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Today as we witness the banning for use in food of one everyday chemical after another because of their possible carcinogenic effects and the setting of increasingly stringent limits to the exposure of people at work to potentially carcinogenic chemicals, it is difficult to believe that it is only 10 years since the publication of the first authoritative books on the possibilities of preventing human cancer. These did little to change the situation from indifference to its present politically and consumer-sensitive status. The main reason for the change was that disillusionment with the prospects of further advances in the field of cancer chemotherapy drove a large number of cancer scientists to new pastures.

A major incursion into the field of environmental carcinogenesis has been the Carcinogenesis Bioassay Program organized in the USA by the National Cancer Institute (NCI). The history and present thrust of this programme are described in a chapter of this volume by Dr Norbet Page. This major effort by the NCI has already done much good by simply setting high standards for carcinogenicity testing. However, the weakness of the programme has been the restriction of tests to dosage levels close to or actually above the lethal level on the bald and unwarranted assumption that increased incidence of cancer in response to a near-lethal dose implies a cancer risk at the usually much lower levels of exposure to which humans are subjected.

Advances in analytical chemistry have enabled the detection in food and in the environment of trace amounts of substances that are known to be carcinogenic in much higher doses. Does their presence constitute a hazard? At present there is no way of answering this question confidently. In this book H P Burchfield and his colleagues review some of the advances that have been made in this area. Other chapters include reviews of topics such as carcinogenic cycads by G L Laqueur, carcinogenic mycotoxins by G N Wogan, carcinogenic inorganic agents by A Furst, and organohalogen carcinogens by H P Burchfield and E E Storrs. R G Shank reviews the evidence that he says strongly supports the suggestion that aflatoxins play a role in the aetiology of primary liver cancer in humans in South East Asia and Africa.

The book is in the mainstream of present-day research in the field of carcinogenesis and will certainly be useful reading and a reference work for those engaged in research in this field and those responsible for making decisions about regulations relating to environmental cancer risks.

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