**Mechanistic overlap between chronic lung injury and cancer**

23-26 March, 2017 - Estoril, Portugal

*Scientific Programme as of 19.12.2016*

### Thursday 23 March 2017

**Opening Session**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Details</th>
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</thead>
<tbody>
<tr>
<td>18:00</td>
<td>Welcome and Introduction</td>
<td>Rachel Chambers, ERS Conferences and Seminars Director</td>
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<tr>
<td>18:15</td>
<td>Opening Lecture</td>
<td>Gary Anderson (Melbourne, Australia)</td>
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<tr>
<td>18:45</td>
<td>Discussion</td>
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<tr>
<td>19:00</td>
<td>Welcome cocktail</td>
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### Friday 24 March 2017

**Session 1: Pathological and mechanistic disease similarities**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Details</th>
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<tbody>
<tr>
<td>08:45</td>
<td>ER stress in chronic lung disease</td>
<td>Stefan Marciniak, Cambridge, United Kingdom</td>
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<tr>
<td>09:05</td>
<td>Discussion</td>
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<tr>
<td>09:20</td>
<td>OP01 - CREB signaling in KRAS-driven lung adenocarcinoma</td>
<td>Georgia Giotopoulou, Patras, Greece</td>
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<td>09:35</td>
<td>OP02 - Downregulation of the pro-apoptotic gene, BNIPL, in bronchial biopsies from COPD patients</td>
<td>Karl J. Staples, Southampton, United Kingdom</td>
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<td>09:50</td>
<td>Angiogenesis in development, health and disease</td>
<td>Speaker to be confirmed</td>
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<tr>
<td>10:10</td>
<td>Discussion</td>
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<td>10:50</td>
<td>Coffee break</td>
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**Session 2: Shared pathways of repair**

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<tr>
<th>Time</th>
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<th>Speaker/Details</th>
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<tbody>
<tr>
<td>10:50</td>
<td>Lung stem cells and lung cancer</td>
<td>Carla Kim, Boston, USA</td>
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<tr>
<td>11:10</td>
<td>Discussion</td>
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<tr>
<td>11:25</td>
<td>OP03 - Homeostatic roles for Trp53 in the regulation of epithelial progenitor cell quiescence and differentiation in airways</td>
<td>Barry R. Stripp, Beverly Hills, USA</td>
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<tr>
<td>11:40</td>
<td>OP04 - Deregulated SOX2 drives a migratory signature in a novel organotypic model of bronchial dysplasia</td>
<td>Lucia Correia, Cambridge, United Kingdom</td>
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<tr>
<td>11:55</td>
<td>Lung repair and disease</td>
<td>Georgios Stathopoulos, Munich, Germany</td>
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<tr>
<td>12:15</td>
<td>Discussion</td>
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<tr>
<td>12:30</td>
<td>Lunch for all delegates and mentorship lunch for bursary recipients and their mentors</td>
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</table>
### Session 3: Intersecting immunity and inflammation

**14:30-14:50**  
**Tertiary lymphoid structures and cancer**  
Marie-Caroline Dieu-Nosjean, Paris, France

**14:50-15:05**  
Discussion

**15:05-15:20**  
**OP05 - Nontypeable Haemophilus influenzae-promoted proliferation of K-ras-induced early lung cancer lesions is completely dependent on Toll-like receptor signaling**  
Christoph Beisswenger, Homburg, Germany

**15:20-15:35**  
**OP06 - Myeloid NF-κB signaling fosters KRAS-mutant tumors**  
Magda Spella, Patras, Greece

**15:35-15:55**  
**Dendritic cells, immunomodulation, COPD, and cancer**  
Karim Vermaelen, Ghent, Belgium

**15:55-16:10**  
Discussion

**16:10-16:40**  
Coffee

### 16:40-18:40 - Poster Session 1

**PP101 - Distinct M1, M2 macrophage populations in airway tissues and lumen of COPD patients**  
Mathew Eapen, Hobart, Australia

**PP102 - A new mechanism of latent TGF-β1 presentation in lung fibrosis**  
Henna Karvonen, Toronto, Canada

**PP103 - Targeting CD98hc: a key mediator of tumour and microenvironmental crosstalk in malignant mesothelioma**  
Claire Rooney, London, United Kingdom

