

α , β , or both in radioligand therapy? Haberkorn and colleagues provide commentary on the promise and challenges offered by endoradiotherapy strategies that leverage the cross-fire effect in a range of tumors. **Page 1017**

The case for quantification: Lammertsma looks at potential drawbacks to simplified semi-quantitative methods in routine use for PET analyses and recommends integration of appropriate validation measures, especially for drug development. **Page 1019**

Molecular imaging of PARP: Carney and colleagues review the history and development of imaging agents targeting the poly(adenosine diphosphate-ribose)polymerase family of enzymes and focus on current and future clinical applications. **Page 1025**

PET/CT in paraneoplastic syndrome: Sheikh-bahaei and colleagues assess the comparative diagnostic performances of whole-body ^{18}F -FDG PET and ^{18}F -FDG PET/CT for detection of underlying malignancy in patients with clinically suspected neurologic and nonneurologic paraneoplastic syndromes. **Page 1031**

^{18}F -fluciclovine therapy response: Ulaner and colleagues evaluate changes in avidity for this leucine analog radiotracer on PET/CT and therapy response in patients with locally advanced invasive ductal or invasive lobular breast cancer. **Page 1037**

Learning from failure: Hicks provides perspective on a study reported in this month's *JNM* on efforts to improve outcomes in patients with non-small cell lung cancer by escalating radiation doses to subregions identified as hypoxic on ^{18}F -FMISO PET/CT. **Page 1043**

^{18}F -FMISO PET/CT and lung RT boost: Vera and colleagues investigate selective radiotherapy dose increases to tumor areas with significant ^{18}F -misonidazole uptake on PET/CT in patients with non-small cell lung carcinoma. **Page 1045**

PET/CT in unknown primary NETs: Menda and colleagues assess the efficacy of ^{68}Ga -DOTATOC PET/CT for preoperative localization of unknown primary tumors in patients with metastatic neuroendocrine tumors. **Page 1054**

Optimal first-line imaging modality: Lebeck and colleagues compare ^{18}F -FDG PET/CT and CT as initial imaging modalities in patients with serious nonspecific symptoms and signs of cancer who are not eligible to enter organ-specific cancer programs. **Page 1058**

Qualification for quantitative PET/CT: Scheuermann and colleagues describe the National Cancer Institute's Centers for Quantitative Imaging Excellence PET/CT qualification process and review results from the first 5 years of data collection in the program. **Page 1065**

Multiparametric imaging with ^{18}F -FMISO PET: Grkovski and colleagues report on the utility of multiparametric imaging of tumor hypoxia and perfusion with ^{18}F -fluoromisonidazole dynamic PET in patients with head and neck cancer. **Page 1072**

PSMA PET in biochemical relapse: Einspieler and colleagues document the detection rate of a ^{68}Ga -labeled prostate-specific membrane antigen ligand for PET/CT in patients with biochemical recurrent prostate cancer after external beam radiotherapy or brachytherapy as primary treatment. **Page 1081**

Antiatherogenic properties of ezetimibe: Dumas and colleagues explore the mechanisms by which inhibition of ezetimibe intestinal cholesterol absorption might contribute to clinically observed reductions in cardiovascular events by evaluating its effect on inflammatory plaque development in apolipoprotein E $^{-/-}$ mice. **Page 1088**

Small-molecule PET imaging of thrombus: Lohrke and colleagues report on development and preclinical characterization of a specific small-molecule tracer for PET imaging that binds with high affinity to GPIIb/IIIa receptors and offers promising pharmacokinetic properties. **Page 1094**

^{18}F -FDG uptake by BAT: Hankir and colleagues test the assumption that brown adipose tissue uptake of ^{18}F -FDG provides a reliable indirect measure of thermogenesis by performing ^{18}F -FDG PET/MR imaging studies in mice. **Page 1100**

PET/CT, individual characteristics, and BAT: Gerngroß and colleagues look at retrospective analysis of clinical scans as a valuable resource for identification of anthropometric parameters that influence brown adipose tissue mass and activity. **Page 1104**

MPTP, brain serotonin, and MC-I: Kanazawa and colleagues use multitracer PET imaging to compare the effect of MPTP, a parkinsonism-inducing agent, with that of dopamine on serotonergic neuronal systems and mitochondrial complex I activity in conscious rhesus monkeys. **Page 1111**

Extrastriatal ^{123}I -FP-CIT in parkinsonism: Joling and colleagues analyze striatal and extrastriatal ^{123}I -FP-CIT binding to determine utility in

differential diagnosis of Parkinson disease, progressive supranuclear palsy, predominantly parkinsonism-related multiple-system atrophy, and cerebellar-type multiple-system atrophy. **Page 1117**

Modeling of ^{18}F -AV-1451: Barret and colleagues evaluate the kinetics of ^{18}F -AV-1451 tau binding in healthy and Alzheimer disease-diagnosed individuals, using a metabolite-corrected arterial input function and parameters derived from SUV ratios calculated at different imaging intervals. **Page 1124**

Brain networking in AD: Pagani and colleagues analyze independent components of ^{18}F -FDG PET data to elucidate the gradual disruption of functional brain connectivity accompanying the progression of cognitive decline in Alzheimer disease. **Page 1132**

Quantification of brain NETs: Moriguchi and colleagues describe analytical methods of quantification of NET density in the human brain, including the cerebral cortex, using (*S,S*)- ^{18}F -FMeNER-D $_2$ PET. **Page 1140**

rhTSH and THW in ^{131}I therapy: Plyku and colleagues compare absorbed doses in patients with differentiated thyroid cancer as determined by ^{124}I PET/CT-based dosimetry for ^{131}I therapy after thyroid-stimulating hormone withdrawal and recombinant human thyroid-stimulating hormone injections. **Page 1146**

Discovery IQ PET/CT: Reynés-Llompart and colleagues use the NEMA NU2-2012 methodology to document the physical performance of a new PET/CT system with 5-ring detector blocks. **Page 1155**

Heating and PET quantification: Goetz and colleagues assess the impact of different heating conditions on quantification results in small-animal ^{18}F -FDG PET imaging. **Page 1162**

Implants and PET/MR: Sviriydenka and colleagues evaluate the effect of susceptibility artifacts related to metallic implants on adjacent metabolically active lesions in clinical simultaneous PET/MR scanning for both time-of-flight and reconstructed PET images. **Page 1167**

Body PET/MR imaging credentialing: Subramaniam and colleagues from a joint SNMMI/American College of Radiology task force provide the second in a series of credentialing documents for physicians responsible for oversight and interpretation of PET/MR examinations. **Page 1174**