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Nota di contenuto	DRUG-INDUCED MITOCHONDRIAL DYSFUNCTION; CONTENTS; CONTRIBUTORS; PREFACE; PART I BASIC CONCEPTS; 1 Basic Mitochondrial Physiology in Cell Viability and Death; 2 Basic Molecular Biology of Mitochondrial Replication; 3 Drug-Associated Mitochondrial Toxicity; 4 Pharmacogenetics of Mitochondrial Drug Toxicity; PART II ORGAN DRUG TOXICITY: MITOCHONDRIAL ETIOLOGY; 5 Features and Mechanisms of Drug-Induced Liver Injury; 6 Cardiovascular Toxicity of Mitochondrial Origin; 7 Skeletal Muscle and Mitochondrial Toxicity; 8 Manifestations of Drug Toxicity on Mitochondria in the Nervous System 9 Lipoatrophy and Other Manifestations of Antiretroviral Therapeutics10 Nephrotoxicity; 11 Drug Effects in Patients with Mitochondrial Diseases; PART III ASSESSMENT OF MITOCHONDRIAL FUNCTION IN VITRO AND IN VIVO; 12 Polarographic Oxygen Sensors, the Oxygraph, and High-Resolution Respirometry to Assess Mitochondrial Function; 13 Use of Oxygen-Sensitive Fluorescent Probes for the Assessment of Mitochondrial Function; 14 Mitochondrial

Dysfunction Assessed Quantitatively in Real Time by Measuring the Extracellular Flux of Oxygen and Protons
15 Assessment of Mitochondrial Respiratory Complex Function In Vitro and In Vivo16 OXPHOS Complex Activity Assays and Dipstick Immunoassays for Assessment of OXPHOS Protein Levels; 17 Use of Fluorescent Reporters to Measure Mitochondrial Membrane Potential and the Mitochondrial Permeability Transition; 18 Compartmentation of Redox Signaling and Control: Discrimination of Oxidative Stress in Mitochondria, Cytoplasm, Nuclei, and Endoplasmic Reticulum; 19 Assessing Mitochondrial Protein Synthesis in Drug Toxicity Screening 20 Mitochondrial Toxicity of Antiviral Drugs: A Challenge to Accurate Diagnosis21 Clinical Assessment of Mitochondrial Function via [(13)C] Methionine Exhalation; 22 Assessment of Mitochondrial Dysfunction by Microscopy; 23 Development of Animal Models of Drug-Induced Mitochondrial Toxicity; 24 Noninvasive Assessment of Mitochondrial Function Using Nuclear Magnetic Resonance Spectroscopy; 25 Targeting Antioxidants to Mitochondria by Conjugation to Lipophilic Cations; INDEX

Sommario/riassunto

This is the definitive, one-stop resource on preclinical drug evaluation for potential mitochondrial toxicity, addressing the issue upfront in the drug development process. It discusses mitochondrial impairment to organs, skeletal muscle, and nervous systems and details methodologies used to assess mitochondria function. It covers both in vitro and in vivo methods for analysis and includes the latest models. This is the authoritative reference on drug-induced mitochondrial dysfunction for safety assessment professionals in the pharmaceutical industry and for pharmacologists and toxicologists i