

- eINDs and first-in-human studies:** Schwarz and Oyama review the requirements and advantages of the FDA Exploratory Investigational New Drug mechanism for rapid translation of radiopharmaceuticals to initial human studies. **Page 497**
- γ H2AX foci and radiation:** Bussink and Span offer perspective on quantification of kinetics of phosphorylated histone variant H2AX foci in peripheral blood lymphocytes for exploration of genomic instability and radiation-induced toxicity and preview an article on this topic in this issue. **Page 501**
- PET assessment of vascular inflammation:** Chen and Dilsizian look at the relevance and appropriate use of standardized uptake values and tumor-to-blood-pool ratios in accurate PET quantification of radiotracer activity in vascular wall plaque. **Page 503**
- γ -H2AX and peripheral blood lymphocyte toxicity:** Denoyer and colleagues investigate the utility of phosphorylated histone variant H2AX in assessing DNA effects and normal tissue toxicity after extended internal irradiation with ^{177}Lu -DOTA-octreotate peptide receptor radionuclide therapy for neuroendocrine tumors. **Page 505**
- TSPO imaging and neuropathology in glioma:** Su and colleagues explore ^{11}C -(R)PK11195 binding in human gliomas and its relationship with 18-kDa mitochondrial translocator protein expression in tumor tissue and glioma-associated microglia/macrophages within tumors. **Page 512**
- PET/CT-guided lung lesion biopsies:** Guralnik and colleagues assess whether information provided by ^{18}F -FDG PET/CT can decrease false-negative rates and improve the accuracy of CT-guided fine-needle aspiration in patients with lung nodules. **Page 518**
- ^{18}F -FDG PET in gastric cancer staging:** Kaneko and colleagues provide a systematic review and results of a retrospective study on significant predictors of ^{18}F -FDG avidity and on improved selection of patients with gastric adenocarcinoma for staging PET. **Page 523**
- PET prediction and soft-tissue sarcoma:** Fendler and colleagues determine the prognostic accuracy of established PET and CT response criteria in patients with soft-tissue sarcoma after combined chemotherapy plus regional hyperthermia. **Page 530**
- Biopsy specimen autoradiography:** Fanchon and colleagues describe a method for quantitative autoradiography of core biopsy specimens using PET/CT guidance, correlating ^{18}F -FDG tracer uptake in situ with histopathology findings on a millimeter scale. **Page 538**
- Ultra-low-dose stress-first MPI:** Einstein and colleagues assess outcomes and radiation doses of patients with chest pain undergoing myocardial perfusion imaging on a high-efficiency SPECT camera using an ultra-low-dose stress-first protocol. **Page 545**
- PET atherosclerosis imaging:** Huet and colleagues identify differences in results stemming from protocol variability in ^{18}F -FDG PET imaging of atherosclerosis inflammation and suggest approaches for increasing measurement reliability. **Page 552**
- $\text{A}\beta$ PET tracking over time:** Chen and colleagues describe an image analysis strategy with improved power for ^{18}F -florbetapir PET tracking of longitudinal amyloid- β changes and evaluating $\text{A}\beta$ -modifying treatments. **Page 560**
- PET and $\text{A}\beta$ change measurement:** Landau and colleagues evaluate several candidate brain regions of interest and their influence on cortical amyloid- β change as seen on ^{18}F -florbetapir PET over a 2-year period in participants from the Alzheimer Disease Neuroimaging Initiative. **Page 567**
- Pediatric cerebral ^{18}F -FDG uptake:** Hua and colleagues report on age-associated ranges for regional cerebral ^{18}F -FDG uptake ratios on PET in children with non-central nervous system-related malignant disease as a surrogate to normative data from healthy children. **Page 575**
- Imaging human aromatase:** Biegon and colleagues use ^{11}C -vorozole PET to provide baseline information defining distribution of the enzyme aromatase in healthy men and women and outline the potential for routine assessment of physiologic changes in estrogen synthesis capacity. **Page 580**
- ^{18}F -MNI-444 PET in humans:** Barret and colleagues describe the first in vivo evaluation of ^{18}F -MNI-444, a novel PET radiotracer for imaging adenosine 2A receptors, in healthy human subjects. **Page 586**
- Low-radiation MPI:** Dorbala and colleagues provide an educational overview of the current trend toward lower radiation doses in radionuclide myocardial perfusion imaging and offer a practical approach using traditional and novel technologies. **Page 592**
- MSC-mediated NIS gene delivery:** Knoop and colleagues detail a novel and promising theranostic methodology using sodium iodide symporter-mediated radionuclide therapy of metastatic cancer after mesenchymal stem cell-mediated gene delivery. **Page 600**
- Reverse Warburg effect and ^{18}F -FDG:** Zhang and colleagues report on the cellular effects of fasting and feeding on ^{18}F -FDG uptake in a mouse model of human non-small cell lung cancer. **Page 607**
- Triple-receptor targeting of NETs:** Reubi and Waser explore the utility of a cocktail of radioligands targeting somatostatin type 2, glucagonlike peptide 1, and glucose-dependent insulinotropic peptide receptors in improving tumor labeling in gut and bronchial neuroendocrine tumors. **Page 613**
- ssDNA aptamer tenascin-C imaging:** Jacobson and colleagues report on the development of a PET tracer based on a tenascin-C-specific single-strand DNA aptamer suitable for non-invasive identification of tumoral tenascin-C expression. **Page 616**
- Bradykinin B1 receptor imaging:** Lin and colleagues investigate novel ^{68}Ga -labeled agents for PET imaging of expression of bradykinin B1 receptor, a G-protein-coupled receptor over-expressed in a variety of cancers. **Page 622**
- ^{86}Y -labeled PSMA inhibitors for dosimetry:** Banerjee and colleagues report on synthesis and evaluation of 3 low-molecular-weight compounds labeled with ^{86}Y for quantitative PET imaging of prostate-specific membrane antigen. **Page 628**
- TOF PET/MR and quantification errors:** Mehranian and Zaidi assess the effect of time-of-flight image reconstruction on PET quantification errors induced by MR imaging-based attenuation correction. **Page 635**
- PET/MR joint credentialing statement:** Jadvar and colleagues from the American College of Radiology and Society of Nuclear Medicine and Molecular Imaging outline the responsibilities and qualifications for physicians performing brain PET/MR imaging. **Page 642**
- Administered activities in children:** Fahey and members of the Nuclear Medicine Global Initiative present the first of a 2-part report on standardization of administered activities in pediatric nuclear medicine, focusing on current understanding of carcinogenic risks and relevant dosimetric models. **Page 646**