



INTERNATIONAL CONGRESS 2022

BARCELONA Spain, 4 - 6 September

PROGRAMME

Pre-congress content	Session	00:00 - 00:20
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Statements and technical standards: Syndrome of Combined Pulmonary Fibrosis And Emphysema ATS/ERS/JRS/ALAT Research Statement		
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Aims : After this session participants will be able to identify the syndrome of combined pulmonary fibrosis and emphysema (CPFE), and will understand the main components of pathophysiology. They will know the main clinical, radiological, functional as well as pathological features characterising CPFE and distinguishing it from idiopathic pulmonary fibrosis. They will be able to choose the best management options based on recent evidence, and to individualise the monitoring of this condition, understanding the variety of comorbidities and the risk of complications especially pulmonary hypertension.

Disease(s) : Interstitial lung diseases Pulmonary vascular diseases Thoracic oncology

Method(s) : Epidemiology Imaging Pulmonary function testing

Tag(s) : Clinical

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

00:00 Syndrome of Combined Pulmonary Fibrosis And Emphysema
Vincent Cottin (Lyon, France)

Pre-congress content	Session	00:00 - 00:20
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Statements and technical standards: ERS/ATS Updated Pulmonary Function Test Interpretation Technical standard		
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Aims : 1. Summarise the recommendations for PFT interpretation
2. Understand the uncertainty in PFT interpretation
3. Review the changes from the 2005 interpretation standard

Disease(s) : Airway diseases Paediatric respiratory diseases

Method(s) : Epidemiology Physiology Pulmonary function testing

Tag(s) : Clinical

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

00:00 ERS/ATS Updated Pulmonary Function Test Interpretation Technical standard
Sanja Stanojevic (Halifax (NS), Canada)

Pre-congress content	Session	00:00 - 00:20
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Statements and technical standards: ERS Technical Standards for the scoring of respiratory events using Type III devices clear devices for the diagnosis of sleep disordered breathing in adults and children		
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Aims : This session will present an update on the use of Type III devices for investigating sleep disordered breathing in children and adults with discussion on the advantages, limitations and research needs in each of the following areas:

1. Technical specifications for Type III devices
2. Scoring criteria for sleep related breathing disturbances using Type III devices
3. Utility of Type III devices in comparison to Polysomnography (PSG) for investigating Sleep-disordered Breathing in Adults
4. Type III Devices for diagnosing Sleep-disordered Breathing in Children
5. Patient perspective

Disease(s) : Sleep and breathing disorders

Method(s) : General respiratory patient care

Tag(s) : Clinical

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

00:00 ERS Technical Standards for the scoring of respiratory events using Type III devices clear devices for the diagnosis of sleep disordered breathing in adults and children
Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)

Pre-congress content	Session	00:00 - 00:20
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Statements and technical standards: ERS statement for defining respiratory exacerbations in children and adolescents with bronchiectasis for clinical trials		
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- Aims :** 1. In children and adolescents with bronchiectasis, recognise the burden and effect of pulmonary exacerbations on them
2. Describe the importance of exacerbations in children and adolescents with bronchiectasis
3. Know the recommendations relating to defining severe and non-severe exacerbations for clinical trials and how this differs from that for clinical care

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

Method(s) : Epidemiology General respiratory patient care

Tag(s) : Clinical

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

00:00 **ERS statement for defining respiratory exacerbations in children and adolescents with bronchiectasis for clinical trials**
Anne Bernadette Chang (Brisbane (QLD), Australia)

Pre-congress content Session 00:00 - 00:20

Statements and technical standards: A European Respiratory Society Statement on the Interpretation of Nitric Oxide Uptake in the Lung interpretation of pulmonary diffusing capacity for nitric oxide

Aims : This is a follow-up to the 2017 ERS Technical Standard document on pulmonary diffusing capacity for nitric oxide (DLNO). This session will discuss the following:

- To demonstrate that DLNO adds additional knowledge and clinical value above and beyond DLCO. The DLNO in addition to DLCO improves predictive accuracy for disease diagnosis.
- To identify the severity categories for a reduced DLNO.
- To describe the clinical decision algorithm for the simultaneous measurement of DLNO-DLCO comparable to that produced for DLCO.

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

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

Tag(s) : Basic science

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

00:00 **A European Respiratory Society Statement on the Interpretation of Nitric Oxide Uptake in the Lung**
GERALD ZAVORSKY (SACRAMENTO, United States)

Pre-congress content Session 00:00 - 00:20

Statements and technical standards: European Respiratory Society Guidelines on the Management of Hospitalized Patients with COVID-19

Aims : To discuss the latest recommendations from the ERS COVID-19 living guideline
To review evidence for immunomodulatory, anti-viral and anticoagulant treatments for COVID-19

Disease(s) : Respiratory critical care Respiratory infections

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

Tag(s) : Clinical

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

00:00 **European Respiratory Society Guidelines on the Management of Hospitalized Patients with COVID-19**
James D. Chalmers (Dundee (Angus), United Kingdom)

Pre-congress content Session 00:00 - 00:20

Statements and technical standards: ERS statement on Long COVID-19 Follow-up

Aims : Patients diagnosed with COVID-19 associated with SARS-CoV-2 infection frequently experience symptom burden post-acute infection or post-hospitalisation.

The aim is to identify optimal strategies for follow-up care that may positively impact the patient's quality-of-life.

A targeted search of the literature defined the time line of long COVID-19 as one to six months post infection and identified clinical evidence in the follow-up of patients.

Studies meeting the inclusion criteria report an association of characteristics of acute infection with persistent symptoms, thromboembolic events in the follow-up period and evaluations of pulmonary physiology and imaging. Moreover, the statement reviews QOL consequences, symptom burden, disability and home care follow-up.

The Statement has been organized and structured with eight clinical questions?

- 1 Are there features of the acute disease characteristics which predict long-term consequences?
- 2 Which follow-up strategies relate to thromboembolic events?
- 3 Which follow-up strategies relate to pulmonary physiology?
- 4 Which follow-up strategies relate to imaging?
- 5 Which follow-up strategies relate to infection control?
- 6 Which follow-up strategies relate to cognitive, psychological and quality-of-life consequences?
- 7 Which follow-up strategies relate to disability?
- 8 Which follow-up strategies relate to home care follow-up (telemedicine/tele-rehabilitation)?

Disease(s) : Interstitial lung diseases Pulmonary vascular diseases Respiratory infections

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

Tag(s) : COVID

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

00:00 **ERS statement on Long COVID-19 Follow-up**
Antonio Spanevello (Milano, Italy)

Pre-congress content Session 00:00 - 00:20

Statements and technical standards: The ERS Core Outcome Set for clinical trials evaluating the management of COPD exacerbations

Aims : Clinical trials evaluating the management of COPD exacerbations assess heterogeneous outcomes, often omitting those that are clinically relevant or more important to patients and health professionals. A core outcome set is a consensus-based minimum set of important outcomes that should be evaluated in all trials to improve their quality and comparability. This session will explain the importance of core outcome sets, and will describe the ERS COPD exacerbations core outcome set and how it was developed.

Disease(s) : Airway diseases Respiratory infections

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, Patient, Physician in Pulmonary Training, Respiratory physiotherapist

00:00 **The ERS Core Outcome Set for clinical trials evaluating the management of COPD exacerbations**
Alexander Mathioudakis (Stockport, United Kingdom)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: Lung Disease in Primary Immunodeficiency eGLILDnet CRC

Aims : We aim to provide an update on lung disease in primary immunodeficiency. We will consider:

1. The critical importance of excluding primary immunodeficiency in people presenting with acute and chronic respiratory illness.
2. The spectrum of primary immunodeficiency.
3. Lung manifestations of primary antibody deficiency.
4. Granulomatous-Lymphocytic Interstitial Lung Disease: State of the Art

Disease(s) : Interstitial lung diseases

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

Tag(s) : Clinical

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

00:00 **Lung Disease in Primary Immunodeficiency**
John R Hurst (London, United Kingdom)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: An ERS Clinical Research Collaboration to advance research in alpha-1 antitrypsin deficiency

EARCO CRC

Aims : Participants will be able to identify the main research projects under development by the European Alpha-1 antitrypsin research collaboration (EARCO). EARCO was funded in 2018 with the objective to develop an international prospective registry of patients with AATD. The registry include more than 1000 patients already and has produced several manuscripts presenting the results of the research projects, such as the survey on unmet needs for research in AATD and the survey on criteria for augmentation therapy and the study on the impact of COVID-19 in patients with AATD. One of the objectives of the presentation is to attract new participants to the EARCO consortium.

Disease(s) : Airway diseases

Method(s) : Epidemiology General respiratory patient care

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Patient, Scientist (basic, translational)

00:00 **EARCO: an ERS Clinical Research Collaboration to advance research in alpha-1 antitrypsin deficiency.**
Christian F. Clarenbach (Zürich, Switzerland)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: Global Lung Function Initiative: Is it time for an update?

GLI CRC: addressing the challenges of using ethnic specific reference equations

Aims : 1. Review the rationale and recommendations to using multi-ethnic reference equations
2. Describe the potential challenges and bias that may be introduced if we normalize the effects of social disparities on lung function
3. Propose interim solutions to the interpretation of lung function test results.

Disease(s) : Airway diseases Paediatric respiratory diseases

Method(s) : Epidemiology Physiology Pulmonary function testing

Tag(s) : Clinical

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

00:00 **Global Lung Function Initiative: Is it time for an update?**
Brendan Cooper (Edgbaston (Birmingham), United Kingdom)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: Lessons learned and updates from the CADSET clinical research collaboration

Aims : The presentation will provide an overview of the lessons learned and outputs of CADSET. We aim to present a discussion with different highly involved CADSET members. For the audience the, specific learning outcomes will be:

- Challenges and benefits of large collaborative studies, views from early career and well established ERS researchers.
- Update on early life origins of chronic respiratory diseases.
- Early life spirometrical phenotypes, prevalence and associates.
- Factors influencing lung function across the ages.
- Similarities and differences in asthma with fixed airflow limitation vs. COPD
- Challenges ahead.

Disease(s) : Airway diseases Paediatric respiratory diseases

Method(s) : Cell and molecular biology Public health Pulmonary function testing

Tag(s) : Translational

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Respiratory critical care physician, Paediatrician, Physiologist, Scientist (basic, translational)

00:00 **Lessons learned and updates from the CADSET clinical research collaboration**
Rosa Faner Canet (Barcelona, Spain)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: Pulmonary Hemodynamics during Exercise - Research Network registry

PEX-NET CRC

Aims : From a theoretical perspective, pulmonary hemodynamics during exercise may be suitable to detect early forms of cardiac and pulmonary vascular disease. This concept is supported by data from several small studies. However, the prognostic and differential-diagnostic relevance and additive value of exercise vs. resting hemodynamics has not been evaluated in a large study. PEX-NET is an international registry with a retrospective and a prospective cohort, enrolling patients with exercise pulmonary hemodynamics. An international steering committee has defined the inclusion and exclusion criteria. Detailed clinical and hemodynamic data derived from clinically indicated exercise right heart catheterizations of patients with suspected or manifest pulmonary hypertension have been transferred into a central database. The participants of this session will learn how resting and exercise hemodynamics may affect survival, why this is important and what are the open questions. This will explain, why a large study, investigating the prognostic parameters, was needed.

Disease(s) : Pulmonary vascular diseases

Method(s) : Epidemiology Physiology Pulmonary function testing

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Patient, Physiologist

00:00 ERS Clinical Research Collaboration: "Pulmonary Hemodynamics during Exercise - Research Network" (PEX-NET) registry.
Gabor Kovacs (Graz, Austria)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: Severe Heterogenous Asthma Research collaboration, Patient-centered SHARP CRC

Aims : This session will advertise SHARP as a research community to the members of ERS and other congress participants: Increasing awareness about the specific unmet need for patients with severe asthma, and the solution that the research conducted by SHARP can provide

learning outcomes:

What is the SHARP CRC - ambitions and strategy?

Who is involved?

What are the key achievements of SHARP?

How are patients involved in SHARP

What are the plans for the coming years in SHARP

How can you get involved in SHARP?

Disease(s) : Airway diseases

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, Medical Technical Assistant, Nurse, Respiratory critical care physician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist, Journalist

00:00 Severe Heterogenous Asthma Research collaboration, Patient-centered (SHARP)
Ratko Djukanovic (Southampton (Hampshire), United Kingdom)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: EU-wide consensus of clinical experts and patients on key parameters to be measured during and after a severe exacerbation of COPD CICERO CRC

Aims : This proposal is submitted by the CICERO CRC, a pan-European Clinical Research Collaboration in COPD exacerbations, focused on the advancement of the scientific understanding, clinical management and patient outcomes of COPD exacerbations.

For the pre-congress short panel discussion on 2 scientific outcomes of the CICERO CRC, the co-chairs wish to present the EU-wide consensus obtained from clinical COPD experts and patients on key process and outcome parameters to be measured during and after a severe exacerbation requiring hospitalization.

The short panel discussion aims to highlight and discuss the results obtained from (1) the Delphi Expert Survey and (2) the ELF-CICERO Patient Survey, work led by young investigators Dr. Sanjay Ramakrishnan, UK and Dr. Iwein Gyselinck, BE respectively.

The 20-min pre-recorded presentation will help the congress participants to understand in the context of key process and outcome parameters in severe COPD exacerbations:

- 1) the importance of an EU-wide consensus,
- 2) the necessity of complementing an expert clinical opinion with in-depth patient perspective,
- 3) the results obtained from the Delphi Expert and Patient Survey, and
- 4) how the obtained results can improve the future management and patient outcomes of severe COPD exacerbations.

Additionally, the format of a pre-recorded presentation will provide the opportunity for interested stakeholders to reference the accompanying publications and to interact with the lead young investigators during the 2022 ERS congress.

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

Method(s) : General respiratory patient care Pulmonary function testing Respiratory intensive care

Tag(s) : Clinical

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

00:00 EU-wide consensus of clinical experts and patients on key parameters to be measured during and after a severe exacerbation of COPD
Speaker to be confirmed

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: Precision medicine for bronchiectasis EMBARC CRC

Aims : - to discuss the clinical and biological heterogeneity of bronchiectasis
- to discuss recent data showing the overlap between Bronchiectasis, COPD and asthma
- to discuss recent data showing there are different inflammatory subtypes of bronchiectasis that may require different treatments

Disease(s) : Respiratory infections

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

Tag(s) : Translational

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

00:00 Precision medicine for bronchiectasis
Eva Polverino (Barcelona, Spain)

Pre-congress content Session 00:00 - 00:20

Clinical Research Collaboration: NEW Understanding in the tReatment Of COUGH NEuroCOUGH CRC

Aims : The core aims of this CRC presentation are to give an update on the initiatives by the Neurocough CRC and include the following topics (1) the Neurocough initiative together with ERS & FIRS to relabel chronic cough (ICD-11 proposal), (2) the ERS CRC Neurocough cough clinic survey result, (3) the currently available and unpublished data from the Neurocough registry, and (4) the interaction with industrial partners in facilitating the development of new chronic cough treatment options.

Disease(s) : Airway diseases

Method(s) : Epidemiology General respiratory patient care

Tag(s) : Clinical

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

00:00 NEuroCOUGH or NEW Understanding in the tReatment Of COUGH
Lorcan McGarvey (Belfast, United Kingdom)

No Room	Session	08:30 - 18:00
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ERS NEXT: ERS NEXT Programme 2022
Networking EXcellence Training programme

Aims : By invitation only.

The ERS NEXT Programme is an opportunity to improve your soft skills as early-career health professionals. The event will be as well to network and being mentored by ERS Leadership members.

Chairs : Niki Ubags (Epalinges, Switzerland), Maxime Patout (Mont-Saint Aignan, France)

08:30	Coffee
09:00	Welcome and overview of the day Niki Ubags (Epalinges, Switzerland), Maxime Patout (Mont-Saint Aignan, France), Speaker to be confirmed
09:15	Ice-breaker
09:30	Presentation skills - training: UbiK media
10:00	Presentation skills breakout Holly R. Keir (Dundee (Angus), United Kingdom), Mona Lichtblau (Zürich, Switzerland), Merel Hellemons (Rotterdam, Netherlands), Matteo Bradicich (Zollikerberg, Switzerland), Orienne Dumas (Villejuif, France), Joana Cruz (Leiria, Portugal), Maria Joana Pereira Catarata (Porto, Portugal)
11:20	Coffee break
11:30	Chairing/moderating/facilitating - training: UbiK media
12:00	Chairing/moderating/facilitating - breakout Mona Lichtblau (Zürich, Switzerland), Merel Hellemons (Rotterdam, Netherlands), Holly R. Keir (Dundee (Angus), United Kingdom), Karen Moor (Rotterdam, Netherlands), Orienne Dumas (Villejuif, France), Maria Joana Pereira Catarata (Porto, Portugal), Joana Cruz (Leiria, Portugal)
13:00	Mentoring lunch
14:30	Keynote: Manuscript writing and publishing James D. Chalmers (Dundee (Angus), United Kingdom)
14:50	Breakout manuscript writing/publishing Holly R. Keir (Dundee (Angus), United Kingdom), Thomas Gille (Bobigny, France), Maxime Patout (Mont-Saint Aignan, France), Cristina Ardura-Garcia (Bern, Switzerland), Karen Moor (Rotterdam, Netherlands)
15:30	Keynote: Time management and work/life balance Speaker to be confirmed
15:50	Breakout time management/work/lifebalance Matteo Bradicich (Zollikerberg, Switzerland), Thomas Gille (Bobigny, France), Niki Ubags (Epalinges, Switzerland), Cristina Ardura-Garcia (Bern, Switzerland), Karen Moor (Rotterdam, Netherlands)
16:30	Coffee break
16:45	Topic 3: Leadership in Respiratory Medicine Mina Gaga (Athens, Greece)
17:05	Breakout: Leadership in Respiratory Medicine Niki Ubags (Epalinges, Switzerland), Matteo Bradicich (Zollikerberg, Switzerland), Mona Lichtblau (Zürich, Switzerland), Cristina Ardura-Garcia (Bern, Switzerland), Joana Cruz (Leiria, Portugal), Speaker to be confirmed
17:45	Feedback and key take-home messages Niki Ubags (Epalinges, Switzerland), Maxime Patout (Mont-Saint Aignan, France)
20:00	Dinner

8D Session **08:00 - 10:20****Skills workshop: SW1 Exercise, muscle and sleep assessment and interpretation: tips and pitfalls**
Tips and pitfalls in exercise, muscle and sleep assessment

Aims : To describe “typical” patterns of responses to exercise, muscle and sleep and to determine methods to distinguish these responses from “anomalous” response profiles that can cause misinterpretation of test results.

