

JNM



Official Publication of
The Society of Nuclear Medicine

SNM NEWSLINE

- 13N Clinical Practice Guidelines: Writing the Book on Nuclear Medicine**
J. Rojas-Burke
- 17N Mallinckrodt Fellowship Winner to Study Dog Xenografts**
J. Rojas-Burke
- 20N Education and Research Foundation Receives \$1.25 Million Bequest**
Joan Hiam
- 22N Phillip D. Nicol Receives Berson-Yalow Award for Excellence in Radioimmunoassay Research**
- 24N Commentary: Lines from the President**
- 29N News Briefs: Nuclear Medicine Axed at Oak Ridge; E&R Foundation Awards Pilot Research Grant to Radiosynthesis Researcher; EPA Postpones NESHAPS Rule; Industry Agrees to Join DOE Study of Domestic Moly-99 Production**

HUMAN STUDIES

- 1157 In Vivo SPECT Quantitation of Bone Metabolism in Hyperparathyroidism and Thyrotoxicosis**
Ora Israel, Dov Front, Ruth Hardoff, Sofia Ish-Shalom, Jacqueline Jerushalmi, and Gerald M. Kolodny
- 1162 Pharmacokinetics, Immune Response, and Biodistribution of Iodine-131-Labeled Chimeric Mouse/Human IgG₁k 17-1A Monoclonal Antibody**
Ruby F. Meredith, Albert F. LoBuglio, Walter E. Plott, Roger A. Orr, Ivan A. Brezovich, Charles D. Russell, Elizabeth B. Harvey, Michael V. Yester, Anthony J. Wagner, Sharon A. Spencer, Richard H. Wheeler, Mansoor N. Saleh, Kimberly J. Rogers, Amy Polansky, Merle M. Salter, and M. B. Khazaeli
- 1169 Measurement of Receptor Concentration and Forward-Binding Rate Constant Via Radiopharmacokinetic Modeling of Technetium-99m-Galactosyl-Neoglycoalbumin**
David R. Vera, Robert C. Stadalnik, Walter L. Trudeau, Paul O. Scheibe, and Kenneth A. Krohn
- 1177 Validation of In Vivo Receptor Measurements via In Vitro Radioassay: Technetium-99m-Galactosyl-Neoglycoalbumin as Prototype Model**
Mastoshi Kudo, David R. Vera, Walter L. Trudeau, and Robert C. Stadalnik
- 1182 Editorial: A Perspective: In Vivo Assay of Receptor-Ligand Binding**
Richard P. Spencer

- 1184 In Vivo Use of a Radioiodinated Somatostatin Analogue: Dynamics, Metabolism, and Binding to Somatostatin Receptor-Positive Tumors in Man**
Willem H. Bakker, Eric P. Krenning, Wout A. Breeman, Peter P. Kooij, Jean-Claude Reubi, Jan W. Koper, Marion de Jong, Johannes S. Laméris, Theo J. Veeers, and Steven W. Lamberts
- 1189 Editorial: Receptors on Tumors Studied with Radionuclide Scintigraphy**
Steven Larson
- 1192 Quantification of *Helicobacter Pylori* Infection in Gastritis and Ulcer Disease Using a Simple and Rapid Carbon-14-Urea Breath Test**
J.C. Debongnie, S. Pauwels, A. Raat, Y. de Meeus, J. Haot, and P. Mainquet
- 1199 Evaluation of Right Ventricular Regional Perfusion with a Technetium-99m-Sestamibi SPECT**
E. Gordon De Puey, Margie E. Jones, and Ernest V. Garcia
- 1206 Brain Perfusion Is Abnormal in Cocaine-Dependent Polydrug Users: A Study Using Technetium-99m-HMPAO and SPECT**
B. Leonard Holman, Paulo A. Carvalho, Jack Mendelson, Siew Koon Teoh, Rachel Nardin, Elizabeth Hallgring, Nancy Hebben, and Keith A. Johnson
- 1211 Uptake of Carbon-11-Methionine and Fluorodeoxyglucose in Non-Hodgkin's Lymphoma: A PET Study**
Sirkku Leskinen-Kallio, Ulla Ruotsalainen, Kjell Nägren, Mika Teräs, and Heikki Joensuu
- 1219 The Selenium-75-Homocholic Acid Taurine Test Reevaluated: Combined Measurement of Fecal Selenium-75 Activity and 3 α -Hydroxy Bile Acids in 211 Patients**
Antonie J.P. van Tilburg, Felix W.M. de Rooij, J. Willem O. van den Berg, Peter P.M. Kooij, and Mark van Blankenstein

