

Contents

1	Introduction	
	CHRISTIAAN SCHIEPERS	1
	Clinical Applications	5
2	Neurochemical Imaging with Emission Tomography: Clinical Applications	
	GIANNI LUCIGNANI and JAMES J. FROST	7
3	Assessment of Myocardial Viability by Radionuclide Techniques	
	ROXANA CAMPISI, F. Y. J. KENG, and HEINRICH R. SCHELBERT	39
4	Thrombo-Embolism Imaging	
	HENRY D. ROYAL and DAVID A. HILLIER	61
5	Renal Imaging	
	FRANÇOIS JAMAR and RAFFAELA BARONE	83
6	Skeletal Scintigraphy	
	CHRISTIAAN SCHIEPERS	101
7	Imaging Infection and Inflammation	
	HUUB J. J. M. RENNEN, CHANTAL P. BLEEKER-ROVERS, and WIM J. G. OYEN	113
8	Gastrointestinal Nuclear Medicine	
	JEAN-LUC C. URBAIN	127
9	Hepatobiliary Scintigraphy	
	MARK TULCHINSKY	135
10	Peptide Imaging	
	IRENE VIRGOLINI and T. TRAUB-WEIDINGER	153
11	FDG-PET Imaging in Oncology	
	CHRISTIAAN SCHIEPERS and CARL K. HOH	184
12	PET/CT in Lung and Head and Neck Cancer	
	HANS C. STEINERT, GERHARD GOERRES, and GUSTAV K. VON SCHULTHESS	205
13	PET/CT Imaging in Breast Cancer, Gastrointestinal Cancers, Gynecological Cancers and Lymphoma	
	MARTIN ALLEN-AUERBACH, JOHANNES CZERNIN, and CHRISTIAAN SCHIEPERS ...	215
14	Pediatric Nuclear Medicine - A Coming of Age	
	HELEN R. NADEL and MOIRA E. STILWELL	227

Basics of Scintigraphic Imaging	245
15 Radiopharmaceuticals: Recent Developments and Trends GUY BORMANS, KRISTIN VERBEKE, and ALFONS VERBRUGGEN	247
16 Instrumentation and Data Acquisition SIBYLLE I. ZIEGLER and MAGNUS DAHLBOM	275
17 Image Formation JOHAN NUYTS and DIRK BEQUÉ	291
Future Outlook	311
18 Imaging of Gene Expression: Concepts and Future Outlook MEIKE L. SCHIPPER and SANJIV S. GAMBHIR	313
19 Quo Vadis? CHRISTIAAN SCHIEPERS	343
Glossary	345
Subject Index	349
List of Contributors	353