THIS MONTH IN

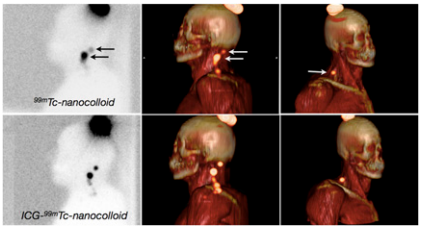
JNM

PET/CT staging in NSCLC: Gregory and colleagues detail the effect on management and prognostic value of ^{18}F-FDG PET/CT staging in patients with non–small cell lung cancer being considered for potentially curative therapies. . . . . ***Page 1007***

PET and RCTs: Scheibler and colleagues provide an overview of the numbers, clinical topics, design, and quality of current randomized controlled trials evaluating PET and PET/CT. . . . . ***Page 1016***

Hybrid sentinel node mapping: Buckle and colleagues describe intraprostatic injection of indocyanine green–^{99m}Tc-nanocolloid to enable both preoperative sentinel node identification and intraoperative visualization. . . . . ***Page 1026***

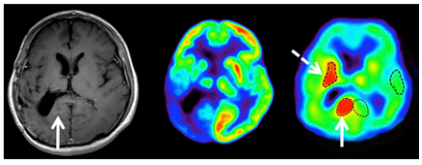
Hybrid sentinel node tracer validation: Brouwer and colleagues compare the lymphoscintigraphic drainage patterns of fluorescent indocyanine green and ^{99m}Tc-nanocolloid with the drainage pattern of ^{99m}Tc-nanocolloid alone in patients with melanoma or penile carcinoma. . . . . ***Page 1034***



Noise considerations in PET quantification: Lodge and colleagues measure aspects of bias and reproducibility associated with maximum and peak ^{18}F-FDG PET SUVs using clinical treatment monitoring data to provide realistic noise contexts. . . . . ***Page 1041***

Response assessment with ^{18}F-FET PET: Galldiks and colleagues explore the predictive value of ^{18}F-FET PET in determining treatment response in glioblastoma and compare results with those obtained using MRI. . . . . ***Page 1048***

Recurrent gliomas and ^{11}C-AMT PET: Alkonyi and colleagues evaluate the utility of α-^{11}C-methyl-L-tryptophan PET supplemented by tracer kinetic analysis for distinguishing recurrent gliomas from radiation injury. . . . . ***Page 1058***



^{18}F-FE-PE2I in humans: Sasaki and colleagues look at quantification of dopamine transporters in human volunteers, with a new PET radioligand that in animal studies has shown fast kinetics and low production of radiometabolites. . . . ***Page 1065***

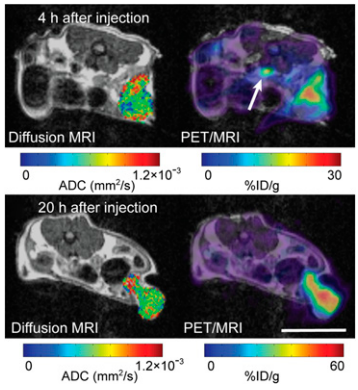
PET and MRI in SCA17: Brockmann and colleagues assess functional and morphologic imaging characteristics to identify evidence of neurodegeneration in early stages of spinocerebellar ataxia type 17, a rare autosomal disorder. . . . . ***Page 1074***

Calcium score and preoperative risk: Ghadri and colleagues research the added value of coronary artery calcium score as an adjunct to SPECT myocardial perfusion imaging for cardiac risk stratification before noncardiac surgery. . . . . ***Page 1081***

^{123}I-FP-CIT SPECT SERT measurement: Koopman and colleagues examine the extrastriatal binding of this agent commonly used to assess striatal dopamine transporter binding to determine optimal time points for SPECT measurement of serotonin transporter binding. . . . ***Page 1087***

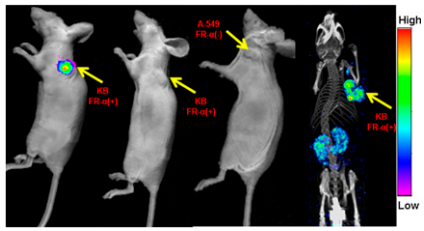
Imaging multiple myeloma: Walker and colleagues present an educational overview of imaging of multiple myeloma and related plasma cell dyscrasias, including the role of advanced imaging in diagnosis, staging, and restaging. . . . . ***Page 1091***

Quantitative in vivo PET/MR: Ng and colleagues describe and evaluate the ability of a first-generation, small-animal MRI-compatible PET scanner to accurately depict heterogeneous patterns of radiotracer uptake in tumors. . . . . ***Page 1102***



^{18}F-Affibody for EGFR imaging: Miao and colleagues report on the successful site-specific labeling of an Affibody analog for PET imaging of epidermal growth factor receptors and review the potential for translation to clinical use. . . . . ***Page 1110***

ER/PR PET and endocrine therapy: Fowler and colleagues use estrogen- and progestin-based radiopharmaceuticals to image estrogen receptor-α and progesterone receptor in mouse mammary tumors during hormonal therapy to determine whether changes can predict therapeutic response. . . . . ***Page 1119***



PARP-1 and ^{131}I-MIBG/topotecan: McCluskey and colleagues report on the potential of polyadenosine diphosphate ribose polymerase inhibition as a means to enhance targeted therapy with ^{131}I-MIBG and the topoisomerase I inhibitor topotecan. . . . . ***Page 1146***

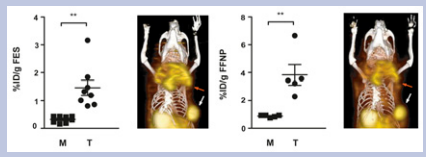
Folate receptor-α–specific targeting ligand: Vaitilingam and colleagues detail the development of a reduced and alkylated form of folic acid for use in a targeting ligand to selectively deliver attached imaging and therapeutic agents to tumor cells. . . . . ***Page 1127***

Growth dynamics of glioblastomas: Viel and colleagues use multimodal small animal PET and MRI to analyze the growth of angiogenesis-dependent and -independent experimental glioblastomas at various stages. . . . . ***Page 1135***

No-carrier-added ^{131}I-MIBG: Matthay and colleagues establish the maximum tolerated dose of no-carrier-added ^{131}I-MIBG in patients with resistant neuroblastoma and assess tumor and organ dosimetry and overall response. . . . . ***Page 1155***

ON THE COVER

Estrogen receptor-α and progesterone receptor are expressed in most human breast cancers and are important predictive factors for directing therapy. A preclinical study in this issue of *JNM* demonstrates that imaging baseline tumoral ^{18}F-FES uptake and initial changes in ^{18}F-FFNP uptake is a potentially useful, noninvasive strategy to identify responders and nonresponders to endocrine therapy at an early stage.



See page 1121.