
Contents

Chapter 1	Carcinogens and Mutagens <i>David Warshawsky</i>	1
Chapter 2	Whole Animal Carcinogenicity Bioassays <i>Joseph R. Landolph, Jr., Weiling Xue, and David Warshawsky</i>	25
Chapter 3	Molecular Mechanisms of Action of Selected Organic Carcinogens <i>Weiling Xue and David Warshawsky</i>	45
Chapter 4	Binding of Carcinogens to DNA and Covalent Adducts and DNA Damage — PAH, Aromatic Amines, Nitro-aromatic Compounds, and Halogenated Compounds <i>Jeffrey A. Ross</i>	79
Chapter 5	Cellular Oncogenes and Carcinogenesis <i>Helmut Zarbl</i>	103
Chapter 6	Tumor Suppressor Genes <i>Bernard E. Weissman</i>	131
Chapter 7	Hepatitis B, Hepatitis C, and Hepatocellular Carcinoma <i>Jing-hsiung Ou</i>	151
Chapter 8	Onco genesis in Transgenic and Knockout Mice <i>Laura R. Erker and Anthony Wynshaw-Boris</i>	179
Chapter 9	Chemically Induced Morphological and Neoplastic Transformation in C3H/10T1/2 Cl 8 Mouse Embryo Cells <i>Joseph R. Landolph, Jr.</i>	199
Chapter 10	Radiation Carcinogenesis <i>Colin K. Hill and Donna M. Williams-Hill</i>	221
Chapter 11	DNA Microarrays and Computational Analysis of DNA Microarray Data in Cancer Research <i>Mario Medvedovic and Jonathan S. Wiest</i>	243
Chapter 12	Application of Proteomics in Basic Biological Sciences and Cancer <i>Christoph Borchers, Ting Chen, and Nouri Neamati</i>	263

Chapter 13	Overview of Human Cancer Induction and Human Exposure to Carcinogens <i>David Warshawsky and Joseph R. Landolph, Jr.</i>	289
Chapter 14	Complex Mixtures of Chemical Carcinogens: Principles of Action and Human Cancer <i>Stephen Nesnow</i>	303
Chapter 15	Lung Cancer <i>Jay W. Tichelaar and George D. Leikauf</i>	319
Chapter 16	Breast Cancer <i>Sue C. Heffelfinger</i>	341
Chapter 17	Cancer of the Prostate — Mechanisms of Molecular Carcinogenesis <i>Daniel Djakiew</i>	363
Chapter 18	Skin Cancer: Epidemiology, Clinical Manifestations, and Genetic and Molecular Aspects <i>Zalfa A. Abdel-Malek, Ana Luisa Kadekaro, Michelle A. Pipitone, and Diya F. Mutasim</i>	379
Chapter 19	Cell and Molecular Biology of Cancer of the Brain <i>Øle Didrik Laerum</i>	403
Chapter 20	Thyroid Cancer: Molecular Biology and Clinical Aspects <i>Johan R. Lillehaug, Øystein Fluge, and Jan Erik Varhaug</i>	431
Chapter 21	Chemoprevention of Chemical Carcinogenesis and Human Cancer <i>Mark A. Morse and Gary D. Stoner</i>	445
Chapter 22	Carcinogen Biomarkers and Exposure Assessment <i>Glenn Talaska</i>	479
Chapter 23	Risk Assessment for Chemical Carcinogens <i>Andrew G. Salmon</i>	501
Chapter 24	Prevention and Regulation Approaches to Carcinogens <i>Eula Bingham and Jon Reid</i>	547
Index		559