circuit' events, ECMO Specialists and Intensivists</td>
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<td>11:30-12:15</td>
<td>Pneumothorax in Pediatric VV ECMO, Chris Harvey, Richard Hartshorne</td>
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<th>Simon Finney (e-learning)</th>
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<td>09:30-10:30</td>
<td>E-learning ECLS, Simon Finney's Team Imperial College</td>
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<th>Room 4</th>
<th>Columbia University</th>
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<tr>
<td>08:00-08:45</td>
<td>Simulating ECLS physiology, Marc Dickstein</td>
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<th>Justyna Swol's Group (Adult ECPR)</th>
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<tr>
<td>11:00-11:45</td>
<td>ECPR Workshop, Justyna Swol, Jan Belohlavek, Anja Schulte</td>
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## SATURDAY, MAY 6TH 2017, AFTERNOON

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<td>The complex patient heart-lung machine system, Yuri Ganushchak, Antoine Simons, Erik Körver</td>
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## Invited Faculty

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<td>Cara Agerstrand, USA</td>
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<td>Ann Alexanderson, Sweden</td>
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<td>Bahaaldin Alsoufi, USA</td>
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<td>Duttipalla Anand, Scotland</td>
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<td>Gail Annich, USA</td>
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<td>Tim Antonius, the Netherlands</td>
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<td>Zaheer Babar, the Netherlands</td>
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<td>Matthew Bacchetta, USA</td>
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<td>Carlo Banfi, Switzerland</td>
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<td>Ryan Barbara, USA</td>
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<td>Nicholas Barret, UK</td>
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<td>Robert Bartlett, USA</td>
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<td>Charlee Beetham, Italy</td>
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<td>Mirko Belliato, Italy</td>
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<td>Melanie Bembee, USA</td>
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<td>Friedhelm Bayersdorf, Germany</td>
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<td>Christoph Benk, Germany</td>
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<td>Wolfgang Bhure, the Netherlands</td>
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<td>Gil Bolotin, Israel</td>
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BRAINSTORMING AROUND ECMO: discussion around details that make the difference

Saturday May 6, 2017
From 01:00 pm to 01:45 pm
MECC CONGRESS CENTER · Meeting Room 02/03
Forum 100, 6229 GV · Maastricht, NL

PROGRAM
· The importance of coating and how to manage anticoagulation
  F. Pappalardo – Milan, Italy
· Oxygenator management: when and how to change?
  A. Philipp – Regensburg, Germany
· A novel bi-directional arterial cannula
  for limb perfusion during long term procedures
  V. Pellegrino, E. Tutungi – Melbourne, Australia

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Best Abstracts

ADULTS

1. Incidence and risk factors of venous thrombosis after venovenous extracorporeal membrane oxygenation in patients with acute respiratory distress syndrome: a prospective observational study
   Christoph Fisser, Regensburg, Germany

2. Impact of cannula size on clinical outcomes in peripheral venoarterial extracorporeal membrane oxygenation
   Dong Hoon Kim, Seoul, South Korea

3. Severity Assessment of Brain Damage with rSO2 monitoring for Extracorporeal Cardiopulmonary Resuscitation after Out-of-hospital Cardiac Arrest
   Kei Nishiyama, Kyoto, Japan

4. Single Centre Experience of Post-Traumatic Stress Symptoms in Adult ECMO Survivors - Prevalence and risk factors
   Caroline Sampson, Glenfield, UK

5. Can We Predict Veno-Venous Extra-Corporeal Membrane Oxygenation Duration?
   Huiying Xu, London, UK

PEDIATRIC

6. Muscle oxygenation as a predictor for successful separation from ECLS
   Kenneth A. Schenkman, Seattle, Washington

7. Effects on Oxygenator Performance during pulsatile blood Flow
   Lotte Schraven, Aachen, Germany
Scientific Poster Exhibition

CARDIAC ADULTS

1. Metabolic Recovery During Refractory Cardiac Arrest and Cardiogenic Shock Using Extracorporeal Life Support
Zud Babar, YM Ganushchak, NPA Vranken, RHJ Hendrix, TSR Delnoij, R Lorusso, PW Weerwind
Departments of Cardiothoracic Surgery, Cardiology, Cardiovascular Research Institute Maastricht – LUMC and Intensive Care, Maastricht University Medical Centre, Maastricht, The Netherlands

2. Veno-Arterial and Veno-Venous ECMO-Support for Cardiopulmonary Failure Due to Refractory Pulmonary Embolism (PE)
Daniele Camboni, Alois Philipp, Lukasz Kmiec, Bernhard Flörchinger, Thomas Müller, Matthias Lubnow, York Zausig and Christof Schmid
Department of Cardiothoracic Surgery, Department of Internal Medicine II, Department of Anaesthesiology University Medical Center Regensburg, Germany

3. Fast and Safe Method of Vascular Access to Perform Coronary Angiography in ECPR Patients
L.Avalli, S.Righetti, V.Colombo, I.Calchera, G.Foti
Cardiac Surgery Intensive Care, ASST Monza, S.Gerardo Hospital, Cath-Lab. ASST Monza S.Gerardo Hospital, Anesthesia and Intensive Care, ASST Monza, Milano-Bicocca University, Milan, Italy

4. Does Spontaneous Pulsatility Affect Microcirculation in ECPR Patients?
Tomáš Bouček, Petra Krupičková, Zuzana Mormanová, Michal Huptych, Tomáš Belza, Ondřej Šmídl, Aleš Král, Hana Skalická, Aleš Linhart and Jan Bělohlávek
2nd Department of Medicine - Department of Cardiovascular Medicine, First Faculty of Medicine, Charles University and General University Hospital, ‘Student, First Faculty of Medicine, Charles University, ‘Department of Neonatology, Krajška nemocnice Liberec, ‘Czech Institute of Informatics, Robotics and Cybernetics (CIIRC), Czech Technical University 2nd Department of Medicine - Department of Cardiovascular Medicine, First Faculty of Medicine, Charles University and General University Hospital, Prague, Czech Republic.

5. Past and Future of the “Pavia eCPR Program”

6. Agreement of Several Measurement Methods of Cardiac Output During VA-ECMO for Cardiac Assistance in the Clinical Setting
L.Avalli, C. Valsecchi, F. Fossi, F. Sangalli, G. Foti
Cardiac Surgery Intensive Care, ASST Monza, S.Gerardo Hospital, ASST Monza, Milano-Bicocca University, Anaesthesia and Intensive Care, ASST Monza, Milano-Bicocca University, Milan, Italy

7. Remarkable Clinical Outcome after Rescue Extracorporeal Membrane Oxygenation for Iatrogenic Aortic Dissection, Aortic Insufficiency and Post Cardiomyopathy Syndrome
Marco Gennari, Fabiana Rossi, Gianluca Polvani, Francesco Arlati, Angelica Capozzoli and Marco Agrifoglio
Cardiac Surgery Unit, ‘UOC Cardiochirurgia, Fondazione IRCCS Policlinico San Matteo, ‘UOC Unità Terapia Intensiva Cardiologica, Fondazione IRCCS Policlinico San Matteo, Milan, Italy

8. Peripheral Veno-Arterial Extracorporeal Membrane Oxygenation (VA-ECMO) in Awake Patients with Severe Refractory Cardiogenic Shock
Brendan Murfin, Nicholas Barrett, Luigi Camporota, Guy Glover, Christopher Langrish, Christopher Meadows, Andrew Retter, Stephen Tricklebank, Duncan Wyncoll, Nicholas Ioannou
Critical Care Department, Guy’s & St Thomas’ NHS Foundation Trust, London, UK
9. Six-Year Results of Consecutive Patients Treated With Extracorporeal Membrane Oxygenation for Refractory Postoperative Cardiogenic Shock
Jimenez-Espinosa R\textsuperscript{1}, Galvan I\textsuperscript{1}, Roldan- Morales D\textsuperscript{1}, Hernandez-Rendon E\textsuperscript{1}, Lopez-Gutierrez A\textsuperscript{1}, Rangel-Olivares R\textsuperscript{1}, Barragan-Zamora A\textsuperscript{1}, Riera Kinkel C\textsuperscript{1}.
\textsuperscript{1}Department of Cardiothoracic Surgery, \textsuperscript{2}Critical Care Medicine, Department of Cardiothoracic Surgery, \textsuperscript{3}Department of Cardiothoracic Surgery, Hospital de Cardiología CMN Siglo XXI, Ciudad de Mexico, Mexico.

10. Venoarterial Extracorporeal Membrane Oxygenation Support for Early Refractory Cardiogenic Shock and Cardiac Arrest after Aortic Surgery
Feng Yang, Dengbang Hou, Xiaotong Hou
\textsuperscript{1}Center for Cardiac Intensive Care, Beijing Institute of Heart, Lung and Blood Vessel Diseases, Beijing Anzhen Hospital, Capital Medical University, Beijing, China

Jimenez-Espinosa R\textsuperscript{1}, Galvan-Caceres I\textsuperscript{1}, Roldan- Morales D\textsuperscript{1}, Hernandez-Rendon E\textsuperscript{1}, Lopez-Gutierrez A\textsuperscript{1}, Rangel-Olivares R\textsuperscript{1}, Barragan-Zamora A\textsuperscript{1}, Riera Kinkel C\textsuperscript{1}.
\textsuperscript{1}Department of Cardiothoracic Surgery, \textsuperscript{2}Critical Care Medicine, Department of Cardiothoracic Surgery, \textsuperscript{1}Resident of Cardiac Surgery, Department of Cardiothoracic Surgery, \textsuperscript{1}Department of Cardiothoracic Surgery, Hospital de Cardiología CMN Siglo XXI, Ciudad de Mexico, Mexico.

