

20, 21, 22  
JUNIO  
MADRID

**II CURSO**  
TEÓRICO-PRÁCTICO  
DE VENTILACIÓN MECÁNICA



**“RESPIMAD 2011”** Aula Magna-Laboratorio Experimental  
Capio-Fundación Jiménez Díaz

## **II COURSE ON MECHANICAL VENTILATION: RESPIMAD 2011 MECHANICAL VENTILATION: PRINCIPLES AND MONITORING**

**Organized by:**

**Instituto de Investigación Sanitaria Fundación Jiménez Díaz IIS-FJD  
Servicio de Cirugía Experimental-Fundación Jiménez Díaz.**

**Venue:**

*Aula Magna y Laboratorio experimental  
Instituto de investigación Sanitaria IIS-FJD  
Fundación Jiménez Díaz- UTE  
Avda de los Reyes católicos 2  
28040 Madrid*

**Course Direction:** Fernando Suarez Sipmann

**Workshops Direction:** Carlos Castilla Reparaz

**Organization:** Instituto de investigación Sanitaria IIS-FJD.  
Fundación Jiménez Díaz  
Servicio de Cirugía Experimental-Fundación Jiménez Díaz

**Dates: 20,21 y 22 of June of 2011**

### **Speakers**

**Marcelo Amato** Department of Pneumology-Respiratory ICU  
Hospital das Clinicas, Universidad de Sao  
Paulo, Brasil

**Javier Belda** Servicio de Anestesia y reanimación.  
Hospital Clínico Universitario de Valencia.

**Lluís Blanch Torrá** Servicio de Medicina Intensiva  
Hospital Universitario Parc Taulí, Sabadell,  
Barcelona.

<b>Joao Batista Borges</b>	Section of Anesthesiology and Critical Care Surgical Sciences. University of Uppsala, Swede
<b>Javier Garcia Fernández</b>	Servicio de Anestesia y Reanimación Hospital Universitario Puerta de Hierro-Majadahonda Madrid
<b>Robert Kacmarec</b>	Director of Respiratory Care Massachusetts General Hospital, Harvard Medical School, Boston, USA
<b>José Ángel Lorente Balanza</b>	Servicio de Medicina Intensiva Hospital Universitario de Getafe, Madrid
<b>Kenneth “Palle” Palmér</b>	ECMO Center, karolinska Institute University hospital, Estocolmo, Suecia.
<b>Gerardo Tusman</b>	Departamento de Anestesiología Hospital Privado de Comunidad, Mar del Plata, Argentina
<b>Fernando Suarez Sipmann</b>	Instituto de Investigación Sanitaria IIS-FJD Section of Anesthesia and Critical Care Dept. of Surgical Sciences University of Uppsala. Sweden

### **Co-organizers, moderators and collaborators**

César Perez Calvo.	Servicio de Medicina Intensiva.Fundación Jiménez Díaz-UTE
Manuel Pérez Márquez:	Servicio de Medicina Intensiva.Fundación Jiménez Díaz-UTE.
Germán Peces-Barba	Servicio de Neumología. Fundación Jiménez Díaz-UTE
Arnoldo Santos Oviedo.	Servicio de Medicina Intensiva.Fundación Jiménez Díaz-UTE.
Patricia Rolle	Servicio de Medicina Intensiva.Fundación Jiménez Díaz-UTE

