System approaches in lung disease
10-13 March, 2016 - Estoril, Portugal
(Scientific programme as of 05.02.2016)

Thursday 10 March, 2016

Opening Session
18:00-18:15 Welcome and Introduction
Bruno Crestani, ERS Conferences and Seminars Director
18:15-18:45 Opening Lecture
Personal 'omics profiling
Rui Chen (Stanford, USA)
18:45-19:00 Discussion
19:00-19:30 Welcome cocktail

Friday 11 March, 2016

Session 1: The unmet needs in lung disease: is systems medicine the answer?
08:45-09:05 Severe asthma
Peter Sterk (Amsterdam, The Netherlands)
09:05-09:20 Discussion
09:20-09:35 OP1: miR-17 and -21 in intercellular communication via exosomes in allergic airway inflammation
Sabine Bartel (Borstel, Germany)
09:35-09:50 OP2: Eicosanoids in asthma: multi-omics data interpretation
Alexander Mazein (Lyon, France)
09:50-10:10 COPD
Alvar Agusti (Barcelona, Spain)
10:10-10:25 Discussion
10:25-10:50 Coffee break

Session 2: Methodological advances as enablers
10:50-11:10 Single cell 'omics analysis
Yan Xu (Cincinnati, USA)
11:10-11:25 Discussion
11:25-11:40 OP3: Non-canonical WNT signaling is mediated by extracellular vesicles in pulmonary fibrosis
Aina Martin (Munich, Germany)
11:40-11:55 OP4: Vitamin D stimulates macrophage efferocytosis and encourages a proresolution phenotype
Dhruv Parekh (Birmingham, United Kingdom)
11:55-12:15 Building handprints of complex diseases: the U-BIOPRED case
Bertrand De Meulder (Lyon, France)
12:15-12:30 Discussion
12:30-14:30 Lunch for all delegates and mentorship lunch for bursaries recipients and their mentors
Session 3: Asthma and allergy

14:30-14:50  Epigenetics in asthma ontology  
Irina Lehmann (Leipzig, Germany)

14:50-15:05  Discussion

15:05-15:20  OP5: RibomiR-seq reveals microRNAs fine-tune the transcriptome but profoundly alter translation in severe asthma  
Rocio Martinez-Nunez (Southampton, United Kingdom)

15:20-15:35  OP6: The association between fine ambient particulate air pollution and lung cancer incidence in adventist health and smog -2 (AHSMOG-2) cohort study  
Lida Gharibvand (Loma Linda, United States of America)

15:35-15:55  An integrated approach to the exposome  
Valérie Siroux (Grenoble, France)

15:55-16:10  Discussion

16:10-16:40  Coffee

16:40-18:40  Poster Session 1

PP101: Altered small RNA cargo in severe asthma exosomes  - Ana Francisco-Garcia (Southampton, United Kingdom)

PP103: Network analysis of induced pluripotent stem cells secretome reveals its anti-fibrotic action in rat lung injury model - Cedric Simillion (Bern, Switzerland)

PP104: Early biomarkers indicating the development of neonatal chronic lung disease defined by clinical and imaging parameters - Kai Förster (Munich, Germany)

PP106: Defect in the translational control of cytokines leading to hyperresponsive bronchial epithelial cells in asthmatics - Abilash Ravi (Amsterdam, Netherland)

PP107: CD163 and CCR7 as markers for macrophage polarization in patients with lung cancer - Iwona Osinska (Warsaw, Poland)

PP108: Modeling of TGFβ pathway dynamics in lung cancer cells - Dmytro Dvornikov (Heidelberg, Germany)

PP109: Medium-throughput RNA interference assays identify phenotype regulators of lung mesenchymal cells based on proteomics profiling - Laurent Plantier (Paris, France)

PP111: Effects of vitamin D supplementation on perioperative markers of inflammation in patients at risk of acute respiratory distress syndrome (ARDS) - Rachel Dancer (Birmingham, United Kingdom)

PP112: The factors associated with the pulmonary hypertension and effect of pulmonary hypertension on long-term survival in bronchiectasis patients - Serpil Gocmen Ocal (Ankara, Turkey)

PP113: Medium-throughput RNA interference assays identify phenotype regulators of lung mesenchymal cells based on proteomics profiling - Laurent Plantier (Paris, France)

PP114: Modeling of TGFβ pathway dynamics in lung cancer cells - Dmytro Dvornikov (Heidelberg, Germany)

PP115: Increased oxidative stress leads to telomere shortening in children with alpha-1 antitrypsin deficiency - Sara Pastor (Valencia, Spain)

PP116: Modeling the air-blood barrier in healthy and disease state to evaluate safety and efficacy of inhaled (nano)medicines - Remi Hendrix (Saarbrucken, Germany)

