



# PROGRAMME

This information was up-to-date on 15 April 2019

## 08:30 - 12:30

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW1 Teaching, learning and assessments: key principles

**Chairs :** Stefano Aliberti (Milan, Italy)

**08:30 Welcome and introduction**

**08:40 Adult learning theory - practical session**  
Suzanne Schut (Maastricht, Netherlands)

**09:25 Teaching and learning (flipped classroom)**  
Gernot G.U. Rohde (Frankfurt am Main, Germany)

**10:10 Assessment types overview (Millers - pros and cons)**  
Robert Primhak (Sheffield (South Yorkshire), United Kingdom)

**10:55 Final comments and questions from the audience**

## 13:30 - 16:35

Registration for this session is additional to the congress registration fee and is: €110 early bird; standard and on site.

### Professional development: PDW2 Spirometry training programme: become a programme organiser

**Aims :** to provide participants with the knowledge and tools required to deliver high-quality spirometry training. This session is specifically targeted at people who would like to run an ERS Spirometry Training Programme in their country.

**Tag(s) :** Clinical

**Target audience :** Adult pulmonologist/Clinician, Lung function technologist, Nurse, General practitioner

**Chairs :** Felip Burgos Rincon (Barcelona, Spain)

**13:30 Welcome and ice-breaker**

**13:45 Organising an ERS Spirometry Training Programme (overview)**  
Felip Burgos Rincon (Barcelona, Spain)

**14:15 Programme Director: role and responsibilities (attend TTT, recruit and train faculty, application form, liaise with ERS office, etc)**  
Monika Franczuk (Warszawa, Poland)

**14:40 Teaching and learning (teacher/student ratios, learning styles)**  
Julie Lloyd (Birmingham (West Midlands), United Kingdom)

**15:20 Coffee Break**

**15:40 Assessment - role play & spirometry (MCQ, online portfolio, practical assessment)**  
Julie Lloyd (Birmingham (West Midlands), United Kingdom), Felip Burgos Rincon (Barcelona, Spain), Jellien Makonga-Braaksma (Woudenberg, Netherlands)

**16:25 Final comments and questions**  
Felip Burgos Rincon (Barcelona, Spain), Jellien Makonga-Braaksma (Woudenberg, Netherlands)

## 09:30 - 13:00

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG4 Pitfalls of noninvasive ventilation: causes and remedies

**Aims :** to discuss the tricks and pitfalls of noninvasive ventilation in patients with acute and chronic respiratory failure.

**Disease(s) :** Respiratory critical care

**Method(s) :** Respiratory intensive care

**Tag(s) :** Clinical

**Target audience :** Critical/Intensive care physician, Adult pulmonologist/Clinician

**Chairs :** Lieuwe Bos (Amsterdam, Netherlands), Mark W. Elliott (Leeds (West Yorkshire), United Kingdom)

**09:30 Pitfalls of noninvasive ventilation in patients with acute hypoxemic respiratory failure**  
Leo Heunks (Amsterdam, Netherlands)

10:00	<b>Pitfalls of noninvasive ventilation in patients with acute hypercapnic respiratory failure</b> Annalisa Carlucci (San Donato Milanese (MI), Italy)
10:30	<b>Pitfalls of interface and ventilator setting choices</b> Cesare Gregoretti (Palermo, Italy)
11:00	<b>Break</b>
11:30	<b>Pitfalls of timing of noninvasive ventilation in patients with stable COPD</b> Wolfram Windisch (Cologne, Germany)
12:00	<b>Group assignment</b> Leo Heunks (Amsterdam, Netherlands), Annalisa Carlucci (San Donato Milanese (MI), Italy), Cesare Gregoretti (Palermo, Italy), Wolfram Windisch (Cologne, Germany)

**09:30 - 13:00**

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG3 Advanced cardiopulmonary exercise testing

#### Cardiopulmonary exercise testing in health and cardiorespiratory disease

**Aims :** to understand the physiological constraints of exercise testing and its application in clinical practice; to appreciate the optimal methods for testing lung mechanics and spirometry; to understand the different formats of exercise tests as well as their advantages, disadvantages and prognostic value in adults and children; and to appreciate the usefulness of exercise testing for evaluating pharmacological and non-pharmacological interventions in clinical practice.

**Disease(s) :** Sleep and breathing disorders

**Method(s) :** Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Lung function technologist, Paediatrician, Physiologist, Physiotherapist, Student, Trainee

**Chairs :** Enrico Lombardi (Florence, Italy), Esther Barreiro Portela (Barcelona, Spain)

09:30	<b>Pulmonary gas exchange response to exercise in health and disease</b> Paolo Palange (Rome, Italy)
10:00	<b>Respiratory mechanics and exertional dyspnoea in health and disease</b> Denis O'Donnell (Kingston (ON), Canada)
10:30	<b>The prognostic role of cardiopulmonary exercise testing in disease</b> Pierantonio Laveneziana (Paris, France)
11:00	<b>Break</b>
11:30	<b>Exercise testing in children with respiratory diseases</b> Tim Takken (Utrecht, Netherlands)
12:00	<b>Group assignment</b> Paolo Palange (Rome, Italy), Denis O'Donnell (Kingston (ON), Canada), Pierantonio Laveneziana (Paris, France), Tim Takken (Utrecht, Netherlands)

**09:30 - 13:00**

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG10 Severe asthma in adults: systematic assessment and biological treatment

**Aims :** to present an update on severe asthma in adults relating to assessment and treatment

**Disease(s) :** Airway diseases

**Method(s) :** Cell and molecular biology General respiratory patient care

**Tag(s) :** Clinical

**Target audience :** Allergist, Clinical researcher, General practitioner, Nurse, Patient, Physiologist, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Anneke Ten Brinke (Molenend, Netherlands), Rocío Magdalena Diaz Campos (Madrid, Spain)

09:30	<b>Is it really severe asthma? A systematic approach to assessment</b> Celeste M. Porsbjerg (Copenhagen, Denmark)
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10:00	<b>Phenotypes and prognosis</b> Florence Schleich (Liège, Belgium)
10:30	<b>Tailored therapy in severe asthma - Is it a dream in low and middle income countries?</b> Ay e Arzu Yorganc o lu (Izmir, Turkey)
11:00	<b>Break</b>
11:30	<b>Making clinical sense of the explosion in biologics - which drug for which patient and why?</b> Vibeke Backer (Copenhagen, Denmark)
12:00	<b>Group assignment</b> Celeste M. Porsbjerg (Copenhagen, Denmark), Florence Schleich (Liège, Belgium), Vibeke Backer (Copenhagen, Denmark), Ay e Arzu Yorganc o lu (Izmir, Turkey)

**09:30 - 13:00**

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

**Postgraduate course: PG8 The role of exercise in prevention of extra-pulmonary features**

**Aims :** to provide an overview of the role of exercise in prevention of extrapulmonary features including decrease in muscle mass, cognitive function, mood and frailty; to demonstrate how to provide an exercise prescription in order to improve extrapulmonary characteristics; and to define the critical role of the various available exercise modalities in the prevention of comorbidities.

**Disease(s) :** Airway diseases

**Method(s) :** General respiratory patient care Physiology Pulmonary rehabilitation

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Lung function technologist, Nurse, Physiologist, Physiotherapist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Daniel Langer (Leuven, Belgium), Frits M.E. Franssen (Horn, Netherlands)

09:30	<b>Healthy lungs for life: the impact of exercise on lung function and vice versa</b> Finn Rasmussen (Nicosia, Cyprus)
10:00	<b>Train the brain: how exercise training makes the brain work better</b> Speaker to be confirmed
10:30	<b>Improving depression and anxiety with exercise training in COPD patients</b> Samantha Harrison (Middlesbrough (Stockton-on-Tees), United Kingdom)
11:00	<b>Break</b>
11:30	<b>Does exercise training improve physical fragility in patients with COPD?</b> Speaker to be confirmed
12:00	<b>Group assignment</b> Finn Rasmussen (Nicosia, Cyprus), Samantha Harrison (Middlesbrough (Stockton-on-Tees), United Kingdom), Speaker to be confirmed

**09:30 - 17:30**

Registration for this session is additional to the congress registration fee and is: €170.5 early bird; €220 standard and €242 on site.

**Postgraduate course: PG1 Lung cancer: the key multidisciplinary approach****Valuable team work together with you by ERS, ATS, ESR, ESTS, ESTRO and IASLC – the diagnostic part**

**Aims :** due to the rapid development of novel diagnostic and therapeutic approaches, lung cancer is gradually losing its stigma of being an incurable disease. Although unthinkable for a long time, chronification of lung cancer has become a realistic vision for the future. Moreover, current diagnostic and therapeutic approaches can substantially improve the prognosis of lung cancer patients. Close interactions and multidisciplinary teamwork are key to deliver the best care for patients with lung cancer, which is a highly complex disease

**Disease(s) :** Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology Imaging Surgery

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Nurse, Pathologist, Patient, Physiotherapist, Radiologist, Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Joanna Chorostowska-Wynimko (Warsaw, Poland), Hans-Ulrich Kauczor (Heidelberg, Germany), Otto Chris Burghuber (Wien, Austria), Isabelle Opitz (Zurich, Switzerland)

09:30	<b>Management of lung cancer screening and incidental findings as well as their integration in existing lung cancer care</b> Doug A. Arenberg (Ann Arbor, United States of America)
10:00	<b>Tissue is the issue and beyond: proper sampling for diagnosis and staging of lung cancer by chest physicians as well as its alternatives</b> Torsten Gerriet Blum (Berlin, Germany)
10:30	<b>How (molecular) pathologists can profile patients</b> Susann Stephan-Falkenau (Berlin, Germany)
11:00	<b>Break</b>
11:30	<b>New insights into lung cancer: what radiologists can contribute to diagnosis and staging</b> Annemie Snoeckx (Edegem (Antwerp), Belgium)
12:00	<b>Group assignment</b> Torsten Gerriet Blum (Berlin, Germany), Doug A. Arenberg (Ann Arbor, United States of America), Susann Stephan-Falkenau (Berlin, Germany), Annemie Snoeckx (Edegem (Antwerp), Belgium)
13:00	<b>Lunch</b>
14:00	<b>Modern staging in lung cancer: from the current multidisciplinary process to novel approaches</b> Joachim Aerts (Rotterdam, Netherlands)
14:30	<b>Early, locally advanced and metastasised NSCLC: core strategies from the perspective of the thoracic surgeon</b> Nuria Novoa Valentin (Salamanca, Spain)
15:00	<b>Early, locally advanced and metastasised NSCLC: core strategies from the perspective of the radiotherapist</b> Dirk De Ruyscher (Maastricht, Netherlands)
15:30	<b>Break</b>
16:00	<b>Early, locally advanced and metastasised NSCLC: core strategies from the perspective of the (pneumo) oncologist</b> Pascale Tomasini (MARSEILLE, France)
16:30	<b>Group assignment</b> Joachim Aerts (Rotterdam, Netherlands), Pascale Tomasini (MARSEILLE, France), Nuria Novoa Valentin (Salamanca, Spain), Dirk De Ruyscher (Maastricht, Netherlands)

## 09:30 - 17:30

Registration for this session is additional to the congress registration fee and is: €170.5 early bird; €220 standard and €242 on site.

### Postgraduate course: PG2 Thoracic ultrasound

#### Enhance your sonography practice beyond identification of pleural fluid

**Aims :** to provide a solid theoretical framework for physicians who want to develop their ultrasonography skills; to encourage evidence-based practice where possible; to highlight the utility of thoracic ultrasonography for purposes other than identification of pleural fluid, including assessment of other thoracic structures; to demonstrate that physicians can safely perform thoracic interventions (including image-guided pleural biopsies) after suitable training; and to provide a solid background for the thoracic ultrasonography educational skills workshop.

**Chairs :** Silvia Mongodi (Pavia, Italy), Peter I. Bonta (Amsterdam, Netherlands)

09:30	<b>The physics of ultrasound</b> John Wrightson (Oxford, United Kingdom)
10:00	<b>Thoracic ultrasonography artefacts</b> Valentina Pinelli (Brescia (BS), Italy)
10:30	<b>Assessment of parenchymal abnormalities</b> Christian B. Laursen (Odense, Denmark)
11:00	<b>Break</b>
11:30	<b>Pneumothorax</b> Rachid Tazi Mezalek (Burgos, Spain)

<b>12:00</b>	<b>Group assignment</b> John Wrightson (Oxford, United Kingdom), Valentina Pinelli (Brescia (BS), Italy), Christian B. Laursen (Odense, Denmark), Rachid Tazi Mezalek (Burgos, Spain)
<b>13:00</b>	<b>Lunch</b>
<b>14:00</b>	<b>Pleural effusions and thickening</b> Najib M. Rahman (Oxford, United Kingdom)
<b>14:30</b>	<b>Basic echocardiography, vascular structures and volume status</b> Graham Barker (Oxford, United Kingdom)
<b>15:00</b>	<b>Diaphragm assessment</b> John Wrightson (Oxford, United Kingdom)
<b>15:30</b>	<b>Break</b>
<b>16:00</b>	<b>Advanced interventions</b> Ioannis Psallidas (Oxford (Oxfordshire), United Kingdom)
<b>16:30</b>	<b>Group assignment</b> Najib M. Rahman (Oxford, United Kingdom), Graham Barker (Oxford, United Kingdom), John Wrightson (Oxford, United Kingdom), Ioannis Psallidas (Oxford (Oxfordshire), United Kingdom)

**09:30 - 13:00**

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

**Postgraduate course: PG5 Novel insights into the diagnostic algorithm for interstitial lung diseases**

**Aims :** to provide an update on the most recent advances in the diagnostic algorithm for interstitial lung diseases (ILDs) and to provide a solid theoretical background for the skills workshop on the diagnostic algorithm for ILDs.

**Disease(s) :** [Interstitial lung diseases](#)

**Method(s) :** Endoscopy and interventional pulmonology Imaging Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Pathologist, Radiologist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Tiago Alfaro (Coimbra, Portugal), Maria Molina Molina (Hospitalet de Llobregat (Barcelona), Spain)

<b>09:30</b>	<b>Computed tomographic biomarkers in idiopathic pulmonary fibrosis</b> Nicola Sverzellati (Parma (PR), Italy)
<b>10:00</b>	<b>Bronchoalveolar lavage in patients with fibrotic ILDs: is it helpful?</b> Nicolas Kahn (Heidelberg, Germany)
<b>10:30</b>	<b>Transbronchial lung cryobiopsy in the diagnosis of ILDs</b> Claudia Ravaglia (Forlì, Italy)
<b>11:00</b>	<b>Break</b>
<b>11:30</b>	<b>Lung ultrasonography in the evaluation of ILDs</b> Eirini Vasarmidi (Heraklion (Crete), Greece)
<b>12:00</b>	<b>Group assignment</b> Claudia Ravaglia (Forlì, Italy), Nicolas Kahn (Heidelberg, Germany), Eirini Vasarmidi (Heraklion (Crete), Greece), Nicola Sverzellati (Parma (PR), Italy)

**09:30 - 13:00**

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

**Postgraduate course: PG7 Chest radiology  
basics for pulmonologists from radiologists**

**Aims :** to provide a detailed overview of various patterns on (high-resolution) computed tomography chest imaging of patients with interstitial lung diseases and various infections; to summarise the role of radiology in evaluation of pulmonary hypertension and the role of different imaging modalities in assessment of solitary pulmonary nodules will be discussed; to review throughout the course, the size, appearance and distribution of different opacities because they are related to various differential diagnoses in clinical settings; to provide basic guidelines for differential diagnosis and an algorithmic approach to various lung and chest pathologies based on clinical history and distribution, as well as the presence of associated abnormalities.

**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology**Method(s) :** General respiratory patient care Imaging Surgery**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Pathologist, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**Chairs :** Laura Fregonese (London, United Kingdom), Aleksandar Grgic (Homburg, Germany)**09:30 Imaging of COPD**

Johan Coolen (Leuven, Belgium)

**10:00 Imaging of pulmonary hypertension**

Aleksandar Grgic (Homburg, Germany)

**10:30 Imaging of interstitial lung diseases**

Sara Piciucchi (Forlì, Italy)

**11:00 Break****11:30 Evaluation of solitary pulmonary nodules**

Helmut Prosch (Wien, Austria)

**12:00 Group assignment**

Johan Coolen (Leuven, Belgium), Aleksandar Grgic (Homburg, Germany), Sara Piciucchi (Forlì, Italy), Helmut Prosch (Wien, Austria)

**09:30 - 13:00***Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.***Postgraduate course: PG6 Immunodeficiencies in lung diseases****Aims :** to provide an overview of primary and secondary immunodeficiencies involving the lungs at different ages; to discuss manifestations, warning signs and recommendations for long-term management.**Disease(s) :** Paediatric respiratory diseases Respiratory infections**Method(s) :** General respiratory patient care**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Nurse, Paediatrician, Patient, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician**Chairs :** Eva Polverino (Barcelona, Spain), Catherine Greene (Dublin, Ireland)**09:30 Innate and adaptive immune response in lung diseases**

Ulrich Baumann (Hannover, Germany)

**10:00 Primary immunodeficiencies from childhood to adulthood**

Pere Soler (Barcelona, Spain)

**10:30 Immunodeficiencies in adulthood: lung disease manifestations and treatment options**

Speaker to be confirmed

**11:00 Break****11:30 Secondary immunodeficiencies and the lungs**

Isabella Quinti (Roma (RM), Italy)

**12:00 Group assignment**

Ulrich Baumann (Hannover, Germany), Pere Soler (Barcelona, Spain), Isabella Quinti (Roma (RM), Italy), Speaker to be confirmed

**09:30 - 13:00***Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.***Postgraduate course: PG9 Interventional pulmonology****Aims :** to provide an update on the most important fields in interventional pulmonology. to discuss: 1) transthoracic ultrasonography and thoracoscopy in relation to the management of malignant pleural effusions; 2) use of endosonography (Endobronchial ultrasound (EBUS) and Endobronchial ultrasound bronchoscopy (EUS-B)) for diagnosis and staging of lung cancer and assessment of sarcoidosis; 3) endoscopic treatment of emphysema; and 4) cryobiopsy in patients with interstitial lung diseases. After the course, participants will be able to identify and discuss the proper indications for the various interventions.



**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology**Method(s) :** Endoscopy and interventional pulmonology General respiratory patient care Imaging**Tag(s) :** Clinical**Target audience :** Clinical researcher, Pathologist, Thoracic oncologist, Thoracic surgeon, Adult pulmonologist/Clinician**Chairs :** Jouke T. Annema (Amsterdam, Netherlands), Prashant Nemichand Chhajed (Mumbai, India)

- 09:30**      **Use of transthoracic ultrasonography, indwelling pleural catheter and thoracoscopy for the management of malignant pleural effusion**  
Rahul Bhatnagar (Bristol, United Kingdom)
- 
- 09:55**      **Use of endosonography for diagnosis and staging of lung cancer and assessment of sarcoidosis**  
Rocco Trisolini (Bologna (BO), Italy)
- 
- 10:20**      **Endoscopic treatment of emphysema**  
Daniela Gompelmann (Heidelberg, Germany)
- 
- 10:45**      **Cryobiopsy in patients with interstitial lung diseases**  
Sara Tomassetti (Forli, Italy)
- 
- 11:10**      **Break**
- 
- 11:40**      **Sedation for bronchoscopy procedures**  
Susanne Eberl (Amsterdam, Netherlands)
- 
- 12:05**      **Group assignment**  
Rahul Bhatnagar (Bristol, United Kingdom), Rocco Trisolini (Bologna (BO), Italy), Daniela Gompelmann (Heidelberg, Germany), Sara Tomassetti (Forli, Italy)

**14:00 - 17:30***Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.***Postgraduate course: PG16 Assessment and analysis of the lung microbiome**

**Aims :** to discuss the opportunities and difficulties associated with studies of the lung microbiome/mycobiome. The course will begin with four lectures given by renowned experts in their fields. This will be followed by interactive group discussions during which participants can split into smaller groups to gain hands-on training in various areas, such as study design, data analysis and power calculations.