- 1225 Brain and Brain Tumor Uptake of L-3-[¹²³I]Iodo- α -Methyl Tyrosine: Competition with Natural L-Amino Acids**
Karl-Joseph Langen, Norbert Roosen, Heinz H. Coenen, Jyrki T. Kuikka, Torsten Kuwert, Hans Herzog, Gerhard Stöcklin, and Ludwig E. Feinendegen
- 1229 Editorial: Saturation of Amino Acid Uptake by Human Brain Tumor Demonstrated by SPECT**
William H. Oldendorf
- 1231 Morphine-Augmented Cholescintigraphy: Its Efficacy in Detecting Acute Cholecystitis**
D. Fink-Bennett, H. Balon, T. Robbins, and D. Tsai
- 1233 Editorial: Is Morphine Injection Useful in the Scintigraphic Diagnosis of Acute Cholecystitis**
E. Edmund Kim and Donald A. Podoloff

LABORATORY STUDIES

- 1235 The Pharmacokinetics and Biodistribution of Technetium-99m(V)Dimercaptosuccinic Acid in an Animal Tumor Model**
John C. Watkinson, Sarah J. Allen, Diane E. Laws, Colin R. Lazarus, Michael N. Maisey, and Susan E.M. Clarke
- 1239 Nuclear Imaging Analysis of Human Low-Density Lipoprotein Biodistribution in Rabbits and Monkeys**
Rick V. Hay, Richard M. Fleming, James W. Ryan, Kim A. Williams, Violet J. Stark, Katherine A. Lathrop, and Paul V. Harper

1246 The Reproducibility of Striatal Uptake Data Obtained with Positron Emission Tomography and Fluorine-18-L-6-Fluorodopa Tracer in Non-Human Primates

Brain D. Pate, Barry J. Snow, Kellie A. Hewitt, K. Scott Morrison, Thomas J. Ruth, and Donald B. Calne

1252 Editorial: The Influence of Positioning on Accuracy and Precision in Emission Tomography

Jonathan M. Links

1254 Localization and Visualization of Pulmonary Emboli with Radiolabeled Fibrin-Specific Monoclonal Antibody

Michito Kanke, Gary R. Matsueda, H. William Strauss, Tsunehiro Yasuda, Chiau-Suong Liau, and Ban An Khaw

CLINICOPATHOLOGIC CONFERENCES

1261 The Role of Hepatobiliary Imaging in the Evaluation and Management of Patients with Common Bile Duct Gallstones

Douglas Silfen, William B. Long, and Abass Alavi

CASE REPORTS

1266 Malignant Transformation of a Hürthle Cell Tumor: Case Report and Survey of the Literature

Robert J. McDonald, Sing-Yung Wu, Jerald L. Jensen, Lawrence N. Parker, Kenneth P. Lyons, Edgar M. Moran, and William H. Bland

1270 Naloxene Reverses Pattern of Obstruction of the Distal Common Bile Duct Induced by Analgesic Narcotics in Hepatobiliary Imaging

Gregory G. Patch, Kathryn A. Morton, John M. Arias, and Frederick L. Datz

METHODOLOGY

1273 Dynamic Acquisition with a Three-Headed SPECT System: Application to Technetium 99m-SQ30217 Myocardial Imaging

Kenichi Nakajima, Junichi Taki, Hisashi Bunko, Masamichi Matsudaira, Akira Muramori, Ichiro Matsunari, Kinichi Hisada, and Takashi Ichihara

1278 Attenuation and Scatter Correction in SPECT for Sources in a Nonhomogenous Object: A Monte Carlo Study

Michael Ljungberg and Sven-Erik Strand

1285 Treatment of Compton Scattering in Maximum-Likelihood, Expectation-Maximization Reconstructions of SPECT Images

James E. Bowsher and Carey E. Floyd, Jr.

1291 Editorial: Correction for Intra-Patient Compton Scattering—Current Status

Kenneth F. Koral

1294 Estimation of Glomerular Filtration Rate in Infants and in Children Using a Single-Plasma Sample Method

Humphrey R. Ham and Amnon Piepsz

1297 Editorial: Glomerular Filtration Rate in Children: Where We Have Been; Where We Are Going

Richard M. Shore

FIRST IMPRESSIONS

Does this patient have a pericardial effusion?
For acquisition information, turn to page 1218.



CONTINUING EDUCATION

1301 Procedures of Choice in Renal Nuclear Medicine
M. Donald Blaufox

DEPARTMENTS

1238 Self-Study Test

1310 Letters to the Editor

Book Reviews

1318 Atlas of Roentgenographic Measurement, Sixth Edition
Reviewed by Richard Sackoff

1318 Learning Medical Terminology
Reviewed by Eleanor L. Plati

33A Calendar

39A Classified Advertising

46A New Products

54A Index to Advertisers