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Soggetti	Data mining Medical informatics Pattern perception Data Mining and Knowledge Discovery Health Informatics Pattern Recognition
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foreword -- Searching for Evidence in Traditional Chinese Medicine Research: A Review and New Opportunities -- Causal Complexities of TCM Prescriptions: Understanding the underlying mechanisms of herbal formulation -- Medical Diagnosis by Using Machine Learning Techniques -- Network based deciphering of the mechanism of TCM -- Prescription Analysis and Mining -- Statistical Validation of TCM Syndrome Postulates in the Context of Depressive Patients -- Artificial Neural Network-based Chinese Medicine Diagnosis in Decision Support Manner and Herbal Ingredient Discoveries -- Chromatographic Fingerprinting and Chemometric Techniques for Quality Control of Herb Medicines -- A New Methodology for Uncovering the Bioactive Fractions in Herbal Medicine Using the Approach of Quantitative Pattern-Activity Relationship -- An Innovative and Comprehensive Approach in Studying the Complex Synergistic Interactions Among

Herbs in Chinese Herbal Formulae -- Data mining in real-world traditional Chinese medicine clinical data warehouse -- TCM data mining and quality evaluation with SAPHRON(TM) system -- An overview on evidence-based medicine and medical informatics in traditional Chinese medicine practice.

Sommario/riassunto

This contributed volume explores how data mining, machine learning, and similar statistical techniques can analyze the types of problems arising from Traditional Chinese Medicine (TCM) research. The book focuses on the study of clinical data and the analysis of herbal data. Challenges addressed include diagnosis, prescription analysis, ingredient discoveries, network based mechanism deciphering, pattern-activity relationships, and medical informatics. Each author demonstrates how they made use of machine learning, data mining, statistics and other analytic techniques to resolve their research challenges, how successful if these techniques were applied, any insight noted and how these insights define the most appropriate future work to be carried out. Readers are given an opportunity to understand the complexity of diagnosis and treatment decision, the difficulty of modeling of efficacy in terms of herbs, the identification of constituent compounds in an herb, the relationship between these compounds and biological outcome so that evidence-based predictions can be made. Drawing on a wide range of experienced contributors, Data Analytics for Traditional Chinese Medicine Research is a valuable reference for professionals and researchers working in health informatics and data mining. The techniques are also useful for biostatisticians and health practitioners interested in traditional medicine and data analytics.