Mechanistic overlap between chronic lung injury and cancer

23-26 March, 2017 - Estoril, Portugal
Programme as of 13.02.2017 – Chairs are not confirmed yet

Thursday 23 March 2017

Opening Session
18:00-18:15  Welcome and Introduction
Rachel Chambers, ERS Conferences and Seminars Director
18:15-18:45  Opening Lecture
Chair: Guy Brusselle
Gary Anderson (Melbourne, Australia)
18:45-19:00  Discussion
19:00-19:30  Welcome cocktail

Friday 24 March 2017

Session 1: Pathological and mechanistic disease similarities
Chairs: Reinoud Gosens and Agnes Boots

08:45-09:05  Tumor heterogeneity and stemness in cancer (title TBC)
Sam Janes, London, United Kingdom
09:05-09:20  Discussion
09:20-09:35  OP01 - CREB signaling in KRAS-driven lung adenocarcinoma
Georgia Giotopoulou, Patras, Greece
09:35-09:50  OP02 - Downregulation of the pro-apoptotic gene, BNIPL, in bronchial biopsies from COPD patients
Karl J. Staples, Southampton, United Kingdom
09:50-10:10  Epithelial progenitor cell dysfunction in chronic lung disease: potential roles for altered p53 signaling
Barry R. Stripp, Beverly Hills, USA
10:10-10:25  Discussion
10:25-10:50  Coffee break

Session 2: Shared pathways of repair
Chairs: Adam Giangreco and Marieke Lehmann

10:50-11:10  Lung stem cells and lung cancer
Carla Kim, Boston, USA
11:10-11:25  Discussion
11:25-11:40  OP03 - A critical role for mTOR regulated metabolic reprogramming during TGF-β induced fibroblast collagen synthesis
Brintha Selvarajah, London, United Kingdom
11:40-11:55  OP04 - Deregulated SOX2 drives a migratory signature in a novel organotypic model of bronchial dysplasia
Lucia Correia, Cambridge, United Kingdom
11:55-12:15  Lung repair and disease
Georgios Stathopoulos, Munich, Germany
12:15-12:30  Discussion
Session 3: Intersecting immunity and inflammation
Chairs: Jorgen Vestbo and Sebastian Marwitz

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 - Hippo-YAP/TAZ signaling is deranged in IPF
Daryc Wagner, Munich, Germany

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 Tzouvelekis, Athens, Greece

PP105 - Exosomal miRNA cargo in non small-cell lung cancer
Toby Mellows, Southmapton, 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, Cambrigde, 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

PP117 - The role of LRIG1-dependent EGFR signalling in airway homoeostasis and squamous cell lung cancer development
Laura Succony, London, United Kingdom

PP118 - IL-17-mediated inflammation promotes cigarette smoke-induced genomic instability
Songmin Ying, Hangzhou, China

PP119 - Pneumococcal pneumolysin triggers cell-derived microvesicle release
Eleftheri Letsiou, Berlin, Germany

PP120 - The Micrometer 3D Characteristics of The Acinus
Ioannis Vogiatzis Oikonomidis, Bern, Switzerland

PP121 - Human rhinovirus infection impairs macrophage phagocytic capabilities
Jamil Jubrail, Paris, France

PP122 - 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, Southmapton, United Kingdom

PP123 - 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

PP124 - Role of AQP1 in tunneling nanotube (TnT) formation and mesothelial-mesenchymal transition (MMT) in malignant pleural mesothelioma (MPM)
Rajesh Jagirdar, Larissa, Greece

PP125 - Tenascin C knockout mice have an altered lung function at newborn and adult age
Tiziana Patrizia Cremona, Bern, Switzerland

PP126 - Investigating the role of cathepsin S in the pathogenesis of cystic fibrosis-like lung disease
Rebecca Delaney, Belfast, United Kingdom

PP127 - Effects of e-cigarette vapour condensate upon human alveolar macrophage function
Aaron Scott, Birmingham, United Kingdom

PP128 - 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

PP129 - Antioxidant treatment can promote lung tumor formation during chronic oxidative stress
Marielle Breau, Cretiel, France

PP130 - Lung cancer detection using a novel hybrid method based on wavelet and fractal analysis and nonlinear adaptive resonance neural networks application
Mahsa Tahmasebii Ghorabi, Najafabad, Iran

PP131 - Targeting glucose metabolism in experimental lung injury and fibrosis
Ellen Forty, London, United Kingdom

PP132 - Scatter factors receptors MET and RON mutations in brain metastases from non-small-cell lung cancer
Giulia Stella, Pavia, Italy

PP133 - Treg depletion decelerates bleomycin-induced pulmonary fibrosis
Kaustav Chakraborty, Kolkata, India

PP134 - mTOR-mediated cap-dependent translation is essential for human lung myofibroblast differentiation and collagen I synthesis
Jessica D Eley, London, United Kingdom