## **Scientific Program**

### **Monday 20-06-11**

**15:00 – 15:30 h**

**Course presentation**

Fernando Suarez Sipmann  
Carlos Castilla Reparaz

**First session: Pathophysiological basis**

**Moderator:** *Manuel Pérez Márquez*

**15:30 – 16:05 h**

**Pathophysiological basis of mechanical ventilation**

*Fernando Suarez Sipmann*

**16:05 – 16:40 h**

**Differential pathophysiological basis of mechanical ventilation in children and adults.**

*Javier García*

**16:40 – 17:15 h**

**Pathophysiological basis of lung protective ventilation.**

*Marcelo Amato*

**17:15 – 17:35 h**

**Discussion**

Tuesday 21-06-11

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**MORNING**

**Second session: Mechanical ventilation and gas exchange**

**Moderator:** *Fernando Suarez Sipmann*

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|------------------------|---|
| <b>09:00 – 09:35 h</b> | <b>Gas Exchange Turing mechanical ventilación. Concepts and measurement.</b><br><i>Javier Belda</i>                       |
| <b>09:35 – 10:10 h</b> | <b>Ventilatory efficiency. Uses of volumetric capnography.</b><br><i>Gerardo Tusman</i>                                   |
| <b>10:10 - 10:45 h</b> | <b>Ventilation-perfusion during mechanical ventilation. Implications for patient management .</b><br><i>Marcelo Amato</i> |
| <b>10:45 – 11:00 h</b> | <b>Discussion/questions</b>   |
| <b>11:00 – 11:40 h</b> | <b>Coffee break</b>   |

**Third session: Hemodynamic effects of mechanical ventilation**

**Moderator:** *César Pérez Calvo*

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|------------------------|--|
| <b>11:40 – 12:15 h</b> | <b>Bases of cardio-pulmonary interactions.</b><br><i>Gerardo Tusman</i>                  |
| <b>12:15 – 12:50 h</b> | <b>Hemodynamic monitoring during mechanical ventilation</b><br><i>Jose Angel Lorente</i> |
| <b>12:50 – 13:25 h</b> | <b>Monitoring lung edema and fluid responsiveness</b><br><i>Javier Belda</i>             |
| <b>13:25 – 13:45 h</b> | <b>Discussion/questions</b>  |
| <b>13:45 – 15:30 h</b> | <b>BREAK / LUNCH</b>   |

## **AFTERNOON**

**Workshops at the animal lab broadcasted to the auditorium.**

**15:30 – 17:00 h                      Animal model: healthy lung  
Monitoring Capnography and gas Exchange.  
Discussion of simulated clinical situations.**

**17:00 – 17:30 h                      Coffee Break**

**17:30 – 19:00 h                      Animal model: injured lung.  
Hemodynamic monitoring. Heart-Lung  
interactions.**

**19:00 – 19:30 h                      Discussion/questions.**

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**Course dinner: venue and time TBD**

Wednesday 22-06-11

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**MORNING**

**Fourth session: Modes of ventilation and monitoring**

Moderación: *Germán Peces Barba*

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|-----------------|--|
| 09:00 – 09:35 h | <b>Conventional modes of mechanical ventilation.<br/>Waveform monitoring.</b><br><i>Lluís Blanch</i> |
| 09:35 – 10:10 h | <b>Assisted modes of ventilation. Patient-ventilator<br/>interaction</b><br><i>Robert Kacmarec</i>   |
| 10:10 - 10:45 h | <b>Telemonitoring during mechanical ventilation</b><br><i>Lluís Blanch</i>                           |
| 10:45 – 11:00 h | <b>Discussion/questions</b>  |
| 11:00 – 11:40 h | <b>Coffee break</b>  |

**Fifth session: Current Concepts in mechanical ventilation**

Moderator: *Javier García Fernández*

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|-----------------|--|
| 11:40 – 12:15 h | <b>Respiratory monitoring during lung protective<br/>ventilation</b><br><i>Fernando Suarez Sipmann</i> |
| 12:15 – 12:50 h | <b>Ventilation strategies for refractory hypoxemia</b><br><i>Joao Batista Borges</i>                   |
| 12:50 – 13:25 h | <b>Extracorporeal life support during ARDS</b><br><i>Kenneth Palle Palmér</i>                          |
| 13:25 – 13:40 h | <b>Discussion/Questions</b>  |
| 13:40 – 14:10 h | <b>Past present and future of mechanical ventilation</b><br><i>Robert Kacmarec</i>                     |
| 14:00 – 15:30 h | <b>BREAK / LUNCH</b>   |

## **AFTERNOON**

**Workshops at the animal lab broadcasted to the auditorium.**

<b>15:30 – 17:00 h</b>	<b>Animal model. Healthy/Injured lung. Respiratory waveforms. Measurement of lung mechanics..</b>
<b>17:30 – 18:00 h</b>	<b>Coffee break</b>
<b>18:00 – 19:30 h</b>	<b>Animal model: Injured lung. Integrated monitoring. Lung protective ventilation. Avoiding Ventilation induced lung injury.</b>
<b>19:30 h</b>	<b>Final considerations. Course evaluation and Farewell.</b>