Metabolic Profiles of Drug Toxicity and Disease

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Recently, the National Center for Toxicological Research (NCTR) has established a metabolomics research facility. Research in this facility has looked at the metabolic profiles of rat, mice, monkey, and human biofluids from a number of different studies. Metabolomic studies have great potential for the identification of metabolic patterns associated with disease state or drug toxicity. Metabolite identification from NMR and MS spectral data allows for the monitoring of multiple metabolic pathways over time as the study permits. Patterns of multiple endogenous metabolites can be more indicative of drug toxicity than simply monitoring one clinical chemistry endpoint. Metabolomics data is interdependent and is a response driven by genomics and proteomics events. This talk will focus on the current research and future goals of NCTR metabolomics research.