Disease(s) : Sleep and breathing disorders

Method(s) : Imaging Physiology Pulmonary function testing Pulmonary rehabilitation Respiratory intensive care

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Physician in Pulmonary Training, Physiologist, Respiratory critical care physician, Respiratory physiotherapist, Journalist

Chairs : Samuel Verges (Grenoble, France)

08:00 Introduction

08:00 Cardiopulmonary exercise testing: breathing patterns and dynamic hyperinflation
Pierantonio Laveneziana (Paris, France)

08:00 Respiratory and locomotor muscle testing in clinical practice
Daniel Langer (Leuven, Belgium)

08:00 From different pathophysiological traits revealed by polysomnography to treatment indications or combination of therapies
Stefania Redolfi (Paris, France)

08:00 Implementation, titration and follow-up of positive airway pressure in patients with obstructive sleep apnoea
Athanasia Pataka (Thessaloniki, Greece)

Studio Session **08:45 - 09:00****Experts interview: Introduction - Interview**

Chairs : Richard Costello (Dublin 9, Ireland), Christopher E. Brightling (Leicester (Leicestershire), United Kingdom)

08:45 Discussion and Q&A

8B (live-streamed) Session **09:30 - 11:00****Symposium: Holistic management and rehabilitation of fibrosing interstitial lung diseases**

Aims : to describe progress in non-pharmacological management of patients with fibrosing interstitial lung diseases (f-ILDs), including changes in clinical practice and the efficacy of treatments, using a patient-centred approach; to analyse the importance of self-management and the growing role of information and computing technologies in supporting monitoring, rehabilitation and non-pharmacological interventions in f-ILDs, including after lung transplantation; to describe non-pharmacological interventions that aim to relieve symptoms and improve quality of life; to provide an update on dedicated pulmonary rehabilitation strategies and outcome measures in f-ILDs, considering the "new normal" in the context of the pandemic; to discuss new insights into the role of oxygen supplementation in management of breathlessness and the role of ambulatory oxygen in preventing exertional hypoxaemia and maximising the benefits of pulmonary rehabilitation.

Disease(s) : Interstitial lung diseases Respiratory critical care

Method(s) : General respiratory patient care Palliative care Pulmonary rehabilitation

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Thoracic surgeon, Respiratory therapist, Journalist

Chairs : Anh Tuan Dinh-Xuan (Paris, France), Daiana Stolz (Basel, Switzerland)

09:30 Digitally supported self-management and rehabilitation of f-ILD patients
Marlies S. Wijsenbeek (Rotterdam, Netherlands)

09:45 Supportive care pathways for patients with f-ILDs and the impact of the COVID-19 pandemic
Elisabetta Renzoni (London, United Kingdom)

10:00 Standards of pulmonary rehabilitation in f-ILDs: where are we?
Anne Holland (Fitzroy North (VIC), Australia)

10:15 **The role of oxygen in the management of dyspnoea in f-ILDs**
Magnus Ekström (Lyckebý, Sweden)

10:30 **Discussion and Q&A**

8G (live-streamed) Session 09:30 - 11:00

Hot topics: Beyond COVID - Translating COVID treatment successes to all-cause ARDS

Aims : The overall aim of the session is to demonstrate that COVID ARDS may serve as model for all-cause ARDS, and to explain how COVID research data may help to improve the medical management of all-cause ARDS. The target audience involves from translational and clinical scientists, as well as respiratory intensive care physicians.

After the session, attendants will be able to identify:

1. How phenotypic data that have been collected during the COVID pandemic, will help to distinguish ARDS phenotypes that are most likely to respond to treatment.
2. Which of the treatments that were tested during the COVID pandemic, are potential novel candidates for treatment of ARDS.
3. How research infrastructure developed in response to the COVID pandemic will help to speed up drug development for ARDS.

Disease(s) : Pulmonary vascular diseases Respiratory critical care

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

Tag(s) : COVID

Target audience : Clinical researcher, Medical Student, Respiratory critical care physician, Physiologist

Chairs : Judith Garcia Aymerich (Barcelona, Spain), Miriam Barrecheguren Fernandez (Barcelona, Spain), Chair to be confirmed

09:30 **Translating COVID biomarkers to treatable traits in ARDS**

09:45 **Targeting novel pathways to dampen the inflammatory response**

10:00 **Improving vascular stability to enhance alveolocapillary function in ARDS**
Jurjan Aman (Amsterdam, Netherlands)

10:15 **Adaptive platform trials - Shifting gears from COVID to tailored ARDS interventions**
Carolyn Calfee (San Francisco, United States)

10:30 **Discussion and Q&A**

8H (live-streamed) Session 09:30 - 11:00

Hot topics: Moving to prevention of preschool wheeze and asthma: almost there?

Aims : Wheezing and asthma treatment aim at preventing disease exacerbations and preservation of lung function. The initial manifestation of a later asthmatic patient may be prolonged preschool wheezing during and after viral infection. In this early age group, viral infections are common and also later respiratory viruses are generally involved in 40-60% of asthma exacerbations. Bacterial lysates prevent recurrent respiratory tract infections and might therefore reduce asthma exacerbations. Immunomodulatory effects have been observed in human and animal studies. These seems to be dependent on increased T-helper (Th)1-cell activation and Th2-cell suppression. These favourable effects of bacterial lysates indicate that they show promise as add-on therapy in preschool wheezing and childhood asthma. The aim of this session will be to 1) discuss viral infections as asthma triggers, 2) describe the background and possible mechanisms using bacterial lysate therapy and 3) summarize the recent research findings suggesting beneficial effects on asthma exacerbation frequency.

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

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

Tag(s) : Clinical

Target audience : Clinical researcher, General practitioner, Medical Student, Paediatrician, Patient, Physiologist, Journalist

Chairs : Monika Gappa (Düsseldorf, Germany), Alexander Möller (Zürich, Switzerland)

09:30 **Immune system functioning and reaction to infection and inflammation**
Speaker to be confirmed

09:45 **Factors and mechanisms of preschool wheeze**
Sejal Saglani (London, United Kingdom)

10:00 **Pediatric trials using bacterial lysates**
Speaker to be confirmed

10:15 Asthma prevention in 2022
Speaker to be confirmed

10:30 Discussion and Q&A

8C (live-streamed) Session 09:30 - 11:00

Clinical cases: Lungs on fire: Lung cancer?

Aims : To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.

Disease(s) : Respiratory infections 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 : Georgia Hardavella (Athens, Greece), Torsten Gerriet Blum (Berlin, Germany), Joanna Chorostowska-Wynimko (Warsaw, Poland)

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

09:30 Case 1 - Presentation by the session facilitator
Andriani Charpidou (Athens, Greece)

09:52 Case 2 - Presentation by the session facilitator
Sam Janes (London, United Kingdom)

10:14 Case 3 - Presentation by the session facilitator
Andriani Charpidou (Athens, Greece)

10:36 Case 4 - Presentation by the session facilitator
Sam Janes (London, United Kingdom)

8A (live-streamed) Session 09:30 - 11:00

State of the art session: Airway diseases

Precision medicine for Asthma, COPD and Chronic Cough: New drugs, new biomarkers & new approaches

Aims : At the conclusion of the session the participant will be able to:

1. Obtain an understanding of an individual's ageing patterns and understand how these can impact future clinical outcomes
2. Understand the identification and treatment options for people with chronic cough
3. Understand and where applicable be able to apply relevant biomarkers in their clinical practice
4. Gain insight into the barriers and facilitators of using pulmonary rehabilitation as a vehicle to implement a treatable traits approach

Disease(s) : Airway diseases Respiratory critical care

Method(s) : Epidemiology General respiratory patient care Pulmonary rehabilitation

Tag(s) : Clinical

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

Chairs : Apostolos Bossios (Stockholm, Sweden), Emer Kelly (Dublin 4, Ireland)

09:30 GETomics: integrating the time axis in our understanding of COPD
Alvar Agusti Garcia-Navarro (Barcelona, Spain)

09:45 The interrelatedness of chronic cough and chronic pain
Jaclyn Smith (Manchester (Greater Manchester), United Kingdom)

10:00 Biomarkers for airway diseases in clinical practice
Florence Schleich (Liège, Belgium)

10:15 Airway mucus function, assessment and treatment in asthma and COPD
Speaker to be confirmed

10:30 Discussion and Q&A

Studio **Session** **10:00 - 10:30****Guidelines session: Idiopathic pulmonary fibrosis: an update of diagnosis and treatment recommendations**

Official ATS/ERS/JRS/ALAT Clinical Practice Guidelines

Disease(s) : Interstitial lung diseases**Method(s)** : General respiratory patient care**Tag(s)** : Clinical**Target audience** : Adult pulmonologist/Clinician, Medical Student, Physician in Pulmonary Training, Clinical researcher, General practitioner**Chairs** : Andrew Bush (London, United Kingdom)**10:00 Discussion and Q&A**
Maria Molina Molina (Barcelona, Spain), Speaker to be confirmed**8D** **Session** **10:20 - 12:40****Skills workshop: SW2 Exercise, muscle and sleep assessment and interpretation: tips and pitfalls**
Tips and pitfalls in exercise, muscle and sleep assessment**Aims** : To describe “typical” patterns of responses to exercise, muscle and sleep and to determine methods to distinguish these responses from “anomalous” response profiles that can cause misinterpretation of test results.**Disease(s)** : Sleep and breathing disorders**Method(s)** : Imaging Physiology Pulmonary function testing Pulmonary rehabilitation Respiratory intensive care**Tag(s)** : Clinical**Target audience** : Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Respiratory critical care physician, Journalist**Chairs** : Sophia E. Schiza (Heraklion, Greece)**10:20 Introduction****10:20 Cardiopulmonary exercise testing: breathing patterns and dynamic hyperinflation**
Michele Schaeffer (Leuven, Belgium)**10:20 Respiratory and locomotor muscle testing in clinical practice**
Samuel Verges (Grenoble, France)**10:20 From different pathophysiological traits revealed by polysomnography to treatment indications or combination of therapies**
Speaker to be confirmed**10:20 Implementation, titration and follow-up of positive airway pressure in patients with obstructive sleep apnoea**
Athanasia Pataka (Thessaloniki, Greece)**Studio** **Session** **10:45 - 11:15****Guidelines session: Transbronchial (cryo)biopsy and surgical lung biopsy in interstitial lung diseases****Disease(s)** : Interstitial lung diseases Thoracic oncology**Method(s)** : General respiratory patient care Endoscopy and interventional pulmonology Imaging**Tag(s)** : Clinical**Target audience** : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Physician in Pulmonary Training, Medical Student, Thoracic oncologist, Thoracic surgeon, Radiologist**Chairs** : Andrew Bush (London, United Kingdom)**10:45 Discussion and Q&A**
Venerino Poletti (Forli, Italy), Speaker to be confirmed

8H (live-streamed) Session 11:15 - 12:45**Symposium: Lung function testing from preschool age to adolescence: are we done with spirometry?****From technical recommendations to real-life use**

Aims : to update the knowledge of the audience about different lung function tests applicable from preschool age to adolescence by reviewing the most recent technical changes and the clinical use of these techniques; to explore the accuracy of respiratory mechanics measurements in assessment of bronchial reactivity in asthmatic children, the clinical applications of oscillometry in children, the swift ascent of the measurement of ventilation heterogeneity as a primary outcome in cystic fibrosis patients and the accuracy of new developments in spirometry that have been accelerated by the ongoing COVID-19 pandemic.

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

Method(s) : Epidemiology Physiology Pulmonary function testing

Tag(s) : Clinical

Target audience : Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Physiologist

Chairs : Monika Gappa (Düsseldorf, Germany), Alexander Möller (Zürich, Switzerland)

11:15 The interrupter technique: from reference values to bronchial reactivity assessment
Nicole Beydon (Paris, France)

11:30 Oscillometry in children: from reference values to clinical use
Enrico Lombardi (Florence, Italy)

11:45 Multiple breath washout techniques: from the technical consensus statement to clinical use
Paul Robinson (Sydney (NSW), Australia)

12:00 Spirometry: from implications of new recommendations to home-based spirometry during pandemics
Margaret Rosenfeld (Seattle, United States)

12:15 Discussion and Q&A

8G (live-streamed) Session 11:15 - 12:45**Hot topics: Launch of "Lung facts"****Using data to create a transformation in respiratory healthcare**

Aims : This session will launch and present the findings of the new "Lung Facts". As a major step forward from the European Lung White Book, published >10 years ago, Lungs Facts is a web-based resource presenting all the key epidemiological and economic data for key respiratory conditions across WHO Europe and by each WHO Europe country, which will now be updated regularly.

"Lung Facts" will act a key advocacy tool in the context of the International Respiratory Coalition (IRC) to raise the profile of lung health following on from the devastating impact of the COVID-19 pandemic on respiratory health across the globe.

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

Tag(s) : Clinical

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

Chairs : Judith Garcia Aymerich (Barcelona, Spain), Miriam Barrecheguren Fernandez (Barcelona, Spain), Chair to be confirmed

11:15 What do we know and where are the gaps

11:30 The economics
Speaker to be confirmed

11:45 Areas for action
Guy F. Joos (Ghent, Belgium)

12:00 Having a national impact
Chantal Raheison-Semjen (Ponite-à-Pitre, Guadeloupe)

12:15 Discussion and Q&A

8A (live-streamed) Session 11:15 - 12:45**Clinical trials session: ALERT 1**

Aims : Including the ALERT sessions (Abstracts Leading to Evolution in Respiratory Medicine Trials), these formats showcase important and very late-breaking clinical trial data from all respiratory disease areas. Presenters, session chairs and viewers will take part lively discussions on the presented trials.

Tag(s) : Clinical**Chairs** : Apostolos Bossios (Stockholm, Sweden), Emer Kelly (Dublin 4, Ireland)

11:15

11:30

11:45

12:00

12:15

12:30

12:45

13:00

8C (live-streamed) Session 11:15 - 12:45**State of the art session: Thoracic oncology****Unravelling lung cancer mazes; a call for aggressive approach**

Aims : This session will highlight the latest developments and controversies in lung cancer management. Four key areas will be covered that have provided critical new observations in the past year and consolidated updates will be offered to improve clinical management of lung cancer patients .

Disease(s) : Thoracic oncology**Method(s)** : Cell and molecular biology Palliative care Surgery**Tag(s)** : Clinical

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

Chairs : Georgia Hardavella (Athens, Greece), Torsten Gerriet Blum (Berlin, Germany), Joanna Chorostowska-Wynimko (Warsaw, Poland)

11:15 **Does aggressive surgical management of oligometastatic disease pay off?**
Stefano Elia (Roma (RM), Italy)

11:30 **Recent Advances in NSCLC novel targeted therapies and Implications for Current Practice**
Jan van Meerbeeck (Edegem (Antwerp), Belgium)

11:45 **Incorporating Immunotherapy in early stage lung cancer management**
Joanna Chorostowska-Wynimko (Warsaw, Poland)

12:00 **Dyspnoea management in lung cancer; pandora's box?**
Irene Higginson (London, United Kingdom)

12:15 **Discussion and Q&A**

8B (live-streamed) Session 11:15 - 12:45**Journal session: The Best of the European Respiratory Journal 2022**

Aims : The highlight the best articles published in the European Respiratory Journal over the past 12 months

To provide an up to date review of the latest developments in 3 key respiratory fields

- interstitial lung disease

- COVID19

- Respiratory Epidemiology

Disease(s) : Interstitial lung diseases Respiratory infections**Method(s)** : Cell and molecular biology Epidemiology General respiratory patient care**Tag(s)** : Translational

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), Respiratory therapist, Journalist

Chairs : Anh Tuan Dinh-Xuan (Paris, France), Daiana Stolz (Basel, Switzerland)

11:15 Interstitial Lung Disease
Marlies S. Wijsenbeek (Rotterdam, Netherlands)

11:30 COVID-19
Tobias Welte (Hannover, Germany)

11:45 Respiratory Epidemiology
Isabella Annesi Maesano (Montpellier, France)

12:00 The ERJ, past, present and future
Martin Kolb (Hamilton (ON), Canada)

12:15 Discussion and Q&A

8N Session 11:15 - 12:30

Mini symposium: Learning is a treasure that follows his owner everywhere Yernaut lecture session

Aims : To illustrate how the joy of learning, distinct curiosity and work endurance advance career

Chairs : Marion Delcroix (Leuven, Belgium), Richard Costello (Dublin 9, Ireland)

11:15 Introduction
Richard Costello (Dublin 9, Ireland)

11:25 From respiratory research to clinical needs: the role model illustrates the way
Silvia Ulrich (Zurich, Switzerland)

11:45 Education and interdisciplinary research in a globalized world: physicians' and allied health professionals' view
Mona Lichtblau (Zürich, Switzerland), Stéphanie Saxer (Zürich, Switzerland)

12:00 Discussion and Q&A

12:20 Teaching awards

Studio Session 11:30 - 12:30

Skills lab: Patient ventilator asynchrony (PVA) from ICU to home

Aims : To describe major PVA in the intensive care, its clinical consequences and how to treat them; To describe major PVA during Home mechanical ventilation and propose a specific algorithm; Using case vignettes to provide guidance to understand PVA and how to solve them.

