This Conference is granted 15 European CME credits (ECMEC) by the European Accreditation Council for Continuing Medical Education (EACCME).

Friday March 21, 2014

Opening Session

08:30-08:45 Welcome and introduction by Peter Barnes, ERS President, and Bruno Crestani, ERS Conferences and Seminars Director

08:45-09:30 Opening Lecture:
Chairs: Peter Barnes and Bruno Crestani
The lung dendritic cell network and the response to allergens
Bart Lambrecht, Ghent, Belgium

09:30-09:45 Discussion

Session 1: The genesis of allergy and asthma
Chairs: Bart Lambrecht, Hamida Hammad and Anders Bjerg

09:45-10:05 Presentation by an expert: The atopic march: new evidences
Mei Li, Illkirch, France

10:05-10:20 Discussion

10:20-10:35 OP01: ILC2 contribute to ozone-induced airway hyperresponsiveness in obese mice
Joel Mathews, Boston, United States of America

10:35-10:55 Coffee break

10:55-11:15 Presentation by an expert: Innate lymphoid cells and Th2 immunity
Andrew McKenzie, Cambridge, United Kingdom

11:15-11:30 Discussion

Session 2: Effector mechanisms in allergy
Chairs: Elisabeth Bel, Hajime Karasuyama and Indre Butiene

11:30-11:50 Presentation by an expert: Mast cells in human airways: the culprit?
Jonas Erjefält, Lund, Sweden

11:50-12:05 Discussion

12:05-12:20 OP02: Processed and full length IL-33 are active
Laura Rapley, Cambridge, United Kingdom
12:20-12:40  Presentation by an expert: Contribution of mouse and human IgG receptors in systemic anaphylaxis
Pierre Bruhns, Paris, France
12:40-12:55  Discussion

Lunch for all delegates + mentorship lunch for bursaries recipients and their mentors

Session 3: Epithelial and endothelial cells at the forefront
Chairs: Peter Barnes, Gunilla Westergren-Thorsson and Agnes Boots

14:30-14:50  Presentation by an expert: Epithelial cells drive inflammation in the digestive tract
Manolis Pasparakis, Cologne, Germany
14:50-15:05  Discussion

15:05-15:20  OP03: Influenza virus (IV) impairs fibroblast growth factor receptor 2b (FGFR2b) dependent epithelial regeneration from a distal epithelial progenitor pool
Jennifer Quantius, Giessen, Germany

15:20-15:40  Presentation by an expert: Pulmonary hypertension: a taste of autoimmunity?
Frédéric Perros, Le Plessis Robinson, France
15:40-15:55  Discussion

15:55-16:10  OP04: Antagonizing BAFF prevents lymphoid follicle formation in cigarette smoke-exposed mice
Leen Seys, Ghent, Belgium

16:10-16:30  Coffee break

16:30-18:30  Poster Session 1
Group A – Chairs: Melanie Koenigshoff and Jean-Michel Sallenave

PP105: Differential function of IL-17A in cigarette smoke induced lung damage - Meike Voss

PP106: The comparison of the generic and novel engineered drug formulations of corticosteroid and β2-agonist in an in vitro inflammatory model - Younis Khan

PP107: Intravital Imaging of the Lung - Matthew Krummel

PP108: Effect of bronchoalveolar lavage fluid from patients with interstitial lung diseases on epithelial cells and fibroblasts - Martina Sterclova
PP109: The cation channel TRPV4 regulates epithelial barrier responses to Lipopolysaccharides - Yeranddy A. Alpizar

PP110: Fasudil prevents skin and lung fibrosis in HOCl-induced systemic sclerosis in mice - Thông Hua-Huy

PP111: Supplementation of prebiotic galactooligosaccharide reduces severity of exercise induced asthma (EIA) in physically active asthmatics – A pilot study - Neil C Williams

PP112: The enhanced oxidative stress during rhinovirus-induced exacerbation in asthma patients parallels a reduced anti-oxidative capacity of airway macrophages - Caterina Folisi

