1. Record Nr. UNINA9910647783003321

Titolo	Biomarkers in Toxicology / / edited by Vinood B. Patel, Victor R. Preedy, Rajkumar Rajendram
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-07392-4
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (1160 pages)
Collana	Biomarkers in Disease: Methods, Discoveries and Applications, , 2542-3665
Disciplina	610.28 615.9
Soggetti	Biochemical markers Toxicology Medicine—Research Biology—Research Pharmacology Forensic sciences Biomarkers Medical Toxicology Biomedical Research Forensic Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Markers of liver toxicity and biomarkers -- Biomarkers of kidney toxicity. -Biomarkers of cardiac toxicity: microRNA and beyond.- Biomarkers of gastrointestinal toxicity -- Biomarkers of skin toxicity -- Skeletal muscle biomarkers in toxicity studies -- Bone markers of toxicity -- biochemical markers of brain damage -- DNA adducts as biomarkers of nutritional toxicity -- Biomarkers of pollution toxicity: measuring heavy metals in blood -- Challenge-comet assay: applications to toxicity -- Alkylation adducts of nucleic acids as a biomarkers .-TGx-DDI transcriptomic biomarker: Features and applications.-DNA biomarkers: an updated narrative -- CRISPR/Cas9 Whole-Genome Screens: applications to environmental pollutants.-

Apoptotic biomarkers in toxicity studies -- 5'UTR methylation as a biomarkers: investigating volatile organics -- 5-Fluorouracil degradation rate and a biomarker of capecitabine toxicity -- Investigating the blood-brain barrier as a marker of toxicology -- Biomarkers of oxidative stress: investigating apigenin -- Histology as a biomarker in toxicity: applications to investigating Syzygium guineense -- Hair metabolomics and biomarker discovery .-Markers of hepatotoxicity using metabolomics: applications to MDMA, ecstasy -- 1H-NMR metabolomics and biomarkers of myotoxins -- Nanoparticle-induced toxicity and transcriptomics as a biomarker discovery platform -- Urine metabolomics and biomarker discovery.-microRNA profiling as a biomarker platform: carcinogens and beyond.

Sommario/riassunto

This handbook of the series Biomarkers in Disease informs comprehensively about all aspects of monitoring and detecting toxicity in the human body and model organisms. Biomarkers for assessing toxicity in diverse organs are presented and different assays and methods are explained. Single compounds and drugs and their toxicity for humans are shown and the methods for detection described. Similar to all the volumes of the Biomarkers in Disease series, the chapters are written by experts in their field, each chapter features key facts summarizing the most important aspects of its respective topic and the definitions of words and terms facilitate the reading and understanding. This handbook is a must-have for researchers in toxicology and biomedicine who analyze the effects of drugs and various other substances in the human body and in model organisms. It also serves as a thorough guide for clinicians and pharmacologists.