(Technetium Tc 99m Succimer Kit)

- Localizes in the renal cortex
- Highest target to background ratio of Tc 99m agents\(^1\)\(^2\)
- Low excretion rate\(^2\)\(^3\)
- DMSA is the renal cortical imaging agent of choice. Even in patients with obstructed or dilated collecting systems, an accurate comparison of relative cortical uptake without interfering activity in the pelvocalyceal structures can be made.\(^4\)\(^5\)

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Representative Images

R/O Polycystic Kidney Disease

(a) Cortical infarct

(a) EU reported normal

(b) Polycystic kidney disease

(b) Tc-99m DMSA shows solitary lesion L lower pole

(c) Bilateral hypernephroma

(c) Angiogram confirms single cyst
“I’ve been moving ultrasound equipment through Chicago streets for over five years. The unique fixed multi-lens camera systems from Illinois Imaging Electronics can take the daily pounding of mobile application. In fact, the only time they’re down is when I’ve turned them off! “And now IIE has solved the problem of portable instrument stability, virtually guaranteeing consistent image quality!

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For technical information or product literature, please call toll free 800-227-0492 (in California 800-772-2477, internationally (415) 652-7650), or TELEX 335-491 (answer back MEDI-PHYS EMVIL). Or, you may write to Marketing Manager, Radiochemicals, at the address below.
The Novo Cerebrograph: The State of the Art

From the world leader...A multidetector system for measurement of regional Cerebral Blood Flow by $^{133}$Xenon clearance

Broad Clinical Applications
The Novo Cerebrograph quantifies data on various functional and hemodynamic changes within the brain through measurement of regional Cerebral Blood Flow (rCBF). This multidetector system yields results frequently unobtainable by other methods. The rCBF technique is used to study a broad range of pathological conditions, including cerebrovascular disease, head trauma, and dementia states. It is also used in neuropsychology to quantify changes in cortical activation during higher mental functions.

- **Inhalation Method.** Especially accurate for fast (gray matter) flow. Allows simultaneous bilateral measurement. Noninvasive, it can be performed repeatedly with virtually no risk and provides a high degree of correlation with overall IA results.

- **Intra-arterial Injection Method.** Offers higher spatial resolution and accurate measurement of slow (white matter) perfusion.

- **Intravenous Method.** An alternative when the inhalation method is not appropriate.

State of the Art
The Novo Cerebrograph is the finest system available for measurement of rCBF by $^{133}$Xenon clearance. It includes a pushbutton microprocessor-controlled automated Xenon administration system with a Xenon trap, a data collection system with air detector and up to 32 brain detectors with exchangeable collimators. It offers a choice of on-line and off-line data calculation and presentation format. In addition to the Obrist calculation model, only Novo offers the Fourier and 6-Unknown alternative models, both developed by Novo research. Modular design facilitates easy system expansion.

Novo is proud of its pioneering role in the development of this clinical milestone, and proud to define today's state of the art while developing systems for tomorrow.
The sensitive searcher

**MDP-SQUIBB™**
Technetium Tc 99m Medronate Kit

**Produces high resolution bone images**

- Excellent target to non-target ratio
- Low soft tissue uptake
- Optimal results as early as 1 to 4 hours after administration
- Clears from the blood rapidly
- Highly stable—solution may be used up to 6 hours after preparation
- Active ingredient: 20 mg medronic acid in each 10 ml capacity reaction vial
- Kit of 10 reaction vials
- Easy two-step procedure

* An example of new vial shield available late 1982.

See next page for brief summary.
### Squibb Health Physics Service
Technical Associates aid laboratory pre-inspection to help ensure compliance.

### Customtec®, Medicine
Computerized report of a laboratory’s daily technetium Tc 99m needs.

### Technical Associates
Specialists aid in license procurement and renewal, laboratory design, technologist training, trouble-shooting, instrument accuracy check, etc.

### Squibb National Nuclear Medicine Management Seminars
The 2½-day seminar provides opportunity, ideas and techniques for nuclear medicine and clinical laboratory supervisors to enhance their managerial skills.

