17N Sudden Radioisotope Shortage Threatens Patient Care

19N Molecular Imaging in the Spotlight at RSNA 2007

20N USA TODAY Questions 131I Patient Release Safety

21N In Memoriam: Eugene Lange Saenger, MD

Edward B. Silberstein

23N Molecular Imaging Update: Optical Imaging Shines In Vivo

H. Charles Manning

23N Maintenance of Certification: MOC Fees: An Inconvenient Truth

Henry D. Royal

24N SNM Leadership Update: Professional Resolutions

Virginia Pappas


Hugh Cannon

26N Newsbriefs

30N From the Literature

FOCUS ON MOLECULAR IMAGING

1 Optical Imaging: Current Applications and Future Directions

Gary D. Luker and Kathryn E. Luker

INVITED PERSPECTIVES

5 Don’t Bury the V/Q Scan: It’s as Good as Multidetector CT Angiograms with a Lot Less Radiation Exposure

Leonard M. Freeman

9 18F-FDG PET as a Routine Test for Posttherapy Assessment of Hodgkin’s Disease and Aggressive Non-Hodgkin’s Lymphoma: Where Is the Evidence?

Malik E. Juweid

CLINICAL INVESTIGATIONS

13 18F-FDG PET for Posttherapy Assessment of Hodgkin’s Disease and Aggressive Non-Hodgkin’s Lymphoma: A Systematic Review

Teruhiko Terasawa, Takashi Nihashi, Tomomitsu Hotta, and Hirokazu Nagai

22 Comparison of Integrin $\alpha_v$$\beta_3$ Expression and Glucose Metabolism in Primary and Metastatic Lesions in Cancer Patients: A PET Study Using $^{18}$F-Galacto-RGD and $^{18}$F-FDG

Ambros J. Beer, Sylvie Lorenzen, Stephan Metz, Ken Herrmann, Petra Watzlowik, Hans-Jürgen Wester, Christian Peichel, Florian Lordick, and Markus Schweiger

30 Clinical Experience with $\alpha$-Particle-Emitting $^{211}$At: Treatment of Recurrent Brain Tumor Patients with $^{211}$At-Labeled Chimeric Antitenascin Monoclonal Antibody 81C6

Michael R. Zalatays, David A. Reardon, Gamal Akabani, R. Edward Coleman, Allan H. Friedman, Henry S. Friedman, Roger E. McLendon, Terence Z. Wong, and Darell D. Bigner

39 Probabilistic Anatomic Mapping of Cerebral Blood Flow Distribution of the Middle Cerebral Artery

Seong-Jang Kim, In-Ju Kim, Yong-Ki Kim, Tae-Hong Lee, Jung Sub Lee, Sangmin Jun, Hyun-Yeol Nam, Jae Sung Lee, Yu Kyeong Kim, and Dong Soo Lee

44 Cortical Flattening Applied to High-Resolution 18F-FDG PET

Johannes C. Klein, Karl Herholz, Klaus Wienhard, and Wolf-Dieter Heiss

50 Quantification of Cerebral Blood Flow and Oxygen Metabolism with 3-Dimensional PET and $^{16}$O: Validation by Comparison with 2-Dimensional PET

Masanobu Ibaraki, Shuichi Miura, Eku Shimosegawa, Shigeki Sugawara, Tetsuro Mizuta, Akihiro Ishikawa, and Masaharu Amano

60 Cochlear Implant Benefits in Deafness Rehabilitation: PET Study of Temporal Voice Activations

Arnaud Coez, Monica Zilbovicius, Evelyne Ferrary, Didier Boucara, Isabelle Mosnier, Emmanuelle Ambert-Dahan, Eric Bizaguet, André Syrota, Yves Samson, and Olivier Sterkers

CONTINUING EDUCATION

68 Skeletal PET with $^{18}$F-Fluoride: Applying New Technology to an Old Tracer

Frederick D. Grant, Frederic H. Fahey, Alan B. Packard, Royal T. Davis, Bass Elahi, and S. Ted Treves

