



# ERS

# 20<sup>th</sup> ERS LUNG SCIENCE CONFERENCE

## Lung Science Conference

### Mucosal immunology of the lung: balancing protective immunity and chronic inflammation

10-13 March 2022 – Estoril, Portugal

Scientific programme as of 09.03.2022

The conference is granted with **15 CME credits** by the European Board for Accreditation on Pneumology (EBAP)

#### Thursday 10 March 2022



#### Opening Session

18:00-18:15

#### Welcome and Introduction

Reinoud Gosens, ERS Conferences and Seminars Director

18:15-19:00

#### Opening Lecture

Chair: Martijn Nawijn

“Cytokines: Orchestrating immune responses in lung disease” – Anne O’Garra (United Kingdom)

19:00-19:15

Discussion

19:15-20:30

Welcome “cheese and wine” cocktail

#### Friday 11 March 2022



#### Session 1:

#### Lung Cell atlas in health and disease

Chairs: Martijn Nawijn and Janine Schniering

08:30-08:50

#### Healthy atlas of the human airways

Laure Emmanuel Zaragosi (France)

08:50-09:05

Discussion

09:05-09:25

#### Integrated human lung cell atlas & Launch of the human cell atlas platform

Malte Lücken (Germany)

09:25-09:40

Discussion

09:40-09:55

#### OP01 – The multi-omics spatial lung atlas reveals new cell states and their functions in airway mesenchyme

Elo Madisson (United Kingdom)

09:55-10:15

#### Local and systemic response to SARS-CoV-2 infection in children and adults

Kerstin Meyer (United Kingdom)

10:15-10:30

Discussion

10:30-10:50

Coffee break



#### Session 2:

#### Tissue resident versus recruited immunity (part 1)

Chairs: Önder Yildirim and Chiara de Santi

10:50-11:10

#### Role of macrophages plasticity in chronic and infectious lung disease

Scott Budinger (USA)

11:10-11:25

Discussion

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- 11:25-11:40**      **OP02 – Macrophages acquire a TNF-dependent inflammatory memory in allergic asthma**  
Franziska Hartung (Germany)
- 11:40-12:00**      **Innate and adaptive immune responses to RV**  
René Lutter (Netherlands)
- 12:00-12:15      Discussion
- 12:15-12:30**      **OP03 – G-CSF drives pathophysiology of RV-induced allergic asthma exacerbations by potentiating neutrophilic inflammation and ILC2 function**  
Nicoletta Bruno (United Kingdom)
- 12:30-12:45**      **OP04 – Identification of a host antiviral and anti-inflammatory metabolite that protects against influenza virus-driven morbidity and mortality**  
Mustapha Si-Tahar (France)
- 12:45-14:45      Lunch for all delegates and mentorship lunch discussion for bursary recipients and their mentors



**Session 2:      Tissue resident versus recruited immunity (part 2)**  
Chairs: Kerstin Meyer and Elza Evren

- 14:45-15:05**      **Tissue resident T cells in healthy and diseased lung – remotely**  
Donna Farber (USA)
- 15:05-15:20      Discussion
- 15:20-15:35**      **OP05 – A high probability of short-range interactions between fibrocytes and CD8+ T cells potentiates the inflammatory response in COPD**  
Edmée Eyraud (France)
- 15:35-15:50**      **OP06 – Gene signature for patient stratification: Lessons learned from IL-33 stimulated TH2 genes**  
Akshaya Keerthi Saikumar Jayalatha (Netherlands)

*From 15:50 coffee will be served in the poster area*

**16:00-18:00      Poster Session 1**

Group A - Chairs: Louise Donnelly and Merete Long

- TP102 – A helminth glutamate dehydrogenase targets eicosanoid pathways to modulate type-2 immunity** - Sina Bohnacker, Germany
- TP103 – Characterization of neutrophilic responses in a pollutant-aggravated asthma mouse model** - Joyceline De Volder, Belgium
- TP104 – Post-COVID: The multimodal path to the right treatment strategy** - Daniel Gagiannis, Germany
- TP106 – Distinct metabolic reprogramming of airway epithelium in asthma in response to infection with rhinovirus** - Mengting Huang, Switzerland

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**TP107 – Innate immunity plays an important role during NTHI and RV sequential infection.** - Yuqing Long, United Kingdom

**TP108 – Antibiotic-induced microbial disruption drives metabolic rewiring in pulmonary macrophages and a dysregulated type 2 response in the lung** - Elizabeth Mann, United Kingdom

**TP109 – Monocyte migratory signatures identify acute and convalescent COVID-19 patients, and are associated with long COVID-19 symptoms** - Laurence Pearmain, United Kingdom

**TP110 – Phenotype and severity of asthma determines bronchial epithelial immune responses to a viral mimic** - Celeste Michala Porsbjerg, Denmark

**TP111 – Polymeric immunoglobulin receptor and immunoglobulin A system in an eosinophilic mouse model of chronic rhinosinusitis** - Alba Sánchez Montalvo, Belgium

