ERS Online Research Seminar

*Sputum inflammometry as a research tool and an aid to clinical phenotyping and asthma/COPD management*

08 – 09 February 2023

**Wednesday, 08 February 2023**

09:00 – 09:10  Introduction and aims – Antonio Spanevello (IT)

**SESSION I**

**Chairs:** Louis-Philippe Boulet (CA) and Alexander Mathioudakis (UK)

09:10 – 09:20  2002 ERJ Guidelines in relation to what we have learnt in 20 years – Ratko Djukanovic (UK)
09:20 – 09:40  Discussion
09:40 – 10:10  The Freddy Hargreave Lecture. Sputum analysis: Past, present and the future – Parameswaran Nair (CA)
10:10 – 10:25  Discussion
10:25 – 10:45  **Break**

**SESSION II**

**Chairs:** Stelios Loukides (GR), Sara Cuevas-Ocana (UK), and Nikolaos Lazarinis (SE)

10:45 – 11:05  Sputum Induction: Techniques, safety including COVID precautions and use in children – Florence Schleich (BE)
11:05 – 11:15  Discussion
11:15 – 11:35  Overview of current sputum processing techniques – Patrizia Pignatti (IT)
11:35 – 11:45  Discussion

**SESSION III**

**Chairs:** Celeste Porsbjerg (DK), Dina Visca (IT) and Sebastian Riemann (BE)

11:45 – 12:05  Relation between biomarker findings in sputum and blood – Maarten van den Berge (NL)
12:05 – 12:15  Discussion
12:15 – 12:30  Lessons learned about airway biology from the UCSF Sputum Cell Analysis Core for multicenter NIH Asthma Trials and Cohort studies – John Fahy (US)
12:30 – 12:45  Discussion
12:45– 13:00  Summary of day 1 – Sven-Erik Dahlén (SE)

_All timings are in Central European Time (CET)_
Thursday, 09 February 2023

SESSION IV
Chairs: Chris Brightling (UK) and Niki Ubags (CH)

09:00 – 09:20  Processing for analysis of cells including staining and QC criteria – Vijay Mistry (UK)
09:20 – 09:30  Discussion

09:30 – 09:45  Use of sputum plugs for immunofixation and histopathology – Manali Mukherjee (CA)
09:45 – 09:55  Discussion

09:55 – 10:10  Optimising methods for soluble mediators, proteomics, transcriptomics, and epigenetics – Peter Gibson (AU)
10:20 – 10:30  Discussion

10:30 – 10:45  Flow cytometry analysis – Michael Fricker (AU)
10:45 – 11:00  Discussion

11:00 – 11:15  Break

SESSION V
Chairs: Anneke ten Brinke (NL), Bart Hilvering (NL), and Andrew Higham (UK)

11:15 – 11:30  Single cell studies and differential gene expression – Ian Adcock (UK)
11:30 – 11:40  Discussion

11:40 – 11:55  Microbiome and metagenome techniques – Chris Brightling (UK)
11:55 – 12:05  Discussion

12:05 – 12:20  Application of sputum data in clinical studies including repeatability and power assessments for different outcomes – Renaud Louis (BE)
12:20 – 12:30  Discussion

12:30 – 13:00  Summary of issues and challenges for processing and analysis of sputum – Sven-Erik Dahlén (SE)

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