

1. Record Nr.	UNINA9910739422303321
Titolo	Antitumor Potential and other Emerging Medicinal Properties of Natural Compounds [[electronic resource] /] / edited by Evandro Fei Fang, Tzi Bun Ng
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2013
ISBN	94-007-6214-3
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (423 p.)
Disciplina	615.3 615.321
Soggetti	Cancer research Apoptosis Medicine Molecular biology Pharmacology Cancer Research Biomedicine, general Molecular Medicine Pharmacology/Toxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	PREFACE -- PART I. Lectins: From biological recognition molecules to variable medicinal applications -- Lectins: Personal Comments of Nathan Sharon Taken from His Memoirs (Translation from Hebrew) .- The History of Lectinology -- Animal and Human Lectins -- Lectins of Marine Origin and their Clinical Applications -- Medicinal applications of plant lectins -- PART II Structural and functional insights into medicinal ribonucleases -- Plant nucleases from nuclease I family: their properties and antitumor potential -- Bovine Seminal Ribonuclease and its special features: when two is better than one -- PART III The perspectives for ribosome inactivating proteins: unveiling the working mechanisms and potential medicinal benefits -- The Discovery of MAP30 and Elucidation of its Medicinal Activities -- Ribosome

Inactivating Proteins from Plants: Biological Properties and their Use in Experimental Therapy -- Current status & Biomedical applications of Ribosome-inactivating proteins -- PART IV The research history of protease inhibitors and their health implications -- The Health Benefits of the Bowman-Birk Inhibitor -- Peptidic inhibitors of serine proteinases of plant origin -- Anti-tumor effect of synthetic serine protease inhibitor.- A landscape of the health benefits of different natural protease inhibitors -- PART V Plethora of health benefits from small molecules: From bench-top to clinical settings -- Autophagy upregulation as a therapeutic strategy for neurodegenerative diseases -- Rapamycin – current and future uses -- Eating, drinking, smoking and cancer prevention: a focus on acetaldehyde -- The use of edible mushroom water soluble polysaccharides in the treatment and prevention of chronic diseases: a mechanistic approach -- Essential Oil Constituents: Biodiversity and their Applicability for Cancer Therapy -- PART VI Medicinal compounds from the garden: a bird's eye view of one mushroom, one fruit, one insect, and others -- Recent research on pharmacological activities of the medicinal fungus *Cordyceps sinensis* -- The bitter fruit with sweet health benefits: A comprehensive synopsis of recent research progress on medicinal properties of *Momordica charantia* -- Bioactive constituents of the silk worm *Bombyx mori* -- Proteins with anticancer and antimicrobial activities from mammals, submammalian vertebrates and invertebrates -- Defense proteins with antiproliferative and antimicrobial activities from fungi and bacteria -- PART VII Modernizing investigations of traditional Chinese medicine at the molecular level -- The role of the GP-TCM Research Association to modernization and globalization of Traditional Chinese Medicine. - High-throughput screening in traditional Chinese medicine-based drug discovery -- PART VIII Questions and future perspectives -- Achievements, questions arising and future outlook on the path to discover new medicinal compounds. Index.

Sommario/riassunto

The modern unhealthy diet and lifestyle in conjunction with pathogens, environmental carcinogens and multiple other risk factors increase humans' susceptibility to different diseases exemplified by elevated levels of cancers, cardiovascular and communicable diseases. Screening of potential drugs from medicinal plants and animals provides a promising strategy for the alleviation of the impact of these diseases. Components with potential medicinal applications include RIPs, RNases, lectins, protease inhibitors and numerous small compounds. These compounds have shown both preventive and therapeutic effects for humans. This book is a compilation of articles written by internationally renowned experts exploring the different uses of medicinal compounds in human therapeutics. Here we provide a comprehensive outlook on both qualitative and quantitative studies focusing on medicinal plants and animals, and establishing a link between laboratory research discovery and clinical applications.
