

Novel ultrasound techniques and targets: Wilson and colleagues review recent developments in acoustic and photoacoustic molecular imaging of cancer. *Page 1851*

PET in HER2-positive breast cancer: Kenny provides perspective on current understanding of ¹⁸F-FDG uptake as a predictor of treatment response in this genetically linked disease setting and previews a large multicenter study in this issue of *JNM*. *Page 1855*

Hematotoxicity after PRRT: Sabet and colleagues investigate the incidence, severity, and reversibility of long-term hematotoxicity in a large cohort of patients undergoing peptide receptor radionuclide therapy with ¹⁷⁷Lu-octreotate for metastatic neuroendocrine tumors. *Page 1857*

¹⁸F-FDG and anti-HER2 drug response: Gebhart and colleagues assess the early metabolic effects of neoadjuvant lapatinib, trastuzumab, and their combination on primary tumors and their predictive value for pathologic complete response. *Page 1862*

⁶⁴Cu-DOTA-trastuzumab PET: Tamura and colleagues report on safety, distribution, internal dosimetry, and initial HER2-positive tumor images with this ⁶⁴Cu-labeled molecular target probe in humans. *Page 1869*

PET and serum marker CA19.9: Viola-Villegas and colleagues use an ⁸⁹Zr-labeled PET radiotracer targeting tumor-associated CA19.9 to probe sites of biomarker secretion as a means of addressing current confounding results with biomarkers and immunoPET. *Page 1876*

VCAM-1 and chemotherapy response: Scalici and colleagues research the potential for vascular cell adhesion molecule-1 as a marker of peritoneal metastasis and tumor response in platinum-based chemotherapy for ovarian cancer. *Page 1883*

Radioembolization in colorectal liver metastases: Rosenbaum and colleagues provide a wide overview of available data on tumor response and survival after ⁹⁰Y radioembolization in salvage patients with colorectal cancer liver metastases. *Page 1890*

Quantification of brown fat function: Cypess and colleagues use a combination of human and rodent models to assess relationships between changes in brown adipose tissue blood flow and glucose utilization. *Page 1896*

Biodistribution of ¹¹C-MET in pediatric patients: Harris and colleagues evaluate the biodistribution of ¹¹C-labeled methionine in non-tumor-involved organs in pediatric patients and young adults studied for malignant disease. *Page 1902*

Aβ load and regional dysfunction: Frings and colleagues elucidate the relationships among neocortical amyloid-β load, regional neuronal function, and memory impairment using ¹¹C-PIB and ¹⁸F-FDG PET in patients with early Alzheimer disease. *Page 1909*

TSPO imaging with ¹⁸F-PBR111: Guo and colleagues conduct investigative PET studies in healthy individuals with high, low, or mixed affinities for translocator protein binding radioligands. *Page 1915*

Radionuclide imaging in epilepsy: Kumar and Chugani offer an educational overview of current PET and SPECT imaging approaches and advantages in patients with various epilepsy syndromes. *Page 1924*

Intratumor PET correlations: Bradshaw and colleagues characterize spatial correlations of glucose metabolism, proliferation, and hypoxia in 2 histologic types of canine tumors and describe the importance of histology-specific PET correlations for biologic targeting. *Page 1931*

PET and cardiac hypertrophy: Hernandez and colleagues examine the longitudinal kinetics of ¹⁸F-FDG and ¹⁸F-FTHA as analogs of glucose and fatty acid to quantify metabolic substrate shifts in a rat model of left ventricular hypertrophy and failure. *Page 1938*

Mouse brain PET/CT: Welch and colleagues consider the effects of ¹⁸F-FDG PET/CT scan length, image registration and quantification methods, and smoothing during preclinical statistical parametric mapping. *Page 1946*

Abnormal glutamate transmission and PET: Wyckhuys and colleagues look at the potential for ¹¹C-ABP688, a PET ligand that binds to an allosteric site of the metabotropic glutamate 5 receptor, with β microprobes after pharmacologic challenge in rats. *Page 1954*

Awake NHP ¹¹C-flumazenil PET: Sandiego and colleagues detail the development of awake nonhuman primate imaging with minimal head restraint using a γ-aminobutyric acid-benzodiazepine radiotracer. *Page 1962*

PET and attention in rats: Xi and colleagues use ¹⁸F-FDG uptake to assess brain glucose metabolic changes in a rat model of attention and correlate these changes with behavior. *Page 1969*

Biocompatible SPION for tumor imaging: Lee and colleagues describe nonpolymeric surface modification of superparamagnetic iron oxide nanoparticles with the potential to enhance advanced biocompatible contrast agents for diagnostic imaging in vivo. *Page 1974*

¹⁸F-labeled HER2 Affibody molecule: Glaser and colleagues assess different ¹⁸F radiolabeling strategies for the HER2-specific Affibody molecule Z_{HER2:2891} and identify an optimal radiolabeling strategy for automated manufacture. *Page 1981*

Pretargeting with Diels-Alder reaction: Rossin and colleagues detail in vivo validation of a chemical pretargeting method with advantages over noncovalent biologic interactions and potential for rapid translation. *Page 1989*

Lipidots and steroid organs: Mérian and colleagues characterize the in vivo stability, biodistribution, and pharmacokinetics of lipidots, nanoparticulate lipid delivery vectors for drugs and contrast agents. *Page 1996*

Small-bowel and colon transit guidelines: Maurer and experts from SNMMI and the European Association of Nuclear Medicine offer guidelines to assist nuclear medicine practitioners in recommending, performing, interpreting, and reporting transit studies of the small bowel and colon. *Page 2004*