

## SNMMI NEWSLINE

- 9N** ABNM Introduces CertLink  
George Segall
- 10N** Alavi Recognized with International Awards
- 11N** In Memoriam: Frederick J. Bonte, MD 1922–2016
- 12N** SNMMI Leadership Update: Preparing the Next Generation of Nuclear Medicine Professionals  
Sally W. Schwarz
- 13N** Newsbriefs
- 15N** From the Literature

## HOT TOPICS

- 357** Machine Learning Will Change Medicine  
Michael Forsting

## FOCUS ON MOLECULAR IMAGING

- 359** Molecular Imaging of Vulnerable Coronary Plaque: A Pathophysiologic Perspective  
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## INVITED PERSPECTIVES

- 365** Radiomics in PET/CT: More Than Meets the Eye?  
Mathieu Hatt, Florent Tixier, Dimitris Visvikis, and Catherine Cheze Le Rest

## ONCOLOGY

### Basic

- 367**  $^{18}\text{F}$ -5-Fluoroaminosuberlic Acid as a Potential Tracer to Gauge Oxidative Stress in Breast Cancer Models  
Hua Yang, Silvia Jenni, Milena Colovic, Helen Merkens, Carlee Poleschuk, Isabel Rodrigo, Qing Miao, Bruce F. Johnson, Michael J. Rishel, Vesna Sossi, Jack M. Webster, François Bénard, and Paul Schaffer

### Translational

- 374** Human Biodistribution and Radiation Dosimetry of  $^{18}\text{F}$ -Clofarabine, a PET Probe Targeting the Deoxyribonucleoside Salvage Pathway  
Martin J. Barrio, Claudio Spick, Caius G. Radu, Michael Lassmann, Uta Eberlein, Martin Allen-Auerbach, Christiaan Schiepers, Roger Slavik, Johannes Czernin, and Ken Herrmann
- 379** Safety, Dosimetry, and Tumor Detection Ability of  $^{68}\text{Ga}$ -NOTA-AE105: First-in-Human Study of a Novel Radioligand for uPAR PET Imaging  
Dorthe Skovgaard, Morten Persson, Malene Brandt-Larsen, Camilla Christensen, Jacob Madsen, Thomas Levin Klausen, Søren Holm, Flemming Littrup Andersen, Annika Loft, Anne Kiil Berthelsen, Helle Pappot, Klaus Brasso, Niels Kroman, Liselotte Højgaard, and Andreas Kjaer

### 387 ■ FEATURED TRANSLATIONAL SCIENCE ARTICLE.

**Understanding Changes in Tumor Texture Indices in PET: A Comparison Between Visual Assessment and Index Values in Simulated and Patient Data**  
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- 393** Repeatability of  $^{18}\text{F}$ -FLT PET in a Multicenter Study of Patients with High-Grade Glioma  
Martin A. Lodge, Matthias Holdhoff, Jeffrey P. Leal, Asim K. Bag, L. Burt Nabors, Akiva Mintz, Glenn J. Lesser, David A. Mankoff, Arati S. Desai, James M. Mountz, Frank S. Lieberman, Joy D. Fisher, Serena Desideri, Xiaobu Ye, Stuart A. Grossman, David Schiff, and Richard L. Wahl
- 399** Quantitative Accuracy and Lesion Detectability of Low-Dose  $^{18}\text{F}$ -FDG PET for Lung Cancer Screening  
Joshua D. Schaefferkoetter, Jianhua Yan, Therese Sjöholm, David W. Townsend, Maurizio Conti, John Kit Chung Tam, Ross A. Soo, and Ivan Tham
- 406** Reliability of PET/CT Shape and Heterogeneity Features in Functional and Morphologic Components of Non-Small Cell Lung Cancer Tumors: A Repeatability Analysis in a Prospective Multicenter Cohort  
Marie-Charlotte Desseroit, Florent Tixier, Wolfgang A. Weber, Barry A. Siegel, Catherine Cheze Le Rest, Dimitris Visvikis, and Mathieu Hatt
- 412** ■ FEATURED CLINICAL INVESTIGATION ARTICLE. Impact of  $^{18}\text{F}$ -Fluciclovine PET on Target Volume Definition for Postprostatectomy Salvage Radiotherapy: Initial Findings from a Randomized Trial  
Ashesh B. Jani, Eduard Schreibmann, Peter J. Rossi, Joseph Shelton, Karen Godette, Peter Nieh, Viraj A. Master, Omer Kucuk, Mark Goodman, Raghuvveer Halkar, Sherrie Cooper, Zhengjia Chen, and David M. Schuster
- 419** Comparison of  $^{11}\text{C}$ -Methionine and  $^{18}\text{F}$ -FDG PET/CT for Staging and Follow-up of Pediatric Lymphoma  
Sue C. Kaste, Scott E. Snyder, Monika L. Metzger, John T. Sandlund, Scott C. Howard, Matthew Krasin, and Barry L. Shulkin

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- 425** Preclinical Evaluation of  $^{18}\text{F}$ -PSMA-1007, a New Prostate-Specific Membrane Antigen Ligand for Prostate Cancer Imaging  
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- 432** Optimization of Labeling PSMA<sup>HBED</sup> with Ethanol-Postprocessed  $^{68}\text{Ga}$  and Its Quality Control Systems  
Elisabeth Eppard, Tatjana Homann, Ana de la Fuente, Markus Essler, and Frank Rösch

