

**Discussions with leaders:** Frank Bengel talks with Jeroen Bax, an internationally recognized leader in integrating nuclear imaging and cardiology in clinical practice. . . . . *Page 1455*

**Single-cell radiotracing:** Bartos and colleagues from Germany and Korea describe the process for single-cell radiotracer allocation via immunomagnetic cell sorting and provide examples of promising applications in neuroscience, oncology, and radiochemistry. . . . . *Page 1459*

**$\alpha$ -Synuclein PET and PD:** Seibyl looks at the rationale for development of an  $\alpha$ -synuclein-targeting PET agent in Parkinson disease and at the promise of such an agent for imaging and as part of therapeutic regimens. . . . . *Page 1463*

**Dosimetry in radiopharmaceutical therapy:** O'Donoghue and colleagues provide an educational overview of current radiopharmaceutical therapy in the context of dosimetry, including internal dosimetry methods, incorporating dosimetry calculations into therapy, patient-specific dosimetry workflow, and future prospects. . . . . *Page 1467*

**Single-domain antibody theranostics:** Wei and colleagues offer a focused summary of the latest developments in single-domain antibody-derived agents and propose strategies that can be used to improve the theranostic value of these agents. . . . . *Page 1475*

**Addressing PSMA controversy:** Pomykala and colleagues respond to recent commentary in the literature questioning both the utility of prostate-specific membrane antigen PET imaging in patient selection for PSMA-targeted therapy and its use in staging and disease prediction. . . . . *Page 1480*

**PSMA PET/CT screening and VISION:** Sartor provides perspective on the use of prostate-specific membrane antigen PET/CT in selection of patients for PSMA-targeted therapy through the lens of the VISION trial protocol, criteria, and results. . . . . *Page 1482*

**VISION-ineligible patient outcomes:** Hotta and colleagues assess the outcomes of patients with metastatic castration-resistant prostate cancer treated with  $^{177}\text{Lu}$ -prostate-specific membrane antigen who would have been screen failures based on PSMA PET/CT criteria in the VISION trial. . . . . *Page 1484*

**rhPSMA for therapy in prostate cancer:** Wurzer and colleagues identify the prostate-specific

membrane antigen-targeted radiohybrid ligand with the most favorable pharmacokinetics for  $^{177}\text{Lu}$ -radioligand therapy. . . . . *Page 1489*

**$^{225}\text{Ac}$ -PSMA in the post-ADT setting:** Sathekge and colleagues report on treatment outcomes and survival using this novel agent immediately after androgen deprivation therapy in a series of patients with metastatic castration-resistant prostate carcinoma. . . . . *Page 1496*

**$^{177}\text{Lu}$ -DOTATATE in chronic kidney disease:** Alsadik and colleagues investigate the efficacy and safety of  $^{177}\text{Lu}$ -DOTATATE in neuroendocrine tumor patients with reduced renal function. . . . . *Page 1503*

**SSTR2 heterogeneity assessed by CoV:** Fonti and colleagues test the utility of the coefficient of variation from  $^{68}\text{Ga}$ -peptide PET/CT in evaluation and quantification of somatostatin receptor subtype 2 expression heterogeneity in patients with neuroendocrine tumors and metastatic lesions. . . . . *Page 1509*

**DNA damage after  $^{131}\text{I}$  therapy:** Signore and colleagues explore whether thyroid remnant ablation with low activities of  $^{131}\text{I}$  is associated with DNA damage by evaluating the CometAssay, micronuclei, and chromosome aberrations with multicolor fluorescent in situ hybridization. . . . . *Page 1515*

**PD-L1 PET imaging in SCCHN:** Verhoeff and colleagues report on  $^{89}\text{Zr}$ -DFO-durvalumab (anti-programmed death ligand 1) PET/CT imaging in patients with recurrent or metastatic squamous cell carcinoma of the head and neck before monotherapy with durvalumab. . . . . *Page 1523*

**Interobserver variability in PSMA PET/CT:** Hagens and colleagues document the interobserver variability of 3 frequently used clinical radiotracers targeting the prostate-specific membrane antigen ( $^{18}\text{F}$ -DCFpYL,  $^{18}\text{F}$ -PSMA-1007, and  $^{68}\text{Ga}$ -PSMA-11) in primary prostate cancer staging. . . . . *Page 1531*

**$^{18}\text{F}$ -PFPN PET and malignant melanoma:** Zhang and colleagues detail the biodistribution and radiation dosimetry of  $^{18}\text{F}$ -PFPN in healthy volunteers and examine its diagnostic utility in patients with malignant melanoma. . . . . *Page 1537*

**$^{223}\text{Ra}$ -induced transient myelotoxicity:** Parlani and colleagues explore the consequences of  $^{223}\text{Ra}$  treatment on bone marrow biology in a preclinical model. . . . . *Page 1544*

**In vivo imaging of reactive astrogliosis:** Ville-

performance of  $^{18}\text{F}$ -SMBT-1, a novel MAO-B PET tracer, as a potential surrogate marker of reactive astrogliosis in neurodegeneration. *Page 1551*

**Reactive astrogliosis in aging and AD:** Ville-magne and colleagues assess the clinical performance of  $^{18}\text{F}$ -SMBT-1 PET across the Alzheimer disease continuum as a potential surrogate marker of reactive astrogliosis and early neurodegeneration. . . . . *Page 1560*

**Tracking innate immune activation:** Lucot and colleagues investigate translocator protein 18 kDa PET plus PET imaging of the triggering receptor expressed on myeloid cells for detection of innate immune responses in a mouse model of dopaminergic neuron degeneration. . . . . *Page 1570*

**Total-body PET/CT in arthritis:** Abdelhafez and colleagues detail the performance of an ultra-low-dose,  $^{18}\text{F}$ -FDG total-body PET/CT protocol for evaluating systemic joint involvement in autoimmune inflammatory arthritides and correlate results with joint-by-joint rheumatologic examination and standardized rheumatologic outcome measures. . . . . *Page 1579*

**PET and IBD:** Seo and colleagues describe studies conducted to elucidate whether  $^{18}\text{F}$ -FSPG PET imaging of antiporter system  $x_c^-$  of immune cells can accurately assess inflammatory bowel disease activity in murine models and patients. . . . . *Page 1586*

**$^{18}\text{F}$ -FDG fetal dosimetry and PET/MRI:** Zanotti-Fregonara and colleagues analyze data from 11 women injected with  $^{18}\text{F}$ -FDG for cancer staging and scanned with PET/MRI during the first 2 trimesters of pregnancy. . . . . *Page 1592*

**Toward broader  $^{68}\text{Ga}$ -citrate use:** Sulamo and colleagues study the kinetics and dosimetry for PET applications in inflammatory and infectious diseases and cancer. . . . . *Page 1598*

**Data-driven motion correction in brain PET:** Spangler-Bickell and colleagues present a reader-based evaluation and atlas-based quantitative analysis of a fully data-driven motion correction approach for brain PET in a clinical cohort. . . . . *Page 1604*

**PET/MRI and PET/CT radiomics harmonization:** Leithner and colleagues determine whether ComBat harmonization improves  $^{18}\text{F}$ -FDG PET radiomics-based tissue classification in pooled PET/MRI and PET/CT datasets. . . . . *Page 1611*