

German-French Lung Retreat 2018 - Program

Location: Biopark Auditorium (11 Rue Watt, 75013 Paris), France

Wednesday, September 12, 2018

- 05:00-05:15 pm Welcome and Introduction
Christian Boitard (IT/ITMO PMN), Marc Humbert (Inserm Paris), Claudia Staab-Weijnitz (CPC Munich)
- 05:15-06:15 pm Keynote Address - Bradley Maron (Brigham and Women's Hospital, Boston): *NEDD9 targets COL3A1 to promote endothelial fibrosis and pulmonary arterial hypertension*
- 06:30-11:30 pm Young Scientist Night: Dinner & Cruise on the Seine, Networking Event
Calife, 3 Quai Malaquais, 75006 Paris

Thursday, September 13, 2018

- 08:30-08:45 am Welcome Note
Christian Boitard (IT/ITMO PMN), Marc Humbert (Inserm Paris), Claudia Staab-Weijnitz (CPC Munich)
- 08:45-09:45 am Session 1: Recent Advances in Pulmonary Hypertension
Chairs: Christelle Guibert (Inserm U 1045, Bordeaux), Christophe Guignabert (Inserm U 999, Paris)
Mélanie Lambert (Inserm U 999, Paris): *KCNK3 channel inactivation leads to pulmonary vascular alterations in rat*
Shariq Abid (Inserm U 955, Créteil): *CCR2- and CCR5-Mediated Crosstalk between Macrophages and Pulmonary-Artery Smooth Muscle Cells Drives Pulmonary Hypertension*
Chanil Valasarajan (UGMLC Gießen): *Long noncoding RNA TYKRIL plays a role in pulmonary hypertension by controlling the p53 mediated regulation of PDGFRβ*
Christina Eichstaedt (TLRC Heidelberg): *Common genetic basis for pulmonary arterial hypertension and high altitude pulmonary edema*
- 09:45-10:45 am Session 2: Lung Fibrosis
Chairs: Olivier Burgy (CPC Munich), Michael Pflaum (BREATH Hanover)
Flavia Greiffo (CPC Munich): *Fractalkine/CX3CR1 axis drives kinetic changes of monocytes populations in fibrotic interstitial lung disease*
Vanessa Welk (CPC Munich): *Proteasome Activator 200 (PA200) Regulates Myofibroblast Activation*
Elena Lopez-Rodriguez (BREATH Hanover): *Pulmonary surfactant as drug delivery system to target lung epithelium: new approach for the treatment of epithelial injury after bleomycin challenge*
Emmeline Marchal-Duval (Inserm U 1152, Paris): *PRRX1, a driver of lung fibrosis*

- 10:45-11:15 am *Coffee Break & Posters I*
- 11:15-12:15 pm Session 3: Novel Concepts in Asthma & Allergy
Chairs: Johanna Ehlers (ARCN Borstel), Marina Pretolani (Inserm U 1152, Paris)
Sabine Bartel (ARCN Borstel): *microRNAs in asthma - tiny regulators with a large impact?*
Rebecca Bodenstein-Sgró (ARCN Borstel): *Virus-induced exacerbation of experimental asthma in mice is accompanied with early production of IL-6, KC, and TNF*
Pauline Esteves (Inserm U 1045, Bordeaux): *Role of mitochondrial metabolism in bronchial smooth muscle remodeling in asthma*
Florian Dilasser (Inserm U 1087, Nantes): *Role of RAC1 in asthma*
- 12:15-01:45 pm Lunch & Poster Session I incl. Poster Walks
- 01:45-02:45 pm Session 4: Environmental Challenges for the Lung
Chairs: Juliette Deweirtd (Inserm U 1045, Bordeaux), Prajakta Oak (CPC Munich)
Carola Voss (CPC Munich): *Ineffective alveolar clearance of carbon nanotubes directly contributes to sustained epithelial inflammation*
Youenn Jouan (Inserm U 1100, Tours): *Implication of non-conventional T cells during severe pneumonia*
Saadé Kheir (Inserm U 1152, Paris): *Modulation of host immune responses in Pseudomonas aeruginosa lung infections: implications for cystic fibrosis*
Randa Belgacemi (Inserm U 1250, Reims): *COPD and ciliogenesis*
- 02:45-03:30 pm Session 5: Lung Cancer revisited: New signatures and mechanisms
Chairs: Rita Costa (CPC Munich), Alberto Marra (TLRC Heidelberg)
Constanze Merz (BREATH Hanover): *Feasibility of in vivo and ex vivo chemotherapy in a model of ovine pulmonary adenomatosis*
Anne-Sophie Lamort (CPC Munich): *Tumor-derived granulocyte chemotactic protein 2 cooperates with proteases to drive lung adenocarcinoma*
Mario Pepe (CPC Munich): *Alteration patterns of tobacco carcinogens in lung adenocarcinoma suggest G6pd2 and Aldoart1 as novel KRAS-addicted candidate oncogenes*
- 03:30-04:00 pm *Coffee Break & Posters II*

