



ERS Virtual School

Nebulisation of drugs for treatment of respiratory infections and disease

25 February 2025

Online



Organised in collaboration with the Horizon 2020 FAIR project.

Tuesday, 25 February 2025

09:00–09:10 **Welcome and introduction** - M. Baldry & R. MacLoughlin

Session 1 – Concepts / Basics / demonstrations in drug nebulisation

Chairs: M. Baldry & R. MacLoughlin

09:10–09:30 Overview of inhaled drug delivery – E-S. Suh
09:30–09:50 Inhaled medicine formulations – B. Forbes
09:50–10:10 Introduction to aerosol and inhalation devices – B. Müllerling
10:10–10:25 Jet, ultrasonic nebuliser, vibrating mesh nebuliser: demo, pros & cons – C. Dantas
10:25–10:45 Discussion Q&A, quiz

10:45–11:15 *Break*

Session 2 – Pre-clinical models to assess nebulisation effectiveness

Chairs: N. Heuze-Vourc'h & J-C. Sirard

11:15–11:35 Challenges in assessing inhaled biologics in pre-clinical models – R. Vanbever
11:35–11:55 In vivo influenza pig model for inhaled vaccines development – E. Tchilian
11:55–12:15 In vitro human lung models to evaluate safety and efficacy of inhaled therapeutics – S. Constant
12:15–12:35 Discussion Q&A, quiz

12:35–13:35 *Lunch*

All times are in Central European Summer Time (CEST)



Session 3 – Clinical development in nebulisation of biologics

Chairs: A. Rojas Fernández, CE. Luyt

13:35–13:55 Inhaled antivirals – B. Horvat
13:55–14:15 Inhaled antibodies – A. Schnell
14:15–14:35 Discussion Q&A, quiz

14:35–15:05 Break

Session 4 – Drug and biologic nebulisation in clinics

Chairs: J. Li

15:05–15:20 Nebulised antibiotics in the clinic / clinical trials – S. Ehrmann
15:20–15:35 Amikacin liposome inhalation in the clinic / clinical trials – P. Flume
15:35–15:50 Pulmozyme in the clinic / clinical trials – J. Laffey
15:50–16:05 Discussion Q&A

Round table discussion – The successes and future of nebulised therapies

Chairs: S. Ehrmann

16:05–16:10 Introduction of round table participants – S. Ehrmann
16:10–16:50 Discussion – JP Horcajada, M. Cazzola, N. Heuze-Vourc'h, K. Schwarz, P. Kuehl, O. Usmani

16 :50–17:00 Wrap-up and closing remarks



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