**Diseases:** airway diseases, paediatric respiratory diseases, respiratory infections.

**Disease(s) :** Airway diseases Paediatric respiratory diseases Respiratory infections**Method(s) :** Cell and molecular biology**Tag(s) :** Translational**Target audience :** Clinical researcher, Paediatrician, Scientist (basic, translational), Student, Trainee**Chairs :** Sabine Bartel (Groningen, Netherlands), Anne M. van der Does (Leiden, Netherlands)

- 14:00**      **How to think about the microbiome**  
Robert Dickson (Ann Arbor, United States of America)
- 
- 14:30**      **Appropriate study design for low-biomass microbiome research**  
Debby Bogaert (Edinburgh, United Kingdom)
- 
- 15:00**      **Integration of transcriptomics and metabolomics with microbiomic data to identify host-microbiota interactions**  
Leopoldo N. Segal (New York  
New York, NY, United States of America)
- 
- 15:30**      **Break**
- 
- 16:00**      **The airway mycobiome and its relevance to respiratory disease**  
Laurence Delhaes (Bordeaux, France)
- 
- 16:30**      **Group assignment**  
Robert Dickson (Ann Arbor, United States of America), Debby Bogaert (Edinburgh, United Kingdom), Leopoldo N. Segal (New York  
New York, NY, United States of America), Laurence Delhaes (Bordeaux, France)



## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG17 Sleep apnoea and hypoventilation: obstruction and more

**Aims :** to provide an update on the pathophysiology and clinical phenotypes of various sleep-related breathing disorders, as well as diagnostic and therapeutic approaches.

**Disease(s) :** Respiratory critical care Sleep and breathing disorders

**Method(s) :** General respiratory patient care Pulmonary rehabilitation Respiratory intensive care

**Tag(s) :** Clinical

**Target audience :** General practitioner, Physiologist, Physiotherapist, Trainee, Adult pulmonologist/Clinician

**Chairs :** Johan Verbraecken (Edegem (Antwerp), Belgium), Oana Claudia Deleanu (Bucuresti, Romania)

**14:00 Pathophysiology of obstructive sleep apnoea: from clinical closing pressure to ventilatory**  
Winfried J. Randerath (Solingen, Germany)

**14:30 Heart rate variability, pulse wave and autonomic state: how to assess cardiovascular risk in a sleep laboratory**  
Ludger Grote (Göteborg, Sweden)

**15:00 Central sleep apnoea: phenotypes, differentiation and therapeutic approaches**  
Konrad E. Bloch (Zurich, Switzerland)

**15:30 Break**

**16:00 Hypoventilation during sleep: risk factors, diagnostic algorithms and therapeutic approaches**  
Anita Simonds (London, United Kingdom)

**16:30 Group assignment**  
Winfried J. Randerath (Solingen, Germany), Ludger Grote (Göteborg, Sweden), Konrad E. Bloch (Zurich, Switzerland), Anita Simonds (London, United Kingdom)

## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG12 Recent advances in small airways diseases in patients with asthma and COPD

**Aims :** to provide an update on recent research into the increasing importance of small airways diseases in patients with asthma and COPD; to describe new developments in the assessment of small airways diseases using physiological and imaging methods; to provide an update on evidence for the clinical impact of small airways diseases on patient-related outcomes and to highlight recent data regarding treatment targeted at small airways diseases and how this relates to clinical outcomes.

**Disease(s) :** Airway diseases

**Method(s) :** Imaging Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Lung function technologist, Nurse, Pathologist, Physiologist, Physiotherapist, Radiologist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Mario Cazzola (Roma (RM), Italy), Matteo Bonini (London, United Kingdom)

**14:00 The clinical importance of small airway involvement in patients with asthma and COPD**  
Maarten van den Berge (Groningen, Netherlands)

**14:30 Recent advances in physiological assessment of small airways diseases**  
Sylvia Verbanck (Bruxelles, Belgium)

**15:00 New approaches in lung imaging to characterise small airways diseases**  
Sujal Desai (London, United Kingdom)

**15:30 Break**

**16:00 Latest insights into treatment of small airways diseases**  
Omar S. Usmani (London, United Kingdom)

**16:30 Group assignment**  
Maarten van den Berge (Groningen, Netherlands), Sylvia Verbanck (Bruxelles, Belgium), Sujal Desai (London, United Kingdom), Omar S. Usmani (London, United Kingdom)

## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG11 Severe paediatric asthma

**Aims** : to discuss 1) the various steps involved in confirming a diagnosis of severe asthma, 2) investigation of comorbidities and alternative diagnoses, 3) the role of a multidisciplinary team (nurses, physiotherapists and psychologists) and 4) a stratified approach to biologics. Each talk will present a clinical case scenario where severe asthma may be present, and describe the diagnostic and therapeutic approaches that should be adopted. With the aid of the case presentations, participants will understand the pathway that needs to be taken for the diagnosis and treatment of paediatric severe asthma.

**Disease(s)** : Airway diseases Paediatric respiratory diseases

**Tag(s)** : Clinical

**Target audience** : Allergist, Clinical researcher, Paediatrician, Student, Trainee, Adult pulmonologist/Clinician

**Chairs** : Sejal Saglani (London, United Kingdom), Angela Zacharasiewicz (Wien, Austria)

**14:00**      **Severe preschool wheeze: when and how to treat**  
Leonard Bacharier (St Louis, United States of America)

**14:30**      **Only severe asthma?**  
Alexander Möller (Zürich, Switzerland)

**15:00**      **A difficult case: distinctions between difficult asthma, true severe asthma and overlap**  
Louise Fleming (London, United Kingdom)

**15:30**      **Break**

**16:00**      **The need for a specialist multidisciplinary clinic to manage paediatric patients with severe asthma in the age of biologics**  
Theresa Guilbert (Cincinnati, United States of America)

**16:30**      **Group assignment**  
Leonard Bacharier (St Louis, United States of America), Alexander Möller (Zürich, Switzerland), Louise Fleming (London, United Kingdom), Theresa Guilbert (Cincinnati, United States of America)

## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG13 Traditional and modern clinical approaches for diagnosis and management of occupational airways diseases

**Aims** : to discuss recent advances related to occupational airways diseases; to provide an update on recent changes in potentially harmful exposures at work; to provide an update on modern aspects of occupational asthma, COPD and hypersensitivity pneumonitis and to provide clinical and scientific context to these issues using real-life cases.

**Disease(s)** : Airway diseases Interstitial lung diseases

**Method(s)** : Epidemiology General respiratory patient care Physiology

**Tag(s)** : Clinical

**Target audience** : Allergist, Clinical researcher, General practitioner, Nurse, Physiologist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs** : Rafael E. de la Hoz (New York, United States of America), Hille Suojalehto (Helsinki, Finland)

**14:00**      **Novel and classical inhaled materials implicated in the causation of occupational airways diseases**  
Benoit Nemery (Leuven, Belgium)

**14:30**      **Occupational asthma: classical and novel causes and diagnostic approaches**  
Paul Cullinan (London, United Kingdom)

**15:00**      **Occupational COPD : what is new and how do we identify and ultimately prevent this disease?**  
Paul Blanc (San Francisco, United States of America)

**15:30**      **Break**

**16:00**      **Occupational hypersensitivity pneumonitis: classical and novel causes and diagnostic approaches**  
M<sup>a</sup> Jesus Cruz Carmona (Barcelona, Spain)

**16:30**      **Group assignment**  
Benoit Nemery (Leuven, Belgium), Paul Cullinan (London, United Kingdom), Paul Blanc (San Francisco, United States of America), M<sup>a</sup> Jesus Cruz Carmona (Barcelona, Spain)

## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG18 Haemodynamics and right ventricular function during exercise

**Aims :** to describe the physiology of the right ventricle and pulmonary circulation at rest and during exercise; to present the most important clinical methods for assessment of haemodynamics and right ventricular function and will aid diagnostic and therapeutic decision-making in daily clinical routine. We aim to focus on healthy conditions and the most important diseases affecting pulmonary circulation, such as pulmonary hypertension.

**Disease(s) :** Pulmonary vascular diseases

**Method(s) :** Imaging Physiology

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, Physiologist, Radiologist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Harm Jan Bogaard (Amsterdam, Netherlands), Robert Naeije (Beersel, Belgium)

**14:00**      **Physiology, assessment and clinical relevance of resting pulmonary haemodynamics**

**14:30**      **Right ventricular function at rest**  
Frances S. De Man (Amsterdam, Netherlands)

**15:00**      **Physiology, assessment and clinical relevance of pulmonary haemodynamics during exercise**  
Gabor Kovacs (Graz, Austria)

**15:30**      **Break**

**16:00**      **Adaptation or maladaptation of the right ventricle to exercise in athletes: differences and similarities with pulmonary hypertension**  
Robert Naeije (Beersel, Belgium)

**16:30**      **Group assignment**  
Frances S. De Man (Amsterdam, Netherlands), Gabor Kovacs (Graz, Austria), Robert Naeije (Beersel, Belgium)

## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG14 Perioperative management of fragile patients undergoing major thoracic surgery

**Aims :** to describe 1) physio-pathologic assessment to stratify the risk in patients requiring major thoracic surgery, 2) thoracic surgical strategies to minimise perioperative risks, 3) non-invasive respiratory assistance to prevent and treat postoperative complications and 4) the setting and nursing care of high-risk surgical patients.

**Disease(s) :** Respiratory critical care Thoracic oncology

**Method(s) :** Physiology Respiratory intensive care Surgery

**Tag(s) :** Clinical

**Target audience :** Critical/Intensive care physician, Lung function technologist, Nurse, Thoracic surgeon

**Chairs :** Irene Steenbruggen (Zwolle, Netherlands), Lieuwe Bos (Amsterdam, Netherlands)

**14:00**      **Physio-pathologic assessment to stratify risk**  
Andrea Aliverti (Milan, Italy)

**14:30**      **Thoracic surgical strategies to minimise risk**  
Stefano Elia (Roma (RM), Italy)

**15:00**      **Noninvasive respiratory assistance to prevent and treat postoperative complications**  
Raffaele Scala (Arezzo, Italy)

**15:30**      **Break**

**16:00**      **Setting and nursing care of high-risk surgical patients**  
Janelle Yorke (Manchester (Greater Manchester), United Kingdom)

**16:30**      **Group assignment**  
Andrea Aliverti (Milan, Italy), Stefano Elia (Roma (RM), Italy), Raffaele Scala (Arezzo, Italy), Janelle Yorke (Manchester (Greater Manchester), United Kingdom)

## 14:00 - 17:30

Registration for this session is additional to the congress registration fee and is: €104.5 early bird; €137.5 standard and €154 on site.

### Postgraduate course: PG15 Management of pleural disease in 2019: applying the evidence

**Disease(s) :** Respiratory infections Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology General respiratory patient care Imaging Surgery

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Thoracic oncologist, Trainee, Thoracic surgeon

**Chairs :** Nick Maskell (Bristol (Avon), United Kingdom), Sotirios Zarogiannis (Larisa, Greece)

**14:00 Malignant pleural effusion: drainage, talc and beyond**  
Kevin Blyth (Glasgow (Glasgow), United Kingdom)

**14:30 Pleural infection: are we getting it right?**

**15:00 Management of pneumothorax: beyond the guidelines**  
Julius P. Janssen (Nijmegen, Netherlands)

**15:30 Break**

**16:00 Thoracic surgery for pleural disease: the earlier the better?**  
Marco Lucchi (Pisa (PI), Italy)

**16:30 Group assignment**  
Kevin Blyth (Glasgow (Glasgow), United Kingdom), Julius P. Janssen (Nijmegen, Netherlands), Marco Lucchi (Pisa (PI), Italy)

## 08:30 - 11:00

### Language session: Chinese Programme 2019: Part I a joint ERS / CTS session

**Aims :** to present and discuss the new advances in respiratory medicine presented by experienced speakers from the ERS leadership and Chinese leaders in respiratory medicine; to present an overview on respiratory disease research, CAP, influenza, bronchology and interventional pulmonology in Europe and China.

**Disease(s) :** Respiratory infections

**Method(s) :** Epidemiology General respiratory patient care Public health

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Lung function technologist, Nurse, Policy maker, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon, Adult pulmonologist/Clinician

**Chairs :** Tobias Welte (Hannover, Germany), Chair to be confirmed

**08:30 Research priorities in China: Advancing research in National Clinical Research Center for Respiratory Diseases**  
Speaker to be confirmed

**09:00 Research priorities in Europe: 2019 Presidential Summit action plan**  
Tobias Welte (Hannover, Germany)

**09:30 Bronchology and interventional pulmonology in China: the past, the present and the future**  
Speaker to be confirmed

**10:00 Interventional Pneumology in Europe: cutting edge technology**  
Speaker to be confirmed

**10:30 Break**

## 09:30 - 11:20

### Language session: French Programme 2019: Part I A joint ERS/SPLF session

**Aims :** to provide french speaking respiratory physicians with an update on major clinical topics in the field respiratory medicine

**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology**Method(s) :** Public health Pulmonary rehabilitation Transplantation**Tag(s) :** Clinical**Target audience :** Clinical researcher, Thoracic oncologist, Adult pulmonologist/Clinician**Chairs :** Nicolas Roche (Paris, France), Guy Brusselle (Ghent, Belgium)

**09:30** **Maladie thrombo-embolique : les nouvelles recommandations/  
Thrombo-embolic disease: new recommendations**  
Olivier Sanchez (Paris, France)

**09:55** **Où en sommes-nous dans le dépistage du cancer bronchique ?/  
Screening for lung cancer: where are we?**  
Marie-Pierre Revel (Paris, France), Speaker to be confirmed

**10:20** **Démarche de prise en charge des apnées centrales du sommeil/  
Management of central sleep apnea**  
Sandrine Launois Rollinat (Paris Cedex 12, France)

**10:45** **Stratégie de prise en charge de l'asthme allergique/  
Management strategy for allergic asthma**  
Speaker to be confirmed

**11:10** **Break****10:00 - 17:30****Patient: ELF Patient organisation networking day****10:00 - 10:30****Patient: ELF Patient organisation networking day: introduction****Chairs :** Chair to be confirmed**11:00 - 13:00****Language session: Chinese Programme 2019: Part II**  
a joint ERS / CTS session**Aims :** to present and discuss the new advances in respiratory medicine presented by experienced speakers from the ERS leadership and Chinese leaders in respiratory medicine; to present an overview on respiratory disease research, CAP, influenza, bronchology and interventional pulmonology in Europe and China.**Disease(s) :** Respiratory infections**Tag(s) :** Clinical**Chairs :** Rongchang Chen (Guangzhou (Guangdong), China), Charlotte Suppli Ulrik (Virum, Denmark)

**11:00** **The Global Burden of pneumonia in China and the World: a GBD comparison**  
Joan Bautista Soriano (Madrid, Spain)

**11:30** **Progress in tuberculosis**  
Graham H. Bothamley (London, United Kingdom)

**12:00** **Prevention and control of influenza in China**  
Bin Cao (Beijing, China)

**12:30** **Severe CAP in China: epidemiology and clinical practice**  
Jieming Qu (Shanghai, China)

**11:20 - 13:00****Language session: French Programme 2019: Part II**  
A joint ERS/SPLF session**Aims :** to provide french speaking respiratory physicians with an update on major clinical topics in the field respiratory medicine**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology**Tag(s) :** Clinical**Chairs :** Jean-Charles Dalphin (Besançon, France), Thierry Troosters (Leuven, Belgium)

- 11:20**      **Génétique des pneumonies infiltrantes diffuses/  
Genetics of diffuse interstitial lung disease**  
Raphaël Borie (Paris, France)
- 
- 11:45**      **Coaching et prise de décision partagée dans les maladies respiratoires chroniques/  
Coaching and shared decision making in chronic respiratory diseases**  
Jean Bourbeau (Montréal (QC), Canada)
- 
- 12:10**      **Transplantation pulmonaire à l'heure de la médecine de précision/  
Lung transplantation in the era of precision medicine**  
Adrien Tissot (Nantes, France)
- 
- 12:35**      **Tuberculose sous toutes ses formes/  
Tuberculosis in all its forms**  
Fatma Tritar (Ariana, Tunisia)

**13:30 - 15:45**Language session: Russian Speaking Programme 2019: Part I  
Respiratory diseases and pregnancy (A joint ERS/RRS/ARSRM session)**Aims** : to present new knowledge in diagnosis and management of respiratory diseases in pregnancy**Disease(s)** : Airway diseases**Method(s)** : General respiratory patient care    Physiology    Pulmonary function testing**Tag(s)** : Clinical**Target audience** : Allergist, Clinical researcher, General practitioner, Student, Trainee, Adult pulmonologist/Clinician**Chairs** : Michael Schatz (San Diego, United States of America), Akpay Sarybaev (Bishkek, Kyrgyzstan)

- 13:30**      **Asthma and pregnancy**  
Rustem Fassakhov (Kazan (Republic of Tatarstan), Russian Federation)

- 14:00**      **Difficulties in the treatment of asthma in pregnant women**  
Michael Schatz (San Diego, United States of America)

- 14:30**      **Pulmonary hypertension in pregnancy**  
Speaker to be confirmed

- 15:00**      **Pulmonary Emdolism during pregnancy**  
Speaker to be confirmed

- 15:30**      **Break**

**15:45 - 17:30**Language session: Russian Speaking programme 2019: Part II  
Respiratory diseases and pregnancy (A joint ERS/RRS/ARSRM session)**Aims** : to present new knowledge in diagnosis and management of respiratory diseases in pregnancy**Disease(s)** : Airway diseases**Tag(s)** : Clinical**Chairs** : Alexey Pak (Astana, Kazakhstan), Chair to be confirmed

- 15:45**      **Respiratory physiology and pregnancy**  
Antonella LoMauro (Milano (MI), Italy)

- 16:10**      **Sleep disturbances in pregnancy**  
Irina Madaeva (Irkutsk, Russian Federation)

- 16:35**      **Respiratory failure in pregnant patient**  
Speaker to be confirmed

- 17:15**      **Cystic fibrosis and pregnancy**  
Speaker to be confirmed

**16:30 - 17:00**

## Patient: ELF Patient organisation networking day: closing

**Chairs** : Chair to be confirmed



08:00 - 10:20

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW1 Endoscopy**

Learn from the experts

**Aims :** to provide training in the skills required to perform endoscopic procedures.**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology**Method(s) :** Endoscopy and interventional pulmonology**Tag(s) :** Clinical**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Paediatrician, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**Chairs :** Felix J.F. Herth (Heidelberg, Germany)**Introduction****Endobronchial ultrasound and endobronchial ultrasound bronchoscopy**

Laurence M.M.J. Crombag (Huizen, Netherlands)

**Targeted lung denervation**

Arschang Valipour (Wien, Austria)

**Stent placement**

Elaine Yap (Auckland, New Zealand)

**Cryobiopsy**

Anastasios Palamidis (Egaleo (Athens), Greece)

08:00 - 10:20

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW2 Bedside evaluation of diaphragm and limb muscle function using ultrasound****Aims :** to provide different ways to evaluate muscle function at the bedside using ultrasonography; to discuss the evaluation of dynamic muscle thickening fraction and diaphragm excursion; to demonstrate and discuss assessments, and their usefulness for evaluation purposes.**Disease(s) :** Airway diseases Respiratory critical care**Method(s) :** Pulmonary function testing Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Clinical researcher, Critical/Intensive care physician, Lung function technologist, Nurse, Physiologist, Physiotherapist, Radiologist, Student, Trainee, Adult pulmonologist/Clinician**Chairs :** Wendy Darlene Reid (Toronto ON, Canada)**Introduction****Evaluation of limb muscle function using ultrasonography**

Selina M Parry (Parkville (VIC), Australia)

**Evaluation of diaphragm thickness using ultrasonography**

Massimo Zambon (Milan, Italy)

**Evaluation of diaphragm thickening fraction using ultrasonography**

Ewan Goligher (Toronto (ON), Canada)

**Evaluation of diaphragm excursion using ultrasonography**

Martin Dres (Paris, France)

08:00 - 10:20

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW3 Diffusing capacity testing**

Single-breath carbon monoxide uptake



**Aims :** to provide participants with the skills and background knowledge to perform diffusing capacity tests (i.e., DLCO) according to best practice and in accordance with the latest recommendations; to learn how to write and compile reports and to interpret tests, and to acquire the technical and physiological knowledge required to perform and interpret the tests.

