

## **An integrative approach of biomedical knowledge via ontologies for liver transcriptome analysis.**

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Semantic interoperability between databases and knowledge bases in medicine on one hand, and databases and knowledge bases in genomics and molecular biology on the other hand, is a means to enable further research and better patient care. The objective of the BioMedical Knowledge Extraction project (BioMeKe) is to develop a knowledge warehouse in the context of transcriptome analysis for liver diseases diagnosis. Knowledge sources include ontologies, related terminologies and annotations linked towards public databases (e.g., SwissProt). BioMeKe has been developed to have access to information by systematic investigation upon a concept, gene, gene products, pathology, or any target keyword, and is based on the combination of several relevant resources: UMLS, GeneOntology, MeSH supplementary terms, GOA, and HUGO. Current efforts are focusing on exploiting this ontology-based Knowledge Extractor, to enrich data on genes expressed in liver specific DNA microarrays designed in Lab for better assistance of analysis.