EFCE Spotlight Talks

Section on Chemical Engineering as Applied to Medicine

14 May 2025

15:00-16:45 CET

Chemical engineering contributions to new materials, technologies and modeling methods with applications in diagnostics, pharmaceuticals and artificial organs

The webinar will present selected activities within the EFCE section "Chemical Engineering as Applied to Medicine" established in 2022. Important topics related to the use of chemical/process engineering methodologies in the development of innovative concepts in therapeutic and pharmaceutical systems will be discussed. Some presentations will demonstrate the role of machine learning as a useful tool for quantitative analysis of selected problems relevant to medicine.

PROGRAM

15:00 **Welcome and introduction**
Tomasz Sosnowski, Chair of the Section Chemical Engineering as Applied to Medicine
Boelo Schuur, EFCE Scientific Vice-President

15:10 **Supercritical fluids and nanosomes: applications and perspectives in precision nanomedicine**
Lucia Baldino, University of Salerno – Italy

15:30 **Mixed matrix membranes, cellulose acetate/silica/metal organic frame work, for protein-bound uremic toxins removal by the artificial kidney**
Maria Norberta de Pinho, University of Lisbon - Portugal

15:50 **Big data and machine learning approaches to nutraceutical identification**
Davide Manca, Milan Polytechnic – Italy

16:10 **Machine learning-enhanced sensitivity analysis for complex pharmaceutical systems**
Daniele Pessina, Imperial College London - UK

16:30 **Concluding remarks**
Tomasz Sosnowski, Chair of the Section Chemical Engineering as Applied to Medicine

REGISTRATION

free of charge but mandatory

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