Year in review: Paediatric year in review

Aims: To provide an update on four topics in paediatric respiratory medicine, namely, new developments in childhood interstitial lung diseases, COVID infections in children, paediatric sleep disordered breathing and the epidemiology of asthma; to highlight the most recent and significant literature and developments relating to these topics.

Disease(s): Interstitial lung diseases, Paediatric respiratory diseases, Respiratory infections

Method(s): Epidemiology, General respiratory patient care

Tag(s): Clinical, COVID, Translational

Target audience: Adult pulmonologist/Clinician, Medical Student, Nurse, Paediatrician, Physician in Pulmonary Training, Respiratory physiotherapist, Scientist (basic, translational), Clinical researcher, Journalist

00:00  What’s new in interstitial lung diseases in children?
Speaker to be confirmed

00:15  Paediatric respiratory infections: COVID-19 in children
Elizabeth Whittaker (London, United Kingdom)

00:30  What’s new in paediatric sleep?
Kim Van Hoorenbeeck (Edegem (Antwerp), Belgium)

00:45  What’s new in the epidemiology of asthma?
Liesbeth Duijts (Rotterdam, Netherlands)

Year in review: Scientific year in review

Aims: To cover four key areas that were of particular importance in basic and translational lung research in 2020 and relate to the 2020 Nobel Prize in Chemistry, the congress theme of digital health and COVID-19 diagnosis and vaccination.

Disease(s): Airway diseases, Paediatric respiratory diseases, Respiratory infections

Method(s): Cell and molecular biology, Imaging, Respiratory intensive care

Tag(s): Translational, COVID, Basic science

Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Respiratory critical care physician, Paediatrician, Pathologist, Physician in Pulmonary Training, Radiologist, Scientist (basic, translational), Thoracic oncologist, Journalist

00:00  Lung-directed CRISPR/Cas9 gene editing
Patrick Harrison (Cork, Ireland)

00:15  The immune response to COVID-19
Speaker to be confirmed

00:30  Artificial intelligence in pulmonary medicine
Danai Khemasuwan (Cleveland, United States of America)

00:45  COVID-19 mRNA vaccines: a step forward from traditional vaccines?

Year in review: Clinical year in review

Aims: To provide an overview of the most relevant advances in diagnosis and treatment of some of the most prevalent respiratory diseases; to present the most important studies published in the last 12 months about clinical aspects of COVID-19, chronic obstructive pulmonary disease (COPD), asthma and interstitial lung disease.

Disease(s): Airway diseases, Interstitial lung diseases, Respiratory infections

Method(s): General respiratory patient care

Tag(s): Clinical, COVID

Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Physician in Pulmonary Training

00:00  COVID-19: impact on respiratory patients and prevention
Mona Bafadhel (Oxford (Oxfordshire), United Kingdom)

00:15  COPD: implementing biomarkers to improve prognosis
Miriam Barrecheguren Fernandez (Barcelona, Spain)
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker and Location</th>
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<tbody>
<tr>
<td>00:30</td>
<td>Severe asthma: classification and treatment</td>
<td>Guy Brusselle (Ghent, Belgium)</td>
</tr>
<tr>
<td>00:45</td>
<td>Interstitial lung disease: improving classification and prognosis</td>
<td>Luca Richeldi (Roma, Italy)</td>
</tr>
</tbody>
</table>
Symposium: Holistic care in interstitial lung disease: monitoring the patient’s pathway
Monitoring patients with interstitial lung disease via telemedicine

Aims: to explain the issues associated with monitoring patients with idiopathic pulmonary fibrosis at home during the COVID-19 pandemic; to describe rapidly evolving changes in clinical practice for patients with pre-existing respiratory problems especially interstitial lung disease (ILD) and idiopathic pulmonary fibrosis, including methods initially developed to provide medical access for patients in remote areas and patients who cannot be seen in person; to describe the appropriateness and limitations of telemedicine; to discuss the clinical utility of home spirometry, monitoring of oxygenation using patients’ own pulse oximetry devices, the potential utility of measuring forced vital capacity using handheld spirometry devices for assessing the severity of a patient’s disease status in their home and the assessment of overall physical activities in a patient’s home.

Disease(s): Interstitial lung diseases
Method(s): General respiratory patient care, Public health
Tag(s): Clinical, COVID, Digital health
Target audience: Adult pulmonologist/Clinician, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Physician in Pulmonary Training, Respiratory physiotherapist

Chairs: Katerina Antoniou (Heraklion, Greece), Michael Kreuter (Heidelberg, Germany)

09:30 Introduction

09:35 Telemedicine: maintaining quality during times of transition
Ganesh Raghu (Seattle, United States of America)

09:50 Home monitoring: prognosis, benefits and pitfalls
Elisabeth Bendstrup (Vejle, Denmark)

10:05 Living well with pulmonary fibrosis: new insights
Marlies S. Wijsenbeek (Rotterdam, Netherlands)

10:20 Patient-centred medicine in ILDs: towards a holistic approach
Anne-Marie Russell (Taunton, United Kingdom)

10:35 Discussion and Q&A
### Studio Amsterdam Session 09:30 - 11:00

**Symposium: Repair and regeneration in chronic lung disease and lung cancer**  
**Reflections from the LSC 2021 conference**

**Aims:** To reflect on the Lung Science Meeting of 2021, providing some of the highlights at the main ERS meeting. The aims of the Lung Science meeting were threefold: to present the very best of international lung science research; to highlight new discoveries likely to impact on the future of respiratory medicine, and; to encourage debate and interaction between young postdoctoral scientists and established investigators.

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

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

**Tag(s):** Basic science, Translational

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

**Chairs:** Reinoud Gosens (Groningen, Netherlands), Silke Meiners (München, Germany)

#### 09:30 - Introduction

#### 09:35 - Club cells in adenocarcinoma and alveolar repair  
Georgios Stathopoulos (Munich, Germany)

#### 09:50 - Interplay between viral infections and epithelial progenitors in the lung  
Speaker to be confirmed

#### 10:05 - The host response to decellularised lung extracellular matrix reinforces bioinks for 3D bioprinting of lung tissue for transplantation  
Martina M. De Santis (Lund, Sweden)

#### 10:20 - Mesenchymal stem cell therapy for severe emphysema  
Pieter S. Hiemstra (Leiden, Netherlands)

#### 10:35 - Discussion and Q&A

### Studio Paris Session 09:30 - 11:00

**Lungs on fire: LoF Paediatric respiratory diseases**

**Aims:** To describe real-life clinical cases during the innovative interactive session, including the presentation of cases that have various levels of difficulty and often necessitate a differential diagnosis. This session will be led by a discussant, who will present the cases to a panel of experts and the audience. The discussant will encourage discussion among the panel of experts, who are encountering these cases for the first time. To further determine diagnostic and therapeutic options for these patients, the discussant will also invite audience participation in the reflexion and discussion of these cases.

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

**Tag(s):** Clinical

**Target audience:** Paediatrician, General practitioner, Physician in Pulmonary Training, Clinical researcher, Nurse, Thoracic oncologist, Radiologist, Respiratory physiotherapist, Respiratory therapist

**Chairs:** Alexander Möller (Zürich, Switzerland), Cristina Ardura-Garcia (Bern, Switzerland), Jonathan Grigg (London, United Kingdom)

**Discussants:** Monika Gappa (Düsseldorf, Germany)

#### 09:30 - Introduction

#### 09:35 - Presentation of cases by the session facilitator  
Monika Gappa (Düsseldorf, Germany)

#### 10:55 - Session wrap-up

### Channel 1 Session 09:30 - 11:30

**Language session: French programme 2021**  
A joint ERS/SPLF session
### Aims:
This programme will be available in French.

### Disease(s):
- Respiratory critical care
- Respiratory infections
- Thoracic oncology

### Method(s):
- Endoscopy and interventional pulmonology
- Physiology
- Respiratory intensive care

### Tag(s):
- Clinical
- COVID

### Target audience:
- Adult pulmonologist/Clinician
- Respiratory critical care physician
- Physiologist
- Respiratory physiotherapist
- Thoracic oncologist
- Respiratory therapist

### Chairs:
Marc Humbert (Le Kremlin-Bicêtre, France), Chantal Raherison-Semjen (Pessac, France)

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>09:30</td>
<td>Introduction</td>
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</tr>
<tr>
<td>09:35</td>
<td>Thermoplastie bronchique : indications actuelles / Asthma thermoplasty: current indications</td>
<td>Guibert Nicolas (Toulouse, France)</td>
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<tr>
<td>09:50</td>
<td>Prise en charge de l'emsphysème : Approche personnalisée / Management of emphysema: personalised approach</td>
<td>Speaker to be confirmed</td>
</tr>
<tr>
<td>10:05</td>
<td>Où en est-on dans la prise en charge de la Covid en septembre 2021 ? / Management of COVID-19: where are we ?</td>
<td>Claire Andrejak (Amiens, France)</td>
</tr>
<tr>
<td>10:20</td>
<td>Discussion and Q&amp;A</td>
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<tr>
<td>10:33</td>
<td>Microbiote et cancer bronchique: l'exemple de l'immunothérapie / Microbiota and lung cancer: an example of immunotherapy</td>
<td>Lisa Derosa (, France)</td>
</tr>
<tr>
<td>10:48</td>
<td>Pneumopathies infiltrantes diffuses sous immunothérapie / Interstitial lung diseases and immunotherapy</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>11:03</td>
<td>Exacerbation aiguë de la fibrose pulmonaire idiopathique: ce qu'il ne faut plus faire et ce qu'il reste à faire. / Acute exacerbation of idiopathic pulmonary fibrosis: what should not be done and what remains to be done?</td>
<td>Vincent Cottin (Lyon, France)</td>
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<tr>
<td>11:18</td>
<td>Discussion and Q&amp;A</td>
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### Studio Barcelona Session

**State of the art session: Airway diseases**

**Aims:**
- To evaluate the use of short-acting -2 agonist (SABA) monotherapy versus maintenance and reliever therapy (MART) and triple therapy for asthma; to describe new treatments for chronic cough; to determine the optimal endoscopic procedure for different patients with chronic obstructive pulmonary disease (COPD) and asthma; to discuss the role of artificial intelligence in asthma and COPD treatment.

**Disease(s):** Airway diseases

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

**Tag(s):**
- Clinical
- Digital health

**Target audience:**
- Adult pulmonologist/Clinician
- Clinical researcher
- General practitioner
- Medical Student
- Nurse
- Patient
- Physician in Pulmonary Training

**Chairs:**
Omar S. Usmani (London, United Kingdom), Ay e Arzu Yorganc o lu (Izmir, Turkey)

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<tr>
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<tbody>
<tr>
<td>09:30</td>
<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>How to treat asthma in 2021? Goodbye SABA, hello MART and welcome triple therapy</td>
<td>Alberto Papi (Ferrara, Italy)</td>
</tr>
<tr>
<td>09:50</td>
<td>New treatments for chronic cough</td>
<td>Jaclyn Smith (Manchester (Greater Manchester), United Kingdom)</td>
</tr>
<tr>
<td>10:05</td>
<td>Which endoscopic procedure to use and in what patient? Valves, coils, foam and heat in COPD and asthma</td>
<td>Lee Pyng (Singapore, Singapore)</td>
</tr>
</tbody>
</table>
### Symposium: Innate immunity and lung epithelial repair: what really happens?

**Aims:** To describe the mechanisms underlying epithelial barrier disruption and impaired recovery in response to environmental triggers, which are crucial for the development of novel therapeutic strategies, including stem cell-based strategies; to provide an overview of the cellular and molecular mechanisms involved in epithelial damage and repair as well as abnormalities of these mechanisms in lung disease and regulation of these processes by virus-induced innate immune responses; to explain the complex role of the epithelial barrier in the onset and progression of pulmonary diseases and its potential to serve as a target for therapeutic strategies; to differentiate between epithelial cell death modalities and to describe how these contribute to lung tissue damage in chronic obstructive pulmonary disease (COPD); to explain how the release of specific danger molecules upon epithelial injury, e.g., those acting on receptor for advanced glycation end products (RAGE), can result in alveolar tissue damage and impaired lung tissue regeneration in COPD; to describe the role of innate immune responses in abnormal lung tissue regeneration upon viral infection; to describe the potential of stem cells for epithelial regeneration upon infection in cystic fibrosis (CF) patients.