12. Clinical Characteristics of Acute Fulminant Myocarditis Patients Undergoing Extracorporeal Membrane Oxygenation
Gwan Sic Kim, Do Wan Kim, In Seok Jeong
\textsuperscript{1}Department of Thoracic and Cardiovascular Surgery Ch'onnam National University Hospital, Ch'onnam National University Medical School, Kwangju, Republic of Korea

13. Predictors for Survival in Patients with Initiation Extracorporeal Membrane Oxygenation Support for Acute Myocardial Infarction-Complicated Refractory Cardiogenic Shock/Cardiac Arrest: Retrospective Study
Hyoung Soo Kim\textsuperscript{1}, Sung Hoon Park\textsuperscript{1}, Sang Do Ha\textsuperscript{1}, Sun Hee Lee\textsuperscript{1}
\textsuperscript{1}Cardiac Surgery Unit, \textsuperscript{2}Intensive care medicine, \textsuperscript{1}Emergencmedicine, \textsuperscript{1}Intensive Care Unit, Hallym University Sacred Heart Hospital, Seoul, South Korea

14. Extracorporeal Membrane Oxygenation and Short-Term Left Ventricular Assist Devices Support as the Bridge to Heart Transplantation
V.Krachak, L.Shestakova, D.Krachak
\textsuperscript{1}Republican Scientific and Practical Center «Cardiology», Minsk, Belarus

N.R.F. Sluijters\textsuperscript{1}, S. Gelsomina\textsuperscript{1}, S. Heuts\textsuperscript{1}, M. Makhoul\textsuperscript{1}, P. Meani\textsuperscript{1}, T.S. Delnoij\textsuperscript{1}, J.W. Sels\textsuperscript{1,2}, M.C. Van De Pol\textsuperscript{1}, A. Montalti\textsuperscript{1}, P. Roekaerts\textsuperscript{1}, Z.U. Babar\textsuperscript{1}, E.P. Körver\textsuperscript{1}, Y.M. Ganushchak\textsuperscript{1}, P.W. Weerwind\textsuperscript{1}, M.A. Oude Lansink\textsuperscript{1}, E. Bidar\textsuperscript{1}, E. Natour\textsuperscript{1}, R. Schreurs\textsuperscript{1}, M. Gilbers\textsuperscript{1}, T. Poels\textsuperscript{1}, J.G. Maessen\textsuperscript{1}, R. Lorusso\textsuperscript{1}
\textsuperscript{1}Department of Cardio-Thoracic Surgery, Heart and Vascular Center, Maastricht University Medical Center (MUMC+), Maastricht, The Netherlands, \textsuperscript{2}Department of Cardiology, \textsuperscript{3}Department of Intensive Care Medicine, Maastricht University Medical Center (MUMC+), Maastricht, The Netherlands, \textsuperscript{4}Department of Cardiology, \textsuperscript{5}Department of Intensive Care Medicine, University Medical Center Groningen (UMCG), Groningen, The Netherlands.

16. The Association of Findings on Brain Computed Tomography with Neurologic Outcomes Following Extracorporeal Cardiopulmonary Resuscitation
Sua Kim\textsuperscript{1}, Dong Hoon Kim\textsuperscript{1}, Jeong-Am Ryu\textsuperscript{1}, Young Hyun Cho\textsuperscript{1}, Jeong Hoon Yang\textsuperscript{2,3}
\textsuperscript{1}Department of Critical Care Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea
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\textsuperscript{3}Division of Cardiology, Department of Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea

17. Long-Term Percutaneous Venous-Pulmonary Artery ECMO (oxyRVAD) as a Bridge to Pulmonary Thromboendarterectomy (PTE) or Recovery in Patients with Acute Right Heart Failure
P.M. Lepper\textsuperscript{1,2}, S. Hörnsch\textsuperscript{3,4}, A. Kamp\textsuperscript{1,2}, F. Seiler\textsuperscript{1,2}, C. Metz\textsuperscript{1,2}, H. Wehrfritz\textsuperscript{1,2}, M. Alqu德拉h\textsuperscript{1,2}, S. Becker\textsuperscript{1,2}, R. Bals\textsuperscript{1,2}, F. Langer\textsuperscript{1,2}, M. Kreidel\textsuperscript{1,2}, R.M. Muelenbach\textsuperscript{1,2}, H. Wilkens\textsuperscript{1,2} and F. C. Trudzinski\textsuperscript{1,2}
\textsuperscript{1}Department of Internal Medicine V - Pneumology, Allergology and Critical Care Medicine, University Hospital of Saarland, Homburg/Saar, Germany, \textsuperscript{2}Dept. of Anaesthesiology, Intensive Care Medicine and Pain Medicine, University Hospital of Saarland, Homburg/Saar, Germany, \textsuperscript{3}Dept. of Thoracic and Cardiovascular Surgery, Medicine and Pain Medicine, University Hospital of Saarland, Homburg/Saar, Germany, \textsuperscript{4}Republican Scientific and Practical Center «Cardiology», Minsk, Belarus
18. Prophylactic Temporary Mechanical Support in Patients Undergoing Cardiac Surgery with Severe Preoperative Right Ventricular Dysfunction
Samuel Heuts1, Ehsan Natour1, Susanne Kats1, Rick Schreurs1, Maged Makhoul1, Sandro Gelsomino1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar1, Samuel Heuts1, Maged Makhoul1, Sandro Gelsomino1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar1, Ornuruna Prodromou1, Akbar Vohra1, Niall O’Keeffe2, J. Andreas Hoschitzky2

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19. Minimally Invasive Central Arterial Cannulation Management in ECMO Patients after Complex Aortic Surgery: The Maastricht Approach
Samuel Heuts1, Ehsan Natour1, Susanne Kats1, Rick Schreurs1, Maged Makhoul1, Sandro Gelsomino1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar1, Susanne Kats1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar1, Ornuruna Prodromou1, Akbar Vohra1, Niall O’Keeffe2, J. Andreas Hoschitzky2

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20. Post-Cardiotomy Extracorporeal Membrane Oxygenation in Adult Patients: Where Do We Stand?
Khalid Alenizy1, Ehsan Natour1, Elham Bidar1, Maged Makhoul1, Samuel Heuts1, Sandro Gelsomino1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar1, Ornuruna Prodromou1, Akbar Vohra1, Niall O’Keeffe2, J. Andreas Hoschitzky2

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21. Veno-Arterial ECMO as Bridge to Intervention in an Adult Patient with Ebstein’s Disease and Acute Heart Failure
Marc O. Maybauer1, Ornuruna Prodromou1, Akbar Vohra1, Niall O’Keeffe2, J. Andreas Hoschitzky2

1Cardiac Anaesthesia – Manchester Royal Infirmary, Manchester University and MAHSc, Manchester, UK; University of Queensland, Australia; Philipps University Marburg, Germany; 2Cardiac Anaesthesia, UMH-I - Congenital Cardiac Surgery, UMH-I - Manchester Royal Infirmary, Manchester University and MAHSc, Manchester, UK

22. Cannula Position in Post-Cardiotomy ECMO: Configurations Options for a Better Patient Management
Elham Bidar1, Ehsan Natour1, Maged Makhoul1, Samuel Heuts1, Sandro Gelsomino1, Pieter Lozekoot1, Dan Johnson1, Susanne Kats1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar1, Ornuruna Prodromou1, Akbar Vohra1, Niall O’Keeffe2, J. Andreas Hoschitzky2

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23. Resuscitation Including VA-ECMO for Massive Pulmonary Embolism
Alexander D. Magan1, Floris S. van den Brink1, Peter G. Noordzij1, Sander Rip1, Daniel A.F. van den Heuvel1, Marco J.L. van Strijen2 and Erik Scholten3

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24. An Unusual Case of Veno-Arterial ECMO Followed by Veno-Venous ECMO after a Successful Mitral Valve Repair
Andrea Montisci1, Silvia Cirri1, Giulia Magnani1, Matteo Ferrarin1, Antonio Lio1, Massimo Piredda1, Laura Tagliabue1, Daniele Cosseta1, Anna Maria Marotta1, Alessandra Caratti1, Bruna Borghetti1, Helga Pavan1, Fernanda Bordignon1, Antonio Miceli1 and Mattia Glauber1

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25. Purpose - Oriented Support: Neither Missing Nor Over
Tanıl Özer1, Özge Altan1, Mustafa Mert ÖÄNözgür1, Yücel Özen1, Sabit Sarkaya1, Mehmet Kaan Kirali2
1Cardiovascular Surgery Department, Kartal Kosuyolu High Specialized Training and Research Hospital, Istanbul, Turkey