Chairs : Leo Heunks (Amsterdam, Netherlands), Marieke L. Duiverman (Groningen, Netherlands), Chair to be confirmed

11:30 Introduction

11:35 PVA in intensive care: Do we know what to do now?
Speaker to be confirmed

11:50 PVA at home: How and what to check in a "lifetime ventilation"?
Speaker to be confirmed

12:05 Let's set the ventilator treating asynchronies: Do all the roads lead to Rome?
Jesus Gonzalez Bermejo (Montlignon, France)

12:20 Q&A

Studio Session 13:00 - 14:30

Skills lab: Paediatric lung function and sleep measurements

Aims : To describe the physiology, indications, technical aspects and criteria for quality acceptability of lung function and sleep measurements

To complete the interpretation of different lung function tests and results, and polysomnography fragments and results

To understand the clinical implication of lung function and polysomnography results thanks to short clinical cases presented and discussed

Target audience : Paediatrician

Chairs : Refika Hamutcu Ersu (Ottawa, Canada), Nicole Beydon (Paris, France)

13:00 Introduction**13:05 Static lung volumes, and spirometry measurements**
Christiane Lex (Goettingen, Germany)**13:18 Clinical case: Spirometry and bronchodilator****13:25 Multiple breath washout**
Paul Robinson (Sydney (NSW), Australia)**13:38 Clinical case: MBW technique in children****13:45 Scoring sleep and respiratory events on polysomnography**
Stijn Verhulst (Antwerpen, Belgium)**13:58 Clinical case: Voting on PSG tracings****14:05 Sleep studies**
Hui Leng Tan (London, United Kingdom)**14:18 Clinical case: Differences between PSG and PG****14:25 Conclusion****8H (live-streamed)****Session****14:15 - 15:45****Symposium: Cell death modalities regulating the onset and progression of chronic lung diseases**
The therapeutic potential of modulating cellular fate**Aims :** to explain the relevance of different cell death modalities upon lung tissue damage in the development of various chronic lung diseases, including chronic obstructive pulmonary disease (COPD), interstitial lung disease and COVID-19; to differentiate between different cell death modalities and the underlying molecular mechanisms; to describe the immunological and pathological consequences of different cell death modalities; to explain the role of specific cell death modalities in the pathophysiology of chronic lung diseases; to provide insight into the therapeutic potential of cellular fate regulation in chronic lung diseases.**Disease(s) :** Airway diseases Interstitial lung diseases Respiratory infections**Method(s) :** Cell and molecular biology**Tag(s) :** Translational**Target audience :** Clinical researcher, Medical Student, Paediatrician, Pathologist, Scientist (basic, translational)**Chairs :** Silke Meiners (Sülfeld, Germany), Reinoud Gosens (Groningen, Netherlands)**14:15 Introduction to cell death modalities and their role in the progression of chronic lung diseases**
Simon D. Pouwels (Zuidhorn, Netherlands)**14:30 Does structural lung cell death contribute to clinical outcomes of patients with COVID-19?**
Speaker to be confirmed**14:45 Cell death modalities and their relevance to the development of interstitial lung disease**
Speaker to be confirmed**15:00 Clinical importance of cell death modalities in COPD: from necroptosis to ferroptosis**
Ken Bracke (Ghent, Belgium)**15:15 Discussion and Q&A****8G (live-streamed)****Session****14:15 - 15:45****Symposium: What I learned from Covid-19 to manage my current patients better**
Onboarding of COVID-19 practices to improve non covid care pathways and outcomes**Aims :** This session will discuss learnings from COVID-19 that can be implemented in respiratory care or access to care pathways beyond the COVID-pandemic.

Disease(s) : Airway diseases Paediatric respiratory diseases Respiratory critical care**Method(s) :** General respiratory patient care Pulmonary rehabilitation Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Paediatrician, Physician in Pulmonary Training, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist, Journalist**Chairs :** Anita Simonds (London, United Kingdom), Thierry Troosters (Leuven, Belgium)**14:15 Management of severe acute respiratory failure**
Stefano Nava (Bologna (BO), Italy)**14:30 How will digital health change care for obstructive lung disease after the pandemic?**
Niels H. Chavannes (Leiden, Netherlands)**14:45 Rehabilitation accessible to all**
Anne Holland (Fitzroy North (VIC), Australia)**15:00 Care for children with chronic respiratory disease**
Monika Gappa (Düsseldorf, Germany)**15:15 Discussion and Q&A****8C (live-streamed)****Session****14:15 - 15:45****Clinical cases: Lungs on fire: Pulmonary vascular diseases?****Aims :** To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.**Disease(s) :** Pulmonary vascular diseases Respiratory infections**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Nurse, Physician in Pulmonary Training, Radiologist, Respiratory critical care physician, Medical Student**Chairs :** Mona Lichtblau (Zürich, Switzerland), Marc Humbert (Le Kremlin-Bicêtre, France), Yochai Adir (Haifa, Israel)**Discussants :** Silvia Ulrich (Zurich, Switzerland), David Jiménez Castro (Madrid, Spain)**14:15 Case 1 - Presentation by the session facilitator**
Silvia Ulrich (Zurich, Switzerland)**14:37 Case 2 - Presentation by the session facilitator**
David Jiménez Castro (Madrid, Spain)**14:59 Case 3 - Presentation by the session facilitator**
Silvia Ulrich (Zurich, Switzerland)**15:21 Case 4 - Presentation by the session facilitator**
David Jiménez Castro (Madrid, Spain)**8A (live-streamed)****Session****14:15 - 15:45****State of the art session: Respiratory infections****Aims :** To review the most relevant topics related to respiratory infection of 2021-2022**Disease(s) :** Respiratory infections**Method(s) :** Cell and molecular biology Public health Pulmonary rehabilitation**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Nurse, Respiratory critical care physician, Paediatrician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Respiratory therapist, Journalist**Chairs :** Eva Polverino (Barcelona, Spain), Holly R. Keir (Dundee (Angus), United Kingdom), Giovanni Sotgiu (Porto Torres (SS), Italy)**14:15 The lung microbiome and pneumonia: is dysbiosis the new pathway to investigate these infections?**
Speaker to be confirmed

14:45 The role of new diagnostics in managing respiratory infections
Daniela Maria Cirillo (Milano (MI), Italy)

14:30 How the new vaccine technology can modify the history of respiratory infections
Tobias Welte (Hannover, Germany)

15:00 New drugs and regimens in tuberculosis
Christoph Lange (Borstel, Germany)

15:15 Discussion and Q&A

8D Session 14:30 - 16:50

Skills workshop: SW3 Exercise, muscle and sleep assessment and interpretation: tips and pitfalls Tips and pitfalls in exercise, muscle and sleep assessment

Aims : To describe “typical” patterns of responses to exercise, muscle and sleep and to determine methods to distinguish these responses from “anomalous” response profiles that can cause misinterpretation of test results.

Disease(s) : Sleep and breathing disorders

Method(s) : Imaging Physiology Pulmonary function testing Pulmonary rehabilitation Respiratory intensive care

Tag(s) : Clinical

Chairs : Pierantonio Laveneziana (Paris, France)

14:30 Introduction

14:30 Cardiopulmonary exercise testing: breathing patterns and dynamic hyperinflation
Pierantonio Laveneziana (Paris, France)

14:30 Respiratory and locomotor muscle testing in clinical practice
Daniel Langer (Leuven, Belgium)

14:30 From different pathophysiological traits revealed by polysomnography to treatment indications or combination of therapies
Stefania Redolfi (Paris, France)

14:30 Implementation, titration and follow-up of positive airway pressure in patients with obstructive sleep apnoea
Athanasia Pataka (Thessaloniki, Greece)

8C (live-streamed) Session 16:00 - 17:30

Symposium: Update on pulmonary embolism management

Aims : to discuss guidelines that help identify risk factors for pulmonary embolism (PE) and venous thromboembolism (VTE); to debate definitions and their major impact on management of the disease (extended vs. short-term anticoagulant therapy); to assess the adequacy of these risk factors and whether treatment with direct-acting oral anticoagulants should reconsider any of them; to review the scores and data available to help decide when to continue or suspend anticoagulant treatment; to review the risk of thrombosis associated with COVID-19; to describe anticoagulation regimens used to treat VTE and prophylaxis to prevent recurrence in hospitalised patients; to explain the proper anticoagulation strategies for hospitalised COVID-19 patients and define the proper anticoagulation for outpatients in the active or convalescent phase of infection.

Disease(s) : Pulmonary vascular diseases Respiratory infections Thoracic oncology

Method(s) : General respiratory patient care

Tag(s) : Clinical

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

Chairs : Mona Lichtblau (Zürich, Switzerland), Marc Humbert (Le Kremlin-Bicêtre, France), Yochai Adir (Haifa, Israel)

16:00 Cancer-associated thrombosis: case fatality rates and scores to balance the risks and benefits of long-term anticoagulant treatment
Marc Carrier (Ottawa (ON), Canada)

16:15 Prevention and treatment of pulmonary embolism related to COVID-19
Stéphane Zuily (Nancy, France)

16:30 Relevance of the term “provoked” in the management of PE: PRO
Francis Couturaud (Brest, France)

16:45 **Relevance of the term “provoked” in the management of PE: CON**
Speaker to be confirmed

17:00 **Discussion and Q&A**

8G (live-streamed) Session 16:00 - 17:30

Symposium: Post-critical care long COVID: reducing the physical and emotional toll
Pathophysiological mechanisms, assessments and therapeutic options in patients with long COVID following intensive care unit admission

Aims : to discuss the pathophysiological mechanisms of post-intensive care unit (ICU) long COVID; to explore how to wean from mechanical ventilation and the therapeutic modalities of inpatient physiotherapy and outpatient rehabilitation; to discuss the psychological and cognitive aspects of post-ICU long COVID, particularly the assessment and support of these patients.

Disease(s) : Respiratory critical care Respiratory infections

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

Tag(s) : COVID

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Respiratory therapist, Journalist

Chairs : Anita Simonds (London, United Kingdom), Thierry Troosters (Leuven, Belgium)

16:00 **Pathophysiology of post-ICU long COVID syndrome**
Negin Hajizadeh (Madrid, Spain)

16:15 **Prolonged mechanical ventilation and physiotherapy for COVID patients in ICUs**
Nicholas Hart (London, United Kingdom)

16:30 **Managing anxiety, depression and cognitive impairment to promote recovery**

16:45 **Rehabilitation modalities to address physical morbidity and support recovery**
Mara Paneroni (Mazzano (BS), Italy)

17:00 **Discussion and Q&A**

8H (live-streamed) Session 16:00 - 17:30

Symposium: Reflections from the 2022 Lung Science Conference

Aims : The ERS Lung Science Conference is at the forefront of basic and translational respiratory science and it is an essential event for budding respiratory researchers looking to boost their career. It offers a unique opportunity to network with peers from across the globe and aims to present cutting-edge abstracts on novel experimental lung research. The Lung Science Conference 2022 took place on March 10-13 in Estoril, Portugal with the overarching theme Mucosal immunology of the lung: balancing protective immunity and chronic inflammation. This session features a selection of scientific presentations that were given at this conference. In addition, the session highlights the winners of the William MacNee Award - for young presenters (40 years old or less at the time of the Conference) who submitted an outstanding abstract, and of the Geoffrey Laurent Award - for the Best Oral presentation.

Disease(s) : Airway diseases Interstitial lung diseases

Method(s) : Cell and molecular biology

Tag(s) : Basic science

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

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

16:00 **The discovAIR project: a roadmap towards the Human Lung Cell Atlas.**
Speaker to be confirmed

16:15 **Human CD116+ fetal liver progenitors migrate to the perinatal lung and give rise to alveolar macrophages in vivo**
Elza Evren (Stockholm, Sweden)

16:22 **Inflammatory blood neutrophils in COPD stem from activated bone marrow progenitors**
Theodore Kapellos (Mannheim, Germany)

16:29 **Local and systemic response to SARS-CoV-2 infection in children and adults**
Speaker to be confirmed

16:44 **Virus provided protection against allergic asthma**
Laurent Gillet (Liège, Belgium)

16:59 **Discussion and Q&A**

8A (live-streamed) Session 16:00 - 17:30

Clinical cases: Lungs on fire: Respiratory infections?

Aims : To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.

Disease(s) : Respiratory infections

Tag(s) : Clinical

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

Chairs : Eva Polverino (Barcelona, Spain), Holly R. Keir (Dundee (Angus), United Kingdom), Giovanni Sotgiu (Porto Torres (SS), Italy)

Discussants : Daiana Stolz (Basel, Switzerland), James D. Chalmers (Dundee (Angus), United Kingdom)

16:00 **Case 1 - Presentation by the session facilitator**
Daiana Stolz (Basel, Switzerland)

16:22 **Case 2 - Presentation by the session facilitator**
James D. Chalmers (Dundee (Angus), United Kingdom)

16:44 **Case 3 - Presentation by the session facilitator**
Daiana Stolz (Basel, Switzerland)

17:06 **Case 4 - Presentation by the session facilitator**
James D. Chalmers (Dundee (Angus), United Kingdom)

Studio Session 16:30 - 17:30

Skills lab: Hypoxic challenge and oxygen assessments

Aims : To gain skills and background knowledge to perform hypoxic challenge and oxygen assessments utilising blood gas analysis according to best practice and in accordance with the latest recommendations

- Basic principles, techniques, physiology in the performance of a hypoxic challenge test
- Basic principles, techniques, physiology in the performance of oxygen assessments
- Basic principles, techniques, physiology in the performance of arterial/capillary blood gas analysis
- Standardisation of test performance in accordance with latest best practice guidelines:

Background knowledge to perform, compile reports, interpret the tests and the technical and physiological knowhow to perform the tests

Chairs : Karl Sylvester (Cambridge (Cambridgeshire), United Kingdom), Chair to be confirmed

16:30 **Blood gases**
Speaker to be confirmed

16:45 **Q&A**
Speaker to be confirmed

16:50 **Oxygen assessment**

17:05 **Q&A**

17:10 **Hypoxic challenge**
Rachel Ong-Salvador (Amsterdam, Netherlands)

17:25 **Q&A**
Rachel Ong-Salvador (Amsterdam, Netherlands)

8D Session 08:00 - 10:20**Skills workshop: SW4 Cardiopulmonary rehabilitation beyond the basics**

Aims : To describe diagnostic methods and interventions that enhance the comprehensiveness of cardiopulmonary rehabilitation programmes and contribute to a more patient-tailored approach; to describe methods of assessing physical activity level in patients referred for cardiopulmonary rehabilitation and methods of providing cognitive behavioural therapy to promote physical activity; to describe neuromuscular electrical stimulation and the patients referred for cardiopulmonary rehabilitation who could benefit from this treatment; and to describe the incorporation of mindfulness-based interventions into cardiopulmonary rehabilitation and their outcomes.

Disease(s) : Airway diseases

Method(s) : Pulmonary rehabilitation

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Respiratory therapist, Medical Student, Medical Technical Assistant, Nurse, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Journalist

Chairs : Heleen Demeyer (Leuven, Belgium)

08:00 Introduction

08:00 Physical activity assessment and intervention
Chris Burtin (Diepenbeek, Belgium)

08:00 Neuromuscular electrical stimulation
Anouk W. Vaes (Horn, Netherlands)

08:00 Frailty assessment and intervention
Roberto Benzo (Rochester, United States)

08:00 Mindfulness interventions during cardiopulmonary rehabilitation
Ingeborg Farver-Vestergaard (Vejle, Denmark)

Studio Session 08:45 - 09:15**Experts interview: Introduction - Interview**

Chairs : Richard Costello (Dublin 9, Ireland), Christopher E. Brightling (Leicester (Leicestershire), United Kingdom)

08:45 Discussion and Q&A

8C (live-streamed) Session 09:30 - 11:00**Symposium: Treatment of acute respiratory failure in chronic obstructive pulmonary disease patients**

Aims : to provide an update on and discuss existing and new treatment options for acute respiratory failure due to chronic obstructive pulmonary disease (COPD) exacerbations; to discuss long-term outcomes and treatment options to change the long-term consequences of severe COPD exacerbations.

Disease(s) : Airway diseases Respiratory critical care

Method(s) : Palliative care Respiratory intensive care

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Medical Technical Assistant, Nurse, Respiratory critical care physician, Respiratory physiotherapist, Journalist

Chairs : Leo Heunks (Amsterdam, Netherlands), Miriam Barrecheguren Fernandez (Barcelona, Spain)

09:30 Evidence-based recommendations for non-invasive ventilation in patients with acute COPD exacerbations
Marieke L. Duiverman (Groningen, Netherlands)

09:45 Nasal high-flow therapy for acute COPD exacerbations: the new kid on the block
Paolo Navalesi (Padova, Italy)

10:00 Invasive mechanical ventilation and extracorporeal CO₂ removal in patients with acute COPD exacerbations
Christian Karagiannidis (Cologne, Germany)

10:15 Long-term outcomes after severe COPD exacerbations
Rebecca D'Cruz (London, United Kingdom)

10:30 Discussion and Q&A

8G (live-streamed) Session 09:30 - 11:00**Symposium: Dangers in the air we breathe**

Aims : to present recent scientific highlights about the effects of airborne pollution factors, especially allergens, diesel exhaust particles, microplastics and microtextiles, on the lungs; to compare their effects in children and adults; to discuss the biology of allergen-induced lung disease; to describe biological sex differences in response to exposure to these factors. The dangers of airborne environmental factors to the human lung are of great and diverse interest due to the current strong international focus on climate change and air pollution.