**eP331 - Chronic unpredictable stress exacerbates allergic airway inflammation in mice** - Guilherme Dragunas, Netherlands

**eP352 - Environmental Nanoparticle Exposure Triggers Herpesvirus Reactivation via MAPK Signaling Pathway** - Lianyong Han, Germany

[Group B - Chairs: Sejal Saglani and Juan-José Nieto Fontarigo](#)

**TP112 – The respiratory epithelium expresses ACE2 isoforms differentially in response to interferons: Implications for IFN- $\beta$  as COVID-19 therapy** - Cornelia Blume, United Kingdom

**TP113 – Specialized pro-resolving mediators' biosynthesis by cystic fibrosis airway epithelial cells and their impact on mucociliary clearance** - Maelle Briottet, France

**TP114 – Spatial ECM proteomics resolves instructive tissue niches in the distal human lung** - Yuexin Chen, Germany

**TP115 – Insulin-like Growth Factor 1 Receptor facilitates NSCLC tumor growth acting in the tumor microenvironment** - José Manuel García Pichel, Spain

**TP116 – Lineage tracing of cells expressing the mesenchymal profibrotic transcription factor Prrx1 in the normal and fibrotic lung** - Méline Homps-Legrand, France

**TP118 – Exploring IL13 effects on the remodeling of airway epithelial cell populations by single-cell RNA sequencing** - Elisa Redman, France

**TP119 – The chitinase-like protein Ym2 is an amplifier of innate type 2 responses** - Ursula Smole, Belgium

**TP120 – Local airway expression of Inc-SERPINA12-1 in children with Cystic Fibrosis** - Zuzanna Stachowiak, Poland

**TP121 – High-dimensional characterisation of the airway wall of paediatric patients with asthma and pre-school wheeze using Imaging Mass Cytometry** - William Traves, United Kingdom

**eP374 - Radiation modulates bronchial epithelial progenitor activity as assessed in organoid formation assays** - Merian Kuipers, Netherland

**eP354 - Nasal mucosal lining fluid (MLF) biomarkers for monitoring acute and chronic respiratory disease** - Sarah Harbach, United Kingdom



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## Group C - Chairs: Gisli Jenkins and Kornelija Suveizdyte

**TP123 – Lung Cancer-Associated Fibroblasts in MHCII immunity: Understanding its Molecular Basis to Design Novel Immunotherapies** – Ilias Angelidis, Greece

**TP125 – Mapping the Immune Response Diversity after Murine Lung Transplantation** – Janne Kaes, Belgium

**TP127 – Mitochondrial iron regulates AEC2 dysfunction, senescence and senescent associated secretory phenotype in response to bleomycin challenge.** – Sarah Kenny, Ireland

**TP128 – Broncho-vascular mesenchymal stromal cells guided spatiotemporal establishment of antibody secreting cell pro-survival niches in the lung** – Vibha N. Lama, USA

**TP129 – Pulmonary macrophage subsets associated with lung allograft dysfunction revealed by single-cell RNA sequencing** – Sajad Moshkelgosha, Canada

**TP130 – Hyaluronan (HA) accumulation following SARS-CoV-2 infection and in non-resolvable COVID-19 fibrosis** – Andrew Peters, USA

**TP132 – Myeloid cells immunomodulate tissue niches and promotes idiopathic pulmonary fibrosis** – Valeria Viteri-Alvarez, Germany

**eP380 - Unravelling the role of miR-223 in the regulation of pollutant-aggravated allergic airway inflammation** - Tania Maes, Belgium

**eP407 - Inhalable textile microplastic fibers impair lung repair** - Shanshan Song, Netherlands

**eP402 - Farm dust exposure decreases expression of IL-33 in primary bronchial epithelial cells in part by inhibiting STAT1 phosphorylation** - Jasmijn A. Schruppf, Netherlands

**eP421 - IL1 $\beta$  induces RANKL secretion in control but not COPD lung fibroblasts** - Jelmer Vlasma, Netherlands

## Group D - Chairs: Ian Adcock and Padmini Khedoe

**TP134 – Circular RNA expression in cystic fibrosis bronchial epithelium** – Chiara De Santi, Ireland

**TP135 – Extracellular vesicles produced by airway epithelial cells from COPD patients contain miRNAs involved in cellular senescence** – Justine Devulder, United Kingdom

**TP136 – Effects of blocking TSLP on ILC and T cell subpopulations in patients with asthma** – Nanna Dyhre-Petersen, Denmark

**TP137 – Construction of a 3D innervated bronchial epithelium from human induced pluripotent stem cells iPSC** – Florent Foisset, France

**TP138 – Alveolar macrophages from people with severe eosinophilic asthma show differential antiviral responses to human rhinovirus 16 and SARS-CoV-2.** – Andrew Hearn, United Kingdom

**TP139 – Regulation of MHC I expression in lung epithelial cells during inflammation.** – Justine Mathé, Canada

**TP140 – Effect of eosinophilopoetins on proliferative properties of blood eosinophil subtypes in allergic asthma** - Jolita Palacionyte, Lithuania



