FALLING
WALLS
CIRCLE

PLENARY TABLE "HOW GENERATIVE AI CAN REVOLUTIONIZE THERAPY DEVELOPMENT"

The rapid development of generative Artificial Intelligence (AI) is facilitating groundbreaking applications across various industries. This Falling Walls Circle explores the transformative potential of generative AI in advancing innovative therapies and realising their great promises. The panelists discuss the current breakthroughs and future trajectory as well as ethical considerations and challenges associated with AI-driven therapy development.

Panelists: Allison Duettmann (Foresight Institute, US), Monika Lessl (Bayer Foundation, DE), Mads Nørregaard-Madsen (Amgen Research Copenhagen, DK), David Ruau (NVIDIA, DE), Johan Trygg (Sartorius, DE), and moderator Mariette DiChristina (Boston University, US).

KEY TAKEAWAYS

1. **Build trust around data collection and application.** While Artificial Intelligence promises to accelerate drug discovery and development, it needs to be sure that the methodology and models are based on trustworthy data. To develop robust AIs, high quality and reproducible data and a curated system are required, "that remains one of the biggest challenges right now", says Monika Lessl. It requires close collaboration between data scientists and experimental scientists, and more investments in data curation processes, to make existing data readable for AI systems.

2. **Companies need to reflect on how they govern AI within their structures.** Having access to the data always requires informed consent from the patients and new applications require thorough testing before going live. On top of the technical and scientific perspectives, we need to keep the ethical side in mind.

3. **AI requires powerful infrastructure.** "AI will change healthcare in every single domain. It will expand our capacity to develop medicine faster and improve the health of patients", says David Ruau. To continue in this trajectory, researchers need to have access to enough computing power to invent the algorithms of tomorrow. That means developing a new infrastructure, which ultimately requires changes in politics and more funding. If science wants to innovate with generative AI, institutions, policy regulators and financial backers need to keep pace with the development and adjust accordingly.

4. **Upskill all personnel to leverage AI.** With Artificial Intelligence being a tool rather than a solution, its integration into the healthcare domain requires a cultural shift spanning from universities to leadership levels in organisations. According to Monika Lessl, there is a great need to "upskill people in a corporation so that they can leverage the power of AI and bring researchers and data scientists together". The experts recommend setting up new educational initiatives to equip the workforce with the skills required to effectively use the power of AI in therapy development.

This event is supported by Sartorius.