26. Preventive Strategy of Right Heart Failure after LVAD Implantation Through a Modified Femoro-Pulmonary Extracorporeal Membrane Oxygenation: A Prospective Analysis
Matteo Pozzi1, Jacques Robin1, Daniel Grinberg1, Laurent Sebag1, Pascale Boissonnat2, Elisabeth Hugon-Vallet1, Catherine Koffel1, Claire Flamens1, Sylvie Paulus1, Matthias Jacquet-Lagreze1, Laure Olivier-Soubirou1, Jean Luc Fellahi1, Jean François Obadia1

1Department of Cardiac Surgery, Louis Pradel Cardiologic Hospital, Claude Bernard University, Lyon, France; 2Department of
30. Novel Combination of Mechanical Cardiopulmonary Resuscitation and Intra-Aortic Balloon Counterpulsation in Refractory Cardiac Arrest in the Cardiac Catheterization Laboratory
Paul S C Rees
Cardiology and Internal Medicine, Utenos Medical Services, UK, Cardiology and Resuscitation Medicine, University of St Andrews, UK

31. A Rationale for Early Extracorporeal Membrane Oxygenation in Patients with Postinfarction Ventricular Septal Rupture Complicated by Cardiogenic Shock
Daniel Rob1, Rudolf Špunda2, Jaroslav Lindner2, Vilém Rohn2, Jan Kunstjíí2, Ondřej Šmid2, Tomáš Kovárník2, Aleš Linhart2, Jan Bělohlávek2
12nd Department of Medicine - Department of Cardiovascular Medicine, First Faculty of Medicine, Charles University and General University Hospital, Prague, Czech Republic

32. ECMO for the Treatment of Postcardiomyopathy Cardiogenic Shock in Octogenarians
Samalavicius, R1, Norkiene, I1, Gražulevičiūtė, D1, Misiuriene, I2, Krikščionys, M1, Jolačiaus, A2, Janusauskas, V1, Laurusonis, K1, Slottosch, I2, C. Guerreiro1,2,3, Leonello Avalli1,3, A. Mello1,2, L. Santos1,2
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33. In-Hospital Versus Out-of-Hospital Cardiac Arrest Treated with Extracorporeal Life Support
Francesca Fossi1, Francesca Isella1, Elena Maggioni1, Maurizio Migliari1, Anna Coppo2, Giuseppe Foti2, Leonello Avalli1, Fabio Sangalli1
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34. Managing Traps and Pitfalls During the Initial Phase of ECMO Retrieval Service: Should Patients Under Ongoing Cardiopulmonary Resuscitation Be Considered for Distant ECMO Support During Initial Learning Curve?
Sabashnikov A.1,2, Djordjevic I.1,2, Deppe A.-C.1,2, Kuhn E.1,2, Scherner M.1,2, Sindhu D.1,2, Slottosch I.1,2, Eghbalzadeh K.1, Zeriouh M.1,2, Rahmanian P.B.1, Mader N.1,2, Choi Y.-H.1, Kuhn-Régnier F.3, Wippermann J.1,2, Wahlers T.1,2
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35. Prognostic Predictors of Survival from Out-of-Hospital Refractory Cardiac Arrest: A Comparison Between Standard Treatment and Extracorporeal Life Support
Francesca Isella1, Francesca Fossi1, Elena Maggioni1, Maurizio Migliari1, Anna Coppo2, Giuseppe Foti2, Leonello Avalli1, Fabio Sangalli1
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36. In-Situ ECPR Simulation Reduces Time from Cardiac Arrest to ECMO Flow in Actual Patients.
Sean Scott1, Clare Richmond1, Brian Burns1, Kevin Maruno1, Jeff Breeding St. Vincent’s Hospital, 2Alexandra Pile, 3Nilesh Mahale, 4Peter McCann
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37. Venous-Arterial Extra-Corporeal Membrane Oxygenation as a Critical Part of a Multistage Therapy of Infectious Endocarditis
Krzysztof Skrzesz, Piotr Suwalski
Cardiac Surgery Operating Theatre, Cardiac Surgery Department, Central Clinical Hospital of the Ministry of the Interior and Administration, Warsaw, Poland

38. Mid-Term Survival and Quality of Life Ensuing ECPR: Pious Hope, Realistic Goal, or Reality?
T. Spangenber MD, J. Schewel MD, F. Meinecke MD A. Dreher MD H. van der Schalk MD KH Kuck MD A. Ghanem MD
Dept. of Cardiology, Asklepios Klinik St Georg, Hamburg, Germany

39. VA-ECMO in Post-Cardiomyopathy Patients with Infective Endocarditis
Floris S. van den Brink, Alexander D. Magani, Peter G. Noordzij MD PhD, Uday Sonker, Frank D. Eefting, Jan A.S. van der Heyden, Sander Rüti, Frans Waanders, Edgar Daeter, Patrick Klein and Erik Scholten
Departments of Cardiology, Department of Intensive Care, Department of Cardio-Thoracic Surgery, St Antonius Hospital, Nieuwegein, the Netherlands

40. Recurrent Fulminant Cardiogenic Shock Treated by Emergency V-A ECMO as a Bridge to Double Full Recovery
Jana Šmalcová, Ondřej Šmil, Jan Rulíšek, Martin Balík, Jan Bělohlávek
Second Department of Internal Medicine, Cardiovascular Medicine, General University Hospital in Prague, Czech Republic

41. VA-ECMO in Primary PCI for ST-Elevation Myocardial Infarction
Floris S. van den Brink, Alexander D. Magani, Peter G. Noordzij, Jan A.S. van der Heyden, Pierfrancesco Agostoni, Frank D. Eefting, Jurrien M. ten Berg, Sander Rüti, Frans Waanders, Edgar Daeter and Erik Scholten
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42. Extracorporeal Life Support in Refractory Cardiac Arrest- Procedural Complications Leading to Death
Alexandra-Maria Warenits, Fritz Sterz, Christian Wallmüller, Ingrid Anna Maria Magnet, Florian Ettl, Andreas Schober
Department of Emergency Medicine, 3rd Department of Internal Medicine and Cardiology, Hietzing Hospital, Vienna, Austria; Department of Emergency Medicine, Medical University of Vienna, Vienna, Austria

43. Plasma Colloid Osmotic Pressure and Blood Transfusion in Patients with ECMO Support Post Cardiac Surgery
Jingxin Yao, Lin Lyu, Guodong Gao, Cun Long
Department of Cardiopulmonary Bypass, State Key Laboratory of Cardiovascular Medicine, Fuwai Hospital, National Center for Cardiovascular disease, Chinese Academy of Medical Science and Peking Union Medical College, Beijing, China

44. Predictors of Mortality Following Extra-Corporeal Cardiopulmonary Resuscitation
Bishoy Zakhary, Vinodh Nanjayya, Vincent Pellegrino
Intensive Care Unit, NYU Medical Center, New York USA, Intensive Care Unit, Alfred Hospital, Melbourne, Australia

CARDIAC PEDIATRICS

45. ECMO Outcome Prediction Scores for Estimates of Likelihood of Survival in Pediatric Cardiac Surgery Patients
Shirin Badruddin
Cardiovascular Nursing, King Faisal Specialist Hospital and Research Center

46. V-A ECMO, then BiVAS and Finally LVAS as Bridge to Recovery: a Case Report of a Difficult Weaning in an Infant
Ghiti D., Favara M.2, Bonanomi E.3, Federici D.1, Uricchio N.2, Silvas J.1, Viscardi S.1, Micci G1, Ariano A.1, Bruno V.1, Crisci S.1, Marrone C.1, Graziolli L.1, Cattaneo S.2, Galletti L.2, Lorini F.L.3
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47. Analgesia and Sedation of Pediatric Patients after Norwood Procedure During Extracorporeal Life Support
Jörg Michel, Ines Gerbig, Vanya Icheva, Ellen Heimberg, Matthias Kumpf, Michael Hofbeck, Felix Neunhoeffer
Department of Pediatric Cardiology, Pulmology and Pediatric Intensive Care Medicine, University Children’s Hospital Tuebingen, Tuebingen, Germany

48. A New Step-by-Step Approach to VAD Support in Failing Fontan Patients
Borzacchi L1, Colapietra A1, Fosco T1, Oliveri D1, Cascarano MT1, Rizzo A1, Pace Napoleon C2
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Richard Hunt¹, Anne Middleburg², Suzy Dean³
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50. Extracorporeal Membrane Oxygenation for Refractory Septic Shock in Children: our Institution's Results
J.Rodríguez-Fanjul, A.Sole, S.Bobillo, J. Moreno, S. Segura, E. Esteban, M. Balaguer I. Jordan
²Paediatric Intensive Care Unit Service, Neonatal Intensive Care Unit Service, Hospital de Sant Joan de Dèu, University of Barcelona, Barcelona, Spain.

51. ECPR in Pediatric Patients after Pulmonary Valve Dilatation and Pulmonary Artery Rupture
Ilya Soynov¹, Alexey Zubritskiy¹, Nataliya Nichay¹ and Igor Kornilov²
¹Department of Congenital Heart Surgery, Siberian Biomedical Research Center Ministry of Health Russian Federation. ²Department of Anesthesiology, Siberian Biomedical Research Center Ministry of Health Russian Federation.