**Disease(s) :** Airway diseases Interstitial lung diseases Pulmonary vascular diseases

**Method(s) :** Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Lung function technologist, Nurse, Physiologist, Scientist (basic, translational), Student

**Chairs :** Felip Burgos Rincon (Barcelona, Spain)

#### Introduction

#### Calibration, quality control and system settings

Frans H.C. De Jongh (Enschede, Netherlands)

#### Technical aspects of diffusing capacity testing

Brendan Cooper (Edgbaston (Birmingham), United Kingdom)

#### Standardisation of test performance

Karl Sylvester (Cambridge (Cambridgeshire), United Kingdom)

#### Reporting and interpretation of case studies

Irene Steenbruggen (Zwolle, Netherlands)

10:40 - 13:00

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.*

### Skills workshop: SW4 Endoscopy

Learn from the experts

**Aims :** to provide training in the skills required to perform endoscopic procedures.

**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology

**Tag(s) :** Clinical

**Chairs :** Pallav L. Shah (London, United Kingdom)

#### Introduction

#### Endobronchial ultrasound and endobronchial ultrasound bronchoscopy

Maren Schuhmann (Heidelberg, Germany)

#### Targeted lung denervation

Dirk-Jan Slebos (Groningen, Netherlands)

#### Stent placement

Sebastian Fernandez Bussy (Santiago, Chile)

#### Cryobiopsy

Konstantina Kontogianni (Heidelberg, Germany)

10:40 - 13:00

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.*

### Skills workshop: SW5 Bedside evaluation of diaphragm and limb muscle function using ultrasound

**Aims :** to provide different ways to evaluate muscle function at the bedside using ultrasonography; to discuss the evaluation of dynamic muscle thickening fraction and diaphragm excursion; to demonstrate and discuss assessments, and their usefulness for evaluation purposes.

**Disease(s) :** Airway diseases Respiratory critical care

**Tag(s) :** Clinical

**Chairs :** Pieter Roel Tuinman (Amsterdam, Netherlands)

#### Introduction

#### Evaluation of limb muscle function using ultrasonography

Johan Segers (Leuven, Belgium)

**Evaluation of diaphragm thickness using ultrasonography**

Jonne Doorduyn (Nijmegen, Netherlands)

**Evaluation of diaphragm thickening fraction using ultrasonography**

Ewan Goligher (Toronto (ON), Canada)

**Evaluation of diaphragm excursion using ultrasonography**

Martin Dres (Paris, France)

**10:40 - 13:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW6 Diffusing capacity testing****Single-breath carbon monoxide uptake****Aims :** to provide participants with the skills and background knowledge to perform diffusing capacity tests (i.e., DLCO) according to best practice and in accordance with the latest recommendations; to learn how to write and compile reports and to interpret tests, and to acquire the technical and physiological knowledge required to perform and interpret the tests.**Disease(s) :** **Airway diseases** **Interstitial lung diseases** **Pulmonary vascular diseases****Tag(s) :** Clinical**Introduction****Calibration, quality control and system settings**

Felip Burgos Rincon (Barcelona, Spain)

**Technical aspects of diffusing capacity testing**

Adrian Hugh Kendrick (Bristol (Avon), United Kingdom)

**Standardisation of test performance**

Aisling McGowan (Dublin, Ireland)

**Reporting and interpretation of case studies**

Bruce Thompson (Melbourne, Australia)

**14:30 - 16:50***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW7 Endoscopy****Learn from the experts****Aims :** to provide training in the skills required to perform endoscopic procedures.**Disease(s) :** **Airway diseases** **Interstitial lung diseases** **Thoracic oncology****Tag(s) :** Clinical**Chairs :** Felix J.F. Herth (Heidelberg, Germany)**Introduction****Endobronchial ultrasound and endobronchial ultrasound bronchoscopy**

Laurence M.M.J. Crombag (Huizen, Netherlands)

**Targeted lung denervation**

Arschang Valipour (Wien, Austria)

**Stent placement**

Elaine Yap (Auckland, New Zealand)

**Cryobiopsy**

Anastasios Palamidas (Egaleo (Athens), Greece)

**14:30 - 16:50***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW8 Bedside evaluation of diaphragm and limb muscle function using ultrasound****Aims :** to provide different ways to evaluate muscle function at the bedside using ultrasonography; to discuss the evaluation of dynamic muscle thickening fraction and diaphragm excursion; to demonstrate and discuss assessments, and their usefulness for evaluation purposes.

**Disease(s) :** Airway diseases Respiratory critical care**Tag(s) :** Clinical**Chairs :** Wendy Darlene Reid (Toronto ON, Canada)**Introduction****Evaluation of limb muscle function using ultrasonography**  
Selina M Parry (Parkville (VIC), Australia)**Evaluation of diaphragm thickness using ultrasonography**  
Massimo Zambon (Milan, Italy)**Evaluation of diaphragm thickening fraction using ultrasonography**  
Pieter Roel Tuinman (Amsterdam, Netherlands)**Evaluation of diaphragm excursion using ultrasonography**  
Speaker to be confirmed

## 14:30 - 16:50

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW9 Diffusing capacity testing**  
Single-breath carbon monoxide uptake**Aims :** to provide participants with the skills and background knowledge to perform diffusing capacity tests (i.e., DLCO) according to best practice and in accordance with the latest recommendations; to learn how to write and compile reports and to interpret tests, and to acquire the technical and physiological knowledge required to perform and interpret the tests.**Disease(s) :** Airway diseases Interstitial lung diseases Pulmonary vascular diseases**Tag(s) :** Clinical**Chairs :** Aisling McGowan (Dublin, Ireland)**Introduction****Calibration, quality control and system settings**  
Frans H.C. De Jongh (Enschede, Netherlands)**Technical aspects of diffusing capacity testing**  
Brendan Cooper (Edgbaston (Birmingham), United Kingdom)**Standardisation of test performance**  
Karl Sylvester (Cambridge (Cambridgeshire), United Kingdom)**Reporting and interpretation of case studies**  
Irene Steenbruggen (Zwolle, Netherlands)

## 08:30 - 11:30

*Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.***Professional development: PDW3 Leading and managing change****Aims :** to help delegates identify the causes of resistance to change and to use strategies to overcome this resistance, to utilise steps in planned change, to effectively communicate and motivate throughout change and to engage staff members in the change process.**Method(s) :** Cell and molecular biology Endoscopy and interventional pulmonology Epidemiology General respiratory patient care Imaging Physiology Public health Pulmonary function testing Respiratory intensive care Surgery Transplantation**Target audience :** Allergist, Clinical researcher, Critical/Intensive care physician, General practitioner, Lung function technologist, Nurse, Paediatrician, Patient, Pathologist, Physiologist, Physiotherapist, Policy maker, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**Chairs :** Gernot G.U. Rohde (Frankfurt am Main, Germany), Louellen N. Essex (Wayzata, United States of America)**Why change efforts might fail: what the research tells us**  
Louellen N. Essex (Wayzata, United States of America)**The personal response to change**  
Louellen N. Essex (Wayzata, United States of America)**The planned change process: steps and guidelines**  
Louellen N. Essex (Wayzata, United States of America)

**The leader as a role model**

Louellen N. Essex (Wayzata, United States of America)

**Question-and-answer session**

Louellen N. Essex (Wayzata, United States of America)

**Action planning: how to apply what has been learned**

Louellen N. Essex (Wayzata, United States of America)

**11:45 - 14:15***Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.***Professional development: PDW4 Medical writing****Aims :** to provide a short overview of medical writing**Chairs :** Gilbert Massard (Strasbourg, France)**Welcome**

Gilbert Massard (Strasbourg, France)

**Why should we publish? How to handle your data**

Enrico Ruffini (Torino (TO), Italy)

**Different types of publications and general rules**

Gilbert Massard (Strasbourg, France)

**The editorial cycle from submission to publication: how do I get my abstract accepted at an international conference?**

Enrico Ruffini (Torino (TO), Italy)

**Conclusion**

Gilbert Massard (Strasbourg, France)

**14:30 - 16:30***Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.***Professional development: PDW5 End of life care for the elderly asthmatic and COPD patients****Aims :** Asthma and COPD are disorders which impose a significant risk on mortality. Developments in chronic and critical care resulted in a prolonged life expectancy and reduced exacerbation-related mortality in both diseases. However, patients with advanced disease experience an increasing frequency of exacerbations and longer in-hospital stay without a significant overall improvement in quality of life. This workshop will help the physicians to predict the natural course of an advanced disease in patients with asthma and COPD, develop a plan for palliative care and manage dyspnoea in terminally ill patients.**Disease(s) :** Airway diseases**Method(s) :** General respiratory patient care Palliative care**Tag(s) :** Clinical**Target audience :** Critical/Intensive care physician, General practitioner, Student, Patient, Trainee, Adult pulmonologist/Clinician**Chairs :** Mark W. Elliott (Leeds (West Yorkshire), United Kingdom)**14:30 Recognising advanced disease, advance care planning and recognition of dying for people with COPD**

Joan Escarrabill Sanglas (Barcelona, Spain), Andras Bikov (Budapest, Hungary)

**15:00 Do or do not intubate life-threatening severe asthma?**

Gennaro D'Amato (Napoli (NA), Italy)

**15:30 Symptom management at end of life**

Miriam Barrecheguren Fernandez (Barcelona, Spain)

**16:00 End-stage respiratory diseases and respiratory support**

Stefano Nava (Bologna (BO), Italy)

**13:00 - 14:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME1 Preschool wheeze****Aims :** to provide insights into the early origins of preschool wheeze including prenatal risk factors, the pathophysiology and treatment of preschool wheeze, risk factors for subsequent development of asthma and possible interventions.

**Disease(s) :** Paediatric respiratory diseases Airway diseases**Method(s) :** Epidemiology Pulmonary function testing**Tag(s) :** Clinical**Target audience :** Allergist, Clinical researcher, General practitioner, Nurse, Paediatrician, Scientist (basic, translational), Student, Trainee**13:00**      **Preschool wheeze**  
Sejal Saglani (London, United Kingdom)**13:00 - 14:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME2 Improving donor organ quality: the role of ex vivo lung perfusion****Aims :** ex vivo lung perfusion is a new technique to improve donor lung quality. Controlled trials demonstrate that the results of lung transplantation with ex vivo lung perfusion are as good as those obtained with the classic cold preservation technique, whereas the prevalence of primary graft dysfunction is decreased. This technique is also expected to be further developed via application of more advanced curative and preventive protocols to improve immediate and long-term graft acceptance.

Diseases: airway diseases, interstitial lung diseases.

**Disease(s) :** Airway diseases Interstitial lung diseases**Method(s) :** Cell and molecular biology Surgery Transplantation**Tag(s) :** Clinical**Target audience :** Clinical researcher, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**13:00**      **Improving donor organ quality: the role of ex vivo lung perfusion**  
Marcelo Cypel (Toronto (ON), Canada)**13:00 - 14:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME3 Evaluation of unexplained breathlessness****Aims :** to increase awareness of the differential diagnosis of patients with unexplained breathlessness, including discussion of laryngeal dysfunction, dysfunctional breathing and unusual causes of refractory/unexplained breathlessness in pulmonary practise; to explain how to evaluate unexplained breathlessness using the best diagnostic tests, including cardiopulmonary exercise testing and continuous laryngoscopy during exercise testing; and to discuss diagnostic tips and clinical strategies to improve clinical practise in cases of unexplained breathlessness.**Disease(s) :** Airway diseases Sleep and breathing disorders**Tag(s) :** Clinical**Target audience :** Allergist, Lung function technologist, Nurse, Patient, Physiologist, Adult pulmonologist/Clinician**13:00**      **Evaluation of unexplained breathlessness**  
Pierantonio Laveneziana (Paris, France)**08:30 - 10:30****Symposium: Effects of pulmonary rehabilitation other than improving exercise capacity  
Targeting cardiometabolic risk, muscle wasting, pulmonary and systemic inflammation and patient motivation  
through pulmonary rehabilitation****Aims :** to describe the components and effects of pulmonary rehabilitation other than exercise training and improving exercise performance; to present a state-of-the-art overview of interventions aimed at reducing cardiometabolic risk and innovative strategies targeting muscle wasting; to learn that pulmonary rehabilitation affects the main features of respiratory diseases, including airway and systemic inflammation, and disease stability; to discuss patient motivation as an important treatment goal and factor associated with long-term lifestyle changes following pulmonary rehabilitation.**Disease(s) :** Airway diseases**Method(s) :** General respiratory patient care Physiology Pulmonary rehabilitation**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Nurse, Patient, Physiologist, Physiotherapist, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician**Chairs :** Rainer Gloeckl (Schoenau am Koenigssee, Germany), Martijn A. Spruit (Horn, Netherlands)**08:30**      **Modulation of cardiometabolic risk by pulmonary rehabilitation**  
Rosanne J.H.C.G. Beijers (Maastricht, Netherlands)

- 09:00**      **Effects of pulmonary rehabilitation on the main features of severe asthma**  
Celso Ricardo Fernandes de Carvalho (São Paulo (SP), Brazil)
- 
- 09:30**      **Novel approaches for targeting muscle wasting in COPD**  
Michael Steiner (Leicester (Leicestershire), United Kingdom)
- 
- 10:00**      **Patient motivation during pulmonary rehabilitation**  
Marilyn Moy (West Roxbury, United States of America)

**08:30 - 10:30****Symposium: New insights into quality control of lung function testing**

**Aims :** to describe the impact and relevance of quality control in pulmonary laboratories for continual improvement and quality assurance to present the 1) re-examination of biological control in spirometry, 2) how to implement quality control in line with the DLCO/DLNO guidelines issued in 2017, 3) quality control standards in cardiopulmonary exercise testing and 4) data management in quality control programmes.

**Disease(s) :** **Airway diseases** **Interstitial lung diseases** **Pulmonary vascular diseases**

**Method(s) :** Physiology    Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Lung function technologist, Nurse, Physiologist, Adult pulmonologist/Clinician

**Chairs :** Jellien Makonga-Braaksma (Woudenberg, Netherlands), Andrea Aliverti (Milan, Italy)

- 08:30**      **What's new in spirometry biological quality control**  
Speaker to be confirmed
- 
- 09:00**      **How to remain in line with the new DLCO/DLNO guidelines**  
Adrian Hugh Kendrick (Bristol (Avon), United Kingdom)
- 
- 09:30**      **Cardiopulmonary exercise testing: can you trust the data**  
Martin Keith Johnson (Clydebank, United Kingdom)
- 
- 10:00**      **Recent advances in data management**  
Jason Blonshine (Mason, United States of America)

**08:30 - 10:30****Symposium: Exploring the link between inhaled corticosteroids and respiratory infection**

**Aims :** to discuss emerging data concerning the role of inhaled corticosteroids in respiratory infections; to review the impact of inhaled corticosteroids on the risk of infection in the era of triple therapy, the impact of inhaled corticosteroids on the lung microbiome and how inhaled corticosteroids may increase susceptibility to viral-induced exacerbations of COPD.

**Disease(s) :** **Airway diseases** **Respiratory infections**

**Method(s) :** Cell and molecular biology    Epidemiology

**Tag(s) :** Translational

**Target audience :** Clinical researcher, General practitioner, Nurse, Patient, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Natalie Lorent (Leuven, Belgium), Tobias Welte (Hannover, Germany)

- 08:30**      **Impacts of inhaled corticosteroids on antiviral and antibacterial immunity in the lung**  
Aran Singanayagam (London, United Kingdom)
- 
- 09:00**      **Inhaled corticosteroids, bacterial load and the lung microbiome in COPD**  
Maria Rosa Faner Canet (Barcelona, Spain)
- 
- 09:30**      **Inhaled corticosteroids and the increased risk of non-tuberculous mycobacteria infection**  
Sarah Brode (Toronto (ON), Canada)
- 
- 10:00**      **What do new data concerning triple therapy tell us about the risk of infection?**  
MeiLan K. Han (Ann Arbor, United States of America)

**08:30 - 10:30****Year in review: Scientific Year in Review**

**Respiratory infections: prevention and role in disease progression**



**Aims :** Respiratory infections are a major cause of morbidity and mortality in patients with pneumonia and in those with chronic inflammatory lung diseases. Improved prevention strategies are essential, also in view of the world-wide emergence of resistance to conventional antibiotics and of new viral strains. Current vaccination strategies are in part successful, but in general provide limited cross-protection. In this Scientific Year in Review, major break-throughs in vaccination strategies, insight into innate memory for infection, and possible prevention of infectious exacerbations are discussed.

**Disease(s) :** Airway diseases Respiratory infections

**Method(s) :** Cell and molecular biology

**Tag(s) :** Translational

**Target audience :** Clinical researcher, Critical/Intensive care physician, Paediatrician, Scientist (basic, translational), Adult pulmonologist/Clinician

**Chairs :** Pieter S. Hiemstra (Leiden, Netherlands), Catherine Greene (Dublin, Ireland), Graham H. Bothamley (London, United Kingdom)

**08:30** **Treating influenza whatever the strain: using nanobodies and diet to prevent influenza infections**  
Speaker to be confirmed

**09:00** **Th17 cells: important for cross-protection following vaccination for respiratory bacterial infections**  
Speaker to be confirmed

**09:30** **Trained immunity: a way of improving respiratory health through innate immune memory**  
Simone A. Joosten (Leiden, Netherlands)

**10:00** **Interactions between bacterial and viral infections during COPD exacerbations: implications for prevention strategies**  
Sebastian L. Johnston (London, United Kingdom)

## 10:45 - 12:45

### Symposium: Early origins of lung disease: an interdisciplinary approach

**Aims :** to focus on the mechanisms underlying healthy and aberrant perinatal lung development as well as the impact of (pulmonary) immune maturation and microbial composition on lung health in childhood and adulthood; to bring together renowned experts in the field to identify knowledge gaps in research of pre- and postnatal lung development from a multidisciplinary perspective: to focus on cellular, immunological and microbial crosstalk in the lung, and to determine whether there is a window-of-opportunity in early life when potential preventive strategies for respiratory diseases can be beneficial.