Disease(s) : Airway diseases Paediatric respiratory diseases

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

Tag(s) : Translational

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

Chairs : Charlotte Suppli Ulrik (Virum, Denmark), Catherine Greene (Dublin 9, Ireland)

09:30 Overview of environmental factors affecting allergic airway disease
Cezmi A. Akdis (Davos, Switzerland)

09:45 Smoke, smog and aeroallergens: effects on children and adults
Mary Rice (Boston, United States)

10:00 Microplastics and microfibres in the air we breathe
Barbro N. Melgert (Groningen, Netherlands)

10:15 Effects of inhaled diesel exhaust particles on airway inflammation
Neeloffer Mookherjee (Winnipeg (MB), Canada)

10:30 Discussion and Q&A

8B (live-streamed) Session 09:30 - 11:00**Clinical trials session: ALERT 2**

Aims : Including the ALERT sessions (Abstracts Leading to Evolution in Respiratory Medicine Trials), these formats showcase important and very late-breaking clinical trial data from all respiratory disease areas. Presenters, session chairs and viewers will take part lively discussions on the presented trials.

Tag(s) : Clinical

Chairs : Ayşe Arzu Yorgancıoğlu (Konak, Turkey), Chair to be confirmed

09:30

09:45

10:00

10:15

10:30

10:45

11:00

11:15

8A (live-streamed) Session 09:30 - 11:00**State of the art session: Interstitial lung diseases**

Trends, controversies and open questions in ILD

Aims : Interstitial lung diseases comprise many different entities, mainly chronic forms with significant morbidity and mortality, especially in fibrosing subforms. In recent years, significant insights have been gained in many different forms of these rare lung diseases. While being rare ILDs, our knowledge on cystic lung diseases, such as lymphangioleiomyomatosis (LAM), is increasing and new treatment options are on the horizon. Also for different forms of pulmonary complications of autoimmune diseases, which commonly affect the lungs, new treatment options have been licensed recently; however, diagnosing these rare diseases is challenging and an update on these 2 rare lung disease entities will be given. Drug induced lung diseases are an important differential diagnosis of ILDs which are challenging to diagnose and more challenging to treat. The website pneumotox.com guides the clinician through this very complicated disease entity and a structured overview on this disease entity will be given. Finally, one of the most debilitating complications of -mainly fibrosing- ILDs are acute exacerbations - a still neglected field where however new insights have been achieved recently.

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

Method(s) : Imaging Respiratory intensive care

Tag(s) : Clinical

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

Chairs : Katerina Antoniou (Heraklion, Greece), Karen Moor (Rotterdam, Netherlands), Sergio Harari (Milano (MI), Italy)

09:30 **New trends in cystic lung diseases**
Cormac McCarthy (Dublin 4, Ireland)

09:45 **Acute exacerbations of fibrosing ILDs: controversies and new insights**
Michael Kreuter (Heidelberg, Germany)

10:00 **Pulmonary manifestations in autoimmune diseases**
Elisabeth Bendstrup (Aarhus N, Denmark)

10:15 **Drug induced lungs: past, present and future**
Philippe Camus (Dijon, France)

10:30 **Discussion and Q&A**

Studio Session 09:30 - 12:15

Skills lab: Interventional pulmonology

Aims : To demonstrate bronchoscopic techniques for the diagnosis, nodal staging and treatment of lung cancer
To provide update on novel interventional techniques
To demonstrate how to perform cryobiopsy in ILD
To demonstrate how do to rigid thoracoscopy and pleuro desis for suspected pleural malignancy.
To demonstrate TUS in various pulmonary diseases including interventions

Chairs : Daniela Gompelmann (Vienna, Austria), Chair to be confirmed

09:30 **Introduction**

09:35 **Diagnostic bronchoscopic procedures: Cryobiopsy for ILD**
Claudia Ravaglia (Forlì, Italy)

09:50 **Diagnostic bronchoscopic procedures: Bronchoscopic Access to peripheral lesions using conebeam + radial ebus**
Erik H.F.M. van der Heijden (Nijmegen, Netherlands)

10:05 **Diagnostic bronchoscopic procedures: Combined EBUS and EUS-B for lung cancer staging**
Speaker to be confirmed

10:20 **Diagnostic bronchoscopic procedures: Cryo – TBNA for lung and mediastinal diagnosis**
Felix J.F. Herth (Heidelberg, Germany)

10:35 **Q&A**

10:45 **Break**

11:00 **Therapeutic bronchoscopic/pleural procedures: Airway recanalization for central airway obstruction**
Speaker to be confirmed

11:15 **Therapeutic bronchoscopic/pleural procedures: Radiofrequent ablation for bronchoscopic lungtumor treatment**
Speaker to be confirmed

11:30 Therapeutic bronchoscopic/pleural procedures: One stop Rapid Pleurodesis - Thoracoscopic Talc Poudrage for malignant pleural effusions
Mohammed Munavvar (Preston (Lancashire), United Kingdom)

11:45 Therapeutic bronchoscopic/pleural procedures: Bronchial thermoplasty and Optical Coherence Tomography for severe asthma
Peter I. Bonta (Amsterdam, Netherlands)

12:00 Q&A

8F Session 09:45 - 11:00

Mini symposium: Deconstructing the developing lung at the single cell level to determine phenotypes and cell-specific targets of bronchopulmonary dysplasia

Aims : Despite advances in neonatal medicine, bronchopulmonary dysplasia (BPD) remains the major complication of extremely preterm infants, with sequelae that persist beyond infancy and determine quality of life. It is noteworthy that BPD manifests in different phenotypes, complicating prevention and therapy.

The overall goal of this symposium is to contrast and differentiate cell-specific changes and cell-cell interdependency in the pathogenesis of BPD when compared to normal lung development in order to provide new phenotype-directed and cell-specific targeted strategies for prevention and treatment of BPD using systems biology approaches.

To this end, we propose a symposium with both world-leading scientists and upcoming promising researchers with complementary expertise including neonatal and pediatric intensive medicine, pediatric pulmonology, cellular and molecular biology, and bioinformatics. The specific aims of the symposium are:

- To define the evolution of lung cell heterogeneity and transcriptomic diversity at single cell resolution across late lung development.
- To differentiate phenotypes and endotypes of BPD using transcriptomic approaches together with clinical characteristics.
- To contrast individual cell types and their proportion in phenotypes of BPD using scRNASeq.
- To identify cell-cell communication and interdependency by combining systems biology with phenotypes of BPD.
- To describe new preventive and therapeutic strategies with cell-targeted approaches
- To decipher innovative avenues to protect and regenerate lungs through integration of transcriptomics, proteomics and individual risk.

This symposium will not only compare new cellular and molecular insights into the origins of different phenotypes of BPD, but also contrast cell-cell interaction and interdependency in healthy lungs and phenotypes of BPD. Beyond the novel mechanistic insight, the speakers will also describe exciting new therapeutic strategies such as cell-targeted therapy and how employing combined systems biology will drive precision medicine.

Disease(s) : Paediatric respiratory diseases Pulmonary vascular diseases

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

Tag(s) : Translational

Target audience : Medical Student, Paediatrician, Scientist (basic, translational)

Chairs : Niki Ubags (Epalinges, Switzerland), Chair to be confirmed

09:45 Phenotypic diversity of the lung vasculature during a period of rapid postnatal growth.
Cristina M. Alvira (Palo Alto, Stanford, United States)

10:00 Intercellular communication of the alveolar niche in postnatal lung health and bronchopulmonary dysplasia
Miguel Angel Alejandro Alcázar (Köln, Germany)

10:15 Novel therapeutic cell-based strategies for neonatal chronic lung disease: pros and cons
Bernard Thébaud (Ottawa (ON), Canada)

10:30 Discussion and Q&A

8M Session 09:45 - 11:00

Mini symposium: The two sides of every story: New translational insights in the heterogeneity of OSA effect and its treatment.

Aims : - To describe the latest evidence that support the notion about the heterogeneous effect of OSA and its treatment in different pathologies associated with this sleep breathing disorder.

- To identify the heterogenous effect of OSA and its treatment with CPAP, and its relationship with genetic background of the patient.

- To explain the latest the potential dual effect of OSA as deleterious disorder or potential promotor of protective mechanisms.

Disease(s) : Airway diseases Sleep and breathing disorders**Method(s)** : Cell and molecular biology Epidemiology Physiology**Tag(s)** : Translational**Target audience** : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Paediatrician, Physician in Pulmonary Training, Physiologist, Scientist (basic, translational)**Chairs** : Athanasia Pataka (Thessaloniki, Greece), Chair to be confirmed**09:45** **Differential effect of OSA and the response to its treatment: How does genetic background affect?**
Speaker to be confirmed**10:00** **Ischemic pre-conditioning in OSA: From animal models to clinical data.**
Claire Arnaud (Grenoble, France)**10:15** **From basic to clinical in the relationship between OSA and cancer.**
Speaker to be confirmed**10:30** **Discussion and Q&A****8D** **Session** **10:40 - 13:00****Skills workshop: SW5 Cardiopulmonary rehabilitation beyond the basics****Aims** : To describe diagnostic methods and interventions that enhance the comprehensiveness of cardiopulmonary rehabilitation programmes and contribute to a more patient-tailored approach; to describe methods of assessing physical activity level in patients referred for cardiopulmonary rehabilitation and methods of providing cognitive behavioural therapy to promote physical activity; to describe neuromuscular electrical stimulation and the patients referred for cardiopulmonary rehabilitation who could benefit from this treatment; and to describe the incorporation of mindfulness-based interventions into cardiopulmonary rehabilitation and their outcomes.**Disease(s)** : Airway diseases**Method(s)** : Pulmonary rehabilitation**Tag(s)** : Clinical**Target audience** : Adult pulmonologist/Clinician, Clinical researcher, Respiratory therapist, Respiratory physiotherapist, Medical Student, Medical Technical Assistant, Nurse, Patient, Physician in Pulmonary Training, Physiologist, Journalist**Chairs** : Frits M.E. Franssen (Horn, Netherlands)**10:40** **Introduction****10:40** **Physical activity assessment and intervention**
Heleen Demeyer (Leuven, Belgium)**10:40** **Neuromuscular electrical stimulation**
Maurice J.H. Sillen (Horn, Netherlands)**10:40** **Frailty assessment and intervention**
Roberto Benzo (Rochester, United States)**10:40** **Mindfulness interventions during cardiopulmonary rehabilitation**
Speaker to be confirmed**8G (live-streamed)** **Session** **11:15 - 12:45****Hot topics: The Human Lung Cell Atlas: a universal reference for all respiratory scientists****The closing symposium of the discovAIR H2020 project at the ERS International Congress****Aims** : This hot topic symposium will empower the participants to use the Human Lung Cell Atlas for their own translational or basic research. To achieve this, the hot topic symposium at ERS2022 will introduce the Human Lung Cell Atlas, provide use cases of the atlas, and illustrate the value of the atlas for basic and translational research into lung diseases. After this symposium, the participants will be able to find the Human Lung Cell Atlas, to access the Atlas for gene- or cell-type oriented queries for their own research activities, to be able to use the Atlas for harmonized cell-type annotation of their own datasets and to contrast their own data from lung disease samples to the universal healthy reference present in the Atlas.**Disease(s)** : Airway diseases Interstitial lung diseases Paediatric respiratory diseases**Method(s)** : Cell and molecular biology Physiology**Tag(s)** : Basic science**Target audience** : Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Paediatrician, Pathologist, Physician in Pulmonary Training, Physiologist, Scientist (basic, translational), Thoracic oncologist, Journalist**Chairs** : Catherine Greene (Dublin 9, Ireland), Charlotte Suppli Ulrik (Virum, Denmark)

11:15 The Human Lung Cell Atlas: how to use this universal reference for the cellular landscape of healthy lung to answer your own research questions
Speaker to be confirmed

11:30 Spatial transcriptomics reveals variation in cellular neighborhoods and transcriptional programs in healthy and diseased lung tissue.
Speaker to be confirmed

11:45 A unique IgA-producing plasma cell niche in submucosal glands revealed by spatially informed single-cell transcriptomic analyses.
Speaker to be confirmed

12:00 Multi-modal analysis of subtissular niches and cell circuits in chronic lung disease.
Herbert Schiller (Munich, Germany)

12:15 Discussion and Q&A

8A (live-streamed) Session 11:15 - 12:45

Clinical cases: Lungs on fire: Interstitial lung diseases?

Aims : To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.

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

Tag(s) : Clinical

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

Chairs : Katerina Antoniou (Heraklion, Greece), Sergio Harari (Milano (MI), Italy), Michael Kreuter (Heidelberg, Germany)

Discussants : Maria Molina Molina (Barcelona, Spain), Paolo Spagnolo (Padova (PD), Italy)

11:15 Case 1 - Presentation by the session facilitator
Maria Molina Molina (Barcelona, Spain)

11:37 Case 2 - Presentation by the session facilitator
Paolo Spagnolo (Padova (PD), Italy)

11:59 Case 3 - Presentation by the session facilitator
Maria Molina Molina (Barcelona, Spain)

12:21 Case 4 - Presentation by the session facilitator
Paolo Spagnolo (Padova (PD), Italy)

8H (live-streamed) Session 11:15 - 12:45

Respiratory medicine meets other disciplines: Fight to antimicrobial resistance: the role of new diagnostics

A European perspective from the Value-Dx consortium

Aims : to present the appropriate use and development of diagnostic tools for respiratory infections, which are one of most valuable tools to reduce the occurrence of antimicrobial resistances; to review major advances in diagnostic tests for lower respiratory tract infections (LRTI) and the expected impact on epidemiology and health economics and clinical perspective.

Disease(s) : [Paediatric respiratory diseases](#) [Respiratory critical care](#) [Respiratory infections](#)

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

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Scientist (basic, translational)

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

11:15 Developing a technical roadmap for diagnostics of community-acquired pneumonia
Speaker to be confirmed

11:30 Changing epidemiology of microbial etiology of CAARTI
surbhi malhotra-kumar (wilrijk, Belgium)

11:45 Optimal management of CAARTI from an health economic perspective
Speaker to be confirmed

12:00 How rapid diagnostic tests can improve antibiotic stewardship
Speaker to be confirmed

12:15 Discussion and Q&A

8C (live-streamed) Session 11:15 - 12:45

Journal session: Acute respiratory distress syndrome: the path to precision medicine

A joint ERS/Lancet session

Aims : We propose a session based on a Series of papers commissioned by The Lancet and The Lancet Respiratory Medicine. The session would bring together leaders in the field to provide insights into the pathophysiology and phenotypes of acute respiratory distress syndrome (ARDS), to review current approaches to diagnosis and management in paediatric and adult patients, to consider therapeutic options in development for this heterogeneous syndrome, to discuss the needs of patients with long-term sequelae of ARDS, and to set out future directions for research and clinical practice. This forward-looking session would provide new insights into mechanisms and management for both non-specialists and specialists, with a focus on the goal of precision medicine.

Disease(s) : Paediatric respiratory diseases Respiratory critical care

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

Tag(s) : Clinical

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

Chairs : Leo Heunks (Amsterdam, Netherlands), Rebecca Craven (London, United Kingdom), Miriam Barrecheguren Fernandez (Barcelona, Spain)

11:15 Causes, pathophysiology, and phenotypes of acute respiratory distress syndrome
Lorraine Ware (Nashville, United States)

11:30 Acute respiratory distress syndrome in adults: diagnosis, management, outcomes, and long-term sequelae
Danny McAuley (Belfast (Belfast), United Kingdom)

11:45 Paediatric acute respiratory distress syndrome: developing management strategies for improved outcomes
Martin Kneyber (Groningen, Netherlands)

12:00 To be confirmed
Speaker to be confirmed

12:15 Discussion and Q&A

Studio Session 12:45 - 14:00

Skills lab: Thoracic ultrasound

Aims : To demonstrate bronchoscopic techniques for the diagnosis, nodal staging and treatment of lung cancer
To provide update on novel interventional techniques
To demonstrate how to perform cryobiopsy in ILD
To demonstrate how do to rigid thoracoscopy and pleuro desis for suspected pleural malignancy.
To demonstrate TUS in various pulmonary diseases including interventions

Chairs : Chair to be confirmed

12:45 Introduction

12:50 Transthoracic Ultrasound: Realtime image-guided interventions in pleural disease

13:05 Transthoracic Ultrasound: LUS in the diagnosis and management of respiratory failure
Casper Falster (Odense, Denmark)

13:20 Transthoracic Ultrasound: Contrast enhanced ultrasound in lung and pleural disease
Eihab Bedawi (Oxford (Oxfordshire), United Kingdom)

13:35 Transthoracic Ultrasound: The role of LUS in the diagnosis and management of interstitial lung disease
Jesper Rømhild Davidsen (Odense C, Denmark)

13:50 Q&A

8H (live-streamed) Session 14:15 - 15:45**Symposium: Interstitial lung diseases in connective tissue diseases: patient's journey from diagnosis and new treatment strategies to transplantation**

Aims : to update attendees about the management of interstitial lung diseases (ILDs) associated with connective tissue diseases (CTD-ILDs), which has recently evolved with the increasing numbers of prescription for antifibrotics in addition to immunosuppressive drugs; to provide an update about diagnostic practice and assess the adjunctive value of a multidisciplinary approach to diagnosis; to describe therapeutic strategies and analyse the timing and contraindications of lung transplant referral as well as post-transplant management and outcomes; to discuss novel insights into the diagnostic procedure and the implication of genetics.

Disease(s) : Interstitial lung diseases Pulmonary vascular diseases Respiratory critical care

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

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Nurse, Respiratory critical care physician, Radiologist, Thoracic surgeon, Respiratory therapist

Chairs : Federica Meloni (Pavia (PV), Italy), Tobias Welte (Hannover, Germany)

14:15 Utility of genetic assessment of patients with CTD-ILDs
Antoine Froidure (Bruxelles, Belgium)

14:30 CTD-ILDs: diagnosis and new treatment strategies up to transplantation
Bruno Crestani (Paris, France)

14:45 What are the main challenges when a CTD-ILD patient is referred for lung transplantation?
Jose Manuel Cifrian Martinez (Santander (Cantabria), Spain)

15:00 New trends in treatment of myositis-associated ILD
Ingrid Lundberg (Stockholm, Sweden)

15:15 Discussion and Q&A

8A (live-streamed) Session 14:15 - 15:45**Symposium: Evolving questions in chronic obstructive pulmonary disease management
Lessons from pathophysiology to epidemiology**

Aims : to ask challenging questions faced every day when managing patients with chronic obstructive pulmonary disease (COPD); to inform clinicians and researchers about the latest updates concerning diagnosis, management and assessment of COPD covering four areas, namely, the role of eosinophils, the pathophysiology of a disease exacerbation, the relevance of mortality endpoints and the assessment of COPD patients for comorbidities; to interpret and elaborate on recent findings of clinical trials and their relevance to patient practice.

