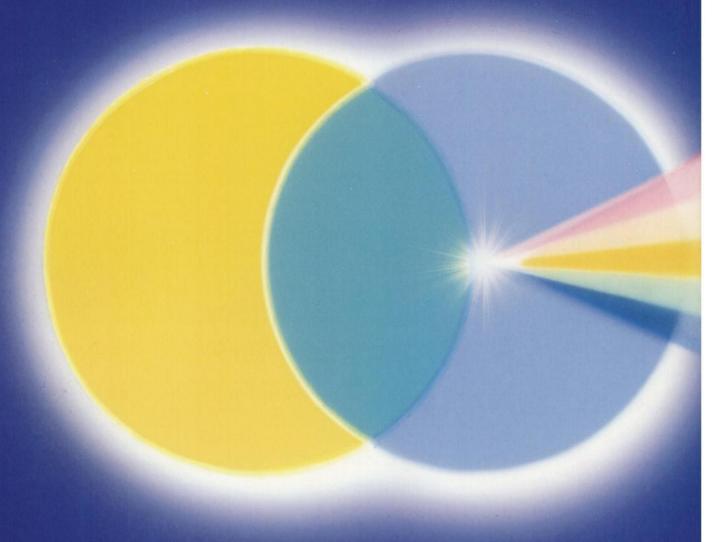
# a fusion creates a unique of quality products



# spectrum and services...

Medi-Physics, a leader in the research, development and marketing of innovative radiopharmaceuticals, fused with Summa Pharmacy to create MPI Professional Service Centers Inc., bringing nuclear medicine professionals a new spectrum of quality products and flexible services.

- MPI Professional Service Centers—

   a nationwide chain of full service radiopharmacies—
   supplies <u>all</u> of your diagnostic imaging needs
   when you want them—24 hours a day.
- Backed by the full resources of Medi-Physics, MPI Professional Service Centers are committed to providing nuclear medicine professionals with the best in service and quality radiopharmaceuticals.

Discover how MPI Professional Service Centers can provide your department with a full spectrum of products and services. For additional information contact your local Medi-Physics Territory Manager or call 1-800-MEDI-123.

#### MPI Professional Service Centers

a subsidiary of Medi-Physics, Inc.

Your partner in advancing nuclear medicine medi+physics\*



ROCHE a subsidiary of Hoffmann-La Roche Inc.

# Now there's an easy way to meet the <u>new NRC</u> requirements for wipe testing!

# NEW!

# Wipe Test Counters



#### **NUCLEAR ASSOCIATES**



A Division of VICTOREEN, INC.
100 VOICE ROAD
CARLE PLACE, NY 11514-1593
(516) 741-6360
A Subsidiary of Sheller-Globe

Both the Deluxe Wipe Test Counter (with LED digital display) and the Standard Wipe Test Counter include a  $^{137}$ Cs, 1  $\mu$ Ci test source, plus a package of 200 pre-numbered  $\frac{1}{2}$ " diameter wipes.

For more details, request Bulletin 407-35

Circle Reader Service No. 2

# A Profile of Progress in Nuclear Medicine



# Tesuloid® (Kit for the Preparation of Technetium Tc99m Sulfur Colloid) Albumotope-LS® (Aggregated Radio-Iodinated [131]) Albumin [Human]) Kinevac® (Sincalide for Injection) lodotope® | 131 (Sodium lodide 1131 USP) diagnostic and therapeutic Technetope® (Technetium Tc99m Generator) Aureotope® (Gold Au 198 Injection USP)

#### The Years of Growth

Nuclear medicine emerged from the experimental stage into a phase of rapid clinical growth. The number of procedures performed rose rapidly during the 1960s. During this same period, Squibb Diagnostics developed

and introduced important products and services for nuclear medicine, including the first sterile technetium generator, nuclear medicine training seminars and technical support through the Technical Associates Program.

#### The Years of Refinement

The '70s saw the development of other imaging modalities which drew procedures away from nuclear medicine and slowed its growth. Developments and advances continued, however, and Squibb

introduced a variety of radiopharmaceutical products, including Macrotec. Squibb's Choletec\* was introduced in 1987, and quickly became the premier hepatobiliary imaging agent.

# Nuclear Medicine: A Distinguished Past, A Promising Future

Macrotec® (Kit for the Preparation of Technetium Tc99m Albumin Aggregated)

> Choletec\* (Kit for the Preparation of Technetium Tc99m Mebrofenin)

New brain imaging agent

New heart imaging agents

#### The Years of Promise

The future of nuclear medicine is bright, and Squibb's contributions to it continue. New Squibb brain and heart agents are now in clinical development. In addition to extensive research and development, the Squibb

contribution to nuclear medicine continues with technical support and professional education programs.

\*See brief summary on following page.

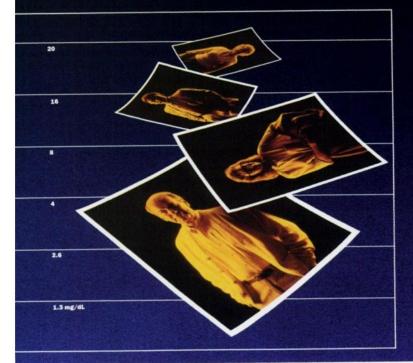
Call 1-800-257-5181 for educational materials, product information or technical assistance. In New Jersey: 1-800-582-5913



CHOLETEC®

(Kit for the Preparation of Technetium Tc99m Mebrofenin)

# The Hepatobiliary Agent for a Wide Range of Bilirubin Levels



With Choletec, you can obtain diagnostic-quality hepatobiliary images even in patients whose bilirubin is significantly elevated. Choletec demonstrated low renal excretion even at bilirubin levels up to 25 mg/dL.1 In two studies2 in which Choletec was administered to patients having mean elevated serum bilirubin levels of 9.8 mg/dL (1.7 to 46.3 mg/dL), the mean percent injected dose excreted in the urine during the first three hours was only 3% (0.2% to 11.5%).

#### **Low Renal Excretion** Only 3% on average in first 3 hours.

#### **Reduced Procedural Time**

Rapid hepatic transit and excretion permits visualization of the liver in normal subjects in 5 minutes, hepatic duct and gallbladder in 10-15 minutes and intestine in 30-60 minutes. Answers to important diagnostic questions may be obtained in less than one hour.

#### **18-Hour Use Time**

Choletec may be used up to 18 hours after reconstitution three times longer than disofenin. Choletec contains a preservative.

#### CHOLETEC\* Kit for the Pre To 90m Mebr

#### DESCRIPTION

DESCRIPTION

Each reaction vial contains a nonradioactive, sterile, nonpyrogenic mixture of 45 mg mebrofenin, 0.54 mg (minimum) stannous fluoride dihydrate, 5nf-y-2H<sub>2</sub>O<sub>1</sub>, not more than 5.2 mg methylparaben, and 0.58 mg propylparaben. The pH is adjusted with sodium hydroxide or hydrochloric acid prior to hyophilization. The contents of the vial are hyophilizated and sealed under nitrogen at the time of manufacture. The pH of the reconstituted product is 4.2 to 5.7.

When sterile, pyrogen-free sodium perischnetate

When sterile, pyrogen-free sodium pertechnetate Tc 99m infection is added to the vial, the diagnostic agent Technetium Tc 99m Mebrofenin is formed ation by intr

INDICATIONS AND USAGE
Technetium Tc 99m Mebrofenin is indicated as a

hepatobiliary imaging agent.
CONTRAINDICATIONS
Hypersensitivity to this compound.

The theoretical possibility of allergic reactions should be considered in patients who receive multiple do

#### PRECAUTIONS

Contents of the reaction vial are intended only for use in the preparation of Technetium Tc 99m Metrotenia and are not to be administered directly

Delayed or non-visualization of the galibiadder ay occur in the immediate post-prandial period r after protonged fasting or parenteral feeding. unctional billiary obstruction may accompany pronic cholecystitis or pancrestitis. In addition, attents with hepatocellular disease may show onvisualization or delayed visualization of the gal-ledder. Delayed intestinal transit may also be noted

in such patients. Juvenile hepatitis may be associated with galibladder nonvisualization and the failure to visualize activity in the intestine. Administration of meperidine or morphise may delay intestinal transit of the imaging agent and may result in nonvisualization. Septic patients may show absent or delayed hepatiolitisty clearance. Thus, a positive finding does not of itself permit a differential diagnosis of any of the above conditions and should be evaluated in the light of the total clinical picture and results of other diagnosis or fine til tare supplied sterile and non-pyrogenic. Asspitic procedures normally employed in making additions and withdrawesis from sterile, non-pyrogenic containers should be used during the addition of the persionhetate solution and the withdraward of doese for patient administration.

lution and the withdrawal of goses for powers administration. The technetium Tc 99m labeling reactions involved in preparing the agent depend on maintaining the stannous ion in the reduced state. Any oxidant present in the sodium pertechnetate Tc 99m supply may, thus, adversely affect the quality of the radiopharmaceutical. Hence, sodium pertechnetate Tc 99m containing oxidants should as a maintain a maintain.

processes the containing oxidants should not be employed. Radiopharmaceuticals should be used only by physicians who are qualified by training and experience in the safe use and handling of radionactides and whose experience and training have been approved by the appropriate government agency authorized to license the use of radionuclides. As in the use of any radioactive material, care should be taken to minimize radiation exposure to the patient consistent with proper patient management and to ensure minimum radiation exposure to 50 mm. To 95m Mebrolevini should be formulated no more than 18 hours prior to clinical use.

neels, Mutageneels, Impairment

No long term animal studies have been performed to evaluate carcinogenic potential or whether Tech-

**SQUIBB™** Diagnostics

netium Tc 99m Mebrolenin may affect fertility in males or females.

males or termises.

Pregnancy Category C

Animal reproduction studies have not been conducted with Technistum Tc 99m Mebrotenin. It is also not known whether Technetium Tc 99m Mebrotenin can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Technetium Tc 99m Mebrotenin could be with the productive technique of the technique of technique of the technique of the technique of technique

ductive capacity. Technetium Tc 99m Mebrofenin should be given to a pregnant woman only if the expected benefits to be gained clearly outwelgh the potential hazards. Ideally, examinations using radiopharmaceuti-cals, especially those elective in nature, in women of childbearing capability, should be performed during the first low (approximately 10) days follow-ing the onset of menses.

