

The Journal of Nuclear Medicine

Official Publication of The
Society of Nuclear Medicine

Volume 30, Number 9
September 1989

THE JOURNAL OF NUCLEAR MEDICINE (ISSN 0161-5505) is published monthly by The Society of Nuclear Medicine, Inc., 136 Madison Avenue, New York, NY 10016-6760. Second Class Postage paid at New York, NY and additional mailing offices. *Postmaster*, send address changes to *The Journal of Nuclear Medicine*, 136 Madison Avenue, New York, NY 10016-6760.

EDITORIAL COMMUNICATIONS should be sent to the Editor: Thomas P. Haynie, MD, The Journal of Nuclear Medicine, Office of Special Publications, The University of Texas M. D. Anderson Hospital, 1515 Holcombe Boulevard, Houston, TX 77030 (713)792-6015. *Books and monographs* covering the use of nuclear medicine and its allied disciplines will be reviewed as space is available. *Send review copies to the Editor.*

BUSINESS COMMUNICATIONS concerning advertising, subscriptions, change of address, and permission requests should be sent to the publisher, The Society of Nuclear Medicine, 136 Madison Avenue, New York, NY 10016-6760 (212)889-0717. Advertisements are subject to editorial approval and are restricted to products or services pertinent to nuclear medicine. Advertising rates are available from the publisher. Closing date is the first of the month preceding the date of issue.

SUBSCRIPTION RATES for 1989 calendar year are \$120 within the United States; \$130 for Canada and Pan American countries; \$160 elsewhere. Student subscriptions are \$70 (with proof of student status). Single copies \$10.00; foreign \$11.00; convention issue (May) \$12.00; foreign \$13.00. Make checks payable, in U.S. dollars drawn on U.S. banks, to The Society of Nuclear Medicine. Notify the Society of change of address and telephone number at least 30 days before date of issue by sending both the old and new addresses.

COPYRIGHT © 1989 by The Society of Nuclear Medicine, Inc. All rights reserved. No part of this work may be reproduced or translated without permission from the copyright owner. Because the copyright on articles published in *The Journal of Nuclear Medicine* is held by the Society, each author of accepted manuscripts must sign a statement transferring copyright. See Information for Authors for further explanation, which appears on the second page preceding the Calendar.

SNM NEWSLINE

- Med-waste Regulations Pose Backdoor Threat to Nuclear Medicine
David R. Brill 1431
- SNM Awards Young Cardiovascular Investigators 1434
- EPA's Proposed Standards for Radionuclide Emissions Stir Up Opposition
Sarah M. Tilyou 1435
- Commentary: Lines From the President; In Anticipation of Accolades, A Message From R.A.H.
Richard A. Holmes 1440
- E&R Foundation Awards Student Fellowships For 1989 1441
- News Briefs: IAEA Report on QA of Cyclotron-Produced Radiopharmaceuticals; No Indemnification for Radiopharmaceutical Licensees; Farrokh Dehdashti, MD, Awarded Mallinckrodt Fellowship 1443

CLINICAL SCIENCES

- Value of Blood-Pool Subtraction in Cardiac Indium-111-Labeled Platelet Imaging
Josef Machac, Shankar Vallabhajosula, Martin E. Goldman, Stanley J. Goldsmith, Christopher Palestro, Arnold Strashun, Rafael Vaquer, Robert A. Philips, and Valentin Fuster 1445
- Quantitative Planar Imaging with Technetium-99m Methoxyisobutyl Isonitrile: Comparison of Uptake Patterns with Thallium-201
Albert J. Sinusas, George A. Beller, William H. Smith, Ellen L. Vinson, Valerie Brookeman, and Denny D. Watson 1456
- Uptake of Myocardial Imaging Agents by Rejecting and Nonrejecting Cardiac Transplants. A Comparative Clinical Study of Thallium-201, Technetium-99m, and Gallium-67
Shuhei Yamamoto, Jacob Bergsland, Susan M. Michalek, Mary Carroll, Jayakumari M. Gona, Daya Balu, and Edward A. Carr, Jr. 1464
- Indium-111-Labeled Platelets in Monitoring Human Pancreatic Transplants
Ana M. Catafau, Francisco J. Lomeña, M. Jose Ricart, Francisca Pons, Carlos Piera, Javier Pavia, Mercedes Moragas, Alicia Garcia, Ramon Herranz, Jorge Andreu, Jorge Setoain 1470
- Alterations of Iodine-131 MIBG Biodistribution in an Anephric Patient: Comparison to Normal and Impaired Renal Function
Michael C. Tobes, Lorraine M. Fig, James Carey, Onelio Geatti, James C. Sisson, and Brahm Shapiro 1476
- Effect of Selecting a Fixed Dephosphorylation Rate on the Estimation of Rate Constants and rCMRGlucose from Dynamic [¹⁸F]Fluorodeoxyglucose/PET Data
Vijay Dhawan, James R. Moeller, Stephen C. Strither, Alan C. Evans, and David A. Rottenberg 1483

