



**23<sup>rd</sup> Postgraduate Refresher Course**  
**Cardiovascular and Respiratory Physiology**  
**Applied to Intensive Care Medicine**  
Brussels, December 6-8, 2017 (Draft program)

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**Wednesday, December 6, 2017**

08.30	<b>Introduction</b> J.L. Vincent (Brussels, Belgium) & M.R. Pinsky (Pittsburgh, United States)
08.35	<b>Static lung and chest wall mechanics</b> R. Naeije (Brussels, Belgium)
09.10	<b>Esophageal pressure measurement</b> A. Pesenti (Milan, Italy)
09.40	<b>Lung edema</b> R. Naeije (Brussels, Belgium)
10.10	<i>Discussion</i>
10.20	<i>Coffee break</i>
10.45	<b>Gas exchange: basic aspects</b> R. Naeije (Brussels, Belgium)
11.20	<b>Gas exchange: clinical applications</b> A. Pesenti (Milan, Italy)
11.50	<b>PaO<sub>2</sub>/FiO<sub>2</sub> in clinical practice</b> L. Brochard (Toronto, Canada)
12.15	<b>Evaluation of lung and gas volume</b> A. Pesenti (Milan, Italy)
12.55	<i>Discussion</i>
13.10	<i>Lunch</i>
14.00	<b>Lung mechanics: the equation of motion at the bedside</b> L. Brochard (Toronto, Canada)
14.35	<b>Severe COPD – Auto PEEP</b> A. Pesenti (Milan, Italy)
15.15	<i>Discussion</i>
15.30	<i>Coffee break</i>
16.00	<b>Ventilator-induced lung injury (VILI)</b> M.R. Pinsky (Pittsburgh, United States)
16.30	<b>Lung protective strategies: A practical approach</b> L. Brochard (Toronto, Canada)
17.00	<i>Discussion</i>
17.10	<b>Clinical cases</b> Hypoxemia—J.L. Vincent (Brussels, Belgium) Lung mechanics – A. Pesenti (Milan, Italy) Respirator management – L. Brochard (Toronto, Canada) Severe COPD - M.R. Pinsky (Pittsburgh, United States)

**Thursday 7, December, 2017**

08.30	<b>Pressure vs. Volume targeted mechanical ventilation</b> L. Brochard (Toronto, Canada)
09.00	<b>Physiological relevance of spontaneous breathing in the critically ill</b> A. Pesenti (Milan, Italy)
09.30	<b>Ventricular pump function: P/V loops</b> M.R. Pinsky (Pittsburgh, United States)
10.00	<i>Discussion</i>
10.15	<i>Coffee break</i>
10.40	<b>Acute pulmonary hypertension &amp; right ventricular dysfunction</b> R. Naeije (Brussels, Belgium)
11.10	<b>The determinants of cardiac output</b> J.L. Vincent (Brussels, Belgium)
11.45	<b>Systemic blood pressure: Ventriculo-arterial coupling</b> M.R. Pinsky (Pittsburgh, United States)
12.20	<i>Discussion</i>
12.30	<i>Lunch</i>
13.20	<b>Venous return and effective circulating blood volume</b> M.R. Pinsky (Pittsburgh, United States)
14.00	<b>Cardiovascular alterations in sepsis</b> J.L. Vincent (Brussels, Belgium)
14.40	<i>Discussion</i>
14.55	<i>Coffee break</i>
15.20	<b>Heart-lung interactions</b> M.R. Pinsky (Pittsburgh, United States)
16.00	<b>Fluid responsiveness vs Fluid challenge</b> J.L. Vincent (Brussels, Belgium)
16.40	<i>Discussion</i>
17.00	<b>Clinical cases</b> Right ventricular dysfunction - R. Naeije (Brussels, Belgium) Heart lung interactions - M.R. Pinsky (Pittsburgh, United States) Volume responsiveness – J.L. Vincent (Brussels, Belgium)

**Friday, December 8, 2017**

08.30	<b>Blood flow distribution</b> M.R. Pinsky (Pittsburgh, United States)
09.15	<b>Gas exchange and cardiovascular physiology in ECMO</b> A. Pesenti (Milan, Italy)
09.50	<b>Oxygen delivery and consumption: SvO<sub>2</sub> &amp; ScvO<sub>2</sub></b> J.L. Vincent (Brussels, Belgium)
10.20	<i>Discussion</i>
10.35	<i>Coffee break</i>
11.05	<b>Circulatory shock</b> J.L. Vincent (Brussels, Belgium)
11.50	<b>Microcirculatory studies in humans</b> F. Taccone (Brussels, Belgium)
12.20	<b>Assessment of tissue perfusion</b> J. Creteur (Brussels, Belgium)
12.55	<i>Discussion</i>
13.10	<b>Lunch</b>
14.00	<b>Type of vasoactive agents</b> J.L. Vincent (Brussels, Belgium)
14.35	<b>Cerebral hemodynamics</b> F. Taccone (Brussels, Belgium)
15.05	<b>Type of IV fluid</b> J.L. Vincent (Brussels, Belgium)
15.30	<i>Discussion</i>
15.40	<b>Remaining questions</b>
16.15	<b>End of the meeting</b>