PP113: M2-polarized macrophages attenuate influenza virus-induced acute lung injury - Balachandar Selvakumar

PP116: The ability of lung parenchymal fibroblasts to interact with T cells - Andrew Hutton

Group B – Chairs: Hamida Hammad and Frédéric Perros

PP117: Transient receptor potential channels in isocyanate-induced airway hyperresponsiveness - Fien Devos

PP118: Peripheral blood and sputum inflammatory cells activity during acute exacerbation of COPD - Mindaugas Vaitkus

PP119: Analysis of subpopulations of lymphocytes including Fas positive cells in patients with obstructive sleep apnea (OSA) - Aleksandra Piechuta

PP120: In vitro effect of inhaled glucocorticoids on the virus-induced activation of bronchial epithelial cells from asthmatic children - Delphine Gras

PP121: The role of the formyl peptide receptor in the development of pulmonary fibrosis - Ben Millar

PP122: Regulation of alveolar epithelial cell Na,K-ATPase expression and localization after influenza virus infection - Christin Becker

PP123: Combined effects of inflammatory mediators and BMPR2 mutation on pulmonary arterial cell function in a pulmonary arterial hypertension - Leanda Vengethasamy

PP124: Probenecid reduces inflammation and colonization during bacterial pneumonia - Bodo Wonnenberg

PP125: Influenza-Induced Exacerbation In A Murine Chronic House Dust Mite (HDM) Asthma Model - Lara Ravanetti

PP126: Cigarette smoke induces apoptosis followed by a proliferative and pro-inflammatory cytokine profile, rather than EMT in the COPD lung epithelium - Ana Camelo
Group C – Chairs: Suzanne Herold and Keren Borensztajn

PP127: Peripheral blood neutrophil chemotaxis is related to sputum neutrophil count after bronchial allergen challenge in asthma patients - Simona Lavinskiene

PP128: Proteinase activated receptor-1 (PAR1) plays a key role in the early inflammatory response to Streptococcus pneumoniae pulmonary infection - Ricardo José

PP129: Deglycosylated bleomycin, while keeping bleomycin’s antitumor activity, is devoid of its strong pulmonary toxicity - Olivier Burgy

PP130: Influenza infection of human lung macrophages increases PDL1 expression via autologous IFNβ - Karl J. Staples

PP131: Allergen-induced late phase airway inflammation is related to increased peripheral blood Th9 cell count and reduced eosinophil apoptosis in allergic asthma - Deimante Hoppenot

PP132: Impact of cigarette smoke on function and expression of immunoproteasomes - Ilona Keller

PP133: Chemerin/ChemR23 pathway in diesel exhaust particles-induced pulmonary inflammation - Katrien De Grove

PP134: IREB2 may contribute to worsening lung function in alpha-1 antitrypsin deficiency by altering neutrophil chemotaxis - Heena Khiroya

PP135: How reliable are upper airway cell lines for studying the pathophysiology of chronic rhinosinusitis? - Stephen Ball

PP136: Methylene diphenyl diisocyanate in a mouse model of chemical-induced asthma - Lore Pollaris

PP137: Increased myelopoiesis induced by cigarette smoke transiently increases kinetics of lung bacterial clearance in mice - Paola Basilico

Group D – Chairs: Bruno Crestani and Robert Bals

PP138: Deciphering of the mechanism of the anti-asthmatic action of the CXCL12 neutraligand, chalcone 4 - Francois Daubeuf

PP139: Expansion of multiple dendritic cell populations in the alveolar parenchyma in patients with COPD - Michiko Mori

PP140: First evidence for impaired epithelial barrier in house dust mite sensitized allergic rhinitis patients - Brecht Steelant

PP141: Correction of aberrant peripheral neutrophil migration in the aged by simvastatin in health and during respiratory infections - Hannah Greenwood