52. Changing Perceptions and Changing Outcomes in a Pediatric Cardiac ECLS Program
Santosh Sundararajan¹, Jo Lumsden¹, Jamie Bentham², Stefano Congiu³
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53. ECMO at Southampton Children’s Hospital, Children, Following Cardiotomy - A 6 year review
St John L¹, Viola N², Pappachan J¹, Richens T¹, Stanley V¹
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RESPIRATORY ADULTS

54. Extracorporeal Membrane Oxygenation in a Patient with Severe ARDS in the Context of Exacerbation of Idiopathic Interstitial Pneumonia with UIP Pattern
M.Alqudrah¹,², C. Metz¹,², F. Trudzinski¹,², S. Becker¹,², H. Wehrfritz¹,², C. Lensch¹,², A. Kamp¹,², M. Tauchnitz¹,², F. Seiler¹,², S. Hörsch¹,², H. Wilkens¹,², R. Bals¹,² und PM. Lepper¹,²
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55. Acquired Coagulation Disorders in Extracorporeal Lung Assist: Comparison Between avECCO2R, vvECCO2R and vvECMO
Martin Bedersdorfer¹,², Frederik Seiler¹,², Monika Flaison², Sabrina Hörnsch²,³, Kai Hennemann³,⁴, Ralf Mueller³,⁴, Annegret Kamp¹,², Carlos Metz¹,², Mohammed Alqudrah²,², Heinrike Wilkens³,², Frank Langer²,³, Robert Bals¹,², Philipp M. Lepper³,², and Franziska C. Trudzinski²,³
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56. Successful Application of Veno-Venous Extra-Corporeal Membrane Oxygenation (ECMO) for the Management of Acute Respiratory Failure Secondary to Granulomatosis with Polyangiitis (GPA)
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57. Extracorporeal Membrane Oxygenation (ECMO) as Salvage Treatment for Pulmonary Echinococcus Granulosus Infection with Acute Cyst Rupture
S. L. Becker¹,²,³, S. Fähndrich²,³, Sabrina Hörsch²,³, F. C. Trudzinski²,³, C. Metz¹,², A. Kamp¹,², H. Wehrfritz¹,², T. K. Becker¹, S. Alqudrah¹,², F. Seiler¹,², K. Rentz¹,², R. Bals¹,², T. Junghanss¹, R. Wilkens¹,², C. Lensch¹,², P. M. Lepper¹,²
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58. Mobilisation of Patients with Veno-Venous Extracorporeal Membrane Oxygenation (VV ECMO): A Case Series
A. Carswell1, A. Roberts1, A. Rosenberg2, B. Zych1, D. Garcia1, A. Simon2, M. Carby1 and A. Reed4
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59. Veno-Venous Extracorporeal Membrane Oxygenation Post Cardiac Surgery
Antonella Ferrara1, Paolo Bosco1, Jo-Anna Fowles1, Alain Vuylsteke1, Ravi DeSilva3
1-ellow Cardiothoracic surgery, Papworth Hospital NHS Foundation Trust, 2-ellow Cardiothoracic surgery, Papworth Hospital NHS Foundation Trust, 3Lead Nurse ECMO Services, Papworth Hospital NHS Foundation Trust, 4Consultant Intensivist, Papworth Hospital NHS Foundation Trust, 5Consultant Cardiothoracic surgery, Papworth Hospital NHS Foundation Trust, Cambridge, UK

60. Extracorporeal Membrane Oxygenation as a as Bridge to Lung Transplantation in Patients with Cystic Fibrosis
M. Feth1, A. Frank1, F. Seiler1, A. Kamp1, M. Flajig1, F. Langer2, C. Metz1, S.L. Becker1, H. Wilkens1, H.-J. Schäfers2, R. Bals1, P. M. Lepper1, F. Trudzinski1
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61. Use of Veno-Venous Extracorporeal Membrane Oxygenation for the Treatment of Viral Pneumonia-Induced Acute Respiratory Distress Syndrome
Antonio Figueredo1, Leonardo Salazar1, Adriana Murcia1, Luis G Uribe1, Maria Botia1, Oscar Quiñonez1
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62. VV ECMO is Lifesaving in H1N1 Pneumonia
Muhammet Onur Hanedan1, Gönül Erkan1, Ufuk Sayar1, Mehmet Ali Yürük1, Ozlem Saral1, Ilker Mataraci1
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63. Lobar Double Lung Transplantation in a Patient with Cystic fibrosis after Extended ECMO-Therapy
M. Feth1, H. Wilkens1, F. Seiler1, A. Kamp1, H. Wehrfritz1, F. Langer3, R. Bals1, H.-J. Schäfers1, P.M. Lepper1, F.C. Trudzinski1
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64. Incidence and Risk Factors of Venous Thrombosis After Venovenous Extracorporeal Membrane Oxygenation in Patients with Acute Respiratory Distress Syndrome: a Prospective Observational Study
Christoph Fisser1, Christoph Reichenbacher1, Matthias Lubnow1, Alois Philipp1, Dirk Lunz2, Thomas Müller1
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65. Extracorporeal CO2 Removal as Alternative to Tracheostomy in a Patient with Extubation Failure
Andreas Redel1, Markus Ritzka1, Stephanie Kraus1, Alois Philipp1, Hans-Jürgen Schlitt4, Bernhard Graf1, Thomas Bein1
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66. An Experience of V-A ECMO for Pulmonary Tumor Thrombosis Microangiopathy (PTTM) Patient
Yoshiaki Iwashita, Kei Suzuki, Hiroshi Imai
1Emergency and Critical Care Center, Mie University Hospital, Japan

67. Extracorporeal Carbon Dioxide Removal as A New Strategy in Difficult Weaning
A. Kamp1, F. C. Trudzinski1, F. Seiler1, C. Metz1, H. Wehrfritz1, M. Alqudrah1, S. Horsch1, C. Schmoll1, F. Langer1, R. Bals1,2 and P. M. Lepper1
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68. Respiratory Insufficiency: Importance of Patient Mobility and the Demand for Wearable Lung Assist Devices (LAD) – Results of a Survey
N. Kirsch a, T. Hammera, C. Warterb, A. Grünhagen a, J. Böhma a, G. Matheisa a, b: Medical faculty of Friedrich-Alexander-University Erlangen-Nürnberg, Krankenhausstr. 12, 9104 Erlangen, Germany

69. 6-Min Walk Distance (6MWD) in Patients Post Respiratory ECMO
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3 Department of cardiology, Maastricht University Medical Center, The Netherlands

70. Rescue ECMO Therapy in H1N1 Induced ARDS: A Case Report
Hurava M, Katslin M, Dzyaydzo A
Republican Scientific and Practical Center for Organ and Tissue Transplantation, Minsk, Belarus

71. Timely Treatment with Veno-Venous Extracorporeal Membrane Oxygenation in Acute Respiratory Failure after Cardiac Surgery with Extracorporeal Circulation
1 Cardiac Surgery Unit, 2 Anaesthesia Unit, Ospedale Santa Maria, “GVM” care and research, Bari, Italy

72. Factors Associated with Outcome of Patients with Acute Respiratory Failure on Pumppless Extracorporeal Interventional Lung Assist: Pilot Study
So Young Park, So Hee Park, Youngho Ko, Yong Bom Park
1 Pulmonary and Critical Care Medicine, Kyung Hye University Medical Center, Seoul, South Korea

73. Diffuse Alveolar Hemorrhage due to Goodpasture’s Syndrome Treated with Extracorporeal Membrane Oxygenation
I. Schymura 1,4, F. Seiler 1,4, A. Kamp 1,4, C. Metz 1,4, G. Aßmann 1,4, M. Alqudrah 1,4, R. Bals 1,4, H. Wilkens 1,4, P.M. Lepper 1,4
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74. A Case Report of Successful Management of Acute Respiratory Distress Syndrome in Severe Malaria by Prolonged Extra-Corporal Membrane Oxygenation (ECMO)
N. Kirsch a, T. Hammera, C. Warterb, A. Grünhagen a, Eilen Pragt 1, Walther N.K.A. van Mook 1, Håkan Kalzén 1,2, Thijss S.R. Delnoij 3,4, Serge J.H. Heines 1,2, N. Kirscha b, T. Hammera, C. Warterb, A. Grünhagen a, J. Böhma a, G. Matheisa a, b: Medical faculty of Friedrich-Alexander-University Erlangen-Nürnberg, Krankenhausstr. 12, 9104 Erlangen, Germany

75. Spontaneous Haematoma During Veno-Venous ECMO
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76. Outcome of Adult Patients with Respiratory Failure Based on Duration of Extracorporeal Membrane Oxygenation
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2 Division of Cardiovascular Surgery, Severance Cardiovascular Hospital, Yonsei University College of Medicine, Yonsei University Health System, Seoul, Republic of Korea
3 Division of Thoracic and Cardiovascular Surgery, Yonsei University College of Medicine, Seoul, Republic of Korea
77. Extracorporeal Membrane Oxygenation in Patients with Severe Respiratory Failure Following Burns and Smoke Inhalation Injury
Lajos Szengyorgyi1, Chloe Shepherd1, Peter Fawcett1, Julian M. Barker1, Marc O. Maybauer2,3
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78. Rheumatoid Arthritis-Related Interstitial Pneumonia Successfully Treated with VV-ECMO and PMX-DHP
Shu Utsumi, Takayuki Ogura, Daisuke Kobashi, Mitunobu Nakamura
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79. Mechanical Ventilation in Patients with VV-ECMO: Feasibility of Ultra-Protective Ventilation in a Real-World Setting
Annaelle Zietz1,2, Franziska C. Trudzinski1,2, Annegret Kamp1,2, Carlos Metz1,2, Holger Wehrfritz1,2, Mohammad Alqudrah1,2,3, Sören L. Becker1,2, Robert Baß1,2, Philipp M. Lepper1,2, and Frederik Seller1,2
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80. A Successful Long-Term Extracorporeal Cardiopulmonary Support for Severe Pulmonary Aspergillosis: A Case Report
Hiroyuki Tanaka, Jun Takeshita, Satoru Beppu, Nozomu Sasahashi, Kei Nishiyama
National Hospital Organization, Kyoto Medical Centre, Kyoto, Japan

