THIS MONTH IN JNM

Surface-enhanced Raman spectroscopy: Andreou and colleagues provide perspective on in vivo imaging of cancer using this technique and biocompatible probes, highlighting recent advances and potential future applications. . . . . ***Page 1295***

Advancing apoptosis imaging: Machulla offers an introduction to an article in this issue of *JNM* on a novel radiotracer that achieves its final form within apoptotic cells, allowing determination of tracer accumulation in tissue independently of blood flow. . . . . ***Page 1300***

Lumped constant estimation: Keiding looks at challenges in estimation of the lumped constant proportionality factor in calculating hepatic glucose metabolic rate in ^{18}F-FDG PET and previews a novel approach in an article in this issue of *JNM*. . . . . ***Page 1302***

Dosimetry for ^{223}Ra-dichloride treatment: Chittenden and colleagues report on the biodistribution, pharmacokinetics, absorbed doses, and safety of 2 sequential weight-based administrations of ^{223}Ra-dichloride in patients with bone metastases from castration-refractory prostate cancer. . . . . ***Page 1304***

^{89}Zr-fresolimumab PET in recurrent glioma: den Hollander and colleagues use PET to investigate uptake of the monoclonal antibody fresolimumab in recurrent high-grade gliomas and assess outcomes in patients treated with fresolimumab. . . . . ***Page 1310***

PET/CT and chemotherapy in IBC: Champion and colleagues assess the value of ^{18}F-FDG PET/CT imaging in predicting pathologic response to neoadjuvant chemotherapy and outcomes in inflammatory breast cancer. . . . . ***Page 1315***

^{18}F-FDG uptake in metastatic CRC: Kawada and colleagues determine whether *KRAS* mutation status is associated with ^{18}F-FDG accumulation in metastatic colorectal cancer and whether PET/CT imaging has the potential to predict *KRAS* status. . . . . ***Page 1322***

Posttreatment PET in Merkel cell carcinoma: Byrne and colleagues explore the utility of ^{18}F-FDG PET in restaging, response assessment, and management in patients after definitive treatment for Merkel cell carcinoma. . . . . ***Page 1328***

POEMS syndrome and PET: Pan and colleagues report on the role of ^{18}F-FDG PET in characterizing and evaluating patients with the rare paraneoplastic POEMS syndrome, involving polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy, and skin changes. . . . . ***Page 1334***

SPECT/CT vs planar imaging in SLNs: Jimenez-Heffernan and colleagues detail the results of an IAEA trial comparing SPECT/CT and planar lymphoscintigraphy in sentinel lymph node detection in malignancies with different lymphatic drainage, including breast cancer, melanoma, and pelvic tumors. . . . . ***Page 1338***

Cardiac PET and calcium imaging: Brodov and colleagues determine whether the combined analysis of myocardial perfusion imaging and coronary artery calcium score in hybrid ^{82}Rb PET/CT can improve diagnostic accuracy in detection of obstructive coronary artery disease. . . . . ***Page 1345***

Classification of amyloid PET data: Carbonell and colleagues describe a statistical approach for automated classification of individuals with different levels of cognitive impairment into amyloid-low and amyloid-high groups using PET data from the Alzheimer Disease Neuroimaging Initiative study. . . . . ***Page 1351***

PET and τ quantification: Kimura and colleagues report on a methodology for ^{11}C-PBB3 PET quantification of τ pathology in a study group of individuals with and without Alzheimer disease. . . . . ***Page 1359***

PET/CT and hepatic glucose metabolism: Trägårdh and colleagues investigate the feasibility of using dynamic ^{18}F-FDG PET/CT to measure human hepatic glucose metabolism and determine an operational lumped constant for ^{18}F-FDG by comparison with ^{3}H-glucose measurements. . . . . ***Page 1366***

Dynamic ^{11}C-phenytoin PET: Mansor and colleagues assess optimal plasma kinetic models for quantification of ^{11}C-phenytoin in human studies and discuss the potential for exploring pharmacoresistance in epilepsy and other diseases involving overexpression of P-glycoprotein. . . . . ***Page 1372***

Digital PET prototype: Nguyen and colleagues report initial clinical experience, image quality, and diagnostic performance of a digital PET prototype scanner with time-of-flight technology. . . . ***Page 1378***

^{123}I-CLINDE in GBMs: Jensen and colleagues compare translocator protein SPECT imaging using this iodine-labeled tracer with amino acid transport ^{18}F-FET imaging and gadolinium-enhanced MR imaging in predicting progression of glioblastoma multiforme at follow-up. . . . . ***Page 1386***

Pediatric bone scan dose optimization: Ayres and colleagues look at overall image quality in pediatric bone scintigraphy acquired with lower administered activities as recommended by North American Consensus Guidelines and the European Association of Nuclear Medicine. . . . . ***Page 1391***

Small-bowel and colon motility studies: Maurer provides the second of 2 educational overviews of methodology, challenges, and evolving standards for gastrointestinal transit scintigraphy, including small-bowel, colon, and whole-gut motility studies. . . . . ***Page 1395***

PSMA Auger radiopharmaceutical therapy: Kiess and colleagues describe the use of a highly specific small molecule targeting the prostate-specific membrane antigen to deliver ^{125}I to prostate cancer cells, with promise for treatment of micrometastases. . . . . ***Page 1401***

Multimodal PVC in bone PET/CT: Grecchi and colleagues detail the development of a novel multimodal partial volume correction approach for more accurate lesion characterization in ^{18}F-fluoride PET/CT bone metastasis studies. . . . . ***Page 1408***

Kinetic analysis of ^{18}F-C-SNAT: Palner and colleagues examine the in vivo pharmacokinetics of this apoptosis imaging tracer through PET imaging and kinetic modeling in a preclinical mouse model of tumor response to systemic anticancer chemotherapy. . . . . ***Page 1415***

Diabody pretargeting: van Duijnhoven and colleagues develop and evaluate a pretargeting strategy using click chemistry to reduce kidney uptake and avoid unwanted radiation toxicity in radioimmunotherapy and associated immune-PET/SPECT imaging. . . . . ***Page 1422***

Retention kinetics of ^{18}F-LMI1195: Werner and colleagues explore the neural uptake of this PET tracer designed for assessment of sympathetic innervation of the heart and compare this with the kinetics of ^{11}C-hydroxyephedrine and ^{123}I-MIBG. . . . . ***Page 1429***

^{18}F-trimeric sulfonamides: Lau and colleagues describe the process of synthesizing four ^{18}F-labeled sulfonamide derivatives and evaluate their potential for PET imaging of carbonic anhydrase IX expression. . . . . ***Page 1434***

Evaluation of Auger electron emitters: Falzone and colleagues characterize the therapeutic utility and potential adverse characteristics of 12 Auger-emitting radionuclides with theranostic potential. . . . . ***Page 1441***

Phantom and clinical evaluation of Q.Clear: Teoh and colleagues determine the optimum penalization factor for clinical use of this commercial Bayesian penalized-likelihood reconstruction algorithm for PET and compare it with standard PET reconstructions. . . . . ***Page 1447***

Change in NIST ^{18}F standard: Zimmerman and colleagues update relative response ratios for a ^{68}Ge solid epoxy mock syringe source used in activity calibrators, per recent changes in National Institute of Standards and Technology activity standards for ^{18}F. . . . . ***Page 1453***

β-radioluminescence imaging: King and colleagues propose a new modality that incorporates a scintillator with a γ rejection strategy for imaging β particles and perform comparative studies with this technology and Cerenkov luminescence imaging. . . . . ***Page 1458***