

### **Part 1: Colorectal cancer basic information**

#### 1. Colorectal cancer: Biology and pathology

Gavino Faa, Andrea Pretta, Matteo Frascini, Flaviana Cau, Ferdinando Coghe, Antonella Balestrieri, Peter Van Eyken, Massimo Castagnola, Mario Scartozzi, and Luca Saba

#### 2. Principles of surgical treatment

Valerio Argiolas, Zorcolo Luigi Zorcolo, and Angelo Restivo

#### 3. Systemic therapies for localized colon cancer and metastatic colorectal cancer

James Robert Platt

#### 4. The role of imaging in the management of rectal cancer

Maria Antonietta Gambacorta, Giuditta Chiloiro, Priscilla Testa, Angela Romano, Calogero Casa, and Vincenzo Valentini

### **Part 2: Colorectal cancer imaging**

#### 5. CT imaging of colon cancer

Giovanni Grassi, Gian Luca Chabert, Giovanni Maria Argiolas, and Luca Saba

#### 6. CT imaging of rectal cancer

Gian Luca Chabert, Giovanni Grassi, Giovanni Maria Argiolas, and Luca Saba

#### 7. US Imaging of rectal cancer

Filippo Crimi, Simona Deidda, Angelo Restivo, and Emilio Quaia

#### 8. MR imaging of rectal cancer

Kalina Chupetlovska, Xinde Ou, and Regina Beets-Tan

#### 9. Posttreatment imaging of colorectal cancer

Kalina Chupetlovska, Xinde Ou, and Regina Beets-Tan

#### 10. Lymph node imaging in colorectal cancer

Gina Brown

#### 11. Radiomic imaging: Basic principles and applications

Francesco Pisu and Luca Saba

#### 12. Artificial intelligence applied to the diagnosis of colorectal cancer

Ana Jimenez-Pastor and Carmen Prieto-De-La-Lastra

#### 13. Image-based omics applications in rectal cancer: State of the art and future directions

Luca Boldrini

### **Part 3: Non neoplastic pathologies**

#### 14. Colon ischemia

Alessandro Pinna, Giovanni Grassi, Roberta Scicolone, Antonella Balestrieri, Carola Politi, and Luca Saba

#### 15. Infectious diseases of colon and rectum

Ana Villanueva, Alba Salgado-Parente, Elena Canales, and Matthew Aitken

#### 16. Autoimmune and inflammatory colon diseases

Elena Canales, Alba Salgado-Parente, Matthew Aitken, and Ana Villanueva

#### 17. Fistulae and abscess

Domenico De Santis, Giuseppe Tremamunno, Michela Polici, Pasquale Paolantonio, Damiano Caruso, and Andrea Laghi