

Foreword

The evaluation of potential cancer chemopreventive agents requires large, long-term, randomized trials in humans. Biomarkers that would allow the identification of subjects exposed to carcinogenic agents or of individuals genetically susceptible to cancer would be of great value. Similarly, markers of intermediate events on the carcinogenic pathway to cancer would facilitate the identification of the stages of carcinogenesis at which such agents might exert their protective effect. This could allow selection of smaller numbers of high-risk subjects and a shorter time-scale for trials. However, to be useful for such purposes, a biomarker should be highly sensitive and specific and, if used as a marker of outcome, must closely relate to the relevant stage of the carcinogenic process that the chemopreventive agent is designed to inhibit.

This volume is the product of an attempt to assess our current knowledge and experience with the use of biomarkers in cancer chemoprevention, and is based on an international workshop held at the Deutsches Krebsforschungszentrum (DKFZ), Heidelberg, Germany during February 27–29, 2000. It comprises an expert report on the current state of the art on use of biomarkers in cancer chemoprevention, introductory sections covering general topics in cancer chemoprevention, and contributions directed to biomarkers of exposure, intermediate effect and susceptibility relating to six major cancer sites: skin, colorectum, breast, prostate, liver and upper aerodigestive tract.

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