THIS MONTH IN

JNM

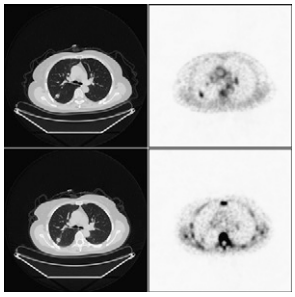
Combining optical and nuclear imaging: Culver and colleagues provide a molecular imaging focus on the current status of multimodality applications fusing PET or SPECT with optical techniques in small-animal and clinical studies. . . . ***Page 169***

Sudden arrhythmic cardiac death: Travin assesses the role for radionuclide imaging approaches in prediction and prevention of death resulting from ventricular arrhythmia, including the potential for management benefits in patients with implantable cardioverter defibrillators. . . . . ***Page 173***

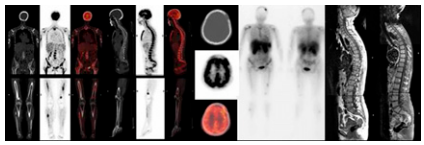
Resolving ^{123}I-ADAM neuroimaging questions: Slifstein reviews past discrepancies in modeling approaches for neuroimaging with the serotonin transporter radioligand ^{123}I-ADAM and previews a related article in this issue of *JNM*. . . . . ***Page 176***

PET and CT accuracy in pulmonary nodules: Fletcher and colleagues report on a multiinstitutional study comparing the ability of PET and CT imaging to characterize solitary lung nodules in a population of military veterans. . . . . ***Page 179***

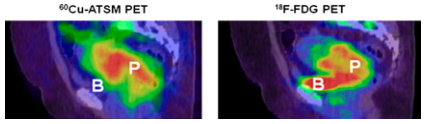
Dual-tracer PET/CT in lung nodules: Tian and colleagues describe the results of a clinical trial investigating the complementary capabilities of ^{18}F-FDG and ^{18}F-FLT in PET/CT imaging of pulmonary nodules. . . .***Page 186***



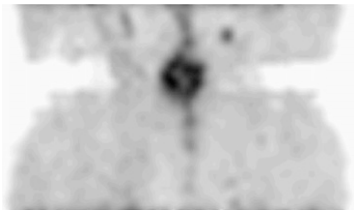
Optimal imaging strategies in multiple myeloma: Fonti and colleagues compare the contributions of ^{18}F-FDG PET/CT, ^{99m}Tc-sestamibi scintigraphy, and MRI in whole-body and regional evaluation of patients with newly diagnosed multiple myeloma. . . . . ***Page 195***



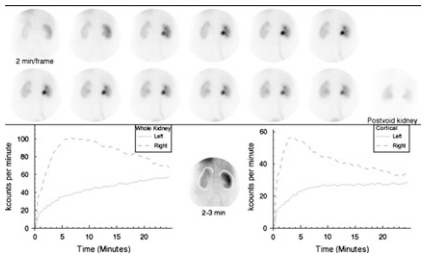
PET and tumor hypoxia: Dehdashti and colleagues report on the use of pretreatment ^{60}Cu-ATSM PET in assessing tumor oxygenation as a predictor of outcomes in patients with cervical cancer. . . . ***Page 201***



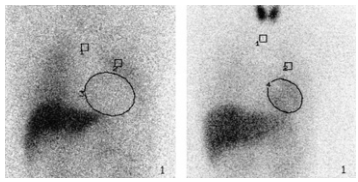
Prostate acetate kinetics: Schiepers and colleagues describe models of acetate kinetics in prostate cancer and discuss the potential benefits of 1-^{11}C-labeled acetate PET in staging and monitoring of the disease. . . . . ***Page 206***



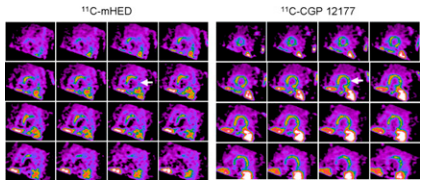
Automated assessment of renal obstruction: Taylor and colleagues compare diuresis renography interpretations generated by a renal expert system with those of 3 experienced readers and outline the utility of this tool for education and clinical decision support. . . . . ***Page 216***



