

Automation of research processes with LLMs and AI

March 6th 2025 Program

9:30–10:00	Registration <i>Coffee and sandwiches will be served</i>
10:00–10:05	Welcome <i>Ola Spjuth (Head of AI at SciLifeLab)</i>
10:05–10:35	AI-Empowered Life Science: How Can You Benefit Today and in the Future? <i>Olli Kallioniemi (Karolinska Institutet; SciLifeLab; Institute for Molecular Medicine Finland)</i>
10:35–11:05	Limitations of foundation models for achieving optimal performance <i>Martin Eklund (Karolinska Institutet)</i>
11:05–11:30	Flash Talk Session Autonomous AI Agents for Microscopy Imaging and Experiment Design <i>Wei Ouyang (KTH Royal Institute of Technology)</i> The generative AI breakthrough and its impact on the future of research <i>Gisele Miranda (KTH Royal Institute of Technology)</i> Replacing cell culture experiments with AI <i>Avlant Nilsson (Karolinska Institutet)</i> Open Source AI: What It Is and What It Isn't <i>Arnold Kochari (SciLifeLab Data Centre)</i>
11:30–12:00	How Europe PMC uses and supports LLM development for research workflows <i>Melissa Harrison (European Bioinformatics Institute, EMBL)</i>
12:00–13:00	LUNCH
13:00–13:30	AI fairness – it doesn't have to be hard <i>Aasa Feragen (Technical University of Denmark)</i>
13:30–14:00	Incorporating LLMs and AI agents in computational scientific workflows <i>Phil Ewels (Seqera)</i>
14:00–14:30	Coffee Break
14:30–15:00	AI and Optimization for Science: Principles and Pitfalls <i>Prashant Singh (Uppsala University; SciLifeLab)</i>
15:00–15:40	Panel Discussion
15:40–15:50	End of Day <i>Ola Spjuth (Head of AI at SciLifeLab)</i>