### Technologist Education Plan
When spent Minitec® (Technetium Tc 99m) Generators are returned, Squibb puts money into customers’ accounts for educational purposes.

### Squibb National Nuclear Medicine Seminars
Education for technologists: 2½ days on in vivo procedures, ½ days on in vitro procedures. Accredited by the Society of Nuclear Medicine Technologist Section, American Society of Radiologic Technologists, and American Society for Medical Technology for continuing education credit.

### Toll-Free Technical Customer Service
800-257-5181  In New Jersey, 800-582-5913

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**MDP-SQUIBB™**

Technetium Tc 99m Medronate Kit
For Diagnostic Use

**DESCRIPTION:** Each 10 ml capacity reaction vial contains a sterile, nonpyrogenic lyophilized powder prepared from 20 mg medronic acid, 11 mg sodium hydroxide, and 0.25 mg tin as fluoride; the product does not contain a preservative. When sterile, nonpyrogenic sodium pertechnetate Tc 99m is added to the vial, technetium Tc 99m medronate is formed.

**CONTRAINDICATIONS:** None known.

**WARNINGS:** This class of compounds is known to complex cations such as calcium. Particular caution should be used with patients who have or who may be predisposed to hypocalcemia (i.e., alkalosis).

Preliminary reports indicate impairment of brain scans using sodium pertechnetate Tc 99m injection which have been preceded by a bone scan using an agent containing stannous ions. The impairment may result in false-positive or false-negative bone scans. It is recommended, where feasible, that brain scans precede bone imaging procedures. Alternatively, a brain-imaging agent such as technetium Tc 99m pentetate may be employed.

**PRECAUTIONS:** General — Contents of the reaction vial are not radioactive and are intended only for use in the preparation of technetium Tc 99m medronate and are NOT to be administered directly to the patient.

Technetium Tc 99m medronate as well as other radioactive drugs must be handled with care, and appropriate safety measures should be used to minimize radiation exposure to the patient and occupational workers consistent with proper patient management.

To minimize radiation exposure to the bladder, the patient should be encouraged to drink fluids and to void immediately before the examination and as often thereafter as possible for the next four to six hours.

Technetium Tc 99m medronate should be formulated within 6 hours prior to clinical use. Optimal imaging results are obtained one to four hours after administration.

Radiopharmaceuticals should be used only by physicians who are qualified by training and experience in the safe use and handling of radionuclides and whose experience and training have been approved by the appropriate government agency authorized to license the use of radionuclides.

**Carcinogenesis, Mutagenesis, Impairment of Fertility** — No long-term animal studies have been performed to evaluate carcinogenic potential or whether technetium Tc 99m medronate affects fertility in males or females.

**Pregnancy Category C** — Animal reproduction studies have not been conducted with technetium Tc 99m medronate. It is also not known whether technetium Tc 99m medronate can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Technetium Tc 99m medronate should be given to a pregnant woman only if clearly needed.

Ideally, examinations using radiopharmaceuticals, especially those elective in nature, of a woman of childbearing capability should be performed during the first few (approximately 10) days following the onset of menses.

**Nursing Mothers** — Technetium Tc 99m is excreted in human milk during lactation; therefore, formula-feedings should be substituted for breast-feedings.

**Pediatric Use** — Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS:** Although adverse reactions specifically attributable to the use of technetium Tc 99m medronate have not been reported, allergic dermatological manifestations (erythema) have been infrequently reported with similar agents.

For full prescribing information, consult package insert.

**HOW SUPPLIED:** In packages of 10 reaction vials.
Techneplex®
(Technetium Tc 99m Pentetate Kit)
from Squibb
For kidney imaging, brain imaging, to assess renal perfusion, and to estimate glomerular filtration rate

Does not accumulate in choroid plexus
Rapid clearance rate of DTPA allows:
• brain imaging in less time than with sodium pertechnetate Tc 99m
• delayed brain imaging in 30-40 minutes, as compared with 3-4 hours with technetium Tc 99m pertechnetate
Easy two-step procedure

Kit contains 10 multidose reaction vials.