81. Anticoagulation During Extracorporeal Membrane Oxigenation (ECMO) Associated with Diffuse Alveolar Hemorrhage Secondary to Wegener’s Granulomatosis: Case Report of Nurses ECMO’s Team in Brazil
Filipe Utuari de Andrade Coelho, Marcele Liliane Pesavento, Mauricéia Campos Souza, Neide Marcela Lucinio.
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82. Respiratory Extracorporeal Membrane Oxygenation (ECMO) in Geriatric Patients
Takayuki Ogura, Keibun Liu, Hiroyuki Suzuki, Mitsunobu Nakamura, Dai Miyazaki

RESPIRATORY PEDIATRICS

83. The “Hub and Spoke” ECMO in Neonates with Meconium Aspiration Syndrome: a Preliminary Report
Fichera D1, ECCP, MS; Zanella F2, CCP, MS; Padalino M3, MD, PhD; Lolli E4, RN, MS, Ciccherini E1, CCP; Ebraico A1, CCP; Vida V1, MD, Pnu; Ugioni N2, MD; Stellin G1, MD.
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84. Elective Extubation During Extracorporeal Life Support in Pediatric Patients
Ortiz P, Zuleta Y, Quiodrán J
Pediatric Intensivist, Hospital de Niños Roberto del Río, Santiago de Chile

85. Severe Acute Respiratory Failure Requiring ECMO as a First Presentation of Hereditary Pulmonary Alveolar Proteinosis in a 17-Year Old Male
Cavayas Yiorgos Alexandros, Sampson Caroline, Yusuff Hakeem
Intensive Care Unit, Uitenfield Hospital, Leicester, UK

86. Veno-Veno-Arterial ECMO in Severe Cardio-Respiratory Failure: a Pediatric Case Report
Torresani F1,2, Cremascoli L1,2, Epis F1,2, Pellegrini C1,2, Degani A1, Amatui A1, Alberti AR1, Pagani M2, Belliati M3, Lotti GA1,2
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GENERAL ADULTS

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88. The Oxygenator Design Might Influence the Adhesion of Leukocytes and Deposits of Von Willebrand Fibers on the Surface of Gas Exchange Membranes During ECMO
Bredthauer A1, Wilm J1, Philipp A2, Foitl M2, Mueller T2, Lehle K2
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89. A Case of Heparin-Induced Thrombocytopenia During Veno-Arterial ECMO for Cardiogenic Shock Secondary to Amiodol Cardiomyopathy in Multiple Myeloma.
L. Cremascoli1,2, M. A. Garlando1,2, G. Tavazzi3, P. Fumagalli3, A. Degani4, F. Mojoli4, M. Bellato5, C. Pellegrini6, G. A. Iotti1,2
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90. Impending Extracorporeal Life Support System Shutdown in a Patient with Hypertriglyceridemia and Heparin Resistance
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91. Bivalirudin and the Trauma Patient: A Safe Alternative for Extracorporeal Anticoagulation Needs
Cardona MF, Gibbs AD, Parker MJ, Paletti L, Whelan TPM
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92. Limited Sensitivity of the T-Score in Patients with Confirmed Heparin-Induced Thrombocytopenia During Extracorporeal Life Support
T.S.R. Delnoij1, K van de Pas2, E. Pragt3, E. Natour3, R. Lorusso1, M. van de Poll1, Y.M.C. Henskens4, J.E.M. Sels1
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93. Extracorporeal Membrane Oxygenation (ECMO)-Assisted Surgery for Mediastinal Goitre Removal
Gentile T1, Barocelli F1, Cavallio A1, Quaglini F1, De Piero M E1, Fontana D1, Livigni S1
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94. Cerebral Oxygenation as a Monitoring Parameter During Veno-Arterial Extracorporeal Membrane Oxygenation
Sang Ok Ha1, Mi Sun Oh2, Sunghoon Park1, Sun Hee Lee3, Kyung-Ho Yu4, Hyoun Soo Kim4
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95. ECMO Outcomes in a Single Centre of Mexico
Jimenez-Espinosa H1, Galvan-Ceron I1, Koldan- Morales L3, Hernandez-Hendon E2, Lopez-Gutierrez A2, Rangel-Olivares R1, Barragan-Zamora A1, Riera Kinkel O2
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96. ECMO Network in Slovenia
Vojka Gorjup, Petra Majcen, Žiga Vrhovnik
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97. Are Risk Scores Applicable in Tertiary Veno-Venous Extra-Corporeal Membrane Oxygenation Centers?
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98. Withdrawing Extracorporeal Life Support (ECLS) at Home
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99. Impact of Cannula Size on Clinical Outcomes in Peripheral Venoarterial Extracorporeal Membrane Oxygenation
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100. Prehospital ECLS in the Mobile Operating Room for Emergency Surgery Successfully Saved a Woman’s Life
Yutaro Kurihara1, Kensuke Fujita1, Kazumasa Umetani1, Yuri Kon1, Akihide Kon1
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101. Risk Factors of Mortality in Adults on Veno-Arterial Extracorporeal Membrane Oxygenation: A Systematic Review and Meta-Analysis
Yongnan Li1, Yinglu Zhao1, Hao Lin1, Mingyue Liu1, Song Lou2, Gang Liu2, Bingyang Ji2, Bingren Gao1
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102. Analysis of Bleeding Complications Associated with Percutaneous Tracheostomy Insertion in Patients on Veno-Venous ECMO Support over a 10-Year Period
Natalie Kruit1, Kamen Valchanov2, Jo-anne Fowles3, Alain Vuylsteke4
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103. The Association Between Anticoagulation Status and the Occurrence of Thromboembolic and Hemorrhagic Complications in a Single Center Cohort of Patients Treated with Extracorporeal Life Support.
L. Kuznecova-Keppel Hesselink, A. Oude Lansink-Hartgring, W.M. van den Bergh
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104. Understanding the “ECMO Gap”: Defining Prevalence and Patterns of In-Hospital Mortality on-ECMO or after Weaning in Adult Patients
Maged Makhoul1, Adbul Mansouri1, Samuel Heuts1, Sandro Gelsomino1, Eshan Natour1, Orlando Parise1, Pieter Lozekoot1, Dan Johnson1, Elham Bidar4, Susanne Kats1, Paolo Meani2, Niels Sluijpers1, Rick Scheurs1, Thomas Poels1, Martijn Gilbers1, Thijs Delnoij2, Jan Willem Sels2, Marcel van de Poll2, Alice Montalti3, Paul Roekaerts1, Patrick Weerwind1, Erik Körver1, Zaheer Babar1, Gil Bolotin1, Jos Maessen1, Roberto Lorusso1
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105. Setting the Scene: Extracorporeal Life Support Organisation (ELSO) Registry Data on the Provision of ECLS for Liver Transplant Recipients
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106. Hard Graft: The Characteristics of Liver Transplant Recipients Requiring ECLS in a Single Centre
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108. First for a Child, Now for a New Mother: Extending the Reach of Emergency Liver Transplantation by Bridging with ECMO – A Case Report
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109. Incidence, Risk Factors, and Outcomes of Hyperbilirubinemia in Adult Cardiac Patients Supported by Veno-Arterial ECMO
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110. Surgical Technique for Safe Removal of Arterial Cannulae Following Weaning of Peripheral Veno-Arterial ExtraCorporeal Membrane Oxygenation (VA-ECMO)
Anna Prent1, Nicholas Ioannou1, Morad Sallam1, Tommaso Donati1, Nicholas Barrett1, Luigi Camporota2, Guy Glover2, Chris Langrish2, Andrew Retter3, Stephen Tricklebank3, Duncan Wyncoll3, Chris Meadows3

111. Use of a Cytokine Adsorption Filter on a Patient with Multi-Organ Failure due to Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS syndrome) on an Oxy-RVAD
C. Metz1,2, A. Kamp1, F. Seiler1, H. Wehrfritz1, M. Alqudrah1,2, S. Becker1,2, C. Lensch1,2, S. Horsch1,2, R. Bals1,2, H. Wilkens1,2, F. C. Trudzinski1,2, C. S. L. Müller and P. M. Lepper1,2
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112. The Characteristics and Outcome of Patients Receiving Veno-Venous and Veno-Arterial ExtraCorporeal Membrane Oxygenation (VV-ECMO and VA-ECMO) in a Tertiary Hospital in Hong Kong
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113. Left Axillary Artery May Reduce Cerebral Embolism Risks at Peripheral ECMO Usage
Tanıl Özer, Mustafa Mert Ozgür, Özge Altıṣ, Yücel Özen, Sabit Sankaya, Mehmet Kaan Kirali
Cardiovascular Surgery Department, Kartal Koşuyolu High Specialized Training and Research Hospital, Istanbul, Turkey