BASIC SCIENCE INVESTIGATIONS

79 A Feasibility Study of a Prototype PET Insert Device to Convert a General-Purpose Animal PET Scanner to Higher Resolution

Heyu Wu, Debashish Pal, Joseph A. O’Sullivan, and Yuan-Chuan Tai

88 SPECT Low-Field MRI System for Small-Animal Imaging

Christian Goetz, Elodie Breton, Philippe Choquet, Vincent Israel-Jost, and André Constantinesco
94 Imaging of Gene Expression in Live Pancreatic Islet Cell Lines Using Dual-Isotope SPECT
Joo Ho Tai, Binh Nguyen, R. Glenn Wells, Michael S. Kovacs, Rebecca McGirr, Frank S. Prato, Timothy G. Morgan, and Savita Dhanvantari

103 In Vivo Imaging of 64Cu-Labeled Polymer Nanoparticles Targeted to the Lung Endothelium
Raffaella Rossin, Silvia Muro, Michael J. Welch, Vladimir R. Muzynkantonov, and Daniel P. Schuster

112 PET Imaging of VPAC1 Expression in Experimental and Spontaneous Prostate Cancer
Kaijun Zhang, Mohan R. Aruva, Nylla Shanthly, Christopher A. Cardi, Satish Rattan, Chirag Patel, Christopher Kim, Peter A. McCue, Eric Wickstrom, and Mathew L. Thakur

122 99mTc-GSA Scintigraphy with SPECT for Assessment of Hepatic Function and Functional Volume During Liver Regeneration in a Rat Model of Partial Hepatectomy
Wilmar de Graaf, Reeta L. Vetelinen, Kora de Bruin, Arlene K. van Vliet, Thomas M. van Galik, and Roelof J. Bennink

129 Preclinical Efficacy of the c-Met Inhibitor CE-355621 in a U87 MG Mouse Xenograft Model Evaluated by 18F-FDG Small-Animal PET

135 Usefulness of 11C-Methionine for Differentiating Tumors from Granulomas in Experimental Rat Models: A Comparison with 18F-FDG and 18F-FLT
Songji Zhao, Yuji Kuge, Masashi Kohanawa, Toshiyuki Takahashi, Yan Zhao, Min Yi, Kakuko Kanegae, Koh-Ichi Seki, and Nagara Tamaki

142 Generation of Destabilized Herpes Simplex Virus Type 1 Thymidine Kinase as Transcription Reporter for PET Reporter Systems in Molecular–Genetic Imaging
Chia-Hung Hsieh, Fu-Du Chen, Hsin-Ell Wang, Jeng-Jong Hwang, Chi-Wei Chang, Yi-Jang Lee, Juri G. Gelovani, and Ren-Shyan Liu

151 CELLDOSE: A Monte Carlo Code to Assess Electron Dose Distribution—S Values for 131I in Spheres of Various Sizes
Christophe Champion, Paolo Zanotti-Fregonara, and Elif Hindié

SPECIAL CONTRIBUTION

158 Multifunctional Antibodies by the Dock-and-Lock Method for Improved Cancer Imaging and Therapy by Pretargeting

DEPARTMENTS

164 Book Reviews
166 Letters to the Editor
11A This Month in JNM
39A Recruitment Advertising

JNM ONLINE

jnm.snmjournals.org
Newsline Online
www.snm.org/newsline

Information for Authors
http://www.snm.org/journals/jnm_author_info

UPCOMING EDUCATION ARTICLES

Uncommon Causes of Thyrotoxicosis
Erik S. Mittra, Ryan D. Niederkohr, Cesar Rodriguez, Tarek El-Maghraby, and I. Ross McDougall

For CE credit, you can access Continuing Education Activities through the SNM Web site (http://www.snm.org/ce_online)