

PET measurement of tumor metabolism: Jhaveri and Linden provide an overview of the current status of ^{18}F -FDG PET in early treatment response and the promise for routine clinical use as an integrated biomarker in cancer therapies. **Page 1**

DOTATOC uptake in meningioma and glioma: Collamati and colleagues report on ^{90}Y -DOTATOC uptake in meningiomas and high-grade gliomas as part of development of a novel radioguided surgery technique for cerebral tumors using β^- radiation. **Page 3**

^{18}F -FET PET in high-grade astrocytomas: Jansen and colleagues investigate the value of dynamic ^{18}F -FET PET in providing prognostic information at primary diagnosis in patients with astrocytic high-grade gliomas. **Page 9**

Tracer uptake in OSCC inflammation: Kim and colleagues demonstrate the effects of intra-tumoral inflammation on ^{18}F -FDG uptake in oral squamous cell carcinoma and assess the ability of associated parameters to predict tumor progression. **Page 16**

Pre-RT PET in OSCC: Kang and colleagues research the impact of an additional PET/CT scan before adjuvant radiotherapy or concurrent chemoradiotherapy on disease-free and disease-specific survival in patients with oral squamous cell carcinoma. **Page 22**

PET as cancer biomarker: Connolly and colleagues assess changes in maximum standardized uptake values corrected for lean body mass on ^{18}F -FDG PET as predictors of pathologic complete response to chemotherapy in human epidermal growth factor receptor 2-negative breast cancer. **Page 31**

^{18}F -FDG PET heterogeneity and volume: Hatt and colleagues explore in patients with various cancers the potential of heterogeneity quantification by textural features for providing valuable clinical information in addition to functional volume. **Page 38**

TLG and NSCLC: Park and colleagues detail the prognostic value of various ^{18}F -FDG PET/CT metabolic indices, including total lesion glycolysis, in surgically resected stage IA non-small cell lung cancer. **Page 45**

Estrogen receptor imaging in ovarian cancer: van Kruchten and colleagues evaluate the feasibility of ^{18}F -FES PET to noninvasively determine tumor estrogen receptor α expression status in patients with epithelial ovarian cancer. **Page 50**

^{62}Cu -ETS PET and tumor perfusion: Fletcher and colleagues describe whole-body ^{62}Cu -ETS PET/CT tumor perfusion imaging in patients with metastatic renal carcinoma and compare the performance of this tracer as a quantitative tumor perfusion marker with that of ^{15}O -water. **Page 56**

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High- and low-specific-activity ^{18}F -DOPA: Kuik and colleagues perform a direct comparison of high- and low-specific-activity ^{18}F -DOPA in a neuroendocrine tumor model to determine whether observed differences have implications for the biologic behavior and imaging properties of the tracer. **Page 106**

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Amyloid SPECT with DRM106: Chen and colleagues investigate $^{123/125}\text{I}$ -DRM106, a compound with sufficient affinity for synthesis of human amyloid- β peptide fibrils and satisfactory metabolic stability, as a SPECT ligand in living brains. **Page 120**

PET and pulmonary fibrosis: Bondue and colleagues explore the ability of ^{18}F -FDG and ^{18}F -FBEM-labeled leukocyte PET/CT to monitor metabolic activity and leukocyte recruitment in a mouse model of pulmonary fibrosis. **Page 127**

Novel $\text{D}_{2/3}$ receptor agonist: Shalgunov and colleagues detail the synthesis and in vitro and in vivo small-animal assessment of a dopamine $\text{D}_{2/3}$ receptor agonist ligand for PET, with potential for imaging of synaptic transmission. **Page 133**

PSMA-targeted photoimmunotherapy: Watanabe and colleagues compare the effectiveness of small and bivalent antibody fragments (including anti-prostate-specific membrane antigen diabody and minibody) with intact immunoglobulin G as photoimmunotherapy agents. **Page 140**

Quantitative scanner characterization: Sunderland and Christian review results and data from the SNMMI Clinical Trials Network scanner validation experience, aimed at quantifying and minimizing PET/CT imaging variability across cancer clinical trials. **Page 145**

PET and WAT browning: Park and colleagues investigate in mice the potential of ^{18}F -FDG uptake as an imaging biomarker to monitor the process of white adipose tissue browning. **Page 153**

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