114. Novel Markers of Muscle Mass and Muscle Mass Loss and Outcome in Patients Treated with ECLS
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115. Severe Assessment of Brain Damage with rS02 monitoring for ExtraCorporeal Cardiopulmonary Resuscitation after Out-of-hospital Cardiac Arrest
Kei Nishiyama, Hiroyuki Tanaka, Takashi Unoki, for the J-POP Registry Investigators
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Heparin Infusion to ECMO System May Ensure Safer Anticoagulation
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116. Incorporation of ExtraCorporeal Membrane Oxygenation in a Patient with Heat Stroke – a Case Report
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1. Ammoniology and Intensive Care Unit, 2. Cardiothoracic Surgery, Emergency Medicine, Hallym University Sacred Heart Hospital, Seoul, South Korea
117. Assessment of a Novel Bidirectional Femoral Arterial Cannula For Temporary Peripheral Circulatory Support
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118. Unique Regional Program “ECMO for Greater Poland”
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119. Evolution of Coagulation Profiles and Lactate Levels in Patients with Septic Shock Undergoing Extracorporeal Membrane Oxygenation
Sungmoon Park1, Hyung Soo Kim2, Sang Ook Ha2, Sun Hee Lee2
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120. Epidemiology of Bacteriological Analyses in Adult Patients Supported by Veno Arterial Extracorporeal Membrane Oxygenation.
Perrin C; Conil JM, Georges B; Marcheix B; Seguin T; Ruiz S, Bounes F; Minville V; Silva S; Delmas C
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121. Outcomes of Patients on Combined Extracorporeal Membrane Oxygenation and Continuous Renal Replacement Therapy: A Single Center Experience
University Hospital Würzburg, Department of Thoracic and Cardiovascular Surgery, Wurzburg, Germany

122. One-Year Survival after ECLS Support: A 15-year Experience in a Single Center
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123. Psychological Care in Awake ECLS
Sanchez, M1, Rosenberg, A.2, Simon, A.R.3, Carby, M4, Reed, A5
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124. Analyses of Recent Nurses Trained in Extracorporeal Membrane Oxygenation (ECMO): Initial Perspectives
Filipe Utuari de Andrade Coelho1, Marcele Liliane Pesavento2, Mauricéia Campos Souza2, Neide Marcela Lucinio2
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125. Single Centre Experience of Post-Cardiac Arrest: Prevalence of Risk Factors
Caroline Sampson1, Samantha Harris-Fox2
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126. Weaning from Prolonged Veno-Venous Extracorporeal Membrane Oxygenation (ECMO) after Transfer to a Specialized ECMO Center - A Retrospective Study
Frederik Seiler1,2,5, Franziska C. Trudzinski1,2,5, Sabrina Hörsch3,4, Annegrêt Kamp1,2,5, Carlos Metz1,2,5, Mohammad Alqudrah1,2,5, Holger Wehrfritz1,2,5, Ralf M. Muellenbach1,2,5, Hendrik Haake1,2,5, Robert Bals1,2,5, and Philipp M. Lepper1,2,5
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127. Analysis of Non-Trained Nurses in a Recent Center of Extracorporeal Membrane Oxygenation (ECMO): Initial Perspectives
Filipe Utuari de Andrade Coelho, Marcele Liliane Pesavento, Mauricéia Campos Souza, Neide Marcela Lucinio
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128. Can We Predict Veno-Venous Extra-Corporeal Membrane Oxygenation Duration?
Huiying Xu1, Burcin Halacli1, Winston Banya1, Susanna Price1, Suveer Singh1,2, Brijesh Patel1,3
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129. Microbiological Findings and their Association with Mortality in Adult Patients Requiring Veno-Venous ECMO
Zeckai F1, Philipp A1, Malertherer M2, Lubnow M2, Lunz D1, Redel A1, Müller T1, Lehle K1
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130. Incidence, Risk Factors and Impact on Outcome of Renal Failure in Patients Receiving Veno-Venous Extracorporeal Membrane Oxygenation: Prospective Observational Study
Zapetskaia T1, Conil JM2, Georges B3, Bounes F3, Seguin T1, Crogner L1, Brouchet L1, Minville V1, Silva S3, Delmas C1
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131. There Is a Clot in The Arterial Cannula. Now What?
Francisco Abecasis1,2, Zélia Soares3, Leonor Boto1,2, Cristina Camilo1,2, Marisa Vieira1,2
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132. Preventing Bedsores in Pediatric Patients Submitted to ECMO
Beetham CJC1, Cancani F1, Satta T1, Broccati F1, Malossi D1, Salvadori G1, Brandetti G1, Cimino L2, Di Nardo M2, Stoppa F1, Filippelli S1, Ciprandi G1
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133. Psychological Impact of an ECLS circuit on Patient’s Family
Jen Bond1 and Sarah Baker2
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134. Surviving Beyond Expectations
Balcels J1, Pujol M1, Izquierdo J1, Garcia X1, Lain A2, Moreno A1
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135. Hearing Screening Outcomes in the Paediatric Population Undergoing ECMO
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136. Evaluation of an “High-Fidelity” Simulation Program for the ECMO Training of Nurses and Medical Staff in a Pediatric Intensive Care Unit: The Bambino Gesù Children’s Hospital Experience
Francesca Broccati1, Charlie Beetham1, Tiziana Satta1, Federica Cancani1, Donatella Malossi1, Luca Cimino1, Giulia Brandetti1, Francesco Stoppa1, Antonino Amodeo1, Matteo Li Nardo1
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137. ACT vs AntiXa: How One PICU’s Struggle with Anticoagulation Led to a Systematic Review and Change in Practice
Richard Hunt1, Stacy O’Brien1, Oliver Tunstall1, Adrian Humphry1, Suzy Dean1
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138. Comparison of Fibrinogen Levels Measured by Clauss and Prothrombin Time Derived Methods in Children Supported with ECMO
Ansari E1, Murphy P1, Smith JH1, Ferguson LP1
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139. Use of Simulation To Implement the Use of Helicopter for ECMO Transport
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140. The Challenges of CRRT in ECLS Using a Positive Pressure Circuit Configuration: a 1-Year Review
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141. How To Feel Safe While Working on Pediatric ECMO/ECLS: Establish Bedside Checklists for High-Risk Events
Anke Helleken RN, Petra Goertz RN, Walter Jost CT, Wilke Schneider MD, Matthias Kumpf MD, Ines Gerbig MD, Interdisciplinary pediatric intensive care, ‘Cardiotechnic, Dept. Cardiovascular and thoracic surgery, Universitätsklinikum Tübingen, Germany

142. Lost in Translation: Standardising Inter-hospital Communication for ECLS Transfer
Fiona McDicken, Maura O’Callaghan, Dr Timothy Thiruchelam

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143. ECMO Nurse Specialist Training Program - the London Experience
Maura O’Callaghan, Lynn Pereira

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144. One Program, Different Backgrounds: Developing one ECMO Course for the Multidisciplinary Attendees Great Ormond Street Hospital
Caita Pinto, Catherine Howes, Pok Tsui, Maura O’Callaghan, Dr. Timothy Thiruchelam

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145. Muscle Oxygenation as a Predictor for Successful Separation from ECLS
Kenneth A. Schenkman, Andrew D. Mesher, D. Michael McMullan, Wayne A. Ciesielski, Faith J. Ross, and Lorilee S. L’Arakaki

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146. Critical events simulation for paediatric ECMO
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147. Procalcitonin kinetics in pediatric ECMO patients
Javier Rodríguez-Fanjul, Sara Bobillo-Perez, Anna Solé Ribalta, Julio Moreno Hernando, Susana Segura, Monica Bataguer, Iolanda Jordan

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Pediatric Intensive Care Unit Service, Hospital de Sant Joan de Déu, University of Barcelona, Barcelona, Spain.

