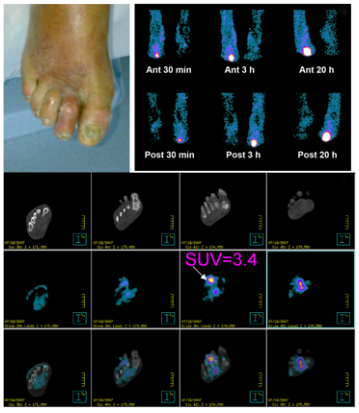
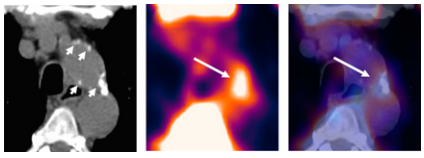
Imaging glutamine metabolism: Rajagopalan and DeBerardinis review the essential aspects of glutamine metabolism in cancer cells and discuss both current and future opportunities for imaging in cancer patients. . . . . ***Page 1005***

^{18}F-FDG and the diabetic foot: Palestro looks at reasons for disagreement in available data on the role of PET and PET/CT in the evaluation of diabetic foot infections and previews a related article in this issue of *JNM*. . . . . ***Page 1009***

Sequential PET/CT in the diabetic foot: Familiari and colleagues use sequential ^{18}F-FDG PET/CT in diabetic patients with high suspicion of osteomyelitis to define objective interpretation criteria and compare results with those from white blood cell scintigraphy. . . . . ***Page 1012***

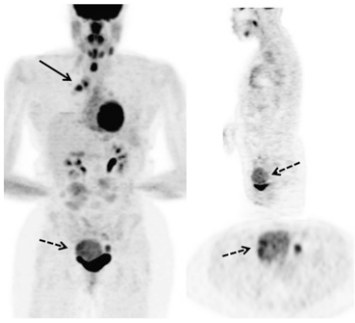


Dual-tracer plaque imaging: Derlin and colleagues compare macrophage activity as determined by ^{18}F-FDG PET and ongoing mineral deposition as measured by ^{18}F-sodium fluoride PET in atherosclerotic plaque and correlate these findings with CT-assessed calcified plaque burden. . . . . ***Page 1020***



Decreasing pediatric PET/CT dose: Alessio and colleagues determine whether shorter acquisition durations or lower ^{18}F-FDG injected activity could be used for pediatric ^{18}F-FDG PET/CT examinations while maintaining diagnostic utility. . . . . ***Page 1028***

Fetal radiation exposure from PET: Takalkar and colleagues estimate the fetal radiation exposure resulting from ^{18}F-FDG PET procedures performed in pregnant women with malignancies. . . . ***Page 1035***

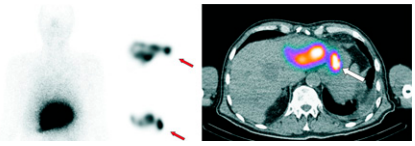


^{177}Lu-DOTATATE in neuroblastoma: Gains and colleagues report on a study designed to determine whether ^{68}Ga-DOTATATE PET/CT can select children with primary refractory or relapsed high-risk neuroblastoma for treatment with ^{177}Lu-DOTATATE and whether this is a viable therapeutic option. . . . ***Page 1041***

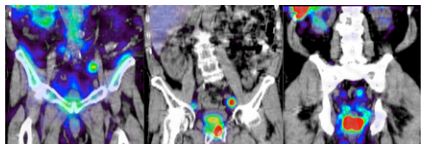
Hypoxia and metastatic renal cancer: Hugonnet and colleagues use ^{18}F-fluoromisonidazole PET/CT to assess initial tumor hypoxia in metastatic renal cell carcinoma and changes after sunitinib treatment and explore the possible prognostic utility of these data. . . . . ***Page 1048***

Complementary PET and MRI data: Choi and colleagues investigate whether apparent diffusion coefficient values from diffusion-weighted MRI and standardized uptake values from ^{18}F-FDG PET/CT can be effectively correlated in patients with head and neck squamous cell carcinoma. . . . . ***Page 1056***

Sodium perchlorate in radioembolization: Sabet and colleagues determine whether oral administration of $NaClO_4$ before ^{99m}Tc-macroaggregated albumin scanning will improve radioembolization accuracy by blocking free ^{99m}Tc-pertechnetate gastric uptake. . . . . ***Page 1063***



SPECT/CT prostate lymphoscintigraphy: Seo and colleagues describe a clinical procedure for mapping lymphatic drainage from the prostate using SPECT/CT and filtered ^{99m}Tc-sulfur nanocolloid as an alternative to a proproprietary product not approved in the United States. ***Page 1068***

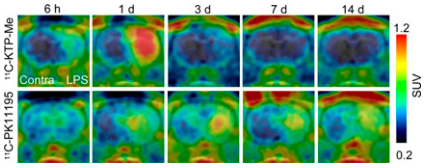


GLP-1 and sst$_2$ receptors in insulinomas: Wild and colleagues report on a study designed to assess the roles of glucagon-like peptide-1 imaging and somatostatin receptor subtype 2 imaging in management of patients with malignant insulinomas. . . . . ***Page 1073***

