

Guest Editors

Leo Heunks

Leo Heunks is professor of intensive care medicine at the VU University Medical Center Amsterdam (Amsterdam, the Netherlands). He received his undergraduate training and MD at the Radboud University (Nijmegen, the Netherlands). From 1996 to 2000, he was a PhD student in respiratory physiology. During the PhD programme he visited the Mayo Clinic (Rochester, MN, USA) for 7 months to study skeletal muscle single fibre mechanics and intracellular calcium imaging (with mentor Gary Sieck). He trained as a pulmonologist at the Radboud University Medical Center from 2000 to 2006, followed by a 2-year fellowship in intensive care medicine, and became consultant in intensive care at the same hospital. He was co-founder of the first specialised ventilator-weaning unit in the Netherlands and chair of the Dutch guideline for difficult weaning. In 2016, he moved to the VU University Medical Center Amsterdam, Dept of Intensive Care.



His research interests include effects of critical illness on respiratory muscle function, mechanical ventilation, weaning from the ventilator and ARDS. He has spent research fellowships at Loyola University Medical Center (Chicago, IL, USA) and St Michael's Hospital, Toronto (ON, Canada). In both clinical work and research, he promotes the understanding of physiological principles. Only when we are willing to understand the underlying physiology can we conduct meaningful research and optimal patient care.

Currently, Leo Heunks is secretary of European Respiratory Society assembly 2 (respiratory intensive care).

Alexandre Demoule



Alexandre Demoule is professor of intensive care medicine at the Pierre and Marie Curie University Medical Centre in Paris (France). He is the director of the medical ICU, the step-down unit and the weaning centre within the Dept of Pneumology and Intensive Care Medicine, La Pitié-Salpêtrière hospital in Paris. He was trained in pneumology and physiology at the Pierre and Marie Curie University under the supervision of Thomas Similowski and in intensive care medicine at Paris-Est University in Créteil, where he was also a research fellow (2001–2002) in mechanical ventilation with Laurent Brochard. From 2003 to 2006, he was a PhD student in respiratory physiology at the Pierre and Marie Curie University. During the PhD programme he spent 1.5 years at the Meakins-Christie Laboratories, McGill University (Montreal, QC, Canada), under the supervision of Basil Petrof.

His main research field is patient–ventilator interactions. It involves specific research topics such as brain–ventilator interactions, the impact of mechanical ventilation on respiratory sensations and comfort, and respiratory muscle dysfunction in mechanically ventilated patients. He also conducts clinical studies on noninvasive mechanical ventilation in acute respiratory failure and on new modes of mechanical ventilation. His research projects are conducted within UMR_S 1158, a joint research unit between Pierre and Marie Curie University and the French National Institute of Health and Medical Research (Inserm).

Alexandre Demoule is the chair of the annual meeting of the French Intensive Care Society. He has organised several conferences on mechanical ventilation, is co-author of guidelines in the field of intensive care medicine and serves as an invited speaker at international conferences.

Wolfram Windisch



Wolfram Windisch is the medical director of the Dept of Pneumology and Critical Care Medicine, Clinic of Cologne (Cologne, Germany), and holds the professorial chair for Pneumology at the University of Witten/Herdecke (Cologne). His department is specifically dedicated to the acute and chronic treatment of respiratory failure, invasive and noninvasive mechanical ventilation, extracorporeal lung assist, weaning from mechanical ventilation and sleep medicine. In addition, his other main focuses are COPD/asthma, thoracic oncology, interstitial lung diseases, infectious diseases and cystic fibrosis. His research interests include respiratory physiology, all aspects of mechanical ventilation, monitoring of respiratory function in the acute and

chronic setting, and health-related quality of life in patients with severe chronic respiratory failure.

In addition, Wolfram Windisch has chaired the German Interdisciplinary Society of Home Mechanical Ventilation, the group for noninvasive ventilatory support within assembly 2 of the European Respiratory Society, and the section for intensive care medicine of the German Society of Pneumology and Ventilation. He has organised several symposia and conferences on mechanical ventilation and serves as an invited speaker at national and international conferences. He also serves as the responsible author for the German guidelines for noninvasive and invasive mechanical ventilation for treatment of chronic respiratory failure, and has served as a co-author for the German guidelines on acute NIV and for the German guidelines on prolonged weaning.