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**TP141 – Kynurenine pathway as a modulator of inflammation in COPD and its exacerbations.** - Odile Poulain-Godefroy, France

**TP143 – Inhibiting RIPK1 kinase activity is protective in experimental models of COPD**  
- Hannelore P. Van Eeckhoutte, Belgium

**TP144 – Cigarette smoke modulates cellular responses of differentiated human bronchial epithelial cells to rhinovirus-A16 infection** - Ying Wang, Netherlands

**eP358 - A novel non-invasive approach to quantify microRNA expression in nasal fluid from COPD patients using a microfluidic platform** - Vanessa Ho, United Kingdom

From 19:30 Dinner for all delegates

### Saturday 12 March 2022

LIVE

**Session 3: Trained immunity**  
Chairs: Joanna Chorostowska-Wynimko and Gesa Albers

**08:45-09:05 Inducible bronchus associated lymphoid tissue drives immunity in COPD**

Önder Yildirim (Germany)  
09:05-09:20 Discussion

**09:20-09:35 OP07 – Inflammatory blood neutrophils in COPD stem from activated bone marrow progenitors**  
Theodore Kapellos (Germany)

**09:35-09:55 Trained immunity and allergy: State of the art and future perspectives**

Uta Jappe (Germany)  
09:55-10:10 Discussion

**10:10-10:25 OP08 – COPD Monocyte-derived macrophages display hallmarks of senescence**

Shyreen Hassibi (United Kingdom)

10:25-10:55 *Group Picture and Coffee Break*

LIVE

**10:55-12:10 Young Investigator Session – The William MacNee Award**  
Chairs: Silke Meiners and Ilias Angelidis

**10:55-11:10 YI01 – Human CD116+ fetal liver progenitors migrate to the perinatal lung and give rise to alveolar macrophages in vivo**  
Elza Evren (Sweden)

**11:10-11:25 YI02 – The potential role of innate lymphoid cells in non-allergic neutrophilic asthma model**

Anne-Charlotte Jonckheere (Belgium)

**11:25-11:40 YI03 – A novel IgA plasma cell niche in the human airways**  
Amanda Oliver (United Kingdom)

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**11:40-11:55**      **Y104 – d Influenza infection of epithelial cells alters extracellular vesicle microRNA involved in viral replication and the immune response**  
Laura Reid (United Kingdom)

**11:55-12:10**      **Y105 – Resolving aging-related cellular phenotypes in pulmonary fibrosis by longitudinal single-cell transcriptomics**  
Janine Schniering (Germany)

**12:15-13:30**      **Lunch**

**13:30-15:30**      **Poster Session 2**

Group E - Chairs: James Chalmers and Mengting Huang

**TP202 – Targeting CXCR4 as a therapeutic strategy to improve outcomes in a mouse model of early chronic obstructive pulmonary disease (COPD)** - Isabelle Dupin, France

**TP203 – Reactivation of latent virus infection links air pollutants to chronic lung disease** - Verena Haefner, Germany

**TP204 – No differences in cytokine responses to moderate-intensity exercise in -10°C versus 10°C.** - Helen Hanstock, Sweden

**TP205 – Different Effects of Inhaled Corticosteroids on Infiltrating Mast Cells in Type 2 High and Type 2 Low Asthma** - Morten Hvidtfeldt, Denmark

**TP206 – Real time in vivo investigation of the innate immune response during ventilator-assisted nanoparticle inhalation** - Qiongliang Liu, Germany

**TP207 – Elevated ferritin is associated with systemic inflammation, inflammasome activation and mortality in Acute Respiratory Distress Syndrome (ARDS)** - Puja Mehta, United Kingdom

**TP208 – Effects of probiotics in uncontrolled asthma** - Catherine Moermans, Belgium

**TP209 – Budesonide reduces the bronchial epithelial response to a viral mimic in T2high asthma, and boosts anti-microbial responses in T2low asthma** - Juan-José Nieto-Fontarigo, Sweden

**TP211 – Inhaled continuous exposure to farmyard microbes suppress type 2 inflammation in a neonatal murine model of viral-induced wheeze and asthma** - Kunyuan Tian, United Kingdom

**eP372 - IL11 negatively impacts adult lung alveolar organoid formation** - Rosa K. Kortekaas, Netherlands

**eP422 - One drug to rule them all: Targeting host cell metabolic pathway to combat respiratory infections** - Laxmikant Wali, Austria

Group F - Chairs: Scott Budinger and Theodore Kapellos

**TP212 – Allergen exposure induces airway macrophage metabolic reprogramming** - Gesa J Albers, United Kingdom

**TP213 – Mast cell tryptase contribute to airway remodelling by inducing pro-survival and cell growth properties in lung epithelial cells** - Frida Berlin, Sweden



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**TP215 – Human lung microbiota drives differential innate immune response** - Sudip Das, Switzerland