**PP104 - SHP-2 is a novel anti-fibrotic regulator of fibroblast homeostasis**  
Argyris Tzouvelekos, Athens, Greece

**PP105 - Exosomal miRNA cargo in non small-cell lung cancer**  
Toby Mellows, Southampton, United Kingdom

**PP106 - 6-Hydroxy-5,7-dimethoxy-flavone suppresses the neutrophil respiratory burst via selective PDE4 inhibition to ameliorate acute lung injury**  
Tsong-Long Hwang, Taoyuan, Taiwan

**PP107 - Study of lung development, regeneration and repair using precision-cut lung slice model**  
Khondoker Akram, London, United Kingdom

**PP108 - IL-17C promotes growth and proliferation of K-ras induced cancerous lesions**  
Felix Ritzmann, Homburg, Germany

**PP109 - Roles of air pollution on lung cancer development**  
Natacha Rocks, Liege, Belgium

**PP110 - Tissue-specific imprinting of innate immunity in the development of tumour metastasis**  
Amy Adlard, Manchester, United Kingdom

**PP111 - Involvement of IGF1r in Bronchiolar Epithelial Regeneration: Role During Repair Kinetics after Selective Club Cell Ablation**  
Iciar P. Lopez, Logroño, Spain

**PP112 - IL-17C promotes tumor-associated inflammation and lung tumor growth**  
Christoph Beisswenger, Homburg, Germany

**PP113 - Using a novel organotypic model of bronchial dysplasia to screen potential therapeutic agents for the chemoprevention of lung cancer**  
Phil Barry, Cambridge, United Kingdom

**PP114 - Wnt activity marks lung progenitors capable of forming spheres in vitro**  
John-Poul Ng-Blichfeldt, Groningen, The Netherlands

**PP115 - The impact of myeloid and plasmacytoid dendritic cells in the development of lung cancer**  
Plamen Minkov, Stara Zagora, Bulgaria

**PP116 - Senolytic drugs target alveolar epithelial cell function and attenuate experimental lung fibrosis ex vivo**  
Mareike Lehmann, Munich, Germany
The role of LRIG1-dependent EGFR signalling in airway homoeostasis and squamous cell lung cancer development
Laura Succony, London, United Kingdom

IL-17-mediated inflammation promotes cigarette smoke-induced genomic instability
Songmin Ying, Hangzhou, China

Pneumococcal pneumolysin triggers cell-derived microvesicle release
Eleftheri Letsiou, Berlin, Germany

The Micrometer 3D Characteristics of The Acinus
Ioannis Vogiatzis Oikonomidis, Bern, Switzerland

Human rhinovirus infection impairs macrophage phagocytic capabilities
Jamil Jubrail, Paris, France

Tumour Associated Macrophages from Human Lung Cancer that show activation of M1 functions, recruitment of CD8+ T cell by production of chemokines and strong anti-tumour activities are able to predict better survival
Eva Maria Garrido-Martin, Southampton, United Kingdom

Inhibiting the inhibitor: How epigenetic silencing of BAMBI drives the TGF&beta; pathway to enhanced malignancy in human non-small cell lung cancer
Sebastian Marwitz, Borstel, Germany

Role of AQP1 in tunneling nanotube (TnT) formation and mesothelial-mesenchymal transition (MMT) in malignant pleural mesothelioma (MPM)
Rajesh Jagirdar, Larissa, Greece

Tenascin C knockout mice have an altered lung function at newborn and adult age
Tiziana Patrizia Cremona, Bern, Switzerland

Investigating the role of cathepsin S in the pathogenesis of cystic fibrosis-like lung disease
Rebecca Delaney, Belfast, United Kingdom

Effects of e-cigarette vapour condensate upon human alveolar macrophage function
Aaron Scott, Birmingham, United Kingdom

A novel cell culture device to study the cross-talk between cells simultaneously exposed to different oxygenation mimicking hypoxic gradients in tumors
Isaac Almendros, Barcelona, Spain

Antioxidant treatment can promote lung tumor formation during chronic oxidative stress
Marielle Breau, Cretiel, France

Lung cancer detection using a novel hybrid method based on wavelet and fractal analysis and nonlinear adaptive resonance neural networks application
Mahsa Tahmasebi Ghorabi, Najafabad, Iran

Targeting glucose metabolism in experimental lung injury and fibrosis
Ellen Forty, London, United Kingdom

Scatter factors receptors MET and RON mutations in brain metastases from non-small-cell lung cancer
Giulia Stella, Pavia, Italy

