



# IN VITRO LUNG MODELS

hosted by Epithelix - 3,4 November 2022 - Geneva, Switzerland



CET time		Thursday 3 November - Day 1
08:30	09:00	Welcome introduction - Samuel Constant
09:00	09:45	Regulatory consideration for in vitro lung models - Rex FitzGerald
09:45	10:15	Reconstructed human airway epithelium for efficacy and toxicity assessment: Fully primary human nasal, tracheal, bronchial, small-airways and alveolar 3D models - EPITHELIX
10:15	10:45	Bioinspired lung on a chip - ALVEOLIX
10:45	11:15	Coffee
11:15	11:45	Novel aerosol exposure devices for in vitro toxicity testing at the air-liquid interface - VITROCELL
11:45	12:15	Theoretical and practical aspects of Trans Epithelial Electrical Resistance and tissues interconnection - Prof. Adrien Roux, HEPIA
12:15	12:45	Novel in vitro immunocompetent human airway epithelial models including primary macrophages, dendritic cells and neutrophils - EPITHELIX
12:45	14:15	Lunch
14:15	15:45	HOT1 - Cell culture of 3D ALI lung models Quality criteria, maintenance, endpoints measurement Treatment with chemicals (Part 1) – Static exposure with Liquid and Solid (Nanopress) EPITHELIX
15:45	16:15	Break
16:15	17:45	HOT2 Monitoring of Cilia Motion: Cilia Beating Frequency (CBF) and Mucociliary Clearance (MCC), histology and immunostaining of ALI cultures EPITHELIX
19:00		Social dinner

CET time		Friday 4 November - Day 2
09:00	10:30	HOT3 Treatment with chemicals (Part 2)– In-vitro testing of nanomaterials and pharmaceutical substances using the VITROCELL CLOUD System VITROCELL
10:30	11:00	Coffee
11:00	12:30	HOT4 Lung- on - chip system installation and AX-12 chip handling. Initial filling and medium exchange. Assembly and software introduction. Observation of cyclic breathing motion. ALVEOLIX
12:30	13:30	Lunch
13:30	15:00	HOT5 Interconnection of human airway epithelia and set-ups for online TEER analysis HEPIA
15:00	15:30	Break
15:30	16:30	Wrap-up - conclusion round table discussion

Hands-on     Lecture