148. University Hospitals Southampton Paediatric ECMO Service
A Nurse Led Affair

Cooper M, Marsden C, Stanley V, Pappachan J

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149. ECMO Experiences of Ihsan Dogramaci Children’s Hospital, Ankara, Turkey
Murat Tanyıldız, Selman Kesici, A. Filiz Yetimakman, Esra Koçkuzu, H. Hakan Aykan, Benan Bayrakci

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150. Extracorporeal Life Support Without Anticoagulation in Pediatric Patients
Zuleta Y, Ortiz P, Quilodrán J

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151. A Novel Score To Predict Outcome in Patients Supported by Veno-Arterial Extracorporeal Membrane Oxygenator
Sakir Akin, Kadir Caliskan, Osama. I. Soliman, Lucia. Jewbali, Corstiaan A. den Uil, Atilla Kara, Alina A. Constantinescu, Robert J van Thiel, Ron T. van Domburg, Jan Bakker, and Dinis dos Reis Miranda
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152. Implementation of ECMO System. A New Application for Recording Extra-Corporeal Life Support Data
Zvi Adler, Zvi Peled, Roi Glam, Keren Bitton-Worms and Gil Bolotin.
Cardiac Surgery Department, RAMBAM Health Care Campus, Haifa, Israel
Enrica Dorigo MD1, Sidney Chocron, MD, PhD1, Andrea Perrotti, MD1.
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153. Recirculation in Venovenous Extracorporeal Membrane Oxygenation
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Cardiovascular Nursing, King Faisal Specialist Hospital and Research Center, Riyadh, Saudi-Arabia

154. Native Heart Against ECLS - Numerical Simulation of the Competing Circulations and Their Impacts
Bongert M.1, Geller M.1, Griesebruch P.2, Gehron J.2, Schäfer S.2, Feibich M.3, Krombach G.3, Böning A.3
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155. D-Dimer and CO2 Removal Capacity: Another Way To Evaluate Oxygenator Performance During ECMO?
Epis F1, Cremascoli L1, Torresani F1, Somaschini A2, Pagani M3, Iotti GA3, Belliato M3
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156. Nursing and Interdisciplinary Challenges: Veno-Venous Extracorporeal Membrane Oxygenation
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158. “Single or a Double? A Service Evaluation on Single Care; A Gold Standard Practice at the Glenfield ECMO centre”
Emily Fitch
LIMU Department, Uenhead General Hospital, Leicester, UK

159. Outcome of Inter–Hospital ECMO / ECLS Transport - the Zürich Experience
Halbe M1, Mertha J1, van Tilburg K1, Albrecht R2, Wenger U1, Krüger B3, Weber A1, Benussi S1, Maisano F4, Wilhelm M4
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160. VAD Development Techniques Applied on ECMO Oxygenators. The Hidden Improvement Potential
Oliver Marseille1, Stefan Nötzle1, Andreas Nobis1, Thilo Joost1, Ralf Muellenbach2, Christof Lenz1
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161. High-Fidelity Simulation Creating DCD-ECMO Procedure in Poland
Mateusz Puslecki, Marcin Ligowski, Marek Dąbrowski, Marek Karczewski, Tomasz Małkiewicz2, Sebastian Stefaniak, Łukasz Gąsiorowski, Marcin Zieliński, Aleksander Pawłak, Agata Dąbrowska, Tomasz Klosiewicz, Maciej Sip, Piotr Ziemak, Bartłomiej Perek, Małgorzata Ładzińska, Michal Kiel, Marcin Misterski, Piotr Buczkowski, Stawomir Katarzyński, Wojciech Telec, Marek Jemielity
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162. Quality Improvement Project. Cardiohelp Device Incident Analysis and Response: The Experience of a Regional ECMO Centre
Jordan, P.1, Jackson, T.2, Sartori, G.3, Gunawardena, A.4, Trimlett, R.4, Price, S.4
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3Department of Cardiac Surgery and Transplantology, Poznan University of Medical Sciences, Poznan, Poland,
4Department of Anesthesia and Intensive Care, Center for Medical Simulation Poznan, Poznan, Poland

163. Description of the ELSO Excellence in Life Support Award: Scoring Rubric
T Morrison, WC Ellis, B Haney, M Heard, J Connelly
ELSO Excellence in Life Support Award Committee, Extracorporeal Life Support Organization, Ann Arbor, Michigan

164. High-Fidelity ECMO Simulation Scenarios
Mateusz Puslecki1, Marcin Ligowski2, Marek Dąbrowska1, Sebastian Stefanaki1, Łukasz Gąsiorowski1, Agata Dąbrowska1, Tomasz Kłosiewicz1, Maciej Sip1, Marcin Zieliński2, Aleksander Pawlak1, Paweł Sobczyński2, Magdalena Łukasik-Głębocka2, Marek Karczewski3, Tomasz Matkiewicz4, Aniela Artyńska5, Mariusz Gezela1, Bartłomiej Perek1, Małgorzata Ładzińska1, Michał Kiel1, Marek Misterski1, Piotr Buczkowski1, Wojciech Telec2, Michael Czekajlo3, Marek Jemielity4
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165. Left Ventricle Unloading in Veno-Arterial ECMO Support: Literature Review for an Unanswered Dilemma
Paolo Meani1, Eshan Natour1, Federico Pappalardo1, Elham Bidar1, Maged Makhouli1, Giuseppe Raffa1, Samuel Heuts1, Sandro Gelsomino1, Pieter Lozekoot1, Dan Johnson1, Susanne Kats1, Niels Stuijpers1, Rick Schreurs1, Martijn Gilbers1, Thijs Delnoij2,3, Alice Montalti1, Jan Willem Sels1,2, Marcel van de Poll1, Paul Roekaerts1, Patrick Weerwind1, Yuri Ganushchak1, Erik Körner1, Zeheer Babar1, Jos Maessen1, Roberto Lorusso1
1Department of Cardiothoracic Surgery, 2Cardiology Department, 3Intensive Care Department, Heart & Vascular Centre, Maastricht University Medical Center +, Maastricht, The Netherlands,
2Academic Medical Center, Amsterdam, Netherlands,
3Department of Cardiac Surgery, Maastricht University Medical Center +, Maastricht, The Netherlands

166. Extracorporeal Membrane Oxygenation as for Neuroprotection. A Case Report
Popugaev KA, Krugliakov NM, Belousova KA, Abudeev SA, Lobanova IN, Baghanov GI, Semenov MS, Gubarev KK, Zakhlevny AI, Zabelin MV, and Samoiloiv AS
1MBA ECMU Centre, Moscow, Russia

167. Prototype of High-Fidelity ECMO Simulator
Mateusz Puslecki1, Michał Kiel1, Marcin Ligowski2, Marek Dąbrowska1, Sebastian Stefanaki1, Łukasz Gąsiorowski1, Agata Dąbrowska1, Tomasz Kłosiewicz1, Maciej Sip1, Wojciech Telec1, Marek Karczewski1, Piotr Ziemak1, Bartłomiej Perek1, Małgorzata Ładzińska1, Marcin Misterski1, Tomasz Urbanowicz1, Wojciech Stachowiak1, Piotr Buczkowski1, Michael Czekajlo1, Marek Jemielity1
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6Virginia Commonwealth University, Department of Anesthesiology, Richmond, United States of America

168. Holistic Sedation for Emergency ECMO Cannulation: A New Paradigm?
Melissa Sanchez1, Alex Hosenberg2, Christopher Walker2, Clara Hernandez3, A Heed2 & Andre Simon4
1Psychology Department, 2Intensive Care Unit, 3Lung Transplant Physician, 4Transplantation, Royal Brompton and Harefield NHS Foundation Trust, London, UK

169. Haptoglobin Can Substitute Free Hemoglobin as a Hemolysis Marker?
Felipe Silva1, Bruno Fernandes1, José Paulo Lucas1, Angelo Detogni1
1Intensive Care Unit, 2Perfusion Service, Americas Servicios Médicos, Rio de Janeiro, Brazil

170. Experimental Study on Intra-Circuit Pressures of Continuous Blood Purification Circuit Directly Connected to ECMO Device
Kenichi Suzuki3, Shingo Ichiba2, Hiroshi Takada2
1Department of Medical Engineering, Nippon Medical School Hospital.
2Department of Surgical Intensive Care Medicine, Nippon Medical School Hospital.
3Department of Medical Engineering, Kinki University Hospital

171. Wet Pre-Primed Circuits for ECMO: Circuit-Related Infections During a 6-Year Clinical Experience
Anna Mara Scandroglio, Marina Pieri, Alessandro Belletti, Otello Giancarlo Turla, Federico Pappalardo
1Department of Anesthesiology and Intensive Care, San Raffaele Hospital, Milan, Italy
172. Starting an ECMO Program in a Private Hospital in Brazil
Felipe Silva¹, Bruno Fernandes¹, José Paulo Lucas², Angelo Detogni³
¹Intensive Care Unit, ²Perfusion Service, Americas Serviços Médicos, Rio de Janeiro, Brazil

173. Surgical Safety Checklist Implementation in the Extracorporeal Membrane Oxygenation (ECMO) Therapy
Sistema d’Emergències Mèdiques, Hospital Germans Trias i Pujol, Barcelona, Spain

174. Effects on Oxygenator Performance During Pulsatile Blood Flow
L. Schraven¹, C. Flege², R. Kopp², T. Schmitz-Rode³, U. Steinseifer³, J. Arens⁴
¹Department of Cardiovascular Engineering, Institute of Applied Medical Engineering, Helmholtz Institute, RWTH Aachen University,
²Department of Intensive Care, Uniklinik RWTH, ³Institute of Applied Medical Engineering, Helmholtz Institute, RWTH Aachen University,
⁴Department of Cardiovascular Engineering, Institute of Applied Medical Engineering, Helmholtz Institute, RWTH Aachen University,
Aachen, Germany

175. An ELSO/APELSO Developed ECMO Cannulation Model: An Overview of the Cannulation Workshop and the Evaluation of a Cannulation Course
Sin WC, Ngai CW, Mok YT, Chan WK, Lai CK, Graeme McLaren, Mark Ogino
ELSO/APELSO Organizations

176. Nursing Cares During the Interhospital Transport of the ECMO Patients
Sistema d’Emergències Mèdiques, Hospital Germans Trias i Pujol, Barcelona, Spain

177. The Impact of a Two-Day Simulation-Based ECMO Course for ECMO Practitioners
Bishoy Zakhary¹, Bridget Toy²
¹Intensive Care Unit, NYU Medical Center, New York USA, ²EM Service, RN, NYU Medical Center, New York, NY
Young Fellow Travel Grants

We are very pleased to announce the awardees of the young fellow grant:

- Francesca Broccati, Rome, Italy
- Luca Cremascoli, Pavia, Italy
- Christoph Fisser, Regensburg, Germany
- Burcin Halacli, London, UK
- Annegret Kamp, Homburg, Germany
- Valeriya Krachak, Minsk, Belarus
- Anton Sabashnikov, Cologne, Germany
- Ilya Soynov, Novosibirsk, Russia
- Volodymyr Voitko, Kiev, Ukraine
- Huiying Xu, London, UK

We are grateful to our industry partners for their contribution to assist young fellows in travelling to Maastricht and participating in the EuroELSO-6th International Congress.
Useful information

Venue Pre-congress and the Annual congress
MECC Maastricht
Forum 100, 6229 GV Maastricht
www.mecc.nl

Opening hours congress desk
Thursday May 4: 12.00 - 18.30 hrs.
Friday May 5: 07.30 - 19.00 hrs.
Saturday May 6: 07.00 - 18.00 hrs.
Sunday May 7: 07.30 - 13.00 hrs.