For further information, call Technical Customer Service, 609-921-4100.

See next page for brief summary.
AUDIOVISUALS in Nuclear Cardiology

- SI-18 Basic Concepts in Cardiac Anatomy and Physiology by Glen W. Hamilton, MD
- SI-19 The Measurement of Ejection Fraction by William Ashburn, MD
- SI-20 Intracardiac Shunts and Cardiac Output by William Ashburn, MD
- SI-21 Perfusion Studies of the Ischemic Heart by William Ashburn, MD
- SI-22 Detection of Acute Myocardial Infarction by B. Leonard Holman, MD
- SI-23 Instrumentation for Nuclear Cardiology by Trevor D. Craddock, PhD

*approved for CEU (VOICE) credit.

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Fast, accurate analysis is made even easier by Harshaw's hard copy attachment. It provides an instant, silent, permanent record of the tabular or comparative graphic presentation on the terminal CRT, and eliminates the need for a teletypewriter or other impact printer. The result is a significant savings in analysis time, and the elimination of "translation" errors that can reduce accuracy.

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See for yourself

HEPATOLITE™
Technetium Tc 99m Disofenin Kit

5 min  15 min  25 min
35 min  45 min  60 min

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a Du Pont company

Please see last page for brief summary of prescribing information.
Abnormal Hepatolite study shows no gallbladder visualization, consistent with acute cholecystitis.

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□ Please send me information on obtaining the Hepatobiliary Imaging in the Diagnosis of Acute Cholecystitis
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The "best universal agent" for hepatobiliary imaging

**HEPATOLITE**
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**Effective even at high bilirubin levels**
"DISIDA [Hepatolite] has been extremely effective in distinguishing medical from surgical jaundice... with the bilirubin ranging from 1.1 to 24.5 mg%.”
*Weissmann et al*

**Better intrahepatic duct visualization**
"We were able to clearly identify the intrahepatic ducts in 46 of the 54 patients imaged with PRIDA [Hepatolite] whereas we were not able to identify them clearly in any of the 21 patients imaged with BIDA.”
*Read et al*

**Superior liver uptake and washout**
"Visually and computationally, DISIDA [Hepatolite] was superior to other IDA agents in terms of relative uptake in the liver and liver washout.”
*Hernandez and Rosenthall*

**Highest target-to-background ratio**
"During the first hour after injection (the critical time for imaging), diisopropyl-IDA [Hepatolite] had the highest rate of biliary excretion (76.2%), which should result in the best visualization of the biliary system…”
*Wistow et al*

**References**
4. Read ME, Teates CD, Crotz BV et al. in press.

"Hepatobiliary Imaging in the Diagnosis of Acute Cholecystitis”

Program Faculty
Leonard M. Freeman, MD
Robert E. Henkin, MD
James H. Thrall, MD
Heidi S. Weissmann, MD

New England Nuclear
549 Albany Street
Boston, MA 02118
Attn: Teaching Program Administrator

No postage necessary if mailed in the United States
INDICATIONS AND USAGE: Technetium Tc 99m Disofenin is indicated as a hepatobiliary imaging agent.

CONTRAINDICATIONS: None known.

WARNINGS: The theoretical possibility of allergic reactions should be considered in patients who receive multiple doses.

PRECAUTIONS: Contents of the vial are intended only for use in the preparation of Technetium Tc 99m Disofenin and are NOT to be administered directly to the patient.

Technetium Tc 99m Disofenin as well as other radioactive drugs must be handled with care and appropriate safety measures should be used to minimize radiation exposure to the clinical personnel. Also, care should be taken to minimize radiation exposure to the patient consistent with proper patient management.

Technetium Tc 99m Disofenin should be formulated within six (6) hours prior to clinical use.

Carcinogenesis, Mutagenesis, Impairment of Fertility:

No long term animal studies have been performed to evaluate carcinogenic potential or whether Technetium Tc 99m Disofenin affects fertility in males or females.

Pregnancy Category C:

Animal reproductive studies have not been conducted with Technetium Tc 99m Disofenin. It is also not known whether Technetium Tc 99m Disofenin can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Technetium Tc 99m should be given to a pregnant woman only if clearly needed.

