## Proceedings of the 13th International Conference on Semantic Web Applications and Tools for Health Care and Life Sciences (SWAT4HCLS 2021/2022)

Virtual Conference, hosted by Leiden University, Leiden University Medical Centre and Naturalis, The Netherlands, 10-14 January 2022

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## Preface

We are delighted to present the proceedings for the 13<sup>th</sup> International Conference on Semantic Web Applications and Tools for Healthcare and the Life Sciences (SWAT4HCLS 2022). Due to restrictions of the Covid-19 pandemic, this edition was the first *virtual* SWAT4HCLS.

SWAT4HCLS is a venue for presenting and discussing novel ideas, experiences and issues in the application of semantic and W3C Web technologies in the biomedical and clinical domains. The 4-day event included tutorials, conference papers, demos, posters, keynotes, a panel discussion and a hackathon.

Organised and virtually hosted by a local team in Leiden, SWAT4HCLS attracted submissions from around the world. Topics included FAIR (Findable, accessible, Interoperable and Reusable) data in healthcare and clinical research, Agri-semantics, knowledge graphs for molecular biology and phenotypes, knowledge graphs and machine learning, ontologies and semantic annotation and FAIR standards. The conference programme included 15 full conference papers, 4 Keynotes, 19 posters/demos and a panel discussion.

The SWAT4HCLS 2022 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 the excellent program committee for their hard work in critically reviewing submissions. Their comments and suggestions helped ensure high quality publications. Finally, we would like to thank our sponsors (in particular Rothamsted Research) and our global participants for their enthusiastic questions and discussions, and to Dana Cernoskova for her assistance and support during the final stages of organisation.

Katy Wolstencroft, Andrea Splendiani, M. Scott Marshall, Chris Baker, Andra Waagmeester, Marco Roos, Rutger Vos, Rianne Fijten, Leyla Jael Castro, Femke Francissen, Leiden, 2022