Disease(s) : Airway diseases

Method(s) : Cell and molecular biology Epidemiology Imaging

Tag(s) : Translational

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), Respiratory therapist

Chairs : Omar S. Usmani (London, United Kingdom), Ayşe Arzu Yorgancıoğlu (Konak, Turkey), Daiana Stolz (Basel, Switzerland)

14:15 Understanding the role of eosinophilic COPD management: are clinical trial data ready for application in everyday clinical care?
Mona Bafadhel (Oxford (Oxfordshire), United Kingdom)

14:30 What is the best definition of an exacerbation in COPD patients to help demystify clinical trial data?
Alberto Papi (Ferrara, Italy)

14:45 Mortality and mortality assessment in COPD: is it possible to apply clinical trial data in everyday patient practice?
Dave Singh (Manchester, United Kingdom)

15:00 Should all patients with COPD undergo body plethysmography, echocardiograms and computed tomography lung scans?
MeiLan K. Han (Ann Arbor, United States)

15:15 Discussion and Q&A

8G (live-streamed) Session 14:15 - 15:45**Symposium: Utilising exercise testing in pre-operative assessment, rehabilitation and exercise prescription**

Aims : to provide an overview of the different exercise modalities available to assess exercise capacity, assessment of exercise prescription and rehabilitation; to provide an overview of how exercise testing can be used to assess pre-operative risk and its utility in determining the most appropriate peri-operative care; to describe the importance of activity in healthy adults and patients; to demonstrate how to effectively provide an exercise prescription; to provide attendees with a global understanding of the importance of exercise and how to utilise it in their everyday practice for the benefit of patients.

Disease(s) : Airway diseases

Method(s) : Physiology Pulmonary rehabilitation Surgery

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Thoracic surgeon, Journalist

Chairs : Pierantonio Laveneziana (Paris, France), Jellien Makonga-Braaksma (Woudenberg, Netherlands)

14:15 **Modalities available to assess the exercise response and exercise rehabilitation**
Sally J. Singh (Leicester (Leicestershire), United Kingdom)

14:30 **Utilising the cardio-pulmonary exercise test to assess peri-operative risk**
Speaker to be confirmed

14:45 **The health-related benefits of increased exercise and activity**
Speaker to be confirmed

15:00 **Exercise prescription in health and disease**
Speaker to be confirmed

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

8C (live-streamed) Session 14:15 - 15:45**Clinical trials session: ALERT 3**

Aims : Including the ALERT sessions (Abstracts Leading to Evolution in Respiratory Medicine Trials), these formats showcase important and very late-breaking clinical trial data from all respiratory disease areas. Presenters, session chairs and viewers will take part lively discussions on the presented trials.

Tag(s) : Clinical

Chairs : El bieta Magdalena Grabczak (Warszawa, Poland)

14:15

14:30

14:45

15:00

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15:30

15:45

16:00

8B (live-streamed) Session 14:15 - 15:45**State of the art session: Pulmonary vascular diseases
pulmonary hypertension in pulmonary disease**

Aims : the aim of this state of art symposium is to summarize the vast progress in recent years which has been made in understanding and treating pulmonary hypertension related to underlying lung disease.
The session had the following specific aims

- insight in the biology and epigenetic causes of pulmonary hypertension
- how these insights help to develop novel treatments in the area
- update on the recent trials in pulmonary hypertension
- update on the novel insights of the pulmonary vascular nature of low dlco related pulmonary hypertension

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

Method(s) : Imaging Physiology Respiratory intensive care

Tag(s) : Clinical

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

Chairs : Anton Vonk Noordegraaf (Amsterdam, Netherlands), Silvia Ulrich (Zurich, Switzerland)

14:15 The origin and consequence of pulmonary hypertension in lung related disease
Joan Albert Barberà Mir (Barcelona, Spain)

14:30 Pulmonary hypertension in autoimmune disease
Marc Humbert (Le Kremlin-Bicêtre, France)

14:45 Failures and success in treatment of pulmonary hypertension in interstitial lung disease: past present and future
Aaron Waxman (Boston, United States)

15:00 Low DLCO in pulmonary arterial hypertension: a different vascular phenotype?
Esther Jeritza Nossent (Amsterdam, Netherlands)

15:15 Discussion and Q&A

Studio Session 14:15 - 15:15

Skills lab: Respiratory sleep disorders: from diagnosis to management CPAP to NIV, objective tests, and type 3 monitors

Aims : To demonstrate optimal choice between diagnostic monitoring tools for sleep and breathing (polysomnography, type III device, telemonitoring,...) for patients with sleep disordered breathing.

To discuss characteristics and indications of different PAP/NIV modes for various types of sleep disordered breathing and hypoventilation.

To demonstrate a practical approach regarding the use of different PAP modes for patients with obesity hypoventilation syndrome

Chairs : Sophia E. Schiza (Heraklion, Greece), Winfried J. Randerath (Solingen, Germany)

14:15 Introduction

14:20 Choosing the best diagnostic monitoring tool for SDB patients

15:35 Different PAP/NIV modes for SDB and hypoventilation
Dries Testelmans (Leuven, Belgium)

14:50 PAP treatment of obesity hypoventilation syndrome

15:05 Conclusions and Q&A

8M Session 14:15 - 15:30

Science slam: Science slam

Chairs : Chair to be confirmed

8D Session 14:30 - 16:50

Skills workshop: SW6 Cardiopulmonary rehabilitation beyond the basics

Aims : To describe diagnostic methods and interventions that enhance the comprehensiveness of cardiopulmonary rehabilitation programmes and contribute to a more patient-tailored approach; to describe methods of assessing physical activity level in patients referred for cardiopulmonary rehabilitation and methods of providing cognitive behavioural therapy to promote physical activity; to describe neuromuscular electrical stimulation and the patients referred for cardiopulmonary rehabilitation who could benefit from this treatment; and to describe the incorporation of mindfulness-based interventions into cardiopulmonary rehabilitation and their outcomes.

Disease(s) : Airway diseases**Method(s) :** Pulmonary rehabilitation**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, Respiratory therapist, Medical Student, Medical Technical Assistant, Nurse, Patient, Physician in Pulmonary Training, Journalist, Physiologist, Respiratory physiotherapist**Chairs :** Chair to be confirmed**14:30 Introduction****14:30 Physical activity assessment and intervention**
Chris Burtin (Diepenbeek, Belgium)**14:30 Neuromuscular electrical stimulation**
Anouk W. Vaes (Horn, Netherlands)**14:30 Frailty assessment and intervention**
Roberto Benzo (Rochester, United States)**14:30 Mindfulness interventions during cardiopulmonary rehabilitation**
Ingeborg Farver-Vestergaard (Vejle, Denmark)**Studio Session 15:30 - 16:00****Guidelines session: Guidelines on severe community acquired pneumonia****ERS/ESICM/ESCMID/ALAT guidelines****Disease(s) :** Respiratory infections**Method(s) :** General respiratory patient care**Tag(s) :** Clinical**Target audience :** General practitioner, Physician in Pulmonary Training, Medical Student, Adult pulmonologist/Clinician, Clinical researcher**Chairs :** Andrew Bush (London, United Kingdom)**15:30 Discussion and Q&A**
Ignacio Martin-Loeches (Dublin, Ireland), Speaker to be confirmed**8N Session 15:45 - 17:00****Mini symposium: Steps for a successful career in respiratory research****Early career member session 2022****Aims :** To present critical steps for a successful career in respiratory research and medicine; to describe how to build and manage a research team and how to publish successful; to discuss challenges and opportunities for younger physicians and scientists in respiratory research; tips for maintaining a healthy work-life-balance;**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Respiratory critical care physician, Paediatrician, Physician in Pulmonary Training, Physiologist, Radiologist, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon**Chairs :** Daniela Gompelmann (Vienna, Austria), Maxime Patout (Mont-Saint Aignan, France)**15:45 Building and managing a research team**
Debby Bogaert (Edinburgh, United Kingdom)**16:00 Successful publishing in a scientific journal**
Anh Tuan Dinh-Xuan (Paris, France)**16:15 Mina Gaga lecture**
Alexander Mathioudakis (Stockport, United Kingdom)**16:30 Time management strategies for clinical-scientist and privacy**
Niki Ubags (Epalinges, Switzerland)**16:45 Discussion and Q&A****8H (live-streamed) Session 16:00 - 17:30****Symposium: Lung involvement in common variable immunodeficiency: from diagnosis to lung transplantation**

Aims : to describe the physiopathology of common variable immunodeficiency (CVID) and current diagnostic and therapeutic approaches for this disorder and update attendees about recent advances in this context. CVID-associated lung involvement might be due to respiratory infection and bronchiectasis or non-infectious immune-based diffuse interstitial disorders. This clinical picture and the possible contraindications to lung transplant candidacy and challenges in post-transplant follow-up of these patients will be addressed.

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

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

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Nurse, Paediatrician, Physician in Pulmonary Training, Respiratory physiotherapist, Thoracic surgeon, Respiratory therapist

Chairs : Federica Meloni (Pavia (PV), Italy), Tobias Welte (Hannover, Germany)

16:00	Pathogenesis and diagnosis of CVID in paediatric and adult patients Isabelle Meyts (Leuven, Belgium)
16:15	Prevention and treatment of pulmonary and extrapulmonary infections in CVID patients David M. Lowe (London, United Kingdom)
16:30	Non-infectious lung involvement in CVID diagnosis and treatment Speaker to be confirmed
16:45	Lung transplant in CVID patients: contraindications and outcomes Michael Perch (København Ø, Denmark)
17:00	Discussion and Q&A

8G (live-streamed) Session 16:00 - 17:30

Hot topics: Pharmacotherapy for sleep disordered breathing Specific approaches for different pathophysiological traits of OSA

Aims : This "Hot Topic" session aims to describe recent advancements in pharmacotherapy for patients with sleep disordered breathing. The impact of the identification of different pathophysiological traits, including upper airway muscle function, respiratory control, arousal from sleep and upper airway anatomy, on the choice of pharmacological drug classes will be explained. Novel possibilities and tools to identify these different traits based on polysomnography will be described.

Disease(s) : Sleep and breathing disorders

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

Tag(s) : Translational

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

Chairs : Pierantonio Laveneziana (Paris, France)

16:00	Various pharmacological approaches for weight loss management in patients with SDB Johan Verbraecken (Edegem (Antwerp), Belgium)
16:15	Pharmaceutical muscle activation of the upper airways Carolina Lombardi (Milano (MI), Italy)
16:30	Current perspectives of pharmacotherapy targeting on brain breathing regulation Jan A. Hedner (Göteborg, Sweden)
16:45	Influence of pharmacotherapy on arousal Speaker to be confirmed
17:00	Discussion and Q&A

8A (live-streamed) Session 16:00 - 17:30

Clinical cases: Lungs on fire: Airway diseases?

Aims : To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.

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 :** Omar S. Usmani (London, United Kingdom), Ayşe Arzu Yorgancıoğlu (Konak, Turkey), Daiana Stolz (Basel, Switzerland)**Discussants :** Mina Gaga (Athens, Greece), Marc Miravittles (Barcelona (CT), Spain)**16:00 Case 1 - Presentation by the session facilitator**
Mina Gaga (Athens, Greece)**16:22 Case 2 - Presentation by the session facilitator**
Marc Miravittles (Barcelona (CT), Spain)**16:44 Case 3 - Presentation by the session facilitator**
Mina Gaga (Athens, Greece)**17:06 Case 4 - Presentation by the session facilitator**
Marc Miravittles (Barcelona (CT), Spain)**8B (live-streamed) Session 16:00 - 17:30****Respiratory medicine meets other disciplines: Update on the diagnosis and treatment of pulmonary hypertension****ERS/ESC guideline on pulmonary hypertension 2022****Aims :** In 2022 the new ESC/ERS guidelines on pulmonary hypertension will be published. This symposium is based on this major achievement of both societies. The aims of this symposium is to - highlight the changes made in comparison to the previous guidelines - To discuss the still unknown areas where the guidelines could not fill the clinical need - to discuss the new definition in a pro and con debate: what will be the clinical consequence and how will this change our diagnosis**Disease(s) :** Pulmonary vascular diseases**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, Nurse, Respiratory critical care physician, Patient, Scientist (basic, translational)**Chairs :** Anton Vonk Noordegraaf (Amsterdam, Netherlands), Silvia Ulrich (Zurich, Switzerland), Stephan Rosenkranz (Köln, Germany)**16:00 ERS/ESC guideline on pulmonary hypertension: clinical approach, changes from previous guidelines**
Marius M. Hoeper (Hannover, Germany)**16:15 Treatment options and recommendations**
Marion Delcroix (Leuven, Belgium)**16:30 Comments on the guideline: strength and weakness**
Sean Gaine (Dublin, Ireland)**16:45 Interactive cases**
Mona Lichtblau (Zürich, Switzerland)**17:00 Discussion and Q&A****Studio Session 16:15 - 16:45****Guidelines session: ERS Guideline on various aspects of quality in lung cancer care****ERS/ESICM/ESCMID/ALAT guidelines****Disease(s) :** Thoracic oncology**Method(s) :** Surgery General respiratory patient care**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, Thoracic surgeon, Thoracic oncologist, Medical Student, Physician in Pulmonary Training**Chairs :** Andrew Bush (London, United Kingdom)**16:15 Discussion and Q&A**
Torsten Gerriet Blum (Berlin, Germany), Speaker to be confirmed

Studio	Session	17:00 - 17:30
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Pro-Con debate: Does the aggressive management of solitary pulmonary nodules pay off?

Aims : The audience will learn about the different management approaches of solid and subsolid nodules tailored to patient characteristics and geography and will understand the controversies which currently exist regarding aggressive and prudent management.

Disease(s) : Thoracic oncology

Method(s) : General respiratory patient care Imaging Surgery

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Pathologist, Patient, Physician in Pulmonary Training, Physiologist, Thoracic oncologist, Thoracic surgeon

Chairs : Torsten Gerriet Blum (Berlin, Germany), Chair to be confirmed

17:00 The aggressive management of solitary pulmonary nodules always pays off ; pros
Stefano Elia (Roma (RM), Italy)

17:10 The aggressive management of solitary pulmonary nodules does not always pay off ; cons
Georgia Hardavella (Athens, Greece)

17:20 Discussion and Q&A

8D Session **08:00 - 10:20****Skills workshop: SW7 Thoracic ultrasound**

Aims : To describe the current use of thoracic ultrasound and to provide participants with the opportunity to perform this technique using training models, simulators, volunteers and patients.

Disease(s) : Thoracic oncology Interstitial lung diseases

Method(s) : Imaging General respiratory patient care

Tag(s) : Clinical

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

Chairs : Christian B. Laursen (Odense, Denmark)

08:00 **The normal thoracic cavity**
Gilles Mangiapan (Creteil, France), Jesper Rømhild Davidsen (Odense C, Denmark)

08:30 **Pleural effusion and/or pleural thickening**
Valentina Pinelli (Sarzana, Italy), Morten Bendixen (Skejby, Denmark)

09:00 **Case studies**
Rachelle Ascjak (SIGGIEWI, Malta)

09:30 **Lymph node biopsy using models**
Rachid Tazi Mezalek (Barcelona, Spain), Konstantina Kontogianni (Heidelberg, Germany)

Studio Session **08:45 - 09:15****Experts interview: Introduction - Interview**

Chairs : Richard Costello (Dublin 9, Ireland), Christopher E. Brightling (Leicester (Leicestershire), United Kingdom)

08:45 **Discussion and Q&A**

8C (live-streamed) Session **09:30 - 11:00****Clinical cases: Lungs on fire: Paediatric respiratory diseases**

Aims : To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.

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 : Marielle W.H. Pijnenburg (Rotterdam, Netherlands), Alexander Möller (Zürich, Switzerland), Cristina Arduro-Garcia (Bern, Switzerland)

Discussants : Monika Gappa (Düsseldorf, Germany), Andrew Bush (London, United Kingdom)

09:30 **Case 1 - Presentation by the session facilitator**
Monika Gappa (Düsseldorf, Germany)

09:52 **Case 2 - Presentation by the session facilitator**
Andrew Bush (London, United Kingdom)

10:14 **Case 3 - Presentation by the session facilitator**
Monika Gappa (Düsseldorf, Germany)

10:36 **Case 4 - Presentation by the session facilitator**
Andrew Bush (London, United Kingdom)

Studio Session **09:30 - 11:00****Language session: Chinese Programme 2022**

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.

Method(s) : Epidemiology Public health Respiratory intensive care

Tag(s) : COVID

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

Chairs : Chair to be confirmed

09:30 Early interventions of lung cancer
Speaker to be confirmed

09:45 Status and future perspective of biomarkers in early detection of lung cancer
Torsten Gerriet Blum (Berlin, Germany)

10:00 Clinical progress in critical care of pulmonary medicine in China
Li-xin Xie (Beijing, China)

10:15 New insights in the pathophysiology of ARDS
Speaker to be confirmed

10:30 Discussion and Q&A

8H (live-streamed) Session 09:30 - 11:00

Primary care session: Asthma diagnosis: new and old approaches to increase primary care capability

Aims : In this primary care session, attendees will understand the latest approaches to the difficult task of diagnosing asthma in clinical practice.