#### ursing Moth

Technetium Tc 99m is excreted in human milk dur-ing lectation. Therefore, formula feedings should be substituted for breast feedings.

Pediatric Use Satisty and effectiveness in children below the age of 18 have not been established. ADVERSE REACTIONS

Although no adverse reactions have been reported specifically for Bechnettum Tc 99m Mebrotenin, rare cases of pruntito rash, chills, and nausea have been reported with related compounds.

#### **HOW SUPPLIED**

ec (Kit for the Preparation of Technetium To ebrofenin) is supplied in kits of 10 reaction

1. Klingensmith WC III, Fritzberg AR, Spitzer VM, et at: Work in progress: Clinical evaluation of Tc99m-trimethylbromo-IDA and Tc-99m-dis:09-moyl-IDA for hepatibilitary imaging. Radiology 46:191-194, January, 1963.
2. Data on file, Squibb Diagnostics.

#### **medi+**physics

a subsidiary of Hoffmann-La Roche Inc.

#### Other Squibb Diagnostics Agents

#### Macrotec\*

(Kit for the Preparation of Technetium Tc99m Albumin Aggregated)

#### lodotope<sup>6</sup>

(Sodium Iodide I 131 Capsules USP Diagnostic • Oral and Sodium Iodide 1131 Solution USP Therapeutic · Oral)

#### Phosphotec\*

(Kit for the Preparation of Technetium Tc99m Pyrophosphate)

(Kit for the Preparation of Technetium Tc99m Sulfur Colloid)

#### MDP-Squibb<sup>o</sup>

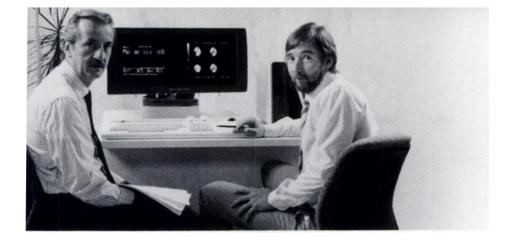
(Kit for the Preparation of Technetium Tc99m Medronate)

Choletec may be ordered through your Squibb or Medi-Physics representative

Circle Reader Service No. 67

608-501

issued Feb. 1988



#### NO. 57 IN A SERIES

#### Dave Nowak, M.S. Brian Cochrane, Ph.D.

Dave Nowak and Brian Cochrane are advanced development engineers in the GE Medical Systems nuclear projects engineering unit.

## Advances in nuclear neurology

With the anticipated introduction of new brain radiopharmaceuticals, the use of emission computed tomography (ECT) imaging for neurological studies is expected to increase, creating special challenges for nuclear imaging. As a result, there have been a series of hardware and software improvements specifically designed to enhance ECT head images.

#### Optimized detector

The unique cut-off design of the 400AC contoured detector from GE Medical Systems permits unobstructed rotation around the head, reducing resolution to

PARALLEL

FAN BERN

Fig. 1. Transaxial slices demonstrate resolution improvement with the fan beam collimator, particularly in the basal ganglia region.

approximately 12 mm without relinquishing sensitivity.

Dr. Benjamin M.W. Tsui, University of North Carolina, has developed a fan beam collimator designed to improve resolution and sensitivity for tomographic brain imaging. Dr. Tsui has found that using the collimator in conjunction with the 400AC detector for close proximity imaging can improve spatial resolution to 9 mm.

#### Software developments

Three-dimensional surface image software offers a unique way to view radiopharmaceutical distributions within the body by allowing

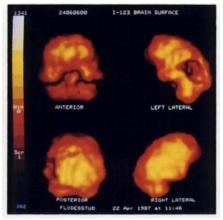


Fig. 2. Three-dimensional IMP images show the extent of a cerebral infarction.

visualization of three-dimensional structural relationships. Evaluating defects in a single image is easier than looking at successive tomographic slices, especially when the defect is near the image surface. Nowak reconstruction, a weighted back-projection technique, can reduce the effects of attenuation, scatter and loss of resolution due to distance from the camera, yield-

#### Clinical significance

ing images with improved contrast.

The development of investigational brain imaging agents such as Iodoamphetamine (IMP) and others indicates the need for ongoing ECT improvements. At GE, research continues to meet the current and future requirements of ECT imaging.

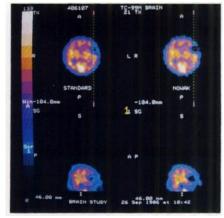
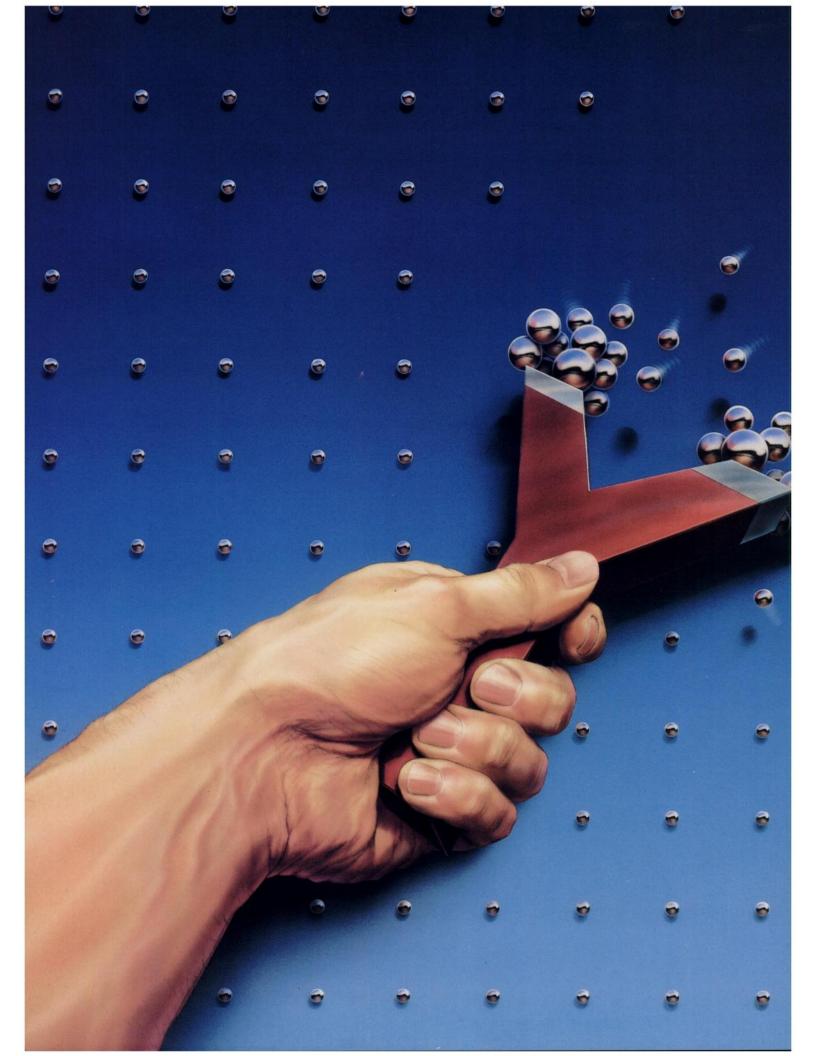


Fig. 3. Transaxial and sagittal slices on right show improvement in resolution and contrast with Nowak reconstruction.





# Producing a stronger bond to revolutionize cancer detection and treatment.

Because of their ability to seek out and attach to cancer cells within the body, monoclonal antibodies offer tremendous potential for use in detecting and treating cancer.

Up to now, however, this potential has not been fully realized because of the failure to develop an effective means for attaching diagnostic and therapeutic agents to the monoclonals.

Today at NeoRx, we are overcoming this obstacle as the result of our proprietary technology for producing ligands, a chemical "superglue" used to bond agents to antibodies.

The ability to produce this stronger bond between monoclonal antibodies and various agents establishes NeoRx as a leader in the development of cancer imaging and treatment products.

When we introduce our first imaging product—planned for 1988—we will take the first step toward achieving our twin goals of improving efficacy and decreasing toxicity in the diagnosis and treatment of cancer patients.



NEORX CORPORATION 410 West Harrison Seattle, Washington 98119 (206) 281-7001

# An Uncommon Concern for Quality



The NORLAND Model 2600 Dichromatic Bone Densitometer System. The clear choice in bone density measurement for: Lumbar Spine Analysis, Hip Analysis, Whole Body Analysis, Local Region Analysis, and Normals Comparison. And Norland is busy right now developing new application software.

These software packages allow you to make better-informed decisions because you get the data you need in a clear, concise, easy to interpret format.

The hardware is designed for extended performance and versatility. Multi-tasking capabilities, large buffer memories and concurrent operations combine for easy set-up, along with quicker scanning and data analysis.

And we back it all with a continuing commitment to match our technology with your



Hip Analysis Display

future requirements. A commitment that *always* includes our ongoing support and service; and a customer-first attitude you thought was a thing of the past.

Call us today at **800-742-1042** to discuss your requirements. We respond.

We match technology with commitment

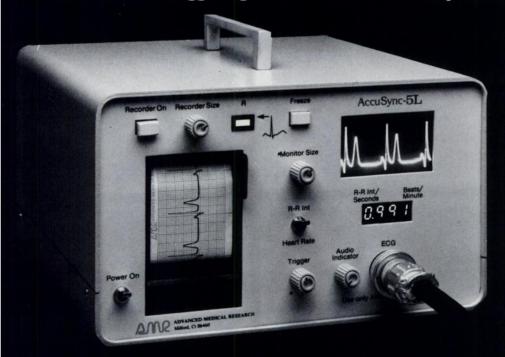
# **NORLAND**

A COIDS COMPANY

Norland Corporation Norland Drive, Fort Atkinson, WI 53538 Tel: U.S. Toll-free 1 (800) 742-1042 In Wis.: (414) 563-8456 Telex: 26-5448 In Europe: Norland Scientific Instruments B.V. Van Houten Industriepark 11 1381 MZ Weesp. The Netherlands Tel: (31) 2940-19955 Telex: 18330 NORLD

#### AMR's AccuSync provides R-wave detection with precision and reliability.

The finest R-wave Triggering device available for computerized gated cardiac studies.