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

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

**Tag(s):** Translational, Basic science

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

**Chairs:** Reinoud Gosens (Groningen, Netherlands), Silke Meiners (München, Germany)

#### 11:15 Introduction

#### 11:20 Epithelial cell death, tissue damage and repair: looking inside the COPD lung

Suzanne Cloonan (Dublin, Ireland)

#### 11:35 Repairing the COPD epithelium: is ‘RAGE’ the solution?

Simon D. Pouwels (Groningen, Netherlands)

#### 11:50 Viruses and interferons: working together to injure the epithelium

Andreas Wack (London, United Kingdom)

#### 12:05 Damaged CF epithelium: can pluripotent stem cells be used as a cure?

Speaker to be confirmed

#### 12:20 Discussion and Q&A
### Guidelines session: ERS Clinical practice guidelines for managing children and adolescents with bronchiectasis

**Aims**: To describe the objectives of managing children/adolescents with bronchiectasis; to present the ERS recommendations relating to diagnosing and undertaking the minimum investigations when evaluating a child/adolescent with chronic suppurative lung disease; to explain reasons for the various recommendations and to increase awareness of the guideline’s recommendations on antibiotic treatment of exacerbations, pathogen eradication, long-term antibiotic therapy, asthma-type therapies (inhaled corticosteroids, bronchodilators), mucoactive drugs, airway clearance, disease monitoring, factors to consider before surgical treatment and the reversibility and prevention of bronchiectasis in children/adolescents.

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

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

**Tag(s)**: Clinical

**Target audience**: Clinical researcher, General practitioner, Medical Student, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Respiratory physiotherapist

**Chairs**: Jonathan Grigg (London, United Kingdom), Cristina Ardura-Garcia (Bern, Switzerland), Alexander Möller (Zürich, Switzerland)

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<tbody>
<tr>
<td>11:15</td>
<td>Introduction</td>
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<tr>
<td>11:17</td>
<td>Parent perspectives and input into the guideline</td>
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<tr>
<td>11:22</td>
<td>Overall clinical approach</td>
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<tr>
<td>11:31</td>
<td>Treatment options and recommendations</td>
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<tr>
<td>11:45</td>
<td>Practical approach with cases, interactive questions and discussion</td>
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### Pro/Con debate: Post COVID interstitial lung diseases syndrome: diagnosis and management as interstitial lung disease?

**Aims**: To describe the spectrum of interstitial lung changes observed after COVID-19 infection, and to address diagnostic and management related issues; to debate the use or not corticosteroids plus antifibrotics and/or immunomodulation according pathogenetic and clinical/radiological insights in the field, to discuss clinical, radiological and pathological description of post COVID-19 interstitial lung cases.

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

**Method(s)**: Cell and molecular biology, Imaging, Physiology

**Tag(s)**: Clinical

**Target audience**: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Patient, Physician in Pulmonary Training, Physiologist, Journalist

**Chairs**: Katerina Antoniou (Heraklion, Greece), Michael Kreuter (Heidelberg, Germany)

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<tr>
<td>11:15</td>
<td>Introduction</td>
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<tr>
<td>11:17</td>
<td>Use of antifibrotics in post-COVID ILD: PRO</td>
</tr>
<tr>
<td>11:29</td>
<td>Use of antifibrotics in post-COVID ILD: CON</td>
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<tr>
<td>11:41</td>
<td>Discussion and Q&amp;A</td>
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Aims: To describe the history, pathology, analysis and treatment of complex clinical cases in respiratory infections area. The session leaders will facilitate discussion among the case presenters and the audience in order to examine and discuss each case.

Disease(s): Respiratory infections
Tag(s): Clinical

Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Nurse, Paediatrician, Physician in Pulmonary Training, Respiratory critical care physician, Thoracic oncologist, Medical Student

Chairs: Raquel Duarte (Porto, Portugal), Pierre-Régis Burgel (Paris, France)

11:45 Introduction
11:50 Case 1
12:00 Case 2
12:10 Case 3
12:20 Case 4
12:30 Case 5
12:40 Discussion and Q&A

Guidelines session: ERS clinical practice guidelines on treatment of sarcoidosis

Aims: To report on the updated clinical guidelines on treatment of sarcoidosis.

Disease(s): Interstitial lung diseases
Method(s): General respiratory patient care
Tag(s): Clinical

Target audience: Adult pulmonologist/Clinician, General practitioner, Medical Student, Patient, Scientist (basic, translational)

Chairs: Katerina Antoniou (Heraklion, Greece), Michael Kreuter (Heidelberg, Germany)

12:05 Introduction
12:07 Clinical approach and changes from previous guidelines
Robert P. Baughman (Cincinnati, United States of America)
12:17 Treatment options and recommendations
Speaker to be confirmed
12:27 Practical approach with cases, interactive questions and discussion
Dominique Israel-Biet (Paris, France)

Challenging clinical cases: CCC Paediatric respiratory diseases

Aims: To describe the history, pathology, analysis and treatment of complex clinical cases in paediatric respiratory diseases area. The session leaders will facilitate discussion among the case presenters and the audience in order to examine and discuss each case.

Disease(s): Paediatric respiratory diseases
Tag(s): Clinical

Target audience: Paediatrician, Clinical researcher, General practitioner, Nurse, Physiologist, Radiologist, Physician in Pulmonary Training, Respiratory critical care physician, Respiratory physiotherapist

Chairs: Monika Gappa (Düsseldorf, Germany), Stefan Unger (Edinburgh, United Kingdom)

14:30 Introduction
14:35 Case 1
14:45 Case 2
14:55 Case 3
15:05 Case 4
Syposium: Digital health in respiratory medicine: opportunities for everyone

**Aims:** To discuss the potential for implementation of e-Health/m-Health technologies in routine respiratory medicine; to explain novel methods for telemonitoring, telerehabilitation, use of artificial intelligence technologies and m-Health for different groups of respiratory patients; to identify the main challenges for adoption and implementation of e-Health/m-Health technologies in clinical practice; to provide an update on developments in digital technology and demonstrate its use in clinical practice.

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

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

**Tag(s):** Clinical, Digital health

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Pathologist, Patient, Physician in Pulmonary Training, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon, Respiratory therapist, Journalist

**Chairs:** Vitalii Poberezhets (Vinnytsia, Ukraine), Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom)

**14:45** Introduction


Speaker to be confirmed

**15:05** Artificial intelligence in the clinic: possible roles for pulmonary rehabilitation tests

Wim Janssens (Leuven, Belgium)

**15:20** Telerehabilitation and telemonitoring of pulmonary patients

Ioannis Vogiatzis (Newcastle upon Tyne, United Kingdom)

**15:35** Behavioural changes of patients and health professionals in the digital era

Marieke Verkleij (Amsterdam, Netherlands)

**15:50** Discussion and Q&A
### Studio Munich  
**Session** 14:45 - 16:15  
**Hot topics: Environment, climate change, health and respiratory disease**  
**Aims:** To discuss the need for clean air by patients with asthma and allergies; to explain the impact of air pollutants on the early origins of airway disease; to present the main effects of heat on health and its interaction with air pollution; to explain the link between inhaled therapies and pollution.  
**Method(s):** Epidemiology  
**Tag(s):** Clinical  
**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Patient, Physician in Pulmonary Training  
**Chairs:** Richard Costello (Dublin 9, Ireland), Chair to be confirmed  

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<tr>
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<tbody>
<tr>
<td>14:45</td>
<td>Introduction</td>
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<tr>
<td>14:50</td>
<td>The need for clean air: asthma and allergy</td>
<td>Barbara Hofmann (Düsseldorf, Germany)</td>
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<tr>
<td>15:05</td>
<td>Air pollutants and early origins of airway disease</td>
<td>Silvia Carraro (Padova (PD), Italy)</td>
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<tr>
<td>15:20</td>
<td>Beyond heat stroke: effects of heat on health</td>
<td>Ana M Vicedo-Cabrera (Bern, Switzerland)</td>
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<tr>
<td>15:35</td>
<td>Inhaled therapies: plastics, propellants and pollution</td>
<td>Omar S. Usmani (London, United Kingdom)</td>
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<tr>
<td>15:50</td>
<td>Discussion and Q&amp;A</td>
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### Studio Paris  
**Session** 14:45 - 16:15  
**Lungs on fire: LoF Pulmonary vascular diseases?**  
**Aims:** To describe real-life clinical cases during the innovative interactive session, including the presentation of cases that have various levels of difficulty and often necessitate a differential diagnosis. This session will be led by a discussant, who will present the cases to a panel of experts and the audience. The discussant will encourage discussion among the panel of experts, who are encountering these cases for the first time. To further determine diagnostic and therapeutic options for these patients, the discussant will also invite audience participation in the reflection and discussion of these cases.  
**Disease(s):** Pulmonary vascular diseases  
**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Nurse, Physician in Pulmonary Training, Radiologist, Respiratory critical care physician, Medical Student  
**Chairs:** Marion Delcroix (Leuven, Belgium), Marc Humbert (Le Kremlin-Bicêtre, France), Sheila Ramjug (Altrincham, United Kingdom)  
**Discussants:** Luke Howard (London, United Kingdom)  

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<tr>
<td>14:45</td>
<td>Introduction</td>
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<tr>
<td>14:50</td>
<td>Presentation of cases by the session facilitator</td>
<td>Luke Howard (London, United Kingdom)</td>
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<tr>
<td>16:10</td>
<td>Session wrap-up</td>
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### Studio Barcelona  
**Session** 14:45 - 16:15  
**State of the art session: Respiratory infections**  
**Emerging challenges and opportunities in respiratory infections**  
**Aims:** To review the challenges and opportunities in respiratory infections, including antibiotics for pneumonia, bronchiectasis, antibiotic resistance and challenges for the upcoming decade; to discuss the available evidence and more recent recommendations regarding treatment and prevention of tuberculosis (TB).
### Channel 1 Session 16:00 - 18:00

**Language session: Spanish/Portuguese programme 2021**  
A joint ERS/ALAT/ASSOBRAFIR/SBPT/SEPAR/SPP session

**Aims:** To review the relationship between chronic obstructive pulmonary disease and pulmonary embolism; to explain the relationship between sleep apnoea and cancer; to provide an update on the management of parapneumonic pleural effusions; to describe the evolution of the use of bronchoscopy in the era of COVID-19; to provide an update on pulmonary rehabilitation after overcoming COVID-19.

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

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

**Tag(s):** Basic science, COVID

**Target audience:** Adult pulmonologist/ Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Thoracic oncologist, Thoracic surgeon

**Chairs:** Carlos Andres Jimenez Ruiz (Madrid, Spain), Irma De Godoy (BOTUCATU, Brazil), Mark Cohen Todd (Guatemala City, Guatemala), Daniel Da Cunha Ribeiro (Belo Horizonte (MG), Brazil), António Manuel Morais (Maia, Portugal)

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<th>Time</th>
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<tbody>
<tr>
<td>16:00</td>
<td>Introduction</td>
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<td></td>
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<tr>
<td>16:05</td>
<td>Chronic obstructive pulmonary disease and pulmonary embolism</td>
<td>David Jiménez Castro (Madrid, Spain)</td>
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<tr>
<td>16:20</td>
<td>Relationship between sleep apnoea and cancer</td>
<td>Miguel Angel Martínez García (Valencia, Spain)</td>
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<tr>
<td>16:35</td>
<td>Update on the management of parapneumonic pleural effusions</td>
<td>Lisete Ribeiro Teixeira (São Paulo (SP), Brazil)</td>
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<tr>
<td>16:50</td>
<td>Discussion and Q&amp;A</td>
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<tr>
<td>17:03</td>
<td>Bronchoscopy in the COVID-19 era</td>
<td>Fernando António Teixeira Guedes Rodrigues (Porto, Portugal)</td>
<td></td>
</tr>
<tr>
<td>17:18</td>
<td>Acute management of COVID-19</td>
<td>Francisco Arancibia Hernandez (Santiago de Chile, Chile)</td>
<td></td>
</tr>
<tr>
<td>17:33</td>
<td>Pulmonary rehabilitation after COVID-19</td>
<td>Vinicius Zacarias Maldaner Da Silva (Brasília (DF), Brazil)</td>
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<tr>
<td>17:48</td>
<td>Discussion and Q&amp;A</td>
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### Studio Amsterdam Session 16:30 - 18:00

**Symposium: Digital health meets sleep breathing disorders**
Aims: To provide a state-of-the-art overview of the growing role of digital health and telemedicine in the management of patients with different sleep breathing disorders; to describe the recent development of new technologies for diagnosis, treatment and follow-up of patients with sleep breathing disorders; to describe the optimal use of these new technologies and explain their cost-effectiveness; to describe the current and possible future roles of consumer technologies for patients with sleep breathing disorders; to explain the possibility of analysing big data derived using the telemedicine approach and to identify possible opportunities and risks.

