

**ASNC/SNMMI PET Guideline highlights:** Dilsizian provides an overview of an updated joint American Society of Nuclear Cardiology imaging guideline and SNMMI procedure standard for PET nuclear cardiology published in the September–October issue of the *Journal of Nuclear Cardiology*. . . . . **Page 1327**

**Fluciclovine in breast cancer:** McConathy offers perspective on the utility of this  $^{18}\text{F}$ -labeled amino acid agent in PET imaging in women with breast cancer naïve to therapy and discusses 2 related articles in this issue of *JNM*. . . . . **Page 1329**

**In vivo cell tracking with PET:** England and colleagues assess the potential and challenges for clinical PET biomarker imaging in progression and efficacy monitoring of transplanted stem cells in muscle-related diseases and review a related article in this month's *JNM*. . . . . **Page 1331**

**Molecular imaging in conditioning and response:** Zhao and colleagues comment on the promise of advanced molecular imaging in exploring the neurofunctional mechanisms of classic conditioning and preview a related article in this issue of *JNM*. . . . . **Page 1333**

**$^{177}\text{Lu}$ -PSMA therapy and advanced mCRPC:** Rahbar and colleagues evaluate the response to and tolerability of a single dose of this prostate-specific membrane antigen ligand in a large cohort of patients with metastatic castration-resistant prostate cancer. . . . . **Page 1334**

**$^{124}\text{I}$  PET/CT vs.  $^{131}\text{I}$  imaging:** Ruhlmann and colleagues assess levels of agreement between PET and scintigraphy using diagnostic amounts of  $^{124}\text{I}$  and therapeutic amounts of  $^{131}\text{I}$ , respectively, in detecting iodine-positive metastases in patients with differentiated thyroid carcinoma. . . . . **Page 1339**

**$^{18}\text{F}$ -FDG PET/CT repeatability in NSCLC:** Kramer and colleagues investigate the repeatability of various quantitative whole-body  $^{18}\text{F}$ -FDG metrics in patients with non-small cell lung cancer as a function of tracer uptake interval and lesion selection strategies. . . . . **Page 1343**

**$^{18}\text{F}$ -fluciclovine PET/CT in breast cancer:** Ulaner and colleagues report on the imaging results of a prospective clinical trial of this leucine analog radiotracer in patients with newly diagnosed advanced local invasive ductal carcinoma and invasive lobular carcinoma. . . . . **Page 1350**

**$^{18}\text{F}$ -fluciclovine uptake in breast cancer:** Tade and colleagues explore the uptake of the synthetic amino acid analog PET radiotracer *anti*-3- $^{18}\text{F}$ -FACBC in breast lesions, with correlation to histologic and immunohistochemical characteristics. . . . . **Page 1357**

**Coronary functional evaluation:** Park and colleagues use a large national database to compare the clinical implications of coronary angiography and myocardial perfusion imaging in an initial evaluation for stable coronary artery disease. . . . . **Page 1364**

**CZT vs. cardiodetector camera in LVF:** Bailliez and colleagues compare 2 cadmium-zinc-telluride-detector SPECT cameras to a conventional Anger camera with cardiodetector collimators for assessment of left ventricular function in a phantom and patients. . . . . **Page 1370**

**Noninvasive quantification of  $^{11}\text{C}$ -HED kinetics:** Harms and colleagues investigate the feasibility of replacing arterial sampling of  $^{11}\text{C}$ -hydroxyephedrine kinetics in the myocardium with imaging-derived input function and venous blood samples. . . . . **Page 1376**

**Myocardial dimensions from dynamic PET:** Harms and colleagues explore the feasibility of measuring left ventricular geometry using dynamic  $^{11}\text{C}$ -acetate PET without electrocardiogram gating. . . . . **Page 1382**

**First-in-human studies of brain PDE2A:** Nagawa and colleagues report on a study of the novel phosphodiesterase-2A PET ligand  $^{18}\text{F}$ -PF-05270430 to determine the appropriate tracer kinetic model for brain uptake quantification and to examine within-subject test–retest variability. . . . . **Page 1388**