#### AccuSync-5L **Features**

- Isolation Amplifier for Patient Safety.
- Digital CRT Monitor.
- ECG Strip Chart Recorder.
- · Heart Rate/R-R int.
- Trigger Pulse LED.
- Trigger Control for Ease of Lead Placement and Precise Location of Trigger Pulse.
- R-Trigger Output, Compatible with all Computers.
- · No Delay.
- ECG Output
- Playback Mode. (optional)
- Event Marker. (optional)
- Audio Indicator.

MODEL

AccuSync-6L



AccuSync-IL



AccuSync-3R



AccuSync-4R





**FEATURES** 

All AccuSync-5L features with the exception of the Strip Chart Recorder.

All AccuSync-5L features with the exception of Digital CRT Monitor.

All AccuSync-IL features with the exception of the Strip Chart Recorder and Playback Mode.

All Accu Sync-3R features with the exception of the Heart Rate/R-R int. display.

MEDICAL RESEARCH CORP.

148 Research Drive/P.O. Box 3094 Milford, CT 06460/Telephone: (203) 877-1610

Circle Reader Service No. 14

# TRIONIX



REVOLUTION, NOT EVOLUTION!

#### NEW STANDARDS IN NUCLEAR IMAGING

# TRIAD and BIAD TOTAL IMAGING SYSTEMS

#### REVOLUTION, NOT EVOLUTION!

#### TRIAD

The Trionix<sup>™</sup> revolution begins with the Triad. It combines our



outstanding computer with the most advanced SPECT

system design in the industry. Three wide field gammma cameras, set in a triangle, move radially to tightly surround the head or torso for superior 3-D imaging of either the brain or body organs.

Also, while the three-camera design makes Triad the optimal SPECT workhorse, it also excels at planar and wholebody imaging.

And the best part is fast Dynamic SPECT. Triad can reduce 360° data acquisition to <u>five</u> seconds for continuous images without a time gap. Compare this to other systems.

Is Cost an issue? Triad's ability to do three to five times the patient volume at less than twice the cost of most single camera systems means more studies per day at a lower average cost. But, Triad's only half the story. Trionix also introduces the Biad.

#### BIAD

The Biad combines Triad's elegant, but solid gantry and powerful



computer with two extra wide, true rectangular gamma

cameras to create a system optimized for wholebody imaging.

With two extra wide cameras, Biad can complete a posterior and anterior wholebody study in ONE pass. In addition, Biad offers you a SPECT capability second only to Triad.

These features plus *twice* the sensitivity of most one camera systems can be yours with Biad.



Frustrated with difficult non-circular set-up? We've solved that problem

with our interactive gantry display and simplified set-up procedure.

The highest performing systems deserve the utmost in processing power. An integral part of every Triad and Biad system is our fast, flexible computer system (actual monitor shown left).

#### COMPUTER

As demonstrated at the June SNM show, Trionix mixes tremendous computing power with the industry's largest, most flexible image display and the ease of mouse control to create a new standard in nuclear medicine.

Don't believe us? Compare these features to your current system:

- TRUE 32 bit system
- UNIX<sup>™</sup> O/S
- 1152 x 900, 19" display
- Pop-up menus
- Overlapped windows

And networking? Name the protocol - Ethernet, DecNet<sup>™</sup>, TCP/IP . . . We support them ALL!

And so, the Trionix revolution has begun. If you agree that it's time to replace old ideas with bold new approaches, call us at

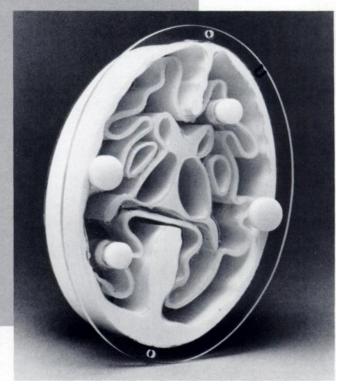
216-425-9055

1666 Enterprise Parkway Twinsburg, Ohio 44087



#### SPECT PHANTOMS

Monitor your system's performance with Capintec's IB-20 Brain Phantom developed to simulate cerebral I-123 IMP distribution in cerebral blood flow studies. For consistent image quality count on Capintec's full line of Spect Phantoms.



# CAPINTECNOLOGY AT WORK:



Circle Reader Service No. 9

#### **CAPINTEC-VEST™**

Ambulatory left ventricular studies are now a reality, thanks to the CAPINTEC-VEST.™ Data generated using the system includes synchronized ejection fraction, relative cardiac volumetric measurements, heart rate and electrocardiographic analysis.

#### Capintec plus technology

On many fronts, this combination is an active force in exploring new techniques in nuclear medicine, as well as enhancing old ones. All to help you improve patient care.

Capintec Inc., 6 Arrow Road, Ramsey, NJ 07446. 1-800-631-3826. In NJ call 1-201-825-9500.

EXPANDING THE BOUNDARIES OF NUCLEAR MEDICINE.

CAPINTEC-VEST and CII are trademarks of Capintec, Inc.

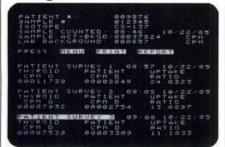
# Setting New Standards In Thyroid Uptake Activity Studies.

The Thyroid Uptake System II sets new standards for uptake studies.

If you're looking for the Uptake System that offers the most features, is designed for patient comfort and easy operation, look to the New Thyroid Uptake System II from Atomic Products Corporation.

This is the Uptake System that sets new standards because it is "truly dedicated" to thyroid uptake activity studies.

Operation is simple, and straightforward, thanks to



the "user-friendly" menu selection and "easy-to-use" control panel. All operations and calculations are handled by a high-speed microprocessor with data displayed on the built-in monitor.

A printer is available for hard copy.

The isotope menu is preselected for 7 isotopes (I-123, I-125, I-131, Co-57, Cr-51, Tc-99m, and Cs-137) with a manual override.

The Thyroid Uptake System II can be configured as a free-standing unit or used in a table-top setting.

Call or write for complete literature and the name of your local representative.

Patient measurements are automatically decay corrected, and it calculates final uptake percentage. There is an 8 patient memory capable of storing three measurements per patient.

The design of the collimator allows movement in all axes for easy patient approaches.



P.O. DRAWER R, SHIRLEY, NEW YORK 11967-0917 U.S.A. TEL: (516) 924-9000 • FAX: (516) 924-9241 TELEX NO: 797566 • TWX: 51022-80449 ATOMLAB CTCH

# IN A FOG??

using aerosols to determine the patency of the pulmonary airway system? Use a gas (that's what the airway system is for), and Xenon (127 or 133) are gases which are safe, economical and easy to administer with the XENAMATIC 3000.

- Shielded for Xe 127 and Xe 133 (radiation profile available on request).
- World's only system that allows you to study patients on Ventilators.
- Largest and most efficient Xenon trap with a built-in monitor alarm system.
- Built-in O₂ monitor with digital display and control.
- A rebreathing system that saves Xenon.
- Low breathing resistance so you can study sick patients.
- Semi-automatic operation.
- Remote Control Capability.

Get out of the FOG-making business, and call today for more information on putting gases where gases belong, with the XENAMATIC.

Also available, Model 2000.

For more information, please call or write,

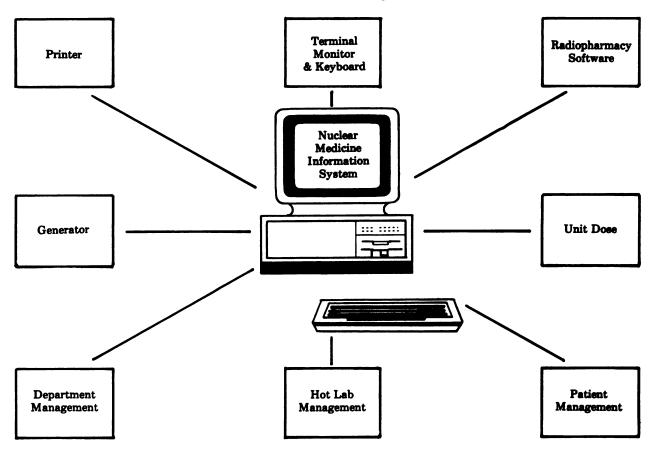


#### **DIVERSIFIED DIAGNOSTIC PRODUCTS, INC.**

11603 Windfern Houston, TX 77064 713-955-5323

#### **NUCLEAR MEDICINE INFORMATION SYSTEMS®**

(Software Package)



# IT'S TIME TO TAKE THE NEXT STEP . . . .

This Program and a Personal Computer is the answer to meeting your management needs . . . and much more.

#### NUCLEAR MEDICINE CONSULTING FIRM P. O. Box 824 Greenville, PA 16125 (412) 932-5840

Circle Reader Service No. 54

#### HOT LAB MANAGEMENT:

- -Syringe Labels
- -Disposal Records
- -Inventory Control
- -Unit Dose Database
- -Generates Daily Reports
- -Generator and Kit Preparation
- -Ordering & Receiving Unit Doses
- -Decays All Radiopharmaceuticals and Doses
- -Performs Thin Layer Chromotography
- -Calculates Linearity & Constancy Tests
- -Radioactive Shipment Receiving Reports

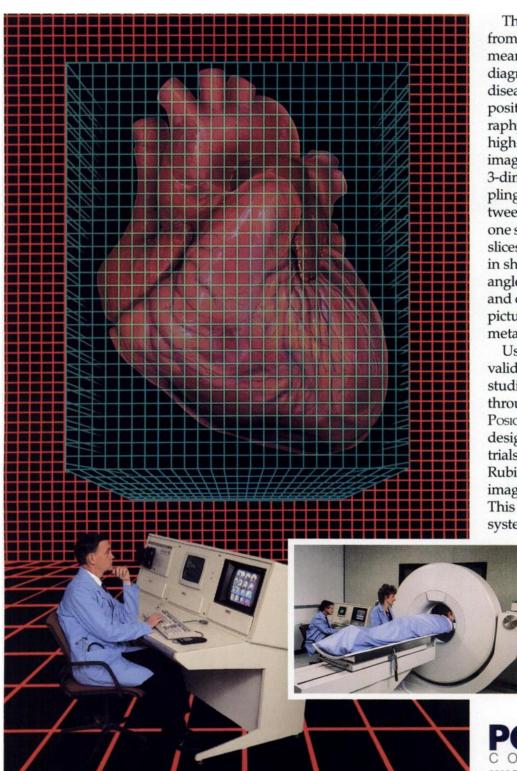
#### **DEPARTMENT MANAGEMENT:**

- -Teaching File
- -Reminder File
- -Stores Department Data
- -Health Physics Program
- -Calculates Budgetary Information
- -Calculates Department Statistics
- -Productivity & Efficiency Programs
- -Stores Department's Procedure Manual
- -Quality Assurance & Quality Control Programs

