ERS Research Seminar

Targeting the detrimental effects of sleep disturbances and disorders – towards personalized treatment in respiratory diseases

24 – 25 January 2019; Dublin, Ireland

Day 1 – Thursday, 24 January 2019

08:00-08:15 Registration
08.15-08.30 Welcome

Session 1: Sleep in Health and Disease
Chairs: I. Almendros and J. Jun

08:30-09:15 Respiratory mechanics and ventilation during sleep (M. Morrell – UK)
09:15-10:00 The detrimental effects of abnormal sleep duration on glucose metabolism (S. Reutrakul – USA)

10:00-10:30 Coffee break

10:30-11:15 The circadian clock and regulation of immunity (H. Oster – Germany)
11:15-12:00 Pathophysiological responses to sleep fragmentation (A. Gileles-Hillel – IL)

12:00-12:30 Panel Discussion
12:30-13:15 Lunch

13:15-14:00 Thematic Poster session
Chairs: R. Tamisier and S. Reutrakul

- TP_01: Hypertension in obstructive sleep apnea is associated with increased carbonic anhydrase activity – Dr. Ding Zou
- TP_02: Targeting the detrimental effects of sleep disturbances and disorders - towards personalized treatment in respiratory diseases – Prof. Dr. Theodoros Vassilakopoulos
- TP_03: The impact of obstructive sleep apnea on metabolic impairments in non-obese and obese subjects – Dr. Masako Ueyama
- TP_04: Decreased levels of anti-aging klotho in obstructive sleep apnoea – Dr. Andras Bikov
- TP_05: Features of circadian changes of biomarkers concentration in patients with obstructive sleep apnea syndrome – Dr. Iana Andreieva
- TP_06: Intermittent hypoxia activates the IL-1β signaling pathway in primary murine macrophages – Dr. Susan Fitzpatrick

Session 2: New insights into the deleterious effects of Intermittent Hypoxia
Chairs: J.L Pepin and W. McNicholas

14:00-14:45 Cell culture and animal models of intermittent hypoxia – benefits and limitations (R. Farre – Spain)
14:45-15:30 Human models of IH: what can they add? (R. Tamisier – France)
15:30-16:00 Coffee break
16:00-16:45  Adaptive and maladaptive responses to IH: where is the threshold? (I. Almendros – Spain)
16:45-17:30  New insights into the deleterious effects of IH in OSA (J. Jun – USA)
17:30-18:00  Panel Discussion
19:30-22:00  Participants’ Dinner

**Day 2 – Friday, 25 January 2019**

**Session 3: Targeting the detrimental effects of sleep disturbances – The Future**
**Chairs:** S. Ryan and R. Farre

08:30-09:15  The role of carbon dioxide in immunity and inflammation – a forgotten dimension (E. Cummins – Ireland)
09:15-10:00  Circadian regulation of inflammation and immunity (D. Ray – UK)
10:00-10:30  Coffee break
10:30-11:15  How to translate findings from experimental models into clinical studies in OSA (J.L. Pepin – France)
11:15-12:00  Targeting the detrimental effects of sleep disturbances in OSA: CPAP and what else? (M. Sanchez de la Torre – Spain)
12:00-12:30  Panel Discussion
12:30-13:00  Summing up and Conclusion
13:00-14:00  Lunch and Departure