

# Proceedings of the 15<sup>th</sup> International Conference on Semantic Web Applications and Tools for Health Care and Life Sciences (SWAT4HCLS 2024)

Hosted by Leiden University Medical Centre, Leiden University, and Naturalis, The Netherlands, 26-29 February 2024

## Preface

We are delighted to present the proceedings for the 15<sup>th</sup> International Conference on Semantic Web Applications and Tools for Healthcare and the Life Sciences (SWAT4HCLS 2024), a hybrid event, hosted in Leiden with in-person and virtual participants.

SWAT4HCLS is a venue for presenting and discussing novel ideas, experiences and issues in the application of semantic technologies in the biomedical and clinical domains. The 4-day event included tutorials, conference papers, demos, posters, keynotes, a panel discussion and a hackathon.

The scope of SWAT4HCLS embraces the life sciences as a collective term encompassing healthcare, biology, biodiversity, and agriculture. This inclusive approach allows us to address the multifaceted challenges and opportunities across the life sciences, emphasizing data-driven approaches and innovative data management practices. As such, it is more than just a conference; it is a confluence of diverse perspectives and expertise.

This year, we marked **10 years of the FAIR principles**, the notion that data should be Findable, Accessible, Interoperable and Reusable, for humans and machines. A panel session discussed the achievements of FAIR and the opportunities ahead. We also marked **International Rare Disease Day** on February 29<sup>th</sup>. The Rare Disease research community are an important stakeholder in SWAT4HCLS approaches, as the semantic integration of disparate, privacy sensitive data is crucial and challenging.

SWAT4HCLS attracted 60 submissions from around the world. Topics included FAIR (Findable, accessible, Interoperable and Reusable) data in biomedical applications, semantics in healthcare, semantic web applications in data preparation and interoperability, and semantic web methods and AI. The conference programme included 15 research presentations, 4 Keynotes, 4 industry presentations, a panel discussion, 7 tutorials, 32 posters and 4 demos.

The SWAT4HCLS 2024 organisers would like to thank the authors of papers and posters for their excellent and interesting submissions, our keynote speakers, panelists and tutorial facilitators for sharing their experiences and insights, and our excellent program committee for their hard work in critically reviewing submissions to ensure high quality publications.

Finally, we would like to thank Dana Cernoskova for organising, coordinating and supporting us, our excellent sponsors for making it possible, and our global participants for their enthusiastic questions, discussions and creative hacking.

Marco Roos, Annika Jacobsen, Andrea Splendiani, M. Scott Marshall, Andra Waagmeester, Leyla Jael García Castro, Katy Wolstencroft, Kristina Hettne, Rutger Vos, Leiden 2024