

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 Michael E. Phelps. **Page 439**

Precision cardio-oncology: Dreyfuss and colleagues offer a paradigm for precision medicine in cardiotoxin-exposed cancer patients, including imaging techniques, personalized surveillance and therapeutics, and the role of -omics in advancing understanding of disease phenotypes. **Page 443**

Machine learning: Uribe and colleagues present part 1 of a 2-part series introducing machine learning, neural networks, and deep learning in a nuclear medicine context, including common algorithms and ways in which these can be helpful. **Page 451**

Dual-labeled agent overview: Vargas and colleagues focus on new strategies for development and evaluation of targeted dual-labeled fluorescent and nuclear contrast agents, highlighting a successful first-in-human application of this technique. **Page 459**

Age and sex bias: Langen offers commentary on current challenges in age and sex bias in radiation research and cites possible steps toward remediation and higher methodologic standards. **Page 466**

Tumor/host metabolism and systemic inflammatory response: Dolan and colleagues provide a systematic review of PET/CT assessment of the relationship between tumor and host inflammatory responses, with results that may inform optimal therapeutic targeting and monitoring. **Page 467**

PET staging of male breast cancer: Ulaner and colleagues assess ^{18}F -FDG PET/CT systemic staging in patients with newly diagnosed male breast cancer and determine detection rates for unsuspected distant metastases stratified by pre-PET/CT stage. **Page 472**

On PET/CT reporting: Zukotynski and colleagues look at key recommended components of the PET/CT report and preview an international survey on clinical reporting of PET/CT examinations in this issue of *JNM*. **Page 478**

PET/CT reporting in 2018: Freudenberg and colleagues detail the results of a survey

of approaches to image reporting among active PET/CT users and comment on the findings, including the need to ensure harmonization of reporting practices. **Page 480**

ABCBI/ABCG2 substrate anticancer drug delivery: Bauer and colleagues describe the potential of supratherapeutic-dose oral erlotinib to inhibit adenosine triphosphate-binding cassette transporters P-glycoprotein and breast cancer resistance protein at the blood-brain barrier. **Page 486**

^{18}F -FdCyd and tetrahydrouridine PET: Young and colleagues detail first-in-human radiation dosimetry and biodistribution of 5-fluoro-2'-deoxycytidine, a DNA methyltransferase and hypermethylation inhibitor, administered with tetrahydrouridine, an inhibitor of cytidine/deoxycytidine deaminase, in patients with a variety of solid tumors undergoing FdCyd therapy. **Page 492**

Dose distribution in metastasis tissues: Kodaira and colleagues investigate the local concentration of α -particles from ^{211}At -labeled trastuzumab antibodies against human epidermal growth factor receptor type 2 antigens in liver metastasis tissues from mice. **Page 497**

PET imaging of PARP: Chen provides perspective on radiolabeling of poly(ADP-ribose) polymerase inhibitors and reviews recent evidence of the potential of associated imaging to enhance targeted anticancer therapeutics. **Page 502**

^{18}F -Olaparib PET: Wilson and colleagues describe the ^{18}F -radiolabeled isotopolog of the FDA-approved poly(ADP-ribose) polymerase inhibitor olaparib, allowing direct prediction of olaparib distribution and showing promise for noninvasive tumor imaging and monitoring of radiation damage. **Page 504**

PSMA-RADS-3A and PSMA-RADS-3B: Yin and colleagues retrospectively review prostate-specific membrane antigen-targeted PET imaging follow-ups of soft-tissue and bone lesions in prostate cancer to determine the rate at which these underwent changes suggestive of underlying disease. **Page 511**

^{177}Lu PSMA-617 dosimetry: Violet and colleagues detail the radiation dosimetry of ^{177}Lu -prostate-specific membrane antigen-617 and

evaluate pretherapeutic ^{68}Ga -PSMA PET as a predictor of absorbed dose and whether dose in normal tissues and tumor can predict toxicity and clinical response. **Page 517**

Long-term PRRT follow-up: Gabriel and colleagues analyze 12-year outcomes of peptide receptor radionuclide therapy with ^{90}Y -DOTATOC and ^{177}Lu -DOTATATE in patients treated for inoperable or metastatic somatostatin receptor-positive tumors. **Page 524**

Delayed coronary ^{18}F -NaF PET: Kwiecinski and colleagues determine whether delaying ^{18}F -sodium fluoride PET image acquisition until 3 h after injection improves image quality and uptake measurements in patients with stable coronary artery disease. **Page 530**

Amyloid load as biomarker: Whittington and Gunn introduce and evaluate amyloid load ($\text{A}\beta_{\text{L}}$) as a novel biomarker to quantify global amyloid- β burden and also describe an automated algorithm for its calculation. **Page 536**

^{18}F -Flutemetamol PET in preclinical AD: Collij and colleagues identify an optimal approach for visual and semiquantitative ^{18}F -flutemetamol PET assessment of amyloid disease in a cognitively normal elderly population. **Page 541**

Microglial activation and cognition: Focke and colleagues look at longitudinal 18-kDa translocator protein PET for microglial activation and amyloid PET imaging in an Alzheimer disease transgenic mouse model and evaluate correlations with terminal cognitive assessment. **Page 548**

CNNs for in PET/MR data: Spuhler and colleagues report on a convolutional neural network approach for synthesizing patient-specific transmission data from MR imaging with sufficient accuracy for both static and dynamic PET studies. **Page 555**

Vereos PET/CT performance: Rausch and colleagues evaluate the physical performance of the Vereos whole-body PET/CT system according to the National Electrical Manufacturers Association NU2-2012 standard and compare it with other state-of-the-art PET/CT systems. **Page 561**