PP142: Role of TNF-a signaling on early pulmonary changes in newborn mice undergoing mechanical ventilation - Tina Gimm

PP144: Myeloid dendritic cells from atopic asthmatics induce both Th2 and Th9 cells in response to thymic stromal lymphopoietin - Antoine Froidure
PP145: Lung tumours reprogram pulmonary dendritic cell immunogenicity at the microRNA level - Karim Vermaelen

PP146: M1/ M2 subpopulations of macrophages in patients with Sarcoidosis- influence of smoking status - Iwona Osinska

PP147: Large and small airway epithelium innate immune responses in Chronic Obstructive Pulmonary Disease - Elizabeth Moisey

PP148: Aged mice exhibit an enhanced innate inflammatory response following infection with Streptococcus pneumonia - Andrew Williams

18:30-20:30 Early evening session: The new drug discovery paradigm
Chairs: Maria Belvisi and Stephen Holgate
Robert Strieter, Novartis
Thomas Mustelin, MedImmune

From 20:30 Dinner for all delegates

Saturday March 22, 2014

Session 4: New trends in immunology and asthma
Chairs: Farrah Kheradmand, Jurgen Vestbo and Tiago Jacinto

08:45-09:05 Presentation by an expert: Transcriptional circuits directing helper versus cytotoxic programs during effector T cell differentiation
Remy Bosselut, Bethesda, United States of America
09:05-09:20 Discussion

09:20-09:35 OP05: A New Target and Novel Agent to Prevent Acute Lung Injury
Aron Fisher, Philadelphia, United States of America

09:35-09:55 Presentation by an expert: Resolving inflammation: new mechanisms
Derek Gilroy, London, United Kingdom
09:55-10:10 Discussion

10:10-10:25 OP06: Macrophages are required to maintain type-2 dependent inflammation, immunity and fibrosis
Lee Borthwick, Newcastle, United Kingdom

10:25-10:50 Group Picture and Coffee break

10:50-11:10 Presentation by an expert: Role of basophils in allergic inflammation and protective immunity
Hajime Karasuyama, Tokyo, Japan

11:10-11:25 Discussion
OP07: Targeting of microRNAs can restore innate anti-viral response in asthma
Hitasha Rupani, Southampton, United Kingdom

11:40 – 14:00 Poster Session 2
Buffet lunch will be served from 11:40 to 14:15

Group A – Chairs: Suzanne Herold and Didier Cataldo

PP149: Severity of House Dust Mite-induced asthma exacerbations correlate with enhanced oxidative stress and a reduced anti-oxidative capacity locally and systemically - Caterina Folisi

PP150: Three-dimensional human lung micro-cultures for in vitro studies of COPD - Veronika Csongei

PP151: Defective A20 signalling in Cystic Fibrosis: Anti-inflammatory action of Gibberellin - Ruth Barsden


PP154: Specific miRNAs/mRNAs in inflammatory Th17 cells- importance for severe asthma - Marc Kaestle

PP155: DNA in particles of exhaled air – a future biomarker of airway inflammation? - Mona Larstad

PP156: Allergen-induced expression of bradykinin B2 receptor in bronchial mucosa of mild asthma: role for NF-kB - Fabio L. M. Ricciardolo

PP157: ATP/P2R-Axis influence of viral induced COPD-Exacerbation in mouse model - Sanja Cicko

PP159: H2S modulates airway hyperresponsiveness in mice by regulating mast cells - Fiorentina Roviezzo

PP160: Lower threshold for TRPV1 and TRPA1 activation of sensory nerves in idiopathic rhinitis patients - Laura Van Gerven

Group B – Chairs: Derek Gilroy and Hamida Hammad

PP161: Differential effect of stretch and TGF-beta on functional properties of neonatal lung (myo)fibroblast - Prajakta Oak

PP163: A direct anti-viral role for eosinophils? - Suzanne Bal

PP164: Inspiratory muscle training and inflammation in older adults - Michael Johnson