**TP216 – Expression of miR-185-5p, miR-146b-5p, miR-320b, miR-21-5p in Blood Eosinophil Subtypes and Plasma in Allergic Asthma Patients** - Egle Jurkeviciute, Lithuania

**TP217 – The role of IGF2BP3 in Type 2 signalling in bronchial epithelium: a novel player in severe asthma** - Paniz Khooshemehri, United Kingdom

**TP219 – Function-specific IL17A and Dexamethasone interactions in primary human airway epithelial cells** - Siti Farah Rahmawati, Netherlands

**TP220 – Impact of treatments targeting the GM-CSF pathway on the functions of human pulmonary macrophages** - H el ene Salvator, France

**TP221 – Generation of apical-out airway organoids from human primary airway epithelial cells** - Georgios Stroulios, United Kingdom

**eP332 - Cigarette smoke alters macrophage mitochondrial iron handling in COPD** – Lynne Faherty, Ireland

## [Group G - Chairs: Didier Cataldo and Elo Madissoon](#)

**TP223 – NTHi-IAV coinfection of macrophages alters infection outcomes and inflammatory responses** - Karl Staples, United Kingdom

**TP224 – Pseudomonas aeruginosa modulates mucosal immune response to rhinovirus infection in an in-vitro chronic infection model** - Adrian Endres, Germany

**TP225 – Chronic Bacterial Airways Infection in Severe Asthma** - Maisha Jabeen, United Kingdom

**TP226 – The Cathelicidin LL-37 and microbial dysbiosis in COPD patients receiving inhaled corticosteroids** - Holly Rachael Keir, United Kingdom

**TP227 – Ex vivo modelling of human lung fibrogenesis and drug mode of action screens using single-cell RNA-seq in precision-cut lung slices** - Niklas Lang, Germany

**TP228 – G-protein coupled receptor 87 is a novel basal cell marker in distal IPF bronchioles** - Mareike Lehmann, Germany

**TP229 – Profiling systemic inflammation and neutrophil function in hospitalized patients with COVID19: results from PREDICT-COVID19** - Merete Long, United Kingdom

**TP230 – The microbiota plays a critical role in the reactivity of lung immune components to innate ligands** - Quentin Marquant, France

**TP231 – Modulation of antiviral responses to rhinovirus by the nonsense mediated decay pathway and implications in rhinovirus-induced exacerbations** - Rocio Teresa Martinez-Nunez, United Kingdom

**TP232 – Extracellular vesicles and soluble factors secreted by lung fibroblasts support alveolar organoid formation** - Luke Van Der Koog, Netherlands

**TP233 – Single cell transcriptomic dissection of virus induced immunopathology in interferon gamma receptor null mice** - Lin Yang, Germany



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Group H - Chairs: Hermelijn Smits and Andrew Hearn

**TP235 – Lung surfactant lipids reduce the alternative activation and proliferation of alveolar macrophages induced by IL-4** - Cristina Casals, Spain

**TP236 – Monocyte migration and COPD pathogenesis are epigenetically regulated by PRMT7** - Aicha Jeridi, Germany

**TP237 – High-resolution transcriptomic and epigenetic profiling across disease stages identifies novel regulators of COPD phenotypes.** - Renata Jurkowska, United Kingdom

**TP238 – Biomarker identification to assess effects of bone-marrow derived mesenchymal stromal cell-therapy in emphysema through immune profiling** - Padmini P. S. J. Khedoe, Netherlands

**TP239 – An ex vivo model of cellular senescence and inflammaging in precision-cut lung slices** – Maria Camila Melo Narvaez, Germany

**TP240 – Support of human alveolar organoid growth by pulmonary endothelial cells: possible influence of cigarette smoke exposure** - Abilash Ravi, Netherlands

**TP241 – Overzealous degradation of collagen fragment Pro-Gly-Pro by leukotriene A4 hydrolase (LTA4H) perpetuates fibrosis in IPF** - Kornelija Suveizdyte, United Kingdom

**TP242 – Mitochondrial DNA stress in lung parenchymal cells activates autoreactive CD8+ T cells - implications for pulmonary fibrosis** - Silke Meiners, Germany

**TP244 – Cigarette smoke and air pollution induce dysfunctional pulmonary microvascular endothelial repair** - Xinhui Wu, Netherlands

**eP366 - Exosomes from EGFR-mutated adenocarcinoma induce a partial/hybrid EMT** - Amina JOUIDA, Ireland

From 15:00 coffee will be served in the poster area



**17:00-19:30 Early-Career delegates session – Tools for career development**  
Chairs: Niki Ubags and Holly Keir

**17:00-17:10 Introduction**  
Niki Ubags (Switzerland)

**17:10-17:30 Effective teaching and mentoring: where to start?**  
Agnes Boots (Netherlands)

**17:30-17:40 How to collaborate successfully (industry vs academic perspective) – part 1**  
Alexander Mackay (Sweden)

**17:40-17:50 How to collaborate successfully (industry vs academic perspective) – part 2**  
Rachel Chambers (United Kingdom)

