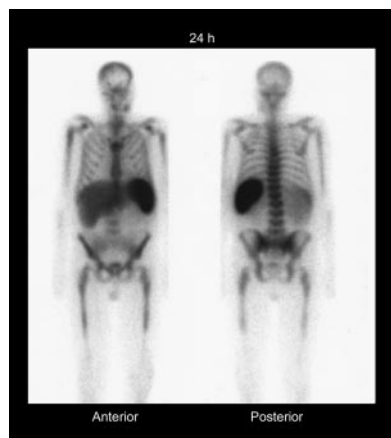


Badawi and Dahlbom review the role of the noise-equivalent counting rate as a predictor of PET image quality and lesion detectability. *Page 1767*

Gremillet and colleagues assess the ability of Fourier temporal interpolation to combine the advantages of low and high sampling rates in electrocardiograph-gated myocardial SPECT and evaluate resulting image quality and cine display fluidity. *Page 1769*

Tipre and Goldstein investigate whether $6\text{-}^{18}\text{F}$ -fluorodopamine PET can visualize sympathetic innervation in extracardiac organs and report on its utility in yielding evidence of extracardiac noradrenergic denervation in patients with Parkinson's disease, orthostatic hypotension, and pure autonomic failure. *Page 1775*

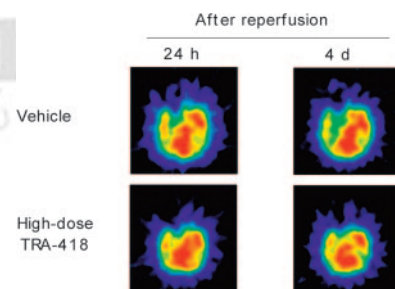


Ndrepepa and colleagues use $^{99\text{m}}\text{Tc}$ -sestamibi SPECT to evaluate whether residual blood flow in the infarct-related artery affects infarct size, myocardial salvage, or left ventricular recovery in patients after acute myocardial infarction and before coronary stenting with glycoprotein IIb/IIIa receptor blockade. . . *Page 1782*

Marie and colleagues assess the efficacy of dual-isotope $^{99\text{m}}\text{Tc}$ -sestamibi and ^{201}Tl

16-interval gated SPECT in determining left ventricular ejection fraction when both signal-to-noise ratio and spatial resolution were enhanced with an original method of reconstruction. . . *Page 1789*

Cohen-Solal and colleagues use ^{123}I -MIBG scintigraphy to test the hypothesis that carvedilol, a β -blocking agent shown to improve survival in chronic heart failure, exerts its beneficial effects on hemodynamics in parallel with improvements in function in myocardial sympathetic innervation. *Page 1796*



Koch and colleagues consider iterative reconstruction as an alternative to filtered backprojection in routine processing of ^{123}I -FP-CIT SPECT studies of striatal dopamine transporter binding in patients with parkinsonian syndromes. . . . *Page 1804*

Conti and colleagues report on the results of a registry study of imaging in the ibritumomab tiuxetan therapeutic regimen to determine rates of altered biodistribution after the initial of dose of rituximab and ^{111}In -ibritumomab tiuxetan. *Page 1812*

Kumar and colleagues assess the utility of dual-time-point ^{18}F -FDG PET imaging in the differentiation of breast cancer from inflammation. *Page 1819*

Watson and colleagues demonstrate a method for improved clinical PET scanning protocols by accurately modeling

the clinical noise-equivalent counting rate response to individual patient characteristics. *Page 1825*

Langer and colleagues combine PET and microdialysis to describe the intracellular pharmacokinetics of a model radiolabeled compound in humans and comment on the potential utility of this technique in new drug research and development. *Page 1835*

Pandit-Taskar reviews the current status of ^{18}F -FDG PET imaging in patients with gynecologic malignancies and outlines areas in which it is likely to play an increasingly important role. *Page 1842*

Tseng and colleagues assess the reproducibility of microPET mouse tumor xenograft studies using ^{18}F -FLT, a tracer that can provide serial images of tumor proliferation and may be useful for monitoring therapy response or for drug screening. *Page 1842*