**Disease(s) :** Paediatric respiratory diseases Pulmonary vascular diseases Respiratory infections

**Method(s) :** Cell and molecular biology Epidemiology

**Tag(s) :** Basic science

**Target audience :** Clinical researcher, Paediatrician, Scientist (basic, translational), Student

**Chairs :** Jennifer J.P. Collins (Rotterdam, Netherlands), Niki Ubags (Epalinges, Switzerland)

**10:45** **Fetal and neonatal lung development: the impact of multiple pre- and postnatal exposures**  
Alan H. Jobe (Cincinnati, OH, United States of America)

**11:15** **Does early injury of the neonatal lung contribute to premature lung aging?**  
Anne Hilgendorff (München, Germany)

**11:45** **Early-life pulmonary immunity and development of paediatric inflammatory respiratory diseases**  
Clare Lloyd (London, United Kingdom)

**12:15** **Early-life respiratory infections: diagnosis, prognosis and treatment**  
Debby Bogaert (Edinburgh, United Kingdom)

## 10:45 - 12:45

### Symposium: Lung transplantation in 2019: where are we?

**Aims :** to provide an update on the most challenging problems and best outcomes in the field of lung transplantation.

**Disease(s) :** Pulmonary vascular diseases Respiratory critical care Respiratory infections

**Method(s) :** Respiratory intensive care Surgery Transplantation

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, Lung function technologist, Physiotherapist, Scientist (basic, translational), Student, Thoracic surgeon, Trainee

**Chairs :** Federica Meloni (Pavia (PV), Italy), Anne Olland (Strasbourg, France)

**10:45** **Ethics of lung transplantation**  
Are Martin Holm (Oslo, Norway)



**11:15**      **Extended criteria in donor selection: are we pushing the boundaries?**  
Dirk Van Raemdonck (Leuven, Belgium)

**11:45**      **Indications for lung transplantation: from ideal recipients to challenging candidates**  
Jens Gottlieb (Hannover, Germany)

**12:15**      **How to improve long-term outcomes following lung transplantation**  
Geert Verleden (Leuven, Belgium)

## 10:45 - 12:45

### Symposium: State of the art session: Respiratory critical care Prevention in acute and chronic respiratory failure

**Aims :** to report the state of the art in the prevention measures for patients with acute and chronic respiratory failure in terms of burden for health such as exacerbations of chronic diseases and hospitalisation, ICU admission, mechanical ventilation requirement, length and complication of ventilatory support.

**Disease(s) :** Respiratory critical care    Respiratory infections

**Method(s) :** Respiratory intensive care

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Nurse, Physiologist, Physiotherapist, Trainee, Adult pulmonologist/Clinician

**Chairs :** Begüm Ergan (Izmir, Turkey), Miquel Ferrer Monreal (Barcelona, Spain)

**10:45**      **Non pharmacological strategies to prevent hospitalisation in advanced stable COPD**  
Annalisa Carlucci (San Donato Milanese (MI), Italy)

**11:15**      **Non invasive respiratory assistance to prevent intubation in acute respiratory failure**  
Stefano Nava (Bologna (BO), Italy)

**11:45**      **Strategies to prevent diaphragm-injury and lung-injury in ventilated patients**  
Leo Heunks (Amsterdam, Netherlands)

**12:15**      **Improving outcome in patients with ILD mechanically ventilated in the intensive care unit**  
Alexandre Demoule (Paris, France)

## 10:45 - 12:45

### Symposium: Fighting antimicrobial resistance: from prevention to antimicrobial stewardship Joint European Society of Clinical Microbiology and Infectious Diseases (ESCMID)/ERS session

**Aims :** to discuss: 1) technological challenges, 2) the unmet medical and pharma needs, 3) the real value of diagnostics; to present new European Public Private Initiative

**Disease(s) :** Respiratory infections

**Method(s) :** Cell and molecular biology    Epidemiology    General respiratory patient care

**Tag(s) :** Translational

**Target audience :** Clinical researcher, General practitioner, Paediatrician, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Murat Akova (Ankara, Turkey), Eva Polverino (Barcelona, Spain)

**10:45**      **Antimicrobial resistance in respiratory diseases**  
Francesco Blasi (Milan, Italy)

**11:15**      **How to link antimicrobial and diagnostic stewardship**  
Speaker to be confirmed

**11:45**      **The new era of diagnostics: will it ever start?**  
Herman Goossens (Edegem, Belgium)

**12:15**      **How to build the antimicrobial stewardship programme**  
Keertan Dheda (Cape Town, South Africa)

## 10:45 - 12:45

### Grand round: Imaging Grand Round Management of pulmonary nodules for the prevention of lung cancer

**Aims :** to give tips for both pulmonologists and radiologists to detect a solitary pulmonary nodule (SPN) on chest X-ray; to explain on how to differentiate benign and malignant SPNs on CT scans; to provide guidance to the correct diagnosis of the nodular pulmonary patterns and their follow-up in a case-based session

**Disease(s) :** Airway diseases Pulmonary vascular diseases Respiratory infections

**Method(s) :** Imaging Public health

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Pathologist, Physiologist, Policy maker, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Najib M. Rahman (Oxford, United Kingdom), Chair to be confirmed

**10:45** **Beyond chest X-ray: how to realize the masses? Practical advices**  
Speaker to be confirmed

**11:15** **Imaging of solitary pulmonary nodules**  
Ádám Domonkos Tárnoki (Budapest, Hungary)

**11:45** **Imaging of nodular pattern**  
Helmut Prosch (Wien, Austria)

**12:15** **Management of pulmonary nodules**  
Anand Devaraj (London, United Kingdom), Richard Booton (Crewe (Cheshire), United Kingdom)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 2: Respiratory intensive care**

**Chairs :** Raffaele Scala (Arezzo, Italy), Leo Heunks (Amsterdam, Netherlands)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 3: Basic and translational sciences**

**Chairs :** Pieter S. Hiemstra (Leiden, Netherlands), Catherine Greene (Dublin, Ireland)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 5: Airway diseases, asthma and COPD**

**Chairs :** Antonio Spanevello (Milan, Italy), Omar S. Usmani (London, United Kingdom)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 6: Epidemiology and environment**

**Chairs :** Christer Janson (Uppsala, Sweden), Charlotte Suppli Ulrik (Virum, Denmark)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 10: Respiratory infections**

**Chairs :** Graham H. Bothamley (London, United Kingdom), Eva Polverino (Barcelona, Spain)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 11: Thoracic oncology**

**Chairs :** Jan van Meerbeeck (Edegem (Antwerp), Belgium), Torsten Gerriet Blum (Berlin, Germany)

**13:00 - 14:15**

**Assembly members' meeting: Assembly 14: Clinical techniques, imaging and endoscopy**

**Chairs :** Jouke T. Annema (Amsterdam, Netherlands), Walter De Wever (Leuven, Belgium)

**13:00 - 14:30**

**Championship: Respiratory Championship**  
Become a champion in respiratory medicine

**Aims :** to watch four teams compete in a state-of-the-art review of the major fields of respiratory medicine. The audience will be able to participate as well by answering the questions with their mobile devices.

**Tag(s) :** Clinical

**Target audience :** Adult pulmonologist/Clinician, Student, Trainee

**Chairs :** Konrad E. Bloch (Zurich, Switzerland), Thomas Brack (Glarus, Switzerland)

**Team 1**

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**Team 2**

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**Team 3**

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**Team 4**

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**13:30 Introduction**  
Konrad E. Bloch (Zurich, Switzerland), Thomas Brack (Glarus, Switzerland)

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**13:00 - 14:30**

**Lunchtime session: An update on COPD**  
A joint ERS/The New England Journal (NEJM) lunchtime session

**Aims :** to review current knowledge of COPD pathobiology, diagnosis, and new treatments.

**Disease(s) :** Airway diseases

**Method(s) :** Cell and molecular biology Epidemiology Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** General practitioner, Lung function technologist, Nurse, Pathologist, Patient, Radiologist, Adult pulmonologist/Clinician

**Chairs :** Jeffrey Drazen (Boston, United States of America), Leonardo Michele Fabbri (Modena, Italy)

**13:00 The biology of COPD**  
James Hogg (Vancouver (BC), Canada)

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**13:30 The clinical diagnosis and treatment of COPD**  
Bartolome R. Celli Croquer (Boston, United States of America)

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**14:00 Panel discussion**

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**14:45 - 16:45**

**Symposium: Respiratory muscle dysfunction in an intensive care unit**

**Aims :** to assess the need for mechanical ventilation in patients with neuromyopathies; to present the main tools used to detect respiratory muscle dysfunction; to describe how markers of diaphragm dysfunction can help to manage patients, and to provide tools for preventing and treating respiratory muscle dysfunction in an intensive care unit.

**Method(s) :** General respiratory patient care

**Tag(s) :** Clinical

**Target audience :** Critical/Intensive care physician, Trainee

**Chairs :** Alexandre Demoule (Paris, France), Nicholas Hart (London, United Kingdom)

**14:45 Ventilatory support for patients with neuromuscular disorders**  
João Carlos Winck (Vila Nova de Gaia, Portugal)

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**15:15 Detection and assessment of diaphragm function in an intensive care unit**  
Leo Heunks (Amsterdam, Netherlands)

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**15:45 How assessment of diaphragm function can assist patient management**  
Ewan Goligher (Toronto (ON), Canada)

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**16:15 Prevention and treatment of respiratory muscle dysfunction**  
Martin Dres (Paris, France)

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**14:45 - 16:45**

**Symposium: Metabolic alterations as a driver of chronicity in lung disease**  
A modern view of the Warburg effect

**Aims :** to provide an overview of metabolic reprogramming and to enhance understanding of the Warburg effect; to summarise evidence of aberrant metabolic reprogramming in lung cancer and immune cells and to outline therapeutic approaches that target aberrant metabolic changes in chronic lung diseases

**Disease(s)** : Airway diseases Interstitial lung diseases**Method(s)** : Cell and molecular biology**Tag(s)** : Translational**Target audience** : Clinical researcher, Scientist (basic, translational), Student, Trainee**Chairs** : Pieter S. Hiemstra (Leiden, Netherlands), Catherine Greene (Dublin, Ireland)**14:45**      **Mitochondria in health, aging and disease**  
Speaker to be confirmed**15:15**      **Defective metabolic adaptation in the pathogenesis of COPD**  
Ian M. Adcock (London, United Kingdom)**15:45**      **Metabolic reprogramming of immune cells**  
Scott Budinger (Chicago, United States of America)**16:15**      **Targeting metabolism for cancer therapy**  
Speaker to be confirmed

## 14:45 - 16:45

### Symposium: Future of cystic fibrosis care: insights from the Lancet Commission

**Aims** : the Lancet Respiratory Medicine Commission on the Future of Cystic Fibrosis Care, which is due to be published when the Madrid congress is held, will describe the changing epidemiology of cystic fibrosis (CF), future challenges of clinical care and its delivery, improvement of CF care globally, assessment and funding of novel therapeutics and patient engagement. It will address the total health and economic costs of CF care over the next three decades and inform key decision-makers, including healthcare planners and funding bodies, globally about CF care, providing a blueprint for the future

**Disease(s)** : Airway diseases Paediatric respiratory diseases Respiratory infections**Method(s)** : Epidemiology Physiology Public health**Tag(s)** : Clinical**Target audience** : Clinical researcher, General practitioner, Lung function technologist, Paediatrician, Patient, Physiologist, Physiotherapist, Policy maker, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician**Chairs** : Scott Bell (Brisbane (QLD), Australia), Felix Ratjen (Toronto (ON), Canada), Amparo Sole Jover (Valencia, Spain)**14:45**      **The changing epidemiology of CF**  
Milan Macek (Praha, Czech Republic)**15:15**      **CF clinical care and its delivery: current and future challenges**  
Susan Madge (London, United Kingdom)**15:45**      **Building CF care models in developing nations**  
Hector Gutierrez (Birmingham, United States of America)**16:15**      **Novel therapeutics for CF**  
Marcus Mall (Berlin, Germany)

## 14:45 - 16:45

### Symposium: The added value of allied healthcare professionals in integrated respiratory care

**Aims** : to enhance understanding of the diagnostic and therapeutic options available to psychologists, occupational therapists, dieticians and nurses for adult patients with chronic lung diseases and to highlight the added value of allied healthcare professionals in integrated respiratory care in 2019.

**Disease(s)** : Airway diseases**Method(s)** : General respiratory patient care Palliative care Pulmonary rehabilitation**Tag(s)** : Clinical**Target audience** : Clinical researcher, General practitioner, Nurse, Patient, Physiotherapist, Policy maker, Student, Trainee, Adult pulmonologist/Clinician**Chairs** : Antonio Spanevello (Milan, Italy), Martijn A. Spruit (Horn, Netherlands)**14:45**      **Occupational therapy: making daily life easier**  
Nienke Nakken (Horn, Netherlands)**15:15**      **Psychological counselling: train the brain!**  
Andreas Van Leupoldt (Leuven, Belgium)

**15:45 Dietary counselling: the fatter the better?**  
Corrine Hanson (Omaha, United States of America)

**16:15 Nurses: the spider in the web of integrated respiratory care?**  
Eileen Collins (Mt. Prospect, United States of America)

## 14:45 - 16:45

### Symposium: State of the art session: Respiratory infections

**Aims :** to prevent: 1) the spread of multi-drug-resistant tuberculosis (MDR-TB) through new treatment regimens which are more effective and more acceptable to patients, 2) nosocomial spread of non-tuberculous mycobacteria within the cystic fibrosis clinic, 3) nosocomial pneumonias, including ventilator-associated pneumonia, through the adherence to evidence-based guidelines; to understand the role of the fungal microbiome and its effect on lung immunity.

**Disease(s) :** Respiratory infections

**Method(s) :** Epidemiology General respiratory patient care Public health Respiratory intensive care

**Tag(s) :** Clinical

**Target audience :** Allergist, Clinical researcher, Critical/Intensive care physician, Paediatrician, Pathologist, Patient, Radiologist, Scientist (basic, translational), Student, Adult pulmonologist/Clinician

**Chairs :** James D. Chalmers (Dundee (Angus), United Kingdom), Jakko van Ingen (Nijmegen, Netherlands)

**14:45 Latent tuberculosis infection: a new paradigm**  
Speaker to be confirmed

**15:15 The fungal microbiome and its role in bronchiectasis**  
Sanjay Haresh Chotirmall (Singapore, Singapore)

**15:45 Non-tuberculous mycobacteria in cystic fibrosis and non-cystic fibrosis**  
Claire Andrejak (Amiens, France)

**16:15 Update on preventing and managing hospital-acquired and ventilatory-associated pneumonia**  
Antoni Torres (Barcelona, Spain)

## 14:45 - 16:45

### Symposium: NELSON: the Trafalgar of lung cancer screening?

**Aims :** to present: 1) state of the art of NELSON results one year after first data were released, 2) consensus data on participant selection, 3) consensus data on nodule handling in order to minimize the false positive rate; to discuss the cost-effectiveness of lung cancer screening; to address the ethical dilemma on screening current smokers

**Disease(s) :** Thoracic oncology

**Method(s) :** Imaging Surgery

**Target audience :** General practitioner, Pathologist, Patient, Policy maker, Radiologist, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Jan van Meerbeeck (Edegem (Antwerp), Belgium), Marie-Pierre Revel (Paris, France)

**14:45 Update on NELSON including its cost-effectiveness analysis**  
Harry De Koning (Rotterdam, Netherlands)

**15:09 Screening for lung cancer: who should (not) be enrolled?**  
Speaker to be confirmed

**15:33 (not) screening smokers: a patient's view**  
Janette Rawlinson (Tipton, United Kingdom)

**15:57 How do we handle nodules in order to minimize the false positive rate?**  
Georgia Hardavella (London, United Kingdom)

**16:21 Introduction of the ESR/ERS White paper on low dose lung cancer screening**  
Hans-Ulrich Kauczor (Heidelberg, Germany)

## 17:00 - 18:00

### Assembly members' meeting: Assembly 9: Allied respiratory professionals

**Chairs :** Martijn A. Spruit (Horn, Netherlands), Daniel Langer (Leuven, Belgium)

## 08:00 - 10:00

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW6 How to deal with difficult employees and co-workers

**Aims :** to improve the ability of participants to develop effective approaches for dealing with challenging situations, to raise concerns using effective communication skills and to identify difficult personality types and use specific strategies for dealing with them.

**Method(s) :** Cell and molecular biology Endoscopy and interventional pulmonology Epidemiology General respiratory patient care Imaging Physiology Public health Pulmonary function testing Respiratory intensive care Surgery Transplantation

**Target audience :** Adult pulmonologist/Clinician, Allergist, Clinical researcher, Critical/Intensive care physician, General practitioner, Lung function technologist, Nurse, Paediatrician, Patient, Pathologist, Physiologist, Physiotherapist, Policy maker, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee

**Chairs :** Louellen N. Essex (Wayzata, United States of America)

#### What makes a situation challenging?

Louellen N. Essex (Wayzata, United States of America)

#### How to implement a communication approach: a step-by-step guide

Louellen N. Essex (Wayzata, United States of America)

#### Applying the communication approach to common difficult situations: case discussion in small groups

Louellen N. Essex (Wayzata, United States of America)

#### How to use a coping technique when communication fails

Louellen N. Essex (Wayzata, United States of America)

#### Summary

Louellen N. Essex (Wayzata, United States of America)

#### Question-and-answer session

Louellen N. Essex (Wayzata, United States of America)

## 10:15 - 13:15

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW7 Supporting patients with behaviour change strategies

#### Engagement of patients in healthy behaviours

**Aims :** to improve the competence and performance of clinicians by promoting their active learning of empathic communication and motivational interviewing and by helping them to develop strategies to incorporate these techniques into patient care; to focus on how to effectively counsel patients to improve their overall lifestyle, including their diet, exercise and alcohol and tobacco use; to increase knowledge about empathic listening and motivational interviewing strategies and resources; to increase skills in using empathic listening and motivational interviewing strategies; and to increase the application of empathic listening and motivational strategies and resources.

**Disease(s) :** **Airway diseases** **Sleep and breathing disorders**

**Method(s) :** General respiratory patient care

**Tag(s) :** Clinical

**Target audience :** Allergist, Clinical researcher, General practitioner, Lung function technologist, Nurse, Paediatrician, Patient, Physiotherapist, Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Sofia Belo Ravara (Covilhã, Portugal)

**10:15** **Introduction**  
Sofia Belo Ravara (Covilhã, Portugal)

**10:45** **Infusing empathy into clinical encounters**  
Timothy Milbrandt (Rochester, United States of America), Heather Preston (, United States of America)

**11:45** **Applying Motivational Interviewing strategies with respiratory patients to enhance clinical outcomes**  
Timothy Milbrandt (Rochester, United States of America), Heather Preston (, United States of America)

**12:45** **Final comments**

## 14:00 - 16:00

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW8 Teamability: become an effective team leader and member



**Aims :** to increase the ability of participants to identify characteristics of effective and ineffective teams, team leaders and team members; to identify the style of team interaction adopted by themselves and others and to learn how to bridge styles; to utilise skills in relationship building, managing differences and building trust and collaboration; and to collaboratively lead and participate in healthcare teams.

**Method(s) :** Cell and molecular biology Endoscopy and interventional pulmonology Epidemiology General respiratory patient care Imaging Physiology Public health Pulmonary function testing Respiratory intensive care Surgery Transplantation

**Target audience :** Adult pulmonologist/Clinician, Allergist, Clinical researcher, Critical/Intensive care physician, General practitioner, Lung function technologist, Paediatrician, Nurse, Pathologist, Patient, Physiologist, Physiotherapist, Policy maker, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee

**Chairs :** Louellen N. Essex (Wayzata, United States of America), Gernot G.U. Rohde (Frankfurt am Main, Germany)

**What makes a healthcare team effective?**

Louellen N. Essex (Wayzata, United States of America)

**Stages of team development: how to lead and participate effectively through each: emotions, behaviors and tasks**

Louellen N. Essex (Wayzata, United States of America)

**Stages of team development and how to lead and participate effectively through each: emotions, behaviors**

Louellen N. Essex (Wayzata, United States of America)

**Action planning: how to apply what has been learned**

Louellen N. Essex (Wayzata, United States of America)

08:00 - 10:20

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.*

**Skills workshop: SW10 Recent advances in oscillometry**

**Aims :** to help attendees gain the technical expertise and physiological knowledge required to perform the forced oscillation technique for measuring respiratory mechanics according to best practice and the latest recommendations supported by experts in the field; to help understand the system setup, quality control and calibration; and to learn about the technical aspects of the forced oscillation technique, standardisation of test performance and reporting and interpretation of case studies.