**17:50-18:10 Transferable skills: you are more than ‘just’ a scientist!** - remotely  
Verity Elston (Switzerland)

**18:10-18:30 Setting the scientific playfield outside academia: a career in scientific editing** - remotely  
Timothy Powell (United Kingdom)

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**18:30-19:30** Panel discussion and networking event

**19:30-20:00** Evening Pre-dinner talk

Chair: Chris Brightling

“Beyond Covid-19” – Petter Brodin (Sweden)

20:00 Award Ceremony

From 20:15 Dinner for all delegates

## Sunday 13 March 2022

LIVE

**Session 4: The mucosal immunity in the lung and infections**

Chairs: Anne O’Garra and Amanda Oliver

**08:45-09:05 Virus provided protection against allergic asthma**

Laurent Gillet (Belgium)

09:05-09:20 Discussion

**09:20-09:40 How host-commensal interactions can shape mucosal immune responses**

Hermelijn Smits (Netherlands)

09:40-09:55 Discussion

09:55-10:15 *Coffee break*

LIVE

**Session 5: Cytokine targeted therapies / personalized medicine in the context of (chronic) respiratory diseases**

Chairs: Florence Schleich and Pujja Mehta

**10:15-10:35 Cytokines targeted therapies in asthma versus COPD**

Guy Brusselle (Belgium)

10:35-10:50 Discussion

**10:50-11:10 Precision medicine: New biomarkers and targets beyond T2 inflammation**

Chris Brightling (United Kingdom)

11:10-11:25 Discussion

**11:25-11:45 Role of lung microbiome in airway diseases**

James Chalmers (United Kingdom)

11:45-12:00 Discussion

12:00-12:15 Conclusion by Reinoud Gosens, ERS Conferences and Seminars Director

12:15 *Lunch and departure*

**Access LSC resources on the virtual platform from Monday 28 February**

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## Exclusively online - ePosters:

eP301 - In Vitro Simulation of Aerobic Exercise Effects in Neutrophils in Severe Asthma: Involvement of Kinins - Maysa A. R. Brandao-Rangel, Brazil

eP302 - Aerobic exercise modulates the phenotype of severe asthma: the role of Kinins - Maysa A. R. Brandao-Rangel, Brazil

eP303 - The level of sIgA in nasal secretions and the incidence of complications in hospitalized patients with COVID-19 against an immunotropic drug - N. D. Abramova, Russian Fed.

eP304 - CT scan imaging in acute infectious infiltrative lung disease before the covid-19 era - Meriem Affes, Tunisia

eP305 - Efficacy of vitamin D on chronic obstructive lung disease (COPD): a systematic review - Syed Morsalin Ahmed, United Kingdom

eP306 - The biological activity of interferons in post-COVID syndrome - Lidia Arifullina, Russian Fed.

eP307 - Mitochondrial alterations in T cells after in vivo and in vitro smoke exposure - Vidya Srokshta Balasubramanian Lakshmi, Germany

eP308 - Serum Levels of Surfactant Protein-B (SP-B) as biomarker in IPF and ILD-SSc - Gabriele Bartoli, Italy

eP309 - Single-cell analysis reveals airway epithelial cell-specific expression quantitative trait loci in asthma - Marijn Berg, Netherlands

eP310 - NK and T cell in patients with end-stage lung disorders waiting for lung transplantation in response to CMV infection. - Laura Bergantini, Italy

eP311 - Protective effect of interferon type I on barrier function of human airway epithelium during rhinovirus infections in vitro - Helena Boland, Germany

eP312 - Receptor-binding domain of SARS-CoV-2 facilitates internalization of 100 nm particles by neutrophils in conducting airway mucosa of mice. - Elena Bolkhovitina, Russian Fed.

eP314 - Therapeutic potential of mesenchymal stem cells in the restoration of local immune homeostasis for transitional phase pneumonia-induced sepsis - Declan Byrnes, Ireland

eP315 - Eosinophilic exacerbations of chronic obstructive pulmonary disease (COPD) have elevated reactive oxygen species (ROS) release - James Camp, United Kingdom

eP316 - The metabolite succinate inhibits influenza virus replication through succinylation and nuclear retention of the viral nucleoprotein - Adeline Cezard, France

eP317 - The glycosylated extracellular domain of MUC1 protects against SARS-CoV-2 infection at the respiratory surface - Maitrayee Chatterjee, Netherlands

eP318 - Ionic Calcium in Blood as Early Marker of Severity in Patients with COVID-19 - Jorge Nelson Chung Ching, Peru

eP320 - Novel nasal virosome spray vaccine to protect against COVID-19 - Tiziana Patrizia Cremona, Switzerland

eP321 - Impact of cigarette smoke on caspases activation and gasdermin D cleavage in human macrophages - Marta Cristaldi, Italy

eP322 - Effect of Bromhexine among COVID-19 Patients - A Meta-Analysis - Anna rossa magda Cuerdo, Philippines

eP323 - Effect of Hyperbaric Oxygen Therapy among COVID-19 patients: A Meta-Analysis - Anna rossa magda Cuerdo, Philippines

eP324 - Immune-Checkpoint expression on CD4, CD8 and NK cells in blood, BAL and lymph nodes of sarcoidosis - Miriana D'Alessandro, Italy

eP325 - Source-related composition and toxicological effects of shipping-associated particulate matter - Lareb Dean, United Kingdom