PP135 - Changes in the extracellular matrix – signs of remodeling leading to chronic rejection after lung transplantation
Catharina Mueller, Lund, Sweden

PP136 - Inhibition of CFTR-specific miRNAs in CF bronchial epithelial cells
Chiara De Santi, Dublin, Ireland

PP137 - Proteasomal activator 200 (PA200) regulates cellular proliferation: A putative role for IPF and lung cancer pathogenesis
Vanessa Welk, Munich, Germany
PP138 - Lysosomal-associated membrane protein 1 (LAMP-1) upregulation in small airway epithelium of COPD may have physiological consequence and role in autophagy
Mathew Eapen, Hobart, Australia

PP139 - Distinct M1, M2 macrophage populations in airway tissues and lumen of COPD patients
Mathew Eapen, Hobart, Australia

From 19:30, Dinner for all delegates

**Saturday 25 March 2017**

**Session 4: Stromal Similarities and synergies**
Chairs: Erik Sahai and Laura Suconn

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<th>Time</th>
<th>Event</th>
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<tr>
<td>08:45-09:05</td>
<td>FGFs in lung disease</td>
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<td>09:05-09:20</td>
<td>Discussion</td>
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<td>09:20-09:35</td>
<td>OP07 - Mesenchymal stem cell therapy reduces inflammation and damage in a model of chronic lung disease</td>
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<td>09:35-09:50</td>
<td>OP08 - Circulating fibrocytes depletion results in reduced lung tumor growth and metastasis by modulating macrophage phenotype, angiogenesis and endothelin system</td>
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<td>09:50-10:10</td>
<td>EMT in development and disease</td>
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<td>10:10-10:25</td>
<td>Discussion</td>
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<td>10:25-10:50</td>
<td>Group Picture and Coffee Break</td>
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<td>10:50-12:05</td>
<td>Young Investigator Session – The William MacNee Award</td>
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<td>10:50-11:05</td>
<td>YI01 - KRAS &amp; TP53 mutations cause malignant mesothelioma</td>
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<td>11:05-11:20</td>
<td>YI02 - Re-education of tumor-associated macrophages by modulating histone deacetylases in lung cancer</td>
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<td>11:20-11:35</td>
<td>YI03 - Mouse lung adenocarcinoma cell lines as tools to identify novel lung cancer genes</td>
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<td>11:35-11:50</td>
<td>YI04 - Targeting the mTOR signaling pathway to inhibit lung cell senescence in chronic obstructive pulmonary disease (COPD)</td>
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<td>11:50-12:05</td>
<td>YI05 - The role of the epigenetic regulator HMGN5 in COPD resulting from chronic lung injury</td>
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<td>PP201</td>
<td>RNA-Seq analysis reveals major differences between the effects of rapamycin and dual mTORC1/2 inhibition during TGFβ1-induced myofibroblast differentiation</td>
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<td>PP202</td>
<td>Thyroid hormone inhibits pulmonary fibrosis through enhancement of mitochondrial function in alveolar epithelial cells</td>
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<td>PP203</td>
<td>Antifibrotic effects of Nintedanib and Pirfenidone on alveolar epithelial cells in 2D and 3D culture</td>
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<td>PP204</td>
<td>Impact of in vitro expansion on the mesenchymal stem cell secretome and their use in Acute Respiratory Distress Syndrome</td>
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<td>PP205</td>
<td>Effect modification by diet on the relationship between lung cancer and ambient particulate air pollution</td>
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<td>PP206</td>
<td>DNA methylation alterations by carbon nanotubes in vitro</td>
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<td>PP207</td>
<td>Functional gene polymorphisms of pro-inflammatory cytokines TNF-α and IL-17F and COPD</td>
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<td>PP208</td>
<td>Tissue-resident Natural Killer (NK) cell Phenotype in the Human Lung</td>
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<td>PP209</td>
<td>The effect of KRAS mutation on anti-VEGF treatment in advanced lung adenocarcinoma</td>
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<td>PP210</td>
<td>A non-small cell lung cancer (NSCLC) associated gene set is enriched in human IPF indicating common pathomechanisms</td>
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<td>PP211</td>
<td>GSK-3 B inhibition suppresses lung cancer cell survival, metastasis and proliferation through down-regulation the phosphorylation sites of CAP1</td>
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<td>PP212</td>
<td>Secretion of inflammasome complexes highlights unconventional neutrophil activity: insight into cystic fibrosis</td>
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<td>PP213</td>
<td>Genetically engineered MSCs to treat lung cancer, the TACTICAL Clinical Trial</td>
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<td>PP214</td>
<td>Thrombin induces IL-8/CXCL8 expression in human lung epithelial cells by mTOR, p70S6K, p300, and NF-κB pathways</td>
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<td>PP215</td>
<td>Postnatal development of pulmonary acini in rats</td>
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<td>PP216</td>
<td>Organoid Model of Luminal Remodelling in COPD</td>
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<td>PP217</td>
<td>The role of DICER in CD11c+ cells in smoke-induced inflammation</td>
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<td>PP218</td>
<td>Matrix metalloprotease-1 plays a detrimental role in the pathogenesis of pulmonary fibrosis</td>
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<td>PP219</td>
<td>Interaction proteomics of the pulmonary extracellular matrix in fibrosis and repair</td>
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<td>PP220</td>
<td>Allergen-induced late-phase airway inflammation trigger eosinophils adhesion and increase their effect on airway smooth muscle cells proliferation</td>
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<td>PP221</td>
<td>Evaluation the effect of bronchoconstriction on airway epithelial cells responses in asthma</td>
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PP222 - The serum levels of alpha-1 antitrypsin are strongly associated with its local production by NSCLC tumor cells
Adam Szpechcinski, Warsaw, Poland

