

# European CF Young Investigators' Meeting 2023

Wednesday, March 1<sup>st</sup>

09:00 – 9:30 am

Registration, Poster set up

09:30 – 9:50 am

“Cystic Fibrosis: a community of patients and professionals standing shoulder to shoulder”

Elise Lammertyn, Head of Research CF Europe

10:00 am – 12:15 pm

**SESSION 1: CELL BIOLOGY**

Chaired by Nicoletta PEDEMONTE and Isabelle SERMET-GAUDELUS

10:00 – 10:30 am

✦ State-of-the-art lecture by **Nicoletta PEDEMONTE**

10:30

**CHEVALIER**

**Benoit**

Proximity protein labelling to identify CFTR partners

10:45

**MURABITO**

**Alessandra**

A PI3Ky mimetic peptide triggers CFTR gating, bronchodilation, and reduced inflammation in obstructive airway diseases

11:00 – 11:30 pm

**Coffee break**

11:30

**SCHENKEL**

**Mathias**

Large throughput single-molecule FRET for studying structure-activity-relationships between CFTR correctors and patient-derived mutant CFTR transmembrane hairpins

11:45

**GUIDONE**

**Daniela**

Altered airway surface viscosity and mucociliary transport by IL-17/TNF- $\alpha$  is corrected following beta-adrenergic stimulus

12:00

**BARDIN**

**Emmanuelle**

Metabolomic insights into the impact of CFTR modulators on the respiratory epithelium.

12:15 – 1:45 pm

**Lunch break**

1:45 – 3:15 pm

**SESSION 2: IMMUNOLOGY**

Chaired by Loïc GUILLOT and Marc CHANSON

1:45 – 2:15 pm

✦ State-of-the-art lecture by **Loïc GUILLOT**

2:15

**CONTE**

**Gianmarco**

Counteracting inflammation triggered by *P. aeruginosa*-activated lung-infiltrating Th1/17 cells: a novel approach for precision medicine in CF

2:30

**NUSSSTEIN**

**Hannah**

Assessing airway inflammation in chronic lung disease – Neutrophil protease activity and sputum macrorheology as potential biomarkers of chronic pulmonary inflammation

1:45 – 3:15 pm

**SESSION 2: IMMUNOLOGY**

Chaired by Loïc GUILLOT and Marc CHANSON

2:45

**GIANFERRO**

**Fabrizio**

$\Delta$ F508-CFTR mutation in genetically diverse Collaborative Cross and C57BL/6 reference mice to unravel the contribution of genetic background in the CF disease phenotype

3:00

**BORN-BONY**

**Maëlys**

Lung *Pseudomonas aeruginosa* infection increases myeloid-derived suppressor cells (MDSC) inhibitory potential on adaptive immunity

3:15 – 3:45 pm

**Coffee break**

3:45 – 4:30 pm

**POSTER PITCHES**

4:30 – 6:00 pm

**POSTER SESSION**

6:15 pm

Departure from INJS to Networking event (15min walk)

6:30 pm

**Networking event**

L'ANTIDOTE : 45 rue Descartes – Paris (75005)

9:00 – 10:30 am

**SESSION 3: MICROBIOLOGY**

Chaired by Helle KROGH JOHANSEN and Tom COENYE

9:00 – 9:30 am

✦ State-of-the-art lecture by **Helle KROGH JOHANSEN**

9:30     **ENDRES**     **Adrien**     Pseudomonas aeruginosa modulates the response of primary bronchial epithelial cells to rhinovirus infection in vitro

9:45     **HACHEMI**     **Hamid**     Deciphering the taxonomical and functional dynamics of the respiratory microbiota in CF patients colonized by NTM

10:00    **NICOLA**     **Francesca**    Unravelling the pathogenicity of Mycobacterium abscessus clinical isolates in cystic fibrosis pulmonary epithelial cell and mouse models of respiratory infection

10:15    **PEDERSEN**    **Bjarke Haldrup**   Metabolic rewiring of Pseudomonas aeruginosa during within-patient evolution

10:30    **ROSENBOOM** **Ilona**     Impact of Elexacaftor/Tezacaftor/Ivacaftor Therapy on the Cystic Fibrosis Airway Microbial Metagenome

10:45 – 11:15 am

**Coffee break**

11:15 am – 12:15 pm

**SESSION 4: PSYCHOSOCIAL SCIENCES**

Chaired by Rachel MCHUGH and Trudy HAVERMANS

11:15 – 11:45 am

✦ State-of-the-art lecture by **Rachel MCHUGH**

11:45    **CALDANI**     **Simona**     Giving a voice to children: what does ‘quality of life’ mean to children with Cystic Fibrosis?

12:00    **REINSCH**     **Stefan**     A life worth living: reproduction, family plans and expanded genetic testing in cystic fibrosis

12:15 – 1:45 pm

**Lunch break**

1:45 – 3:15 pm

**SESSION 5: CLINICAL ISSUES**

Chaired by Elke DE WACHTER and Mirjam STAHL

1:45 – 2:15 pm

✦ State-of-the-art lecture by **Elke DE WACHTER**

2:15     **FROST**     **Freddy**     Defining cardiovascular risk, events and outcomes in people living with cystic fibrosis. A multi-source, multi-national approach

2:30     **DOBRA**     **Rebecca**    How representative are clinical trial cohorts of the general CF population? Implications for trial planning

2:45     **VERMAUT**    **Astrid**     Heterogeneity of large and small airway remodeling amongst end stage cystic fibrosis patients

3:00     **TEWKESBURY** **Daniel**     Elexacaftor/tezacaftor/ivacaftor appears to be safe and potentially therapeutic in cystic fibrosis liver disease

3:15 – 3:45 pm

**Coffee break**

3:45 - 5:30 pm

**Interdisciplinary Research Challenge**

|                            |  |                       |   |
|----------------------------|--|-----------------------|---|
| 09:00 – 10:30 am           | <i>“Career trajectories and hurdles” Workshop</i><br>Testimonies by Marianne CARLON and Mirjam STAHL and<br>“speed dating” with moderators |                       |   |
| 10:30 – 11:00 am           | <b>Coffee break</b>  |                       |   |
| <b>11:00 am – 12:15 pm</b> | <b>SESSION 6: GENETICS AND GENE THERAPY</b><br>Chaired by Patrick HARRISON and Marianne CARLON   |                       |   |
| 11:00 – 11:30 pm           | ✦ State-of-the-art lecture by <b>Patrick HARRISON</b>  |                       |   |
| 11:30                      | <b>BULCAEN</b>   | <b>Mattijs</b>        | Correction of drug-refractory CFTR mutations by Prime editing                                       |
| 11:45                      | <b>CHIAVETTA</b>   | <b>Roberta Flavia</b> | Exploring sequence-specific RNA editing to correct CFTR nonsense mutations in human CFF-16HBEge     |
| 12:00                      | <b>FRANÇOIS</b>  | <b>Nathalie</b>       | Development of novel self-amplifying RNA for long-term restoration and enhancement of CFTR function |
| 12:15 – 12:30 pm           | “A testimony on living with CF” – Marion Silber  |                       |   |
| 12:30 – 1:40 pm            | <b>Lunch Break</b>   |                       |   |
| 1:40 pm                    | <b>Awards and concluding remarks</b>   |                       |   |
| 2:10 pm                    | End of the meeting   |                       |   |