#### PATIENT MANAGEMENT:

- -Patient Scheduling
- -Monthly and Yearly Statistics
- -Networking System Availability
- -Adaptable to Department's Needs
- -Creates Hard Copy of Patient Doses
- Inhouse, Unit Doses, and Central Pharmacy
- -Displays Data Numerically &/or Graphically -Generates Teaching File of Interesting Cases
- -Analyzes Quality Assurance for JCAH Documentation

# POSICAM: The most powerful imaging in Cardiology!



The Posicam™ System, from Positron Corporation means accurate, non-invasive diagnosis of coronary artery disease by routine clinical positron emission tomography. Posicam™ provides high-speed, high resolution imaging using uniform 3-dimensional volumetric sampling, without data gaps between image planes. Twentyone simultaneous overlapping slices of the whole heart in short axis, long axis, or angled views create the first and only true 3-dimensional pictures of cardiac perfusion, metabolism, and function.

User-friendly software, validated in over 700 clinical studies, gives unsurpassed throughput and data analysis. Posicam™ is the only camera design tested in large clinical trials with generator-produced Rubidium-82 for cardiac imaging without a cyclotron. This revolutionary imaging system is now affordable for

hospitals and clinics to provide the most advanced cardiac care for their patients.

Innovation and reliability for serious medical decisions that affect lives.

Positron has made the commitment.

POSITRON

8080 El Rio Houston, Texas 77054 FAX: 713/796-1506 TEL: 713/741-4000

## The Society of Nuclear Medicine

# 35th ANNUAL MEETING

Friday, June 17, 1988
San Francisco, CA
Moscone Convention
Center

Tuesday, June 14-

Circle Reader Service No. 159

#### IF YOU MISSED TORONTO, YOU MISSED A GREAT MEETING— MAKE UP FOR LOST TIME; COME TO SAN FRANCISCO

Its cable cars, bridges, Victorian buildings, cultural variety, food, and, of course, its beautiful bay will set the backdrop to four days of intensive learning opportunities, interspersed with exciting social events. San Francisco, California, will be the site of our Thirty-fifth Annual Meeting. If you missed Toronto, you missed a great meeting, but San Francisco promises to be even better.

#### SCIENTIFIC PAPERS

This year's presentation of over 700 scientific papers and posters includes a distillation of the latest advancements and finest work achieved by outstanding scientists and physicians in the field of nuclear medicine. These papers, presented by the original authors, with over 30 subjects to choose from, will provide a unique opportunity for enhancing your knowledge or exploring new avenues in correlative areas of nuclear medicine. Ample time is allotted at these presentations for questions and discussions.

An extensive display of scientific posters and exhibits will augment the presentations.

#### **CONTINUING EDUCATION COURSES**

Refresher and state-of-the-art continuing education courses in chemistry, physics, quality assurance, cardiovascular nuclear medicine, PET, SPECT, and NMR will supply up-to-the-minute approaches and procedures for all clinical settings.

#### **TECHNOLOGIST PROGRAM**

The ever-increasing importance of the role of the nuclear medicine technologist will be explored in our Technologist Program, and over 70 hours of clinical updates will provide chief and staff technologists with the latest in basic, intermediate, and advanced studies. This program will broaden expertise and enhance the technologist's contributions to nuclear medicine.

#### **EXPOSITION**

More than 100 pharmaceutical and equipment manufacturers will display their latest products in a lively atmosphere. These knowledgeable commercial representatives offer the technical depth our field demands, and they are valuable sources of timely and pertinent information.

#### **AUDIOVISUALS, BOOKS, JOURNALS**

The Society of Nuclear Medicine is continually adding to its library of audiovisuals, books, and other publications. A stop at the publications booth is well worth the time. Here you will find on display what the society has to offer for year-round educational advancement.

Networking opportunities and job referral boards are available at special locations throughout the meeting as well as membership information at our membership booth.

Registration: \$130 SNM members

\$225 nonmembers

Hotels: \$100 US average rate/night

If you need further information, please contact:

The Society of Nuclear Medicine Education and Meetings Department 136 Madison Avenue New York, N.Y. 10016-6760

(212)889-0717 • Telex: 6502957177

## EUROPEAN NUCLEAR MEDICINE CONGRESS 1988

#### AUGUST 26-SEPTEMBER 2 MILANO, ITALY

#### **SCIENTIFIC PROGRAM**

Plenary sessions, with lectures given by invited speakers, will concern the following main topics: Oncology, Emission Tomography, Cardiology, Pediatrics, Neurology. Scientific Papers, "Works-in-Progress," Technicians' Program, Scientific and Commercial Exhibition, Pre- and Post-Congress Meetings are also included.

Topics related to nuclear medicine will be considered for inclusion in the scientific program as follows:

Instrumentation: Instrumentation and New Technologies, Emission Computed Tomography (SPECT and PET), NMR, Computers, Image Processing, Artificial Intelligence, Quality Control of Instrumentations.

Radiopharmaceuticals: Radiopharmaceutical Chemistry, New Radiopharmaceuticals, Radiolabeled Monoclonal Antibodies for Cancer Diagnosis and Therapy, Studies on Cell and Animal Models, Kinetics of Tracers, Quality Control of Radiopharmaceuticals, Dosimetry.

In Vitro Applications: Tumor Markers, Radioimmunoassays, Cell Labeling Quality Control, Genetic Engineering.

Clinical Applications: Cardiology and Circulation, Gastroenterology, Nephrology, Neurology, Hematology, Endocrinology, Pediatrics, Bone/Joint Diseases, Pulmonary Diseases, Thyroid Diseases, Metabolic Therapy, Radiation Risks.

#### **EXHIBITION**

A comprehensive exhibition of equipment and radiopharmaceutical manufactures will be on display.

#### **GENERAL INFORMATION**

Call for Abstracts: Official Abstract Sheets may be obtained by writing to the Official Organizing Offices, O.I.C. Incentive -Viale Majno, 21–I 20122 Milano. The deadline for the receipt of abstracts is March 1, 1988.

Registrations and Fees: Members of the European Association of Nuclear Medicine (EANM), regularly registered, will have free admission to the Congress, provided that they present their 1988 Membership card at the Registration Desk, or send a copy to the Official Organizing Offices. EANM Members must pay their fees by April 15, 1988. New EANM membership applications will be accepted only until April 15, 1988.

The registration fees for non-members will be Lit. 220.000 + VAT by June 15, 1988 and Lit. 300.000 + VAT after June 15, 1988.

Social Program: A comprehensive social program has been planned, including the Opening Ceremony with a concert and welcome cocktail (inclusive in the registration fee); an organ concert in one of the most beautiful churches of Milano; a dancing dinner in an old villa near Milano; the Farewell Party.

**PRESIDENT OF THE CONGRESS:** Prof. Dott. Gian Luigi Buraggi

#### **Scientific Secretariat:**

Division of Nuclear Medicine Istituto Nazionale dei Tumori Via Venezian, 1 I-20133 Milano

#### Official Organizing Offices:

O.I.C. Incentive Viale Majno, 21 I-20122 Milano Ph.: (2)79.37.40/70.84.19 Fax: (2) 79.14.95— Telex:332652 oic mi i

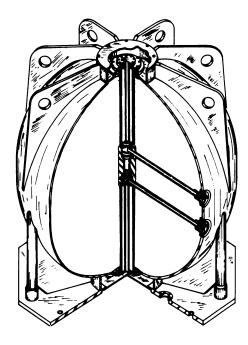
Circle Reader Service No. 38

#### CALIFORNIUM-252 WORKSHOP

presented by

The Oak Ridge National Laboratory

Garden Plaza Hotel
Oak Ridge, Tennessee 37830
April 13-14, 1988



#### • Format of the Workshop:

- Three formal half-day sessions on technical and administrative issues
- One half-day for tours of production facilities and/or individualized user/supplier discussion meetings

#### Discussion topics include:

- Production Capabilities
- Demand Projections
- Customized Services
- Administrative Procedural Changes
- Packaging and Shipping Regulations
- Ordering Procedures

For information, contact J. E. Bigelow, Program Chairman,

Oak Ridge National Laboratory, P.O. Box  $\boldsymbol{X}$ ,

Oak Ridge, TN 37831-6384

Telephone: (615) 574-7071, FTS 624-7071

#### Information for Classified Advertisers—1988

**POLICY:** The Journal of Nuclear Medicine and the Journal of Nuclear Medicine Technology accept classified advertisements from medical institutions, groups, suppliers, and qualified specialists in nuclear medicine. Acceptance is limited to Positions Open, Positions Wanted, Equipment Available, Equipment Wanted and Seminars. We reserve the right to decline, withdraw, or modify advertisements that are not relevant to our readership.

**LINE-ADS:** \$13.50 (JNM) or \$13.00 (JNMT) per line or fraction of line (approx. 50 characters per line, including spaces). Please allow 28 characters for the first line which will appear in capital letters. Special rates for SNM members on **Positions Wanted:** \$10.00 per line. *Note:* Box numbers are available for the cost of the two lines required.

#### **EXAMPLES**

NUCLEAR MEDICINE TECHNOLOGIST. Registered or registry eligible technologist to work in private office. Special emphasis on nuclear cardiology. Salary negotiable. Send resume to: Box 1203, The Society of Nuclear Medicine, 136 Madison Ave., 8th fl., New York, NY 10016-6760. EOE.

Estimate 28 characters First Line

Estimate 50 characters

Per Line

NUCLEAR MEDICINE PHYSICIAN with board certification in internal medicine or radiology needed for expanding out patient imaging practice. Qualified applicants should send CV to: 1.M.C. Inc., 2040 W. Wisconsin Ave., Suite 378, Milwaukee, WI 53233; (414)933-8739. EOE.

