

Table of Contents

1	Medical Imaging: Some Historical Aspects <i>E.J. Rummeny and P.E. Peters</i>	1
2	Molecular Nuclear Medicine: From Genotype to Phenotype <i>H.N. Wagner, Jr.</i>	15
3	Integrated Imaging of the Heart: New Clinical and Experimental Approaches <i>E.A. Zerhouni</i>	23
4	Principles and Clinical Applications of Functional Brain Imaging <i>T.J. Brady, A.G. Sorensen, and B.R. Rosen</i>	33
5	Molecular Probing and Imaging by Magnetic Resonance Spectroscopy: Possibilities for Imaging Gene Therapy <i>B. Ross, S. Bluml, E.R. Danielsen, and K. Kanamori</i>	43
6	Tumour Targeting Using Peptides, Monoclonal Antibodies and Fragments <i>K.E. Britton</i>	67
7	Future Challenges in the Use of Positron Emission Tomography for In Vivo Molecular Imaging <i>T. Jones</i>	83

8	Pharmacological Studies with Positron Emission Tomography <i>J.J. Frost</i>	91
9	Use of Complex Carbohydrates as Targets and Ligands for Imaging <i>R. Tauber, S. Emig, B. Volz, C. Fieger, and C. Bühner</i>	103
10	Oligonucleotide Aptamers as Specific Targeting Devices in Diagnostics and Therapy <i>S. Wölfl, M. Kujau, A. Siebert, and M. Wolters</i>	135
11	In Vivo Monitoring of Gene Therapy by Radiotracer Imaging <i>R.G. Blasberg and J.G. Tjuvåjev</i>	161
12	Intra- and Intercellular Recognition of Cell Signaling Using Oligonucleotides <i>M.K. Dewanjee</i>	201
	Subject Index	265
	Previous Volumes Published in this Series	269