
Contents

Preface v

Contents of Companion Volume ix

Contributors xiii

PART I. KNOWN TUMOR SUPPRESSOR GENES AND PATHWAYS

1 Growth Control by the Retinoblastoma Gene Family
Marco G. Paggi, Armando Felsani, and Antonio Giordano 3

2 The APC Tumor Suppressor Pathway
Patrice J. Morin and Ashani T. Weeraratna 21

3 Hereditary Breast and Ovarian Cancer Genes
Ralph Scully and Nadine Puget 41

4 Hereditary Colon Cancer Genes
William M. Grady and Sanford D. Markowitz 59

5 Patched, Hedgehog, and Skin Cancer
Anthony G. Quinn and Ervin Epstein, Jr. 85

6 Tumor Suppressor Genes in Lung Cancer
Arvind K. Virmani and Adi F. Gazdar 97

7 *TP53*, *hChk2*, and the Li-Fraumeni Syndrome
Jenny Varley 117

8 Genetic Alterations in Esophageal Cancer
Jun-ichi Okano, Lorraine Snyder, and Anil K. Rustgi 131

9 PTEN and Cancer
Ramon Parsons and Laura Simpson 147

10 VHL and Kidney Cancer
Michael Ohh and William G. Kaelin, Jr. 167

11 p16^{INK4A} and Familial Melanoma
Kapaettu Satyamoorthy and Meenhard Herlyn 185

12 The INK4a/ARF Locus and Human Cancer
Greg H. Enders 197

13 Progression Model of Prostate Cancer
Teresa Acosta Almeida and Nickolas Papadopoulos 211

14 Neurofibromatosis Type 1
Margaret E. McLaughlin and Tyler Jacks 223

15 Wilms' Tumor as a Model for Cancer Biology
Andrew P. Feinberg and Bryan R. G. Williams 239

16	Inadequate "Caretaker" Gene Function and Human Cancer Development Theodore L. DeWeese and William G. Nelson	249
17	The Regulation of Tumor Suppressor Genes by Oncogenes Paul Dent, Liang Qiao, Donna Gilfor, Michael Birrer, Steven Grant, and Paul B. Fisher	269
PART II. IDENTIFICATION OF TUMOR SUPPRESSOR GENES		
18	Determination of Cancer Allelotype Jennifer J. Ascaño and Steven M. Powell	295
19	Epidemiological Approaches to the Identification of Cancer Predisposition Genes Timothy R. Rebbeck	309
20	Characterization of Translocations in Human Cancer Keri Fair and Michelle M. Le Beau	327
21	Positional Approaches to Cancer Genetics Gavin P. Robertson, Linda Sargent, and Mark A. Nelson	339
22	Hybrid Capture of Putative Tumor Suppressor Genes Bryan L. Betz and Bernard E. Weissman	365
23	Approaches to Proteomic Analysis of Human Tumors Mamoun Ahram and Michael R. Emmert-Buck	375
24	Representational Difference Analysis of Gene Expression James M. Bugni and Norman R. Drinkwater	385
25	Antisense Libraries to Isolate Tumor Suppressor Genes Adi Kimchi	399
26	Genetic Suppressor Elements in the Characterization and Identification of Tumor Suppressor Genes Igor B. Roninson and Andrei V. Gudkov	413
27	Cross-linking Subtractive Hybridization to Identify Tumor Suppressor Genes Gen Sheng Wu	437
28	Suppression Subtractive Hybridization for Identification and Functional Analysis of Tumor Suppressor Genes Iuri D. Louro, Evans C. Bailey, and J. Michael Ruppert	453
29	SAGE as a Strategy to Isolate Cancer-Related Genes Kathy Boon and Gregory J. Riggins	463
30	Differential Display Techniques to Identify Tumor Suppressor Gene Pathways Siham Biade and Maureen E. Murphy	481
31	Detection of Mismatch Repair Gene Expression in Urologic Malignancies Fredrick S. Leach	491
	Index	501



<http://www.springer.com/978-0-89603-986-5>

Tumor Suppressor Genes

Volume 1: Pathways and Isolation Strategies

El-Deiry, W.S. (Ed.)

2003, 520 p. 73 illus., Hardcover

ISBN: 978-0-89603-986-5

A product of Humana Press