



TUTORIAL E

ICBO: International Conference on Biomedical Ontology

OBI: A Shared Ontology for Representing Biomedical Studies and Resources

July 27, 2011 • 12:30pm - 4:00pm

Instructors:

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with Jie Zheng, Philippe Rocca-Serra, Carlo Torniai, Melissa Haendel

Workshop Venue:

Marriott Buffalo Niagara, 1340 Millersport Highway • Amherst, New York 14221

Room: Ballroom 5 / 1st Floor

Objective

The Ontology for Biomedical Investigations (OBI) aims to represent all elements of investigations such as assays, instruments or subject enrollment criteria. This tutorial will provide training on how to use OBI in specific applications and contribute to OBI development. We will present the following current applications for OBI: 1) representation of experiments mapping targets of immune responses in IEDB 2) EuPathDB annotation of genomic-scale datasets associated with eukaryotic pathogens 3) eagle-i representation of research resources 4) ISA tools and annotation of functional genomics experiments 5) Cross references to OBI within the Evidence Code Ontology. While going through these use cases, we will discuss: OBI design principles and the underlying Basic Formal Ontology, the Minimum Information to Reference an External Ontology Term (MIREOT) methodology, how to use the QuickTerm Template, how to edit OBI and submit term requests. This tutorial will start with a general overview of OBI followed by a presentation of practical applications leading to a hands-on session where attendees can

practice using tools and applying principles introduced in the use cases. Attendees are encouraged to bring their own issues that can be addressed, working directly with the OBI developers.

This half-day tutorial will demonstrate real-world applications of OBI to:

- Coordinate large scale knowledge base creation and management across biomedical communities
- Add semantic capabilities to existing databases
- Drive data collection from experimentalists
- Coordinate the development of existing ontologies

Preparation

Participants are expected to have their own laptop in order to actively participate in the hands-on session.

Preparatory Reading

Shortly before the session, a list of suggested reading material and software that should be installed prior to the tutorial will be provided.

AGENDA

- 12:30pm Presentations:
 - OBI Overview (20 min)
 - OBI Applications (4x25 min)
- 2:30pm BioBreak
- 2:45pm Hands On Session
 - Mechanisms of using and expanding OBI (OWL, MIREOT, QTT, ...)
 - Examples will be chosen based on audience suggestions
- 4:00pm End of Tutorial