## **Confirmed Speakers**

## **Opening Keynote Lecture**

#### Opening Keynote Lecture Integration of Biology and Engineering to Enable Industrialization of Complex Biotherapeutics

Dr Konstantin B. KONSTANTINOV (RING THERAPEUTICS, Cambridge, United States)

## **Keynote Lectures**

## A Roadmap to Fast and in-silico DSP Process Development: Applied Modelling Concept Utilization

Dr Dejan ARZENSEK (NOVARTIS, Ljubljana, Slovenia)

## Innovative Axial Flow Membrane Module for Protein Chromatography

Prof. Cristiana BOI (ALMA MATER STUDIORUM-UNIVERSITÀ DI BOLOGNA, Bologna, Italy)

## Digitalization of DSP Operations and the Role of Hybrid Models

Dr Alessandro BUTTE (DATAHOW, Zurich, Switzerland)

#### Large-scale TIDES purification with MCSGP under GMP

Dr Ralf EISENHUTH (BACHEM AG, Bubendorf, Switzerland)

## Water Conservation and Recycling Strategies in Bioprocessing: The Role of Chromatography

Prof. Alois JUNGBAUER (UNIVERSITY OF NATURAL RESOURCES AND LIFE SCIENCES, Vienna, Austria)

## Digital Tools for Informed Design of Chromatographic Separation Processes

Dr Maria PAPATHANASIOU (IMPERIAL COLLEGE LONDON, London, United Kingdom)

## (R)Evolution in Downstream Processing of New Modalities: What Will be the Role of Chromatography?

Dr Cristina PEIXOTO (IBET, Oeiras, Portugal)

## Is MultiColumn Continuous Chromatography still Used to Support New Drug R&D?

Dr Antoni SEVERINO (UCB, Braine-l'Alleud, Belgium)

## **Invited Lectures**

# A Process Systems Engineering Perspective for the Design and Assessment of Integrated Monoclonal Antibody Production Processes

Dr Sara BADR (UNIVERSITY OF TOKYO, Tokyo, Japan)

How to Design an Automated Low-cost Pilot Scale Magnetic Bioseparation Process for Protein Separation from Complex Mixtures

Prof. Sonja BERENSMEIER (TECHNICAL UNIVERSITY OF MUNICH, Munich, Germany)

## Digital Twin and Process Analytical Technologies Application to Vaccine Purification Process Development

Dr Antonio CARDILLO (GLAXOSMITHKLINE, Siena, Italy)

## **Confirmed Speakers**

# Pros and Cons on the Use of Dimethyl Carbonate as a Green Alternative to Acetonitrile in Reversed Phase Liquid Chromatography for Analytical and Preparative Purposes

Prof. Martina CATANI (UNIVERSITÀ DEGLI STUDI DI FERRARA, Ferrara, Italy)

Harnessing Explainable Machine Learning in Image Analysis and Large Pre-trained Neural Networks to Predict and Analyse Process Performance in Biomanufacturing

Dr Lukas GERSTWEILER (THE UNIVERSITY OF ADELAIDE, Adelaide, Australia)

Extending the Range of Twin-Column Chromatography (MCSGP): Dynamic Control and Process Concepts

Dr Thomas MÜLLER-SPÄTH (CHROMACON AG, Zurich, Switzerland)

## Purification of Nucleic Acids by Ionic-liquids-based Ligands: Exploiting a Multimodal Behavior

Dr Fani SOUSA (UNIVERSITY OF BEIRA INTERIOR, Covilhã, Portugal)

# Biopharma 4.0 for Biologics Manufacturing Under Pandemic Constraints - Digital Twins in Quality-by-Design Based Process Design and Control for Autonomous Operation

Prof. Jochen STRUBE (CLAUSTHAL UNIVERSITY OF TECHNOLOGY, Clausthal-Zellerfeld, Germany)