**PET/MR imaging in spondylodiskitis:** Fahnert and colleagues assess the diagnostic value of  $^{18}\text{F}$ -FDG PET combined with MR imaging in patients with suspected spondylodiskitis and inconclusive clinical or MR presentations. . . . . **Page 1396**

**Comprehensive  $^{68}\text{Ga}$  generator QC:** Amor-Coarasa and colleagues characterize the 1-y performance of a  $^{68}\text{Ge}/^{68}\text{Ga}$  generator system in conjunction with production of  $^{68}\text{Ga}$ -labeled DOTATOC and  $^{68}\text{Ga}$ -PSMA-HBED-CC for clinical studies and establish protocols for batch release. . . . . **Page 1402**

**Musculoskeletal infection:** Palestro provides an educational overview of musculoskeletal infection imaging and the ways in which PET/CT and SPECT/CT are improving diagnostic accuracy and influencing management in patients with suspected or known infection and inflammation. . . . . **Page 1406**

**RTK PET imaging for therapeutic guidance:** Wehrenberg-Klee and colleagues describe development of PET probes that provide an in vivo method of imaging changes in receptor tyrosine kinase expression to identify tumors that use this “escape” pathway. . . . . **Page 1413**

**Elucidating coronary plaque ruptures:** Hermann and colleagues assess whether diet-induced coronary plaque ruptures trigger atherothrombotic occlusions, resulting in myocardial infarctions in a high-fat, high-cholesterol–fed hyperlipidemic mouse model. . . . . **Page 1420**

**GM-CSF in glycolysis and inflammation:** Singh and colleagues test the hypothesis that human granulocyte-macrophage colony-stimulating factor, a clinically used cytokine, increases macrophage glycolysis and deoxyglucose uptake in vitro and enhances  $^{18}\text{F}$ -FDG uptake in inflamed tissues in vivo. . . . . **Page 1428**

**Preclinical evaluation P2X7R PET tracer:** Ory and colleagues describe in rats and nonhuman primates the preclinical evaluation of  $^{11}\text{C}$ -JNJ-54173717, a PET tracer for the P2X7 receptor, which is associated with neuroinflammation. . . . . **Page 1436**

**GABA and NMDA autoradiography of TBI:** López-Picón and colleagues monitor changes in these key receptors in a clinically relevant rat model of induced traumatic brain injury using 2 new and specifically targeted PET ligands. . . . . **Page 1442**

**Preclinical assessment of PDE2A tracer:** Chen and colleagues image and quantify the activity of a novel enzyme phosphodiesterase 2A ligand in rats and nonhuman primates. . . . . **Page 1448**

**Improved  $^{18}\text{F}$ -TFB synthesis:** Jiang and colleagues detail the synthesis of  $^{18}\text{F}$ -tetrafluoroborate, a potential sodium/iodide symporter PET imaging probe, via direct radiofluorination on boron trifluoride and evaluate the influence of specific activity on tumor uptake. . . . . **Page 1454**

**Microfluidic blood-counting system:** Convert and colleagues propose a microfluidic counting system to monitor rodent blood radioactivity in real time, with high efficiency and small detection volume. . . . . **Page 1460**

**Engineered human muscle precursor cells:** Haralampieva and colleagues report on the design of an adenoviral delivery system to genetically modify human muscle precursor cells to express a signaling-deficient form of human dopamine D<sub>2</sub> receptor for PET tracking of transplanted cells. . . . . **Page 1467**

**PET mapping of PTSD:** Zhu and colleagues use  $^{18}\text{F}$ -FDG PET to investigate neurobiologic changes before and after exposure-based therapy in a rat model of posttraumatic stress disorder. . . . . **Page 1474**

**Administered activities in children:** Fahey and colleagues report on results of a survey describing pediatric nuclear medicine practice at general hospitals in the United States and assessing the impact of dose awareness campaigns. . . . . **Page 1478**