Treg depletion decelerates bleomycin-induced pulmonary fibrosis
Kaustav Chakraborty, Kolkata, India

mTOR-mediated cap-dependent translation is essential for human lung myofibroblast differentiation and collagen I synthesis
Jessica D Eley, London, United Kingdom

Changes in the extracellular matrix – signs of remodeling leading to chronic rejection after lung transplantation
Catharina Mueller, Lund, Sweden

Inhibition of CFTR-specific miRNAs in CF bronchial epithelial cells
Chiara De Santi, Dublin, Ireland

Proteasomal activator 200 (PA200) regulates cellular proliferation: A putative role for IPF and lung cancer pathogenesis
Vanessa Welk, Munich, Germany
Saturday 25 March 2017

Session 4: Stromal Similarities and synergies

08:45-09:05  Stromal determinants of tumorigenesis
Severio Bellusci, Giessen, Germany
09:05-09:20  Discussion
09:20-09:35  OP07 - Mesenchymal stem cell therapy reduces inflammation and damage in a model of chronic lung disease
Doherty Declan, Belfast, United Kingdom
09:35-09:50  OP08 - Circulating fibrocytes depletion results in reduced lung tumor growth and metastasis by modulating macrophage phenotype, angiogenesis and endothelin system
Rajkumar, Savai, Bad Nauheim, Germany
09:50-10:10  EMT in development and disease
Angela Nieto, Alicante, Spain
10:10-10:25  Discussion
10:25-10:50  Group Picture and Coffee Break
10:50-12:05  Young Investigator Session – The William MacNee Award

10:50-11:05  YI01 - KRAS & TP53 mutations cause malignant mesothelioma
Anthi Krontira, Patras, Greece
11:05-11:20  YI02 - Re-education of tumor-associated macrophages by modulating histone deacetylases in lung cancer
Xiang Zheng, Bad Nauheim, Germany
11:20-11:35  YI03 - Mouse lung adenocarcinoma cell lines as tools to identify novel lung cancer genes
Nikolaos Kanellakis, Patras, Greece
11:35-11:50  YI04 - Targeting the mTOR signaling pathway to inhibit lung cell senescence in chronic obstructive pulmonary disease (COPD)
Amal Houssaini, Cretiel, France
11:50-12:05  YI05 - The role of the epigenetic regulator HMGN5 in COPD resulting from chronic lung injury
Gizem Gunes, Munich, Germany