PP117: Gene Xpert MTB/RIF assay in Bronchoscopy guided bronchial wash specimens in sputum negative Pulmonary Tuberculosis: sensitive, rapid & most useful test for drug sensitive and drug resistant tuberculosis - Patil Shital (Latur, India)

PP118: Host-environmental IL-1b drives mutant KRAS-IKKα addiction in malignant pleural effusion - Antonia Maraziotti (Patras, Greece)

PP120: Inflammation paradox – A detailed analysis of inflammatory profile in the airway wall of mild to moderate COPD - Mathew Eapen (Hobart, Australia)

PP121: Human Airway Trypsin-like protease: friend or foe in Idiopathic Pulmonary Fibrosis? - Awen Menou (Paris, France)

PP122: A human lung explant model of fibrogenesis for the assessment of anti-fibrotic strategies in idiopathic pulmonary fibrosis - Katy Roach (Leicester, United Kingdom)

PP123: Exploring the mechanisms of granuloma formation in vivo to prevent dissemination of a respiratory Mycobacterium tuberculosis infection - Joana Da Silva Domingues (Toulouse, France)

PP124: A combination of the Wells score with Multiorgan Ultrasound to stratify patients with suspected pulmonary embolism - Argyro Chatziantoniou (Heraklion, Greece)

PP125: Global gene expression analysis of the mucociliary differentiation process of human bronchial epithelial cells at the air-liquid interface - Jeremy Parker (London, United Kingdom)

PP126: Changes of peripheral blood eosinophil activity during allergen-induced late-phase airway inflammation in asthma - Ieva Janulaityte (Kaunas, Lithuania)

PP127: Histone Deacetylase 7 mediated metabolic remodeling: a new crosslink between Pulmonary Hypertension and Cancer - Elisabetta, Gamen (Bad Nauheim, Germany)

PP128: Lung-derived prostacyclin (PGI) in endothelial dysfunction in db/db mice - Andrzej Fedorowicz (Krakow, Poland)

PP129: Sequence analysis of ROS1 fusion genes could predict transforming ability – Rica Zinsky (Germany, Wiesbaden)

PP130: Prediction of COPD- and smoking status by network-based multi-'omics data fusion analysis - Chuan-Xing Li (Stockholm, Sweden)

PP131: Association of single nucleotide polymorphisms located in miRNA binding sites with lung function - Elise De Smet (Ghent, Belgium)

PP132: Modulation of Met signal transduction by altering a degree of receptor phosphorylation - Magdalena Szczygieł (Heidelberg, Germany)

PP133: Evaluation the effect of bronchoconstriction on airway cellular responses in asthma - Maria Ester Quesada del Bosque (Southampton, United Kingdom)

PP134: Irisin stimulates hyaluronic acid secretion in COPD: a new role for irisin associated with disease progression and severity - Eleni Papakonstantinou (Basel, Switzerland)

PP136: Inducible expression quantitative trait loci: A novel method to identifying genetic variants associated with corticosteroid responsiveness in COPD - Alen Faiz (Groningen, Netherlands)

PP137: Upregulation of P2X7R and downstream effects in early stages of fibrogenesis - Kathrin Barth (Dresden, Germany)

PP138: Clinical significance of Streptococcus pneumoniae co-infection during respiratory syncytial virus infections in young children - Jaelle Brealey (Brisbane, Australia)

PP139: Multi-level differential network analysis of COPD exacerbations - Guillaume Noell (Madrid, Spain)

PP140: A requirement for IKKa in lung adenocarcinoma - Malamati Vreka (Munich, Germany)

PP141: Identification of pathogenic micro RNA (miR) in BOS: a system biology approach - Michele Zorzetto (Pavia, Italy)

PP142: The estrogen-induced miR-19 downregulates Secretory Leukoprotease Inhibitor expression in monocytes - Paul Joseph McKiernan (Dublin, Ireland)
18:40-19:20: Early evening talk
New tools for epidemiological medical research in the digital age
Marcel Salathé (Lausanne, Switzerland)

