26th Postgraduate Refresher Course
Cardiovascular and Respiratory Physiology Applied to Intensive Care Medicine
Brussels, December 3-5, 2024

Tuesday, December 3, 2024

08:30	**Introduction**
08:35	**Basic respiratory mechanics and the equation of motion** Laurent Brochard (Toronto, Canada)
09:05	**Gas exchange** Luigi Camporota (London, UK)
09:35	**Physiological aspects of the different modes of ventilation** Laurent Brochard (Toronto, Canada)
10:05	**Discussion**
10:20	***Break***
10:40	**Mechanical power and ventilation-induced lung injury** Luigi Camporota (London, UK)
11:10	**Optimal PEEP** Laurent Brochard (Toronto, Canada)
11:40	**Extrapulmonary effects of PEEP** Luigi Camporota (London, UK)
12:10	**Discussion**
12:25	***Lunch***
13:20	**Patient-ventilator interactions** Laurent Brochard (Toronto, Canada)
13:50	**Pumonary hypertension and right ventricular function** Michael R Pinsky (Pittsburgh, USA)
14:20	**Oxygen delivery and consumption** Jean-Louis Vincent (Brussels, Belgium)
14:50	**Discussion**
15:05	***Break***

Brussels, December 3-5, 2024

26th Postgraduate Refresher Course

Workshops

15:30	**Hypoxemia** Jean-Louis Vincent (Brussels, Belgium)
15:50	**Approach to a patient in respiratory distress** Luigi Camporota (London, UK)
16:10	**Assessing respiratory efforts** Laurent Brochard (Toronto, Canada) & Luigi Camporota (London, UK)
16:30	**Setting PEEP** Laurent Brochard (Toronto, Canada) & Luigi Camporota (London, UK)
17:00	**Discussion**
17:30	**End of the day**

Wednesday, December 4, 2024

08:30	**Ventricular pump function: P/V loops & energetics** Michael R Pinsky (Pittsburgh, USA)
09:00	**Venous return** Xavier Monnet (Le Kremlin-Bicêtre, France)
09:30	**Systemic blood pressure: ventriculo-arterial coupling** Michael R Pinsky (Pittsburgh, USA)
10:00	**Discussion**
10:10	***Break***
10:40	**The determinants of cardiac output** Jean-Louis Vincent (Brussels, Belgium)
11:10	**Heart-lung interactions** Michael R Pinsky (Pittsburgh, USA)
11:40	**Fluid responsiveness** Xavier Monnet (Le Kremlin-Bicêtre, France)
12:10	**Discussion**
12:25	***Lunch***

Brussels, December 3-5, 2024

26th Postgraduate Refresher Course

13:20	**The physiologic effects of prone positioning** Luigi Camporota (London, UK)
13:50	**Circulatory shock** Jean-Louis Vincent (Brussels, Belgium)
14:20	**Tissue perfusion and oxygenation** Daniel De Backer (Braine l´Alleud, Belgium)
14:50	**Discussion**
15:00	**How VV ECMO works** Luigi Camporota (London, UK)
15:25	**Disturbed physiology during ECMO** Daniel De Backer (Braine l´Alleud, Belgium)
15:50	**Discussion**
16:00	***Break***

Workshops

16:25	**A hypotensive patient with ARDS** Luigi Camporota (London, UK), Michael R Pinsky (Pittsburgh, USA) & Jean-Louis Vincent (Brussels, Belgium)
16:45	**Fluid responsiveness** Daniel De Backer (Braine l´Alleud, Belgium) & Xavier Monnet (Le Kremlin-Bicêtre, France)
17:05	**Vasoplegia** Michael R Pinsky (Pittsburgh, USA), Xavier Monnet (Le Kremlin-Bicêtre, France) & Jean-Louis Vincent (Brussels, Belgium)
17:25	**Discussion**
17:45	***End of the day***

Brussels, December 3-5, 2024

26th Postgraduate Refresher Course

Thursday, December 5, 2024

08:30	**Blood transfusions** Fabio S Taccone (Brussels, Belgium)
09:00	**The effects of a fluid bolus** Xavier Monnet (Le Kremlin-Bicêtre, France)
09:30	**The pros and cons of fluid balance reduction** Daniel De Backer (Braine l´Alleud, Belgium)
10:00	**Discussion**
10:10	***Break***
10:40	**Methods to estimate cardiac output** Xavier Monnet (Le Kremlin-Bicêtre, France)
11:10	**Blood flow distribution** Michael R Pinsky (Pittsburgh, USA)
11:40	**Cerebral hemodynamics** Fabio S Taccone (Brussels, Belgium)
12:10	**Discussion**
12:30	***Lunch***
13:30	**How to manipulate the peripheral circulation** Daniel De Backer (Braine l´Alleud, Belgium)
14:00	**Adrenergic agents** Jean-Louis Vincent (Brussels, Belgium)
14:30	**Non-adrenergic vasopressors** Filippo Annoni (Brussels, Belgium)

Workshop

15:00	**A patient in circulatory shock** Jean-Louis Vincent (Brussels, Belgium), Xavier Monnet (Le Kremlin-Bicêtre, France), Daniel De Backer (Braine l´Alleud, Belgium) & Micheal R Pinsky (Pittsburgh, USA)
15:30	**Remaining questions**
16:00	**End of the meeting**