Disease(s): Paediatric respiratory diseases, Respiratory critical care, Sleep and breathing disorders

Method(s): General respiratory patient care, Physiology

Tag(s): Clinical, Digital health

Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Respiratory critical care physician, Paediatrician, Pathologist, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist

Chairs: Vitalii Poberezhets (Vinnytsia, Ukraine), Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom)

16:30 Introduction

16:35 New technologies for diagnosis of obstructive sleep apnoea: the way to go?
Marie Bruyneel (Rhode, Belgium)

16:50 Telemedicine for treatment and follow-up of patients with sleep breathing disorders
Jean-Louis Pépin (Grenoble, France)

17:05 Evaluation of sleepiness: new available tools or still searching for the Holy Grail?
Mark W. Elliott (Leeds (West Yorkshire), United Kingdom)

17:20 Big data analysis in telemedicine in sleep: the European status, opportunities and pitfalls
Maria Bonsignore (Palermo, Italy)

17:35 Discussion and Q&A

Symposium: Lung graft allocation and monitoring in the 21st century

Aims: To discuss lung graft allocation and monitoring in the 21st century.

Disease(s): Thoracic oncology

Method(s): Transplantation

Tag(s): Clinical, Digital health

Target audience: Thoracic oncologist, Thoracic surgeon

Chairs: Federica Meloni (Pavia (PV), Italy), Torsten Gerriet Blum (Berlin, Germany)

16:30 Introduction

16:35 Identification of lung transplant candidates, stratification of risk, lung allocation and quality control in Europe using real-time decision-making and big data: lessons learned and future perspectives

16:50 The lung in a box: ex vivo monitoring of donor lungs and clinical implications for lung preservation, repair and utilisation

17:05 Outcomes of telehealth care for lung transplant recipients
Speaker to be confirmed

17:20 Digital imaging of small airways pathology after lung transplantation: past, present and future
Johny Verschakelen (Leuven, Belgium)

17:35 Discussion and Q&A

Grand round: Imaging grand round
Imaging of interstitial lung diseases in the era of digital health

Aims: To provide an update on the latest advances in interstitial lung disease (ILD) imaging with a focus on diagnosis and prevention of misdiagnosis; to provide an overview of multidisciplinary diagnosis of ILD and how imaging is integrated into this process in the era of digital health.
### Studio Paris Session 16:30 - 18:00

**Respiratory medicine meets other disciplines: Pulmonary embolism: controversies in management**

A joint ESC/ERS session

**Aims:** To describe the interaction and involvement of cardiology and pulmonology specialties in the care of patients with pulmonary embolism or pulmonary hypertension. The novelties presented here are moving the field forward beyond the current guidelines, which were jointly developed by the European Society of Cardiology and European Respiratory Society.

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

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Respiratory critical care physician, Patient, Physician in Pulmonary Training, Radiologist

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

**Tag(s):** Clinical

**Chairs:** Marion Delcroix (Leuven, Belgium), Marc Humbert (Le Kremlin-Bicêtre, France), Sheila Ramjug (Altrincham, United Kingdom)

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<th>Time</th>
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<tbody>
<tr>
<td>16:30</td>
<td>Introduction</td>
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</table>
| 16:35  | ESC/ERS position paper on optimal follow-up after acute pulmonary embolism  
Erik Klok (Leiden, Netherlands) |
| 16:50  | Treatment and prevention of cancer-associated venous thromboembolism     
Laurent Bertoletti (Saint Etienne Cedex, France) |
| 17:05  | Interventional treatment of pulmonary embolism: catheter-delivered local thrombolysis versus reduced-dose systemic thrombolysis 
Luke Howard (London, United Kingdom) |
| 17:20  | Can right ventricle imaging improve risk stratification in pulmonary arterial hypertension? 
Frances S. De Man (Amsterdam, Netherlands) |
| 17:35  | Discussion and Q&A                                                      |

### Studio Munich Session 16:30 - 18:00

**Journal session: Highlights from the JAMA Network on idiopathic pulmonary fibrosis, chronic obstructive pulmonary disease and lung cancer screening**

A joint ERS/Journal of the American Medical Association (JAMA) session

**Aims:** To provide an update on antibiotic therapy for idiopathic pulmonary fibrosis (IPF), management of refractory dyspnoea in patients with severe chronic obstructive pulmonary disease (COPD) and patient selection strategies for lung cancer screening with low-dose computed tomography (CT).

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<thead>
<tr>
<th>Time</th>
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<tr>
<td>16:30</td>
<td>Introduction</td>
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| 16:35  | Can right ventricle imaging improve risk stratification in pulmonary arterial hypertension? 
Frances S. De Man (Amsterdam, Netherlands) |
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Frances S. De Man (Amsterdam, Netherlands) |
<p>| 17:35  | Discussion and Q&amp;A                                                      |</p>
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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>16:30</td>
<td>Introduction</td>
<td>George O'Connor (Boston, United States of America)</td>
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<tr>
<td>16:35</td>
<td>Role of the microbiome and antibiotic therapy in IPF</td>
<td>Andrew Wilson (Norwich (Norfolk), United Kingdom)</td>
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<tr>
<td>16:50</td>
<td>Management of refractory dyspnoea in COPD</td>
<td>Daisy J.A. Janssen (Horn, Netherlands)</td>
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<tr>
<td>17:05</td>
<td>Update on lung cancer screening with low-dose CT</td>
<td>Rafael Meza (Ann Arbor, United States of America)</td>
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<tr>
<td>17:20</td>
<td>Pulmonary embolism in patients with COPD</td>
<td>Francis Couturaud (Brest, France)</td>
</tr>
<tr>
<td>17:35</td>
<td>Discussion and Q&amp;A</td>
<td></td>
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<tr>
<td>17:55</td>
<td>Conclusions</td>
<td>George O'Connor (Boston, United States of America)</td>
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</table>
Channel 1  

Challenging clinical cases: CCC Respiratory critical care

**Aims:** To describe the history, pathology, analysis and treatment of complex clinical cases in respiratory critical care. The session leaders will facilitate discussion among the case presenters and audience.

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

**Tag(s):** Clinical

**Target audience:** Respiratory critical care physician, Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Nurse, Paediatrician, Physician in Pulmonary Training, Thoracic oncologist, Thoracic surgeon, Radiologist, Medical Student

**Chairs:** Marieke L. Duiverman (Groningen, Netherlands), Christian Karagiannidis (Cologne, Germany)

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<td>10:15</td>
<td>Case 5</td>
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<tr>
<td>10:25</td>
<td>Discussion and Q&amp;A</td>
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Studio London  

Symposium: Highlights on gender and respiratory health

**Aims:** To discuss the epidemiology and impact of sex and gender on the main respiratory risk factors and diseases, specifically asthma, chronic obstructive pulmonary disease, lung cancer and smoking; to highlight the need to include gender issues in respiratory research and to address gender-specific approaches for prevention and clinical management of respiratory diseases and health policies.

**Disease(s):** Airway diseases, Paediatric respiratory diseases, Thoracic oncology

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Thoracic oncologist, Thoracic surgeon, Respiratory therapist

**Chairs:** Martijn A. Spruit (Horn, Netherlands), Charlotte Suppli Ulrik (Virum, Denmark)

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<tr>
<td>09:30</td>
<td>Introduction</td>
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</table>
| 09:35 | Why it is important to address the gender gap in respiratory health?  
Speaker to be confirmed |
| 09:50 | Molecular and genetic mechanisms in gender issues  
Speaker to be confirmed |
| 10:05 | Spotlight on gender and lung cancer  
Isabel Nerin De La Puerta (Zaragoza, Spain) |
| 10:20 | Do we need a gender-specific approach for health interventions?  
Sofia Belo Ravara (Covilhã, Portugal) |
| 10:35 | Discussion and Q&A                                        |

Studio Amsterdam  

Symposium: New technologies for the management of children with respiratory diseases

**Aims:** To identify new sources of data (internet of things, environmental data, etc.) that are available and relevant for the management of respiratory diseases in children; to describe how these new big data are processed by different artificial intelligence methods; to explain how these new sources of data, processed by artificial intelligence, are leading to a new paradigm in the management of respiratory diseases in children; to describe the ethical issues associated with new digital-based management of respiratory diseases; to list the factors associated with the acceptance of digital-based management by families of children with respiratory diseases.
### Primary care session: Part I: restarting COPD care in the post-COVID era

**Strategies to improve care of chronic obstructive pulmonary disease patients in the face of limitations and barriers in the post-COVID era**

**Aims**: to provide an overview of and a discussion forum for important issues relating to the management of asthma and chronic obstructive pulmonary disease (COPD) after the COVID-19 pandemic; to present new approaches for managing patients in primary care during the COVID-19 pandemic; to invite feedback from the audience.

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<tr>
<td>09:30</td>
<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>Which are the best methods to manage COPD patients in the post-COVID era? &lt;br&gt; Speaker to be confirmed</td>
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<tr>
<td>09:50</td>
<td>Are we selecting the right inhaler for the right COPD patient? &lt;br&gt; Janwillem W. H. Kocks (Groningen, Netherlands)</td>
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<tr>
<td>10:05</td>
<td>Should primary care physicians be monitoring eosinophils in COPD patients? &lt;br&gt; Núria Toledo Pons (Palma De Mallorca, Spain)</td>
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<tr>
<td>10:20</td>
<td>Discussion and Q&amp;A</td>
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### State of the art session: Interstitial lung diseases

**Novel insights into interstitial lung diseases in 2021**

**Aims**: To discuss novel insights into the field of interstitial lung diseases (ILDs), including areas where scientific and therapeutic changes are ongoing or task forces reports and guidelines are pending.

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<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>New sources of data in paediatric asthma: towards big data from multiple sources in children with asthma &lt;br&gt; Louise Fleming (London, United Kingdom)</td>
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<tr>
<td>09:35</td>
<td>New uses of data: from big data to artificial intelligence and clinical decision tools in children with respiratory diseases &lt;br&gt; Konstantinos Exarchos (Ioannina, Greece)</td>
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<tr>
<td>09:50</td>
<td>E-health and home monitoring: the views of patients and parents</td>
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<tr>
<td>10:05</td>
<td>A new paradigm for the management of children with cystic fibrosis at home: experiences from a Dutch cystic fibrosis clinic &lt;br&gt; Jolt Roukema (Nijmegen, Netherlands)</td>
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<td>10:20</td>
<td>Ethics, risks and patients’ perspective of new technologies in the care of children with respiratory diseases &lt;br&gt; David Drummond (Paris, France)</td>
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<tr>
<td>10:35</td>
<td>Discussion and Q&amp;A</td>
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<tr>
<td>09:30</td>
<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>Familial pulmonary fibrosis</td>
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<td></td>
<td>Coline H. M. van Moorsel (Nieuwegein, Netherlands)</td>
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<tr>
<td>09:50</td>
<td>What can ILD registries teach us?</td>
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<td></td>
<td>Andreas Guenther (Gießen, Germany)</td>
</tr>
<tr>
<td>10:05</td>
<td>Progressive fibrosing ILDs</td>
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<td>Martin Kolb (Hamilton (ON), Canada)</td>
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<tr>
<td>10:20</td>
<td>Langerhans cell histiocytosis: is it an ILD?</td>
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<td>Abdellatif Tazi (Paris, France)</td>
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<tr>
<td>10:35</td>
<td>Discussion and Q&amp;A</td>
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**Studio Paris Session 10:55 - 12:10**

**Primary care session: Part II: restarting asthma care in the post-COVID era**

**Aims:** To provide an overview of and a discussion forum for important issues relating to the management of asthma and chronic obstructive pulmonary disease after the COVID-19 pandemic; to present new approaches for managing patients in primary care during the COVID-19 pandemic; to invite feedback from the audience.