**Disease(s) :** Airway diseases Interstitial lung diseases Paediatric respiratory diseases

**Method(s) :** Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Lung function technologist, Nurse, Paediatrician, Patient, Physiologist, Physiotherapist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Peter M. A. Calverley (Liverpool (Merseyside), United Kingdom)

**Introduction**

**Physiological basis of the forced oscillation technique**

Zoltán Hantos (Deszk, Hungary)

**Forced oscillation technique in clinical practice: potential and pitfalls**

Ronald Dandurand (Beaconsfield (QC), Canada)

**Intra-breath oscillatory measurements**

Dorottya Czovek (Brisbane (QLD), Australia)

**Forced oscillation technique in infants and young children**

Emanuela Zannin (Milano (MI), Italy)

08:00 - 10:20

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.*

**Skills workshop: SW11 Thoracic ultrasound**

**Aims :** to provide participants with an update on thoracic ultrasound and an opportunity to practise their basic hands-on skills using training models, simulators, volunteers and patients.

**Disease(s) :** Thoracic oncology Interstitial lung diseases

**Method(s) :** Imaging General respiratory patient care

**Tag(s) :** Clinical

**Target audience :** Radiologist, Thoracic surgeon, Adult pulmonologist/Clinician, Clinical researcher, Critical/Intensive care physician, Trainee

**Chairs :** Najib M. Rahman (Oxford, United Kingdom)



**The normal thoracic cavity**

Christian B. Laursen (Odense, Denmark), Konstantina Kontogianni (Heidelberg, Germany)

**Pleural effusion and/or pleural thickening**

Ioannis Psallidas (Oxford (Oxfordshire), United Kingdom), Sara B. Heili Frades Zimmermann (Madrid, Spain)

**Case studies**

John Wrightson (Oxford, United Kingdom)

**Guided pleural aspiration and lymph node biopsy using models**

Steven Walker (Bristol (Avon), United Kingdom)

**08:00 - 10:20***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW12 Noninvasive ventilation in children****Practical workshop with case presentations****Aims :** to describe 1) indications and contraindications for non-invasive ventilation in children, 2) different modes of non-invasive ventilation in children, 3) advantages and disadvantages of different masks in children and 4) common problems encountered during non-invasive ventilation in children.**Disease(s) :** Paediatric respiratory diseases Sleep and breathing disorders**Tag(s) :** Clinical**Target audience :** Paediatrician, Physiotherapist, Trainee**Chairs :** Refika Hamutcu Ersu (Ottawa, Canada)**Introduction**

Refika Hamutcu Ersu (Ottawa, Canada)

**Indications and contraindications for noninvasive ventilation in children**

Brigitte Fauroux (Paris, France)

**Different modes of noninvasive ventilation**

Uros Krivec (Ljubljana, Slovenia)

**Advantages and disadvantages of different masks**

Athanasios G. Kaditis (Athens, Greece)

**Case presentations**

Carmen Luna Paredes (Madrid, Spain)

**10:40 - 13:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW13 Recent advances in oscillometry****Aims :** to help attendees gain the technical expertise and physiological knowledge required to perform the forced oscillation technique for measuring respiratory mechanics according to best practice and the latest recommendations supported by experts in the field; to help understand the system setup, quality control and calibration; and to learn about the technical aspects of the forced oscillation technique, standardisation of test performance and reporting and interpretation of case studies.**Disease(s) :** Airway diseases Interstitial lung diseases Paediatric respiratory diseases**Tag(s) :** Clinical**Chairs :** Geoffrey Maksym (Dartmouth (NS), Canada)**Introduction****Physiological basis of the forced oscillation technique**

Raffaele Dellaca (Milano (MI), Italy)

**Forced oscillation technique in clinical practice: potential and pitfalls**

Ronald Dandurand (Beaconsfield (QC), Canada)

**Intra-breath oscillatory measurements**

Iulia Cristina Ioan (Vandoeuvre-Les-Nancy, France)

**Forced oscillation technique in infants and young children**

Shannon Simpson (Perth (WA), Australia)

## 10:40 - 13:00

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

**Skills workshop: SW14 Thoracic ultrasound**

**Aims :** to provide participants with an update on thoracic ultrasound and an opportunity to practise their basic hands-on skills using training models, simulators, volunteers and patients.

**Disease(s) :** Thoracic oncology Interstitial lung diseases

**Tag(s) :** Clinical

**Chairs :** Rahul Bhatnagar (Bristol, United Kingdom)

**The normal thoracic cavity**

Horiana Grosu (Houston, United States of America), Rachid Tazi Mezalek (Burgos, Spain)

**Pleural effusion and/or pleural thickening**

Sara B. Heili Frades Zimmermann (Madrid, Spain), Christian B. Laursen (Odense, Denmark)

**Case studies**

Najib M. Rahman (Oxford, United Kingdom)

**Guided pleural aspiration and lymph node biopsy using models**

Konstantina Kontogianni (Heidelberg, Germany), Amelia Clive (Bristol (Avon), United Kingdom)

## 10:40 - 13:00

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

**Skills workshop: SW15 Noninvasive ventilation in children****Practical workshop with case presentations**

**Aims :** to describe 1) indications and contraindications for non-invasive ventilation in children, 2) different modes of non-invasive ventilation in children, 3) advantages and disadvantages of different masks in children and 4) common problems encountered during non-invasive ventilation in children.

**Disease(s) :** Paediatric respiratory diseases Sleep and breathing disorders

**Tag(s) :** Clinical

**Target audience :** Physiotherapist, Paediatrician, Trainee

**Chairs :** Renato Cutrera (Roma (RM), Italy)

**Introduction**

Renato Cutrera (Roma (RM), Italy)

**Indications and contraindications for noninvasive ventilation in children**

Hui Leng Tan (London, United Kingdom)

**Different modes of noninvasive ventilation**

Martino Pavone (Roma (RM), Italy)

**Advantages and disadvantages of different masks**

Maria do Rosário Ferreira Janeiro (Lisbon, Portugal)

**Case presentations**

Stijn Verhulst (Antwerpen, Belgium)

## 14:30 - 16:50

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

**Skills workshop: SW16 Recent advances in oscillometry**

**Aims :** to help attendees gain the technical expertise and physiological knowledge required to perform the forced oscillation technique for measuring respiratory mechanics according to best practice and the latest recommendations supported by experts in the field; to help understand the system setup, quality control and calibration; and to learn about the technical aspects of the forced oscillation technique, standardisation of test performance and reporting and interpretation of case studies.

**Disease(s) :** Airway diseases Interstitial lung diseases Paediatric respiratory diseases

**Tag(s) :** Clinical

**Chairs :** Peter M. A. Calverley (Liverpool (Merseyside), United Kingdom)

**Introduction**

**Physiological basis of the forced oscillation technique**

Zoltán Hantos (Deszk, Hungary)

**Forced oscillation technique in clinical practice: potential and pitfalls**

Diane Gray (Cape Town, South Africa)

**Intra-breath oscillatory measurements**

Dorottya Czovek (Brisbane (QLD), Australia)

**Forced oscillation technique in infants and young children**

Emanuela Zannin (Milano (MI), Italy)

**14:30 - 16:50***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW17 Thoracic ultrasound****Aims :** to provide participants with an update on thoracic ultrasound and an opportunity to practise their basic hands-on skills using training models, simulators, volunteers and patients.**Disease(s) :** Thoracic oncology Interstitial lung diseases**Tag(s) :** Clinical**Chairs :** Rahul Bhatnagar (Bristol, United Kingdom)**The normal thoracic cavity**

Amelia Clive (Bristol (Avon), United Kingdom), Ioannis Psallidas (Oxford (Oxfordshire), United Kingdom)

**Pleural effusion and/or pleural thickening**Horiana Grosu (Houston, United States of America), M<sup>a</sup> Victoria Villena Garrido (Madrid, Spain)**Case studies**

John Wrightson (Oxford, United Kingdom)

**Guided pleural aspiration and lymph node biopsy using models**

Rahul Bhatnagar (Bristol, United Kingdom), Steven Walker (Bristol (Avon), United Kingdom), Rachid Tazi Mezalek (Burgos, Spain)

**14:30 - 16:50***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Skills workshop: SW18 Noninvasive ventilation in children****Practical workshop with case presentations****Aims :** to describe 1) indications and contraindications for non-invasive ventilation in children, 2) different modes of non-invasive ventilation in children, 3) advantages and disadvantages of different masks in children and 4) common problems encountered during non-invasive ventilation in children.**Disease(s) :** Paediatric respiratory diseases Sleep and breathing disorders**Method(s) :** General respiratory patient care Palliative care Physiology Pulmonary rehabilitation**Tag(s) :** Clinical**Target audience :** Paediatrician, Physiotherapist, Trainee**Chairs :** Refika Hamutcu Ersu (Ottawa, Canada)**Introduction****Indications and contraindications for noninvasive ventilation in children**

Brigitte Fauroux (Paris, France)

**Different modes of noninvasive ventilation**

Uros Krivec (Ljubljana, Slovenia)

**Advantages and disadvantages of different masks**

Athanasios G. Kaditis (Athens, Greece)

**Case presentations**

Carmen Luna Paredes (Madrid, Spain)

13:00 - 14:00

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME4 Brain metastases in lung cancer patients****New insights into the development and management of a feared and common complication****Aims :** to provide a comprehensive overview of the pathophysiology, prevention, diagnosis, differential diagnosis and treatment of brain metastases in lung cancer patients.**Disease(s) :** Thoracic oncology**Method(s) :** Cell and molecular biology Imaging Surgery**Tag(s) :** Translational**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Nurse, Pathologist, Patient, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**13:00 Brain metastases in lung cancer patients**  
Giulia Maria Stella (Pavia (PV), Italy)

13:00 - 14:00

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME5 Tick tock: impact of circadian clocks on airway diseases****Aims :** to describe how circadian clocks regulate the daily timing of physiological, metabolic and biochemical functions in the lung.**Disease(s) :** Airway diseases**Method(s) :** Cell and molecular biology General respiratory patient care**Tag(s) :** Translational**Target audience :** Clinical researcher, Physiologist, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician**13:00 Tick tock: impact of circadian clocks on airway diseases**  
Irfan Rahman (Rochester, United States of America)

13:00 - 14:00

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME6 Patient-ventilator interaction: tricks and trips****Aims :** to describe the pathophysiology of the various types of patient-ventilator asynchrony; to explain how to detect and treat the most common types of patient-ventilator asynchrony in clinical practice in invasively and non-invasively ventilated patients.**Disease(s) :** Respiratory critical care**Method(s) :** Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Critical/Intensive care physician, Adult pulmonologist/Clinician**13:00 Patient-ventilator interaction: tricks and trips**  
Paolo Navalesi (Milan, Italy)

08:30 - 10:30

**Symposium: Integrated strategies for acute non-invasive ventilation****Aims :** to highlight new integrated strategies applied during non-invasive ventilation (NIV) that aim to increase the probability of success in severe and complex clinical scenarios, such as a high-flow nasal cannula (HFNC) in patients with hypoxemic respiratory failure, analgesation in poorly tolerant patients, cough assist devices in patients with secretion retention and bronchoscopy when diagnosis and treatment is challenging.**Disease(s) :** Respiratory critical care**Method(s) :** Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Critical/Intensive care physician, Nurse, Physiotherapist, Adult pulmonologist/Clinician**Chairs :** Leo Heunks (Amsterdam, Netherlands), Ezgi Özyilmaz (Adana, Turkey)**08:30 A high-flow nasal cannula and NIV**  
Jean-Pierre Frat (Poitiers, France)

09:00 **Analgosedation and NIV**  
Lara Pisani (Bologna (BO), Italy)

09:30 **Cough assist devices and NIV**  
Miguel Ramalho de Souto Gonçalves (Porto, Portugal)

10:00 **Bronchoscopy and NIV**  
Raffaele Scala (Arezzo, Italy)

## 08:30 - 10:30

### Symposium: It takes two to tango: translating scientific findings into clinical applications

**Aims :** to discuss the translation of scientific findings into clinical applications. One scientist and one clinician will deliver a presentation on one of three presented topics: mast cells in lung disease, T-cell biology and eosinophils in asthma and inflammatory cells and airway remodelling in COPD

**Disease(s) :** Airway diseases

**Method(s) :** Cell and molecular biology General respiratory patient care

**Tag(s) :** Translational

**Target audience :** Allergist, Clinical researcher, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Ian M. Adcock (London, United Kingdom), Peter Gibson (Newcastle, Australia)

08:30 **Mast cells in lung disease: mast cell biology**  
Hans Jürgen Heinrich Hoffmann (Århus, Denmark)

08:50 **Mast cells in lung disease: clinical implications**  
Peter Bradding (Leicester (Leicestershire), United Kingdom)

09:10 **T-cell biology and eosinophils in asthma**  
Marco Idzko (Wien, Austria)

09:30 **T-cell biology and eosinophils in asthma: clinical implications**  
Parameswaran Nair (Hamilton (ON), Canada)

09:50 **Inflammatory cells and airway remodelling in COPD**  
Xin Yao (Nanjing (Jiangsu), China)

10:10 **Inflammatory cells and airway remodelling in COPD: clinical implications**  
Alvar Agusti Garcia-Navarro (Barcelona, Spain)

## 08:30 - 10:30

### Symposium: Recent developments and future perspectives in the diagnosis and treatment of tuberculosis

A joint session with Médecins Sans Frontières

**Aims :** to discuss the new techniques to diagnose tuberculosis in children and HIV-positive patients , to present the growing body of evidence supporting the use of new anti-tuberculosis drugs, including results of the MSF-sponsored endTB observational cohort and to provide an overview of ongoing and future clinical trials of new treatment regimens for M/XDR-TB, including the MSF-sponsored Phase III trials endTB and TB-PRACTECAL.

**Disease(s) :** Paediatric respiratory diseases Respiratory infections

**Method(s) :** Epidemiology Public health

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Paediatrician, Policy maker, Scientist (basic, translational), Student, Trainee

**Chairs :** Graham H. Bothamley (London, United Kingdom), Francis Varaine (Paris, France)

08:30 **Innovative tools for diagnosis and prevention of paediatric tuberculosis**  
Maryline Bonnet (Genève, Switzerland)

09:00 **Integration of care pathways for HIV-tuberculosis coinfection: a public health agenda**  
Speaker to be confirmed

09:30 **Efficacy and safety of new drugs for M/XDR-TB: what have we learned from observational studies?**  
Cathy Hewison (Paris, France)

10:00 **Clinical trial landscape for M/XDR-TB: current evidence and future perspectives**  
Carole Mitnick (Boston, United States of America)

08:30 - 10:30

**Symposium: State of the art session: Pulmonary vascular diseases****Therapeutic advances in pulmonary embolism, chronic thromboembolic pulmonary hypertension and pulmonary arterial hypertension****Aims :** to provide state of the art knowledge on new therapeutic advances in acute and chronic conditions of the pulmonary circulation.**Disease(s) :** Pulmonary vascular diseases**Method(s) :** General respiratory patient care Imaging Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Clinical researcher, Critical/Intensive care physician, Scientist (basic, translational), Adult pulmonologist/Clinician**Chairs :** Marion Delcroix (Leuven, Belgium), Luke Howard (London, United Kingdom)**08:30 Lessons learns from trials with antiremodeling drugs in pulmonary arterial hypertension**  
H. Ardeschir Ghofrani (Gießen, Germany)**09:00 Systemic consequences of pulmonary arterial hypertension**  
Harm Jan Bogaard (Amsterdam, Netherlands)**09:30 Invasive treatment for intermediate high risk pulmonary embolism**  
David Jiménez Castro (Madrid, Spain)**10:00 Balloon pulmonary angioplasty for chronic thromboembolic pulmonary hypertension**  
Irene Lang (Wien, Austria)

08:30 - 10:30

**Grand round: Paediatric Grand Round****An interactive session****Aims :** to present paediatric cases with respiratory problems and with typical and difficult questions; to discuss the best clinical care and to present an update on paediatric respiratory medicine.**Disease(s) :** Paediatric respiratory diseases**Method(s) :** General respiratory patient care**Tag(s) :** Clinical**Target audience :** Clinical researcher, Critical/Intensive care physician, Nurse, Paediatrician, Physiotherapist, Student, Trainee**Chairs :** Stephen Turner (Aberdeen (Aberdeenshire), United Kingdom)**08:30 Beyond the Milky Way: a 8 year old girl with respiratory distress**  
Dominic Hughes (London, United Kingdom)**09:00 Look beyond your first diagnosis: an infant with obstructive breathing.**  
Sophie Verelst (Sint Lambrechts Woluwe, Belgium)**09:30 A 15 year old with acute progressive dyspnoea.**  
Benjamin Davies (Derby (Derbyshire), United Kingdom)**10:00 A 4 month old girl with persistent pleural effusions**  
Daan Caudri (Rotterdam, Netherlands)

08:30 - 10:30

**Year in review: Therapeutic breakthrough Year in Review****Key developments to improve outcomes for adults or children with respiratory disorders****Aims :** to highlight the key developments which are likely to improve outcomes for adults or children with respiratory disease**Disease(s) :** Airway diseases Paediatric respiratory diseases Respiratory infections**Method(s) :** Cell and molecular biology General respiratory patient care Physiology Public health Pulmonary rehabilitation**Tag(s) :** Clinical**Target audience :** Allergist, Clinical researcher, General practitioner, Paediatrician, Pathologist, Patient, Physiologist, Physiotherapist, Policy maker, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Trainee, Adult pulmonologist/Clinician**Chairs :** Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom), Ioannis Vogiatzis (Newcastle upon tyne (Tyne and Wear), United Kingdom)



- 08:30** **Triple therapy versus dual bronchodilation or LABA/ICS in COPD: accumulating evidence from network meta-analyses**  
Mario Cazzola (Roma (RM), Italy)
- 
- 09:00** **Azithromycin for early Pseudomonas infection in cystic fibrosis: the OPTIMIZE randomized trial**  
Speaker to be confirmed
- 
- 09:30** **Long-term efficacy and effectiveness of a behavioural and community-based exercise intervention (Urban Training) to increase physical activity in patients with COPD: a randomised controlled trial**  
Elena Gimeno-Santos (Barcelona, Spain)
- 
- 10:00** **Extracorporeal photophoresis (ECP) in management of obliterative bronchiolitis syndrome (BOS) postassistance as bridge and as support during transplantation**  
Paul A. Corris (Newcastle-upon-Tyne, United Kingdom)

**10:45 - 12:45****Symposium: Obesity: pathophysiology, diagnostic challenges and multidisciplinary treatment**

**Aims :** to enhance understanding of the impact of obesity on whole-body systems and functions; to enhance understanding of the pathophysiology of ventilatory failure in obesity and to describe various therapeutic approaches in obesity including ventilation and non-positive airway pressure therapies.