Disease(s) : Airway diseases

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

Tag(s) : Clinical

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

Chairs : Thierry Troosters (Leuven, Belgium), Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom), Monica Kraft (Tucson, United States)

09:30 The clues for asthma diagnosis in primary care.
Janwillem W. H. Kocks (Groningen, Netherlands)

09:45 New and old tests for asthma diagnosis in primary care. From peak-flow to FeNO
Speaker to be confirmed

10:00 Oscillometry, a renewed and suitable tool for asthma diagnosis in primary care?
Salman Siddiqui (Leicester, United Kingdom)

10:15 From diagnosis to self-management: supporting the patient journey
Cláudia Vicente (Coimbra, Portugal)

10:30 Discussion and Q&A

8A (live-streamed) Session 09:30 - 11:00

State of the art session: Sleep and breathing disorders

Myth or reality: Is obstructive sleep apnoea really critical for cardiovascular complications? Current evidence in pathophysiology, clinical implications and future perspectives

Aims : This session aims to summarize the current knowledge about the impact of Obstructive Sleep Apnoea on cardiovascular complications. To explain the link between hypoxic burden, associated intracellular mechanisms and cardiovascular comorbidities. To identify critical endpoints of OSA including cardiovascular morbidity, mortality and patient related outcome measures. To summarize current evidence of PAP treatment effects on cardiovascular endpoints. To critically discuss limitations and strengths of current trials and define future research needs.

Disease(s) : Sleep and breathing disorders**Method(s) :** General respiratory patient care Physiology**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Scientist (basic, translational)**Chairs :** Sophia E. Schiza (Heraklion, Greece), Winfried J. Randerath (Solingen, Germany)**09:30 Hypoxic burden and intracellular mechanisms**
Silke Ryan (Dublin, Ireland)**09:45 What endpoints really matter? Clinical relevance of morbidity, mortality and patient related outcome measures**
G. Parati (Milano (MI), Italy)**10:00 Appraisal and critical review of PAP treatment effects on cardiovascular endpoints**
Anita Simonds (London, United Kingdom)**10:15 The future of sleep science: What are the right targets, outcome parameters, innovative studies and methodology?**
Raphael Heinzer (Lausanne, Switzerland)**10:30 Discussion and Q&A****8B (live-streamed) Session 09:30 - 11:00****Journal session: Respiratory strategies for COVID-19, diagnostic strategies for venous thromboembolism, and screening for COPD****Highlights from JAMA****Aims :** 1. Provide update on noninvasive respiratory strategies for acute hypoxemia in COVID-19.
2. Provide update on screening for COPD.
3. Provide update on diagnostic strategies for venous thromboembolism**Disease(s) :** Airway diseases Respiratory critical care**Method(s) :** Epidemiology General respiratory patient care Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Respiratory critical care physician, Physician in Pulmonary Training, Respiratory therapist**Chairs :** Olivier Sitbon (Le Kremlin-Bicêtre, France), Chair to be confirmed**09:30 Noninvasive diagnostic strategies for acute hypoxemia in COVID-19**
Speaker to be confirmed**09:45 Screening for COPD**
Speaker to be confirmed**10:00 Diagnostic strategies for venous thromboembolism**
Yonathan Freund (Paris, France)**10:15 Discussion and Q&A****8F Session 09:45 - 11:00****Mini symposium: Diagnosis and management of pneumonitis in lung cancer systemic therapy
Immune-related and target therapies toxicities****Aims :** The main aim of this symposium is to provide an overview of the incidence and specific patterns of lung toxicity seen with immune-checkpoint inhibitors, molecularly targeted agents and radiation used for lung cancer therapy. A general discussion of the clinical presentation, pathogenesis, diagnosis, differential diagnosis, and treatment of pulmonary toxicity associated with the use of antineoplastic agents will be covered. Moreover, a review of potential biomarkers that could guide our clinical reasoning in immune-related toxicities will be provided.**Disease(s) :** Thoracic oncology**Method(s) :** General respiratory patient care**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Pathologist, Physician in Pulmonary Training, Radiologist, Thoracic oncologist

Chairs : Maria Joana Pereira Catarata (Porto, Portugal), Chair to be confirmed

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| 09:45 | Immune checkpoint inhibitors: diagnosis and management of pneumonitis in lung cancer patients
Speaker to be confirmed |
| 10:00 | Pulmonary toxicity associated with antineoplastic therapy: Molecularly targeted agents
Speaker to be confirmed |
| 10:15 | Pneumonitis and radiotherapy: diagnosis and management
Speaker to be confirmed |
| 10:30 | Discussion and Q&A |

8M Session 09:45 - 11:00

Mini symposium: State of the art in the home ventilation

Aims : To describe chronic respiratory failure in persons with neuromuscular disorders (NMD), causing hypoxia, hypercapnia, secondary symptoms as weak cough and stagnation of airway secretion, leading to diminished health related quality of life (HRQL) and increased risk of pneumonia.

To identify how to diagnose and treat chronic respiratory failure in NMDs.

To present the options for home mechanical ventilation (HMV), both with noninvasive (mask or mouthpiece) or invasive interface (tracheostomy) ventilation.

To describe the techniques used to clear the airway secretions and to augment cough in NMDs, including examples for caregiver training.

To explain the homecare, follow-up and outcomes of the treatment.

Disease(s) : Sleep and breathing disorders

Method(s) : Epidemiology 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, Patient, Physician in Pulmonary Training, Respiratory physiotherapist, Respiratory therapist

Chairs : Jellien Makonga-Braaksma (Woudenberg, Netherlands), Chair to be confirmed

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| 09:45 | Chronic respiratory failure in neuromuscular disorders - diagnosis and treatment |
| 10:00 | Airway clearance and cough augmentation strategies
Tiina Andersen (Bergen, Norway) |
| 10:15 | Homecare, follow-up and outcomes of the treatment
Speaker to be confirmed |
| 10:30 | Discussion and Q&A |

8D Session 10:40 - 13:00

Skills workshop: SW8 Thoracic ultrasound

Aims : To describe the current use of thoracic ultrasound and to provide participants with the opportunity to perform this technique using training models, simulators, volunteers and patients.

Disease(s) : Thoracic oncology Interstitial lung diseases

Tag(s) : Clinical

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

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| 10:40 | The normal thoracic cavity
Rachelle Ascik (SIGGIEWI, Malta), Beenish Iqbal (London, United Kingdom) |
| 11:10 | Pleural effusion and/or pleural thickening
Pia Iben Pietersen (Odense NØ, Denmark), Giovanni Volpicelli (Torino (TO), Italy) |
| 11:40 | Case studies
Poppy Denniston (London, United Kingdom) |
| 12:10 | Lymph node biopsy using models
Rachel Mercer (Winchester, United Kingdom), Morten Bendixen (Skejby, Denmark) |

8A (live-streamed) Session 11:15 - 12:45

Symposium: The many faces of central sleep apnoea and hypoventilation syndromes

Aims : to discuss the phenotypes of central sleep apnoea and the impact of biomarkers on outcomes, new pathophysiological insights and consecutive therapeutic options for obesity hypoventilation, the strengths and limitations of positive airway pressure during the lifetime and the relevance of concomitant pulmonary disease with not only obstructive, but also central, sleep apnoea.

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

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

Tag(s) : Clinical

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

Chairs : Sophia E. Schiza (Heraklion, Greece), Winfried J. Randerath (Solingen, Germany)

11:15 Phenotyping and prognostic markers of central sleep apnoea: is treatment of central sleep apnoea necessary?
Winfried J. Randerath (Solingen, Germany)

11:30 Opioid-induced central sleep apnoea: exceptional or epidemic ?
Shahrokh Javaheri (Cincinnati, United States)

11:45 New perspectives in obesity hypoventilation: from pathophysiology to treatment
Jean-Louis Pépin (Grenoble, France)

12:00 Continuous positive airway pressure and non-invasive ventilation in hypoventilation syndromes from childhood to adulthood
Marieke L. Duiverman (Groningen, Netherlands)

12:15 Discussion and Q&A

8G (live-streamed) Session 11:15 - 12:45

Symposium: Management of complicated sarcoidosis Management decisions and dealing with complications

Aims : to discuss new insights into the management of complicated sarcoidosis; to discuss the diagnosis and treatment of fibrotic sarcoidosis, one of the most challenging and unmet needs, in depth; to explore the latest insights into the management of complications and co-morbid conditions such as pulmonary hypertension and infections (mainly fungal); to discuss other important extrapulmonary organ involvements such as those of the heart and brain, which frequently confront pulmonologists.

Disease(s) : Interstitial lung diseases Pulmonary vascular diseases Respiratory infections

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

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Nurse, Respiratory critical care physician, Patient

Chairs : Carlos Robalo Cordeiro (Coimbra, Portugal)

11:15 Management of fibrotic sarcoidosis
Vivienne Kahlmann (Rotterdam, Netherlands)

11:30 Management of pulmonary hypertension in sarcoidosis
Laura Price (London, United Kingdom)

11:45 Infections as drivers of sarcoidosis
Marcel Veltkamp (De Meern, Netherlands)

12:00 Complex extrapulmonary sarcoidosis: the heart, brain and more
Paolo Spagnolo (Padova (PD), Italy)

12:15 Discussion and Q&A

8B (live-streamed) Session 11:15 - 12:45

Clinical cases: Clinical challenges beyond guidelines

Aims : To describe controversial aspects of the current guidelines for 1) sepsis management of adults with COVID-19 in the intensive care unit, 2) clinical standards for tuberculosis infection, 3) optimal follow-up after acute pulmonary embolism and 4) imaging of pulmonary embolism in pregnancy; 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 Respiratory infections Pulmonary vascular diseases**Method(s) :** General respiratory patient care Respiratory intensive care Imaging**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Respiratory critical care physician, General practitioner, Medical Student, Radiologist, Physician in Pulmonary Training, Clinical researcher**Chairs :** Anita Simonds (London, United Kingdom), Olivier Sitbon (Le Kremlin-Bicêtre, France), Chair to be confirmed**11:15 WHO guidelines on the Management of Adults With Coronavirus Disease 2019 (COVID-19) in the ICU**
Speaker to be confirmed**11:30 Discussion and Q&A****11:37 Clinical Standards for TB Infection**
Marc Lipman (London, United Kingdom)**11:52 Discussion and Q&A****11:59 Optimal follow-up after acute pulmonary embolism**
Olivier Sanchez (Paris, France)**12:14 Discussion and Q&A****12:21 Guidelines about imaging of pulmonary embolism in pregnancy**
Speaker to be confirmed**12:36 Discussion and Q&A****Studio Session 11:15 - 11:45****Guidelines session: ERS clinical practice guidelines on asthma diagnostic in adults****Disease(s) :** Airway diseases**Method(s) :** General respiratory patient care**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, General practitioner, Medical Student, Physician in Pulmonary Training, Clinical researcher**Chairs :** Andrew Bush (London, United Kingdom)**11:15 Discussion and Q&A**
Omar S. Usmani (London, United Kingdom), Speaker to be confirmed**8H (live-streamed) Session 11:15 - 12:45****Primary care session: Forgotten issues in COPD: a primary care perspective****Aims :** Further than pharmacological treatment, other issues and interventions are of main importance to help people to live and cope with COPD and they are usually forgotten. In this session we will increase health-care professionals' knowledge and motivation towards those issues from a primary care perspective. Mental disorders are common in patients with COPD and they need to be assessed and treated accordingly. Rehabilitation programs are very scarce and unreachable for many COPD patients especially in low resource settings where tele-rehabilitation approaches may be unreliable and remote options need to be realistic. The effect of COPD on sexual satisfaction is underappreciated in clinical practice, improved information and communication regarding sexual health is needed. On the same line, early, integrated palliative care for COPD should be developed in primary care**Disease(s) :** Airway diseases**Method(s) :** General respiratory patient care Palliative care Pulmonary rehabilitation**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, General practitioner, Medical Student, Nurse, Patient, Respiratory physiotherapist**Chairs :** Thierry Troosters (Leuven, Belgium), Hilary Pinnock (Edinburgh (Edinburgh), United Kingdom)**11:15 COPD and mental health**
Ioanna Tsiligianni (Heraklion (Crete), Greece)**11:30 Home-PR in a digital world. An alternative for LMIC?**
G M Monsur Habib (Khulna, Bangladesh)**11:45 COPD and sexual health**
Speaker to be confirmed

12:00 Palliative approach to COPD
Miriam Johnson (Hull (North Humberside), United Kingdom)

12:15 Discussion and Q&A

8C (live-streamed) Session 11:15 - 12:45

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) : Paediatric respiratory diseases Respiratory infections Sleep and breathing disorders

Method(s) : Endoscopy and interventional pulmonology General respiratory patient care Pulmonary function testing

Tag(s) : Clinical

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

Chairs : Marielle W.H. Pijnenburg (Rotterdam, Netherlands), Alexander Möller (Zürich, Switzerland), Cristina Arduro-Garcia (Bern, Switzerland)

11:15 Diagnosis and management of respiratory infections in children and young adults with neurological impairment
Marijke Proesmans (Leuven, Belgium)

11:30 Paediatric long-term NIV
Brigitte Fauroux (Paris, France)

11:45 Paediatric interventional bronchoscopy
Dirk Schramm (Düsseldorf, Germany)

12:00 Respiratory Function Monitoring in NICU and PICU.
David Tingay (Melbourne (VIC), Australia)

12:15 Discussion and Q&A

Studio Session 12:45 - 14:00

Skills lab: Oscillometry and spirometry

Aims : Demonstrate the measurement of lung function with simple (handheld) and/or professional spirometers, highlighting preparation of the equipment, and performing an optimal test

Demonstrate forced oscillometry measurements (FOT), highlighting techniques to ensure accuracy

Discuss interpretation of results, the clinical relevance of measurements, and the advantages/disadvantages of the two techniques.

All this will be achieved with live demonstrations, case studies in adults and children, and interactive questions/discussion

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Physician in Pulmonary Training, Respiratory physiotherapist, Physiologist, Nurse, Respiratory therapist, Medical Technical Assistant

Chairs : Omar S. Usmani (London, United Kingdom), Frans H.C. De Jongh (Enschede, Netherlands)

12:45 Introduction
Omar S. Usmani (London, United Kingdom), Frans H.C. De Jongh (Enschede, Netherlands)

12:50 Spirometry procedure
Frans H.C. De Jongh (Enschede, Netherlands), Omar S. Usmani (London, United Kingdom)

13:05 Oscillometry procedure
Frans H.C. De Jongh (Enschede, Netherlands), Speaker to be confirmed

13:20 Case discussion (Spirometry adult, paediatric, teaching/coaching perspectives and oscillometry)
Laura Graciela Gochicoa Rangel (Ciudad de México, Mexico), Jellien Makonga-Braaksma (Woudenberg, Netherlands), Speaker to be confirmed

8B (live-streamed) Session 14:15 - 15:45

Symposium: Asthma: confusion in diagnosis, recognising comorbidities and understanding pathophysiological connections

Aims : to inform clinicians and researchers about the latest updates in significant asthma comorbidities and pathologies that mimic asthma and contribute to difficulties with diagnosis and treatment; to describe in particular conditions that mimic asthma, such as vocal cord dysfunction and dysfunctional breathing, and significant comorbidities, such as chronic rhinosinusitis, vasculitis and eosinophilic granulomatosis with polyangiitis (EGPA); to assess the importance of small airways in asthma.

Disease(s) : Airway diseases Interstitial lung diseases

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

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 : Katerina Antoniou (Heraklion, Greece), Apostolos Bossios (Stockholm, Sweden)

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| 14:15 | Vocal cord dysfunction and dysfunctional breathing: the underlying secrets
Stephen James Fowler (Preston (Lancashire), United Kingdom) |
| 14:30 | Difficult-to-manage chronic rhinosinusitis and asthma: two strangers in the same city
Vibeke Backer (Copenhagen, Denmark) |
| 14:45 | Vasculitis, EGPA and eosinophilic asthma: ties of blood
Amy Klion (BETHESDA, United States) |
| 15:00 | Small airways in asthma: looking deep in the lungs
Monica Kraft (Tucson, United States) |
| 15:15 | Discussion and Q&A |

8G (live-streamed) Session 14:15 - 15:45

Hot topics: 'Occupational COVID-19: current and future impact'

Aims : The hot topic session organised by the ERS Assembly 6.02 Group will present the latest evidence on the occupational risk factors for COVID-19 in support of a global recognition and compensation of COVID-19 and long-COVID-19 as new occupational diseases. It will present an international overview of the most adversely impacted and best studied occupational groups, in particular healthcare workers (HCWs). Also, it will discuss how occupational health services could be a privileged observatory to study and manage the COVID-19 pandemic due to their key role in implementing preventive measures, especially vaccinations programmes, administrative and engineering controls, personal protective equipment, and health surveillance and management of COVID-19 cases, including testing, contact tracing, and return to work of long-COVID-19 cases. Finally, it will seek to identify research needs in relation to risk for occupational groups other than HCWs, especially among most vulnerable social categories, such as migrants, in order to estimate the true occupational health burden of COVID-19, and so inform effective and efficient governmental mitigation policies to prevent the associated public health burden, and preparedness for future pandemics.

Disease(s) : Interstitial lung diseases Respiratory infections

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

Tag(s) : COVID

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

Chairs : Ane Johannessen (Bergen, Norway)

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| 14:15 | Fast-tracking the development of vaccines during a pandemic: what have we learnt?
Laura Fregonese (London, United Kingdom) |
| 14:30 | LONG-COVID-19: an epidemiologist, clinician and patient perspective.
Eva Polverino (Barcelona, Spain) |
| 14:45 | Effectiveness of SARS-CoV-2 vaccination among healthcare workers.
Speaker to be confirmed |
| 15:00 | COVID-19 and returning to work: an international online survey.
Pippa Powell (Sheffield (South Yorkshire), United Kingdom) |
| 15:15 | Discussion and Q&A |

8H (live-streamed) Session 14:15 - 15:45

Hot topics: Artificial Intelligence (AI) applications in Thoracic Oncology; an overarching ambition or overarching benefit?