PP223 - Improving lung cancer treatment by reducing normal lung toxicity
Lorena Giuranno, Maastricht, The Netherlands

PP224 - A method for clonal expansion of human airway basal cells for genomic analysis
Kate Gowers, London, United Kingdom

PP225 - Igf1r deficiency attenuates acute inflammatory response in a bleomycin-induced lung injury mouse model
Sergio Piñeiro-Hermida, Logroño, Spain

PP226 - Re-education of tumor-associated macrophages by modulating histone deacetylases in lung cancer
Poonam Sarode, Bad Nauheim, Germany

PP227 - Activin-A protects against lung cancer progression by potentiating anti-tumor immunity
Ioannis Morianos, Athens, Greece

PP228 - The MERS coronavirus receptor DPP4 is increased in lungs of smokers and patients with COPD
Leen Seys, Ghent, Belgium

PP229 - Biological markers of survival and successful pleurodesis for malignant pleural effusion
Ioannis Psallidas, Oxford, United Kingdom

PP230 - N-acetylcysteine attenuates pulmonary fibrosis by inhibiting lung myofibroblast activation and altering TGF-β signaling
Soumya Chatterjee, Kolkata, India

PP231 - Investigating the role and biomarker potential of exosomes in pulmonary sarcoidosis
Casper Wahlund, Stockholm, Sweden

PP232 - High-throughput single cell mRNA sequencing reveals cell identity programs in the murine lung
Maximilian Strunz, Munich, Germany

PP233 - Profibrotic signaling by TGF-β involves NADPH oxidase 4 dependent activation of tyrosine kinase Src and mitochondrial ROS
Carmen Veith, Maastricht, The Netherlands

PP234 - Mechanisms of human lung repair: retinoic acid induces alveolar epithelial cell migration through VEGF Receptor-2-dependent microvascular angiogenesis
Joana Alçada, London, United Kingdom

PP235 - IL-1R1 but not IL-18Rbeta or IL-18BP contribute to the beneficial effects of IL-37 on experimental asthma
Alexandra Schröder, Borstel, Germany

PP236 - Tumor-associated macrophages promote inflammasome-dependent lung tumor progression in mice
Michela Terlizzi, Salerno, Italy

PP237 - Epigenetic unbalance may increase lung cancer incidence in patients affected by idiopathic pulmonary fibrosis
Mariangela Natale, Coimbra, Portugal
**Junior session: Successful funding applications and opportunities**
Chairs: Saverio Bellusci and Nicolas Kahn

- **14:50-15:00** Introduction
- **15:00-15:20** ERS and EU Funding opportunities – Rory Morty, Giessen, Germany
- **15:20-15:40** ERC Grants – Stathopoulos Georgios, Munich Germany
- **15:40-16:00** Funding opportunities focused on flexible research careers – Janette K. Burgess, Groningen, The Netherlands
- **16:00-16:20** How to write a successful funding application? – Melanie Königshoff, Denver, USA
- **16:20-16:45** General discussion followed by a networking cocktail

**Evening Pre-Dinner Talk**
Chairs: Mina Gaga

- Modeling Disease with Organoids
  Robert Vries, Utrecht, The Netherlands

From 20:00 Gala Dinner and Award Ceremony

**Sunday 26 March 2017**

**Session 5: Dovetailing drugs and targets**
Chairs: Gary Anderson and Nikolaos Kanellakis

- **08:45-09:05** Immune checkpoint and COPD
  Tom Wilkinson, Southampton, United Kingdom
  Discussion

- **08:45-09:05** ER stress in chronic lung disease
  Stefan Marciniak, Cambridge, United Kingdom
  Discussion
  **09:55-10:20** Coffee

- **10:20-10:40** Dissecting chronic lung disease
  Richard Marshall, GSK, Stevenage, United Kingdom
  Discussion

- **10:55-11:15** Cell therapy for lung disease
  Felix Hermann, Apceth, Munich, Germany
  Discussion

- **11:30-11:45** Conclusion by Rachel Chambers, ERS Conferences and Seminars Director