**Disease(s) :** Respiratory critical care Sleep and breathing disorders

**Method(s) :** General respiratory patient care Pulmonary rehabilitation Respiratory intensive care

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Nurse, Physiologist, Physiotherapist, Trainee, Adult pulmonologist/Clinician

**Chairs :** Johan Verbraecken (Edegem (Antwerp), Belgium), Winfried J. Randerath (Solingen, Germany)

- 10:45** **Systemic inflammation and endocrinologic/metabolic implications of obesity**  
Anne-Laure Borel (GRENOBLE, France)
- 
- 11:15** **Exercise testing in obesity and sleep apnoea**  
Speaker to be confirmed
- 
- 11:45** **Normocapnia in obstructive sleep apnoea versus hypoventilation in obesity: respiratory drive makes the difference**  
Amanda Piper (Camperdown (NSW), Australia)
- 
- 12:15** **Positive airway pressure, non-invasive ventilation, exercise and surgery: which treatment for which phenotype?**  
Nicholas Hart (London, United Kingdom)

**10:45 - 12:45****Symposium: Preventing childhood asthma in the digital era: harnessing the potential of exposome components for public health**

**Aims :** to consider new tools for assessing exposure (remote sensors), new emergent factors and analysis of the exposome to take into account interactions among factors. This approach should pave the way for personalised prevention.

**Disease(s) :** Paediatric respiratory diseases

**Method(s) :** Epidemiology Public health

**Tag(s) :** Clinical

**Target audience :** Allergist, Paediatrician, Scientist (basic, translational)

**Chairs :** Stephen T. Holgate (Southampton (Hampshire), United Kingdom), Isabel Saraiva (Cascais, Portugal)

- 10:45** **Low but repeated doses: the story of phthalates and respiratory health**  
Maribel Casas (Barcelona, Spain)
- 
- 11:15** **Development of an indoor environmental exposure index for public health**  
Tim Takaro (Burnaby, Canada)
- 
- 11:45** **Outdoor air pollution, asthma and lung function**  
Jonathan Grigg (London, United Kingdom)
- 
- 12:15** **Defining the early-life exposome involved in respiratory health**  
Isabella Annesi Maesano (Paris, France)



10:45 - 12:45

**Symposium: Update on anticoagulant therapy: controversy and progress**

**Aims :** to provide an update on the use of anticoagulants for prophylaxis and treatment of venous thromboembolism. Specifically, to discuss which agents to use, the management of complications and the duration of anticoagulant therapy.

**Disease(s) :** Pulmonary vascular diseases

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Patient, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Philippe Girard (Paris, France), Luis Jara-Palomares (Sevilla, Spain)

**10:45 Prophylaxis of venous thromboembolism : what is new?**  
Roger Yusen (St. Louis, United States of America)

**11:15 Direct - acting oral anticoagulants: which agent for which patient?**  
Alexander Cohen (London, United Kingdom)

**11:45 Management of bleeding during anticoagulant therapy**  
Erik Klok (Leiden, Netherlands)

**12:15 Duration of anticoagulant therapy: a change in the paradigm**  
Francis Couturaud (Brest, France)

10:45 - 12:45

**Symposium: State of the art session: Sleep and breathing disorders****Focus and update on chronic intermittent hypoxia**

**Aims :** to provide a state of the art on recent advances in chronic intermittent hypoxia in diverse respiratory conditions and ages, such as asthma, COPD, obesity and children

**Disease(s) :** Airway diseases Paediatric respiratory diseases Sleep and breathing disorders

**Method(s) :** Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Paediatrician, Physiologist, Trainee, Adult pulmonologist/Clinician

**Chairs :** Andrea Aliverti (Milan, Italy), Sophia E. Schiza (Heraklion, Greece)

**10:45 Hypoxic conditioning as a new therapeutic modality**  
Samuel Vergès (Grenoble, France)

**11:15 Emerging co-morbidities of obstructive sleep apnoea: is intermittent hypoxia the only mechanism involved?**  
ivana Rosenzweig (London, United Kingdom)

**11:45 Asthma, obesity, metabolic dysfunction and obstructive sleep apnoea**  
Maria Bonsignore (Palermo, Italy)

**12:15 Intermittent hypoxia and sleep-disorders in children**  
Refika Hamutcu Ersu (Ottawa, Canada)

10:45 - 12:45

**Grand round: Clinical Grand Round****Unexplained breathlessness: from (differential) diagnosis to rehabilitation care**

**Aims :** to disseminate latest scientific advances in pulmonary rehabilitation of patients suffering from interstitial lung diseases (ILD), updated to the improved outcomes and survival, and to the efficacy of pharmacological treatments and transplantation strategies; to analyze physiological basis of exercise training effectiveness by defining the most appropriate outcome measures to evaluate the efficacy of pulmonary rehabilitation (PR) in these subjects; to provide practical recommendation for a multidisciplinary approach to the patients suffering from ILD, and how to build a comprehensive PR programme.

**Disease(s) :** Interstitial lung diseases Pulmonary vascular diseases Respiratory critical care**Method(s) :** General respiratory patient care Imaging Physiology Pulmonary function testing Pulmonary rehabilitation Surgery Transplantation**Tag(s) :** Clinical**Target audience :** Clinical researcher, Critical/Intensive care physician, Lung function technologist, Nurse, Patient, Physiologist, Physiotherapist, Radiologist, Scientist (basic, translational), Student, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**Chairs :** Guido Vaghegini (Volterra (PI), Italy), Chair to be confirmed**10:45** **Is it the heart or is it the lung that fails?**  
Elena Bargagli (Firenze (FI), Italy)**11:15** **Long term oxygen therapy revisited**  
Elisabetta Renzoni (London, United Kingdom)**11:45** **Exertional Breathlessness – a tailor made approach**  
Ioannis Vogiatzis (Newcastle upon tyne (Tyne and Wear), United Kingdom)**12:15** **Managing breathlessness with a comprehensive pulmonary rehabilitation programme**  
Speaker to be confirmed**13:00 - 14:15****Assembly members' meeting: Assembly 1 General pneumology****Chairs :** Ioannis Vogiatzis (Newcastle upon tyne (Tyne and Wear), United Kingdom), Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom)**13:00 - 14:15****Assembly members' meeting: Assembly 4: Sleep and breathing disorders; and clinical physiology****Chairs :** Andrea Aliverti (Milan, Italy), Pierantonio Laveneziana (Paris, France)**13:00 - 14:15****Assembly members' meeting: Assembly 7: Paediatrics****Chairs :** Jonathan Grigg (London, United Kingdom), Marielle W.H. Pijnenburg (Rotterdam, Netherlands)**13:00 - 14:15****Assembly members' meeting: Assembly 8: Thoracic surgery and transplantation****Chairs :** Stefano Elia (Roma (RM), Italy), Federica Meloni (Pavia (PV), Italy)**13:00 - 14:15****Assembly members' meeting: Assembly 12: Interstitial lung diseases****Chairs :** Venerino Poletti (Forli, Italy), Katerina Antoniou (Heraklion, Greece)**13:00 - 14:15****Assembly members' meeting: Assembly 13: Pulmonary vascular diseases****Chairs :** Marion Delcroix (Leuven, Belgium), Anton Vonk Noordegraaf (Amsterdam, Netherlands)**13:00 - 14:30****Lunchtime session: Tuberculosis: latest advances and challenges in patient management****A joint ERS/LANCET lunchtime session****Aims :** to give an overview of the latest treatments and cutting edge research, as well as discuss current challenges in patient diagnostics and management; to discuss updated WHO guideline recommendations for the multi-drug- resistant tuberculosis informed by recent findings such as an individual patient data (IPD) meta-analysis published in The Lancet (2018; 392: 821-34). The session will focus on both adult and paediatric cases.**Disease(s) :** Paediatric respiratory diseases Respiratory infections**Method(s) :** Cell and molecular biology Epidemiology General respiratory patient care Palliative care Public health Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Paediatrician, Adult pulmonologist/Clinician**Chairs :** Graham H. Bothamley (London, United Kingdom), Emma Grainger (London, United Kingdom)

**13:00**      **Management and treatment of multidrug resistant tuberculosis**  
Christoph Lange (Borstel, Germany)

**13:30**      **Challenges in the prevention, diagnosis, and treatment of children with tuberculosis**  
Jennifer Furin (Strongsville, United States of America)

**14:00**      **Latest insights and challenges in tuberculosis vaccine development**  
Helen McShane (Oxford (Oxfordshire), United Kingdom)

**14:45 - 16:45**

### Symposium: From 2D to 3D models of human lung disease: novel developments to rebuild the lung

**Aims** : to help translate lung research findings obtained using experimental models into clinic applications; to provide insight into cutting-edge technologies to model the human lung in vitro and novel developments to rebuild the lung using stem cells.

**Disease(s)** : **Airway diseases** **Interstitial lung diseases**

**Method(s)** : Cell and molecular biology

**Tag(s)** : Translational

**Target audience** : Clinical researcher, Pathologist, Policy maker, Scientist (basic, translational), Student, Thoracic oncologist, Trainee

**Chairs** : Sara Rolandsson Enes (Burlington, United States of America), Reinoud Gosens (Groningen, Netherlands)

**14:45**      **A 2D human mini-lung system**  
Speaker to be confirmed

**15:15**      **3D models of human lung development and disease using pluripotent stem cells**  
Hans-Willem Snoeck (New York, United States of America)

**15:45**      **Lung stem cells and the role of the stem cell niche**  
Speaker to be confirmed

**16:15**      **The role of scaffolds in lung tissue regeneration**  
Darcy Wagner (Lund, Sweden)

**14:45 - 16:45**

### Symposium: Molecular profiling and personalised treatment concepts in advanced non-small cell lung cancer: pertinent clinical dilemmas

**Aims** : to describe problems relating to the fact that basic and clinical research improves molecular profiling and personalised treatment concepts in non-small cell lung cancer (NSCLC) at a rapid pace that is hard to keep up with in routine care; to discuss possible solutions

**Disease(s)** : **Thoracic oncology**

**Method(s)** : Endoscopy and interventional pulmonology    Imaging    Pulmonary function testing

**Tag(s)** : Translational

**Target audience** : Clinical researcher, General practitioner, Nurse, Pathologist, Patient, Physiotherapist, Radiologist, Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs** : Jacques Cadranel (Paris Cedex 20, France), Marcin Skrzypski (Sopot, Poland)

**14:45**      **Re-biopsy or liquid biopsy for molecular diagnosis of resistance mutations in the era of third-generation targeted therapies**  
Sam Janes (London, United Kingdom)

**15:15**      **Concomitant versus sequential third-generation targeted therapies in advanced epidermal growth factor receptor- or anaplastic lymphoma kinase-positive NSCLC**  
Jacques Cadranel (Paris Cedex 20, France)

**15:45**      **Next-generation sequencing and assessment of tumour mutational burden: are these tools ready for clinical routine use?**  
Lizza E.L. Hendriks (Maastricht, Netherlands)

**16:15**      **Monoimmunotherapy for a happy few or combination immunotherapy for all: when to stop and how to proceed**  
Rudolf M. Huber (Munich, Germany)

14:45 - 16:45

**Symposium: Lungs in the fog**  
Dealing uncertainties in interstitial lung diseases**Aims :** to address real-life common challenges encountered when diagnosing interstitial lung diseases (ILDs) with an unclear aetiology.**Disease(s) :** Interstitial lung diseases**Method(s) :** General respiratory patient care Imaging**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Pathologist, Radiologist**Chairs :** Joanna Porter (London, United Kingdom), Venerino Poletti (Forli, Italy)**14:45 Dealing with uncertainty: non-diagnostic biopsies and unclassifiable ILDs**  
Karen Patterson (Falmer, United Kingdom)**15:15 When is ILD occupational or due to a hobby?**  
Mary Strek (Chicago, United States of America)**15:45 Distinguishing fibrotic hypersensitivity pneumonitis from idiopathic pulmonary fibrosis**  
Vincent Cottin (Lyon, France)**16:15 Pulmonary hypertension in ILDs: novel therapeutic data**  
Katerina Antoniou (Heraklion, Greece)

14:45 - 16:45

**Symposium: State of the art session: Airway disease**  
Update on clinical studies**Aims :** to highlight the latest developments in airways diseases; to provide clinical new evidence to help diagnose and treat patients with severe asthma and COPD; to analyse novel ways of defining the pathogenic mechanisms of the disease and how this may lead to new approach to the treatment of severe asthma and COPD; to cover the important role of the comorbidities in patients affected by severe asthma and COPD analysing their effects on the evolution of the disease; to discuss the early life origin of the airway diseases; to give a clear and practical take-home knowledge relating prevention, diagnosis, history and treatment of severe asthma and COPD.**Disease(s) :** Airway diseases**Method(s) :** Cell and molecular biology Epidemiology Pulmonary function testing**Tag(s) :** Clinical**Target audience :** Allergist, Clinical researcher, Paediatrician, Scientist (basic, translational), Trainee, Adult pulmonologist/Clinician**Chairs :** Guy Brusselle (Ghent, Belgium), Antonio Spanevello (Milan, Italy)**14:45 Early life origin of airway diseases**  
Alvar Agusti Garcia-Navarro (Barcelona, Spain)**15:15 Comorbidities in severe asthma**  
Florence Schleich (Liège, Belgium)**15:45 Exacerbations of respiratory symptoms in COPD**  
Leonardo Michele Fabbri (Modena, Italy)**16:15 Which the role of oral corticosteroids in the era of biologics in asthma?**  
Ian Douglas Pavord (Oxford (Oxfordshire), United Kingdom)

14:45 - 16:45

**Symposium: The best of European Respiratory Journal in 2019****Aims :** to present the best publications in the ERJ in the field of COPD, pulmonary hypertension, lung & air pollution and basic/translational sciences. The respective section editors of the ERJ will chose the (in their expert opinion) best papers published late in 2018 until July 2019 and critically acclaim them.**Disease(s) :** Airway diseases Pulmonary vascular diseases**Method(s) :** Cell and molecular biology Epidemiology General respiratory patient care Imaging Physiology**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Physiologist, Radiologist, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician**Chairs :** Martin Kolb (Hamilton (ON), Canada), James D. Chalmers (Dundee (Angus), United Kingdom)

- 14:45**      **The best ERJ papers in COPD**  
Donald Sin (Vancouver (BC), Canada)
- 
- 15:15**      **The best ERJ papers in translational sciences**  
Speaker to be confirmed
- 
- 15:45**      **The best ERJ papers in environment, pollution and lung**  
Isabella Annesi Maesano (Paris, France)
- 
- 16:15**      **The best ERJ papers in pulmonary vascular diseases**  
Marc Humbert (Paris, France)
- 

**17:00 - 18:00**

**Group members' meeting: Group 9.2: Physiotherapists**

**Chairs :** Chris Burtin (Diepenbeek, Belgium), Deniz Inal-Ince (Ankara, Turkey)

## 08:00 - 11:00

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW9 Burning up while burning out: compassion fatigue awareness and burnout prevention for practitioners

**Aims :** to understand compassion fatigue & burnout, including their similarities and differences; to define and compare these conditions, specific triggers will be explored; to make participants aware of key signs and symptoms, while learning how to manage stressors and their consequences. Specific attention will be given to physical, emotional/mental and behavioural symptoms. Strategies for management and prevention are shared, including mindfulness training and behaviours that can help reduce the frequency of fatigue and prevent burnout.

Additionally, theories will be introduced that will help translate conceptual understanding to actual workplace and personal change. Finally, participants will have an opportunity to create their own individualized management and prevention plan

**Chairs :** Lakshman Swamy (Boston, United States of America)

08:00	<b>Introduction</b> Lakshman Swamy (Boston, United States of America)
08:15	<b>Burnout: causes, warning signs and symptoms</b> Howard Baumgarten (, United States of America)
08:52	<b>Compassion fatigue: a particular type of burnout</b> Howard Baumgarten (, United States of America)
09:29	<b>Strategies: managing stress, preventing burn-out and creating awareness of compassion fatigue</b> Howard Baumgarten (, United States of America)
10:06	<b>Practical assignment: development of an individual plan</b> Howard Baumgarten (, United States of America)
10:43	<b>Discussion and conclusions</b>

## 11:15 - 13:00

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW11 Delivering bad news as a multidisciplinary team

**Aims :** to train caretakers to deliver bad news while also gathering adequate information from the patient, providing the necessary medical information, supporting the patient and collaborating with the patient to develop a treatment plan; and to describe the value of interactions within a multidisciplinary team when delivering bad news.

**Disease(s) :** Airway diseases Respiratory critical care Thoracic oncology

**Method(s) :** General respiratory patient care Palliative care Respiratory intensive care

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Lung function technologist, Nurse, Paediatrician, Pathologist, Patient, Physiotherapist, Policy maker, Radiologist, Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

#### Introduction

**Brief repetition of teaching material (SPIKES-protocol, core elements of good communication) based on a pre-recorded video depicting a doctor delivering bad news to a patient**  
Bettina Korn (Dublin, Ireland), Sandra Delis (, Germany)

#### Lung cancer

Dragana M. Jovanovi (Beograd, Republic of Serbia), Georgia Hardavella (London, United Kingdom)

#### COPD

Alexander Mathioudakis (Manchester, United Kingdom), Speaker to be confirmed

#### Acute critical care and home ventilator support

Stefano Nava (Bologna (BO), Italy)

## 14:00 - 16:00

Registration for this session is additional to the congress registration fee and is: €27.5 early bird; €38.5 standard and €44 on site.

### Professional development: PDW12 Ethical issue in clinical respiratory research: where to draw the line?



**Aims :** to discuss potential ethical issues in translating findings/knowledge from basic science to clinical trials in humans. In group discussions led by expert speakers, it will be discussed if and where we should draw a(n) (ethical) line in the advance of science to therapies. In this course we will discuss scientific advances but also ethical considerations of two new technologies the CRISPR/Cas9 based genome editing and the use of (modified) stem cell therapies.

**Disease(s) :** Airway diseases Interstitial lung diseases Paediatric respiratory diseases

**Method(s) :** Cell and molecular biology General respiratory patient care

**Tag(s) :** Translational

**Target audience :** Clinical researcher, General practitioner, Patient, Scientist (basic, translational), Student, Trainee

**Chairs :** Manuela Platé (London, United Kingdom)

**14:00 Introduction**

**14:15 The potential of CRISPR/Cas9 genome editing approaches for respiratory disease**  
Christopher O'Callaghan (London, United Kingdom), Speaker to be confirmed

**14:45 Potential gains vs ethical considerations for the use of stem cell therapies in chronic lung diseases**  
Speaker to be confirmed

**15:15 Closing discussion**

## 08:00 - 10:20

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.*

### Skills workshop: SW19 Interpretation of cardiopulmonary exercise tests: tips and pitfalls in CPET assessment

**Aims :** to identify typical patterns of responses to cardiopulmonary exercise testing and to demonstrate how to discriminate these from anomalous response profiles, which can cause misinterpretation of test results.

**Disease(s) :** Sleep and breathing disorders

**Tag(s) :** Clinical

**Chairs :** Pierantonio Laveneziana (Paris, France)

#### Introduction

**Relationship between oxygen uptake and work rate**  
Paolo Palange (Rome, Italy)

**The anaerobic/lactate threshold**  
Susan Ward (Crickhowell, United Kingdom)

**Breathing patterns and dynamic hyperinflation**  
Pierantonio Laveneziana (Paris, France)

**Ventilatory efficiency**  
J. Alberto Neder (Kingston (ON), Canada)

## 08:30 - 12:00

*Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.*

### Skills workshop: SW20 Clinical interpretation of spirometry results

**Aims :** to know how to interpret spirometry tests; to be able (1) to differentiate between poor technique and technical errors and abnormal spirometry by evaluating patterns in flow volume and volume time curves; and (2) to recognise abnormal from normal spirometry when interpreting curves and results tables by comparing the measured values with the reference values.