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eP326 - Diesel exposure favors lung cancer progression through induction of an inflammatory microenvironment. - Marie-Laure Delhez, Belgium

eP327 - Correlations between volumetric capnography and automated computed tomography quantitative analysis in patients with severe COPD - Odair Diniz, Brazil

eP328 - Cigarette smoke extract promotes caspase-1 activation and IL-18 release in primary human bronchial epithelial cells. - PAOLA DINO, Italy

eP329 - The impact of virus infection on the development of Bronchopulmonary Dysplasia (BPD) - Anna Dmitrieva, Germany

eP333 - Physiologic culture of mesenchymal stromal cells affects macrophage activity in a paracrine manner. - Bryan Falcones, Sweden

eP334 - Features of submicroscopic structure of respiratory part of lungs in early stages of development of streptozotocin-induced diabetes mellitus - Yuliya Fedorchenko, Ukraine

eP335 - Bronchiectasis in severe asthma is associated with eosinophilic airway inflammation and activation - Laurits Frøssing, Denmark

eP336 - Using lung organoids to recapitulate HRas/NRas-double knockout alveolar maturation defects in mice - Rocío Fuentes-Mateos, Spain

eP337 - A study to evaluate nasal mucosal IgA development in neonates using a non-invasive sampling method - Genevieve Po Gee Fung, Hong Kong

eP338 - Decreased expression of S100A7/A8/A9 in severe asthmatics following bronchial thermoplasty. - Pierre-Alexandre Gagnon, Canada

eP339 - Cooperation between fatty acid binding protein 5 and peroxisome proliferator-activated receptor  $\gamma$  in regulating macrophage programming - Fabienne Gally, USA

eP340 - Understanding the cellular immune response in silicosis by exposing human lymphocytes to silica nanoparticles - Nirosha Ganesan, Belgium

eP341 - Synergistic action of apoptotic cells and surfactant protein A in boosting IL-4-dependent alternative activation of alveolar macrophages. - Belen Garcia-Fojeda, Spain

eP342 - Transcriptional response to RSV in asthma primary bronchial epithelial cells: are the basal cells responsible for the reduced NF- $\kappa$ B response? - Aurore Gay, Netherlands

eP343 - Lung volume and density assessment over time in hospitalized COVID-19 patients - Vincent Geudens, Belgium

eP344 - Involvement of FGF21 in pulmonary fibrosis - Mada Ghanem, France

eP345 - Prenatal exposure to ozone triggers development of lung diseases in offspring - Alison Gillard, Belgium

eP346 - Exploring the anti-inflammatory effect of commensal lung microbiota members in a 3-D lung epithelial cell model - Ellen Goeteyn, Belgium

eP348 - Human mast cell differentiation optimization to study MRGPRX2-induced activation in vitro - Janne Goossens, Belgium

eP349 - Human plasma-derived IgG protects against respiratory pathogens in an epithelial air-liquid interface model - Stefanie Graeter, Switzerland

eP350 - Diesel exhaust particles and TNF-alpha or LPS induce pro-inflammatory pathways, including TSLP expression, in bronchial epithelial cells - Fien Gysens, Belgium

eP351 - End stage lung disease is characterized by a pro-inflammatory imbalance in the innate lymphoid cell compartment. - Olga Halle, Germany

eP353 - Average Volume Assured Pressure Support Auto-titrating EPAP(AVAPS-AE) mode in Lung Cancer Patients with Respiratory Failure - BoXue Han, China

eP355 - The effect of interferon-alpha-2b therapy on humoral immunity after COVID-19 infection - Albina Hasanova, Russian Fed.

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eP356 - Systematic review and meta-analysis of interstitial lung disease transcriptomics - Daniel He, Canada

eP357 - COVID-19 and smoking: Worse outcome from a surveillance analysis - Gholamreza Heydari, Iran

eP359 - Relations between blood and tissue microbiome in sarcoidosis patients - Yordan Hodzhev, Bulgaria

eP360 - Novel alveolar macrophage-like model (ImmuPHAGE) as a platform for better mechanistic understanding for the fate of inhaled medicines. - Ewelina Hoffman, United Kingdom

eP362 - Community-based asthma assessment in young children: Adaptations for a multicentre longitudinal study in South Asia - Mohammad Shahidul Islam, Bangladesh

eP363 - Interleukin-10 expressing regulatory B cells are decreased in blood of smokers and COPD patients - Merel Jacobs, Belgium

eP364 - Ferroptosis, induced by macrophages drives COPD pathogenesis - Aicha Jeridi, Germany

eP365 - Epigenetic modulation of TLR-driven inflammatory responses in airway epithelial cells - Akhilesh Jha, United Kingdom

eP367 - The bacteriology of pleural infection using next generation sequencing: The Oxford Pleural Infection Metagenomics Studies (TORPIDS) - Nikolaos I. Kanellakis, United Kingdom

eP368 - Multi-omics analysis reveals the NAD<sup>+</sup> salvage pathway as defense mechanism against *Streptococcus pneumoniae* infection - Björn Klabunde, Germany

eP369 - DNA-viruses modulates changes in B cells phenotype and auto-Abs in asthma. - Anna Konishcheva, Russian Fed.

