

WSBO-2021

Workshop on Synergizing Biomedical Ontologies

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WORKSHOP ON SYNERGIZING BIOMEDICAL ONTOLOGIES

Ontologies are standardized, formal vocabularies developed by domain experts, typically in collaboration with ontologists. In the era of big data and AI, they enable finding, accessing, interoperating and reusing datasets and other digital research objects, in other words, making data F.A.I.R. As more communities develop ontologies to meet their specific needs, it is critical that we maintain synergy with existing ontologies, especially reference ontologies. Similar, but unreferenced terms create ambiguities that complicate implementation of the very F.A.I.R. principles ontologies seek to support. The biomedical field is especially rich with similar ontologies, including BAO and OBI, MONDO and DOID, DTO and PR, CLO and BRENDA, UBERON and FMA, and others. Extensive mapping efforts are often required to maintain associations between these ontologies, making integration expensive and cumbersome. No formal process has been established for collaboratively converging and actively maintaining synergy between ontologies. The goal of this meeting is to stimulate conversation around the best practices for synergizing ontologies, with an emphasis on collaborative development and dynamic workflows.

FAIR Ontologies • Ontology Mapping • Software Tools • Ontology Ecosystems

<https://github.com/OntoloBridge/WSBO>

Background and Funding

U01LM012630 (NLM)

Unifying Templates, Ontologies and Tools to Achieve Effective Annotation of Bioassay Protocols



OntoloBridge to Connect Ontology Users and -Developers

WSBO-2021 to bring together the various stakeholders of ontology and software consumers and - developers

<https://github.com/OntoloBridge/WSBO>

Acknowledgements

WSBO Organizers:



Samantha Jeschonek
Collaborative Drug Discovery



Asiyah Yu Lin
National Institutes of
Health



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WSBO Program - Day 1

WSBO Day 1: Wednesday, July 14

Moderators: Stephan Schürer and Samantha Jeschonek

8:20am – 8:40am	Synergizing Biomedical Ontologies - An Industry Perspective <i>Martin Romacker</i>	10:00am – 10:40am	Keynote Presentation <i>Melissa Haendel</i>
8:40am – 9:00am	Ontology Mappings - Untangling the Hairball and Democratising the Results <i>David Osumi-Sutherland</i>	10:40am – 11:00am	Towards Automating the Ontological Representation of Proteins in the Protein Ontology <i>Darren Natale</i>
9:00am – 9:20am	Matching Life Sciences Ontologies in the Ontology Alignment Evaluation Initiative <i>Ernesto Jimenez-Ruiz</i>	11:00am – 11:20am	A Simple Standard for Sharing Ontology Mappings (SSSOM) <i>Nicolas Matentzoglou</i>
9:20am – 9:40am	FAIRifying Biomedical Ontology Synergy <i>Lynn Schriml</i>	11:20am – 11:50am	Breakout Session: Needs for Synergization in the Biomedical Ontology Community <i>Moderator: Stephan Schürer</i>

Breakout Session

Breakout Session:

Needs for Synergization in the Biomedical Ontology Community

Breakout room 1 – Stephan Schürer

Communication and workflows between ontology developers and users

Breakout room 2 – Hande Kucuk McGinty

Ontology mapping - current status and challenges

Breakout room 3 – Mark Musen

Ontology software and ecosystems - repositories, development tools, annotation tools