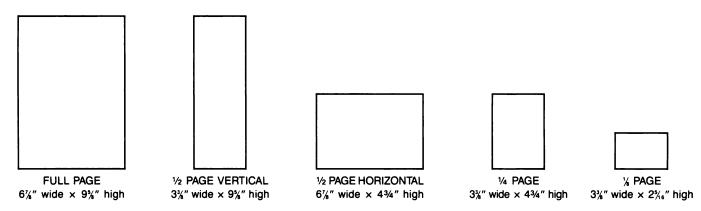
#### WITH BOX NUMBER

COST: 6 lines  $\times$  \$13.50 = \$81.00 (JNM) 6 lines  $\times$  \$13.00 = \$78.00 (JNMT)

#### WITHOUT BOX NUMBER

COST: 6 lines  $\times$  \$13.50 = \$81.00 (JNM) 6 lines  $\times$  \$13.00 = \$78.00 (JNMT)

#### **DISPLAY ADS DIMENSIONS:**



#### RATES:

JNM		JNMT		
Full page	\$1025	Full page	\$585	
Half page	600	Half page	355	
Quarter	400	Quarter	235	
Eighth	340	Eighth	205	

<sup>\*</sup>Publisher-set charges: page \$100; half page \$75; quarter page \$40; eighth page \$25.

**TERMS:** Payment or an authorized Purchase Order must accompany order. Make check payable, in U.S. dollars on U.S. banks only, to: The Society of Nuclear Medicine. Note: 15% agency commission is offered on display ads only.

**FREQUENCY:** The Journal of Nuclear Medicine is a monthly and the Journal of Nuclear Medicine Technology is a quarterly, published in March, June, September, and December.

**DEADLINE:** First of the month preceding the publication date (for example, January 1 for February issue). Please submit classified advertisements typed double spaced. **No telephone orders are accepted.** 

SEND COPY TO: Classified Advertising Department The Society of Nuclear Medicine 136 Madison Avenue, 8th Floor New York, NY 10016-6760

For further information please contact Laura Fasano at (212) 889-0717.

Policy—The Journal of Nuclear Medicine accepts classified advertisements from medical institutions, classified advertisements from medical institutions, groups, suppliers, and qualified specialists in nuclear medicine. Acceptance is limited to Positions Open, Positions Wanted, Equipment Available, and Seminars. We reserve the right to decline, withdraw, or modify advertisements that are not relevant to our

Rates for Classified Listings—\$13.50 per line or fraction of line (approx. 50 characters per line, including spaces). Please allow 28 characters for the first line which will appear in capital letters. Special rates for SNM members on Positions Wanted: \$10.00 per line. Note: Box numbers are available for the cost of the 2 lines required.

Rates for Display Ads—Agency commissions are offered on display ads only. Full page \$1025

Full page Half page Quarter page Eighth page

Terms—Payment must accompany order. Make checks payable, in U.S. dollars on U.S. banks only, to: The Society of Nuclear Medicine.

Deadline—first of the month preceding the publication date (January 1 for February issue). Please sub-mit classifed listings typed double spaced. No tele-phone orders are accepted.

Send copy to: Classified Advertising Department The Society of Nuclear Medicine 136 Madison Avenue New York, NY 10016-6760 (212)889-0717

#### **Positions Available**

PROGRAM DIRECTOR-School of Nuclear PROGRAM DIRECTOR—School of Nuclear Medicine Technology. The University of Virginia Medical Center is currently seeking a full-time Program Director for the School of Nuclear Medicine Technology. The School is hospital based with a JRC approved, 12-month certificate program. The candidate must be a certified Nuclear Medicine Technologic tuits a principle of the program of the pro gist with a minimum of 2 years of postcertificate pro-fessional experience and a baccalaureate degree. The Program Director must demonstrate proficiency in instruction, curriculum design, program planning, evaluation, and counseling. Competitive salary and excellent benefits are offered. Historic Charlottesville is centrally located, only 2 hours from Washington, D.C., 2½ hours from the Atlantic Coast, and within 30 minutes of the ski resorts in the Blue Ridge Mountains. Charlottesville is the home of the University of Virginia and Monticello, the home of Thomas Jef-Ferson. For further information, call: Dr. Croft or Ms. Fox at (804)924-5201 or write: Ms. Jonette Aughenbaugh, Ronnie Price, University of Virginia, Department of Personnel Administration, Carruthers Hall, P.O. Box 9007, Charlottesville, VA 22906. EOE/AA.

#### **Fellowship**

NUCLEAR MEDICINE/MAGNETIC RESONANCE FELLOWSHIP. The Department of Radiology at The University of Texas Health Science Center at Dallas is offering a 1- or 2-year fellowship to begin July 1, 1988 to include training in nuclear medicine and magnetic resonance imaging. Strong emphasis is placed on physiologic image interpretation and quantitation as well as correlation with other diagnostic modalities. Applicants must have completed a minimum of 2 years in an accredited diagnostic radiology imum of 2 years in an accredited diagnostic radiology residency program and have demonstrated an interest in research. Previous fellowship experience or MD/PhD desired but not required. Send CV to: William A. Erdman, MD, Director, Nuclear Medicine and Body MR Research, Dept. of Radiology, University of Texas Health Science Center at Dallas, 5323 Harry Hines Blvd., Dallas, TX 75235. An Affirmative Action/Equal Opportunity

Monoclonal antibody diagnosis and treatment of cancers. Unique FELLOWSHIP now available for an cancers. Unique FELLÓWSHIP now available for an outstanding physician candidate desiring research experience with radiolabeled monoclonal antibodies. The flexible fellowship allows for basic lab experience in antibody production, characterization, and radiolabeling, as well as for clinical experience in patient antibody imaging, dosimetry, and therapy in a state-of-the-art nuclear medicine division. Applicant must be U.S. citizen. Please send CV to: David Kuhl, MD, Div. of Nuclear Medicine, University of Michigan Medical Center, Ann Arbor, MI 48109-0028. Non-discrim. A/A Employer. discrim. A/A Employer.

FELLOWSHIP IN NUCLEAR MEDICINE, University of Missouri, Columbia. One- or two-year clinical and research fellowship in nuclear medicine. The fellowship is integrated between university and adja-cent Harry S. Truman Memorial Veterans Hospitals. Research opportunities include basic science and clinical work with new single photon emitting brain blood flow agents and a range of theraputic radiopharma-ceuticals. Facilities include basic science laboratories, full SPECT imaging systems at both hospitals, and opportunities for CT, ultrasound, and MR imaging correlations. Clinical program has strong cardiovascular nuclear medicine emphasis. Candidates must be Board certified or elegible in nuclear medicine, and licensed to practice medicine in Missouri. Send letter of interest (including list of references) to: Richard A. Holmes, MD, Chief of Nuclear Medicine, University of Missouri Hospital and Clinics 2N19 Medical Sciences, 1 Hospital Dr., Columbia, MO 65212. EOE.

NUCLEAR MEDICINE PHYSICIAN. Position available immediately. Board certified Nuclear Medicine Physician preferred. Board eligible acceptable. Position with eight-man group in Northeastern Pennsylvania. Send CV with references to: Box 201, The Society of Nuclear Medicine, 136 Madison Ave., 8th Fl., New York, NY 10016-6760.

NUCLEAR MEDICINE PHYSICIAN. The Division of Nuclear Medicine, in the Department of Radiology, Beth Israel Hospital, has an opening for an AB-NM certified staff nuclear medicine physician. The successful applicant will have a faculty appointment at the Assistant/Associate Professor level at the Harvard Medical School, and will participate in the Harvard Joint Program in Nuclear Medicine. Research valuation repair in Nuclear Meetine. Research and teaching experience and interest are essential. Preference will be given to candidates with 3-5 years postresidency academic experience. We have strong research programs in PACS, with a functioning all-digital department, quantitative SPECT, nuclear cardiology, radiochemistry, and molecular biology. Training programs exist for both radiology and nuclear medicine residents. Salary commensurate with experience. Interested applicants should apply to: Gerald M. Kolodny, MD, Director, Div. of Nuclear Medicine, Beth Israel Hospital, 330 Brookline Ave., Boston, MA 02215. EOE.

NUCLEAR MEDICINE PHYSICIAN,, Western NOCLEAR MEDICINE PHYSICIAN, Western PA. BC/BE, ABNM with some experience with SPECT. To join combined radiation oncology-nuclear medicine hospital based practice. Send CV to Box 203, Society of Nuclear Medicine, 136 Madison Avenue, 8th Floor, New York, NY 10016-6760.

RADIOPHARMACEUTICAL REVIEW CHEM-IST. Food and Drug Administration. U.S. Public Health Service. PhD highly desirable. To review new drug submissions from the pharmaceutical industry; familiarity with the preparation of NDA and IND submissions useful. Salary range \$38,727-\$50,346 (GS-13). U.S. citizenship required. Please send resume and/or Application for Federal Employment (SF-171) to: Dr. R. Wood, Department of Health and Human Services, Public Health Service. Food and Drug Administration, HFN-150, 5600 Fishers Lane, Rockville, MD 20857; (301)443-3415. FDA is an Equal Opportunity Employer. RADIOPHARMACEUTICAL REVIEW CHEM-

#### Assistant Professor

ASSISTANT PROFESSOR, DIVISION OF NU-CLEAR MEDICINE, University of Kentucky, Lex-ington, is seeking applicants in nuclear medicine. Candidates should be Board certification in radiology with Board certification in radiology or medicine. The successful candidate will be expected to have expertise in the clinical activity of the division as well as participate in research and resident teaching. Please address replies to: U. Yun Ryo, MD, PhD, Professor and Director, Division of Nuclear Medicine, University of Kentucky Medical Center (Room N-7), Lexington, KY 40536. An Equal Opportunity Fundager. tunity Employer.

