

Biomedical and Health Informatics Lecture Series

Tuesday, December 7, 2010
12:00 - 12:50 p.m., Room RR-134

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"Hierarchy in the UK: Living and Working as an Ontologist in England"

Many biological databases currently make use of species-specific anatomical ontologies to annotate their tissue-associated data, but it is not yet possible to integrate this data across multiple species. The Vertebrate Bridging Ontology (VBO), a project of the Functional Genomics group at the European Bioinformatics Institute (EBI), seeks to bridge this gap, as well as to leverage the information emerging from high-throughput data generation, evolutionary approaches to gene function and regulation, and functional genomics data produced using model organisms. It provides a public domain cross-species ontology based on explicit anatomical homology relationships to support knowledge management in the biologist user community. The VBO has been deployed in the EBI's Gene Expression Atlas, a semantically-enriched database of meta-analysis based summary statistics over a curated subset of the ArrayExpress Archive, servicing queries for condition-specific gene expression patterns as well as broader exploratory searches for biologically interesting genes/samples. This talk will give an overview of some current initiatives in bioinformatics in Europe, with a focus on reporting the progress of the VBO.

Dr. Travillian is the Vertebrate Anatomist/Informatician on the Functional Genomics group's Vertebrate Bridging Ontology project at the European Bioinformatics Institute in Hinxton, England. She received her PhD in 2006 from the UW Biomedical and Health Informatics program, developing a comparative anatomy information system that answers users' queries about anatomical similarities and differences across species. Her other research interests include applications of comparative biology informatics in translational medicine (cancer research and reproductive biology) and in conservation biology, as well as knowledge representation in systematics and taxonomy.

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