04:00-05:00 pm

Session 6: Novel Technologies in Experimental Lung Research & Bioengineering

Chairs: Claudia Staab-Weijnitz (CPC Munich), Maximilian Strunz (CPC Munich)

Ilias Angelidis (CPC Munich): An atlas of the aging lung mapped by single cell transcriptomics and deep tissue proteomics

Christoph Mayr (CPC Munich): Heterogeneity of the mesenchymal niche in mouse lung

Michael Pflaum (BREATH Hanover): Hypothermic preservation of endothelialized gas exchange membranes

Thomas Sécher (Inserm U 1100, Tours): Airway administration of therapeutic antibody confers higher protection than parenteral administration in a murine model of acute lung infection

05:00-06:00 pm

Poster Session II incl. Poster Walks

06:00-07:30 pm

Happy Hour & Mentoring Session

Opportunity for networking and discussions on career planning

Anne Hilgendorff (CPC Munich)

Peter Dorfmueller (University of Gießen and Inserm U999 Paris)

Oliver Eickelberg (Division of Pulmonary Sciences and Critical Care Medicine, Department of Medicine, University of Colorado, Anschutz Medical Campus)

Poster Session I incl. Poster Walks

COPD & Lung Cancer

Facilitators: Anne-Sophie Lamort (CPC Munich), Vanessa Welk (CPC Munich)

1. Kristina Arendt (CPC Munich): *Synthetic lethality of KRAS-mutant tumor cells in vivo depends on inflammatory signaling to myeloid cells*
2. Aya Atwe (Inserm U 955, Creteil): *Upregulation of PLA2R1 and JAK/STAT signaling promotes lung cell senescence and emphysema in obstructive lung disease*
3. Rita Costa (CPC Munich): *Novel compounds for WNT/ β -catenin induced lung repair in chronic obstructive pulmonary disease*
4. Ilona Kammerl (CPC Munich): *Validating immunoproteasome activity profiling in peripheral blood of COPD patients as a biomarker approach*
5. Mylène Wartenberg (Inserm U 1100 Tours): *Deciphering molecular mechanisms of cathepsin S resistance to major chemical oxidants of cigarette smoke*

Asthma & Allergy

Facilitators: Sabine Bartel (ARCN Borstel), Roger Marthan (INSERM U1045, Bordeaux)

6. Olga Danov (BREATH Hanover): *Inflammatory exacerbation and inadequate interferone response to RV1b infection in HDM-sensitized lung tissue*
7. Johanna C. Ehlers (ARCN Borstel): *Poly(I:C)- and hRV-16A trigger comparable inflammatory responses in an air-liquid interface cell culture model of human bronchial epithelial cells*
8. Natalia El-Merhie (ARCN Borstel): *A Drosophila melanogaster model to study the intergenerational effects of maternal e-nicotine exposure*
9. Séverine Létuvé (Inserm U 1152, Paris): *Role of DNA methylation in mucus hypersecretion in severe asthma*
10. Isabell Ricklefs (Universitätsklinikum Schleswig-Holstein, Lübeck): *Potential role of Cysteinylleukotriens and Lipoxins as biomarkers for children with asthma*

Pulmonary Hypertension

Facilitators: Christophe Guignabert (Inserm U 999, Paris), Frédéric Perros (Inserm U999, Paris)

11. Juliette Deweirdt (Inserm U 1045, Bordeaux): *Effect of black carbon nanoparticles on human pulmonary artery endothelial cells in physiological and pathological conditions*
12. Dijana Iloska (UGMLC Gießen): *End-stage Chronic Thromboembolic Pulmonary Hypertension: Unique Molecular and Histopathological Imprint*
13. Alberto Marra (TLRC Heidelberg): *Effects on Right Ventricular size and function by Riociguat in Pulmonary Arterial Hypertension and Chronic Thromboembolic Pulmonary Hypertension (The RIVER Study)*
14. Carole Phan (Inserm U 999, Paris): *Dasatinib increases endothelial permeability leading to pleural effusion*
15. Marceau Quatredenières (Inserm U 999, Paris): *NMDA Receptor signaling network in PAH: from proof of concept to systems biology*