12:05-14:45 - Lunch and Poster Session 2

PP201 - RNA-Seq analysis reveals major differences between the effects of rapamycin and dual mTORC1/2 inhibition during TGFβ1-induced myofibroblast differentiation
Manuela Platé, London, United Kingdom
PP202 - Thyroid hormone inhibits pulmonary fibrosis through enhancement of mitochondrial function in alveolar epithelial cells
Argyris Tzouvelekis, Athens, Greece
PP203 - Antifibrotic effects of Nintedanib and Pirfenidone on alveolar epithelial cells in 2D and 3D culture
Lara Buhl, Munich, Germany
PP204 - Impact of in vitro expansion on the mesenchymal stem cell secretome and their use in Acute Respiratory Distress Syndrome
Rahul Mahida, Birmingham, United Kingdom
PP205 - What represents lung cancer in Combined Pulmonary Fibrosis and Emphysema Syndrome?
Jolanda Nikolla, Tirana, Albania
PP206 - DNA methylation alterations by carbon nanotubes in vitro
Manosi Ghosh, Leuven Belgium
PP207 - Functional gene polymorphisms of pro-inflammatory cytokines TNF-α and IL-17F and COPD
Tanya Tacheva, Stara Zagora, Bulgaria
| PP208 | Tissue-resident Natural Killer (NK) cell Phenotype in the Human Lung |
| PP209 | The effect of KRAS mutation on anti-VEGF treatment in advanced lung adenocarcinoma |
| PP210 | Lysosomal-associated membrane protein 1 (LAMP-1) upregulation in small airway epithelium of COPD may have physiological consequence and role in autophagy |
| PP211 | GSK-3 B inhibition suppresses lung cancer cell survival, metastasis and proliferation through down-regulation the phosphorylation sites of CAP1 |
| PP212 | Secretion of inflammasome complexes highlights unconventional neutrophil activity: insight into cystic fibrosis |
| PP213 | Gene therapy to treat lung cancer, the TACTICAL Clinical Trial |
| PP214 | Secretion of inflammasome complexes highlights unconventional neutrophil activity: insight into cystic fibrosis |
| PP215 | Matrix metalloprotease-1 plays a detrimental role in the pathogenesis of pulmonary fibrosis |
| PP216 | Interaction proteomics of the pulmonary extracellular matrix in fibrosis and repair |
| PP217 | Allergen-induced late-phase airway inflammation trigger eosinophils adhesion and increase their effect on airway smooth muscle cells proliferation |
| PP218 | Matrix metalloprotease-1 plays a detrimental role in the pathogenesis of pulmonary fibrosis |
| PP219 | Interaction proteomics of the pulmonary extracellular matrix in fibrosis and repair |
| PP220 | Allergen-induced late-phase airway inflammation trigger eosinophils adhesion and increase their effect on airway smooth muscle cells proliferation |
| PP221 | Evaluation the effect of bronchoconstriction on airway epithelial cells responses in asthma |
| PP222 | The serum levels of alpha-1 antitrypsin are strongly associated with its local production by NSCLC tumor cells |
| PP223 | Improving lung cancer treatment by reducing normal lung toxicity |
| PP224 | A method for clonal expansion of human airway basal cells for genomic analysis |
| PP225 | Igf1r deficiency attenuates acute inflammatory response in a bleomycin-induced lung injury mouse model |
| PP226 | Re-education of tumor-associated macrophages by modulating histone deacetylases in lung cancer |
| PP227 | Alveolar macrophages’ molecular antennas in the pathogenesis of lung cancer |
| PP228 | The MERS coronavirus receptor DPP4 is increased in lungs of smokers and patients with COPD |
| PP229 | Biological markers of survival and successful pleurodesis for malignant pleural effusion |
| PP230 | N-acetylcysteine attenuates pulmonary fibrosis by inhibiting lung myofibroblast activation and altering TGF-β signaling |

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All references and information are from the 15th ERS Lung Science Conference.
Development of 68Ga-labelled cyclic peptides for positron emission tomography imaging in idiopathic pulmonary fibrosis
James Thompson, Hull, United Kingdom

Investigating the role and biomarker potential of exosomes in pulmonary sarcoidosis
Casper Wahlund, Stockholm, Sweden

Cigarette smoke extract (CSE) and lipopolysaccharide (LPS) impair cytoskeleton rearrangement in airway epithelial cells. A proteomic approach
Claudia D’Anna, Palermo, Italy

Profibrotic signaling by TGF-β involves NADPH oxidase 4 dependent activation of tyrosine kinase Src and mitochondrial ROS
Carmen Veith, Maastricht, The Netherlands

Mechanisms of human lung repair: retinoic acid induces alveolar epithelial cell migration through VEGF Receptor-2-dependent microvascular angiogenesis
Joana Alçada, London, United Kingdom

IL-1R1 but not IL-18Rβ or IL-18BP contribute to the beneficial effects of IL-37 on experimental asthma
Alexandra Schröder, Borstel, Germany

Tumor-associated macrophages promote inflammasome-dependent lung tumor progression in mice
Michela Terlizzi, Salerno, Italy

Expression of PD1 and PD1 signalling in innate and adaptive T cell responses to NTHi
Joshua Wallington, Southampton, United Kingdom

Junior session: Successful funding applications and opportunities

Introduction
ERS and EU Funding opportunities – Rory Morty
ERC Grants – Speaker TBC
Funding opportunities focused on flexible research careers – Janette K. Burgess, Groningen, The Netherlands
How to write a successful funding application? – Melanie Königshoff
General discussion followed by a networking cocktail

Evening Pre-Dinner Talk
Modeling Disease with Organoids
Robert Vries, Utrecht, The Netherlands

From 20:00 Gala Dinner and Award Ceremony

Session 5: Dovetailing drugs and targets

Immune checkpoint and COPD
Tom Wilkinson, Southampton, United Kingdom
Discussion

Tumor heterogeneity and stemness in cancer
Speaker to be confirmed
Discussion
Coffee

Dissecting chronic lung disease
Richard Marshall, GSK, Stevenage, United Kingdom
Discussion

Cell therapy for lung disease
Christine Guenther, Apceth, Munich, Germany
Discussion

Conclusion by Rachel Chambers, ERS Conferences and Seminars Director