

Promise and challenges in RIT: Kraeber-Bodéré and colleagues offer perspective on current clinical uses and potential future applications of radioimmunotherapy and preview an article on bispecific radioimmunoconjugate therapy in this issue of *JNM*. **Page 329**

Pretargeted immuno-PET: Marquez and Lapi briefly review the advantages of bispecific targeting with antibodies, including reduction of exposure to normal organs and reliable retention of tumor accumulation, and discuss a related article in this issue of *JNM*. **Page 332**

Shortened ¹⁸F-FMISO dynamic PET: Grkovski and colleagues investigate the feasibility of kinetic modeling using shortened acquisition times in ¹⁸F-fluoromisonidazole dynamic PET, with the goal of expediting clinical implementation. **Page 334**

Post-RT PET in nasopharyngeal carcinoma: Zhou and colleagues report on the results of a meta-analysis of published data on the value of ¹⁸F-FDG PET/CT in identification of residual or recurrent nasopharyngeal carcinoma. **Page 342**

PEM interpretation for reduced counts: MacDonald and colleagues study the effects of reduced ¹⁸F-FDG injection activity on interpretation of positron emission mammography images and compare interpretations at 2 postinjection acquisition times. **Page 348**

PERCIST and survival after radioembolization: Michl and colleagues evaluate the prognostic accuracy of established PET response criteria in patients with liver metastases from pancreatic cancer after treatment with ⁹⁰Y microspheres. **Page 355**

¹⁸F-FAZA PET in pancreatic cancer: Metran-Nascente et al. describe a minimally invasive technique for measuring the oxygenation status of pancreatic cancers. **Page 361**

⁶⁸Ga-PSMA PET for lung metastases: Pyka and colleagues explore the use of a ⁶⁸Ga-labeled prostate-specific membrane antigen agent in PET differentiation between pulmonary metastases and primary lung cancer in patients with prostate cancer. **Page 367**

Sympathetic activation and BAT: Bahler and colleagues examine the question of whether lower brown adipose tissue activity in older or overweight individuals can be explained by a lower sympathetic nervous system response to cold. **Page 372**

SPECT vs. CT in acute chest pain: Nabi and colleagues compare the performance of SPECT stress myocardial perfusion, optimized with stress-only imaging, with that of cardiac CT angiography in patients with acute chest pain. **Page 378**

Nicorandil MPI and prognosis: Fukushima and colleagues describe a technique using nicorandil stress myocardial perfusion SPECT with this hybrid adenosine triphosphate-sensitive potassium channel opener to predict major adverse cardiac events in patients with acute ischemic heart failure. **Page 385**

Genetics and brain ¹⁸F-FDG uptake: Watanabe and colleagues study ¹⁸F-FDG uptake on PET in monozygotic and dizygotic twins and controls to elucidate the relative effects of genetic and environmental influences on regional brain glucose metabolism. **Page 392**

^{99m}Tc-CXCL8 and inflammation in IBD: Aarntzen and colleagues investigate the accuracy of ^{99m}Tc-CXCL8 SPECT in detection and localization of disease activity in a prospective series of patients with inflammatory bowel disease. **Page 398**

Human dosimetry of ⁶⁸Ga-DOTA-E[c(RGDfK)]₂: López-Rodríguez and colleagues use whole-body PET to detail the biodistribution of and radiation dose from this radiolabeled dimeric $\alpha_v\beta_3$ integrin ligand as a potential agent for imaging tumor angiogenesis. **Page 404**

PET/MR and neurodegeneration: Tahmasian and colleagues determine whether multimodal imaging based on the network degeneration hypothesis can distinguish between different neurodegenerative syndromes. **Page 410**

Pulsatile-flow ventilation PET/CT: Prior and colleagues explore the performance of a novel system for reducing respiratory motion in PET/CT in inducing sustained apnea in spontaneously breathing patients. **Page 416**

PET/CT and PET/MR in cancer: Spick and colleagues provide an educational overview of PET/MR scanner designs, including technical and operational issues, and review the literature to determine whether cancer assessments are improved with this hybrid modality. **Page 420**

Affibody radionuclide pretargeting: Altai and colleagues describe mouse studies testing the hypothesis that Affibody-based bioorthogonal chemistry-mediated pretargeting can reduce radiometal

accumulation in kidneys, creating preconditions for palliative radionuclide therapy. **Page 431**

⁶⁴Cu-ATSM and pO₂: Li and colleagues compare the accumulation and distribution of ⁶⁴Cu-ATSM and ⁶⁴CuCl₂ in different tumor tissues using partial pressure of oxygen probe measurements to determine relative robustness as hypoxia markers. **Page 437**

Dual-receptor targeted RIT: Razumienko and colleagues describe the results of translational studies treating tumors coexpressing human epidermal growth factor receptor-2 and epidermal growth factor receptor with radiolabeled bispecific radioimmunoconjugates. **Page 444**

Pretargeted PET and CA19.9: Houghton and colleagues detail a pretargeting strategy that exploits the bioorthogonal reaction between trans-cyclooctene and tetrazine to overcome time and other challenges in PET imaging of cancers expressing carbohydrate antigen 19.9. **Page 453**

PET and integrin $\alpha_5\beta_1$ and $\alpha_v\beta_3$: Notni and colleagues report on the use of click chemistry in developing ⁶⁸Ga-aquibepirin, which is combined with ⁶⁸Ga-avebetrin to produce complementary PET mapping of integrins $\alpha_5\beta_1$ and $\alpha_v\beta_3$ **Page 460**

Imaging experimental arthritis: Terry and colleagues test fibroblast activation protein, macrophages, and integrin $\alpha_v\beta_3$ as targets for ¹¹¹In-labeled imaging of response to etanercept in arthritic mice. **Page 467**

PET/MR tumor modeling: Divine and colleagues create a Gaussian mixture modeling pipeline to structure complementary information from ¹⁸F-FDG PET and diffusion-weighted MR imaging, separating the tumor microenvironment into compartments and longitudinally following individual compartment development. **Page 473**

VEGF-A-targeted fluorescence endoscopy: Tjalma and colleagues validate fluorescent tracers targeted to vascular endothelial growth factor A and epidermal growth factor receptor during ex vivo colonoscopy with a near-infrared endoscopy platform. **Page 480**

²¹³Bi micro-SPECT imaging: de Swart and colleagues describe the ²¹³Bi imaging capabilities of the Versatile Emission Computed Tomograph for simultaneous preclinical imaging of both SPECT and PET isotopes over a wide photon energy range of 25–600 keV. **Page 486**