Aims : Artificial intelligence (AI) has long been promised to revolutionize clinical practice. This session will provide the audience a clear overview of all current applications of AI in the entire spectrum of thoracic malignancies and identify their impact on patient care

Disease(s) : Thoracic oncology

Method(s) : Cell and molecular biology Endoscopy and interventional pulmonology Surgery

Tag(s) : Digital health

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

Chairs : Najib M. Rahman (Oxford, United Kingdom), Georgia Hardavella (Athens, Greece)

14:15 AI in lung cancer screening; the Radiologist's spotlight
Annemiek Snoeckx (Edegem (Antwerp), Belgium)

14:30 AI in the diagnosis of thoracic malignancies; the pathologist's spectacles
Speaker to be confirmed

14:45 AI in pleural malignancies
Speaker to be confirmed

15:00 AI in lung cancer; potential implications in patient care
Speaker to be confirmed

15:15 Discussion and Q&A

8A (live-streamed) Session 14:15 - 15:45

Clinical cases: Imaging clinical cases

Challenges in imaging of emphysema and ILD

Aims : The use of endobronchial valves as a treatment for emphysema and lung volume reduction surgery (LVRS) are successful procedures for emphysema treatment. CT quantitative analysis software was used to measure lobar volumes and emphysema destruction by lobe.

Chest high resolution CT (HRCT) is the gold standard imaging modality in underlying interstitial lung diseases (ILDs) to recognize specific patterns. In the era of antifibrotic therapies, the central role of imaging to achieve early diagnosis and prognosis is essential. Photon counting CT, a brand new imaging technique has a 0.4 mm resolution which is promising in ILD imaging due to its higher diagnostic accuracy to detect even subclinical fibrotic alterations that occur in ILDs at an early stage.

The aim of the session is to give a case based session with special focus on imaging to understand:

- the role of imaging of emphysema in a preoperative setting, in case of evaluation before endobronchial valve implantation or volume reduction surgery (LVRS) with special focus of available imaging softwares
- the role of new imaging technique, the photon counting CT in comparison with HRCT in ILD imaging
- to recognise the most common ILD patterns on HRCT.

A clinician and a radiologist will evaluate the cases together with the interactive involvement of the audience.

Disease(s) : Airway diseases Interstitial lung diseases Sleep and breathing disorders

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, Respiratory critical care physician, Paediatrician, Pathologist, Physician in Pulmonary Training, Physiologist, Radiologist, Respiratory physiotherapist, Scientist (basic, translational), Thoracic surgeon, Respiratory therapist

Chairs : Walter De Wever (Leuven, Belgium), El bieta Magdalena Grabczak (Warszawa, Poland), Daniela Gompelmann (Vienna, Austria)

14:15 Patient with lung emphysema: endobronchial valves or surgery?
Stephanie Everaerts (Leuven, Belgium)

14:30 Discussion and Q&A

14:37 Patient with lung emphysema: radiological preoperative setting
Walter De Wever (Leuven, Belgium)

14:52 Discussion and Q&A

14:59 Patient with ILD: prognostic markers of disease progression?
Veronika Müller (Budapest, Hungary)

15:14 Discussion and Q&A

15:21 Patient with ILD: radiological signs and AI possibilities
Helmut Prosch (Wien, Austria)

15:36 Discussion and Q&A

8C (live-streamed)

Session

14:15 - 15:45

State of the art session: Respiratory critical care

Aims : 1. To understand the key characteristics of the different ARDS phenotypes and how this affects clinical management.
2. To understand the pathophysiology of lung injury induced by high respiratory effort, and how clinical management can reduce the risk of lung injury due to high patient effort.
3. To understand the principles of novel techniques for respiratory monitoring and how clinical application can improve outcome.
4. To understand the role of different techniques for noninvasive respiratory support in patients with acute hyperemic failure.

Disease(s) : Respiratory critical care

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

Tag(s) : Clinical

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

Chairs : Maxime Patout (Mont-Saint Aignan, France), Maria Bonsignore (Palermo, Italy), João Carlos Winck (Vila Nova de Gaia, Portugal)

14:15 Phenotyping in acute respiratory distress syndrome: clinical implications
Carolyn Calfee (San Francisco, United States)

14:30 Patient self inflicted lung injury: clinical implications
Laurent Brochard (Toronto (ON), Canada)

14:45 Advanced respiratory monitoring in acute respiratory failure: clinical implications
Lise Piquilloud (Lausanne, Switzerland)

15:00 High Flow Nasal Oxygen or Noninvasive ventilation for patients with acute hypoxemic failure
Stefano Nava (Bologna (BO), Italy)

15:15 Discussion and Q&A

Studio

Session

14:15 - 15:15

Skills lab: Right heart catheterisation

Aims : To learn the principles of a safe right heart catheterisation. To learn how to obtain the correct pressure wave recordings and obtaining the correct references. To learn to interpret the right heart catheterisation in a correct way. To learn the principles of NO testing and performing an exercise test.

Chairs : Marion Delcroix (Leuven, Belgium), Olivier Sitbon (Le Kremlin-Bicêtre, France)

14:15 Right heart catheterisation procedure from the Amsterdam lab: jugular approach
Anton Vonk Noordegraaf (Amsterdam, Netherlands)

14:45 The procedure explained
Mona Lichtblau (Zürich, Switzerland), Gabor Kovacs (Graz, Austria)

15:00 Discussion and Q&A
Anton Vonk Noordegraaf (Amsterdam, Netherlands), Mona Lichtblau (Zürich, Switzerland), Gabor Kovacs (Graz, Austria)

8M

Session

14:15 - 15:30

Mini symposium: Long term impact of CFTR modulators on CF patients and potential changes in management of the disease in CF Units long term effects of CFTR modulators in CF

Aims : The aim of the session is to review the expected changes associated with the introduction of CFTR modulators in the management of CF patients. In particular we will review how clinical management of paediatric and adult CF patients could change in the future considering the potential benefits of these drugs on disease progression but also in consideration of potential side effects. In addition we will discuss the perspective of early treatment in CF children and the applications of CFTR modulators in special subgroups of CF patients such as non responders and rare mutations

The session is intentionally translational and directed at different specialists and disciplines involved in the management of CF patients

Disease(s) : Paediatric respiratory diseases Respiratory infections**Method(s) :** Cell and molecular biology Epidemiology**Tag(s) :** Translational**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Paediatrician, Patient, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist, Journalist**Chairs :** Catherine Greene (Dublin 9, Ireland), Chair to be confirmed**14:15** **How CFTR modulators are expected to change the management of CF and its comorbidities**
Stuart Elborn (Belfast (Belfast), United Kingdom)**14:30** **Impact of CFTR modulators on disease progression in children with CF**
Marcus Mall (Berlin, Germany)**14:45** **Non-responders and rare mutation classes: Ex vivo models to test CFTR modulator efficacy**
Irene Oglesby (Dublin 9, Ireland)**15:00** **Discussion and Q&A****8D** **Session** **14:30 - 16:50****Skills workshop: SW9 Thoracic ultrasound****Aims :** To describe the current use of thoracic ultrasound and to provide participants with the opportunity to perform this technique using training models, simulators, volunteers and patients.**Disease(s) :** Thoracic oncology Interstitial lung diseases**Tag(s) :** Clinical**Chairs :** Konstantina Kontogianni (Heidelberg, Germany)**14:30** **The normal thoracic cavity**
Valentina Pinelli (Sarzana, Italy), Beenish Iqbal (London, United Kingdom)**15:00** **Pleural effusion and/or pleural thickening**
Gilles Mangiapan (Creteil, France), Giovanni Volpicelli (Torino (TO), Italy)**15:30** **Case studies**
John Wrightson (Oxford, United Kingdom)**16:00** **Lymph node biopsy using models**
Rachid Tazi Mezalek (Barcelona, Spain), Rachel Mercer (Winchester, United Kingdom)**Studio** **Session** **15:30 - 16:30****Language session: French programme 2022****A joint ERS/SPLF session****Aims :** Le texte sera adressé ultérieurement**Disease(s) :** Airway diseases Interstitial lung diseases Respiratory infections**Tag(s) :** COVID**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, Respiratory critical care physician, Radiologist**Chairs :** Marion Delcroix (Leuven, Belgium), Chair to be confirmed**15:30** **Recommandations pour la prise en charge de l'asthme : GINA 2021 versus SPLF 2021**
Chantal Raheison-Semjen (Ponite-à-Pitre, Guadeloupe)**15:40** **Que retenir des recommandations internationales sur les pneumopathies d'hypersensibilité ?**
Vincent Cottin (Lyon, France)**15:50** **Discussion and Q&A****16:00** **Embolie pulmonaire et exacerbation de BPCO**
Francis Couturaud (Brest, France)**16:10** **Actualités Covid-19**
Claire Andrejak (Amiens, France)

16:20 Discussion and Q&A

8H (live-streamed) Session 16:00 - 17:30**Symposium: Malignant pleural effusion management: applying the evidence in 2022 Session**

Aims : to review the current biological understanding and potential mechanisms of malignant effusion progression and the implications for practice; to explain the relationship between anatomy, physiology and symptoms in pleural disease and the implications for practice; to describe evidence about optimal talc pleurodesis, including its use thoracoscopically; to provide insight into the current evidence for adjunctive treatments with indwelling plural catheters and novel indwelling plural catheter devices and their evidence.

Disease(s) : Thoracic oncology

Method(s) : Cell and molecular biology Endoscopy and interventional pulmonology General respiratory patient care

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Respiratory critical care physician, Pathologist, Radiologist, Scientist (basic, translational), Thoracic oncologist, Thoracic surgeon

Chairs : Najib M. Rahman (Oxford, United Kingdom), Georgia Hardavella (Athens, Greece)

16:00 From malignant effusion to malignant progression: what do translational studies tell us?
Rachelle Ascik (SIGGIEWI, Malta)

16:15 Understanding the impact, treatment response and outcome of malignant pleural effusions
Gary Yc Lee (Perth (WA), Australia)

16:30 Inpatient pleurodesis: translating the evidence into practice
Speaker to be confirmed

16:45 Adjunctive indwelling pleural catheter management: from outpatient talc to drug-eluting catheters
Nick Maskell (Bristol (Avon), United Kingdom)

17:00 Discussion and Q&A

8B (live-streamed) Session 16:00 - 17:30**Hot topics: Towards elimination of COPD****Innovative views from the Lancet Commission on COPD**

Aims : From a revised definition of the disease and its exacerbations to a new aetiological classification, The Lancet Commission on COPD puts forward unprecedented concepts around needed steps to undermine one of the major health problems worldwide. The aims of this session are:

To identify the reasons why COPD became a worldwide major health problem

To discuss current shortcoming in COPD diagnosis and therapy

To explore new diagnostic methods for COPD

To appraise an unprecedented aetiological classification of the disease

To discuss the proposed work-up for an acute exacerbation and its diagnosis

To review unmet targets in COPD therapy

To recognize deliverable read-outs for COPD control and elimination

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

Method(s) : Cell and molecular biology General respiratory patient care Pulmonary function testing

Tag(s) : Clinical

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

Chairs : Katerina Antoniou (Heraklion, Greece), Apostolos Bossios (Stockholm, Sweden)

16:00 Why is COPD a pandemic - what matters to patients?
MeiLan K. Han (Ann Arbor, United States)

16:15 Revisiting diagnosis and classification of COPD
Daiana Stolz (Basel, Switzerland)

16:30 Pharmacological and non-pharmacological unmet needs in COPD
Speaker to be confirmed

16:45 How do we eliminate COPD?
Speaker to be confirmed

17:00 Discussion and Q&A

8C (live-streamed) Session 16:00 - 17:30**Clinical cases: Lungs on fire: Respiratory critical care / Sleep and Breathing disorders**

Aims : To facilitate the presentation of real-life clinical cases as part of an interactive session. Cases vary in difficulty and may require differential diagnosis. This session is led by two discussants who will present cases submitted by respiratory health professionals to a panel of experts and will drive the discussion in a step-by-step approach, encouraging dialogue and reflection among the panel who have no prior knowledge of these cases. As the cases are discussed, the discussants will invite the audience to participate in determining which diagnostic and therapeutic options would be best for these patients.

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

Tag(s) : Clinical

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

Chairs : Maxime Patout (Mont-Saint Aignan, France), Maria Bonsignore (Palermo, Italy), João Carlos Winck (Vila Nova de Gaia, Portugal)

Discussants : Marieke L. Duiverman (Groningen, Netherlands), Leo Heunks (Amsterdam, Netherlands)

16:00 Case 1 - Presentation by the session facilitator
Marieke L. Duiverman (Groningen, Netherlands)

16:22 Case 2 - Presentation by the session facilitator
Leo Heunks (Amsterdam, Netherlands)

16:44 Case 3 - Presentation by the session facilitator
Marieke L. Duiverman (Groningen, Netherlands)

17:06 Case 4 - Presentation by the session facilitator
Leo Heunks (Amsterdam, Netherlands)

8A (live-streamed) Session 16:00 - 17:30**Clinical trials session: ALERT 4**

Aims : Including the ALERT sessions (Abstracts Leading to Evolution in Respiratory Medicine Trials), these formats showcase important and very late-breaking clinical trial data from all respiratory disease areas. Presenters, session chairs and viewers will take part lively discussions on the presented trials.

Tag(s) : Clinical

Chairs : Walter De Wever (Leuven, Belgium), El bieta Magdalena Grabczak (Warszawa, Poland), Daniela Gompelmann (Vienna, Austria)

16:00

16:15

16:30

16:45

17:00

17:15

17:30

17:45

Studio Session 16:45 - 17:15**Pro-Con debate: Is pharmacological or non-pharmacological management the priority for the patient who wants to be " less breathless and do more"**

Aims : By the end of the session the participant will be able to:

- 1) describe the definition and prevalence of chronic breathlessness,
- 2) compare the latest evidence of pharmacological and non-pharmacological management for the person living with chronic breathlessness and identify the research gaps,
- 3) improve the clinical care of the person living with chronic breathlessness by utilising a blend of non-pharmacological and pharmacological management in the right patient at the right time.

Disease(s) : Airway diseases Interstitial lung diseases

Method(s) : General respiratory patient care Palliative care 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, Respiratory physiotherapist, Respiratory therapist

Chairs : Richard Costello (Dublin 9, Ireland), Christopher E. Brightling (Leicester (Leicestershire), United Kingdom), Chair to be confirmed

16:45 Pharmacological management is the priority to improve chronic breathlessness
David Currow (Sydney (NSW), Australia)

16:55 Non-pharmacological management is the priority to improve chronic breathlessness
Rachael A. Evans (Leicester (Leicestershire), United Kingdom)

17:05 Discussion and Q&A

Studio Session 17:15 - 17:30

Experts interview: Congress wrap-up

Chairs : Richard Costello (Dublin 9, Ireland), Christopher E. Brightling (Leicester (Leicestershire), United Kingdom), Chair to be confirmed

17:15 Discussion and Q&A

PG room 1	Session	09:30 - 13:00
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Postgraduate course: PG1 Part 1: Cardiovascular and neurological consequences of OSA: an update.

Aims : Obstructive sleep apnoea (OSA) is an important health problem, a multifactorial disease resulting in various consequences, exhibiting differences in treatment response and outcomes. This course will attempt to summarise the current knowledge regarding the: Many clinical OSA faces with variable degree of daytime sleepiness, gender differences in terms of OSA symptoms, or differences in the presence of comorbid insomnia resulted in various forms of comorbidities. The heterogeneity of OSA and its cognitive-outcomes especially affecting attention and executive functions,, and a potential bidirectional relationship with dementia focusing on early identification, prevention and treatment strategies. The immediate pathophysiologic mechanisms influences of OSA-enhancing arrhythmogenesis and preventative strategies to mitigate OSA-induced arrhythmogenicity and related adverse outcomes. The physiological and biochemical mechanisms connecting OSA with metabolic syndrome and diabetes, to clinically-meaningful phenotyping, improved prognosis, and personalized treatment. The impact of OSA severity from mild to severe, on risk and outcome of cardiovascular diseases, also discussing existing evidence of what is the impact of OSA with or without CPAP treatment on morbidity and mortality outcomes, highlighting also the challenges that sleep medicine faces regarding the important role of CPAP in patients outcomes and the role of compliance.

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, Journalist

Chairs : Maria Bonsignore (Palermo, Italy), Matteo Bradicich (Zollikerberg, Switzerland)

09:30	Clinical OSA phenotypes from sleepiness, to mild, to asymptomatic OSA and their relevance Sophia E. Schiza (Heraklion, Greece)
09:50	Discussion and Q&A Sophia E. Schiza (Heraklion, Greece)
10:00	Stroke, minimal cognitive impairment/dementia and OSA: a bidirectional relationship? Speaker to be confirmed
10:20	Discussion and Q&A Speaker to be confirmed
10:30	Break
10:45	Various pathophysiological mechanisms leading to OSA cardiovascular sequale and their relevance Carolina Lombardi (Milano (MI), Italy)
11:05	Discussion and Q&A Carolina Lombardi (Milano (MI), Italy)
11:15	What is the impact of OSA with or without CPAP treatment on cardiovascular morbidity and mortality outcomes?
11:35	Discussion and Q&A
11:45	Break
12:00	Group assignment Sophia E. Schiza (Heraklion, Greece), Carolina Lombardi (Milano (MI), Italy), Speaker to be confirmed

PG room 1	Session	14:00 - 17:30
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Postgraduate course: PG1 Part II: Outcomes in Central Sleep apnea (CSA) and hypoventilation syndromes

Aims : The hypoventilation syndromes represent a variety of disorders that affect central ventilatory control, respiratory mechanics, or both. Obesity hypoventilation syndrome is a clinically important disorder with serious cardiovascular and metabolic consequences, increased morbidity and mortality, if unrecognized. CSA represents also a variety of disorders and/or results from various diseases, have a negative impact on patient prognosis depending also in the severity of underlying disease. HF patients with CSA are highly heterogeneous group with clinical relevant subgroups which has different prognosis and treatment response. This course aim to summarize the current knowledge regarding the: 1. early recognition and effective hypoventilation treatment using various currently available treatment modalities with the scope to improve patient-centered outcomes. 2. different clinical phenotypes of CSA in Heart failure (HF) patients , their correlation with prognosis and their relevance for identifying individualized therapeutic strategies targeted to improve morbidity and mortality and in general to improve patient-centered outcomes, 3. Early recognition and effective pre and post operative management of a patient with SDB, use of anaesthetics, towards patient safety and surgery outcomes, 4. Various types of sleep diagnostic test from type I to type IV and their use depending on patient profile, as well as their strengths and limitations.

