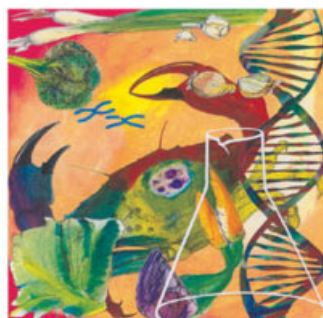


MNF Books

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Chemoprevention of Cancer and DNA Damage by Dietary Factors



Chemoprevention of Cancer and DNA Damage by Dietary Factors

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Since the first postulate by Doll and Petro (*J. Nat. Cancer Inst.*, 66, 1981, 1191–1308) that up to one-third of the cancer deaths is linked to dietary factors, many research activ-

ities have been started in this field. Numerous epidemiological and experimental data have confirmed that the diet can greatly influence the risk for numerous cancers.

This book summarizes all current and important aspects of chemoprevention of cancer and DNA damage by dietary factors. After a foreword by Bruce N. Ames and Joyce C. McCann, the first part of the book (Chapters 1–13) covers basic principles of DNA damage and cancer formation. Furthermore, several chapters describe the mechanisms important for the development of chemopreventing strategies. Part two (Chapters 14–22) focuses on the methods that are used to identify protective dietary compounds and to elucidate the underlying modes of action. The methods described cover a wide range from the detection of DNA damage, over signaling pathways, nutrigenomics to the measurement of enzymes of xenobiotic metabolism. Special attention is given to the limitations of the predictive value of the different experimental approaches. The last part of the book (Chapters 23–42) deals with selected dietary factors having cancer-protective properties. A broad overview of physicochemical

properties of active compounds and their occurrence, bioavailability, metabolism, mechanism of protection *in vivo* and *in vitro* including human studies is given. The reader will find detailed information about major protective food sources such as tea and other beverages, vitamins and micronutrients, polyphenols, spices, dietary fibers, phytoestrogens and lactic acid bacteria.

In conclusion, the book with almost 800 pages gives a comprehensive overview of the field of dietary chemoprevention of cancer and summarizes the current state-of-the-art in this field. It is an excellent reference for nutritional scientists, medicinal chemists, food chemists, biotechnologists, pharmacists, and molecular biologists. In fact, scientists working in the area of molecular nutrition and cancer in academia or the pharmaceutical and food industries as well as governmental or regulatory agencies will also find this to be a useful information source. I can highly recommend this book to anyone interested in this field.

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