Construction of Semantic Toxicogenomic Knowledge Base based on Text-Mining and Semantic Data Integration

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Ontologies are the backbone of the Semantic Web, a semantic-aware version of the WWW. They allow web resources to be semantically enriched and are useful to researchers, in order to aid in the classification and organization of information. Relationships within an ontology can be used to help group together similar objects, or find things with similar properties or behaviours. And text mining tools can extract more information than just picking up keywords from texts. These technologies are also helpful to various research areas such as BT, ET, CT, IT etc. In this presentation, the relationship among chemicals, genes and disease will be introduced through the use of computational tools, STKB (Semantic Toxicogenomic Knowledge Base). A test analysis was performed by the development of system to evaluate data binding from user entries to public data. The beta-release system will be announced in October 2009.