eP370 - Eosinophil-associated gene signature expression in U-BIOPRED severe asthma - Janice Koranteng, United Kingdom

eP371 - Background of the use of lyophilized dialysate leukocytes (DLL) in ASIT in patients with seasonal allergic rhinitis - Ieliena Koretskaia, Ukraine

eP373 - Assessment of mucosal and systemic phagocytosis in Health Care Professionals (HCPs) in the post COVID-19 period - Nadezda Kryukova, Russian Fed.

eP375 - Inhibition of histone deacetylase activity reduces pulmonary vascular remodeling and inflammation in experimental pulmonary hypertension - Konda Babu Kurakula, Netherlands

eP376 - Epithelial and neutrophil responses to microbes in cystic fibrosis airways - Daniel Laucirica, Australia

eP377 - Characteristics of DNA repair capacity of peripheral blood lymphocytes from asthmatic patients with different phenotypes and severity - Andrey Evgenievich Lintsov, Russian Fed.

eP378 - Cytogenetic Alterations In Cells from Allergic and Non-Allergic Asthmatic Patients - Andrey Evgenievich Lintsov, Russian Fed.

eP379 - Phenotype and function of innate lymphoid cells in a murine model of impaired muco-ciliary clearance challenged with allergen - khatuna Lobjanidze, Germany

eP381 - Respiratory and systemic effect of diet and exercise in obese mice - Fopke Marain, Belgium

eP382 - The RNA binding proteins ZFP36L1 and ZFP36L2 exert genome-wide effects on airways epithelium and glucocorticoid responses - Rocio Teresa Martinez-Nunez, United Kingdom

eP383 - Production and delivery of a recombinant modified superoxide dismutase protein to a rodent ARDS model by vibrating mesh nebulisation - Sean McCarthy, Ireland

eP384 - Validation of CXCL10 as a biomarker of respiratory tract infections detectable by lateral flow immunoassay - Dayna Mikkelsen, Canada

eP385 - High-sensitivity TSLP assay demonstrates a role of TSLP in eosinophilic and non-eosinophilic asthma. - Louise Munkholm Andreasson, Denmark

All timings are in Western European Time (WET)



# ERS

# 20<sup>th</sup> ERS LUNG SCIENCE CONFERENCE

- eP386 - Meta-analysis on novel biomarker use in lung cancer screening - Sahraoui Nassima,
- eP387 - Favipiravir induced rhabdomyolysis in patient with severe COVID-19 pneumonia - Nurgul Naurzvai, Turkey
- eP388 - IL-10 induced by alum-adjuvanted acellular pertussis vaccine reduces its capacity to induce protective respiratory tissue-resident CD4 T cells - Caitlín Ní Chasaide, Ireland
- eP389 - Persistent COVID-19 symptoms and quality of life among the Dutch pediatric population - Lieke Noij, Netherlands
- eP390 - Altered eicosanoid profile in association with nasal polyp severity in patients with chronic rhinosinusitis - Axel Nordström, Sweden
- eP391 - Airway hyperreactivity and type of acetylation as the predictors of eosinophilic asthma in school-age children - Yevehniya Ortemenka, Ukraine
- eP392 - Influence of the long-term usage of inhaled corticosteroids on development of obesity and growth retardation in children with bronchial asthma - Yevehniya Ortemenka, Ukraine
- eP393 - A human ex vivo model to study the innate immune response to NTHi in the lung - Lee Page, United Kingdom
- eP394 - Alteration of lung defense mechanisms after exposure to urban coarse PM leads to infection by *Streptococcus pneumoniae* - Muriel Pichavant,
- eP395 - Allergic risk factors for severe asthma among preschool children: a descriptive-analytical study from rural Sri Lanka - Shashanka Indeevara Rajapakse Rajapakse Mudiyansele, Sri Lanka
- eP396 - Comparing epithelial alarmin responses to different aeroallergens in bronchial epithelial cells from allergic asthma patients - Sangeetha Ramu, Sweden
- eP397 - Development of novel alveolar and bronchial microphysiological systems for use in disease research and drug development. - Emily Richardson, United Kingdom
- eP398 - Tissue resident memory T cells are increased in the lungs of COPD patients - Bradley Richmond, USA
- eP399 - Club cells are the primary source of pIgR in small airways - Bradley Richmond, USA
- eP400 - Seroprevalence of SARS-CoV-2 immunoglobulins in a community-based population in Tizi-Ouzou, Algeria. - Salim Sadi, Algeria
- eP403 - Multi-omic profiling of lung inflammation in early life cystic fibrosis - Shivanthan Shanthikumar, Australia
- eP404 - Lung tuberculosis characteristics in association with herpesvirus infection - Alexey Shibanov,
- eP405 - *Haemophilus influenzae* is associated with fibrotic phenotype of COVID-19 and idiopathic pulmonary fibrosis. - Pooja Shivshankar, USA
- eP406 - LDH inhibition rescues pulmonary fibrosis features in human primary cellular models of IPF - Wioletta Skronska-Wasek, Germany
- eP408 - The impact of nasal colonization with *Staphylococcus aureus* and its enterotoxin B on allergic airway inflammation in patients and mouse models - Sabine Stegemann-Koniszewski, Germany
- eP409 - Profibrotic and proinflammatory pulmonary response to bleomycin in a Swiss nude mice model - Kristiyan Stiliyanov Atanasov, Spain
- eP410 - Course of lung inflammation and injury caused by nanoparticle inhalation depends on material specific cellular perturbation pattern - Tobias Stoeger, Germany
- eP412 - Altered hyaluronan metabolism in response to IL1 $\beta$  in the lung microenvironment is associated with defective repair - Vasili Stylianidis, Netherlands
- eP413 - IgA-reflected mucosal immunity in patients with bronchiectasis (Bx) - Kseniia Suska, Ukraine
- eP414 - The bronchodilatory and anti-inflammatory effect of TRPV4 ion channels blocker in experimentally-induced allergic asthma. - Martina Šutovská, Slovakia

