

GoPubMed: Exploring PubMed with Ontological Background Knowledge

Heiko Dietze, Dimitra Alexopoulou, Michael R. Alvers, Liliana Barrio-Alvers, Bill Andreopoulos, Andreas Doms, Jörg Hakenberg, Jan Mönnich, Conrad Plake, Andreas Reischuck, Loïc Royer, Thomas Wächter, Matthias Zschunke, Michael Schroeder

Summary

With the ever increasing size of scientific literature, finding relevant documents and answering questions has become even more of a challenge. Recently, ontologies — hierarchical, controlled vocabularies — have been introduced to annotate genomic data. They can also improve the question answering and the selection of relevant documents in the literature search. Search engines such as GoPubMed.org use ontological background knowledge to give an overview over large query results and to help answering questions. We review the problems and solutions underlying these next-generation intelligent search engines and give examples of the power of this new search paradigm.