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Tumor hypoxia imaging in NSCLC: Bollineni and colleagues look at the potential added clinical value of the specific hypoxia tracer ^{18}F-fluoroazomycin arabinoside over that of ^{18}F-FDG in assessment of treatment in advanced-stage non–small cell lung cancer. . . . . ***Page 1175***

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Prediction of post-SIRT survival: Fendler and colleagues investigate the value of ^{18}F-FDG PET/CT metabolic parameters in predicting survival after selective internal radiation therapy in patients with hepatic metastases from colorectal cancer. . . . . ***Page 1202***

^{18}F-FLT PET and FOLFOX response: Hong and colleagues assess the use of ^{18}F-FLT PET for early prediction of standard anatomic response and survival outcomes in patients with metastatic colorectal cancer receiving leucovorin, 5-fluorouracil, and oxaliplatin. . . . . ***Page 1209***

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PET/CT and ^{131}I therapy: Lee and colleagues look at the clinical benefit of ^{18}F-FDG PET/CT performed concurrently with ^{131}I therapy in patients with differentiated thyroid carcinoma and intermediate-to-high risk of recurrent disease. . . . . ***Page 1230***

MR, PET, and pediatric brain tumors: Zukotynski and colleagues describe a method for registering PET with MR permeability images to correlate ^{18}F-FDG uptake, permeability, and cerebral blood volumes in pediatric brain tumors and compare these results with outcomes. . . . . ***Page 1237***

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PET and MVO_2: Wong and colleagues determine whether ^{11}C-acetate PET can be used to quantify myocardial oxygen consumption in the hypertrophied right ventricle in patients with idiopathic pulmonary arterial hypertension. . . . . ***Page 1258***

GABA-A receptor imaging in cerebral palsy: Park and colleagues use ^{18}F-fluoroflumazenil PET to investigate alterations in γ-aminobutyric acid-A receptor binding and functional and anatomic connectivity in the motor cortex in children with hemiplegic cerebral palsy. . . . . ***Page 1263***

^{18}F-FMZ PET in epilepsy: Vivash and colleagues report on the results of a phase I/IIa study of the clinical use of ^{18}F-FMZ PET for localization of epileptogenic zones in patients with drug-resistant temporal lobe epilepsy. . . . . ***Page 1270***

Olfactory tract and cortical metabolism: Cross and colleagues use ^{18}F-FDG PET and diffusion tensor imaging to investigate the relationship of fiber tract integrity in the olfactory tract with cortical glucose metabolism in cognitively normal controls and individuals with mild cognitive impairment. . . . . ***Page 1278***

Kinetic modeling of ^{18}F-JNJ-42259152: Van Laere and colleagues detail initial brain kinetic modeling of this novel phosphodiesterase-10A PET tracer and evaluate test–retest reproducibility in healthy volunteers. . . . . ***Page 1285***

^{99m}Tc-MAA distribution and ^{90}Y-microspheres: Wondergem and colleagues determine the value of pretreatment ^{99m}Tc-macroaggregated albumin SPECT in predicting final activity distribution in ^{90}Y-microsphere radioembolization for primary or metastatic liver malignancies. . . . ***Page 1294***

^{11}C-ITMM PET in humans: Toyohara and colleagues report on the safety, distribution, radiation dosimetry, and initial imaging of this agent for mapping metabotropic glutamate receptor type 1 in the brain. . . . . ***Page 1302***

α4β2-nAChR imaging: Wong and colleagues describe safety, test–retest reliability, and initial quantification in humans of ^{18}F-AZAN, a novel radiotracer that binds to α4β2 nicotinic acetylcholine receptors. . . . . ***Page 1308***

Radioiodinated VAP-1 antibody: Autio and colleagues evaluate the performance of a fully human monoclonal anti–vascular adhesion protein-1 antibody in rabbits and discuss the clinical potential for imaging inflammation and for antiinflammatory therapy. . . . . ***Page 1315***

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Imaging dopaminergic neurotransmission: Tatsch and Poepperl provide an educational update on nigrostriatal dopamine terminal imaging, with emphasis on SPECT performed with the presynaptic dopamine transporter ligand ^{123}I-FP-CIT in patients with known or suspected parkinsonian syndrome. . . . . ***Page 1331***

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PET imaging with ^{18}F-FDM: Furumoto and colleagues describe a practical method for synthesis of this mannose derivative and stereoisomer of ^{18}F-FDG and offer additional biologic evidence of its potential for tumor imaging. . . . . ***Page 1354***

PET and osteosarcoma: Campanile and colleagues characterize the different phenotypes of osteosarcoma by PET, comparing the uptake of ^{18}F-FDG, ^{18}F-FMISO, and ^{18}F-fluoride in preclinical mouse models that reflect the heterogeneity of the human disease. . . . . ***Page 1362***

^{99m}Tc-PSMA inhibitors: Hillier and colleagues describe preclinical evaluation of 4 novel ^{99m}Tc-labeled small-molecule inhibitors of prostate-specific membrane antigen with potential for molecular imaging of prostate cancer in humans. . . . . ***Page 1369***

^{11}C-SA4503 uptake in pituitary tumors: Ramakrishnan and colleagues detail the kinetics of this PET tracer in tumor and brain in rats to explore its utility in detection of overexpression of σ-1 receptors in pituitary tumors. . . . . ***Page 1377***

ARBs and ^{18}F-FDG uptake: Zhao and colleagues examine the effects of angiotensin II receptor blockers on ^{18}F-FDG distribution and excretion in mice treated with telmisartan at different doses and discuss implications for clinical PET practice. . . . . ***Page 1384***

Pretargeted PET using click chemistry: Zeglis and colleagues report on the development of a methodology for pretargeted PET imaging with the potential for high-quality images and dramatically reduced nontarget radiation doses to patients. . . . ***Page 1389***

Imaging of radiation injuries: Johnson and colleagues describe a technique using a γ-camera and ^{99m}Tc-tetracycline HCl to image temporal and spatial distribution of damage in susceptible tissues after high-dose radiation exposure. . . . . ***Page 1397***

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^{18}F-CPFPX model validation: Elmenhorst and colleagues report on the development and evaluation of practical pharmacokinetic models for quantification of the cerebral A_1 adenosine receptor in high-resolution PET. . . . . ***Page 1411***

^{18}F-labeled tracers for τ imaging: Okamura and colleagues detail the development of novel ^{18}F-labeled arylquinoline derivatives, ^{18}F-THK-5105 and ^{18}F-THK-5117, for use in PET imaging of the microtubule-associated protein τ in neurofibrillary tangles in Alzheimer disease. . . . . ***Page 1420***

Ketamine and 5-HT_{2A} receptor binding: Waelbers and colleagues use SPECT to investigate the brain kinetics of ^{123}I-5-I-R91150, a 5-HT_{2A} receptor antagonist, and the influence of ketamine on postsynaptic serotonin-2A receptor status in cats. . . . . ***Page 1428***

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