# Contents

Foreword, xi  
Preface, xiii  
Acknowledgments, xv

## Chapter 1: Cancer Epidemiology, 1

1.1. Cancer Statistics, 1  
1.2. Cancer Etiology, 10  
1.3. Case Examples, 18  
1.4. Further Reading, 21

## Chapter 2: Cancer Detection and Treatment, 23

2.1. The Diagnosis of Cancer, 23  
2.2. Tumor Classification, 31  
2.3. Cancer Treatment, 37  
2.4. Further Reading, 45

## Chapter 3: Cancer Biology, 47

3.1. The Malignant Cell, 47  
3.2. Carcinogenesis 52  
3.3. Oncogenes, 59  
3.4. Tumor Suppressor Genes, 64  
3.5. Epigenetic Mechanisms, 70  
3.6. Further Reading, 73
CHAPTER 4: HEREDITARY CANCER SYNDROMES, 75
4.1. Ataxia Telangiectasia, 75
4.2. Autoimmune Lymphoproliferative Syndrome (Also Canale–Smith Syndrome), 77
4.3. Beckwith–Wiedemann Syndrome (Also Exomphalos Macroglossia Gigantism [EMG] Syndrome), 78
4.4. Birt–Hogg–Dubé Syndrome, 80
4.5. Bloom Syndrome, 82
4.6. Blue Rubber Bleb Nevus Syndrome (Also Termed Bean Syndrome), 83
4.7. Breast–Ovarian Cancer Syndrome, Hereditary, 84
4.8. Carney Complex, Types I and II (Includes NAME Syndrome and LAMB Syndrome), 87
4.9. Diamond–Blackfan Anemia, 89
4.10. Familial Adenomatous Polyposis (Also Attenuated FAP, Gardner’s Syndrome, Turcot Syndrome, and Hereditary Desmoid Disease), 90
4.11. Fanconi Anemia, 93
4.12. Gastric Cancer, Hereditary Diffuse, 95
4.13. Gastrointestinal Stromal Tumor, Familial (Also Multiple GI Autonomic Nerve Tumors), 97
4.15. Leiomyomatosis Renal Cell Cancer, Hereditary, 100
4.16. Li–Fraumeni Syndrome, 101
4.17. Lynch Syndrome (Also Termed HNPCC), 105
4.18. Melanoma, Cutaneous Malignant (Includes Familial Atypical Mole-Malignant Melanoma Syndrome, Dysplastic Nevus Syndrome, and Melanoma–Astrocytoma Syndrome), 109
4.19. Multiple Endocrine Neoplasia, Type 1 (Also Wermer Syndrome), 111
4.20. Multiple Endocrine Neoplasia, Type 2 (Also Sipple Syndrome, Familial Medullary Thyroid Carcinoma Syndrome), 113
4.21. MYH-Associated Polyposis, 115
4.22. Neuroblastoma, Familial, 116
4.23. Neurofibromatosis, Type 1 (Also von Recklinghausen Disease), 118
4.24. Neurofibromatosis, Type 2, 119
4.25. Nevoid Basal Cell Carcinoma Syndrome (Also Gorlin Syndrome, Basal Cell Nevus Syndrome), 121
4.27. Peutz-Jeghers Syndrome, 125
4.28. PTEN Hamartoma Syndrome (PHS) (Also Cowden Syndrome; Includes Bannayan–Riley–Ruvalcaba Syndrome and Proteus Syndrome), 127
4.29. Renal Cell Carcinoma, Hereditary Papillary, 130
4.30. Retinoblastoma, Hereditary, 131
4.31. Rothmund–Thomson Syndrome, 133
4.32. Tuberous Sclerosis Complex (TSC), 134
4.33. Von Hippel Lindau Syndrome, 137
4.34. Werner Syndrome (Also Termed Progeria of the Adult), 139
4.35. Wilms Tumor, Familial (Includes Denys-Drash Syndrome, Frasier Syndrome, WAGR Syndrome), 141
4.36. Xeroderma Pigmentosum (Includes XP/CS Complex, XP Variant), 143
4.37. Further Reading, 145

CHAPTER 5: ALL ABOUT BREAST CANCER, 151

5.1. Overview of Breast Cancer, 151
5.2. Breast Cancer Management: Screening, Diagnosis, and Treatment, 162
5.3. Breast Cancer Syndromes, 171
5.4. Further Reading, 184

CHAPTER 6: ALL ABOUT COLORECTAL CANCER, 187

6.1. Overview of Colorectal Cancer, 187
6.2. CRC Management: Screening, Diagnosis, and Treatment, 199
6.3. CRC Syndromes, 207
6.4. Further Reading, 218

CHAPTER 7: COLLECTING AND INTERPRETING CANCER HISTORIES, 221

7.1. Collecting a Cancer History, 221
7.2. Challenges to Collecting an Accurate History, 242
7.3. Interpreting a Cancer History, 246