**Disease(s):** Airway diseases

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

**Tag(s):** Clinical, COVID, Digital health

**Target audience:** General practitioner, Nurse, Patient, Adult pulmonologist/Clinician, Medical Student, Paediatrician

**Chairs:** Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom), Miguel Román Rodríguez (Palma De Mallorca, Spain), Torsten Gerriet Blum (Berlin, Germany)

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<tbody>
<tr>
<td>10:55</td>
<td>Introduction</td>
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<tr>
<td>11:00</td>
<td>Remote consultations to monitor asthma in primary care</td>
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<td></td>
<td>Speaker to be confirmed</td>
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<tr>
<td>11:15</td>
<td>What is the best way to engage people with asthma in self-management?</td>
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<td>Viv Marsh (Bridgnorth, United Kingdom)</td>
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<td>11:30</td>
<td>Interventions to reduce hospital admissions and asthma crisis</td>
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<td></td>
<td>Speaker to be confirmed</td>
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<tr>
<td>11:45</td>
<td>Discussion and Q&amp;A</td>
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**Studio London Session 11:15 - 12:45**

**Symposium: Sarcopenia in chronic respiratory disease: new definitions, assessment and treatment options**

**Aims:** To describe the concept of sarcopenia in chronic respiratory disease and its importance to maintain and/or optimise the benefits of pulmonary rehabilitation; to describe the assessment of sarcopenia in chronic respiratory disease; to describe how to implement and assess the treatment options for sarcopenia in chronic lung disease; to describe the effects of sarcopenia on patients undergoing pulmonary rehabilitation.

**Disease(s):** Airway diseases

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

**Tag(s):** Clinical, COVID, Digital health

**Target audience:** General practitioner, Nurse, Patient, Adult pulmonologist/Clinician, Medical Student, Paediatrician

**Chairs:** Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom), Miguel Román Rodríguez (Palma De Mallorca, Spain), Torsten Gerriet Blum (Berlin, Germany)
Disease(s) : Airway diseases, Thoracic oncology
Method(s) : General respiratory patient care, Physiology, Pulmonary rehabilitation
Tag(s) : Clinical
Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Patient, Physician in Pulmonary Training, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Thoracic oncologist, Respiratory therapist
Chairs : Martijn A. Spruit (Horn, Netherlands), Charlotte Suppli Ulrik (Virum, Denmark)

11:15 Introduction

11:20 Update on recent definitions and diagnosis of sarcopenia
Speaker to be confirmed

11:35 Malnutrition and sarcopenia assessment
Annemie Schols (Maastricht, Netherlands)

11:50 Underlying mechanisms and pharmacological approaches for treatment of sarcopenia
Speaker to be confirmed

12:05 Modalities of pulmonary rehabilitation, including exercise training for sarcopenia in chronic lung disease
Matthew Maddocks (London, United Kingdom)

12:20 Discussion and Q&A

Studio Amsterdam Session 11:15 - 12:45

Symposium: Wheezing illnesses along the life span

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

Disease(s) : Paediatric respiratory diseases, Respiratory infections
Method(s) : Cell and molecular biology, General respiratory patient care, Physiology
Tag(s) : Translational, Digital health

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Respiratory physiotherapist, Scientist (basic, translational), Journalist

Chairs : Marielle W.H. Pijnenburg (Rotterdam, Netherlands), Alexander Möller (Zürich, Switzerland)

11:15 Introduction

11:20 Can phenotype and endotype discovery be translated to the clinic?
Adnan Custovic (London, United Kingdom)

11:35 Biologics: current use and future applications for personalised therapy
Els J.M. Weersink (Amsterdam, Netherlands)

11:50 Time to ban short-acting -agonists and use anti-inflammatory treatment as required to improve outcomes
Fabiano Di Marco (Trezzano Sul Naviglio (MI), Italy)

12:05 The pro's and con's of remote monitoring and telemedicine
Theresa Guilbert (Cincinnati, United States of America)

12:20 Discussion and Q&A

Studio Munich Session 11:15 - 12:45

Symposium: Digital transformation in practice: enabling next-generation medicine

Aims : To present an initiative for personalised medicine using new medical technologies; to discuss the implementation of digital resources to improve the care of respiratory patients.

Disease(s) : Airway diseases, Respiratory infections
Method(s) : General respiratory patient care
Tag(s) : Clinical, COVID, Digital health

Target audience : Adult pulmonologist/Clinician, General practitioner, Medical Technical Assistant, Nurse, Patient
**Chairs**: Marc Miravitlles (Barcelona (CT), Spain), Miriam Barrecheguren Fernandez (Barcelona, Spain)

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<tr>
<td>11:15</td>
<td>Introduction</td>
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<tr>
<td>11:20</td>
<td><strong>The Catalan open innovation hub on ICT-supported integrated care services</strong> &lt;br&gt;Carme Hernandez Carcereny (Barcelona, Spain)</td>
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<tr>
<td>11:35</td>
<td><strong>Turning the crisis into an opportunity: digital health strategies deployed during the COVID-19 outbreak</strong> &lt;br&gt;Jordi Piera (Barcelona, Spain)</td>
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<td>11:50</td>
<td><strong>Computational challenges of personalised medicine: from bench to bedside</strong> &lt;br&gt;Speaker to be confirmed</td>
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<tr>
<td>12:05</td>
<td><strong>Implementation of digitally enabled integrated person-centred care across Europe</strong> &lt;br&gt;Speaker to be confirmed</td>
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<td>12:20</td>
<td>Discussion and Q&amp;A</td>
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**Studio Barcelona Session 11:15 - 12:45**

**Lungs on fire: LoF Interstitial lung diseases?**

**Aims**: To describe real-life clinical cases during the innovative interactive session, including the presentation of cases that have various levels of difficulty and often necessitate a differential diagnosis. This session will be led by a discussant, who will present the cases to a panel of experts and the audience. The discussant will encourage discussion among the panel of experts, who are encountering these cases for the first time. To further determine diagnostic and therapeutic options for these patients, the discussant will also invite audience participation in the reflexion and discussion of these cases.

**Disease(s)**: Interstitial lung diseases  
**Tag(s)**: Clinical  
**Target audience**: Adult pulmonologist/Clinician, Respiratory critical care physician, General practitioner, Clinical researcher, Physician in Pulmonary Training, Nurse, Radiologist, Pathologist, Thoracic oncologist, Medical Student  
**Chairs**: Katerina Antoniou (Heraklion, Greece), Carlos Robalo Cordeiro (Coimbra, Portugal), Tiago Alfaro (Coimbra, Portugal)  
**Discussants**: Nazia Chaudhuri (Manchester (Greater Manchester), United Kingdom)

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<tr>
<td>11:15</td>
<td>Introduction</td>
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<tr>
<td>11:20</td>
<td><strong>Presentation of cases by the session facilitator</strong> &lt;br&gt;Nazia Chaudhuri (Manchester (Greater Manchester), United Kingdom)</td>
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<td>12:40</td>
<td>Session wrap-up</td>
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**Channel 1 Session 14:30 - 15:45**

**Challenging clinical cases: CCC Interstitial lung diseases**

**Aims**: To describe the history, pathology, analysis and treatment of complex clinical cases in interstitial lung diseases area. The session leaders will facilitate discussion among the case presenters and the audience in order to examine and discuss each case.

**Disease(s)**: Interstitial lung diseases  
**Tag(s)**: Clinical  
**Target audience**: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Physician in Pulmonary Training, Respiratory critical care physician, Thoracic oncologist, Thoracic surgeon, Radiologist, Nurse  
**Chairs**: Hilario Nunes (Bobigny, France), Elisabetta Renzoni (London, United Kingdom)

| 14:30  | Introduction                                                                                 |
| 14:35  | Case 1                                                                                       |
| 14:45  | Case 2                                                                                       |
Studio Barcelona

**Symposium: Precision medicine in asthma and COPD**

**Aims:** To provide an update on the latest findings regarding precision medicine in asthma and chronic obstructive pulmonary disease (COPD).

**Disease(s):** Airway diseases

**Method(s):** Cell and molecular biology, Imaging, Physiology

**Tag(s):** Translational

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist

**Chairs:** Apostolos Bossios (Stockholm, Sweden), Louise Donnelly (London, United Kingdom)

**14:45** Introduction

**14:50** Complex and multifaceted physiology of asthma and COPD
Richard Costello (Dublin 9, Ireland)

**15:05** Diagnosing asthma in the era of personalised medicine: biology, physiology and imaging
Daiana Stolz (Basel, Switzerland)

**15:20** Linking phenotypes to personalised treatments in asthma and COPD
Christopher E. Brightling (Leicester (Leicestershire), United Kingdom)

**15:35** Multidisciplinary teamwork and care pathways for managing the eosinophilic burden in airway diseases, from asthma to COPD and chronic cough
Vanessa M. McDonald (Newcastle (NSW), Australia)

**15:50** Discussion and Q&A

Studio Amsterdam

**Hot topics: Digital innovations in tuberculosis and implementation research in the era of COVID-19: collaborative activities between the WHO and ERS**

**Aims:** To describe the consequences of COVID-19 for tuberculosis (TB) care worldwide; to review the available digital adherence technologies for TB; to evaluate the attitudes of patients and medical staff toward digital health in TB management; to discuss the potential of the Implementation Research for Digital Technologies and TB toolkit.

**Disease(s):** Respiratory infections

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

**Tag(s):** Translational, COVID, Digital health

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

**Chairs:** Raquel Duarte (Porto, Portugal), Vitalii Poberezhets (Vinnytsia, Ukraine), Chair to be confirmed

**14:45** Introduction

**14:50** Tuberculosis care during the COVID-19 pandemic
Speaker to be confirmed

**15:05** Adherence to treatment for tuberculosis in the digital era
Helen Stagg (Edinburgh, United Kingdom)

**15:20** The Implementation Research for Digital Technologies and TB (IR4DTB) toolkit
Corinne Merle (Geneva, Switzerland)

**15:35** Future of eHealth in TB management: perspectives of patients and medical staff
**Studio Paris**  
**Session**  
**14:45 - 16:15**  

**Lungs on fire: LoF Lung cancer?**

**Aims:** To describe real-life clinical cases during the innovative interactive session, including the presentation of cases that have various levels of difficulty and often necessitate a differential diagnosis. This session will be led by a discussant, who will present the cases to a panel of experts and the audience. The discussant will encourage discussion among the panel of experts, who are encountering these cases for the first time. To further determine diagnostic and therapeutic options for these patients, the discussant will also invite audience participation in the reflection and discussion of these cases.

**Disease(s):** Thoracic oncology

**Tag(s):** Clinical

**Target audience:** Thoracic oncologist, Thoracic surgeon, Adult pulmonologist/Clinician, General practitioner, Clinical researcher, Nurse, Paediatrician, Pathologist, Physician in Pulmonary Training, Respiratory critical care physician, Radiologist, Medical Student

**Chairs:** Jan van Meerbeeck (Edegem (Antwerp), Belgium), Joanna Chorostowska-Wynimko (Warsaw, Poland), Najib M. Rahman (Oxford, United Kingdom)

**Discussants:** Sam Janes (London, United Kingdom)

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<th>Session</th>
<th>Case 1 - Including discussion and Q&amp;A</th>
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<th>Case 4 - Including discussion and Q&amp;A</th>
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<td>Introduction</td>
<td>Presentation of cases by the session facilitator</td>
<td>Sam Janes (London, United Kingdom)</td>
<td>Session wrap-up</td>
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<td><strong>14:45</strong></td>
<td>Introduction</td>
<td>Presentations by the session facilitator</td>
<td>Sam Janes (London, United Kingdom)</td>
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<td>Sam Janes (London, United Kingdom)</td>
<td>Session wrap-up</td>
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**Studio Munich**  
**Session**  
**14:45 - 16:15**  

**State of the art session: Respiratory critical care**

**Aims:** To describe the role of lung ultrasound in diagnosis of acute respiratory failure; to list sub-phenotypes of acute respiratory distress syndrome and their therapeutic consequences; to identify patients with acute respiratory distress syndrome that may benefit from steroid treatment and to discuss appropriate dosing of steroids in these patients; to discuss the diagnostic approach in patients with suspected pulmonary fungal infection and to propose a treatment strategy in patients with confirmed fungal infection.

