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PART III NANOPARTICLE PLATFORMS AS MULTIMODALITY IMAGING AND THERAPY AGENTS; 18. Lipoprotein-Based Nanoplatfoms for Cancer Molecular Imaging; 19. Protein Cages as Multimode Imaging Agents; 20. Biomedical Applications of Single-Walled Carbon Nanotubes; 21. Multifunctional Nanoparticles for Multimodal Molecular Imaging; 22. Multifunctional Nanoparticles for Cancer Theragnosis
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24. Multimodal Imaging and Therapy with Magnetofluorescent Nanoparticles; 25. Gold Nanocages: A Multifunctional Platform for Molecular Optical Imaging and Photothermal Treatment; 26. Theranostic Applications of Gold Nanoparticles in Cancer; 27. Gold Nanorods as Theranostic Agents; 28. Theranostic Applications of Gold Core-Shell Structured Nanoparticles; 29. Magnetic Nanoparticle Carrier for Targeted Drug Delivery: Perspective, Outlook, and Design
30. Perfluorocarbon Nanoparticles: A Multidimensional Platform for Targeted Image-Guided Drug Delivery
31. Radioimmunonanoparticles for Cancer Imaging and Therapy; PART IV TRANSLATIONAL NANOMEDICINE; 32. Current Status and Future Prospects for Nanoparticle-Based Technology in Human Medicine; Index

Sommario/riassunto

The cutting-edge guide on advancing the science of molecular imaging using nanoparticles Nanoplatfom-Based Molecular Imaging provides rationale for using nanoparticle-based probes for molecular imaging, then discusses general strategies for this underutilized, yet promising, technology. It addresses general strategies of particle synthesis and surface chemistry, applications in computed tomography optical imaging, magnetic resonance imaging, ultrasound, multimodality imaging, theranostics, and finally, the clinical perspectives of nanoimaging. This comprehensive vol