Ideally, examinations using radiopharmaceuticals, especially those elective in nature, of a woman of childbearing capacity should be performed during the first few (approximately 10) days following the onset of menses.

Nursing Mothers:

Technetium Tc 99m is excreted in human milk during lactation. Therefore, formulafeedings should be substituted for breast feeding.

Pediatric Use:

Safety and effectiveness in children below the age of 18 have not been established.

Radiopharmaceuticals should be used only by physicians who are qualified by training and experience in the safe use and handling of radionuclides and whose experience and training have been approved by the appropriate government agency authorized to license the use of radionuclides.

ADVERSE REACTIONS: No adverse reactions specifically attributable to the use of Technetium Tc 99m Disofenin have been reported.

DOSAGE AND ADMINISTRATION:

The suggested dose range for I.V. administration, after reconstitution with oxygen-free sodium pertechnetate Tc 99m injection, to be employed in the average patient (70 kg) is:

- Non-Jaundiced patient: 1.5 mCi
- Patients with serum bilirubin level greater than 5 mg/dl: 3.0 mCi

The patient dose should be measured by a suitable radioactivity calibration system immediately prior to patient administration (if blood is drawn into the syringe, any unnecessary delay prior to injection may lead to clot formation in situ.) Do not backflush the syringe. Slow injection is recommended. Radiotechnical purity should be checked prior to patient administration.

The patient should be in a fasting state. 4 hours is preferable. False positives (non-visualization) may result if the gall bladder has been emptied by ingestion of food.

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration whenever solution and container permit.

HOW SUPPLIED: NEN’s HEPATOLITE™ Technetium Tc 99m Disofenin Kit is supplied in kits of five (5) and thirty (30) vials. sterile and pyrogen-free, each vial containing in lyophilized form.

- Disofenin: 20 mg
- Stannous Chloride (SnCl2 • 2H2O) (Minimum): 0.24 mg
- Total Tin, Maximum (as stannous chloride, SnCl2 • 2H2O): 0.5 mg

The pH is adjusted to between 5.5-6.5 with hydrochloric acid and/or sodium hydroxide solution prior to lyophilization. The contents of the vial were lyophilized under nitrogen. Store at room temperature (15°-30°C) before and after reconstitution. Protect from light. The lyophilized drug product is light sensitive. Technetium Tc 99m Disofenin contains no preservatives. Included in each five (5) vial kit is one (1) package insert and six (6) radiation labels. Included in each thirty (30) vial kit is one (1) package insert and thirty-six (36) radiation labels.

The components of the Technetium Tc 99m Disofenin Kit are supplied sterile and non-pyrogenic. Aspirate procedures normally employed in making additions and withdrawals from sterile, non-pyrogenic containers should be used during addition of pertechnetate solution and the withdrawal of doses for patient administration.

Technetium Tc 99m Disofenin is prepared by adding no more than 100 millicuries of additive-free sterile, non-pyrogenic sodium pertechnetate Tc 99m solution in 2.0 mL (±20% CMC/ml) to the vial and swirling for about one minute. Shifting should be utilized when preparing the Technetium Tc 99m Disofenin.

Catalog Number: NRP-475 (5 vial kit)
Catalog Number: NRP-475SC (30 vial kit)

February 1982

The Technologist Section of the Society of Nuclear Medicine announces...

Curriculum Guide

Educators, students, and career counselors in nuclear medicine will benefit from this new publication featuring topics recommended for a one-year nuclear medicine technology program.

Arranged in 25 sequential units, containing an overview, outline, and objectives, this book serves as a model for educators to develop or expand their curricula. Two additional sections describing associate and baccalaureate degree programs are included.

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But the gain in one parameter is usually at the expense of others. In short—a compromise.

With Raytheon nuclear systems, there is no such compromise. All factors are optimized in a superbly balanced, thoroughly proven system. One that gives you a closer, more detailed view of every patient.

A good head for numbers.