**Disease(s):** Interstitial lung diseases, Respiratory critical care, Respiratory infections

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Respiratory critical care physician, Paediatrician, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist

**Chairs:** Marcus Schultz (Amsterdam, Netherlands), Sophia E. Schiza (Heraklion, Greece), Maxime Patout (Mont-Saint Aignan, France)

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<thead>
<tr>
<th>Session</th>
<th><strong>14:45</strong> Introduction</th>
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<tbody>
<tr>
<td><strong>14:50</strong></td>
<td>Lung ultrasound in acute respiratory care</td>
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<tr>
<td><strong>15:05</strong></td>
<td>Phenotypes of acute respiratory distress syndrome</td>
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<td><strong>15:20</strong></td>
<td>Corticosteroids in acute respiratory distress syndrome</td>
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<tr>
<td><strong>15:35</strong></td>
<td>Pulmonary fungal infections in mechanically ventilated patients</td>
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<tr>
<td><strong>15:50</strong></td>
<td>Discussion and Q&amp;A</td>
</tr>
</tbody>
</table>
### Studio London Session 14:45 - 16:15

#### Journal session: The best of the European Respiratory Journal 2021

**Aims:** To highlight the best original research and series in translational and basic science as well as airway disease published in the flagship journal of the European Respiratory Society; to highlight the contribution of the European Respiratory Journal (ERJ) to COVID-19 and respiratory infections; to highlight the highest impact guidelines, reviews and original contributions.

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

**Method(s):** Cell and molecular biology, Epidemiology, Public health

**Tag(s):** Translational, COVID

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Pathologist, Patient, Physician in Pulmonary Training, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon, Respiratory therapist, Journalist

**Chairs:** Thierry Troosters (Leuven, Belgium), Chair to be confirmed

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<thead>
<tr>
<th>14:45</th>
<th>Introduction</th>
<th>Martin Kolb (Hamilton (ON), Canada)</th>
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<tbody>
<tr>
<td>14:50</td>
<td>The best papers in the ERJ: translational Science</td>
<td>Silke Meiners (München, Germany)</td>
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<tr>
<td>15:05</td>
<td>The best papers in the ERJ: airways disease</td>
<td>Dave Singh (Manchester, United Kingdom)</td>
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<td>15:20</td>
<td>The best papers in the ERJ: clinical practice</td>
<td>Anh Tuan Dinh-Xuan (Paris, France)</td>
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<tr>
<td>15:35</td>
<td>The best papers in the ERJ: respiratory infections and COVID-19</td>
<td>Daiana Stolz (Basel, Switzerland)</td>
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<tr>
<td>15:50</td>
<td>Discussion and Q&amp;A</td>
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<tr>
<td>16:10</td>
<td>Conclusions</td>
<td>Martin Kolb (Hamilton (ON), Canada)</td>
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### Channel 1 Session 16:00 - 18:00

#### Language session: Russian programme 2021

Sarcoidosis today: from old truths to new problems (a joint ERS/RRS/ARSRM session)

**Aims:** To discuss the diagnosis and treatment of sarcoidosis in different countries; to consider the effectiveness of minimally invasive and image-based diagnostics; to present the recommendations of the Russian Respiratory Society for the diagnosis and treatment of sarcoidosis.

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

**Method(s):** Endoscopy and interventional pulmonology, Epidemiology, Imaging

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Radiologist, Scientist (basic, translational), Respiratory therapist

**Chairs:** Alexander Vizel (Kazan (Republic of Tatarstan), Russian Federation), Daniel Culver (Cleveland, United States of America)

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<thead>
<tr>
<th>16:00</th>
<th>Introduction</th>
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<tbody>
<tr>
<td>16:05</td>
<td>Sarcoidosis as a multidisciplinary problem</td>
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<td>16:20</td>
<td>Image-based diagnosis of sarcoidosis</td>
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<tr>
<td>16:35</td>
<td>Quality of life and fatigue in sarcoidosis</td>
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<tr>
<td>16:50</td>
<td>Minimally invasive diagnosis of sarcoidosis</td>
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<tr>
<td>17:05</td>
<td>The problem of fibrosis in sarcoidosis</td>
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</table>
### Symposium: Pharmacology of lung immune responses: which pathways to target!

**Aims:** To explain the complexity of lung immune responses and its contribution to airway diseases such as asthma and chronic obstructive pulmonary disease (COPD); to describe pharmacological pathways that can modify these responses.

**Disease(s):** Airway diseases

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

**Tag(s):** Translational

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Pathologist, Physician in Pulmonary Training, Scientist (basic, translational)

**Chairs:** Apostolos Bossios (Stockholm, Sweden), Louise Donnelly (London, United Kingdom)

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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>16:30</td>
<td>Introduction</td>
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<tr>
<td>16:35</td>
<td>Overview of innate and adaptive immune responses in the airways</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>16:50</td>
<td>Targeting traits in asthma and COPD</td>
<td>Anneke Ten Brinke (Leeuwarden, Netherlands)</td>
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<tr>
<td>17:05</td>
<td>The yin and yang of immunosuppression with inhaled corticosteroids in asthma and COPD</td>
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<tr>
<td>17:20</td>
<td>Macrolides targeting multiple immune pathways in asthma and COPD</td>
<td>Lena Uller (Lund, Sweden)</td>
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<tr>
<td>17:35</td>
<td>Discussion and Q&amp;A</td>
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### Symposium: New insights into nontuberculous mycobacteria disease: from diagnosis to treatment

**Aims:** To increase awareness and knowledge of the epidemiology and diagnosis of nontuberculous mycobacteria (NTM) infections and the treatment options.

**Disease(s):** Respiratory infections

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Physician in Pulmonary Training, Physiologist, Radiologist, Respiratory physiotherapist, Thoracic surgeon, Respiratory therapist

**Chairs:** Eva Polverino (Barcelona, Spain), Raquel Duarte (Porto, Portugal), Vitalii Poberezhets (Vinnytsia, Ukraine)

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<tr>
<td>16:30</td>
<td>Introduction</td>
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<tr>
<td>16:35</td>
<td>NTM: an overview of changing epidemiology</td>
<td>Marc Lipman (London, United Kingdom)</td>
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<td>16:50</td>
<td>The challenges of diagnosing NTM</td>
<td>Emmanuille Cambau (Paris, France)</td>
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<tr>
<td>17:05</td>
<td>The highs and lows of guideline-based therapy for NTM: a case review</td>
<td>Michael Loebinger (London, United Kingdom), Jakko van Ingen (Nijmegen, Netherlands)</td>
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<tr>
<td>17:20</td>
<td>Novel NTM treatments and approaches, repurposed to bacteriophages</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>17:35</td>
<td>Discussion and Q&amp;A</td>
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</tbody>
</table>
Grand round: Lung cancer grand round

**Aims:** To test the clinical knowledge of participants about thoracic oncology; to allow a unique opportunity for interactive discussions with the case presenters and a multidisciplinary board panel.

**Disease(s):** Thoracic oncology

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, General practitioner, Medical Student, Nurse, Pathologist, Physician in Pulmonary Training, Radiologist, Thoracic oncologist, Thoracic surgeon

**Chairs:** Jan van Meerbeeck (Edegem (Antwerp), Belgium), Joanna Chorostowska-Wynimko (Warsaw, Poland), Najib M. Rahman (Oxford, United Kingdom)

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**16:30**  Introduction

**16:35**  Severe autoimmune syndrome in a patient with a mediastinal mass  
Jo Raskin (Kessel-Lo, Belgium)

**16:55**  Stage IV adenocarcinoma of the lung with classical epidermal growth factor receptor mutation and a thought-provoking course  
Speaker to be confirmed

**17:15**  Combination immunotherapy in mesothelioma: managing expectations and new toxicities  
Selina Tsim (Glasgow (Glasgow), United Kingdom)

**17:35**  Re-challenge of immunotherapy in a lung cancer patient  
Anne-Claire Toffart (Pontcharra, France)

**17:55**  Session wrap-up

---

Studio Munich

Lungs on fire: LoF Respiratory critical care / Sleep and Breathing disorders

**Aims:** To describe real-life clinical cases during the innovative interactive session, including the presentation of cases that have various levels of difficulty and often necessitate a differential diagnosis. This session will be led by a discussant, who will present the cases to a panel of experts and the audience. The discussant will encourage discussion among the panel of experts, who are encountering these cases for the first time. To further determine diagnostic and therapeutic options for these patients, the discussant will also invite audience participation in the reflexion and discussion of these cases.

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

**Target audience:** Respiratory critical care physician, Adult pulmonologist/Clinician, General practitioner, Clinical researcher, Paediatrician, Physician in Pulmonary Training, Nurse, Physiologist, Medical Student

**Chairs:** Marcus Schultz (Amsterdam, Netherlands), Sophia E. Schiza (Heraklion, Greece), Maxime Patout (Mont-Saint Aignan, France)

**Discussants:** Marieke L. Duiverman (Groningen, Netherlands)

**Case 1 - Including discussion and Q&A**

**Case 2 - Including discussion and Q&A**

**Case 3 - Including discussion and Q&A**

**Case 4 - Including discussion and Q&A**

**16:30**  Introduction

**16:35**  Presentation of cases by the session facilitator  
Marieke L. Duiverman (Groningen, Netherlands)

**17:55**  Session wrap-up

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Studio London

Journal session: The "State of the Art" in the diagnosis of bacterial, mycobacterial, and fungal pneumonias

A joint ERS/New England Journal of Medicine (NEJM) session
Aims: To explore the current tools available to respiratory clinicians for diagnosis of both community-acquired and healthcare-associated pneumonia; to explore the spectrum of disease seen in healthy and immunocompromised hosts.

Disease(s): Respiratory critical care, Respiratory infections

Method(s): General respiratory patient care, Respiratory intensive care

Tag(s): Clinical

Target audience: Adult pulmonologist/Clinician, General practitioner, Respiratory critical care physician

Chairs: Thierry Troosters (Leuven, Belgium), Chair to be confirmed

16:30 Introduction
Jeffrey Drazen (Waltham, United States of America)

16:35 Clinical pneumonia: how do I make a specific diagnosis?
Lindsey Baden (Boston, United States of America)

16:50 Pneumonia diagnostics in high resource settings
Tobias Welte (Hannover, Germany)

17:05 Pneumonia diagnostics in under-resourced environments
Kathryn Maitland (Kilifi, Kenya)

17:20 Discussion and Q&A

17:55 Conclusions
Jeffrey Drazen (Waltham, United States of America)
**Studio London**

**Session 09:30 - 11:00**

**Symposium: Living with a new norm: providing quality care in the post-COVID era**

**Aims:** To explore the delivery of safe, high-quality and innovative respiratory care in the post-COVID era.

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

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

**Tag(s):** Clinical, COVID, Digital health

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Paediatrician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Respiratory therapist

**Chairs:** Martijn A. Spruit (Horn, Netherlands), Pierantonio Laveneziana (Paris, France), Joana Cruz (Leiria, Portugal)

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<tr>
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<tr>
<td>09:30</td>
<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>Airway diseases: how to safely investigate respiratory symptoms in the post-COVID era</td>
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<td></td>
<td>Antonio Spanevello (Milan, Italy)</td>
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<td>09:50</td>
<td>Evidence for and practical implementation of telephone, video-call and on-line consultations</td>
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<td>Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom)</td>
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<td>10:05</td>
<td>Effectiveness, safety and delivery of pulmonary rehabilitation</td>
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<td>Thierry Troosters (Leuven, Belgium)</td>
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<td>10:20</td>
<td>Maintaining care for high-risk patients with cancer in a pandemic</td>
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<td>Ilona Tietzova (Praha, Czech Republic)</td>
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<td>10:35</td>
<td>Discussion and Q&amp;A</td>
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**Studio Amsterdam**

**Session 09:30 - 11:00**

**Hot topics: Hot news from the pleura**

**Practice-changing research in pleural disease: how to apply the latest evidence**

**Aims:** To provide an update on current evidence behind interventional and observational management of pneumothorax, review randomised data on ambulatory care, and improve patient selection for individual interventions; to critically review data to improve practice regarding up-to-date management of patients clear of infection, risk stratification, microbiology and interventions for failing patients; to appraise the evidence for non-chemotherapy management of mesothelioma, including immunotherapy and surgery, provided by recent randomised trial results; to review best practice for management of malignant pleural effusion, patient choice, intervention selection and complication management.

