

**Discussions with leaders:** Alexander Stremtzer, JD, PhD, Kevin Tobia, JD, PhD, and Aileen Nielsen, JD, discuss public perceptions of the use of artificial intelligence in medical decision making and preview an article in this issue of *JNM*. . . . . **Page 3**

**Mars shot for nuclear medicine:** Wahl and colleagues review the research and discovery domain of the SNMMI Value Initiative, identifying 5 areas of opportunity in nuclear medicine, molecular imaging, and molecularly targeted radiopharmaceutical therapy. . . . . **Page 6**

**Juror views on medical AI liability:** Price and colleagues offer perspective on an article in this issue of *JNM* and address broader questions about legal issues likely to arise with routine medical use of artificial intelligence data. . . . . **Page 15**

**Liability for physician use of AI:** Tobia and colleagues report on a study of public perception of artificial intelligence data in physician decision making in sample legal cases, including scenarios with AI recommendations of standard or nonstandard care. . . . . **Page 17**

**Neural networks:** Zukotynski and colleagues focus on artificial neural networks in the second part of a series on machine learning, highlighting applications in image reconstruction, low-dose PET, disease detection, and models for diagnosis and outcome prediction. . . . . **Page 22**

**Deep-learning uptake classification:** Capobianco and colleagues examine whether an artificial intelligence-based method can accurately estimate total metabolic tumor volumes from  $^{18}\text{F}$ -FDG PET/CT data in diffuse large B-cell lymphoma. . . . . **Page 30**

**Interim PET in DLBCL:** Rekowski and colleagues compare the Deauville score and change in  $\text{SUV}_{\text{max}}$  on interim  $^{18}\text{F}$ -FDG PET/CT in assessing early metabolic response to standard chemotherapy in diffuse large B-cell lymphoma. . . . . **Page 37**

**$^{124}\text{I}$ -MIBG vs  $^{123}\text{I}$ -MIBG for monitoring:** Aboian and colleagues evaluate the diag-

nostic performance of  $^{124}\text{I}$ -MIBG PET/CT compared with paired  $^{123}\text{I}$ -MIBG scans to monitor metastatic disease in children with relapsed neuroblastoma and describe potential uses with MIBG therapy. . . . . **Page 43**

**Quantitative SPECT/CT before  $^{223}\text{Ra}$ :** Helmut and colleagues quantify  $^{99\text{m}}\text{Tc}$ -DPD uptake on SPECT/CT before  $^{223}\text{Ra}$ -dichloride treatment in metastatic castration-resistant prostate cancer, with a discussion of feasibility and overall survival. . . . . **Page 48**

**$^{225}\text{Ac}$ -DOTA-CC49 RIT:** Minnix and colleagues label DOTAlated-huCC49 with the  $\alpha$ -emitter  $^{225}\text{Ac}$  to target tumor-associated glycoprotein 72-positive xenografts as radioimmunotherapy in a murine model of ovarian cancer. . . . . **Page 55**

**$^{131}\text{I}$  response and DTC:** Cheng and colleagues evaluate responses to radioiodine adjuvant therapy in totally thyroidectomized differentiated thyroid cancer patients with unexplained hyperthyroglobulinemia and describe potential risk stratification applications. . . . . **Page 62**

**Bowel obstruction and  $^{177}\text{Lu}$ -DOTA-TATE:** Strosberg and colleagues review one institution's experience with bowel obstruction in patients with mesenteric or peritoneal disease undergoing peptide receptor radionuclide therapy. . . . . **Page 69**

**Timing of  $^{64}\text{Cu}$ -DOTATATE PET/CT:** Loft and colleagues compare numbers of lesions detected with  $^{64}\text{Cu}$ -DOTATATE PET/CT imaging at 1 and 3 h after injection in patients with neuroendocrine neoplasms. . . . . **Page 73**

**MSG and PSMA radiotracer uptake:** Harsini and colleagues assess orally administered monosodium glutamate as a potential means of reducing kidney and salivary gland radiation exposure during prostate-specific membrane antigen-targeting radioligand therapy. . . . . **Page 81**

**PSMA PET in early CRPC:** Weber and colleagues report on the value of prostate-specific membrane antigen PET/CT in de-

tection of early castration-resistant prostate cancer and discuss advantages for early initiation of disease-delaying therapies in local or oligometastatic disease. . . **Page 88**

**Tumor perfusion and receptor density:** Jiménez-Franco and colleagues determine a minimal tumor perfusion and receptor density for  $^{177}\text{Lu}$ -DOTATATE therapy using physiologically based pharmacokinetic modeling in treatment of neuroendocrine tumors and meningioma. . . . . **Page 92**

**Pediatric oncologic  $^{18}\text{F}$ -FDG PET/CT:** Vali and experts from SNMMI and the European Association of Nuclear Medicine provide guidelines for recommending, performing, and interpreting  $^{18}\text{F}$ -FDG PET/CT in pediatric patients with cancer. . . **Page 99**

**PET imaging of CCR2 in injured heart:** Heo and colleagues describe  $^{64}\text{Cu}$ -DOTA-ECL1i PET visualization of recruitment of proinflammatory chemokine receptor 2-positive cells in multiple heart injury models in mice. . . . . **Page 111**

**Gastrointestinal transit scintigraphy:** Ziessman and colleagues review experience from a comprehensive esophagogastrintestinal transit investigation, focusing on scintigraphic data on motility of the entire gut. . . . . **Page 115**

**Low-dose pediatric  $^{18}\text{F}$ -FDG PET/MRI:** Schmall and colleagues investigate the diagnostic performance of whole-body  $^{18}\text{F}$ -FDG imaging using a PET/MRI scanner with time-of-flight capability for low-dose clinical imaging of pediatric patients. . . . . **Page 123**

**Cyclotron-produced radios scandium:** Loveless and colleagues detail the feasibility of production of  $^{43,44,47}\text{Sc}$  via proton-induced nuclear reactions on titanium nuclei using a 24-MeV cyclotron. . . . . **Page 131**

**Engineered scFv-Fc targeting CD44:** Diebolder and colleagues report on development of a glycoprotein CD44-specific antibody fragment and evaluate it for PET imaging of CD44-positive cancers. . . . . **Page 137**