Date: 15 September 2019 at 12:49 **To:** public-semweb-lifesci@w3.org

12th International Conference on **Semantic Web Applications and Tools for Health Care and Life Science**s, 9-12th December 2019, Edinburgh, UK http://www.swat4hcls.org/

Important dates:

Full paper submission: September 30th
Posters and demo submissions: October 7th
Notification of acceptance: October 21st

For over a decade SWAT4HCLS has provided a venue where a vibrant and open community of researchers, developers, users, and professionals from varied backgrounds have come together to discuss future targets, current limitations and real experiences in the use of semantic and web technologies in healthcare and life sciences.

We invite submissions for the 2019 editions in all our topics of interest.

Topics

Topics of interest include, but are not limited to Semantic and Web technologies designed for, and applied, in Healthcare and the Life Sciences.

Semantic technologies and their application in healthcare and life sciences

- Knowledge representation systems in life sciences, medicine, healthcare, and agriculture
- NLP and text mining using semantic technologies
- Methods and standards to improve discoverability and reusability of data repositories
- Semantic Querying, Data validation languages, Knowledge Graphs, Rule-based systems
- Semantic workflow technologies and semantic web services applied in life sciences
- Infrastructures supporting provenance, traceability, trust and reproducibility
- Bridging semantics and analytics in the context of healthcare and life sciences
- Novel approaches to utilizing existing biomedical data without sharing it, e.g. bring the analysis to the data
- Deep learning, machine learning, and semantic technologies
- · Computing on knowledge graphs
- Data curation and cleansing pipelines and approaches

Resources

- New biomedical ontologies
- Open Data Integration and Interoperability
- Data repositories, integrated knowledge bases and data catalogues
- Gold data sets
- Biomedical ontologies, rules and medical standards for information exchange and interoperability.

- Application and impact of data standards applied in clinical practice, public health and agribusiness
- Empirical studies and evaluation of Semantic Web tools and applications in the life science domains
- Ethical issues, privacy and data governance in healthcare, agri, and medical data in Semantic Web
- Studies focussing on the adoption of Semantic Technologies by knowledge workers in life sciences
- Business models for as (semantic) data economy

New applications of semantic technologies

- Semantic infrastructures for person-centric healthcare data ecosystems
- Semantic approaches to data repurposing in healthcare and patient generated data
- Use of semantics to enable translational medicine, personalized medicine and precision agriculture
- Semantic scientific publishing in the life sciences, medicine and healthcare, public health
- Clinical Intelligence from Electronic Health Records (EHRs), patient data and clinical trial data
- Future directions for Semantic Web technologies in the life sciences and interdisciplinary fields. including water science, agro science, and veterinary science, biodiversity, drug repositioning
- Harnessing linked data for Research Assessment/Monitoring and Evaluation

Types of submission

The following types of submissions for SWAT4HCLS 2019 are invited:

Full papers:

- Research papers Original research on a topic of interest to the SWAT4HCLS audience.
- In-use papers New applications and tool descriptions addressing a topic of interest to the SWAT4HCLS audience.

Short papers:

- Position papers, application notes, discovery notes, using Semantic Web applications and tools.
- Software demos Present software and tools in action.

Industry talks (abstract only required):

- Industry Application: report on industrial applications or research. (Semantic Publishers, Pharma, Healthcare, Agribusiness)
- Data Challenge Showcase: Are you planning a Data Challenge and want to reach out to expert participants. Submit an abstract with details of your target goals, timeline and prizes.
- Open Innovation: Are you a life science company that with more data than you can analyse and want experts to help find new insights. Submit an abstract with details of your target goals, license agreements, timeline, publication policy
- Business Models: Business models that leverage semantically rich data (e.g. publishing companies, for-profit data providers)

Posters and Demos

on a special issue covering selected SWAT4HCLS works from 2018 and 2019.

Instructions for authors

The CfP can be found here: https://easychair.org/cfp/swat4hcls2019
All submissions will be handled via the EasyChair submission system at https://easychair.org/conferences/?conf=swat4hcls2019.

All papers and posters must be in English and submitted in pdf using the LNCS format http://www.springer.de/comp/lncs/authors.html.

Submissions of **full papers** must be between 5 and 9 pages.

Submissions for **short papers** should be less than 5 pages.

Submissions for posters or demo abstracts should be less than 2 pages.

Submissions of **industry abstracts** should be less than 2 pages.

Papers will be peer-reviewed by at least three members of the Scientific Program Committee.

Conference schedule

Monday, December 9th: Tutorials

Tuesday, December 10th: Main Conference, Evening: Conference

dinner

Wednesday, December 11th: Main Conference

Thursday, December 12th: Hackathon

Conference venue

Tutorials and conference will take place at Heriot-Watt University, Edinburgh

Organization

Ronald Cornet, General Scientific chair Chris Baker, Agrisemantics track chair Andra Waagmeester, Open Data chair Albert Burger, local chair Andrea Splendiani, M.Scott Marshall: general chair

Adrian Paschke, Albert Burger, Andrea Splendiani, M.Scott Marshall, Paolo Romano: SWAT4HCLS committee.

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