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Title:
The Benefits of Making Data from the EPA National Center for Computational Toxicology available for reuse

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Researchers at EPA's National Center for Computational Toxicology (NCCT) integrate advances in biology, chemistry, exposure and computer science to help prioritize chemicals for further research based on potential human health risks. The goal of this research is to quickly evaluate thousands of chemicals at a much reduced cost and shorter time frame relative to traditional approaches. The data generated by the Center includes characterization of thousands of chemicals across hundreds of high-throughput bioactivity screening assays, consumer use and production information, biookinetic properties, literature data, physical-chemical properties, as well as the predictive computational modeling of toxicity and exposure. We have developed a number of databases and applications to deliver the data to the public, academic community, industry stakeholders, and regulators. Large quantities of these data are available as Public Data, available for download and reuse. This presentation will provide an overview of our projects producing data that are freely available to the scientific community. This includes: 1) the ToxCast project that provides access to biological assay data measured on thousands of chemical substances in hundreds of individual assays; and 2) the CompTox Chemistry Dashboard and associated chemical substance data associated with almost ¾ million chemicals. As a result of our distribution policies the data have been integrated into multiple public databases, have been used to develop prediction models and to develop mobile applications. This abstract does not reflect U.S. EPA policy.