From 20:00  Dinner for all delegates

Saturday 12 March, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
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<tr>
<td>08:15-08:35</td>
<td>Session 4: Experimental models of disease</td>
<td>Natural experiments and large databases in Respiratory, CVD and tobacco control</td>
<td>Jorgen Vestbo (Manchester, United Kingdom)</td>
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<td>08:35-08:50</td>
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<td>Discussion</td>
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<td>08:50-09:05</td>
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<td>OP7: Systemic and local metabolomics profiling reveals novel insights into the progression of emphysema</td>
<td>Thomas Conlon (Munich, Germany)</td>
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<td>09:05-09:20</td>
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<td>OP8: Alpha8 integrin deficiency alters branching morphogenesis and alveolarization during mouse lung development</td>
<td>Tiziana Patrizia Cremona (Bern, Switzerland)</td>
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<td>09:20-09:40</td>
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<td>Modelling the whole lung</td>
<td>Jason Bates (Burlington, USA)</td>
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<td>09:40-09:55</td>
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<td>Discussion</td>
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<td>09:55-10:25</td>
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<td>Group Picture and Coffee Break</td>
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<td>10:25-11:40</td>
<td>Young Investigator Session – The William MacNee Award</td>
<td>YI1: Epigenome-wide mapping of histone modification landscape in human pulmonary arterial hypertension</td>
<td>Prakash Chelladurai (Bad Nauheim, Germany)</td>
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<td>10:25-11:40</td>
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<td>YI2: Transcriptomic profiling of Macrophages isolated from human Non-Small Cell Lung Carcinoma (NSCLC) reveals novel Macrophage subsets with distinct tumour response features</td>
<td>Eva Maria Garrido-Martin (Southampton, United Kingdom)</td>
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<td>10:55-11:10</td>
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<td>YI3: Peripheral blood myeloid-derived suppressor cells reflect disease status in IPF</td>
<td>Isis Enlil Fernandez (Munich, Germany)</td>
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<td>11:10-11:25</td>
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<td>YI4: Identifying biomarkers of loss of control/exacerbations in asthma from exhaled breath</td>
<td>Sinha Anirban (Amsterdam, Netherlands)</td>
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<td>11:25-11:40</td>
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<td>YI5 - The Use of Microarray Analysis of Gene Signalling to Determine Heterogeneity of COPD Exacerbation Phenotypes</td>
<td>Kenneth Bolger (Dublin, Ireland)</td>
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<td>11:40-14:30</td>
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<td>Lunchtime and Poster Session 2</td>
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<td>11:40-14:30</td>
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<td>PP201: A systems biology approach to aid identification of the mechanisms employed by BPIFA1/SPLUNC1 to restrict influenza A virus infection in the lung - Nathifa Moyo (Liverpool, United Kingdom)</td>
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<td>11:40-14:30</td>
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<td>PP202: Investigating SOCS-mediated regulation of STAT signalling in idiopathic pulmonary fibrosis (IPF) - Cecilia Prele (Perth, Australia)</td>
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<td>11:40-14:30</td>
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<td>PP203: MicroRNA profiling reveals a role for microRNA-218-5p in the pathogenesis of chronic obstructive pulmonary disease - Griet Conickx (Ghent, Belgium)</td>
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<td>11:40-14:30</td>
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<td>PP204: The Asthma Map: towards a community-driven reconstruction of asthma-relevant pathways and networks - Alexander Mazein (Lyon, France)</td>
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PP205: Epigenetic modifications in cord blood associated with asthma development later in children’s life - Matthias Klös (Leipzig, Germany)

PP206: GM-CSF drives human lung tissue macrophages towards a more pro-inflammatory phenotype - Jessica Tilman (London, United Kingdom)

PP207: Platelet-derived Growth Factor Receptor α (PDGFRα) signaling involvement in alveolar secondary septation - Leonor Gouveia (Uppsala, Sweden)

PP208: Visualization of neonatal lung injury associated with mechanical ventilation using x-ray dark-field radiography - Prajakta Oak (Munich, Germany)

PP209: Identification of novel traffic factors involved in CFTR exit from the ER - João D. Santos (Lisbon, Portugal)

PP210: Identification of distinct biological phenotypes of ARDS by cluster analysis and association with mortality - Lieuwe Bos (Amsterdam, Netherlands)

PP211: The specific upregulation of placenta growth factor (PlGF) by matrix metalloproteinase (MMP)-12 in the pathogenesis of COPD - Hsin-Han Hou (Taipei, Taiwan)

PP212: Pleural inflammation is essential in bleomycin-induced lung toxicity - Olivier Burgy (Dijon, France)

PP213: Unsupervised gene co-expression analysis identifies a novel endotype in severe asthma - Akul Singhania (Southampton, United Kingdom)

PP214: Enhanced postnatal pulmonary injury as a consequence of exposure to moderate prenatal cigarette smoke - Prajakta Oak (Munich, Germany)

PP215: Systems approach to predict asthmatic response to allergen inhalation challenge - Scott Tebbutt (Vancouver, Canada)

PP216: An airway epithelial origin for tobacco carcinogen-induced lung adenocarcinoma - Magda Spella (Patras, Greece)

PP217: Human bronchial epithelial cell migration is dependent on the RhoA effector protein Rho-associated kinase - Fraser Milla (London, United Kingdom)

PP218: Is it possible to predict the outcome of the Whole lung lavage (WLL) in Pulmonary Alveolar Proteinosis (PAP)? - Michele Zorzetto (Pavia, Italy)