#### Radiologist

Board certified or eligible DIAGNOSTIC RADI-Board certified of eligible DIAONOSTIC RADI-OLOGIST to be part of a three-person imaging center staff and outpatient specialty clinic in Tacoma, Wash-ington. The radiology staff of this specialty center is associated with the larger radiology departments in hospitals operated by Group Health Cooperative of Puget Sound in Seattle and Redmond, Washington. or ruger south in Seattle and Redinford, Washington, nuclear medicine, GI fluoroscopy, mammography, outpatient CT, and diagnostic x-ray. For further details please contact: Director of Medical Staff Personnel, Group Health Cooperative of Puget Sound, 521 Wall St., Seattle, WA 98121; (206)448-6550. EOE.

NUCLEAR RADIOLOGIST, Individual must have successfully completed training for ABR certification with special competence in nuclear radiology or ABNM. Full state-of-the-art nuclear equipment including SPECT and computerized work. Applicant would share responsibility and would be required to do general radiology. Active 400-bed community hos-pital. Send inquiries to: Dr. Martin L. Friedman, Dept. of Radiology, Frankford Hospital-Torresdale Div., Knights and Red Lion Rd., Philadelphia, PA 19114; (215)934-4020. EOE.

STAFF RADIOLOGISTS. The College of Physicians and Surgeon of Columbia University is searching for Junior and Senior staff radiologists in our nuclear medicine division. Salary and rank will be commensurate with experience and qualifications. Responsibilities include patient care, teaching and super-vising residents for junior staff level; research as well as demonstrated academic ability in addition for senior staff level. Requirements include one to two years of specialized training in nuclear medicine and Board eligibility or certification in American Board of Radiology with special competence in nuclear radiology and/or American Board of Nuclear Medicine. N.Y.S. and/or American Board of Nuclear Wedlether. N.1.3.

medical license required; narcotics license desirable.

Please send resume to: David H. Baker, MD, Department of Radiology, 622 West 168th St., New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.

#### **Technologist**

CHIEF TECHNOLOGIST for a progressive clinical/research general and cardiovascular nuclear medi-cine program. Major affiliate of Yale University. New SPECT and cardiac equipment. PET center to be es-tablished in 18 months. Previous employment and cer-tification required. Established administrative extrication required. Established administrative experience preferred. Forward resume to: Dr. Robert Soufer, West Haven VA Medical Center/II5, West Spring St., West Haven, CT 06516 or call (203)932-5711, ext 684. EOE.

CHIEF TECH type, self motivated, responsible, to manage nuclear medicine departments in hospital cluster in New Hampshire, Colorado, Idaho, Chicago, and other locations. Excellent pay, commissions, car allowance, and benefits. Send resume to: Medical Imaging Systems, Inc., PO. Box 8506, Rolling Meadows, IL 60008. If you want an opportunity, this is it. EOE.

NUCLEAR MEDICINE/ULTRASOUND. Hospital based group in Pacific Northwest with private practice limited to ultrasound and nuclear medicine seeks associate with training in these subspecialties.

#### **Classified Advertising**

Nuclear medicine caseload includes cardiac, bone, hepatobiliary, pulmonary, renal, and SPECT studies. Ultrasound encompasses routine and complicated obstetrics, vascular, abdominal, pelvic, and pediatric neurosonography. Send CV to: Michael Daly, MD, Nuclear Medicine/Ultrasound Section, Emanuel Hospital, 2801 North Gantenbein Ave., Portland, OR 97227. EOE.

NUCLEAR MEDICINE TECHNOLOGIST. Staff tech experienced with computerized cardiac studies, emission computer tomography, and general nuclear imaging. Must be registered or registry eligible with Florida licensure. We offer a competitive salary and excellent benefits. Qualified applicants reply to: Beth Ellis, Employee Relations Department, Lee Memorial Hospital, P.O. Drawer 2218, Ft. Myers, FL 33901 or call TOLL FREE in Florida at 1-(800)422-4672 or nationally at 1-(800)642-JOBS. Equal Opportunity Employer.

NUCLEAR MEDICINE TECHNOLOGIST. The Hospital of Saint Raphael, a 500-bed community teaching hospital, is seeking a full-time staff technologist for our progressive, state-of-the-art nuclear medicine department. Must be Registered (RTNM), certified (CNMT) or Board eligible. The city of New Haven is located along Long Island Sound, in close proximity to New York. Community has diverse cultural offerings, skiing and sailing. We offer an outstanding benefits package. Salary commensurate with experience. Please send resume, or contact: The Dept. of Personnel, Hospital of Saint Raphael, 1450 Chapel St., New Haven, CT 06511.

NUCLEAR MEDICINE TECHNOLOGIST. Central Maine. 250-bed regional referral hospital has a challenging opportunity to join our expanding staff. Applicants for this full-time position must have or be eligible for ARRT/NMTCB certification. We offer a competitive salary and benefit package plus a quality lifestyle in a four-season setting only 2½ hours north of Boston. Please write or call collect: Human Resources, Central Maine Medical Center, PO. Box 4500, Lewiston, ME 04240; (207)795-2394. EOE.

NUCLEAR MEDICINE TECHNOLOGISTS-Phoenix, Arizona. Good Samaritan Medical Center, a 770-bed teaching institution has opportunities in all specialty areas. We are a progressive Nuclear Medicine Department with MDS and VAX/Microdelta computers, two Siemen's 7500 ZLC ECT cameras, two Picker Dyna-Mo cameras, a Technicare Omega 500, Siemens LFOV, and a Lunar Radiation DP4 Bone Density Unit. Qualified applicants must be able to work independently, have good communication skills, and be registry eligible (registered preferred). We offer an excellent benefits package and a competitive salary commensurate with experience. Please send resume to: Personnel Dept., Good Samaritan Medical Center, 1441 N. 12th St., Phoenix, AZ 85006 or contact: Jenny McAuley, (602)239-2677 for more information. EOE.

NUCLEAR MEDICINE TECHNOLOGIST, registered or eligible, for modern JCAH acute-care hospital, Rocky Mountain university town of 24,000, Metro Denver just 2½ hours away. Sports enthusiast's delight! Good working conditions and benefits. Salary negotiable based on experience. Send resume to: Human Resources Office, Ivinson Memorial Hospital, 255 North 30th, Laramie, WY 82070; (307)742-5483. EOE.

NUCLEAR MEDICINE TECHNOLOGISTS. Senior and Junior level positions in private nuclear medicine and ultrasound lab. Active cardiovascular program. ARRT registry required. Ultrasound experience desirable. Send resume to: Stuart Gottlieb/Faith Block, MD, PA 1150 N.W. 14 St., Suite 1, Miami, FL 33136 or call Ms. Smith, Administrator, (305)324-0424. EOE.

NUCLEAR MEDICINE TECHNOLOGIST. The University of Virginia Medical Center is currently seeking two full-time registered Nuclear Medicine Technologists or registry eligible Nuclear Medicine

Technologists. The Medical Center is an 800-bed research oriented teaching institution. The Nuclear Medicine Department consists of general imaging labs, Nuclear Cardiology labs, and an RIA lab. The labs are well equipped with Siemens, General Electric, Sopha, Raytheon, and Technicare cameras with MDS, Sopha, and DEC computers. Competitive salary and excellent benefits are offered. Historic Charlottesville is centrally located, only 2 hours from Washington, D.C., 2½ hours from the Atlantic Coast, and within 30 minutes of the ski resorts in the Blue Ridge Mountains. Charlottesville is the home of the University of Virginia and Monticello, the home of Thomas Jefferson. For further information, call: Mr. H. Shah, Chief Technologist, (804)924-5201 or write: Ms. Jonette Aughenbaugh, Ronnie Price, University of Virginia, Department of Personnel Administration, Carruthers Hall, P.O. Box 9007, Charlottesville, VA 22906. EOE/AA.

DIAGNOSTIC IMAGING DEPT. OPTIONS open for CNMRT/Eligible. Full-time, 8-hour shifts, cross training available. Beebe Hospital has competitive salary and benefits. Contact: The Personnel Dept., 424 Savannah Rd., Lewes, DE 19958; (302)645-3336. EOE.

NUCLEAR MEDICINE TECH—SW FLA. The best opportunities under the sun can be found at Medical Center Hospital in Punta Gorda, Florida, near Ft. Myers on Florida's SW coast. A Nuclear Medicine Technologist with CNMT or AART-N and Florida license eligible will find our staff position reward-

ing. Responsible for performing scanning and/or RIA procedures. Excellent salary (\$21,000-\$24,000) and benefits with moving allowance. For information contact: Human Resources Director, PO. Box 1309, Punta Gorda, FL 33950; (813)637-2552. EOE.

#### Service Technician

Position available for qualified gamma camera computer service TECHNICIAN. We are a group of outpatient facilities (16) covering much of Southeastern Michigan. Our equipment list includes Technicare, Medex HS-10, Searle PHO Gamma Cameras, Sopha, CD&A (Siemens), NIC computers. Please send resume to: PO. Box 090041, Rochester Hills, MI 48309-0041. EOE.

#### **Positions Wanted**

NUCLEAR MEDICINE PHYSICIAN/RADIO-LOGIST. Seeking Nuclear Medicine or Nuclear Medicine/Diagnostic Radiology position in California, preferably Southern California; private practice or academic. ABR certified in diagnostic radiology and ABNM certified in nuclear medicine. Training includes diagnostic radiology residency and fellowships in nuclear medicine and pediatric nuclear Mediciney. Reply: Box 202, The Society of Nuclear Medicine, 136 Madison Ave., New York, NY 10016-6760.

TECHNOLOGIST. REG. CNMT/ARRT. Seeks temporary positions—short/long term. Five years exp. Will travel. Reply: P.O. Box 82, McHenry, MD 21541.

## STAFF TECHNOLOGIST NUCLEAR MEDICINE

Boise, Idaho, land of mild winters and moderate summers, year around golfing, skiing minutes away from downtown area, boating and swimming minutes away, mountains near for hunting and camping.

We are looking for a graduate of AMA approved School of Nuclear Medicine. NMTCB or AART registry or registry eligible required. New graduate acceptable however must have experience during training with GE Starcon and nuclear cardiology. Department also has GE camera with MDS Computer as well as Lunar bone density.

Applicant will be working day shift, M-F, with some call and holiday coverage. Position offers excellent salary and benefits. Please send resume to:

Peggy Pyper St. Luke's Regional Medical Center 190 East Bannock Boise, Idaho 83702. 1-(208)386-2470.