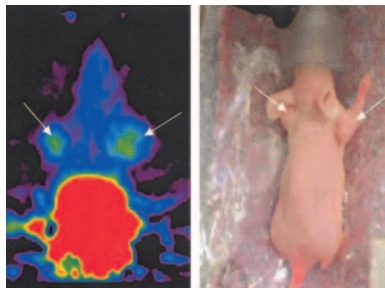
Hsieh and colleagues evaluate the pharmacokinetics and biodistribution of ^{18}F -FBPA after intracarotid injection and with blood-brain barrier disruption in a rat model of glioma and comment on the implications for optimal treatment protocols for clinical boron neutron capture therapy. *Page 1858*



Gangloff and colleagues use microPET and semiquantitative methods to examine the biodistribution of ^{18}F -FPAC in mice

with and without human breast cancer tumor xenografts and compare the results with those from direct analysis of blood, organs, and breast carcinoma xenografts. **Page 1866**

Walrand and colleagues describe the Lino-view, a novel whole-body animal SPECT system, and review results in mouse studies indicating utility in high-resolution imaging and biodistribution studies, including those with high-energy radioisotopes that previously presented imaging challenges. **Page 1872**



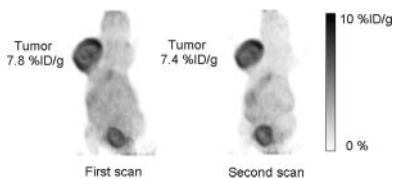
Rogers and colleagues report on the somatostatin analog ^{94m}Tc -demotate 1 in microPET imaging to determine somatostatin receptor subtype 2 (SSTR2) gene transfer, a first step in demonstrating that SSTR2 can serve as a PET reporter probe for gene transfer. **Page 1889**

Perk and colleagues evaluate the potential of the long-lived positron emitter ^{89}Zr in PET for in vivo "scouting" of radiolabeled monoclonal antibody distribution in radioimmunotherapy. **Page 1898**

Elgqvist and colleagues investigate the efficacy of radioimmunotherapy using a

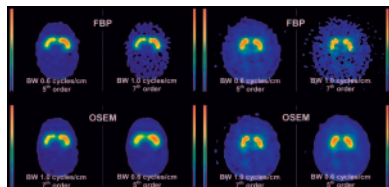
^{211}At -labeled monoclonal antibody in an ovarian cancer model and estimate the absorbed dose to tumor cells. . **Page 1907**

Nimmagadda and colleagues study the biodistribution of and provide radiation estimates for ^{18}F -FBAU, a potential PET tracer for imaging DNA synthesis. **Page 1916**

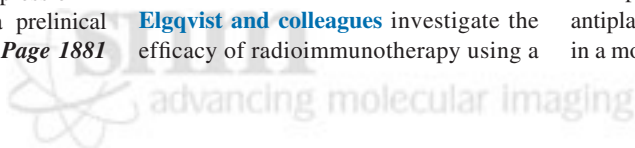


Cho and colleagues evaluate the utility of ^{76}Br -FBA, a uracil analog, as a PET reporter probe for gene expression imaging in vivo and in vitro using human and rat glioma cells. **Page 1923**

Umemura and colleagues assess the neuroprotective effect of TRA-418, an antiplatelet agent, using PET monitoring in a monkey model of stroke. . **Page 1931**



Veliky and colleagues detail a method for preparation of ^{68}Ga -DOTA-hEGF, a PET tracer for detection of epidermal growth factor receptor overexpression in carcinomas, and report on a preclinical evaluation. **Page 1881**



ON THE COVER

Phantom studies have shown that the spatial resolution of this prototype SPECT device is clearly better than that of other dedicated small-animal SPECT systems. The increased performance of the device can be ascribed to its high stability with regard to the statistical noise in the acquired data. Mouse studies have shown that the device will be most useful for in vivo high-resolution SPECT and quantitative biodistribution studies in rodents, even with high-energy radioisotopes that are difficult to image, such as ^{111}In .

