

Foreword



Andrea Aliverti

Andrea Aliverti is Professor of Bioengineering at the Department of Electronics, Information and Bioengineering (DEIB), Politecnico di Milano (Polimi) where he teaches Sensors and Instrumentation Technologies and Bioengineering of the Respiratory System. Since 2014, he is the Chairman (Coordinator) of the PhD Programme in Bioengineering at Polimi. He is responsible for LaRes (Respiratory Analysis Lab) at the Biomedical Technology Laboratory (TBM-Lab). His main research interests include the bioengineering of the respiratory system, physiological measurements, biomedical instrumentation and sensors, and functional lung imaging. Specific research areas of interest include respiratory mechanics, functional imaging (computed tomography, magnetic resonance imaging and ultrasound) and biomedical instrumentation (Electrical Impedance Spectroscopy and wearable unobtrusive systems for monitoring physiological variables). He is author or co-author of >170 papers in peer-reviewed scientific journals, 15 book chapters, editor of three books, inventor on 13 patents and author of >230 abstracts and brief communications. He is a member of the editorial boards of the Journal of Applied Physiology, Respiratory Physiology & Neurobiology, and Breathe. He is Head of European Respiratory Society (ERS) Assembly 4 (Clinical Physiology and Sleep) and Chairman of the ERS Task Force 'Functional evaluation of lung and airways'.

Welcome to the summer edition of *European Respiratory & Pulmonary Diseases*. This journal describes current practices and recent advances that directly affect specialists in the diverse field of respiratory medicine, as well as being of interest to the wider biomedical community.

Our expert interviews have become a popular feature of our journals, and this edition features an interview with Mario Cazzola on the much-debated subject of dual versus triple therapy in chronic obstructive pulmonary disease (COPD) and the recently announced results of the IMPACT study. Kian Fan Chung describes recent advances in our understanding of cough hypersensitivity syndrome, and Jean-Pierre Zellweger discusses the latest World Health Organisation (WHO) guidelines on the management of latent tuberculosis infection (LTBI).

Prompt diagnosis and treatment of obstructive sleep apnoea (OSA) in children is essential to prevent multiple health consequences, but distinctive symptoms are scarce. In an editorial, Refika Ersu explores the diagnostic and treatment options for this challenging condition.

Alpha 1-antitrypsin (AAT) deficiency is a rare congenital cause of emphysema. Although it is treatable with human plasma-derived AAT, only a minority of patients are diagnosed due to lack of awareness of the disease. Thabut and Corda discuss the epidemiology and diagnosis of the condition, and the clinical evidence for the use of AAT therapy.

We also feature a review by Soares et al. of the literature describing inducible laryngeal obstruction in the paediatric population. In addition, Stephan Erhrmann discusses the vibrating mesh nebuliser (VMN), a recent advance in aerosol therapy. Early studies suggest that VMNs are more efficient than jet nebulisers in drug delivery, which may improve clinical outcomes in a growing population of patients with respiratory disease.

Finally, this edition features a supplement describing non-invasive methods of screening for expiratory flow limitation (EFL) in COPD. Detection of tidal EFL is clinically important in terms of identifying factors limiting exercise tolerance and informing treatment decisions, but is often overlooked in the clinical setting.

The editors of *European Respiratory & Pulmonary Diseases* would like to thank everyone who contributed towards this edition. A special thanks goes to our Editorial Board for their continuing support and guidance. We are also grateful to the expert authors who gave their valuable time and effort to produce these insightful articles. We hope that the topics covered provide something of interest for every reader, and that you find this edition useful and thought-provoking. □