**EQUAL OPPORTUNITY EMPLOYER** 

#### MAKE A DIFFERENCE!

XENOS Medical Systems is preparing to introduce a revolutionary new gamma camera and radiopharmaceutical. We are looking for experienced, dynamic people in the following areas to help us.

- APPLICATIONS PROGRAMMING
- CLINICAL APPLICATIONS
- FDA REGULATORY AFFAIRS
- FIELD SERVICE
- SALES/MARKETING
- PRODUCT MANAGEMENT
- TECHNICAL SUPPORT

If you are excited by the substantial challenges and rewards of launching innovative new technologies and want your contributions to truly make a difference, please apply in confidence to: Director, Human Resources, XENOS Medical Systems, 16902 El Camino Real, Suite 4-E, Houston, TX. 77058. We are an equal opportunity employer.

# DIRECTOR DIVISION OF NUCLEAR MEDICINE

Faculty position available in the Department of Radiology at Creighton University, a large tertiary care center and major teaching hospital in the Midwest with strong programs in cardiology, psychiatry and oncology.

The Division of Nuclear Medicine performs a full range of imaging studies. A Siemens-CTI PET Center will be operational in the Fall of 1988. Radiology residency program.

The position entails clinical service, teaching responsibility, and emphasis on research particularly in the area of clinical PET. The applicant should be Board certified in radiology or nuclear medicine.

Call or send resume to:
Mathis P. Frick, MD
Professor and Chariman
Department of Radiology
Creighton University School of Medicine
601 No. 30th Street
Omaha, NE 68131
(402)449-4753

## NUCLEAR MEDICINE/CT TECHNOLOGIST

Jefferson Regional Medical Center, a 471-bed, acute care facility serving Southeast Arkansas, is currently accepting applications for a Nuclear Medicine/CT Technologist. Qualified applicants must possess a registration in radiologic technology with experience in CT or be registered in nuclear medicine. Jefferson offers competetive salaries and an excellent benefits package. For confidential consideration send resume to:



Employment Manager Jefferson Regional Medical Center 1515 West 42nd Avenue Pine Bluff, AR 71603 Call COLLECT (501)541-7673

## NUCLEAR MEDICINE TECH

A career opportunity is being offered in a major health facility located on the intercoastal waters of Florida's sunny west coast. We are looking for a Technologist to join our progressive state-of-the-art department. Must be NMTCB and/or ARRT registered; Florida licensed; SPECT experience preferred. Please send resume to: Employment Office.

323 Jeffords St., Clearwater, FL 34617

An Equal Opportunity Employer



The Journal of Nuclear Medicine 33A

## **Nuclear** Medicine Technologist

#### **Full Time Days**

Our 450-bed teaching medical center located in beautiful Western Connecticut offers an immediate opportunity for a Nuclear Medicine Technologist.

Our Nuclear Medicine Department seeks a candidate who is Certified (or eligible) in Nuclear Medicine and although prior experience is preferred, it is not essential.

Danbury Hospital offers an excellent salary and benefit package and an outstanding working environment.

Interested candidates should contact our Personnel Department at (203) 797-7330 or send a resume to:



Hospital Ave., Danbury, CT 06810

# NIICLEAR

Applications are being accepted for a senior position (Professor or Associate Professor level) in nuclear medicine. The position will provide excellent opportunities for teaching in approved nuclear medicine and radiology residency programs, practice at integrated university and VA nuclear medicine services, and research. There are excellent modern equipment and facilities available, including four SPECT cameras, multiple computers, and cardiac nuclear equipment. Qualifications should include certification by the American Board of Nuclear Medicine or American Board of Radiology (Nuclear Radiology), participation in a nuclear medicine training program, and a significant interest in clinical and research aspects of nuclear medicine. Please inquire to:

Glenn V. Dalrymple, MD **Nuclear Medicine Division, Slot 581** University of Arkansas for Medical Science, 4301 W. Markham, Little Rock, AK (501)661-5740.

# an equal opportunity employer m/f

## **NUCLEAR MED** TECH

#### Phoenix, Arizona

St. Joseph's Hospital & Medical Center is a 626-bed, full-service teaching facility located in sunny Phoenix, Arizona. Currently we are seeking a Nuclear Med Tech to work full-time days with weekends off but must be agreeable to accept call.

Requires completion of approved formal education program in nuclear medicine (AMA approved) and/or certification as a Nuclear Med Tech by the ARRT, ASCP, or other recognized registry.

An outstanding compensation and benefits package awaits the successful candidate. If qualified and interested, please call (602) 285-3035, or send resume to: Employment Office, St. Joseph's Hospital & Medical Center, P.O. Box 2071, Phoenix, AZ 85001.

**Equal Opportunity Employer** 

## **NUCLEAR MEDICINE** TECHNOLOGIST

Indian River Memorial Hospital, Vero Beach's 293-bed center of medical excellence, now seeks a registered or registry eligible Nuclear Medicine Technologist. Our dynamic environment includes a new GE Star Can with spect capabilities and two additional nuclear cameras with computerized systems. No RIA work is involved. This fulltime, Monday - Friday position offers convenient scheduling of 10am-6pm daily with rotating call. You'll also enjoy an attractive salary/benefits package and ongoing opportunity for professional development.

For confidential consideration, send resume or call collect to Ken Klein, Chief Nuclear

Medicine Technologist, at (305) 567-4311, ext. 2084.

1000 36th Street Vero Beach, FL 32960

We Are An Equal Opportunity Employer

## Gd-153 DPA SOURCES

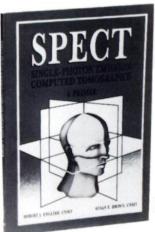
- Best performance/price value
- Listed replacement all scanners
- No-hassle spent source exchange
- · Two service-life grades available
- Certified output performance

When your DPA Bone Densitometer requires a new Gd-153 source, order an **OS-213A**...

the reliable replacement from

#### |B|I|O|S|O|U|R|C|E|S| Ltd.

4-4 Bud Way • Nashua, NH • 03063 1-800-248-2006 / (603) 880-2006 Telex/Twx 5106010987 Circle Reader Service No. 89



# **SPECT**

SINGLE PHOTON EMISSION COMPUTED TOMOGRAPHY:

A PRIMER

ROBERT J. ENGLISH, CNMT SUSAN E. BROWN, CNMT

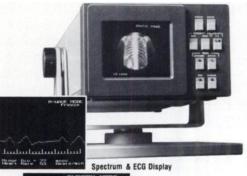
SPECT: A PRIMER is a comprehensive overview of the technology and application of this exciting dimension of nuclear medicine.

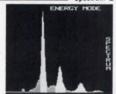
This guide answers the fundamental questions about SPECT, including:

- **■** Image Reconstruction
- Quality Control Requirements
- **■** Acquisition Parameters
- **■** Processing Techniques
- **■** Clinical Applications

For Publications Order Form, Circle No. 178

# The best time to replace your "P" scope is NOW!





✓ Before you replace your CRT

✓ Before you sign



your service contract



# DIGITAL PERSISTENCE SCOPE II PHOTOGRAPHIC QUALITY IMAGES

Plus...

- Image Processing Capabilities
- Direct Recording to VCR
- 20 Times the Product Life of your Existing "P" Scope
- . . . and much more!

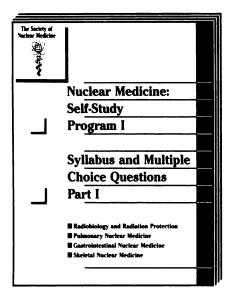
#### Call 800/323-3847 for more information



1500 Hicks Road Rolling Meadows, Illinois 60008 312/259-9595 800/323-3847 Telex: 206689

Circle Reader Service No. 65

## SNM Presents Your Personal Postgraduate Study Course in Nuclear Medicine



To order, send check to: The Society of Nuclear Medicine, Dept 288J, 136 Madison Avenue, New York, NY 10016-6760.

The Society of Nuclear Medicine has initiated a major nuclear medicine self-study program to aid physicians, scientists, and technologists in expanding their knowledge of the clinical, basic science, and technical aspects of nuclear medicine. The study and self-evaluation approach has been shown to be an effective means of acquiring medical knowledge and an objective means of evaluating strengths and weaknesses.

The entire Nuclear Medicine Self-Study Program is to consist of four sequential publications (I-IV) which will review the entire field of nuclear medicine. Each program is divided into three components: a soft cover book consisting of a syllabus, questions, and answer sheets; a separate book with answers and detailed critiques; and a personal psychometric evaluation, complete with a norms booklet.

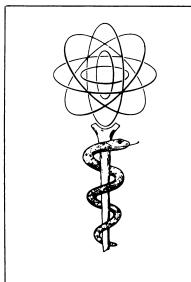
Like the earlier *Nuclear Medicine Review Syllabus*, the Nuclear Medicine: Self-Study Program syllabus has been designed to strengthen your knowledge of nuclear medicine, sharpen your clinical skills, and keep you abreast of recent developments. The self-assessment test, with its answers and critiques, should provide additional help in identifying strengths, as well as possible gaps in your knowledge. It can be used to obtain CME or CEU credits, to prepare for board and/or recertification exams, or as a reference and teaching aid.

The first volume of this program, *Nuclear Medicine: Self-Study Program I*, will cover four areas of nuclear medicine: Radiobiology and Radiation Protection, including regulatory matters; Gastro-intestinal Nuclear Medicine; Skeletal Nuclear Medicine; and Pulmonary Nuclear Medicine. Both the syllabus and questions emphasize essential, clinical-related information. The syllabus and critiques contain annotated references to allow the reader to seek additional information on each topic. The questions are carefully prepared to approximate the format and level of difficulty encountered in specialty board examinations.

The answer and critique book provides the correct answer for each question and discusses the various options. Hence, the review of answers and questions also constitutes an important learning experience.

The personal psychometric evaluation provides comparisons of your performance with that of a peer group. A norms table will indicate your percentile ranking for each subject area, as well as the percentage of participants who answered each question correctly. Anticipated publication date for *Nuclear Medicine: Self-Study Program I* is June 1988. It will be available to members for \$90; nonmembers for \$115; and residents for \$75. Answer sheets will be accepted for psychometric evaluation, for CME and CEU credit, and for inclusion in the norms tables through November 1, 1988.