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

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Radiologist, Thoracic oncologist, Thoracic surgeon

**Chairs:** Jan van Meerbeeck (Edegem (Antwerp), Belgium), Joanna Chorostowska-Wynimko (Warsaw, Poland)

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<td>09:35</td>
<td>Pneumothorax: rethinking the intervention paradigm</td>
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<td>Rob Hallifax (Oxford (Oxfordshire), United Kingdom)</td>
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<td>09:50</td>
<td>Pleural infection: phenotyping for optimal treatment selection</td>
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<td>Speaker to be confirmed</td>
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<td>10:05</td>
<td>Treating mesothelioma in 2021: what is the role of surgery and immunotherapy?</td>
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<td>Speaker to be confirmed</td>
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<td>10:20</td>
<td>Optimal management of symptomatic malignant pleural effusions: individualised care</td>
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<td>Elżbieta Magdalena Grabczak (Warszawa, Poland)</td>
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<td>10:35</td>
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**Channel 1**

**Session 09:30 - 11:30**

**Language session: Chinese programme 2021**

A joint ERS/CTS session
Aims: To present and discuss the new advances in respiratory medicine presented by experienced speakers from the European Respiratory Society leadership and Chinese leaders in respiratory medicine; to present an overview of hot respiratory disease topics in Europe and China.

Disease(s): Airway diseases, Interstitial lung diseases, Respiratory infections

Method(s): General respiratory patient care, Respiratory intensive care

Tag(s): Clinical

Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Respiratory critical care physician, Physician in Pulmonary Training, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist

Chairs: Jieming Qu (Shanghai, China), Nicolas Roche (Paris, France)

09:30 Introduction

09:35 Seroprevalence and humoral immune durability of anti-SARS-CoV-2 antibodies: a longitudinal, population-level, cross-sectional study in Wuhan, China
Chen Wang (Beijing, China)

09:50 Long COVID
Speaker to be confirmed

10:05 The role of epithelium-dependent fibroblast activation in pulmonary fibrosis
Wen Ning (Tianjin, China)

10:20 Interstitial lung diseases and COVID-19: myths and reality
Katerina Antoniou (Heraklion, Greece)

10:35 Radiomics in lung cancer: progress and challenges
Weimin Li (Chengdu (Sichuan), China)

10:50 Non-COVID diseases in the era of COVID (e.g., cancer care)
Joanna Chorostowska-Wynimko (Warsaw, Poland)

11:05 Discussion and Q&A

Studio Barcelona Session 09:30 - 10:10

Guidelines session: ERS guidelines on non-continuous positive airway pressure therapies in obstructive sleep apnoea

Aims: To discuss new recommendations of a recent guideline on non-continuous positive airway pressure (Non-CPAP) therapies in obstructive sleep apnoea, determined by a systematic review of the literature. It is as an update of the 2011 ERS Statement on non-CPAP therapies, advanced into a clinical guideline.

Disease(s): Sleep and breathing disorders

Tag(s): Clinical

Target audience: Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Medical Technical Assistant, Nurse, Patient, Journalist

Chairs: Anita Simonds (London, United Kingdom), Winfried J. Randerath (Solingen, Germany)

09:30 Introduction

09:32 Clinical approach
Johan Verbraecken (Edegem (Antwerp), Belgium)

09:42 Treatment options and recommendations
Speaker to be confirmed

09:52 Practical approach with cases, interactive questions and discussion
Speaker to be confirmed

Studio Munich Session 09:30 - 11:00

State of the art session: Pulmonary vascular diseases

Aims: To provide insight into specific groups of patients with pulmonary hypertension.
Disease(s): Pulmonary vascular diseases
Method(s): General respiratory patient care, Pulmonary function testing
Tag(s): Clinical
Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Physician in Pulmonary Training
Chairs: Marion Delcroix (Leuven, Belgium), Marc Humbert (Le Kremlin-Bicêtre, France)

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<tbody>
<tr>
<td>09:30</td>
<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>Home treatment of pulmonary embolism</td>
<td>Olivier Sanchez (Paris, France)</td>
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<tr>
<td>09:50</td>
<td>Differential diagnosis of pre- and post-capillary pulmonary hypertension: the OPTICS study and other strategies</td>
<td>Harm Jan Bogaard (Amsterdam, Netherlands)</td>
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<td>10:05</td>
<td>Low DLCO in pulmonary vascular diseases</td>
<td>Karen M Olsson (Hannover, Germany)</td>
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<td>10:20</td>
<td>Portopulmonary hypertension</td>
<td>Laurent Savale (Le Kremlin-Bicêtre, France)</td>
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<td>10:35</td>
<td>Discussion and Q&amp;A</td>
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**Studio Barcelona**

Session 10:20 - 11:00

Guidelines session: High flow nasal cannula in adults with acute respiratory failure

Aims: To provide the evidence on the application of high flow nasal cannula (HFNC) in adults with acute respiratory failure in different clinical scenarios, concerning a critical and patient centered outcomes (ie. mortality, intubation, lung gas exchange, comfort, dyspnea).

Disease(s): Respiratory critical care
Method(s): Respiratory intensive care
Tag(s): Clinical
Target audience: Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Respiratory critical care physician, Patient, Physiologist, Respiratory physiotherapist, Respiratory therapist
Chairs: Anita Simonds (London, United Kingdom), Winfried J. Randerath (Solingen, Germany)

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<tr>
<td>10:20</td>
<td>Introduction</td>
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<td>10:22</td>
<td>Physiologic rationale and clinical pitfalls</td>
<td>Raffaele Scala (Arezzo, Italy)</td>
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<td>10:32</td>
<td>Non-invasive respiratory treatment options and recommendations</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>10:42</td>
<td>Practical approach with cases, interactive questions and discussion</td>
<td>Begüm Ergan (Izmir, Turkey)</td>
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**Studio London**

Session 11:15 - 12:45

Symposium: Maintenance of the beneficial effects of pulmonary rehabilitation: the role of digital health

Aims: To describe the natural decline of (extra)pulmonary features of patients with chronic obstructive pulmonary disease (COPD); to describe the concept and effectiveness of maintenance programs following pulmonary rehabilitation; to describe the implementation, challenges and pitfalls of physical activity coaching programs as a maintenance strategy; to provide insight into the role of digital health in maintenance programs.

Disease(s): Airway diseases, Interstitial lung diseases, Pulmonary vascular diseases
Method(s): General respiratory patient care, Physiology, Pulmonary rehabilitation
Tag(s): Clinical, Digital health
Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Patient, Physician in Pulmonary Training, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist
Chairs: Martijn A. Spruit (Horn, Netherlands), Pierantonio Laveneziana (Paris, France), Joana Cruz (Leiria, Portugal)

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<td>11:15</td>
<td>Introduction</td>
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</table>
### Studio Munich Session 11:15 - 12:45

**Symposium: Pulmonary embolism: special situations**

**Aims:** To provide practical recommendations for management of pulmonary embolism (PE) in special situations (cancer and pregnancy), when patients are diagnosed with subsegmental PE and when patients suffer recurrence while on anticoagulant therapy.

<table>
<thead>
<tr>
<th>Disease(s)</th>
<th>Pulmonary vascular diseases</th>
<th>Respiratory critical care</th>
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<tbody>
<tr>
<td>Method(s)</td>
<td>Epidemiology</td>
<td>General respiratory patient care</td>
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<td>Tag(s)</td>
<td>Clinical</td>
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<td>Target audience</td>
<td>Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Radiologist, Scientist (basic, translational)</td>
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<td>Chairs</td>
<td>Marion Delcroix (Leuven, Belgium), Marc Humbert (Le Kremlin-Bicêtre, France)</td>
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#### 11:15 Introduction

#### 11:20 Management of subsegmental PE

**Behnood Bikdeli (New York, United States of America)**

#### 11:35 Cancer-associated thrombosis

**Manuel Monreal (Badalona, Spain)**

#### 11:50 Diagnosis and treatment of PE during pregnancy

**Fionnuala Ní Aínle (Dublin, Ireland)**

#### 12:05 Management of recurrent PE in patients on anticoagulant therapy

**Speaker to be confirmed**

#### 12:20 Discussion and Q&A
11:50  Research prioritisation in long COVID: using patients and experts to develop an international consensus  
Luke Daines (Edinburgh (Edinburgh), United Kingdom)

12:05  What have we learned from big platform trials of COVID? RECOVERY, REMAP-CAP and others 
Lennie P. G. Derde (Utrecht, Netherlands)

12:20  Discussion and Q&A

**Studio Amsterdam Session 11:15 - 12:45**

State of the art session: Thoracic oncology

**Aims:** To provide valuable insights into hot topics in thoracic oncology. Based on the broad multi-disciplinarity of the European Respiratory Society in this field, latest evidence will be translated into state-of-the-art care, taking into account the integration of artificial intelligence.

**Disease(s):** Thoracic oncology

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

**Tag(s):** Translational

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

**Chairs:** Jan van Meerbeeck (Edegem (Antwerp), Belgium), Joanna Chorostowska-Wynimko (Warsaw, Poland)

11:15  Introduction

11:20  Early detection of thoracic malignancies and artificial intelligence: a rapidly evolving field

11:35  Multimodality management of non-small cell lung cancer stage III: the pulmonologist as pilot and partner  
Armin Frille (Leipzig, Germany)

11:50  New treatment concepts in stage IV non-small cell lung cancer: personalised multidisciplinary approaches  
Isabelle Opitz (Zurich, Switzerland)

12:05  Approaches to radiological staging of mesothelioma relating to modern treatment modalities  
Kevin Blyth (Glasgow (Glasgow), United Kingdom)

12:20  Discussion and Q&A

**Channel 1 Session 11:45 - 13:00**

Challenging clinical cases: CCC Airway diseases

**Aims:** To describe the history, pathology, analysis and treatment of complex clinical cases in airway diseases area. The session leaders will facilitate discussion among the case presenters and the audience in order to examine and discuss each case.

**Disease(s):** Airway diseases

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Paediatrician, Physician in Pulmonary Training, Respiratory critical care physician, Respiratory physiotherapist, Radiologist, Nurse, Medical Student

**Chairs:** Dave Singh (Manchester, United Kingdom), Ay e Arzu Yorganc o lu (Izmir, Turkey)

11:45  Introduction

11:50  Case 1

12:00  Case 2

12:10  Case 3

12:20  Case 4

12:30  Case 5

12:40  Discussion and Q&A
Challenging clinical cases: CCC Thoracic oncology

**Aims:** To describe the history, pathology, analysis and treatment of complex clinical cases in thoracic oncology area. The session leaders will facilitate discussion among the case presenters and the audience in order to examine and discuss each case.

**Disease(s):** Thoracic oncology

**Tag(s):** Clinical

**Target audience:** Thoracic oncologist, Thoracic surgeon, Respiratory critical care physician, Adult pulmonologist/Clinician, General practitioner, Clinical researcher, Paediatrician, Physician in Pulmonary Training, Radiologist, Pathologist, Nurse, Medical Student

**Chairs:** Andriani Charpidou (Athens, Greece), Sam Janes (London, United Kingdom)

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<th>Time</th>
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<tr>
<td>14:45</td>
<td>Introduction</td>
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<tr>
<td>14:50</td>
<td>Case 1</td>
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<td>15:00</td>
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<td>15:30</td>
<td>Case 5</td>
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<td>15:40</td>
<td>Discussion and Q&amp;A</td>
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Studio London

Symposium: Orphan childhood disease: nicotine and cannabis addiction

**Aims:** To review the epidemiology and trends of tobacco, e-cigarette and cannabis use worldwide, highlighting the combinatorial use of these products and multiple delivery devices; to discuss the context of and motivation for cannabis use among young people; to explain the definition of problematic cannabis use and current evidence about cannabis psychoactivity and the impact of early cannabis use in the immature brains of children and teenagers; to review the types and effectiveness of preventative measures and treatments for nicotine and cannabis use among young people; to present evidence about the health effects of cannabis and e-cigarettes in young people and the implications for lung development and function; to stress the need for effective regulation to prevent young people accessing these products and being exposed to related marketing.

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

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Respiratory physiotherapist, Thoracic oncologist, Thoracic surgeon, Respiratory therapist, Journalist

**Chairs:** Jonathan Grigg (London, United Kingdom), Ane Johannessen (Bergen, Norway)

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<tr>
<td>14:45</td>
<td>Introduction</td>
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<tr>
<td>14:50</td>
<td>What are kids experimenting with? Epidemiology and trends of tobacco use and mental effects of nicotine and cannabis use&lt;br&gt;Charlotta Pisinger (Frederiksberg, Denmark)</td>
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<tr>
<td>15:05</td>
<td>The effect of e-cigarette vapour on the lungs of adolescents and young people&lt;br&gt;Ilona Jaspers (Chapel Hill, United States of America)</td>
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<tr>
<td>15:20</td>
<td>Effects of nicotine and cannabis on chronic respiratory diseases of children&lt;br&gt;Elif Dagli (Istanbul, Turkey)</td>
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<tr>
<td>15:35</td>
<td>Nicotine and cannabis use among teenagers: from prevention to treatment. What works?&lt;br&gt;Speaker to be confirmed</td>
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<td>15:50</td>
<td>Discussion and Q&amp;A</td>
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Studio Amsterdam

Symposium: Emerging imaging biomarkers in lung disease
Aims: To present information on imaging methods including positron emission tomography (PET), computed tomography (CT), magnetic resonance imaging (MRI) and micro-CT; to present translational human and animal studies that have identified novel imaging biomarkers for assessment of fibrosis and inflammation.