PP165: Response to salbutamol in healthy, never-smokers individuals - high variability of small airways spirometric parameters - Tiago Jacinto

PP166: A network of microRNAs increases IL-6 expression in asthmatic epithelial cells - Rocio Martinez-Nunez
PP167: Lipoxin A4 improves efferocytosis via inhibition of the HMGB1 in human alveolar macrophages - Hannah Greenwood

PP168: B cells contribute to sphingosine-1-phosphate-induced lung inflammation - Rosalinda Sorrentino

PP169: Epithelial to mesenchymal transition in the airway epithelium from COPD patients: correlation to disease severity - Sophie Gohy

PP170: Early signaling pattern in neonatal chronic lung disease - Tina Gimm

PP172: Evaluation of Paraoxonase1 activity and its relationship to the severity of lung impairment in COPD - Vikas Dogra

Group C – Chairs: Mei Li and Jean-Michel Sallenave

PP173: The dynamics of cytokines in patients with recurrent MDR-TB after treatment with standard anti-TB therapy (ATT) - Dmytro Butov

PP174: The role of microfibrillar-associated protein 4 in the murine model of asthma - Bartosz Pilecki

PP175: A quantitative road from TGFβ Signaling to cellular responses in lung cancer - Dmytro Dvornikov

PP176: Multidimensional endotypes of asthma identified by topological data analysis - Timothy Hinks

PP177: Influence interaction in co-cultures of lung cancer cells, fibroblasts and macrophages on the expression of MMP-1 and VEGF - Xiaqing Liu

PP179: Altered Wnt microenvironment during pulmonary senescence leads to decline of the alveolar epithelial surface - Tamas Kovacs

PP180: The interleukin-33 receptor ST2 is important for the development of peripheral airway hyperresponsiveness and inflammation in a house dust mite mouse model for asthma - Anna Zoltowska

PP181: Role of matrix metalloproteinase 13 in the function of dendritic cells - Juliane Bartmann

PP182: HDAC inhibitors may regulate EMT in alveolar epithelial cells - Vijay DSouza

PP183: Secondhand cigarette smoke exposure induces lasting upper airway colonization and increases severity of otitis media after S. pneumoniae infection in mice - Paola Basilico

PP184: Absence of Periplakin protects from lung fibrosis after bleomycin injury in mice - Valerie Besnard

Group D – Chairs: Bruno Crestani and Nelly Frossard

PP185: Impact of COPD on PD-1/PD-L1 expression in an ex vivo model of acute influenza virus expression - Richard McKendry
PP186: Evaluation of CLEC14A and ROBO4 expression in non-small cell lung carcinoma patients following Bevacizumab treatment - Judit Rapp

PP187: Influence of a Th2 immune response on airway remodeling in asthma - Katharina Dietz

PP188: Systemic inflammatory response to smoking in COPD - Tamara Cruz

PP189: Azithromycin lowers mucin production by increasing FOXA2 expression in an IL-13-induced MUC5AC expression model in human bronchial epithelial cells - Tinne Mertens

PP190: Effects of in utero cigarette smoke exposure on pulmonary signaling networks in a murine model - Petra Nathan

PP191: Endotracheal Intubation Triggers Neutrophil Extracellular Traps - Davide Scozzi

PP192: MicroRNA-mediated down-regulation of CREB1 and decreased epithelial SEC14L3 in experimental and human paediatric asthma - Sabine Bartel

PP193: A lysate of Helicobacter pylori induces IL-10 secretion by human monocyte-derived dendritic cells and primes for IL-10 producing T cells - Yolanda van Wijck

PP194: The involvement of microRNAs in macrophage response to viruses in asthma exacerbations - Ana Francisco-Garcia

PP195: Bacterial infections among smokers might be a major factor behind airway remodeling - Yuan Xu

