

Contents

Part I Optical Imaging Principles	
Optical Imaging of Cancer: Enhancing Detection and Resection	3
Kent T. Keyser and Christianne E. Strang	
Endoscopic Techniques for Optical Imaging	25
E. Namati, M.J. Suter, and G. McLennan	
Design and Use of the Surgical Microscope in Fluorescence-Guided Surgery	49
Max Sturgis	
Fluorophores for Optical Imaging	59
Iain Johnson	
Part II Cancer Targeting Strategies	
Overview of Cancer Detection and Monitoring Strategies	81
Kurt R. Zinn	
The Application of Tissue Autofluorescence in Detection and Management of Oral Cancer and Premalignant Lesions	101
C.F. Poh, P. Lane, C. MacAulay, L. Zhang, and M.P. Rosin	
Proteinase Optical Imaging Tools for Cancer Detection and Response to Therapy	119
J. Oliver McIntyre and Lynn M. Matrisian	
Illustrating Molecular Events with Light: A Perspective on Optical Reporter Genes	139
Pritha Ray	

Part III Preclinical and Clinical Investigations

Optical Imaging of Primary Tumors	163
J. Robert Newman and Eben L. Rosenthal	
Nodal Staging of Cancer Using Diagnostic Optical Imaging Techniques	185
E.M. Sevick-Muraca	
Optical Coherence Tomography for Cancer Detection	209
Steven G. Adie and Stephen A. Boppart	
Optical Imaging of Cancer: Neuro-oncologic Applications	251
Stephen Yip and Khalid Shah	
Index	265



<http://www.springer.com/978-0-387-93873-8>

Optical Imaging of Cancer

Clinical Applications

Rosenthal, E.; Zinn, K.R. (Eds.)

2010, XIII, 272 p., Hardcover

ISBN: 978-0-387-93873-8