		PLACE
		STAME
· · · · · · · · · · · · · · · · · · ·		HERE
	The Society of Nuclear Medicine	
	Education and Meetings Dept. 288J	
	Education and Meetings Dept. 288J 136 Madison Avenue	
	New York, NY 10016-6760	



#### **SNM**

#### The Society of Nuclear Medicine

## **About The Society**

#### Benefits of Membership

- The Journal of Nuclear Medicine: a subscription to the official publication of The Society of Nuclear Medicine and the most prominent journal in the field. Published monthly, it provides the membership with up-to-date information on current developments in nuclear medicine.
- Annual Meetings: discounts to scientific, clinical, and continuing education presentations, as well as commercial exhibits, to keep abreast of the latest developments.
- Membership Directory: distributed biannually, at no extra cost, to the entire membership.
- Books and Monographs: discounts on selected new topics published by the Society.
- Audiovisuals: discounts on slide/tape programs covering a wide variety of sub-

jects designed for classroom use and self-instruction.

- Pamphlets: on a number of topics including how to present scientific papers and how to prepare scientific exhibits.
- Awards: presented to Society members for outstanding achievements and contributions to the field.
- Continuing Education Credit: for meeting courses, audiovisuals, and exhibits, approved for AMA Category 1 credit.
- Research and Fellowship Support: through SNM Education and Research Foundation.
- Placement Service at Annual Meeting: for those members seeking career opportunities in the field.
- Effective Government Relations: through committees and lobbying efforts.

#### Organization =

The Society of Nuclear Medicine (SNM) is a multi-disciplinary organization of physicians, physicists, chemists, radiopharmacists, technologists, and others interested in the diagnostic, therapeutic, and investigational use of radiopharmaceuticals. Founded in Seattle, Washington in 1954, it is the largest scientific organization dedicated to nuclear medicine.

#### **Objectives**

- Maintain an organization supported by professionals of varied backgrounds who have a common interest in the clinical and scientific discipline of nuclear medicine;
- hold meetings and seminars to communicate new knowledge acquired and provide continuing medical education;
- advance the highest standards in the practice of nuclear medicine;
- disseminate information by means of journals, books, monographs, and audiovisuals;
- promote and maintain the highest standards of education and research.

# Membership Categories =

FULL members are physicians or scientists with an advanced degree who have valid credentials indicating their professional interest in nuclear medicine.

**ASSOCIATE** members are scientists or technologists with a BA or BS or equivalent qualifications.

**TECHNOLOGIST** members are those who have valid credentials indicating their professional interest in the technology of nuclear medicine.

AFFILIATE members are persons who have an active interest in the objectives of the Society and who are not qualified for other categories of membership.

IN-TRAINING members are those who present a letter from the director of a training program certifying that they are in training and may be admitted to membership as an in-training Full, Associate, or Technologist member.

If application form has been removed, circle Reader Service No. 161.

#### Chapters =

The Society is composed of individuals who are members of 16 regional chapters throughout the United States and Canada. Those who do not reside within this geographic area are considered to be "Members-at-Large."

#### **SNM Councils**

To satisfy the needs of those individual disciplines within nuclear medicine, the Society has established special interest Councils that function autonomously within the Society and are open to all interested Society members: Academic, Computer, Correlative Imaging, Instrumentation, Radioassay, and Radiopharmaceutical Science.

# Technologist Section

Membership in the Technologist Section is open to any member of the Society, regardless of category, who can provide evidence of training and/or experience in nuclear medicine technology. Members receive all Section benefits, including a subscription to the Journal of Nuclear Medicine Technology.

#### THE SOCIETY OF NUCLEAR MEDICINE

#### Instructions to Application for Membership

- Please complete and sign the enclosed application form, either printing or typing the information. Make sure you have completed all information requested in order to avoid unnecessary delays in processing.
- A membership category will be assigned to you in accordance with the Society's Bylaws based on the information supplied on your application form.
- To be eligible for "In-Training" status, at least 90 days must be remaining in your formal training program. No application processing fee is required.
- 4. Upon acceptance by the Society, you will automatically become a member of the regional chapter that covers your area of residence. If you wish membership in some other chapter, you should submit your request with your application. If no regional chapter exists for the area of your residence, you will be assigned "Membership-at-Large."
- A \$10.00 non-refundable processing fee must accompany the completed application form. Otherwise applications will not be processed.
- Receipt of your application will be acknowledged. Allow 4–6 weeks for processing and for receipt of the appropriate journals. DO NOT prepay your dues. An invoice will be sent to you upon approval of your application.

#### **Guide to Membership Dues—1988**

Membership Categories	Society	Technologist Section	Total
Full	\$100.00	_	\$100.00
Full-in-training	50.00	_	50.00
With Tech Section membership			
Doctoral degrees (MD, DO, PhD)	80.00	\$33.00	113.00
Doctoral degrees-in-training	40.00	16.50	56.50
All other degrees	75.00	33.00	108.00
All other degrees-in-training	37.50	16.50	54.00
Associate	75.00	_	75.00
Associate-in-training	37.50	_	37.50
With Tech Section membership			
Doctoral degrees	50.00	33.00	83.00
Doctoral degrees-in-training	25.00	16.50	41.50
All other degrees	50.00	33.00	83.00
All other degrees-in-training	25.00	16.50	41.50
Technologist			
(must be Tech Section member)	35.00	33.00	68.00
Technologist-in-training	17.50	16.50	34.00
Doctoral degrees	80.00	33.00	113.00
Doctoral degrees-in-training	40.00	16.50	56.50
Affiliate	100.00	_	100.00
With Tech Section membership	50.00	33.00	83.00
Doctoral degrees	100.00	33.00	133.00

- Society and Technologist Section chapter dues are additional and vary by chapter.
   A chapter dues table is available upon request.
- Council dues are an additional \$5.00 per Council.
- Dues for those applicants joining during the year are prorated to January 1st.

PLACE STAMP HERE

9/86

The Society of Nuclear Medicine Membership Department 136 Madison Avenue—Dept. 288J New York, NY 10016-6760

## Attention . . . TECHNICARE® and PICKER® USERS

#### Diagnostix Plus is your Best Source for:

#### **Remanufactured Cameras**

- -Large Field (110's, 410's, 438's, 415's, 4C's)
- -Small Field (100's, 400's, 414's, 411's)
- -Mobile (120's, 420's, Dynamos)

#### Collimators

- -Upgrades to Hexagonal Hole Cores
- -Insert Collimators
- -Collimator Repairs/Re-Cores
- -A large selection of used collimators

#### Camera Performance Upgrades

- -Uniformity Correction (DUFC)®
- -Resolution
- -Crystal Replacement
- -Whole Body Area Scan Conversion
- -Thin Crystal Performance Upgrades
- -High Resolution Multi Imagers and Formatters

#### Computers

-450, 550, 560, ADAC®, MDS®, PCS512 Computers

\* We Purchase Used Technicare and Picker Cameras & Computers. Call for a Quote:

## Diagnostix Plus, Inc.

100 Herricks Road • Mineola, NY 11501 • (516)742-1939 Telex: 226078 (AEGIS UR)

Cost Effective Diagnostic Imaging Products

Circle Reader Service No. 31

#### The Society of Nuclear Medicine

# ANNUAL **MEETING**

Tuesday, June 14-Friday, June 17, 1988 San Francisco, CA Moscone Convention

Center

Circle Reader Service No. 189

#### **Call for Abstracts for Works-in-Progress**

The 1988 Scientific Program Committee solicits the submission of abstracts from members and nonmembers of The Society of Nuclear Medicine for the 35th Annual Meeting in San Francisco. Works-in-Progress accepted for the program in a special supplement to the May issue of the The Journal of Nuclear Medicine will be published in a separate on-site show publication that will be distributed to all those who attend the meeting. Original contributions on a variety of topics related to nuclear medicine will be considered, including:

- INSTRUMENTATION
- COMPUTERS AND DATA ANALYSIS
- IN VITRO RADIOASSAY
- RADIOPHARMACEUTICAL CHEMISTRY
- DOSIMETRY/RADIOBIOLOGY
- NUCLEAR MAGNETIC RESONANCE
- CLINICAL SCIENCE APPLICATIONS

Bone/Joint

Neurology Oncology/Hematology Cardiovascular

**Endocrine** 

**Pediatrics** 

Gastroenterology

Pulmonary

Infectious Disease and Immunology Renal/Hypertension

Authors seeking publication for the full text of their papers are strongly encouraged to submit their work to the JNM for immediate review.

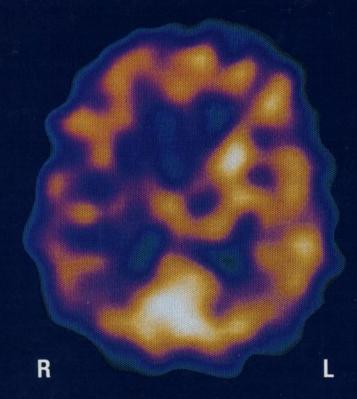
A complete educational program for technologist will be offered and technologists are encouraged to submit abstracts of their work for consideration.

The official abstract form for Works-in-Progress may be obtained from the October 1987 issue of the JNM or by calling or writing:

> The Society of Nuclear Medicine Att: Abstracts 136 Madison Avenue, New York, NY 10016-6760 Tel: (212)889-0717

Deadline for Works-in-Progress is Thursday, April 7, 1988

# The dawn of metabolic brain imaging in the evaluation of stroke... and a new day for nuclear medicine



Patient history:

Patricia M, a 44-year-old woman with a history of hypertension, previous TIAs, right carotid endarterectomy

Reason for admission: Onset of left-sided weakness and numbness

CT interpretation: Normal

**SPECTamine interpretation:** Decreased right hemisphere uptake in the region of the caudate nucleus, and less pronounced decrease in uptake in the right temporal lobe and lower right parietal lobe.

SPECTamine image courtesy of the Medical College of Wisconsin, Milwaukee, WI

Medi-Physics proudly announces the availability of

# **SPECTamine Iofetamine HCI I 123 Injection**

Your partner in advancing nuclear medicine





ROCHE a subsidiary of Hoffmann-La Roche Inc.

For additional information, call Medi-Physics Professional Services Hotline 1-800-457-7732 Medi-Physics, Inc. 140 East Ridgewood Avenue Paramus, NJ 07652