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Titolo	Metabolomics: From Fundamentals to Clinical Applications // edited by Alessandra Sussulini
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ISBN	3-319-47656-4
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (X, 350 p. 56 illus., 54 illus. in color.)
Collana	Proteomics, Metabolomics, Interactomics and Systems Biology, , 2730-6216 ; ; 965
Disciplina	570.285
Soggetti	Metabolism Gene therapy Medical genetics Metabolomics Gene Therapy Gene Function
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part I: Fundamentals and analytical methodologies in metabolomics -- 1. Metabolomics: definitions and significance in systems biology -- 2. Collection and preparation of clinical samples for metabolomics -- 3. NMR strategies in metabolomics -- 5. Strategies involving MS combined with chromatography in metabolomics -- 6. MS combined with capillary electrophoresis in metabolomics -- Part II: Statistical analysis and data interpretation -- 7. Data pretreatment: How to prepare a metabolomics dataset for statistical analysis? -- 8. Chemometrics in metabolomics -- Understanding metabolomics data: Metabolite identification and biological relevance -- Part III: Applications and future trends of metabolomics in clinical cases -- 9. Applications of metabolomics in cancer studies -- 10. Chronic diseases and lifestyle biomarkers identification by metabolomics -- 11. Metabolomics in neurological and psychiatric diseases -- 12. Metabolite profiling by MS imaging -- 13. Single cell metabolomics .
Sommario/riassunto	This book provides a comprehensive view of metabolomics, from the

basic concepts, through sample preparation and analytical methodologies, to data interpretation and applications in medicine. It is the first volume to cover metabolomics clinical applications while also emphasizing analytical and statistical features. Moreover, future trends and perspectives in clinical metabolomics are also presented. For researches already experienced in metabolomics, the book will be useful as an updated definitive reference. For beginners in the field and graduate students, the book will provide detailed information about concepts and experimental aspects in metabolomics, as well as examples and perspectives of applications of this strategy to clinical questions.

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