

ACToR – Aggregated Computational Toxicology Resource

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One goal of the field of Computational Toxicology is to predict chemical toxicity by combining computer models with biological and toxicological data. To achieve this goal, there is a need for large amounts of diverse, high quality, curated data that is easily accessible by modelers. We are developing the ACToR system (Aggregated Computational Toxicology Resource) to serve as a repository for a variety of types of chemical, biological and toxicological data that can be used for predictive modeling of chemical toxicology. ACToR is comprised of several independent databases, tied together through links to a common database of chemical structures and properties. The main databases cover biochemical (HTS) and cell-based assays, detailed *in vivo* toxicology data (ToxRefDB), experimental design information, genomics (mainly microarray) data, and reference information on genes and pathways. The system is collecting information from multiple sources both within and external to the EPA. Users will be able to access data through the web, initially on the EPA Intranet. The first use of ACToR will be to provide a repository and context for data from the ToxCast program, whose goal is to use *in vitro* biochemical and genomics assays to prioritize environmental chemicals for further testing.

This work was reviewed by EPA and approved for publication but does not necessarily reflect official Agency policy.