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, Journalist

Chairs : Dries Testelmans (Leuven, Belgium), Marta Susana Monteiro Drummond Freitas (Maia, Portugal)

14:00 Clinical phenotypes in CSA: relevance for treatment decision and patients outcomes
Winfried J. Randerath (Solingen, Germany)

14:20 Discussion and Q&A
Winfried J. Randerath (Solingen, Germany)

14:30 Obesity Hypoventilation Syndrome, one size dosen't fit all: which patient will benefit from various therapeutic options
Jean-Louis Pépin (Grenoble, France)

14:50 Discussion and Q&A
Jean-Louis Pépin (Grenoble, France)

15:00 Break

15:15 Pre and postoperative evaluation of patients with various forms of SDB: relevance of patient outcomes
Özen K. Başoğlu (Izmir, Turkey)

15:35 Discussion and Q&A
Özen K. Başoğlu (Izmir, Turkey)

15:45 Type I to type IV diagnostic modalities: which one to choose according to various forms of SDB
Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)

16:05 Discussion and Q&A
Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)

16:15 Break

16:30 Group assignment
Winfried J. Randerath (Solingen, Germany), Jean-Louis Pépin (Grenoble, France), Özen K. Başoğlu (Izmir, Turkey), Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)

PG Room 2

Session

14:00 - 17:30

Postgraduate course: PG2 Paediatric respiratory diseases: focus on infections

Aims : To provide clinicians with practical take-home messages regarding the key management and health policy issues related to respiratory disease in children focusing on airway and lung infections; to provide a state-of-the art update on four important paediatric topics: SARS-CoV-2, infections in cystic fibrosis, Tuberculosis, complicated pneumonia

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, Respiratory critical care physician, Paediatrician, Physician in Pulmonary Training, Respiratory therapist

Chairs : Stefan Unger (Edinburgh (Edinburgh), United Kingdom), Marijke Proesmans (Leuven, Belgium)

14:00	SARS-CoV-2 associated lung infections in children Ahmad Kantar (Bergamo (BG), Italy)
14:20	Discussion and Q&A Ahmad Kantar (Bergamo (BG), Italy)
14:30	Infections in children with Cystic Fibrosis
14:50	Discussion and Q&A
15:00	Break
15:15	Update on Lung-Tuberculosis in children James Seddon (London, United Kingdom)
15:35	Discussion and Q&A James Seddon (London, United Kingdom)
15:45	Management of complicated pneumonia in children
16:05	Discussion and Q&A
16:15	Break
16:30	Group assignment Ahmad Kantar (Bergamo (BG), Italy), James Seddon (London, United Kingdom)

PG room 1

Session

09:30 - 15:00

Postgraduate course: PG3 Pleural disease: Applying the evidence

Aims : The overall aim is to synthesize the large volume of high quality trial data being published in pleural disease. This includes phase III trials in several sub-specialty areas and updated international guidelines, due to be published in early 2022. Specific learning outcomes for each session will include:

- (1) malignant pleural effusion: participants will be able to select the optimal diagnostic strategy, include use of thoracoscopy and direct-to-biopsy approaches, and be able to explain the proven pros and cons of different management options, facilitating patient-centred, evidence-based care
- (2) pleural infection: participants will be able to correctly diagnose and identify patients requiring drainage, adjunctive intrapleural therapies and referral for surgery; they will be able to deploy risk prediction scores and understand relevant translational and anti-microbial data
- (3) pneumothorax: participants will be able to differentiate between patients requiring admission and those suitable for ambulatory management based on recent phase III trials; they will appreciate the importance of familial pneumothorax and ongoing trials including those involving use of suction.
- (4) mesothelioma: participants will be able to select optimal diagnostic and treatment strategies including 1st and 2nd line immunotherapy, the role of regional MDTs and options for early stage disease, including radical surgery and ongoing clinical trials

Disease(s) : Respiratory infections Thoracic oncology

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

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, Nurse, Physician in Pulmonary Training, Thoracic oncologist, Thoracic surgeon

Chairs : Kevin Blyth (Glasgow (Glasgow), United Kingdom), Nick Maskell (Bristol (Avon), United Kingdom)

09:30 Evidence-based Diagnosis and Management of Malignant Pleural Effusion
Selina Tsim (Glasgow (Glasgow), United Kingdom)

09:50 Discussion and Q&A
Selina Tsim (Glasgow (Glasgow), United Kingdom)

10:00 Interactive case: Malignant pleural effusion
Radhika Banka (Mumbai (Maharashtra), India)

10:30 Break

10:45 Stratified therapy for Pleural Infection: Integrating outcome prediction, intrapleural therapy and surgery
Najib M. Rahman (Oxford, United Kingdom)

11:05 Discussion and Q&A
Najib M. Rahman (Oxford, United Kingdom)

11:15 Interactive case: Pleural infection
Deidre Fitzgerald (Nedlands, Australia)

11:45 Break

12:00 Pneumothorax: Is ambulatory care ready for prime time?
Rob Hallifax (Oxford (Oxfordshire), United Kingdom)

12:20 Discussion and Q&A
Rob Hallifax (Oxford (Oxfordshire), United Kingdom)

12:30 Interactive case: Pneumothorax
Julius P. Janssen (Nijmegen, Netherlands)

13:00 Lunch break

14:00 Mesothelioma: Integrating new therapies, better diagnostics and clinical trials
Vasiliki Panou (Odense, Denmark)

14:20 Discussion and Q&A
Vasiliki Panou (Odense, Denmark)

14:30 Interactive case: Mesothelioma
Anna Bibby (Bristol (Avon), United Kingdom)

PG Room 2

Session

14:00 - 17:30

Postgraduate course: PG4 Back to Clinical Physiology

From Respiratory Mechanics and Gas Exchange to Clinical Physiologic Interventions

Aims : To understand the basic principles of respiratory physiology and how they apply to clinical practice.**Disease(s) :** Pulmonary vascular diseases Respiratory critical care**Method(s) :** General respiratory patient care Physiology Respiratory intensive care**Tag(s) :** Clinical**Target audience :** Adult pulmonologist/Clinician, Clinical researcher, Medical Student, Nurse, Respiratory critical care physician, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Scientist (basic, translational), Respiratory therapist, Journalist**Chairs :** William Stringer (Long Beach, United States), Camille Rolland-Debord (Paris, France)**14:00 From pulmonary gas exchange to the interpretation of arterial blood gases**
Paolo Palange (Rome, Italy)**14:20 Discussion and Q&A**
Paolo Palange (Rome, Italy)**14:30 Pulmonary circulation: from physiology to clinical applications**
Silvia Ulrich (Zurich, Switzerland)**14:50 Discussion and Q&A**
Silvia Ulrich (Zurich, Switzerland)**15:00 Break****15:15 Respiratory Mechanics and Respiratory Muscle Function**
Caroline Jolley (London, United Kingdom)**15:35 Discussion and Q&A**
Caroline Jolley (London, United Kingdom)**15:45 The mechanics of breathing in ICU patients, particularly in the era of COVID -19**
Laurent Brochard (Toronto (ON), Canada)**16:05 Discussion and Q&A**
Laurent Brochard (Toronto (ON), Canada)**16:15 Break****16:30 Group assignment**
Paolo Palange (Rome, Italy), Silvia Ulrich (Zurich, Switzerland), Caroline Jolley (London, United Kingdom), Laurent Brochard (Toronto (ON), Canada)

PG room 1

Session

08:30 - 12:00

Postgraduate course: PG5 Masterclass in asthma

Aims : To describe methods of diagnosing and managing patients with asthma; to present methods of assessing and treating patients with different asthma phenotypes and monitoring the effects of treatment of asthma based on recent updates.

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, Physiologist, Respiratory physiotherapist, Scientist (basic, translational)

Chairs : Omar S. Usmani (London, United Kingdom), Apostolos Bossios (Stockholm, Sweden), Mona Al-Ahmad (Kuwait, Kuwait)

08:30 Latest updates in the guidelines of Asthma - Diagnosis and Management
Ayşe Arzu Yorgancıoğlu (Konak, Turkey)

08:50 Discussion and Q&A
Ayşe Arzu Yorgancıoğlu (Konak, Turkey)

09:00 Assessing and monitoring Asthma
Florence Schleich (Liège, Belgium)

09:20 Discussion and Q&A
Florence Schleich (Liège, Belgium)

09:30 Break

09:45 Making sense of phenotypes and endotypes in Asthma
Renaud Louis (Liège, Belgium)

10:05 Discussion and Q&A
Renaud Louis (Liège, Belgium)

10:15 Pharmacological treatment and current controversies
Guy Brusselle (Ghent, Belgium)

10:35 Discussion and Q&A
Guy Brusselle (Ghent, Belgium)

10:45 Break

11:00 Interactive cases by participants
Stylianios Loukides (Athens, Greece), Manali Mukherjee (Hamilton (ON), Canada), Ayşe Arzu Yorgancıoğlu (Konak, Turkey), Angela Zacharasiewicz (Wien, Austria)

PG Room 2

Session

14:00 - 17:30

Postgraduate course: PG6 Masterclass in COPD

Aims : To describe methods of diagnosing, assessing and managing patients with COPD, to present methods of assessing and treating patients with different COPD phenotypes and monitoring the effects of treatment of COPD based on recent updates.

Disease(s) : Airway diseases

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

Tag(s) : Clinical

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

Chairs : Omar S. Usmani (London, United Kingdom), Apostolos Bossios (Stockholm, Sweden), Ayşe Arzu Yorgancıoğlu (Konak, Turkey)

14:00 Latest updates in the guidelines of COPD - Diagnosis and Management

14:20 Discussion and Q&A

14:30 Assessing and monitoring COPD
MeiLan K. Han (Ann Arbor, United States)

14:50 Discussion and Q&A
MeiLan K. Han (Ann Arbor, United States)

15:00 Break

15:15 Making sense of phenotypes and endotypes in COPD
Daiana Stolz (Basel, Switzerland)

15:35 Discussion and Q&A
Daiana Stolz (Basel, Switzerland)

15:45 Pharmacological treatment and current controversies
Alberto Papi (Ferrara, Italy)

16:05 Discussion and Q&A
Alberto Papi (Ferrara, Italy)

16:15 Break

16:30 Interactive cases by participants
Stylios Loukides (Athens, Greece), Miriam Barrecheguren Fernandez (Barcelona, Spain), Daiana Stolz (Basel, Switzerland)

PG room 1

Session

08:30 - 12:00

Postgraduate course: PG7 How to improve research strategies in pneumonia

Aims : The research in pneumonia is usually limited by a number of practical difficulties. We will review limitations and potential advances in this field in order to improve research and the development of future trials in pneumonia from both community and hospital settings

Disease(s) : Respiratory infections

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

Tag(s) : Clinical

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

Chairs : Eva Polverino (Barcelona, Spain), Marc Bonten (Utrecht, Netherlands)

08:30	Strengths and limitations of clinical trials in pneumonia Tobias Welte (Hannover, Germany)
08:50	Discussion and Q&A Tobias Welte (Hannover, Germany)
09:00	Advances in microbiological diagnosis for respiratory tract infections Speaker to be confirmed
09:20	Discussion and Q&A Speaker to be confirmed
09:30	Break
09:45	Definition criteria of pneumonia from the perspective of regulatory agencies
10:15	Adaptative trials in respiratory tract infections
10:05	Discussion and Q&A
10:35	Discussion and Q&A
10:45	Break
11:00	Group assignment Tobias Welte (Hannover, Germany), Speaker to be confirmed

PG Room 2

Session

14:00 - 17:30

Postgraduate course: PG8 The challenges of chronic noninvasive ventilation

A case-based discussion

Aims : The following learning outcomes can be defined:

- to learn about titration of chronic NIV in patients with bulbair complaints; how do we get patients adjusted, what about additional therapies and techniques, when do you decide that with NIV goals are not achieved, when to switch to invasive MV, when decide to stop?
- to learn about titration of chronic NIV in patients with COPD: should we aim for high-intensity NIV, how do we get patients adjusted to high-intensity NIV, what about BURR and in- and expiration times, what about new modes?
- to learn about the detection and clinical consequences of patient-ventilator asynchrony: should we take care for this in chronic care; how can we detect this reliably, what are the clinical consequences?
- to learn about the value of alternative (auto-titrating) modes: should we use AVAPS, EFL titration modes or other alternatives?

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

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

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, Clinical researcher, General practitioner, Medical Student, Medical Technical Assistant, Nurse, Respiratory critical care physician, Paediatrician, Patient, Respiratory physiotherapist, Respiratory therapist

Chairs : Marieke L. Duiverman (Groningen, Netherlands), Jesus Gonzalez Bermejo (Montlignon, France)

14:00	Chronic NIV in patients with bulbair disease: challenges and goals Peter J. Wijkstra (Groningen, Netherlands)
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14:20	Discussion and Q&A Peter J. Wijkstra (Groningen, Netherlands)
14:30	Chronic NIV in patients with COPD: what is the best way to go.
14:50	Discussion and Q&A
15:00	Break
15:15	Patient-ventilator asynchrony: also important in chronic care? Michelle Ramsay (Esher, United Kingdom)
15:35	Discussion and Q&A Michelle Ramsay (Esher, United Kingdom)
15:45	New NIV modes: what is available and when should it be used? Maxime Patout (Mont-Saint Aignan, France)
16:05	Discussion and Q&A Maxime Patout (Mont-Saint Aignan, France)
16:15	Break
16:30	Group assignment Peter J. Wijkstra (Groningen, Netherlands), Michelle Ramsay (Esher, United Kingdom), Maxime Patout (Mont-Saint Aignan, France)

PG room 1

Session

08:30 - 12:00

Postgraduate course: PG9 Diagnosing pulmonary hypertension: What a pneumologist should know

Aims : Participants will learn to make the correct diagnosis in pulmonary hypertension in a step wise approach; learn the diagnostic tests in a correct order; interpret the radiology correctly; perform and interpret the right heart catheterisation data correctly; understand right heart physiology and interpret right heart parameters correctly; learn to apply this knowledge in interactive cases

Disease(s) : Pulmonary vascular diseases

Method(s) : Imaging Physiology Pulmonary function testing

Tag(s) : Clinical

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

Chairs : Mona Lichtblau (Zürich, Switzerland), Marion Delcroix (Leuven, Belgium), Louise Bouman-van der Waal (Piershil, Netherlands)

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|-------|---|
| 08:30 | The diagnostic algorithm in pulmonary hypertension
David Kiely (Sheffield (South Yorkshire), United Kingdom) |
| 08:50 | Discussion and Q&A
David Kiely (Sheffield (South Yorkshire), United Kingdom) |
| 09:00 | The radiology of pulmonary hypertension
Deepa Gopalan (LONDON, United Kingdom) |
| 09:20 | Discussion and Q&A
Deepa Gopalan (LONDON, United Kingdom) |
| 09:30 | Break |
| 09:45 | Performing and interpreting the right heart catheterisation correctly
Gabor Kovacs (Graz, Austria) |
| 10:05 | Discussion and Q&A
Gabor Kovacs (Graz, Austria) |
| 10:15 | Evaluation of right ventricular function
Anton Vonk Noordegraaf (Amsterdam, Netherlands) |
| 10:35 | Discussion and Q&A
Anton Vonk Noordegraaf (Amsterdam, Netherlands) |
| 10:45 | Break |
| 11:00 | Interactive cases
Athénaïs Boucly (Le Kremlin Bicêtre, France), Mitja Jevnikar (Paris, France), Rui Miguel Costa Adão (Oliveira de Azeméis, Portugal) |

PG Room 2

Session

14:00 - 17:30

Postgraduate course: PG10 Spirometry today: From theory to practice

Aims : To understand the basic principles of spirometry and how and to perform it standardized and safe in practice following the new standardization of Spirometry (ATS-ERS) 2019 Update and in/after COVID-19 time.

Method(s) : Physiology Pulmonary function testing

Tag(s) : Clinical

Target audience : Adult pulmonologist/Clinician, General practitioner, Medical Technical Assistant, Physician in Pulmonary Training, Physiologist, Respiratory physiotherapist, Respiratory therapist

Chairs : Pierantonio Laveneziana (Paris, France), Monika Franczuk (Warszawa, Poland)

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| 14:00 | The physiological basis of the flow volume curve
Frans H.C. De Jongh (Enschede, Netherlands) |
| 14:20 | Discussion and Q&A
Frans H.C. De Jongh (Enschede, Netherlands) |
| 14:30 | Assuring quality and safety in your spirometry service
Aisling McGowan (Dublin 15, Ireland) |

14:50 **Discussion and Q&A**
Aisling McGowan (Dublin 15, Ireland)

15:00 **Break**

15:15 **Spirometry the practice: Effective performance**
Rachel Ong-Salvador (Amsterdam, Netherlands)

15:35 **Discussion and Q&A**
Rachel Ong-Salvador (Amsterdam, Netherlands)

15:45 **Spirometry the practice: what can go wrong and how to rectify**
Karl Sylvester (Cambridge (Cambridgeshire), United Kingdom)

16:05 **Discussion and Q&A**
Karl Sylvester (Cambridge (Cambridgeshire), United Kingdom)

16:15 **Break**

16:30 **Group assignment**
Frans H.C. De Jongh (Enschede, Netherlands), Aisling McGowan (Dublin 15, Ireland), Rachel Ong-Salvador (Amsterdam, Netherlands), Karl Sylvester (Cambridge (Cambridgeshire), United Kingdom)

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