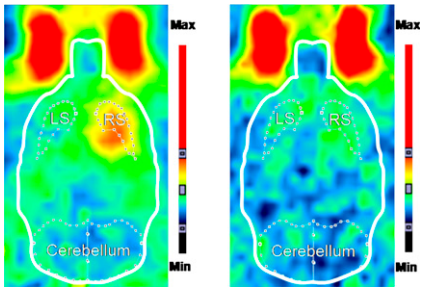
MPI versus CTA: Tamarappoo and Hachamovitch provide an education overview of advances in CT coronary angiography and myocardial perfusion imaging and discuss the relative merits of anatomy- and physiology-based testing in patients with known or suspected coronary artery disease. . . . . ***Page 1079***

^{123}I-MIP-1072 and tumor mass: Hillier and colleagues explore the utility of this prostate-specific membrane antigen–targeting agent in monitoring paclitaxel therapy in in vitro and xenograft studies. . . . . ***Page 1087***

Imaging of COX-1 in neuroinflammation: Shukuri and colleagues describe ex vivo and in vivo studies with an ^{11}C-labeled ketoprofen methyl ester PET probe that targets cyclooxygenase-1 and -2 for imaging neuroinflammation. . . ***Page 1094***



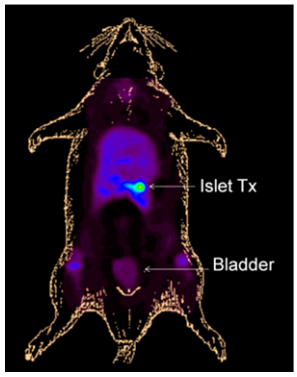
PET reporter gene system for brain: Vandeputte and colleagues report on animal studies validating a PET reporter system for imaging gene expression in the intact brain, using human type 2 cannabinoid receptors. . . . . ***Page 1102***



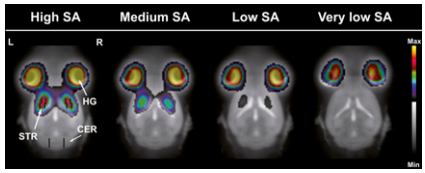
^{64}Cu- or ^{68}Ga-somatostatin antagonists: Fani and colleagues describe the development and analysis of four ^{64}Cu or ^{68}Ga radioantagonists for PET of somatostatin receptor subtype 2–positive tumors. . . . . ***Page 1110***

PET and hepatic blood perfusion: Winterdahl and colleagues detail a PET method for quantification of hepatic blood perfusion using blood-to-cell clearance of ^{18}F-FDG, 3-*O*-^{11}C-methylglucose, or 2-^{18}F-fluoro-2-deoxy-D-galactose without the need for portal venous blood samples. . . . . ***Page 1119***

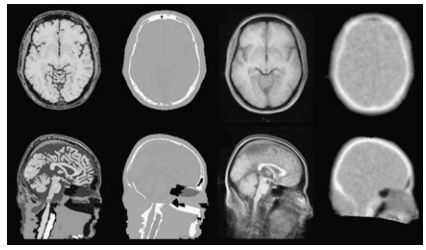
Islet cell ^{18}F-fallypride PET: Garcia and colleagues introduce a novel dopamine D_2/D_3 receptor–based PET method to study islet cells in the rat pancreas and in islet cell transplantation. . . . . ***Page 1125***



PET of D_2 receptors in mice: Fischer and colleagues use ^{11}C-raclopride to test the feasibility of the multiple-ligand-concentration receptor assay for D_2 receptor quantification in mice and discuss the potential for assessing receptor expression and gene function. . . . . ***Page 1135***



Attenuation correction for PET/MRI: Malone and colleagues compare 2 modeled approaches to produce accurate attenuation correction for brain PET scans on combined PET/MRI systems. . . . . ***Page 1142***



Transporter occupancy of SEP-225289: DeLorenzo and colleagues describe an open-label PET study to investigate the dopamine and serotonin occupancy of this novel transporter inhibitor and discuss potential applications in the drug development process. . . . . ***Page 1150***

Commentary on dosimetry: Stabin and colleagues from the SNM Radiation Dose Assessment Resource task group provide an overview of the current status of radiation dosimetry in nuclear medicine and its evolution toward patient-specific applications. . . . . ***Page 1156***

Cardiovascular nuclear imaging: Members of the SNM Cardiovascular Council Board of Directors summarize appropriate-use criteria and guidelines for minimizing radiation exposure and optimizing the clinical use of radionuclide cardiac imaging studies. . . . . ***Page 1162***

ON THE COVER

Shorter ^{18}F-FDG PET/CT acquisitions can be used for pediatric examinations without loss of diagnostic utility. The reduced scan time decreases the potential for motion artifacts, improves patient comfort, and decreases the length of sedation. In the example shown here, a 61-kg patient was imaged at 1, 2, 3, and 5 min per field of view, and all acquisition durations in this instance were graded as adequate.

See page 1031.