16. Ly Tu (Inserm U 999, Paris): *Selective BMP-9 inhibition partially protects against experimental pulmonary hypertension*
17. Julia Wälscher (TLRC Heidelberg): *Prognostic impact of bronchoalveolar lavage lymphocytosis in patients with chronic Hypersensitivity Pneumonitis*

Poster Session II incl. Poster Walks

Novel Technologies & Models in Experimental Lung Research & Bioengineering

Facilitators: Christoph Mayr (CPC Munich), Claudia Staab-Weijnitz (CPC Munich)

1. Daniele Dipresa (BREATH Hanover): *Assessment of hollow-fiber membrane oxygenators using computational fluid dynamics*
2. Thomas Meul (CPC Munich): *Metabolic regulation of the proteasome*
3. Chaido Ori (CPC Munich): *Lung organoid generation by hiPSC-derived multipotent lung progenitor cells*
4. Salome Rehm (CPC Munich): *Preemptive inhibition of cathepsin C in candidates for transplantation improves early graft functions*
5. Daniel Sanchez-Guzman (Inserm U 1152, Paris): *Silver nanoparticles as a new mucosal adjuvant in Influenza virus vaccines*
6. Maximilian Strunz (CPC Munich): *Time-resolved single cell transcriptomics of lung injury and repair reveals a key role for Emilin-2 in limiting inflammation and fibrosis*
7. Laura Wanat (CPC Munich): *Phosphoproteomics reveals the signaling landscape of lung fibroblast rigidity sensing*

Diffuse parenchymal lung diseases

Facilitators: Flavia Greiffo (CPC Munich), Ilona Kammerl (CPC Munich)

8. Ivette Bastidas (CPC Munich): *MMP7 and MUC5B as potential predictors of IPF outcome and course*
9. Olivier Burgy (CPC Munich): *Extracellular Vesicles in Bronchoalveolar Lavage Fluids Affect Cellular Function in Pulmonary Fibrosis*
10. Aurelien Justet (Inserm U 1152, Paris): *Implication of FGFR4 and its ligands in Idiopathic Pulmonary Fibrosis*
11. Hussein Nasserredine (Inserm U 1152, Paris): *Idiopathic pulmonary fibrosis and cancer: elucidating the oncogenic promoting effects of the fibrotic microenvironment in vitro*
12. Johannes Nowak (CPC Munich): *The role of immunoproteasome in fibrotic remodeling*
13. Prajakta Oak (CPC Munich): *Role of vitamin D in regulating the inflammatory injury in neonatal chronic lung disease*
14. Arunima Sengupta (CPC Munich): *Secreted Frizzled Related Protein 1 (SFRP1) As A Novel Regulator of the RhoA/Rock1 Pathway Is Expressed In a Distinct Subset of Fibroblasts in the Fibrotic Lung*

Practical Information

- ✓ Presentations (Sessions 1-6): 10 min + 5 min discussion. Power Point presentation format: 16:9.
- ✓ Poster Discussion Session: max. 95 cm high x 195 cm wide – landscape format (ERS format). Session I: Please put up your poster on September 12 at 4pm. Poster Session II: Please put up your poster on September 13 at 03:30pm.

Each poster author is invited to give a ~3 min presentation, which is followed by ~2 min of questions. The chairman will quickly introduce the presenter and host the discussion/questions.

- ✓ Networking Event: Dinner & Cruise on the Seine (Calife, 3 Quai Malaquais, 75006 Paris): Arrival between 06:15 and 06:30 pm (after the keynote lecture). An apéritif will be served between 06:30 and 07:45 pm; dinner (buffet) will be served from 07:45 pm. The cruise will be between 07:45 and 10:00 pm; the event will last until midnight. Please note that drinks will be included during dinner time. The drinks for the second part of the evening are, however, not included. If you'd like to order anything after dinner, we kindly ask you to please cover the costs yourself. Please let us know by if you have any particular dietary requirements (vegetarian, allergies, lactose or gluten intolerance etc.).
- ✓ Accommodation incl. breakfast is reserved and paid for two nights from September 12-14, 2018:

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<https://www.appartcity.com/fr/destinations/ile-de-france/paris-1/paris-grande-bibliotheque.html>

We are looking forward to fruitful and interactive discussions.

Organizing Committee

Dr. Doreen Franke, Comprehensive Pneumology Center, Munich

Dr. Nathalie Grivel, IT/ITMO PMN, Inserm/Aviesan

Dr. Christophe Guignabert, Inserm UMR_S 999 - Univ Paris-Sud - Université Paris-Saclay

PD Dr. Anne Hilgendorff, Comprehensive Pneumology Center, Munich

Prof. Dr. Marc Humbert, Inserm UMR_S 999 - Univ Paris-Sud - Université Paris-Saclay

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