### Clinical

- 438**  $^{68}\text{Ga}$ -PSMA-11 PET as a Gatekeeper for the Treatment of Metastatic Prostate Cancer with  $^{223}\text{Ra}$ : Proof of Concept  
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**445 Radiation Dosimetry for <sup>177</sup>Lu-PSMA I&T in Metastatic Castration-Resistant Prostate Cancer: Absorbed Dose in Normal Organs and Tumor Lesions**

Shozo Okamoto, Anne Thieme, Jakob Allmann, Calogero D'Alessandria, Tobias Maurer, Margitta Retz, Robert Tauber, Matthias M. Heck, Hans-Juergen Wester, Nagara Tamaki, Wolfgang P. Fendler, Ken Herrmann, Christian H. Pfob, Klemens Scheidhauer, Markus Schwaiger, Sibylle Ziegler, and Matthias Eiber

**451 Head-to-Head Comparison of <sup>64</sup>Cu-DOTATATE and <sup>68</sup>Ga-DOTATOC PET/CT: A Prospective Study of 59 Patients with Neuroendocrine Tumors**

Camilla B. Johnbeck, Ulrich Knigge, Annika Loft, Anne K. Berthelsen, Jann Mortensen, Peter Oturai, Seppo W. Langer, Dennis R. Elema, and Andreas Kjaer

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**NEUROLOGY**

**Basic**

**458 Characterization of <sup>11</sup>C-GSK1482160 for Targeting the P2X7 Receptor as a Biomarker for Neuroinflammation**

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**466 Preclinical Evaluation and Quantification of <sup>18</sup>F-Fluoroethyl and <sup>18</sup>F-Fluoropropyl Analogs of SCH442416 as Radioligands for PET Imaging of the Adenosine A<sub>2A</sub> Receptor in Rat Brain**

Shivashankar Khanapur, Aren van Waarde, Rudi A.J.O. Dierckx, Philip H. Elsinga, and Michel J.B. Koole

**Translational**

**473 Biodistribution and Radiation Dosimetry of <sup>11</sup>C-Nicotine from Whole-Body PET Imaging in Humans**

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**479 Parametric Methods for Dynamic <sup>11</sup>C-Phenytin PET Studies**

Syahir Mansor, Maqsood Yaqub, Ronald Boellaard, Femke E. Froklage, Anke de Vries, Esther D.M. Bakker, Rob A. Voskuyl, Jonas Eriksson, Lothar A. Schwarte, Joost Verbeek, Albert D. Windhorst, and Adriaan A. Lammertsma

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**484 Pharmacokinetic Evaluation of the Tau PET Radiotracer <sup>18</sup>F-T807 (<sup>18</sup>F-AV-1451) in Human Subjects**

Dustin W. Wooten, Nicolas J. Guehl, Eline E. Verwer, Timothy M. Shoup, Daniel L. Yokell, Nevena Zubcevic, Neil Vasdev, Ross D. Zafonte, Keith A. Johnson, Georges El Fakhri, and Marc D. Normandin

**492 Brain <sup>18</sup>F-FDG PET Metabolic Abnormalities in Patients with Long-Lasting Macrophagic Myofascitis**

Axel Van Der Gucht, Mehdi Aoun Sebaiti, Eric Guedj, Jessie Aouizerate, Sabrina Yara, Romain K. Gherardi, Eva Evangelista, Julia Chalaye, Anne-Ségolène Cottereau, Antoine Verger, Anne-Catherine Bachoud-Levi, Mukedaisi Abulizi, Emmanuel Itti, and François-Jérôme Authier

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**CARDIOLOGY**

**Basic**

**499 ■ FEATURED ARTICLE OF THE MONTH. Imaging the Cytokine Receptor CXCR4 in Atherosclerotic Plaques with the Radiotracer <sup>68</sup>Ga-Pentixafor for PET**

Fabien Hyafil, Jaroslav Pelisek, Iina Laitinen, Margret Schottelius, Miriam Mohring, Yvonne Döring, Emiel P.C. van der Vorst, Michael Kallmayer, Katja Steiger, Andreas Poschenrieder, Johannes Notni, Johannes Fischer, Christine Baumgartner, Christoph Rischpler, Stephan G. Nekolla, Christian Weber, Hans-Henning Eckstein, Hans-Jürgen Wester, and Markus Schwaiger

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**IMAGING/INFECTION**

**507 Evaluation of Spleen Glucose Metabolism Using <sup>18</sup>F-FDG PET/CT in Patients with Febrile Autoimmune Disease**

Sung Soo Ahn, Sang Hyun Hwang, Seung Min Jung, Sang-Won Lee, Yong-Beom Park, Mijin Yun, and Jason Jungsik Song

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**BRIEF COMMUNICATIONS**

**514 Fission-Produced <sup>99</sup>Mo Without a Nuclear Reactor**

Amanda J. Youker, Sergey D. Chemerisov, Peter Tkac, Michael Kalensky, Thad A. Heltemes, David A. Rotsch, George F. Vandegrift, John F. Krebs, Vakho Makarashvili, and Dominique C. Stepinski

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