

Discussions with leaders: *JNM* editor-in-chief Johannes Czernin continues a series of interviews with leaders in nuclear and molecular imaging and therapy with a conversation with Richard Wahl. . . . **Page 3**

Overconfidence risks? Bodei and colleagues endorse development of rigorous scientific strategies to provide predictive stratification of patients for peptide-receptor radionuclide therapy to improve results and lessen the potential negative impact of failures in nonresponders. . . . **Page 7**

Treatment strategies in metastasized DTC: Kreissl and colleagues provide an educational overview of advanced and metastasized differentiated thyroid cancer and describe current treatment approaches. . . . **Page 9**

¹⁸F-P3BZA PET/CT in melanoma: Ma and colleagues estimate the biodistribution and clinical radiation dosimetry of this tracer, noted for high binding selectivity and affinity in melanoma, in healthy volunteers and 5 patients with suspected melanoma. . . . **Page 16**

Functional imaging in HER2+ breast cancer: Mortimer and Shively provide perspective on PET radionuclide approaches associated with HER2-directed trastuzumab therapy and preview an article on this topic in this issue of *JNM*. . . . **Page 23**

⁶⁴Cu-NOTA-trastuzumab for HER2 targeting: Woo and colleagues report on development and in vitro and preclinical studies of this ⁶⁴Cu-labeled trastuzumab with improved pharmacokinetics for human epidermal growth factor receptor 2. . . . **Page 26**

¹⁸F-Flortanidazole PET in treated NSCLC: De Bruycker and colleagues assess in preclinical studies the effects of metformin administration on non-small cell lung cancer xenograft tumor hypoxia using this PET hypoxia tracer and look at the prognostic/predictive potential of baseline imaging. . . . **Page 34**

NCI SBIRs and targeted radionuclide therapy: Zakeri and colleagues summarize the National Cancer Institute's Small Business Innovation Research funding solicitations for development of targeted radionuclide therapies and research proposals funded through them. . . . **Page 41**

¹⁷⁷Lu xSPECT Quant noise and resolution: Tran-Gia and Lassmann assess the characteristics of this commercially available reconstruction approach in combination with ¹⁷⁷Lu for standardized and traceable calibration of SPECT/CT in molecular radiotherapies and compare it with another widely used approach. . . . **Page 50**

CXCR4-directed RIT in DLBCL: Lapa and colleagues report on a study of C-X-C-motif chemokine receptor 4-directed radioligand therapy (with additional radioimmunotherapy in some patients) as a conditioning regimen before allogeneic stem cell transplantation in diffuse large B-cell lymphoma. . . . **Page 60**

Predicting tumor response in RLT: Kletting and colleagues detail a method for prediction of prostate-specific membrane antigen-positive tumor volume after radioligand therapy, based on pretreatment PET/CT and pharmacokinetic/pharmacodynamic modeling using ¹⁷⁷Lu-labeled PSMA for imaging and therapy. . . . **Page 65**

Optical/nuclear imaging with PSMA-I&F: Schottelius and colleagues describe studies on synthesis and preclinical characterization of the prostate-specific membrane antigen-targeted hybrid tracer PSMA-I&F for nuclear and fluorescence imaging of prostate cancer. . . . **Page 71**

VT substrate characteristics: Imanli and colleagues compare myocardial structural and functional adaptations (late gadolinium enhancement/abnormal innervation) with detailed ventricular tachycardia mapping data to identify regional heterogeneities in posts ischemic changes. . . . **Page 79**

CTEPH in adult SCD: Mehari and colleagues look at the performances of ventilation-perfusion scintigraphy and CT pulmonary angiography in sickle cell disease, with a focus on clinical outcomes associated with chronic thromboembolic pulmonary hypertension and abnormal V/Q findings. . . . **Page 86**

¹⁸F-MK-6240 characterization in humans: Betthausen and colleagues investigate the in vivo kinetics, quantification strategies, and imaging characteristics of this novel tau PET radioligand in 51 participants ranging from

cognitively "normal" young controls to individuals with dementia. . . . **Page 93**

Amyloid PET SUVR calculation: Chiao and colleagues explore the impact of target and reference region-of-interest selection on SUV ratios using data from the ongoing phase 1b PRIME study of aducanumab in patients with prodromal or mild Alzheimer disease. . . . **Page 100**

¹⁸F-MK-6240 PET in AD: Lohith and colleagues detail plasma kinetics, brain uptake, and quantitative analysis of this PET tracer for neurofibrillary tangle imaging in healthy elderly participants and individuals with clinically probable Alzheimer disease or amnesic mild cognitive impairment. . . . **Page 107**

CB₁R and behavioral symptoms in pre-HD: Ceccarini and colleagues use ¹⁸F-MK-9470 PET to investigate whether cerebral type 1 cannabinoid receptor binding is related to cognitive and psychiatric symptoms in pre-Huntington disease mutation carriers. . . . **Page 115**

Imaging neuroinflammation after stroke: Chaney and colleagues compare 2 promising second-generation translocator protein 18 kDa tracers, ¹¹C-DPA-713 and ¹⁸F-GE-180, at acute and chronic time points after ischemic stroke in mice. . . . **Page 122**

PET radioligand for OGA: Paul and colleagues assess ¹⁸F-LSN3316612 for imaging and quantifying *O*-GlcNAcase inhibition in rhesus monkeys and mice and describe the potential for monitoring of associated treatment in Alzheimer disease and related tauopathies. . . . **Page 129**

Folate receptor PET imaging: Boss and colleagues describe the radiosynthesis of diastereomerically pure 6*R*-¹⁸F-1 and 6*S*-¹⁸F-1 and compare in vitro and in vivo performance characteristics of each with those of a previously reported ¹⁸F-fluorofolic acid tracer. . . . **Page 135**

G8 performance evaluation: Gu and colleagues report on the National Electrical Manufacturers Association NU 4-2008 performance of this benchtop integrated PET/CT scanner for high-sensitivity and high-resolution imaging in mice and assess the performance of the CT subsystem. . . . **Page 142**