BASIC SCIENCES

- Assessment of Myocardial Oxidative Metabolic Reserve
with Positron Emission Tomography and Carbon-11 Acetate
*C. Gregory Henes, Steven R. Bergmann, Mary Norine Walsh,
Burton E. Sobel, and Edward M. Geltman*..... 1489
- Comparison of Hypoxia and Ouabain Effects on
the Myocardial Uptake Kinetics of Technetium-99m
Hexakis 2-Methoxyisobutyl Isonitrile and Thallium-201
Denis J. Meerdink and Jeffrey A. Leppo..... 1500
- Tracer Kinetic Modeling Approaches for the Quantification
of Hepatic Function with Technetium-99m DISIDA
and Scintigraphy
*Sanjiv S. Gambhir, Randall A. Hawkins, Sung-Cheng Huang,
Theodore R. Hall, Ronald W. Busutil, and Michael E. Phelps*..... 1507
- Kinetic Sensitivity of a Receptor-Binding
Radiopharmaceutical: Technetium-99m
Galactosyl-Neoglycoalbumin
David R. Vera, E. Steve Woodle, and Robert C. Stadalnik..... 1519
- Is Lung Sequestration of Indium-111-Labeled Granulocytes
Organ Specific?
*James H. Williams, Jr., Archie F. Wilson,
and Kenneth M. Moser*..... 1531
- Autoradiographic Method for Quantitation of
Radiolabeled Proteins in Tissues Using Indium-111
*Eric M. Morrel, Ronald G. Tompkins, Alan J. Fischman,
Robert A. Wilkinson, John Burke, Robert H. Rubin,
H. William Strauss, and Martin L. Yarmush*..... 1538
- Technical Notes*
- Splenic Dynamics of Indium-111-Labeled Platelets in Idiopathic
Thrombocytopenic Purpura
*M.T. Syrjälä, S. Savolainen, U. Nieminen, J. Gripenberg,
K. Liewendahl, and E. Ikkala*..... 1546
- A Rapid Method for Estimating Mean Platelet Survival Times
Dennis C. Giuliani, Edith H. Ford, and Bernard S. Morse..... 1550
- Evaluation of a Clinical Scintillation Camera with
Pulse Tail Extrapolation Electronics
*Thomas K. Lewellen, Alden N. Bice, Kenneth R. Pollard,
Jia-Bi Zhu, and Marianne E. Plunkett*..... 1554
- Phantom Feet on Digital Radionuclide Images and
Other Scary Computer Tales
*John E. Freitas, Howard J. Dworkin, Stuart M. Dees,
and Richard Ponto*..... 1559
- Case Reports*
- Reversible Pulmonary Uptake and
Hypertrophic Pulmonary Osteoarthropathic Distribution
of Technetium-99m Methylene Diphosphonate
in a Case of *Pneumocystis Carinii* Pneumonia
*Rafael A. Vaquer, Eddy K. Dunn, Subrahmanya Bhat, Albert E. Heurich,
Stephen L. Kamholz, and Arnold M. Strashun*..... 1563
- Complete Duodenogastric Reflux: A Scintigraphic Sign of
Significant Duodenal Pathology
Walter E. Drane and James S. Hanner..... 1568

The Journal of Nuclear Medicine

Volume 30, Number 9
September 1989

EDITORIAL

- Radioimmunoassayists Must Embrace New Technology
Lynn R. Witherspoon 1571

DEPARTMENTS

Letters to the Editor

- Long-Lived Radioactive Contaminant of a Krypton-81m
Gas Generator
Leonard M. Rosenstein and Sidney Tudor 1574

- On the Accumulation in Liver of Indium-111 Following
Administration of the B72.3 Antibody
D.J. Hnatowich 1575

Book Reviews

- An Atlas of Clinical Nuclear Medicine
Reviewed by Robert H. Wagner and Robert E. Henkin 1577

- Interventional Radiology
Reviewed by Reed A. Shankwiler 1577

- Modern Imaging of the Liver: Applications of Computerized
Tomography, Ultrasound, Nuclear Medicine, and
Magnetic Resonance Imaging
Reviewed by Michael F. Hartshorne 1577

- Information for Authors* 25A

- Calendar* 30A

- Classified Advertising* 34A

- New Products* 43A

- Index to Advertisers* 28A