Candidates for ICD: Nagahara and colleagues assess altered autonomic function, as measured by cardiac MIBG activity, as a partial predictor of fatal cardiac events and as a method for identifying patients who would benefit most from implantable cardioverter defibrillators. . . . . ***Page 225***

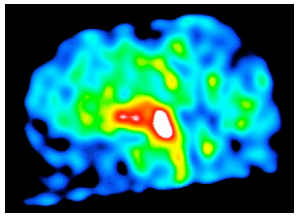


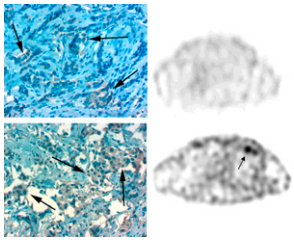
Sympathetic mismatch in ischemic CHF: Caldwell and colleagues describe research with PET imaging to determine whether a specific presynaptic-to-postsynaptic mismatch characterizes cardiac sympathetic function in ischemic congestive heart failure. . . . . ***Page 234***

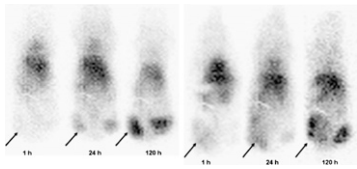


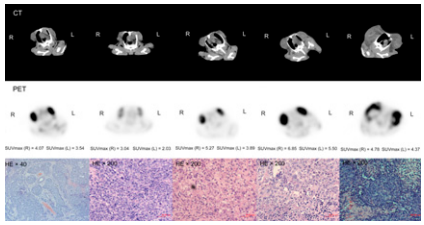
Abbreviating misery perfusion scans: Kobayashi and colleagues report on the development of a count-based method for shorter continuous inhalation in ^{15}O-gas PET assessment of hemodynamic status in patients with ischemic cerebrovascular disease. . . . . ***Page 242***

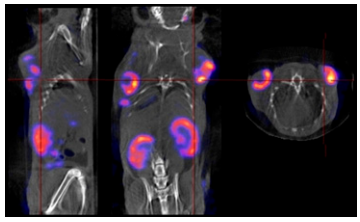
Evaluation of ^{123}I-ADAM imaging: Frokjaer and colleagues explore several kinetic and semiquantitative methods for assessing serotonin transporter binding using ^{123}I-ADAM SPECT in humans. . . . ***Page 247***

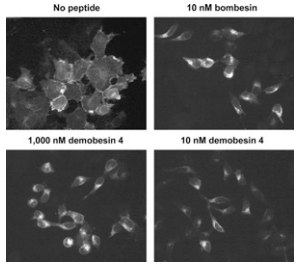


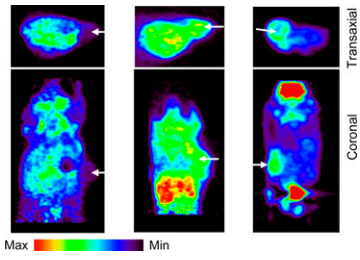












ON THE COVER

The integrin $\alpha_v\beta_3$, an interesting target for specific therapies in oncology, is highly expressed on activated endothelial cells during angiogenesis and plays an important role in the regulation of tumor growth, local invasiveness, and metastatic potential. As confirmed by the immunohistochemistry images, these ^{18}F-galacto-RGD PET images of invasive ductal breast cancer show $\alpha_v\beta_3$ expression predominantly on the neovasculature.

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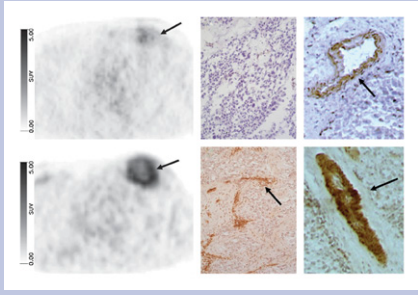

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