**Young Investigator Session – William MacNee Award**
**Chairs: Hamida Hammad, Geoff Laurent and Georgia Hardavella**

14:15-14:30 YI01: Inhibition of airway hyperresponsiveness and inflammation by vaccination against IL-33 in a house dust mite model of asthma
Ying Lei, Stockholm, Sweden

14:30-14:45 YI02: A20 levels in dendritic cells control eosinophilic versus neutrophilic lung inflammation in asthma
Helen Vroman, Rotterdam, Netherlands

14:45-15:00 YI03: Influenza infection may cause exacerbation of lung fibrosis through collagen deposition
Anastasios Stavrou, Nottingham, United Kingdom

15:00-15:15 YI04: RORγt-specific RNAi decreases allergic airway inflammation and airway hyperresponsiveness in a mouse model of neutrophilic asthma
Sina Webering, Borstel, Germany

15:15-15:30 YI05: Alternative macrophage polarization and role during lung epithelium injury and repair in vivo
Rania Dagher, Paris, France

15:30-15:45 Coffee break
### 15:45 – 18:20 Roundtable for Junior Delegates

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:45-15:50</td>
<td>Introduction</td>
<td>Bruno Crestani</td>
</tr>
<tr>
<td>15:50-16:05</td>
<td>Overview on the ERS Junior Members Committee</td>
<td>Indre Butiene</td>
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<tr>
<td>16:05-16:50</td>
<td>How to build a career – opportunities in academic and industry fields</td>
<td>Geoff Laurent, Robert Strieter and Thomas Mustelin</td>
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<tr>
<td>16:50-17:20</td>
<td>How to be an active Junior Member in ERS</td>
<td>Short presentations by the ERS Junior Committee members</td>
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<tr>
<td>17:20-17:30</td>
<td>Overview of ERS Fellowships</td>
<td>Maria Belvis</td>
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<tr>
<td>17:30-18:20</td>
<td>Panel discussion</td>
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### 18:30 – 19:15 Evening Pre-Dinner Talk

**Toxic tangles, emphysema and dementia**  
David Lomas, London, United Kingdom

### From 19:45 Gala Dinner and Award Ceremony followed by the LSC Networking Evening

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**Sunday March 23, 2014**

**Session 5: Immune responses in chronic lung diseases – Part 1**  
**Chairs:** Melanie Koenigshoff, Jean-Michel Sallenave and Szymon Skoczynski

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker/Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00-09:20</td>
<td>Presentation by an expert: Intra-vital imaging of the lung</td>
<td>Matthew F. Krummel, San Francisco, United States of America</td>
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<td>09:20-09:35</td>
<td>Discussion</td>
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<tr>
<td>09:35-09:50</td>
<td>OP08: Matriptase is an important player in fibroproliferative disorders</td>
<td>Olivier Bardou, Paris, France</td>
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<tr>
<td>09:50-10:05</td>
<td>OP09: Inhibition of the HIF/leptin/ObR axis prevents experimental pulmonary hypertension and attenuates Treg impairment</td>
<td>Alice Huertas, Le Plessis-Robinson, France</td>
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<td>10:05-10:20</td>
<td>OP10: Phenotypic, transcriptomic and epigenetic plasticity of dendritic cells in the lung tumor microenvironment reflects imprinting by hypoxia exposure</td>
<td>Karim Vermaelen, Ghent, Belgium</td>
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<tr>
<td>10:20-10:40</td>
<td>Coffee break</td>
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Session 5: Immune responses in chronic lung diseases – Part 2
Chairs: Rachel Chambers, Oliver Eickelberg and Georgia Hardavella

10:40-11:00  Presentation by an expert: T cell regulation in lung transplantation
Stephen Juvet, Oxford, United Kingdom

11:00:11:15  Discussion

11:15-11:35  Presentation by an expert: Autoimmunity in human emphysema
Farrah Kheradmand, Houston, United States of America

11:35-11:50  Discussion

11:50 – 12:10 Conclusion by Bruno Crestani, ERS Conferences and Seminars Director