

Defining current and future theranostics:

Weber and colleagues look at elements in the success of PSMA theranostics and reflect on the potential for similar advances in combined diagnostics/therapeutics in other areas nuclear medicine. **Page 669**

Focus on general nuclear medicine: Iagaru offers highlights and insights on general nuclear medicine topics presented at the most recent SNMMI Annual Meeting. **Page 671**

Discussions with leaders: Czernin and colleagues talk with Michael J. Morris, MD, a leading expert in genitourinary oncology, on the current status and future potential for nuclear medicine in the diagnosis and treatment of prostate cancer. **Page 678**

Somatostatin-based theranostics: Imperiale and colleagues summarize advances in somatostatin receptor-targeted peptide receptor radionuclide therapy, a novel paradigm in theranostics with promise for revolutionizing diagnostic and therapeutic management of neuroendocrine tumors. **Page 682**

α -Radioligand therapy: Feuerecker and colleagues review important studies evaluating α -emitting targeted therapies as potential next-generation theranostics and report on 3 promising clinical applications administered systemically. **Page 685**

Amino acid PET in neurooncology: Galldiks and colleagues provide an educational overview of the added clinical value of amino acid PET in glioblastoma or brain metastases for differential diagnosis and assessment of tumor extent, treatment-related changes, and treatment response. **Page 693**

ChatGPT in health care: Kleesiek and colleagues look at the widespread interest in large language model-trained artificial intelligence applications, their potential in health care, and responsibilities for expert human involvement in shaping and monitoring these technologies. **Page 701**

^{64/67}**Cu-SARTATE imaging and therapy:** Bailey and colleagues report on first-in-humans use of ⁶⁴Cu and ⁶⁷Cu as a theranostic pair in patients with meningiomas, with advantageous methodology for normal-organ dosimetry. **Page 704**

FAP PET for oncologic imaging: Hirnas and colleagues present an overview of a prospective, 3-y fibroblast-activation protein inhibitor registry study, with head-to-head comparison of tumor

uptake in ⁶⁸Ga-FAPI and ¹⁸F-FDG PET, as well as FAP immunohistochemistry. **Page 711**

⁶⁸Ga-FAPI-46 PET/MRI in breast cancer NAC: Backhaus and colleagues assess and validate the diagnostic performance of follow-up breast ⁶⁸Ga-FAPI-46 PET/MRI in classifying response status of local breast cancer and lymph node metastases after completion of neoadjuvant chemotherapy. **Page 717**

PET in HER2+ mEGC: Lumish and colleagues describe the utility of ⁸⁹Zr-trastuzumab PET in elucidating variations in human epidermal growth factor receptor 2 expression in primary tumors and metastases in metastatic esophagogastric cancer. **Page 724**

PSMA only versus PSMA/FDG for treatment eligibility: Seifert and colleagues reanalyze data from patients who underwent both ¹⁸F-FDG and PSMA PET for PSMA-targeted therapy eligibility to determine whether both studies are necessary to identify suitable candidates. **Page 731**

Unspecific bone uptake in ¹⁸F-PSMA-1007 PET: Seifert and colleagues explore the frequency of unspecific bone uptake and bone metastases separately for ¹⁸F-PSMA-1007 and ⁶⁸Ga-PSMA-11 in biochemical recurrence of prostate cancer. **Page 738**

PSMA and GRPR PET-guided prostate biopsy: Duan and colleagues report on the potential of ⁶⁸Ga-PSMA11 and ⁶⁸Ga-RM2 PET/MRI for biopsy guidance in patients with suspected prostate cancer. **Page 744**

Targeted α -therapy in melanoma: Ertveldt and colleagues detail studies on the mechanisms of immune activation in a melanoma model using α -targeted radionuclide therapy with ²²⁵Ac-labeled single-domain antibodies. **Page 751**

¹⁷⁷Lu-FAP6-IP-DOTA therapy: Lindeman and colleagues evaluate the performance of a fibroblast-activation protein-targeted radioligand conjugate in 4 tumor models, with potential for optimization in clinical treatment of solid tumors. **Page 759**

¹⁷⁷Lu-PSMA STP dosimetry: Brosch-Lenz and colleagues assess differences in the time-integrated activity of single-time-point versus multiple-time-point image-based dosimetry protocols for ¹⁷⁷Lu-PSMA-617 therapy. **Page 767**

Biodistribution and dosimetry of ⁶⁸Ga-CBP8:

Izquierdo-Garcia and colleagues determine the biodistribution, dosimetry, and pharmacokinetics of this peptide-based, type I collagen-targeted probe in PET/MRI imaging of tissue fibrosis in healthy human subjects. **Page 775**

Tumor dosimetry phantoms: Carter and colleagues create computer-generated tumor models to assess the effects of tumor shape, size, and margin contour on absorbed dose for several clinically applied therapeutic radionuclides. **Page 782**

PET MFR and cancer survival: Fox and colleagues detail the prognostic capabilities of quantitative PET-derived myocardial flow reserve data for overall survival in a cohort of patients with known or suspected coronary artery disease. **Page 791**

¹⁸F-NOS PET and pulmonary inflammation: Wetherill and colleagues report on an ¹⁸F-NOS PET study quantifying inducible nitric oxide synthase expression to characterize oxidative stress and inflammation in the lungs of electronic cigarette users, cigarette smokers, and controls. **Page 797**

NIR-FME detection of esophageal neoplasia: Gabriëls and colleagues investigate the feasibility of an epidermal growth factor receptor-targeted tracer to improve near-infrared fluorescence molecular endoscopy detection of early-stage esophageal adenocarcinoma. **Page 803**

¹⁸F-Fluoromannitol PET and bacterial infection: Simpson and colleagues describe development of this novel radiopharmaceutical with the potential to specifically identify bacteria and monitor antibiotic efficacy in vivo. **Page 809**

PET in recurrent brain metastases: Schlürmann and colleagues summarize evidence from a meta-analysis on the diagnostic utility of amino acid PET in differential diagnosis of recurrent brain metastases and treatment-related changes. **Page 816**

Tau PET visual reads: Soleimani-Meigooni and Rabinovici offer perspective on the evolution of visual interpretation of tau PET imaging. **Page 822**

PET-measured activity of microspheres: Gnesin and colleagues report on a multicenter, multi-PET-device study comparing manufacturer-declared ⁹⁰Y activity in vials with quantitative ⁹⁰Y PET/CT assessment of the same vials and comment on resulting implications for selective internal radiation therapy dosimetry. **Page 825**