Disease(s): Airway diseases, Interstitial lung diseases

Method(s): Cell and molecular biology, Imaging, Physiology

Tag(s): Translational, Clinical

Target audience: Clinical researcher, Medical Student, Pathologist, Patient, Radiologist, Scientist (basic, translational)

Chairs: Martin Kolb (Hamilton (ON), Canada), Silke Meiners (München, Germany)

14:45 Introduction

14:50 Emerging diagnostics from MRI, PET and CT studies of lung disease
James Eaden (Sheffield (South Yorkshire), United Kingdom)

15:05 Preclinical models and imaging biomarkers of lung injury and disease
Irma Mahmutovic Persson (Lund, Sweden)

15:20 Micro-computed tomography to quantify lung fibrosis in vivo
Speaker to be confirmed

15:35 Image analysis from clinical PET/CT: what can we learn?
Speaker to be confirmed

15:50 Discussion and Q&A

---

Lungs on fire: LoF Airway diseases?

Aims: To describe real-life clinical cases during the innovative interactive session, including the presentation of cases that have various levels of difficulty and often necessitate a differential diagnosis. This session will be led by a discussant, who will present the cases to a panel of experts and the audience. The discussant will encourage discussion among the panel of experts, who are encountering these cases for the first time. To further determine diagnostic and therapeutic options for these patients, the discussant will also invite audience participation in the reflection and discussion of these cases.

Disease(s): Airway diseases

Tag(s): Clinical

Target audience: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Paediatrician, Physician in Pulmonary Training, Respiratory critical care physician, Nurse, Radiologist, Respiratory physiotherapist, Respiratory therapist, Medical Student

Chairs: Christopher E. Brightling (Leicester (Leicestershire), United Kingdom), Nicolas Roche (Paris, France), Carolina Maria Gotera Rivera (Madrid, Spain)

Discussants: Dave Singh (Manchester, United Kingdom)

Case 1 - Including discussion and Q&A

Case 2 - Including discussion and Q&A

Case 3 - Including discussion and Q&A

Case 4 - Including discussion and Q&A

14:45 Introduction

14:50 Presentation of cases by the session facilitator
Dave Singh (Manchester, United Kingdom)

16:10 Session wrap-up

---

Respiratory medicine meets other disciplines: Emerging data for the management of respiratory tract infections

A joint ERS/ESCMID session. Results from the current European Clinical Research Initiative on Antimicrobial resistance and emerging Infectious Diseases (ECRAID) - Value-Dx project
**Aims**: To present the first data emerging from the European project of Value Dx aimed at investigating the use of old and new diagnostic tests to optimise the use of antimicrobials and the management of respiratory infections across different settings (from primary care to intensive care units); to provide an overview and update of the role of diagnostics in the management of respiratory infections by reducing the overuse of antimicrobials and optimising clinical outcomes, utilisation of healthcare resources and economics. The Value Dx project is part of the European clinical research initiative on antimicrobial resistance and emerging infectious diseases.

**Disease(s)**: Respiratory infections

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

**Tag(s)**: Clinical, COVID

**Target audience**: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Paediatrician, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Journalist

**Chairs**: Eva Polverino (Barcelona, Spain), Giovanni Sotgiu (Porto Torres (SS), Italy)

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<tr>
<td>14:45</td>
<td>Introduction</td>
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<tr>
<td>14:50</td>
<td>Potential impact and relevance of diagnostics in the management of respiratory tract infections: from COVID to hospital-acquired pneumonia</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>15:05</td>
<td>Use of diagnostic tests in respiratory tract infections: an economic analysis.</td>
<td>Maarten Postma (Groningen, Netherlands)</td>
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<td>15:20</td>
<td>Management of community-acquired pneumonia: new evidence-based algorithms.</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>15:35</td>
<td>Are antimicrobials still the future of respiratory infection therapy?</td>
<td>Stefano Aliberti (Milano (MI), Italy)</td>
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<td>15:50</td>
<td>Discussion and Q&amp;A</td>
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**State of the art session: Sleep and breathing disorders**

Sleep revolution meets obstructive sleep apnoea: classification, grading, outcome indicators and use of new technologies

**Aims**: To describe current knowledge of obstructive sleep apnoea (OSA) from epidemiology to new classifications, treatment and prevention; to explain how clinicians could face the future of sleep breathing disorders (SBDs) in light of new technologies; to identify strategies for a homogenous European approach to the identification, diagnosis and management of sleep breathing disorders, presenting the Sleep Revolution project of the European Union.

**Disease(s)**: Paediatric respiratory diseases, Respiratory critical care, Sleep and breathing disorders

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

**Tag(s)**: Clinical, Digital health

**Target audience**: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Pathologist, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist, Journalist

**Chairs**: Sophia E. Schiza (Heraklion, Greece), Matteo Bradicich (Basel, Switzerland)

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<tr>
<td>14:45</td>
<td>Introduction</td>
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<tr>
<td>14:50</td>
<td>Is the apnoea-hypopnea index more than a historical parameter?</td>
<td>Dirk A.A. Pevernagie (Heeze, Netherlands)</td>
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<td>15:05</td>
<td>The hypoxic burden during sleep: which parameter counts?</td>
<td>Silke Ryan (Dublin, Ireland)</td>
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<tr>
<td>15:20</td>
<td>An integrative approach to OSA classification</td>
<td>Winfried J. Randerath (Solingen, Germany)</td>
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<td>15:35</td>
<td>An homogenous European approach for SBD management, incorporating new technologies and the Sleep Revolution project</td>
<td>Erna Sif Arnardottir (Reykjavik, Iceland)</td>
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<td>15:50</td>
<td>Discussion and Q&amp;A</td>
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Studio Munich Session 16:30 - 18:00

Symposium: What is new for sleep apnoea? The European perspective: findings from the European Sleep Apnoea Database (ESADA)

**Aims**: To provide new insights from the results of the ongoing Clinical Research Collaboration from the European Sleep Apnoea Database big data analysis and its importance to challenging traditional obstructive sleep apnoea (OSA) stereotypes with the aims of preventing disease and achieving early disease identification; to emphasise the need to use new technologies for diagnosis and early identification of residual daytime sleepiness and treatment follow-up, especially in terms of driving safety and difficult situations such as endemics and pandemics; to identify future research directions and their clinical implications; to emphasise the importance of European networking in general and for early career members.

**Disease(s)**: Paediatric respiratory diseases, Respiratory critical care, Sleep and breathing disorders

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

**Tag(s)**: Clinical

**Target audience**: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Pathologist, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist

**Chairs**: Sophia E. Schiza (Heraklion, Greece), Matteo Bradicich (Basel, Switzerland)

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<tr>
<td>16:30</td>
<td>Introduction</td>
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<tr>
<td>16:35</td>
<td>Cluster analysis of clinical phenotypes of OSA and its implications for comorbidities</td>
<td>Jean-Louis Pépin (Grenoble, France)</td>
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<td>16:50</td>
<td>Mild sleep apnoea: the hidden base of the iceberg?</td>
<td>Walter McNicholas (Dublin, Ireland)</td>
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<td>17:05</td>
<td>Residual daytime sleepiness and its implications</td>
<td>Maria Bonsignore (Palermo, Italy)</td>
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<td>17:20</td>
<td>Controversies in OSA: causes and future directions</td>
<td>Patrick Lévy (Grenoble, France)</td>
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<td>17:35</td>
<td>Discussion and Q&amp;A</td>
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Studio Paris Session 16:30 - 18:00

Symposium: Community-acquired pneumonia: the new perspective in the post-COVID era

Update on pneumonia including critical analysis of the new guidelines and new diagnostic and therapeutic options in light of recent experience with COVID-19 pneumonia

**Aims**: to update health professionals dealing with pneumonia about recent guidelines, the new challenges of viral pneumonia that emerged during the COVID-19 pandemic and advances in new diagnostic and therapeutic options.

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

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

**Tag(s)**: Clinical, COVID

**Target audience**: Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Paediatrician, Patient, Physician in Pulmonary Training

**Chairs**: Eva Polverino (Barcelona, Spain), Giovanni Sotgiu (Porto Torres (SS), Italy)

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<td>16:30</td>
<td>Introduction</td>
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<tr>
<td>16:35</td>
<td>Rethinking the guidelines after COVID-19</td>
<td>Ignacio Martin-Loeches (Dublin, Ireland)</td>
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<td>16:50</td>
<td>The challenges of viral pneumonia in the post-COVID era</td>
<td>Carolina García-Vidal (, Spain)</td>
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<td>17:05</td>
<td>Advances in diagnostic tools for lower respiratory tract infections</td>
<td>Speaker to be confirmed</td>
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<td>17:20</td>
<td>Antimicrobial resistance and new therapeutic options</td>
<td>Kristina Crothers (Seattle, United States of America)</td>
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<td>17:35</td>
<td>Discussion and Q&amp;A</td>
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Symposium: Keys to success in science
Early career member session 2021

**Aims:** To describe how young researchers can get involved in European Research Society (ERS) activities; to present critical steps for a successful career in respiratory research and medicine; to discuss challenges and opportunities for women in science.

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

**Chairs:** Daniela Gompelmann (Vienna, Austria), Maxime Patout (Mont-Saint Aignan, France)

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<td>16:30</td>
<td>Introduction</td>
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<tr>
<td>16:35</td>
<td>ERS activities: how to get involved</td>
<td>Niki Ubags (Epalinges, Switzerland)</td>
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<td>16:50</td>
<td>Keys for successful science</td>
<td>Lies Lahousse (Ghent, Belgium)</td>
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<td>17:05</td>
<td>Mina Gaga lecture</td>
<td>Alberto Garcia-Basteiro (Maputo, Mozambique)</td>
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<td>17:20</td>
<td>Women in science</td>
<td>Sheila Ramjug (Altrincham, United Kingdom)</td>
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<td>17:35</td>
<td>Discussion and Q&amp;A</td>
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Studio Barcelona

**Grand round: Clinical challenges beyond guidelines**

**Aims:** To describe controversial aspects of the current guidelines for non-invasive respiratory support, asthma, management of solitary pulmonary nodules and imaging of pulmonary hypertension; to discuss data underpinning non-adherence and alternative approaches to ongoing recommendations; to propose evidence-based substitute management recommendations for clinicians; to identify areas of concern and to highlight the need for further research.