PP219: Macrophage phenotype changes within the small airway wall in smokers and Chronic Obstructive Pulmonary Disease – Mathew Eapen (Hobart, Australia)

PP220: Batf3-dependent dendritic cells control exacerbated allergic airways inflammation to house dust mite (HDM) - Laura Conejero Hall (Madrid, Spain)

PP221: Exploring mechanisms and early detection of pulmonary arterial hypertension via breath and lung vascular cells’ volatolomics - Morad Nakhleh (Le Plessis Robinson, France)

PP222: Eosinophils enhance WNT-5a and TGF-β1 genes expression in airway smooth muscle cells and promote their proliferation in asthma - Andrius Januskevicius (Kaunas, Lithuania)

PP223: Differentiation between inflammation and hyperinflammation in the murine lung - Kathleen Reiss (Aachen, Germany)

PP224: Non-biased investigation into cardio-pulmonary bypass lung injury - Andrew Durham (London, United Kingdom)

PP225: Oxidative stress in nasal epithelial cells from patients with primary ciliary dyskinesia - Ana Reula (Valencia, Spain)

PP226: Selective TSC1 Deletion in Smooth Muscle Activates mTOR Signaling and Induces Pulmonary Hypertension - Amal Houssaini (Munich, Germany)

PP227: Correlation of IL-17A concentration with T regulatory cells in lung cancer microenvironment - Iwona Osinska (Warsaw, Poland)

PP228: The role of platelet-expressed C-type lectin-like receptor-2 in regulating the severity of murine lung injury - Sian Lax (Birmingham, United Kingdom)

PP229: System biology of adrenomedullin is controlled via its cell type specific expressed receptors in the human lung – Jyotshna Mandal (Basel, Switzerland)
PP230: Induction of granulocyte apoptosis by Bcl-2 inhibitors reduces steroid-insensitive airway inflammation - Songmin Ying (Hangzhou, China)

PP232: Osteopontin as an airway epithelial tumor promoter - Ioannis Psallidas (Oxford, United Kingdom)

PP234: Identification of novel compounds for Wnt/beta-catenin induced lung repair in COPD - Rita Costa (Munich, Germany)

PP235: Activation of FGF9 and 18 in idiopathic pulmonary fibrosis promote survival and migration and inhibit myofibroblast differentiation of human lung fibroblasts - Audrey Joannes (Paris, France)

PP236: Punching above their weight: plasmacytoid dendritic cells play a critical role in regulating rhinovirus induced gene expression pathways - John Upham (Brisbane, Australia)

PP237: A dual role for eosinophils upon viral exposure; its relevance in virus-induced loss of asthma control – Yanaika Shari Pineros Sabogal (Amsterdam, Netherlands)

PP238: Hookworm infection with Nippostrongylus brasiliensis is a MyD88-TRIF independent mouse model of emphysema - Emma Ringqvist (Stockholm, Sweden)

PP239: Potential use of &beta;-blockers to reduce COPD exacerbations - Lies Lahousse (Ghent, Belgium)

PP240: Vitamin D deficiency is associated with and influences the severity of human and murine sepsis - Dhruv Parekh (Birmingham, United Kingdom)

PP241: Gender specific alterations of monocrotaline induced pulmonary hypertension in obese rats - Balram Neupane (Giessen, Germany)

14:45-16:45 Junior session: Getting the job you want
14:45-14:50 Introduction
    Agnes Boots, JMC Chair
14:50-15:50 Part 1: Prepare your CV, letter and interviews
    Paul Nicklin, Boehringer-Ingelheim, Germany
15:05-15:20 Part 2: CV feedback exercise
    Liz Elvidge, Imperial College London, United Kingdom
15:20-15:35 Performing your best in the interview situation
    Inge Vestbo, KONTUR Healthcare, Denmark
15:35-15:50 Discussion
15:50-16:20 Panel Discussion
19:30-20:00 Evening Pre-Dinner Talk
    IBM Watson; an advisor to Medical Professionals
    Pascal Sempé, Paris, France

From 20:00 Gala Dinner and Award Ceremony
Session 5: Personalised medicine: the treatment of the future

09:00-09:20  Epigenetics in pulmonary hypertension
Soni Savai Pullamsetti (Bad Nauheim, Germany)

09:20-09:35  Discussion

09:35-09:55  Metabolomics for molecular phenotyping in respiratory disease
Craig Wheelock (Stockholm, Sweden)

09:55-10:10  Discussion

10:10-10:30  Coffee

10:30-10:50  ILD and system medicine
Oliver Eickelberg (Munich, Germany)

10:50-11:05  Discussion

11:05-11:25  Systems pharmacology
Lindsay Edwards (Stevenage, United Kingdom)

11:25-11:40  Discussion

11:40-12:00  Conclusion by Bruno Crestani, ERS Conferences and Seminars Director