UB Ontologists Win Bioinformatics Integration Award to Support National Institutes of Health

A team of University of Buffalo (UB) researchers has been selected by the National Institutes of Health (NIH) to support the collection, analysis and exchange of scientific data for researchers investigating immunology and immune-mediated diseases.

The UB researchers will work within the framework of the Bioinformatics Integration Support Contract (BISC) (HHSN272201200028C), which is funded by the NIH's National Institute of Allergy and Infectious Diseases (NIAID). The contract is designed to enable scientists to easily access and exchange interoperable complex data sets to accelerate scientific discovery.

The BISC team is led by Dr. Atul Butte (Stanford University) as the principal investigator under a contract awarded to Northrop Grumman Corporation [NYSE: NOC]. The centerpiece of the work is the Immunology Database and Analysis Portal (https://immport.niaid.nih.gov/), which provides advanced information technology support in the production, analysis, archiving, and exchange of scientific data for the diverse community of life science researchers supported by NIAID.

UB is responsible for the ontological aspects of the team's work, which combines development of ontologies for immunology and infectious disease with dissemination and training in the use of these ontologies among NIAID-funded researchers. The ontologies are designed to enhance the degree to which research results are expressed in a consistent fashion across communities and disciplines, thus advancing not only the analysis and integration of data but also its discoverability by scientists who were not involved in its creation. In this way, UB ontologies will contribute to the realization of the goals of the ImmPort system to accelerate a more collaborative and coordinated research environment and create an integrated database. that broadens the usefulness of scientific data and advances hypothesis-driven and hypothesis-generating research, as well as the development of optimal methods for data collection, storage, exchange and interoperability.

The UB team is led by Barry Smith, Professor of Philosophy, Neurology and Computer Science and Director of the National Center for Ontological Research. It also includes Alan Ruttenberg of the Department of Oral Biology and Alexander Diehl of the Department of Neurology. Ruttenberg's work will focus on the development of ontology-based computational tools and strategies that can advance sharing and reuse of data through the use of open ontology standards. Diehl will contribute his expertise on the development and application of ontologies in the fields of immunology, with special reference to the Gene, Protein, Cell, and Sequence Ontologies.

For background see also: http://www.buffalo.edu/news/releases/2009/01/9857.html