Free transport city bus
Your congress badge offers you free use of the city bus to visit the city in the evening and for your daily transportation between your hotel and the congress venue.

A detailed city map is available in your congress bag. You can use the city bus to visit the city in the evening and for your daily transportation between your hotel and the congress venue. A city bus stops in front of MECC Maastricht every 10 minutes.

The following lines stop in front of MECC Maastricht:
Line 1 “De Heeg”: bus stop Forum
Line 3 “Heugem”: bus stop Forum
Line 5 “Heugem”: bus stop Forum
Line 8 “Eijsden”: bus stop Forum
Line 10 “Vise”: bus stop Forum

Abstracts
The congress abstracts will be published in the supplement of the Europena Journal of Heart Failure.
The supplement will be distributed at the congress.

Posters
The numbers in the poster list correspond with the numbers on the poster boards. The poster boards are situated in the Exhibition Area (Expo Foyer)

Certificate of attendance
Registered participants will receive a certificate of attendance via email after the congress.

Wifi
The Wifi code in the MECC Congress centre is:
MECC_CONGRESCENTRE password: meccmaastricht

Cloakroom
There is a cloakroom located in the registration area. Please note the cloakroom is not supervised- items left here are not covered by insurance.

Accreditation
Accreditation has been granted for the following societies:
Nederlandse Internisten vereniging (NIV) - 23 points
Nederlandse Vereniging voor Intensieve Care (NVIC) - 23 points
Nederlandse Vereniging van Artsen voor Longziekten en Tuberculose (NVALT) - 23 points
Nederlandse Vereniging voor Anesthesiologie (NVA) - 23 points
Nederlandse Vereniging voor Cardiologie (NVWCC) - 23 points
Nederlandse Vereniging voor Kindereneeskunde (NVK) - 23 points
Nederlandse Vereniging voor Neurologie (NVN) - 23 points
Nederlandse Vereniging voor Perfusioisten (NeSECC) - 20 points
Nederlandse Vereniging voor Thoraxchirurgie (NVT) - 24 points

Registration fees - Pre Congress Courses (4-5 May, 2017)
Physician Member - on-site € 250,-
Physician Non Member - on-site € 270,-
Nurse Member - on-site € 200,-
Nurse Non Member - on-site € 210,-
Perfusionist Member - on-site € 240,-
Perfusionist Non Member - on-site € 240,-
Industry Representative/Exhibitor Non Member - on-site € 220,-
Student - on-site € 120,-
Other Member - on-site € 210,-, Other Non Member - on-site € 220,-

Registration Fees - Main Congress (5-7 May, 2017)
Physician Member - on-site € 515,-
Physician Non Member - on-site € 615,-
Perfusionist Member - on-site € 315,-
Perfusionist Non Member - on-site € 355,-
Nurse Member - on-site € 305,-
Nurse Non Member - on-site € 315,-
Industry Representative/Exhibitor Non Member - on-site € 350,-
Student - on-site € 130,-
Other Member - on-site € 310,-, Other Non Member - on-site € 350,-

Registration Fees - Social Events (5-6 May, 2017)
Congress gala dinner € 100,-
Concert € 25,-
Please note: There are only limited tickets available at the registration desk for the social events

Disclaimer
The organisers cannot accept liability for injuries or losses of whatever nature incurred by participants, not for loss of or damage to their luggages and/or personal belongings.
Floorplan Expo Foyer

01 Getinge
02 Medtronic
03 Livanova
04 Chalice Medical
05 Baxter
07 Eurosets
08 Spectrum medical
09 Transonic Europe
10 CytoSorbents
11 Clearflow
12 Xenios
13 Abiomed
14 The Extracorporeal Life Support Organization
15 Abbott
16 Mitsubishi
18 ZEDN Medical
20 Sphere Medical

Historical Exhibition

Entrance

Poster Area

Getinge Training Village

Educational corners

Lift

Lift

Poster Area

Getinge Training Village

Lift

Lift

Historical Exhibition
Industry sponsored Symposia

SATURDAY, MAY 6TH 2017

07:30-08:15  Postcardiotomy bleeding and systemic hyperinflammation
- How to deal with two major challenges in ECMO patients
Chair: Karl Träger - Ulm, Germany

Using active tube clearance technology to reduce complications from retained blood
Theodor Fischlein - Nuremberg, Germany
CytoSorb and ECMO - Treat systemic hyperinflammation and enhance your therapeutic options
Frederico Pappalardo - Milan, Italy

13:00-13:45  Transporting Patients on ECMO - Best Practice Sharing
Chair: Tilmann Schwab

Ground and high altitude evacuation using the Cardio help: effects of altitude and microbubble formation in trauma
Andrey Batchinsky - San Antonio, Texas, USA
When the wheels come off, a Perfusion perspective on retrieval
N. Agnew - London, UK
Hemodynamic Monitoring Strategies of ECLS Patients during Transport
Jörg Looaner - Utrecht, the Netherlands

13:00-13:45  Round Table Discussion on the Future of ECLS
- Where might we be going?
Chair: Michael van Driel, Business Director Medtronic International

Vision of ECLS and the Future, a clinical perspective
Jörg Looaner - Utrecht, The Netherlands
The role of registries and expanding EURO ELSO
Ryan Barbaro - Ann Arbor, Michigan
Industry and the growth of ECLS
Denise Steinbring - Senior Marketing director Medtronic Inc.
Round table discussion

13:00-13:45  Brainstorming around ECMO:
discussion around details that make the difference
Chair: Denise Steinbring, Senior Marketing director Medtronic Inc.

The importance of coating and how to manage anticoagulation
Frederico Pappalardo - Milan, Italy
Oxygenator management: when and how to change?
Alois Philipp - Regensburg, Germany
A novel bi-directional arterial cannula for limb perfusion during long term procedures
E. Tutungi, Vincent Pellegrino - Melbourne, Australia
Social programme

WELCOME RECEPTION

Friday 5 May 2017 | 18:15 - 19:15, MECC Expo Foyer
The get together will be held in the Exhibition Area (Expo Foyer) of the MECC and is open for all delegates to attend. During the welcome reception the 5th edition of the Elso “Red Book” will be presented and the historical exhibition will be opened.

CONCERT

Friday 5 May 2017 | 20:00 - 20:45, St. John’s Church
The St. John’s Church is a monumental church building located at the unique Vrijthof in the beautiful, historic Maastricht. The Gothic St. John’s Church (also called the ‘Saint John of Maastricht’) is located next to the Servaasbasiliek at the striking Vrijthof in Maastricht and was originally intended as a parish church for the Chapter of Saint Servatius, so that the basilica would be relieved as a pilgrimage place. The Red Tower is a landmark on the skyline of Maastricht. With its location in the heart of the city, the St. John’s church is very popular and suitable for many purposes.

Maastring Trio
The Maastring Trio will play very nice classical music. Registration required. Tickets are required, they are not available on site. Please ask at the registration desk. Costs per ticket: € 25,-

CONGRESS GALA DINNER

Saturday 6 May 2017 | 19:00 - 22:30, Chateau Neercanne
The Congress Dinner will take place at Château Neercanne, on Saturday 6 May 2017. In the magnificent Jekerdal valley, adjacent to the Belgian border, is Château Neercanne, the only terraced castle in the Benelux. The beautiful Baroque gardens of the 17th century castle are divided over four levels, all of them UNESCO World Heritage Sites. The highest terrace offers a wonderful view of the gardens and the magnificent valley. Château Neercanne has a rich cultural and culinary tradition.

The unique wine cellars in the marl caves, where the Maastricht Treaty on the European Union was signed, form an unparalleled setting for a dinner. The congress dinner will be a high quality culinary discovery through the Château and caves where you can taste several dishes made from local products. Along with a map, you will walk through the caves, where the dinner is served at several places. A walking dinner enables you to easily meet and talk with your colleagues! The outside terrace will provide fabulous views on the surroundings. Tickets are required, they are not available on site. Please ask at the registration desk.

Costs per ticket: € 100,-
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Cardiopulmonary