



toxics



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Drug Metabolism and Toxicological Mechanisms

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Message from the Guest Editors

Absorption, distribution, metabolism, and excretion (ADME) processes are of importance in understanding how the body disposes and responds to drugs. These processes play a pivotal role in assessing the efficacy and safety of drugs, while also enabling the prediction of potential adverse reactions or toxicities. A parent drug can undergo biotransformation by drug-metabolizing enzymes, leading to the formation of either toxic metabolites (metabolic activation) or non-toxic metabolites (detoxification). Thus, drug metabolism can be a key determinant of drug toxicity. Recently, new approach methodologies such as *in silico* methods, based on non-animal data, have been developed and applied in regulatory practices.

This Special Issue mainly focuses on drug metabolism and toxicological mechanisms. It extensively covers a range of topics, including drug metabolism, physiologically based pharmacokinetic (PBK) modeling, toxicokinetics–toxicodynamics (TK–TD), ADME characterization, the identification and toxicity of metabolites, high-throughput pharmacokinetics (HT-PK), organ-specific toxicity, and toxicological mechanisms.



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Message from the Editor-in-Chief

Toxics (ISSN 2305-6304) is an international, peer-reviewed, open access journal which provides an advanced forum for studies related to all aspects of toxic chemicals and materials. We aim to publish high quality work that furthers our understanding of the exposure, effects, and risks of chemicals and materials in humans and the natural environment as well as approaches to assess and/or manage the toxicological and ecotoxicological risks of chemicals and materials. Please consider publishing in *Toxics* when preparing your next paper.

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