

Cambridge University Press

978-1-107-44346-4 - Molecular Pathology: A Practical Guide for the Surgical Pathologist and Cytopathologist

Edited by John M. S. Bartlett, Abeer Shaaban and Fernando Schmitt

Table of Contents

[More information](#)

Contents

List of contributors vi

Preface ix

Glossary x

-
- | | |
|---|---|
| <p>1. An introduction to molecular pathology 1
John M. S. Bartlett</p> <p>2. Molecular regulation of cellular function 10
Marsela Braunstein and John M. S. Bartlett</p> <p>3. Practical application of molecular techniques in diagnostic histopathology and cytopathology and clinical management 22
Abeer Shaaban and Fernando Schmitt</p> <p>4. Fluorescent and non-fluorescent <i>in situ</i> hybridization 29
Jane Bayani and John M. S. Bartlett</p> <p>5. Clinical applications of the polymerase chain reaction for molecular pathology 55
Angela B. Y. Hui, Annette D. Wong and Carlo V. Hojilla</p> <p>6. Are microarrays ready for prime time? 71
Jane Bayani and John M. S. Bartlett</p> <p>7. Tissue microarrays 88
Luigi Tornillo</p> <p>8. Sequencing 103
Andrew M. K. Brown, Philipe C. Zuzarte and Paul M. Krzyzanowski</p> <p>9. Microsatellite instability in colorectal cancer 119
Maria Sofia Fernandes, Raquel Seruca and Sérgio Velho</p> <p>10. Mutational analysis 130
Aaron R. Hansen, Mahadeo A. Sukhai, Hal K. Berman, Suzanne Kamel-Reid and Philippe L. Bedard</p> | <p>11. Tumors of the breast 147
Cathy B. Moelans, Petra van der Groep, Robert Kornegoor, Jelle Wesseling, and Paul J. van Diest</p> <p>12. Tumors of the female genital system 174
Adhemar Longatto Filho, Sigurd F. Lax and Bin Yang</p> <p>13. Tumors of the male urogenital system 189
Kirsten D. Mertz and Lukas Bubendorf</p> <p>14. Tumors of the gastrointestinal system 200
Manuel Salto-Tellez, Benedict Yan, Roseann I. Wu and Martha Bishop Pitman</p> <p>15. Soft tissue, bone and skin tumors 222
Stamatios Theocharis and Jerzy Klijanienko</p> <p>16. Cardio-thoracic tumors 247
Umberto Malapelle, Claudio Bellevicine, Elena Vigliar and Giancarlo Troncone</p> <p>17. Tumors of the endocrine system 276
Sylvia L. Asa and Ozgur Mete</p> <p>18. Hematological malignancies of the lymph nodes 302
Sarah E. Coupland and Pedro Farinha</p> <p>19. Pediatric tumors 336
Paul Roberts, Susan Picton and Jens Stahlschmidt</p> <p>20. Serous effusions 356
Ben Davidson</p> <p>21. Academic applications and the future of molecular pathology 373
Manuel Salto-Tellez and Benedict Yan</p> |
|---|---|
-

Index 381

v