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# ERS

# 20<sup>th</sup> ERS LUNG SCIENCE CONFERENCE

eP415 - Investigation of the interplay of pattern recognition receptors in IFN responses in bronchial epithelial cells from asthma patients - Sofia Magdalena Tillgren, Sweden

eP416 - The role of mucosal IgE and cytokine levels in reflecting the intensity of allergic symptoms - Joseph G S Tsun, Hong Kong

eP417 - Igf1r deficiency attenuates lung inflammation in a mice model of sub-chronic cigarette smoke exposure - Alfredo Urtubia, Spain

eP418 - Association between serum IgG levels and time to first antibiotic prescription in COPD patients - Anna Vanoverschelde, Belgium

eP419 - Partial apoptosis of epithelial cells in Idiopathic Pulmonary Fibrosis(IPF). - Eirini Vasarmidi, France

eP420 - Exosomal miR16, miR21, miR126, miR146a and miR215 as biomarkers for asthma severity - Sara Vázquez Mera, Spain

eP423 - Mucosal immunology of the gut and lung in a cigarette smoke-induced murine model for COPD: the lung-gut axis - Lei Wang, Netherlands

eP424 - Deep learning in pulmonary drug delivery - Lin Yang, Germany

eP425 - Fibroblasts drive the differentiation of murine pneumocytes in air-liquid interface cultures - yiwon yao, Germany

eP426 - Prevalence and associated risk factors of post covid-19 interstitial lung disease; An emerging challenge to pulmonologists - Duminda Yasaratne, Sri Lanka

eP427 - Outpatient antibiotic therapy leads to endotoxemia markers elevation in acute SARS-CoV-2 lung damage - Igor Yatskov, Ukraine

eP428 - Local and systemic responses to SARS-CoV-2 infection in children and adults - Masahiro Yoshida, United Kingdom

TP122 – Exploring the role of infection experienced lung stromal cells following re-challenge with influenza A virus - Julie Worrell, United Kingdom

TP210 – Differential toxicity in an alveolar epithelial cell line of fine particulate matter from brakewear, roadwear, and diesel exhaust - James Parkin, United Kingdom

TP131 – Biosynthesis and implementation of Thyroid Receptor beta (TR $\beta$ ) agonists (thyromimetics) for the treatment of pulmonary fibrosis – Argyris Tzouveleakis, Greece

TP101 – Longitudinal impact of conjugated pneumococcal vaccine (PCV13) on cytokine profile in different asthma phenotypes. - Kostinov Anton, Russian Fed.

TP105 – Pulmonary In Vitro Perfusion (PIPE) Model to Study Cellular Crosstalk in Neonatal Pulmonary Vascular Disease - Motaharehsadat Heydarian, Germany

TP133 – Patient derived malignant pleural effusion cell cultures as a platform to understand pleural malignancies and advance personalised treatment – Yu Zhao, United Kingdom

TP126 – Differential expression of PD-1/PD-L1 axis in mediastinal lymph nodes of experimental and human lung fibrosis – Theodoros Karampitsakos, Greece

TP117 – scRNA sequencing on human airway epithelium reveals transcriptional changes during healthy aging - Pavan Prabhala, Sweden

TP201 – Sphingosine-1-phosphate drives sex-dimorphism in lung function - Ida Cerqua, Italy

TP218 – IL-13 modulates exosome production and miRNAs cargo in bronchial epithelial cells in severe asthma - Martin Klein, Canada

**[Access LSC resources on the virtual platform from Monday 28 February](#)**

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