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

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Respiratory critical care physician, Thoracic oncologist, Thoracic surgeon, General practitioner, Medical Student, Radiologist, Physician in Pulmonary Training, Clinical researcher

**Chairs:** Nicolas Roche (Paris, France), Chair to be confirmed

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<td>16:30</td>
<td>Introduction</td>
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<tr>
<td>16:35</td>
<td>Noninvasive respiratory support in the hypoxaemic peri-operative/periprocedural patient: joint ESA/ESICM guideline</td>
<td>Speaker to be confirmed</td>
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<td>16:55</td>
<td>Deconstructing the GINA staircase: the new house of asthma</td>
<td>David Price (Singapore, Singapore)</td>
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<td>17:15</td>
<td>Self-oriented interpretation of guidelines for management of solitary pulmonary nodules. ACR, ACCP, BTS and Fleischner: a “pot pourri” that may miss occult cancer?</td>
<td>Stefano Elia (Roma (RM), Italy)</td>
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<tr>
<td>17:35</td>
<td>Imaging of pulmonary hypertension in adults: a position paper from the Fleischner Society</td>
<td>David Kiely (Sheffield (South Yorkshire), United Kingdom)</td>
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<td>17:55</td>
<td>Session wrap-up</td>
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<tr>
<td>16:30</td>
<td>Introduction</td>
<td>Rebecca Craven (London, United Kingdom)</td>
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<tr>
<td>16:35</td>
<td>Disease pathology in interstitial lung disease</td>
<td>Elisabetta Renzoni (London, United Kingdom)</td>
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<td>16:50</td>
<td>Biomarker discovery, development, and implementation in interstitial lung diseases</td>
<td>Gisli Jenkins (Nottingham (Nottinghamshire), United Kingdom)</td>
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<td>17:05</td>
<td>Early diagnosis of fibrotic interstitial lung disease: challenges and opportunities</td>
<td>Paolo Spagnolo (Padova (PD), Italy)</td>
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<td>17:20</td>
<td>Treatment of interstitial lung diseases: current approaches and future directions</td>
<td>Kerri Johannson (Calgary (AB), Canada)</td>
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<tr>
<td>17:35</td>
<td>Discussion and Q&amp;A</td>
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<tr>
<td>17:55</td>
<td>Conclusions</td>
<td>Rebecca Craven (London, United Kingdom)</td>
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### Studio Amsterdam Session 09:30 - 11:00

**Symposium: Lung cancer and fibrotic interstitial lung diseases: a challenging association for pulmonologists**

**Diagnosis, improved treatment and prevention of lung cancer in patients with fibrotic interstitial lung disease**

**Aims:** to provide an overview of the epidemiology, clinical, radiological and pathological characteristics and prognosis of patients with lung cancer (LC) associated with fibrotic interstitial lung disease (fILD); to describe evidence of pathophysiological intersections between these two diseases and the importance of designing new therapeutic strategies based on this knowledge; to explain the importance of cancer treatments that could improve the survival of such patients; to investigate how anti-fibrotic treatments or other therapeutic innovations could modify the natural history of these diseases.

**Method(s):** Cell and molecular biology Imaging Public health

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Pathologist, Patient, Physician in Pulmonary Training, Radiologist, Scientist (basic, translational), Thoracic oncologist

**Chairs:** Torsten Gerriet Blum (Berlin, Germany), Marlies S. Wijsenbeek (Rotterdam, Netherlands)

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<td>09:30</td>
<td>Introduction</td>
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| 09:35 | Current portrait of LC-fILD: from epidemiology to clinico-patholo-radiological presentation and prognosis  
Manuela Funke-Chambour (Bern, Switzerland) |
| 09:50 | Pathophysiology of LC and fILD: siblings or just friends?  
Venerino Poletti (Forlì, Italy) |
| 10:05 | How to stop LC-fILD progression: an overview of modern therapeutic strategies  
Speaker to be confirmed |
| 10:20 | How to disrupt malicious LC-fILD pathways: antifibrotic agents as a promising therapeutic approach  
Athol Wells (London, United Kingdom) |
| 10:35 | Discussion and Q&A                                                     |

### Studio London Session 09:30 - 11:00

**Hot topics: Viral infections trigger chronic lung damage and disease**

**Aims:** To summarise the translational evidence for a pathogenic role of viral infections in chronic lung diseases; to explain the role of viruses as injurious agents in the onset of a variety of pulmonary pathologies (including COVID and other viruses known for their damaging effects on pulmonary health via various possible pathways); to summarise the most recent knowledge regarding viral induction of chronic lung diseases; to discuss the implications of new emerging respiratory viruses for virus epidemiology, pandemic threats and vaccine development; to highlight the contribution of viral infections to the onset of chronic lung diseases; to list the mechanistic pathways of post-viral chronic lung diseases and the factors modulating (post)virus pathogenesis including age; to describe the activation of immune cells in virus-induced chronic lung diseases and potential therapeutic approaches.

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

**Method(s):** Cell and molecular biology Physiology Pulmonary rehabilitation

**Tag(s):** Translational , COVID, Basic science

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Respiratory critical care physician, Patient, Scientist (basic, translational)

**Chairs:** Anh Tuan Dinh-Xuan (Paris, France), Thomas Geiser (Bern, Switzerland)

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<tr>
<td>09:30</td>
<td>Introduction</td>
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</table>
| 09:35 | Emerging respiratory virus infections threaten pulmonary health  
Speaker to be confirmed |
| 09:50 | Post-viral effects on the susceptibility of developing chronic lung diseases  
Speaker to be confirmed |
| 10:05 | Development of paediatric asthma following viral infections  
Sejal Saglani (London, United Kingdom) |
| 10:20 | The role of viruses in the pathogenesis of pulmonary fibrosis  
Silke Meiners (München, Germany) |
| 10:35 | Discussion and Q&A                                                     |
Studio Barcelona  Session  09:30 - 10:10
Guidelines session: ERS clinical practice guidelines on diagnostic of asthma in adults

**Aims:** To present new guidelines on diagnostic of asthma in adults.

**Disease(s):** Airway diseases

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, General practitioner, Medical Student, Patient, Physician in Pulmonary Training

**Chairs:** Chair to be confirmed

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<td>Introduction</td>
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<tr>
<td>09:32</td>
<td>The patient's perspective in designing this guideline</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>09:37</td>
<td>PICOs, recommendations and clinical practice guideline</td>
<td>Renaud Louis (Liège, Belgium)</td>
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<td>09:50</td>
<td>Clinical case presentation</td>
<td>Speaker to be confirmed</td>
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<td>10:00</td>
<td>Discussion and Q&amp;A</td>
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Studio Paris  Session  09:30 - 11:00
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 related to the respiratory health of children and young people; to provide an update on four important topics in paediatric respiratory medicine.

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Paediatrician, Pathologist, Physician in Pulmonary Training, Radiologist, Respiratory physiotherapist, Respiratory therapist

**Chairs:** Marielle W.H. Pijnenburg (Rotterdam, Netherlands), Andrew Bush (London, United Kingdom)

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<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Location</th>
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<tbody>
<tr>
<td>09:30</td>
<td>Introduction</td>
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<tr>
<td>09:35</td>
<td>Pulmonary haemorrhage in children</td>
<td>Speaker to be confirmed</td>
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<td>09:50</td>
<td>Mycoplasma pneumoniae-associated complications</td>
<td>Patrick Meyer Sauteur (Zurich, Switzerland)</td>
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<td>10:05</td>
<td>The lung in sickle cell disease</td>
<td>Speaker to be confirmed</td>
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<td>10:20</td>
<td>A child with stridor: teamwork of paediatric pulmonologists and paediatric ENT specialists</td>
<td>Bas Pullens (Rotterdam, Netherlands)</td>
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<td>10:35</td>
<td>Discussion and Q&amp;A</td>
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Studio Barcelona  Session  10:20 - 11:00
Pro/Con debate: Lung metastasectomy: let’s pour some water on the fire

**Aims:** To identify the recent clinical advancement in lung metastasectomy; to learn how to differentiate lung metastases on the basis of staging; to present selection of patients who may benefit from surgical treatment; to present how to identify treatment options for lung metastases.

**Disease(s):** Thoracic oncology

**Method(s):** Surgery

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Pathologist, Patient, Physician in Pulmonary Training, Radiologist, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon, Journalist

**Chairs:** Chair to be confirmed
### Channel 1

**Session**
**11:15 - 12:30**

## Challenging clinical cases: CCC Pulmonary vascular diseases

**Aims:** To describe the history, pathology, analysis and treatment of complex clinical cases in pulmonary vascular diseases area. The session leaders will facilitate discussion among the case presenters and the audience in order to examine and discuss each case.

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

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Nurse, Physician in Pulmonary Training, Respiratory critical care physician, Radiologist, Thoracic surgeon

**Chairs:** Luke Howard (London, United Kingdom), Silvia Ulrich (Zurich, Switzerland)

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<tr>
<td>11:15</td>
<td>Introduction</td>
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<tr>
<td>11:20</td>
<td>Case 1</td>
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<td>11:30</td>
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<td>12:00</td>
<td>Case 5</td>
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<tr>
<td>12:10</td>
<td>Discussion and Q&amp;A</td>
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### Studio Amsterdam

**Session**
**11:15 - 12:45**

## Symposium: Rare lung diseases 2021

A joint ERS and European Reference Network for rare lung diseases (ERN-LUNG) session

**Aims:** To describe aspects of rare diseases of the respiratory system that all members of respiratory care teams should be familiar with; to describe some of the new developments in the field of rare lung diseases in order to enable them help patients find expertise and the best clinical care; to explain how to cooperate across borders in order to achieve the best possible results for all patients everywhere; to present cross-border healthcare as an optimal way of providing diagnostic and therapeutic options to all patients with ultrarare diseases; to provide an update about recent developments in rare disease management; to present tools for managing patients with rare diseases and to list who to ask for expert advice about such patients.

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

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

**Target audience:** Adult pulmonologist/Clinician, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Paediatrician, Patient, Physician in Pulmonary Training, Radiologist, Respiratory therapist, Journalist

**Chairs:** Torsten Gerriet Blum (Berlin, Germany), Marlies S. Wijsenbeek (Rotterdam, Netherlands)

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<tr>
<td>11:15</td>
<td>Introduction</td>
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<tr>
<td>11:20</td>
<td>Progress made in ultra-rare lung diseases</td>
<td>Maria Molina-Molina (Barcelona, Spain)</td>
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<td>11:35</td>
<td>Severe sarcoidosis: clinical features and management</td>
<td>Paolo Spagnolo (Padova (PD), Italy)</td>
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<td>11:50</td>
<td>Rare lung diseases in children: challenges for diagnosis and treatment</td>
<td>Helge Hebestreit (Wuerzburg, Germany)</td>
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<tr>
<td>12:05</td>
<td>What we have learned about alpha-1-antitrypsin deficiency</td>
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<td>Speaker to be confirmed</td>
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<tr>
<td>12:20</td>
<td>Discussion and Q&amp;A</td>
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### Studio Paris  
**Session  11:15 - 12:45**

**Grand round: Paediatric grand round**

**Aims:** To present challenging cases of children with respiratory diseases, not specifically very rare diseases; to engage the audience in discussions about differential diagnosis, diagnostic tests and the best clinical care; to provide an update on selected topics in paediatric respiratory medicine.

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

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

**Tag(s):** Clinical

**Target audience:** Medical Student, Paediatrician, Clinical researcher, Nurse, Physician in Pulmonary Training

**Chairs:** Marielle W.H. Pijnenburg (Rotterdam, Netherlands), Andrew Bush (London, United Kingdom)

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<td>11:20</td>
<td>Spontaneous pneumoperitoneum: do I remove the chest drain?</td>
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<td>George Lawson (London, United Kingdom)</td>
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<td>11:40</td>
<td>A case of chylothorax at the age of 13 months</td>
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<td>Heidi Schaballie (Belsele, Belgium)</td>
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<td>12:00</td>
<td>Bilateral interstitial pneumonia in an 8-year-old boy: not only COVID-19!</td>
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<td>Maria Elisa Di Cicco (Pisa (PI), Italy)</td>
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<td>12:20</td>
<td>A 9-year-old boy with a swelling on the chest wall</td>
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<td>Tamsin Thornton (Norwich, United Kingdom)</td>
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<td>12:40</td>
<td>Session wrap-up</td>
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### Studio Barcelona  
**Session  11:15 - 12:45**

**Hot topics: Linking scientific mechanisms to recent clinical therapeutic advances in airway disease: why, who, when and what?**

**Aims:** To describe the role of novel therapies for airway diseases, namely, asthma, chronic obstructive pulmonary disease (COPD) and chronic cough; to describe the essential role of artificial intelligence, which will revolutionise how doctors follow and treat patients; to address common problems related to novel therapies and artificial intelligence in everyday practice in order to improve patient care.

**Disease(s):** Airway diseases

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

**Tag(s):** Clinical

**Target audience:** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Patient, Physician in Pulmonary Training

**Chairs:** Chair to be confirmed

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<td>11:20</td>
<td>Will we really achieve anti-ageing lung treatments? Abnormal lung ageing in COPD</td>
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<td>Corry-Anke Brandsma (Groningen, Netherlands)</td>
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<td>11:35</td>
<td>Who should receive which biologic and why? Current and future approaches in severe asthma patients</td>
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<td>Parameswaran Nair (Hamilton (ON), Canada)</td>
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<td>11:50</td>
<td>Will we ever be successful? Managing T2-low asthma</td>
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<td>Speaker to be confirmed</td>
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<td>12:05</td>
<td>What is the scientific and clinical rationale? Triple therapy in COPD patients</td>
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<td>Dave Singh (Manchester, United Kingdom)</td>
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<td>12:20</td>
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