An application will be made for accreditation to European Accreditation Council for Continuing Medical Education (EACCME®).

This course is intended for thoracic surgeons willing to expand their theoretical knowledge as well as their practical skills in the treatment of chest wall disorders.

Course Organisers:
Hans Van Veer, MD
University Hospitals Leuven, Belgium

Alessandro Bertani
Director of Education
IRCCS ISMETT - UPMC Italy

For CWIG
Jose Ribas de Campos, MD, PhD
Sao Paolo, Brazil
12:30-12:40h  15:30-15:45h  Pectus excavatum. Basics
  Alessandro Bertani

12:40-12:45  15:45-16:00h  Pectus excavatum. Non-surgical treatment
  Hans Van Veer

12:45-14:30h  16:00-16:30h  Pectus excavatum. Surgical treatment
  SESSION 1. CHEST WALL TRAUMA
  Chairs: Hans Van Veer, Pablo Moreno

12:45-13:00h  16:30-16:45h  Updates on adult pectus excavatum repair
  What, when and how on treatment of flail rib fractures
  Pablo Moreno

12:40-12:45h  16:45-17:00h  Session Q&A
  Welcome and introduction to the course
  by ESTS Director of Education
  Alessandro Bertani

12:45-14:30h  17:00-17:15h  Coffee Break
  Welcome and introduction to the course
  by local host
  Hans Van Veer

12:45-14:30h  17:15-18:30h  SESSION 3. RESECTION AND RECONSTRUCTION OF THE CHEST WALL
  (HYBRID SESSION)
  Chairs: Pieter-Jan Van Huijstee, Jose Aranda

12:45-13:00h  18:00-18:15h  Soft tissue reconstruction: classical techniques
  What, when and how on treatment of isolated non-flail multiple rib fractures
  Pieter-Jan van Huijstee

13:00-13:30h  18:15-18:30h  Session Q&A
  What, when and how on treatment of isolated non-flail multiple rib fractures
  Pieter-Jan van Huijstee

13:30-13:45h  17:30-17:45h  Rigid chest wall reconstruction: classical and modern techniques
  Long term follow-up after rib fixation for flail chest and multiple rib fractures
  Fabrizio Minervini [VIRTUAL]

13:30-13:45h  18:45-19:00h  Optimal chest wall prosthesis
  Associated lesions in thoracic trauma: what to think of?
  Erik de Loos

13:45-14:00h  17:45-18:00h  Paolo Nicola Camillo Girotti [VIRTUAL]
  When do we need a reconstruction?
  Frederic De Ryck

14:00-14:15h  19:00-22:30h  First Course Dinner
  Pain control in thoracic trauma
  TBC

14:15-14:30h  19:00-22:30h  Session Q&A
  All faculty

14:30-14:45h  19:00-22:30h  Coffee break
  Session Q&A
  All faculty

14:45-15:00h  18:15-18:30h  Pectus Carinatum. Basics
  SESSION 2. CONGENITAL CHEST WALL DEFORMITIES (HYBRID SESSION)
  Chairs: Erik de Loos, Ana Lain Fernández

14:45-15:00h  18:15-18:30h  Session Q&A
  Pectus Carinatum. Basics
  Hans Van Veer

15:00-15:15h  19:00-22:30h  First Course Dinner
  Pectus Carinatum. Non-surgical treatment
  Marcelo Martinez-Ferro

15:15-15:30h  19:00-22:30h  Pectus Carinatum. Surgical treatment
  Jose Ribas
<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>08:30-10:45h</td>
<td><strong>SESSION 4. PATIENT ASSESSMENT &amp; PAIN REGIMEN</strong>&lt;br&gt;Chairs: Pablo Moreno, Jose Ribas</td>
<td>10:50-12:00h</td>
<td><strong>SESSION 5. DRY LAB</strong>&lt;br&gt;PRESENTATION OF AVAILABLE EQUIPMENT&lt;br&gt;Dry lab: Getting to know the available instruments/equipment&lt;br&gt;All on site faculty</td>
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<tr>
<td>08:30-08:40h</td>
<td><strong>Preoperative diagnostic and functional assessment in resectional surgery</strong>&lt;br&gt;Jose Aranda</td>
<td>12:00-13:00h</td>
<td><strong>Lunch</strong></td>
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<td>08:45-09:05h</td>
<td><strong>Preoperative diagnostic and functional assessment in congenital chest wall surgery: new modalities</strong>&lt;br&gt;Erik de Loos</td>
<td>13:00-15:00h</td>
<td><strong>SESSION 6. WET LAB I</strong>&lt;br&gt;Wet lab I: attendees distribution and rotation&lt;br&gt;All on site faculty</td>
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<td>09:05-09:15h</td>
<td><strong>Discussion</strong>&lt;br&gt;All faculty</td>
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<td>09:15-09:35h</td>
<td><strong>Conventional systemic drugs, including pharmaco knowledge</strong>&lt;br&gt;Hans Van Veer</td>
<td>15:00-15:30h</td>
<td><strong>Coffee break</strong></td>
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<td>09:35-10:00h</td>
<td><strong>Local analgesia / blocks in finding the best pain killer strategy for preventing chronic pain</strong>&lt;br&gt;Steve Coppens</td>
<td>15:30-18:00h</td>
<td><strong>SESSION 7. WET LAB II</strong>&lt;br&gt;Wet II: attendees distribution and rotation&lt;br&gt;All on site faculty</td>
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<td>10:00-10:20h</td>
<td><strong>Cryoablation and other new techniques</strong>&lt;br&gt;Joel Dunning [VIRTUAL]</td>
<td>15:30-17:30h</td>
<td><strong>Wet lab II: attendees distribution and rotation</strong>&lt;br&gt;All on site faculty</td>
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<td>10:20-10:35h</td>
<td><strong>Pain Q&amp;A</strong>&lt;br&gt;All faculty</td>
<td>17:30-18:00h</td>
<td><strong>Wet- lab wrap up: difficulties in participant’s workshop exercises questions &amp; answers</strong>&lt;br&gt;All on site faculty</td>
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<td>10:35-10:50h</td>
<td><strong>Coffee break</strong></td>
<td>18:30-19:00h</td>
<td><strong>Bus departure to the hotel</strong></td>
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<td>19:30-22:30h</td>
<td><strong>Second Course Dinner</strong></td>
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08:30-10:30h  **SESSION 8. ADVANCED KNOWLEDGE SESSION**  
Chairs: Pieter-Jan Van Huijstee, Ana Laín Fernández

08:30-08:50h  Nuss procedure - Asian perspective & modifications  
Hyung Yoo Park [VIRTUAL]

08:50-09:10h  Nuss procedure - European perspective & modifications  
Hans Pilegaard [VIRTUAL]

09:10-09:30h  Treating complex cases - Jeune, sternal cleft, Poland  
Tunç Lacin [VIRTUAL]

09:30-09:50h  Treating complex cases - pectus arcuatum  
Jose Ribas

09:50-10:10h  Managing orthopaedic complications when treating congenital chest wall deformities  
Korkut Bostanci [VIRTUAL]

10:10-10:30h  Long term follow up of chest wall resection & reconstruction: physiological effects  
Niccolo Daddi [VIRTUAL]

10:30-10:45h  Coffee break

10:45-12:30h  **SESSION 9. INTERACTIVE CASE DISCUSSION**  
Chairs: Hans Van Veer, Jose Ribas

10:45-12:00h  Attendees presenting cases for open discussion  
All on site faculty

12:00-12:30h  Final review: participants questions and answers  
All on site faculty

12:30-13:00h  Feedback and farewell  
Light lunch before departure

13:00h  End of Course