



Advanced Fermentation Technology



## Session 4 – Autonomous Bioprocessing for Industrial Scalability

**Focus:** This session will focus on the transition toward autonomous and continuous bioprocessing through the integration of upstream fermentation and downstream purification. It will highlight process design, control, and integration strategies that enhance productivity, robustness, and resource efficiency. Discussions will emphasize the role of techno-economic evaluation in guiding decisions from pilot to full-scale industrial operation.