**Disease(s) :** Airway diseases Pulmonary vascular diseases Sleep and breathing disorders

**Tag(s) :** Clinical

**Target audience :** Adult pulmonologist/Clinician, Lung function technologist, Nurse, General practitioner

**Chairs :** Felip Burgos Rincon (Barcelona, Spain), Jellien Makonga-Braaksma (Woudenberg, Netherlands)

**08:30 Introduction**  
Felip Burgos Rincon (Barcelona, Spain), Jellien Makonga-Braaksma (Woudenberg, Netherlands)

**08:45 Recognising technically poor traces and measurement errors**  
Lindsay Zurba (Durban, South Africa), Vicky Moore (Birmingham (West Midlands), United Kingdom), Flemming Madsen (Vanløse, Denmark), Marija Vukoja (Sremska Kamenica, Republic of Serbia)

**09:05 Common discussion**

<b>09:15</b>	<b>Deciding on which reference values to use and how to calculate them</b> Lindsay Zurba (Durban, South Africa), Vicky Moore (Birmingham (West Midlands), United Kingdom), Marija Vukoja (Sremska Kamenica, Republic of Serbia), Flemming Madsen (Vanløse, Denmark)
<b>09:40</b>	<b>Common discussion</b>
<b>09:50</b>	<b>Break</b>
<b>10:05</b>	<b>Overview of F-V/V-T traces and the range of abnormal shapes</b> Lindsay Zurba (Durban, South Africa), Vicky Moore (Birmingham (West Midlands), United Kingdom), Marija Vukoja (Sremska Kamenica, Republic of Serbia), Flemming Madsen (Vanløse, Denmark)
<b>10:25</b>	<b>Common discussion</b>
<b>10:35</b>	<b>Describing the severity of an abnormality</b> Lindsay Zurba (Durban, South Africa), Marija Vukoja (Sremska Kamenica, Republic of Serbia), Vicky Moore (Birmingham (West Midlands), United Kingdom), Flemming Madsen (Vanløse, Denmark)
<b>11:10</b>	<b>Common discussion</b>
<b>11:20</b>	<b>Writing a spirometry report</b> Lindsay Zurba (Durban, South Africa), Marija Vukoja (Sremska Kamenica, Republic of Serbia), Vicky Moore (Birmingham (West Midlands), United Kingdom), Flemming Madsen (Vanløse, Denmark)
<b>11:45</b>	<b>Common discussion</b>
<b>11:55</b>	<b>Explanation of the post-course assessment</b> Brendan Cooper (Edgbaston (Birmingham), United Kingdom), Felip Burgos Rincon (Barcelona, Spain)

## 10:40 - 13:00

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

### Skills workshop: SW21 Interpretation of cardiopulmonary exercise tests: tips and pitfalls in CPET assessment

**Aims :** to identify typical patterns of responses to cardiopulmonary exercise testing and to demonstrate how to discriminate these from anomalous response profiles, which can cause misinterpretation of test results.

**Disease(s) :** Sleep and breathing disorders

**Tag(s) :** Clinical

#### Introduction

#### Relationship between oxygen uptake and work rate

Richard Casaburi (Rancho Palos Verdes, United States of America)

#### The anaerobic/lactate threshold

Harry Rossiter (Hermosa Beach, United States of America)

#### Breathing patterns and dynamic hyperinflation

Denis O'Donnell (Kingston (ON), Canada)

#### Ventilatory efficiency

Paolo Onorati (Alghero (SS), Italy)

## 13:30 - 17:00

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

### Skills workshop: SW22 Clinical interpretation of spirometry results

**Aims :** to know how to interpret spirometry tests; to be able (1) to differentiate between poor technique and technical errors and abnormal spirometry by evaluating patterns in flow volume and volume time curves; and (2) to recognise abnormal from normal spirometry when interpreting curves and results tables by comparing the measured values with the reference values.

**Disease(s) :** Airway diseases Pulmonary vascular diseases Sleep and breathing disorders

**Tag(s) :** Clinical

**Chairs :** Brendan Cooper (Edgbaston (Birmingham), United Kingdom), Aisling McGowan (Dublin, Ireland)

**13:30** **Introduction**  
Brendan Cooper (Edgbaston (Birmingham), United Kingdom), Aisling McGowan (Dublin, Ireland)

<b>13:45</b>	<b>Recognising technically poor traces and measurement errors</b> Arne Drews (Grimma, Germany), Julie Lloyd (Birmingham (West Midlands), United Kingdom), Ebymar Arismendi Nunez (Barcelona, Spain), Jana Kivastik (Tartu, Estonia)
<b>14:05</b>	<b>Common discussion</b>
<b>14:15</b>	<b>Deciding on which reference values to use and how to calculate them</b> Arne Drews (Grimma, Germany), Julie Lloyd (Birmingham (West Midlands), United Kingdom), Ebymar Arismendi Nunez (Barcelona, Spain), Jana Kivastik (Tartu, Estonia)
<b>14:40</b>	<b>Common discussion</b>
<b>14:50</b>	<b>Break</b>
<b>15:05</b>	<b>Overview of F-V/V-T traces and the range of abnormal shapes</b> Arne Drews (Grimma, Germany), Julie Lloyd (Birmingham (West Midlands), United Kingdom), Ebymar Arismendi Nunez (Barcelona, Spain), Jana Kivastik (Tartu, Estonia)
<b>15:25</b>	<b>Common discussion</b>
<b>15:35</b>	<b>Describing the severity of an abnormality</b> Arne Drews (Grimma, Germany), Julie Lloyd (Birmingham (West Midlands), United Kingdom), Ebymar Arismendi Nunez (Barcelona, Spain), Jana Kivastik (Tartu, Estonia)
<b>16:10</b>	<b>Common discussion</b>
<b>16:20</b>	<b>Writing a spirometry report</b> Arne Drews (Grimma, Germany), Julie Lloyd (Birmingham (West Midlands), United Kingdom), Ebymar Arismendi Nunez (Barcelona, Spain), Jana Kivastik (Tartu, Estonia)
<b>16:45</b>	<b>Common discussion</b>
<b>16:55</b>	<b>Explanation of the post-course assessment</b> Brendan Cooper (Edgbaston (Birmingham), United Kingdom)

**14:30 - 16:50**

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

**Skills workshop: SW23 Interpretation of cardiopulmonary exercise tests: tips and pitfalls in CPET assessment**

**Aims :** to identify typical patterns of responses to cardiopulmonary exercise testing and to demonstrate how to discriminate these from anomalous response profiles, which can cause misinterpretation of test results.

**Disease(s) :** Sleep and breathing disorders

**Method(s) :** Physiology Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Lung function technologist, Physiologist, Physiotherapist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Pierantonio Laveneziana (Paris, France)

**Introduction**

**Relationship between oxygen uptake and work rate**  
Paolo Palange (Rome, Italy)

**The anaerobic/lactate threshold**  
Harry Rossiter (Hermosa Beach, United States of America)

**Breathing patterns and dynamic hyperinflation**  
Denis O'Donnell (Kingston (ON), Canada)

**Ventilatory efficiency**  
J. Alberto Neder (Kingston (ON), Canada)

**13:00 - 14:00**

Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.

**Meet the expert: ME7 Bronchiolitis: is there still much to be discovered?**

**Aims :** to describe the characteristics of bronchiolitis and help participants analyse recent findings about this disorder.

**Disease(s) :** Airway diseases Paediatric respiratory diseases Respiratory infections**Method(s) :** Epidemiology Public health**Tag(s) :** Clinical**Target audience :** Allergist, Clinical researcher, Nurse, Paediatrician, Student, Trainee**13:00**      **Bronchiolitis: is there still much to be discovered?**  
Fabio Midulla (Roma (RM), Italy)**13:00 - 14:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME8 Multidrug-resistant tuberculosis: choosing a regimen, ensuring that the dose is correct, managing adverse events and dealing with contacts****Aims :** to help participants 1) understand laboratory drug susceptibility test results and what they mean, 2) apply the ATS/CDC/ERS/IDSA guidelines when choosing a regimen, 3) recognise which adverse effects might be attributable to which drug in a multicomponent regimen and how to manage them and 4) balance the relative risks and benefits of preventive treatment based on evidence from the literature.

Diseases: respiratory infections.

**Disease(s) :** Respiratory infections**Method(s) :** Epidemiology General respiratory patient care Public health**Tag(s) :** Clinical**Target audience :** Critical/Intensive care physician, Paediatrician, Student, Trainee, Adult pulmonologist/Clinician**13:00**      **Multidrug-resistant tuberculosis: choosing a regimen, ensuring that the dose is correct, managing adverse events and dealing with contacts**  
Nicolas Veziris (Paris, France)**13:00 - 14:00***Registration for this session is additional to the congress registration fee and is: €77 early bird; €99 standard and €110 on site.***Meet the expert: ME9 Genetic testing and counselling of patients with rare interstitial lung diseases****Does detection of specific mutations have practical consequence for the patients?****Aims :** the prevalence of interstitial lung diseases (ILDs) is increased by 10-fold in families of patients diagnosed with idiopathic pulmonary fibrosis, suggesting that there is a genetic predisposition to ILDs. This seminar focuses on the genetics of pulmonary fibrosis and is divided into three parts: 1) introduction including epidemiology and genetic background, 2) indications for genetic testing and current care of patients with ILDs associated with an identified germline mutation and 3) discussion of appropriate management for relatives.**Disease(s) :** Interstitial lung diseases Paediatric respiratory diseases**Method(s) :** Cell and molecular biology General respiratory patient care**Tag(s) :** Translational**Target audience :** Clinical researcher, Paediatrician, Adult pulmonologist/Clinician**13:00**      **Genetic testing and counselling of patients with rare ILDs**  
Raphaël Borie (Paris, France)**08:30 - 10:30****Symposium: Metabolic alterations in lung aging and disease**  
Lung Science Conference 2020 educational symposium**Aims :** to highlight the roles of metabolic alterations in lung aging and disease at the organismal and cellular levels. This will be achieved by explaining how metabolic alterations influence pathophysiology and by discussing why they may have potential for therapeutic targeting.**Disease(s) :** Airway diseases Respiratory infections Interstitial lung diseases**Method(s) :** Cell and molecular biology**Tag(s) :** Basic science**Target audience :** Allergist, Clinical researcher, Paediatrician, Pathologist, Patient, Scientist (basic, translational), Student, Thoracic oncologist**Chairs :** H. Irene Heijink (Groningen, Netherlands), Patrick Berger (Bordeaux, France)

- 08:30**      **Metabolic changes in lung aging and COPD**  
Peter J. Barnes (London, United Kingdom)
- 
- 09:00**      **Oxidative stress and aberrant immunometabolism in respiratory disease**  
Philip Hansbro (Callaghan, Australia)
- 
- 09:30**      **Restoration of defective cellular metabolism using stem cells**  
Anna Krasnodembskaya (Belfast (Belfast), United Kingdom)
- 
- 10:00**      **Metabolic profiling in pulmonary diseases**  
Craig Wheelock (Stockholm, Sweden)

**08:30 - 10:30****Symposium: State of the art session: Interstitial lung diseases**

**Aims :** to discuss new observations and trials looking at specific areas of sarcoidosis. to present significant changes in approach to treating sarcoidosis, especially those with advanced disease at risk for organ failure or death.

**Disease(s) :** Interstitial lung diseases   Respiratory infections   Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology   Imaging   Surgery

**Tag(s) :** Clinical

**Target audience :** Patient, Radiologist, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Venerino Poletti (Forli, Italy), Katerina Antoniou (Heraklion, Greece)

- 08:30**      **An evidence based step wise approach to treating pulmonary sarcoidosis with old and new drugs**  
Speaker to be confirmed
- 
- 09:00**      **How to recognize and what to do about pulmonary sarcoidosis**  
Elisabetta Renzoni (London, United Kingdom)
- 
- 09:30**      **Extra pulmonary sarcoidosis: what to look for and how to treat**  
Speaker to be confirmed
- 
- 10:00**      **Cardiac sarcoidosis: screening, diagnosis, and treatment**  
Speaker to be confirmed

**08:30 - 10:30****Endoscopy session: Interventional Pneumology - Live out of the box**

**Aims :** to describe and show various endoscopic techniques with live commentary and an expert lead question and answer session.

**Disease(s) :** Airway diseases   Interstitial lung diseases   Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Critical/Intensive care physician, General practitioner, Nurse, Patient, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Chair to be confirmed

**Endobronchial Ultrasound – the gold standard for the mediastinum**  
Laurence M.M.J. Crombag (Huizen, Netherlands)

**Cryobiopsy – how to take biopsies in 2019**  
Sara Tomassetti (Forli, Italy)

**Transthoracic ultrasound – a standard examination for respiratory physicans**  
Speaker to be confirmed

**Endobronchial Valve placement – Interventional options for Emphysema patients**  
Speaker to be confirmed

**10:45 - 12:45****Symposium: How do big data and classical epidemiology contribute to solving chronic respiratory ill health?**

**Aims :** to demonstrate how large datasets, including routinely collected electronic healthcare records, can be used to complement cohorts and more traditional epidemiology methods in order to answer a wide variety of questions about chronic respiratory diseases.

**Disease(s) :** Airway diseases Paediatric respiratory diseases Respiratory infections**Method(s) :** Epidemiology Public health**Tag(s) :** Translational**Target audience :** Allergist, Clinical researcher, General practitioner, Nurse, Paediatrician, Policy maker, Student, Trainee, Adult pulmonologist/Clinician**Chairs :** Jennifer Quint (Wimbledon, United Kingdom), Ane Johannessen (Bergen, Norway)**10:45 Primary prevention of asthma and impaired lung function: how close are we?**  
Seif Shaheen (London, United Kingdom)**11:05 The Scandinavian approach to using data for studying the early risks and consequences of asthma**  
Catarina Almqvist Malmros (Stockholm, Sweden)**11:30 Epidemiology of rare diseases**  
Speaker to be confirmed**11:55 The exposome environment**  
Speaker to be confirmed**12:20 Traditional methods of epidemiology and how they complement what is learned from big data**  
Deborah Jarvis (London, United Kingdom)**10:45 - 12:45****Symposium: Lung vessels in COPD: it is time to take them seriously!****Aims :** to discuss important interactions between the airways and pulmonary vasculature in patients with COPD as well as growing knowledge of the relevance of pulmonary vascular involvement in these patients; to help participants distinguish between patients with different COPD phenotypes and make clinical decisions in order to provide optimal treatment.**Disease(s) :** Airway diseases Pulmonary vascular diseases**Tag(s) :** Clinical**Target audience :** Clinical researcher, Critical/Intensive care physician, Trainee, Adult pulmonologist/Clinician**Chairs :** Bartolome R. Celli Croquer (Boston, United States of America), Horst Olschewski (Graz, Austria)**10:45 Do COPD patients have a pulmonary vascular phenotype?**  
Alvar Agusti Garcia-Navarro (Barcelona, Spain)**11:15 Reasons why pulmonary pressure increases in COPD patients**  
Gabor Kovacs (Graz, Austria)**11:45 Mechanisms underlying pulmonary vascular changes in COPD patients**  
Werner Seeger (Gießen, Germany)**12:15 Diagnosis and treatment of pulmonary hypertension in COPD patients: how far should we go?**  
Marc Humbert (Paris, France)**10:45 - 12:45****Symposium: Lumping and splitting of fibrotic interstitial lung diseases: a complementary approach****Aims :** to compare big-picture approaches for future clinical practice, pathogenetic approaches and treatment algorithms in fibrotic interstitial lung diseases (ILDs) and to contrast the goal of increasing diagnostic and prognostic precision for development of personalised medicine (e.g., for sub-groups of patients with idiopathic pulmonary fibrosis [IPF]) with the amalgamation of various forms of progressive fibrotic ILDs (progressive fibrotic phenotype).**Disease(s) :** Interstitial lung diseases**Method(s) :** Imaging Pulmonary function testing**Tag(s) :** Clinical**Target audience :** Clinical researcher, General practitioner, Pathologist, Physiologist, Radiologist, Trainee, Adult pulmonologist/Clinician**Chairs :** Martin Kolb (Hamilton (ON), Canada), Venerino Poletti (Forlì, Italy)**10:45 Personalised pathogenetic pathways in fibrotic ILDs: the yin of pathogenetic thinking**  
Maria Molina Molina (Hospitalet de Llobregat (Barcelona), Spain)**11:15 Pathogenetic mechanisms common to disease progression in fibrotic ILDs: the yang of pathogenetic thinking**  
Katerina Antoniou (Heraklion, Greece)



**11:45**      **The progressive fibrotic phenotype in ILDs: can it be reliably recognised at baseline evaluation?**  
Kevin Brown (Denver, United States of America)

**12:15**      **The progressive fibrotic phenotype in fibrotic ILDs: the critical importance of observed disease behaviour**  
Athol Wells (London, United Kingdom)

10:45 - 12:45

**Symposium: Recent clinical advances in inhalation therapy**  
ERS/The International Society for Aerosols in Medicine (ISAM) joint session

**Aims :** to present an exponential increase in aerosol science to target drugs to the respiratory tract in many different respiratory diseases that are now being translated into clinical trials; to focus on the clinical advances that have arisen from aerosol science research.

**Disease(s) :** **Airway diseases** **Paediatric respiratory diseases** **Respiratory critical care**

**Method(s) :** General respiratory patient care    Physiology

**Tag(s) :** Clinical

**Target audience :** Allergist, Clinical researcher, Critical/Intensive care physician, General practitioner, Lung function technologist, Nurse, Paediatrician, Patient, Physiologist, Physiotherapist, Scientist (basic, translational), Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Chantal Darquenne (La Jolla, United States of America), Federico Lavorini (Firenze (FI), Italy)

**10:45**      **CON - Governments should impose targets on healthcare professional to switch their respiratory patient to low global warming potential inhalers**  
Omar S. Usmani (London, United Kingdom)

**11:00**      **PRO - Governments should impose targets on healthcare professional to switch their respiratory patient to low global warming potential inhalers**  
Christer Janson (Uppsala, Sweden)

**11:15**      **Mechanically ventilated patients**  
Rajiv Dhand (Knoxville, United States of America)

**11:45**      **Paediatric airways disease**  
Willem van Aalderen (Amsterdam, Netherlands)

**12:15**      **Non-cystic fibrosis bronchiectasis**  
Sabina Antoniu (Iasi (Iasi), Romania)

10:45 - 12:45

**Symposium: State of the art session: Paediatric respiratory diseases**

**Aims :** to provide clinicians with practical take-home messages regarding the key management and health policy issues that relate to the respiratory health of children and young people; to update on four important topics in paediatric respiratory medicine.

**Disease(s) :** **Airway diseases** **Interstitial lung diseases** **Paediatric respiratory diseases**

**Method(s) :** Epidemiology    General respiratory patient care    Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Nurse, Paediatrician, Student, Trainee, Adult pulmonologist/Clinician

**Chairs :** Stephen Turner (Aberdeen (Aberdeenshire), United Kingdom), Marielle W.H. Pijnenburg (Rotterdam, Netherlands)

**10:45**      **Attenuating future risks in children with active asthma**  
Daniel Jackson (Madison, United States of America)

**11:15**      **Emerging pathogens in cystic fibrosis**  
Pavel Drevinec (Praha, Czech Republic)

**11:45**      **Air pollution and the developing lung**  
Philipp Latzin (Bern, Switzerland)

**12:15**      **Interstitial lung disease**  
Speaker to be confirmed

10:45 - 12:45

**Symposium: The future of respiratory diseases: What the prevention can do**

**Aims :** to know the current burden of respiratory diseases and how the implementation of preventive measures and rehabilitation programmes are going to impact in the morbidity, mortality and quality of life of the patients.

