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Titolo	Metabolomics and Its Impact on Health and Diseases / / edited by Veronica Ghini, Kathleen A. Stringer, Claudio Luchinat
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Descrizione fisica	1 online resource (384 pages)
Collana	Handbook of Experimental Pharmacology, , 1865-0325 ; ; 277
Disciplina	780
Soggetti	Pharmacology Biochemical markers Cytology Analytical biochemistry Biomarkers Cell Biology Analytical Biochemistry
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Preface -- Practical Aspects of NMR-Based Metabolomics -- Compound Identification in Mass Spectrometry-Based Metabolomics -- METABOLOMICS USING NMR – Avoiding the ‘Black-Box’ -- Natural products drug discovery: on silica or in silico?- Quantitative NMR Methods in Metabolomics -- Advancements in pulsed stable isotope resolved metabolomics -- Metabolomics in Cell Biology -- NMR-based metabolomics to evaluate individual response to treatments -- Pharmacometabolomics of Asthma as a road map to Precision Medicine -- Prospective metabolomic studies in precision medicine -- Chemotherapy-induced Peripheral Neuropathy -- Metabolomics of Respiratory Diseases.
Sommario/riassunto	This volume of the Handbook of Experimental Pharmacology, which celebrated its 100th anniversary in 2019, addresses the rapidly growing and evolving field of metabolomics. It has been compiled and designed to broaden and enrich your understanding as well as simplify a complicated picture of the diverse field of metabolomics. This is

accomplished by chapters from experts in the field on basic principles as well as reviews and updates of analytical techniques. The variety and different perspectives of the NMR approaches are described in the chapters By David Wishart, Daniel Raftery and Ryan McKay, while mass spectrometry advances are covered by Charles R. Evans and Stefan Kempa. This book also reflects the state of the art in the application of metabolomics to cell biology (Marta Cascante and Ulrich Guenther) and chapters that share insights into the application of metabolomics in various diseases (Paola Turano and Claudio Luchinat, Rachel S. Kelly and JessicaLasky-Su, Paige Lacy, and Angela Rogers. Relationships of metabolomics with drugs are highlighted by Robert Verpoorte (natural products drug discovery), by Oscar Millet and by Turano and Luchinat (perspectives in precision medicine) and by Daniel L. Hertz (drug-induced peripheral neuropathy). From the above list of diverse topics, we believe this book has interdisciplinary appeal and scholars with an interest in the role of metabolomics in achieving precision medicine will find it of particular or special interest.