

53rd IUPAC General Assembly (53GA) 12th - 16th July 2025

50th World Chemistry Congress (50WCC) 14th - 19th July 2025

## **Al Guided Automation in Synthetic Processes**

CLUSTER I - PURE & APPLIED CHEMISTRY SYMPOSIUMS - Organic & Biomolecular

This session highlights how artificial intelligence (AI), machine learning (ML), deep learning (DL) and AI guided automation is revolutionizing chemistry, fastening and standardizing the entire workflow, from synthesis to separation and structural characterization. We are moving from an artisanal approach to an AI guided automation that will accelerate the discovery and optimization of chemical reactions, from predictive modeling to autonomous lab systems capable of executing experiments with minimal or collaborative human intervention. This will generate more reproducible protocols, free from human errors, and will allow to collect and share a significantly higher number of data exploitable for further AI based improvements.

## **TOPICS**

- Al in discovery of chemical reactions and characterization
- From predictive modeling to collaborative lab systems
- Transformative potential of AI in Chemistry



## **Deadline 31st March**

## **Symposium Chair**

Laura russo, University of Milano - Bicocca, Italy













Incorporating



**CLUSTER I**1. Organic & Biomolecular

