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Titolo	Mitochondria as Targets for Phytochemicals in Cancer Prevention and Therapy [[electronic resource] /] / edited by Dhyan Chandra
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Nota di contenuto	OxPhos Defects and Their Role in Cancer Initiation and Progression -- Estrogen Receptor–Tumor Suppressor Protein p53 Signaling Crosstalk - as Potential Targets of Xenoestrogens.- Mitochondrial Regulation of Cell-Death -- Cell Death Inducing Mechanisms of Cancer Chemopreventive Agents -- Dietary Phytochemicals Target Cancer Stem Cells for Cancer Chemoprevention.- Basic and translational research on dietary phytochemicals and cancer prevention -- Mitochondrial Reactive Oxygen Species in Proapoptotic Effect of Promising Cancer Chemopreventive Phytochemicals -- Therapeutic action of phytochemicals on cancer stem cells.- Phytochemicals, microRNAs and cancer: implications for cancer prevention and therapy. - Optical imaging of mitochondria for cancer therapy -- Targeting Cellular Signaling for Cancer Prevention and Therapy by Phytochemicals.
Sommario/riassunto	Mitochondria as Targets for Phytochemicals in Cancer Prevention and Therapy has three major themes. Theme one describes the current knowledge on environmental and genetic factors that cause cancer initiation and progression, the role of mitochondria in regulating the process of carcinogenesis, and cell death pathways. Theme two focuses

on the elucidation of key target proteins that could be exploited for cancer prevention, an overview of phytochemicals in cancer prevention, updates on basic research related to phytochemical action critical for cancer prevention, and translational knowledge on cancer prevention by phytochemicals. Theme three infers on phytochemicals targeting mitochondria for cancer therapy, an overview of the action of phytochemicals on cancer stem cells, updates on the role of microRNA in phytochemicals-based therapy of cancer, and a summary of phytochemicals-based translation research on prevention and therapy for metastatic cancer. Highlighting the above topics will bring new knowledge to readers in focus areas such as mitochondria, phytochemicals, and cancer research. This will enhance understanding of key issues related to basic and translational scientific research in cancer. Based on its scope and contents, this book is highly relevant to a wide audience including scientists and clinicians from cancer hospitals and cancer research institutions, nutritional biochemists, and cancer researchers in graduate and undergraduate universities. About the Editor Dr. Dhyan Chandra is an Assistant Professor in the Department of Pharmacology and Therapeutics at Roswell Park Cancer Institute, Buffalo, New York, USA. He has been a cancer researcher for more than 15 years focusing on how mitochondria-mediated cell death could be targeted for cancer prevention and therapy. He is also interested in understanding how mitochondria dysfunction regulates the process of carcinogenesis. He has served as reviewer for scientific journals and funding agencies, is on the editorial board of several science journals, and has delivered lectures at numerous conferences and academic institutions. He is the recipient of multiple awards including the American Cancer Society Scholar Award, the Howard Temin Award, and the Postdoctoral Fellowship Award.