**Disease(s) :** Airway diseases Respiratory infections

**Method(s) :** Epidemiology

**Tag(s) :** Clinical

**Target audience :** General practitioner, Nurse, Paediatrician, Physiotherapist, Policy maker, Adult pulmonologist/Clinician

**Chairs :** Pilar De Lucas Ramos (Madrid, Spain), Carlos Andres Jimenez Ruiz (Madrid, Spain)

**10:45**      **The global of burden pulmonary disease. Were we are and where we are going**  
Speaker to be confirmed

**11:15**      **Infectious respiratory diseases. What the vaccines can do.**  
Rosario Menendez Villanueva (Valencia, Spain)

**11:45**      **The new threats of Tobacco Industry;; IQOS and e-cigarettes. The role of Medical Scientific Societies**  
Jaime Signes-Costa (Valencia, Spain)

**12:15**      **Exercise and respiratory health. Improving the disease consequences.**  
Esther Barreiro Portela (Barcelona, Spain)

## 10:45 - 12:45

### Endoscopy session: Interventional Pneumology - live out of the box Round two

**Aims :** to describe and show various endoscopic techniques with live commentary and an expert lead question and answer session.

**Disease(s) :** Airway diseases Interstitial lung diseases Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Pathologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Chair to be confirmed

**Bronchial Rheoplasty – a new option for chronic bronchitis**  
Arschang Valipour (Wien, Austria)

**Targeted lung denervation – Interventions in moderate COPD patients**  
Speaker to be confirmed

**Metered Spray Cryo – a new possibility for hypersecretions**  
Dirk-Jan Slebos (Groningen, Netherlands)

**Pleural procedures including medical thoracoscopy**  
Nick Maskell (Bristol (Avon), United Kingdom)

## 14:45 - 16:45

### Symposium: Pathophysiology and clinical insights into severe non-allergic asthma

**Aims :** to provide insights into the pathophysiology and cellular/molecular aspects of severe non-allergic asthma; to increase understanding of non-interventional and interventional management of asthma with biologics and bronchial thermoplasty, respectively.

**Disease(s) :** Airway diseases

**Method(s) :** Cell and molecular biology General respiratory patient care

**Tag(s) :** Translational

**Target audience :** Clinical researcher, General practitioner, Patient, Adult pulmonologist/Clinician

**Chairs :** Antonio Spanevello (Milan, Italy), Neil Thomson (Glasgow (Glasgow), United Kingdom)

**14:45**      **Pathophysiology of severe non-allergic asthma**  
Guy Brusselle (Ghent, Belgium)

**15:15**      **Interaction between epithelial cells and sub-epithelial mesenchymal cells in severe non-allergic asthma**  
Michael Roth (Basel, Switzerland)

**15:45**      **Treatment of severe non-allergic asthma: is there a role for biologics?**  
Mina Gaga (Athens, Greece)

**16:15**      **Bronchial thermoplasty: do we understand how it works?**  
Daiana Stolz (Basel, Switzerland)

14:45 - 16:45

**Symposium: New perspectives in thoracic surgical oncology**

**Aims :** to provide an update on multidisciplinary approaches for diagnosis and treatment of lung cancer; to discuss recent advances in cancer genomics, targeted therapies, immunotherapy, surgical treatment of oligometastatic disease, video-assisted thoracic surgery after induction treatment and concomitant radiotherapy.

**Disease(s) :** Thoracic oncology

**Method(s) :** Cell and molecular biology Imaging Surgery

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, Pathologist, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Torsten Gerriet Blum (Berlin, Germany), Georgia Hardavella (London, United Kingdom)

**14:45 Oncogene and immune addiction in lung cancer**  
Speaker to be confirmed

**15:15 Role of surgical management in oligometastatic disease**  
Luca Bertolaccini (Milan, Italy)

**15:45 Role of video-assisted thoracoscopic lobectomy in the neoadjuvant setting**  
Mahmoud Ismail (Potsdam, Germany)

**16:15 Concomitant radiotherapy and targeted therapies**  
Speaker to be confirmed

14:45 - 16:45

**Symposium: State of the art session: Thoracic oncology**

Joint ESR-IASLC session

**Aims :** to give updates on selected hot topics in thoracic oncology provided by prestigious speakers

**Disease(s) :** Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology General respiratory patient care Imaging Palliative care Surgery

**Tag(s) :** Translational

**Target audience :** Clinical researcher, General practitioner, Nurse, Pathologist, Patient, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** David Baldwin (Nottingham (Nottinghamshire), United Kingdom), Chair to be confirmed

**14:45 Logical use of imaging modalities in thoracic malignancy**  
Walter De Wever (Leuven, Belgium)

**15:15 Personalized staging of lung cancer beyond UICC 8: new prognostic factors**  
Hisao Asamura (Tokyo, Japan)

**15:45 Novel approaches in metastasized NSCLC with a special focus on modern systemic therapies**  
Nicolas Girard (Paris, France)

**16:15 Recent developments in the systemic treatment of malignant pleural mesothelioma: a light at the end of the tunnel!**  
Kevin Blyth (Glasgow (Glasgow), United Kingdom)

14:45 - 16:45

**Symposium: Effective communication of scientific findings**

Early Career Member's Session 2019

**Aims :** Communication skills are among the most important skills a scientist/clinician has to learn in his/her training. Thereby, effective communication can be used to make yourself and your science visible at large congresses (including effective networking) but also the communication of scientific findings to patients and the wider public is more important than ever in this world of fake news.

**Method(s) :** General respiratory patient care Public health

**Tag(s) :** Translational

**Target audience :** Allergist, Clinical researcher, Critical/Intensive care physician, Paediatrician, Pathologist, Policy maker, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Lowie G.W. Vanfleteren (Haelen, Netherlands), Sabine Bartel (Groningen, Netherlands)

14:45	<b>The ERS Early Career Member Committee</b> Lieuwe Bos (Amsterdam, Netherlands)
15:00	<b>ERS fellowships</b> Rory Morty (Bad Nauheim, Germany)
15:15	<b>Discussion</b>
15:30	<b>Making yourself and your science memorable at the congress</b> Guy Brusselle (Ghent, Belgium)
15:45	<b>Strategies to effectively communicate science to patients and the wider public</b> Pippa Powell (Sheffield (South Yorkshire), United Kingdom)
16:00	<b>Panel discussion</b>
16:15	<b>Award Ceremony Talk - Winner of the Early Career Member Award 2019</b> Speaker to be confirmed

## 14:45 - 16:45

**Grand round: Occupational and epidemiology Grand Round**

Think Breathing, Think Work! How and why to consider the role of occupational exposures when assessing the respiratory patient

**Aims** : to enthuse and remind a broad range of clinicians about the role of occupation as a cause of respiratory disease; to increase the awareness of clinicians to the roles of environmental and occupational exposures as causes of lung disease; to place the occupational history under scrutiny; how important is it to talk with respiratory patients about their jobs?; to appreciate both work related and non work related risk factors in a given patient; to emphasise the importance of certain non invasive diagnostic tools for occupational respiratory disorders, and how these may eventually replace more invasive approaches.

**Disease(s)** : Airway diseases Interstitial lung diseases

**Method(s)** : Epidemiology General respiratory patient care Physiology Public health Pulmonary function testing

**Tag(s)** : Clinical

**Target audience** : Allergist, General practitioner, Lung function technologist, Nurse, Physiologist, Radiologist, Student, Trainee, Adult pulmonologist/Clinician

**Chairs** : Nicola Murgia (Perugia (PG), Italy), Sara De Matteis (London, United Kingdom)

14:45	<b>A case of occupational lung disease? Why exposure history is the “sine qua non” in such a diagnosis</b> Metin Akgün (Erzurum, Turkey)
15:15	<b>A case of occupational wheezing and cough: is it always work-related asthma?</b> Xavier Munoz Gall (Barcelona, Spain)
15:45	<b>A case of occupational lung disease in an office worker: why did it always get better in hospital?</b> Jennifer Louise Hoyle (West Yorkshire, United Kingdom)
16:15	<b>A case of occupational interstitial disease: when to invade the lungs, and when non-invasive diagnostic investigations may assist.</b> Carlos E. Orduz Garcia (Medellin (Antioquia), Colombia)

## 14:45 - 16:45

**Year in review: Clinical Year in Review**

Non-pharmacological interventions to prevent functional decline in chronic lung diseases. Advances in Pulmonary Rehabilitation and Secondary Prevention

**Aims** : to understand the value of respiratory muscle training as an adjunct therapeutic modality in pulmonary rehabilitation and secondary prevention in chronic lung disorders; to comprehend recent advances in methods to diagnose up-normal respiratory mechanics, to phenotype and assess treatment efficacy of respiratory patients; to appreciate the value of new instruments to capture patients perception of physical activity and strategies promoting an active lifestyle in patients with COPD; to appreciate the necessity to standardise the execution and data reporting of cardiopulmonary exercise testing in chronic lung conditions. Find out what patients with chronic lung disorders report about their experiences of undertaking cardiopulmonary exercise testing

**Disease(s) :** Sleep and breathing disorders

**Method(s) :** Imaging Physiology Public health Pulmonary function testing Pulmonary rehabilitation

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Lung function technologist, Nurse, Pathologist, Physiologist, Physiotherapist, Trainee

**Chairs :** Ioannis Vogiatzis (Newcastle upon tyne (Tyne and Wear), United Kingdom), Martijn A. Spruit (Horn, Netherlands)

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**14:45**      **Value of respiratory muscle conditioning in respiratory rehabilitation for patients with cystic fibrosis and COPD**  
Daniel Langer (Leuven, Belgium)

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**15:15**      **Respiratory mechanics and muscle testing at rest and during exercise in chronic lung disorders**  
Samuel Vergès (Grenoble, France)

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**15:45**      **Exercise-based interventions to prevent physical deconditioning in patients with chronic lung disorders**  
Vinicius Cavalheri (Perth (WA), Australia)

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**16:15**      **Standardisation of cardiopulmonary exercise testing (CPET) in chronic lung diseases**  
Thomas Radtke (Zürich, Switzerland)

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08:30 - 10:30

**Symposium: Locally advanced non-small cell lung cancer in 2019: novel diagnostic and therapeutic strategies to tackle complex stage III disease**

**Aims :** to enhance understanding of differential treatment algorithms for definitive radiochemotherapy or resection in combination with systemic therapy (and radiotherapy) in patients with locally advanced non-small cell lung cancer (NSCLC); to discuss the new options of targeted therapy and immunotherapy in this potentially curative setting.

**Disease(s) :** Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology Imaging Pulmonary function testing

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Lung function technologist, Nurse, Pathologist, Patient, Physiotherapist, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Rudolf M. Huber (Munich, Germany), Chair to be confirmed

**08:30 Diagnostic work-up in stage III NSCLC including assessment of fitness for radical therapy**  
Joost Gerard van den Aardweg (Heemstede, Netherlands)

**09:00 New standards and clinical trials of systemic therapies for stage III NSCLC: is there a role for targeted therapies or immunotherapies?**  
Rainer G. Wiewrodt (Münster, Germany)

**09:30 Modern radiotherapy as a curative treatment modality for stage III NSCLC**  
Esther Troost (Dresden, Germany)

**10:00 Prerequisites, potential and limits of thoracic surgery with curative intent for stage III NSCLC**  
David Waller (London, United Kingdom)

08:30 - 10:30

**Symposium: Respiratory medicine meets dermatology**  
ERS/European Academy of Dermatology and Venereology joint session

**Chairs :** Guy Brusselle (Ghent, Belgium), Margarida Gonalo (Coimbra, Portugal)

**08:30 Atopic dermatitis and asthma: two versions of the same disease?**  
Speaker to be confirmed

**09:00 Auto-immune diseases affecting lung and skin: focus on connective tissue diseases (rheumatoid arthritis; scleroderma; dermatomyositis ...)**  
Margarida Gonalo (Coimbra, Portugal)

**09:30 Sarcoidosis and vasculitis affecting lung and skin**  
Speaker to be confirmed

**10:00 Respiratory drug-induced skin diseases**  
Speaker to be confirmed

08:30 - 10:30

**Hot topics: Inhaled biological therapies in the current era of systemic treatments**

**Aims :** to explore the recent rapid advances in innovative inhaled biological therapies and their clinical translation; to consider solutions to problems that are impeding the translation of basic science findings into clinically useful treatments.

**Disease(s) :** Airway diseases

**Method(s) :** Cell and molecular biology General respiratory patient care

**Tag(s) :** Basic science

**Target audience :** Allergist, Clinical researcher, General practitioner, Nurse, Paediatrician, Pathologist, Scientist (basic, translational), Student, Adult pulmonologist/Clinician

**Chairs :** Omar S. Usmani (London, United Kingdom), Ian M. Adcock (London, United Kingdom)

**08:30 Understanding the behaviours of inhaled biologicals at the airway epithelium**  
Nathalie Heuzé-Vourc'h (Tours, France)

**09:00 Inhaled antibodies: targeting tumour necrosis factor receptor 1 and thymic stromal lymphopoietin**  
Charlotte Summers (Cambridge (Cambridgeshire), United Kingdom)



**09:30** **What are nanobodies and how can they be used to fight respiratory syncytial virus infection?**  
Speaker to be confirmed

**10:00** **Advances in treatment of complex lung disease: will targeted therapy with anticalins be clinically applied in the near future?**  
Gary P. Anderson (Parkville (VIC), Australia)

## 08:30 - 10:30

### Year in review: Paediatric Year in Review

**Aims :** to update the audience on four topics in paediatric respiratory medicine; to highlight the most recent and significant literature and developments relating to these topics.

**Disease(s) :** Paediatric respiratory diseases Respiratory infections Sleep and breathing disorders

**Method(s) :** Endoscopy and interventional pulmonology Epidemiology General respiratory patient care

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Nurse, Paediatrician, Scientist (basic, translational), Student, Trainee

**Chairs :** Jonathan Grigg (London, United Kingdom), Anne Bernadette Chang (Brisbane (QLD), Australia)

**08:30** **Respiratory infections in children: from respiratory syncytial virus to tuberculosis**  
Ricardo Miguel Ribeiro Marques Cunha Fernandes (Lisboa, Portugal)

**09:00** **Paediatric interventional bronchology: catching up with new technology?**  
Juan L. Anton-Pacheco (Madrid, Spain)

**09:30** **A wake up call on paediatric sleep**  
Francois Abel (London, United Kingdom)

**10:00** **Prevention of development of asthma**  
Franca Rusconi (Firenze (FI), Italy)

## 10:45 - 12:45

### Symposium: Solitary pulmonary nodules: diagnostic and therapeutic approaches

#### How to manage solitary pulmonary nodules

**Aims :** to present the various diagnostic and therapeutic options for solitary pulmonary modules, which are being increasingly detected, at an evidence-based level.

**Disease(s) :** Thoracic oncology

**Method(s) :** Endoscopy and interventional pulmonology Imaging Surgery

**Tag(s) :** Clinical

**Target audience :** Clinical researcher, General practitioner, Pathologist, Physiotherapist, Radiologist, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician

**Chairs :** Nina Bostantzoglou (Athens, Greece), Chair to be confirmed

**10:45** **Screening for nodules: what radiology can offer**  
Mathias Prokop (Nijmegen, Netherlands)

**11:15** **Navigation and ablation: endoscopic solutions**  
Felix J.F. Herth (Heidelberg, Germany)

**11:45** **Beam the nodule away: possibilities for radiotherapy**  
Matthias Guckenberger (Zürich, Switzerland)

**12:15** **Open, video-assisted thoracoscopic or robotic-assisted thoracoscopic surgery: how to perform resection**  
Speaker to be confirmed

## 10:45 - 12:45

### Symposium: Sleep and neuromuscular diseases: assessment and management of respiratory problems

**Aims :** to provide a state-of-the-art overview of the basic concepts and established practices for assessment and management of respiratory problems in patients with neuromuscular disorders. After an introductory lecture about the physiological basis of respiratory problems in various diseases, this session will consider the following: pulmonary function testing, respiratory muscle testing, non-invasive mechanical ventilation, cough assist devices, swallowing disorders, sleep problems and pharmacological treatment.

**Disease(s)** : Respiratory critical care Sleep and breathing disorders**Method(s)** : General respiratory patient care Physiology Respiratory intensive care**Tag(s)** : Clinical**Target audience** : Clinical researcher, Critical/Intensive care physician, General practitioner, Nurse, Physiologist, Physiotherapist, Trainee, Adult pulmonologist/Clinician**Chairs** : Pierantonio Laveneziana (Paris, France), Antonella LoMauro (Milano (MI), Italy)**10:45**      **Physiological basis of respiratory problems in neuromuscular diseases**  
Oscar H. Mayer (, United States of America)**11:15**      **Functional respiratory assessment in neuromuscular diseases**  
Andrea Aliverti (Milan, Italy)**11:45**      **Cough assist devices: what, when and how?**  
Michelle Chatwin (London, United Kingdom)**12:15**      **Sleep disorders and neuromuscular diseases: when, why and how**  
Anita Simonds (London, United Kingdom)**10:45 - 12:45****Symposium: Respiratory syncytial virus infections throughout life****Current knowledge of and future developments in the epidemiology and treatment of respiratory syncytial virus infections****Aims** : to provide an update on the impact and epidemiology of respiratory syncytial virus (RSV) infections throughout life, including in the developing world; to provide an update and describe new results of ongoing trials of RSV antiviral treatment in children and adults; and to provide an update and describe new results of ongoing trials of RSV vaccination in pregnancy, infancy and old age.**Disease(s)** : Paediatric respiratory diseases Respiratory infections**Method(s)** : Epidemiology General respiratory patient care Public health**Tag(s)** : Clinical**Target audience** : Clinical researcher, General practitioner, Paediatrician, Policy maker, Student, Trainee, Adult pulmonologist/Clinician**Chairs** : Ricardo Miguel Ribeiro Marques Cunha Fernandes (Lisboa, Portugal), Marijke Proesmans (Leuven, Belgium)**10:45**      **Burden of RSV across all ages and continents**  
Speaker to be confirmed**11:15**      **RSV disease in adults**  
Peter Openshaw (London, United Kingdom)**11:45**      **Development of RSV vaccines: where are we?**  
Nienke Scheltema (Utrecht, Netherlands)**12:15**      **Development of RSV antiviral treatment: where are we?**  
Steve Cunningham (Edinburgh (Scotland), United Kingdom)**10:45 - 12:45****Grand round: Lung cancer Grand Round****Aims** : to test clinical knowledge of participants in thoracic oncology; to address challenging topics in malignant thoracic diseases: handling the unfit patient with potentially curable lung cancer, wise management of side-effects in NSCLC immunotherapy, personalized multi-modal therapy options in malignant pleural mesothelioma as well as diagnostics and therapy of a tricky mediastinal mass; to provide participants with a unique opportunity for interactive discussions with the case presenters as well as an on-stage multidisciplinary board panel.**Disease(s)** : Interstitial lung diseases Thoracic oncology**Method(s)** : Cell and molecular biology Endoscopy and interventional pulmonology General respiratory patient care Imaging Palliative care Pulmonary function testing Surgery**Tag(s)** : Clinical**Target audience** : Clinical researcher, General practitioner, Nurse, Pathologist, Patient, Radiologist, Scientist (basic, translational), Student, Thoracic oncologist, Thoracic surgeon, Trainee, Adult pulmonologist/Clinician**Chairs** : Jan van Meerbeeck (Edegem (Antwerp), Belgium), Paul Martin Putora (St. Gallen, Switzerland), Marie-Pierre Revel (Paris, France), Isabelle Opitz (Zurich, Switzerland)**10:45**      **A higher risk patient with a choice of stereotactic radiotherapy or surgery**  
David Baldwin (Nottingham (Nottinghamshire), United Kingdom)

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- 11:15**      **A challenging radiological deterioration following immunotherapy introduction**  
Adrien Costantini (Paris, France)
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- 11:45**      **A complex course in a pleural mesothelioma patient**  
Najib M. Rahman (Oxford, United Kingdom)
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- 12:15**      **An uncommon mediastinal mass**  
Speaker to be confirmed
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