

**Discussions with leaders:** *JNM* contributor editor in chief, Johannes Czernin, MD, conducts an interview with Elisabeth de Vries, MD, PhD, known internationally for organizational work in standards for improving quality and effectiveness in cancer treatment. . . . . **Page 1337**

**State-of-the-art PET/MRI:** Hope and colleagues report on a 2017 conference cosponsored by the International Society for Magnetic Resonance in Medicine and SNMMI, with consensus findings on advances, challenges, and promising applications of the hybrid modality. . . . . **Page 1340**

**AI in molecular imaging/nuclear medicine:** Porenta offers perspective on the current value of artificial applications in practice and calls for evidence-based professional guidelines for specific clinical settings and patient populations. . . . . **Page 1347**

**Multimodality imaging of prostate cancer:** Ghafoor and colleagues provide an educational overview of the most important imaging modalities for each prostate cancer clinical state and the scientific evidence supporting their role in routine use. . . . . **Page 1350**

**Intention-to-treat analysis in PCa:** Schwenck and colleagues compare  $^{68}\text{Ga}$ -prostate-specific membrane antigen PET/CT,  $^{11}\text{C}$ -choline PET/CT, and CT imaging in biochemical recurrence of prostate cancer, with a focus on stage migration and resulting adapted curative radiotherapy options. . . . . **Page 1359**

**Outcome prediction in mCRC:** Woff and colleagues assess correlations between baseline whole-body metabolically active tumor volume measured by  $^{18}\text{F}$ -FDG PET/CT and circulating cell-free DNA in metastatic colorectal cancer, including combined prognostic value. . . . . **Page 1366**

**Tracer uptake after glioma resection:** Geisler and colleagues investigate uptake of  $^{18}\text{F}$ -FET and  $^3\text{H}$ -MET on PET in residual tumor after surgery in a rat glioma model, looking at possible false-positive uptake in treatment-related changes. . . . . **Page 1373**

**SHARPIN and  $\alpha_v\beta_3$  integrin imaging:** Siitonen and colleagues use RGD-based PET imaging to evaluate wild-type and shank-

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**Parotid gland external cooling for PRLT:** Yilmaz and colleagues explore the effect of external cooling with ice packs on  $^{177}\text{Lu}$ -PSMA-617 uptake by the parotid glands to minimize side effects in prostate-specific membrane antigen-targeted radioligand therapy. . . . . **Page 1388**

**PSMA imaging in PCa:** Ekmekcioglu and colleagues provide an overview of studies that have examined the role of  $^{68}\text{Ga}$ - and  $^{18}\text{F}$ -labeled prostate-specific membrane antigen PET in treatment planning for patients with biochemical recurrence of prostate cancer. . . . . **Page 1394**

**CXCR4 before stem cell transplantation:** Maurer et al. report on adverse effects associated with chemokine receptor CXCR4-chemokine receptor 4-directed endoradiotherapy with  $^{177}\text{Lu}$ - or  $^{90}\text{Y}$ -pentixather in patients pretreated for lymphoproliferative or myeloid malignancies. . . . . **Page 1399**

**Image-based bone marrow dosimetry:** Hagmarker and colleagues compare different image-based methods for bone marrow dosimetry and study the dose-response relationship during treatment with  $^{177}\text{Lu}$ -DOTATATE in patients with and without skeletal metastases. . . . . **Page 1406**

**$^{124}\text{I}/^{131}\text{I}$ -CLR1404 in pediatric solid tumors:** Marsh and colleagues evaluate the in vivo pharmacokinetics of  $^{124}\text{I}$ -CLR1404 and estimate theranostic dosimetry for  $^{131}\text{I}$ -CLR1404 molecular radiotherapy in murine xenograft models of neuroblastoma, rhabdomyosarcoma, and Ewing sarcoma. . . . . **Page 1414**

**FAP ligands with improved tumor retention:** Loktev and colleagues report on development and initial studies, in both mice and humans, of a series of fibroblast activation protein inhibitor-based variants for selective targeting of cancer-associated fibroblasts in tumor stroma. . . . . **Page 1421**

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**$^{64}\text{Cu}$ -intraoperative RIT:** Yoshii and colleagues describe the efficacy of  $^{64}\text{Cu}$ -intraoperative radioimmunotherapy with  $^{64}\text{Cu}$ -labeled anti-epidermal growth factor receptor antibody cetuximab as an adjuvant treatment after pancreatic surgery in an orthotopic xenografted mouse model. . . . . **Page 1437**

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**PET and CSF dynamics:** Schubert and colleagues investigate  $^{11}\text{C}$ -PiB PET signal in lateral ventricles in Alzheimer disease and mild cognitive impairment, as well as in multiple sclerosis as a disease model with cerebrospinal fluid clearance alterations without amyloid- $\beta$  tissue accumulation. . . . . **Page 1452**

**Optoacoustic thyroid imaging:** Roll and colleagues describe evaluation of hybrid multispectral optoacoustic tomography/ultrasound for imaging of thyroid disorders, including Graves disease and thyroid nodules, for semiquantitative tissue characterization and functional parameters in diagnostics. . . . . **Page 1461**

**Immuno-PET/fluorescence imaging linker:** Zettlitz and colleagues detail development of a universal dual-modality linker that facilitates site-specific conjugation to an antibody fragment for use in presurgical antigen-specific immuno-PET for whole-body evaluation and intraoperative fluorescence for image-guided surgery. . . . . **Page 1467**

**MMP imaging by pretargeting:** Xavier and colleagues use  $^{111}\text{In}$ -radiolabeled modified anthrax lethal toxin pretargeting for SPECT visualization of matrix metalloproteinase activity in tumor tissue in in vitro and mouse studies. . . . . **Page 1474**

**Multicenter preclinical PET reproducibility:** Mannheim and colleagues report on a study investigating comparability among preclinical imaging facilities in terms of PET data acquisition and analysis. . . . . **Page 1483**