Performance is, ultimately, a function of the detector head. And in our Step One gamma camera, Raytheon's technological expertise comes to the fore.

In the largest useful field of view, Raytheon uses a "honeycomb" array of 91 two-inch tubes. And couples it to a specially-designed 5-inch receptor crystal and 8-stage dynode PMT. Thus, your Raytheon nuclear system can record the full spectrum of static and dynamic studies... with optimized efficiency.

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There's more. An energy resource company was able to cut bore hole size in half with a smaller, more rugged Harshaw BGO scintillator. The result was an immediate reduction in exploration costs, plus long term savings. That's because non-hygroscopic Harshaw BGO demonstrates significantly greater resistance to thermal and mechanical shock.

8.9% PHR

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1/2 BORE HOLE SIZE

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60 DAYS

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The RADX Ventil-Con II is the only completely functional self-contained mobile xenon gas ventilation unit available anywhere. Ventil-Con retains over 90% of the xenon gas within its internal dry spirometer system, ready for continued use in examination after examination. A bacteriological filter and a CO₂ absorber within the spirometer breathing system constantly filter the xenon enriched atmosphere the patient breathes. The patient experiences only 0.2” of water resistance. No disconnects or aborted exams because of breathing resistance.

The xenon gas exhausted from the patient at washout is trapped by a charcoal cartridge pack. If more than 2 uCi/liter attempts to escape, (well below NRC maximum permissible concentration), a built-in alarm alerts the operator. An interface system within the breathing apparatus completely controls the xenon gas flow into the charcoal cartridge. Result: many more examinations can be safely conducted with Ventil-Con II than with any other system.

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"Honeycomb" 91-tube detector array provides edge-to-edge LFOV resolution, detail and speed.

You've heard a lot of talk about improvements in linearity...or uniformity...or resolution. But the gain in one parameter is usually at the expense of others. In short—a compromise.

With Raytheon nuclear systems, there is no such compromise. All factors are optimized in a superbly balanced, thoroughly proven system. One that gives you a closer, more detailed view of every patient.

A good head for numbers.

Performance is, ultimately, a function of the detector head. And in our Step One gamma camera, Raytheon's technological expertise comes to the fore.

In the largest useful field of view, Raytheon uses a "honeycomb" array of 91 two-inch tubes. And couples it to a specially-designed V-1 inch receptor crystal and a single 1-inch collimator. Since your Raytheon nuclear system can record the full spectrum of static and dynamic studies...with optimized efficiency.

What's more, the system is ultra sensitive, extremely fast. A 1-million count image takes about one minute. That's up to 50% faster than other systems. And represents a considerable time savings for you.

Triple-pulse analysis adds still more detail.

The exclusive Raytheon detector head is interfaced with a specialized triple-pulse height detector. This advanced electronic system accepts peak pulses only and analyzes each one separately. So you can study up to three Ga\(^{67}\) photo peaks at one time...and know you've captured the most significant detail.

A protected investment, too.

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NUCLEAR MEDICINE TECHNOLOGISTS needed nationwide! Attractive locations, excellent salaries and benefits. Contact: Chuck Knight, Nationwide Recruiters, 3710 Landmark Dr., Suite 111, Columbia, SC 29204. (803)845-6992 or (803)739-1790.

CHIEF, NUCLEAR MEDICINE SERVICE. Must be Board Certified in Nuclear Medicine (ABNM) with extensive knowledge and experience in both nuclear medicine and diagnostic ultrasound. Position available immediately in this 539-bed major teaching VA Medical Center at Allen Park, MI. Prior administrative experience is required. Respond with curriculum vitae and the names and telephone numbers of three references to W. W. Smith, Jr., MD, Chief, Nuclear Medicine (11) VA Medical Center, Allen Park, MI 48101.

NUCLEAR MEDICINE TECHNOLOGIST. Join one of NW Iowa’s most advanced Nuclear Medicine Departments. St. Luke’s Regional Medical Center, a 338-bed critical care facility, in Sioux City, Iowa is seeking a Nuclear Medicine Technologist who is registered (eligible) to perform diagnostic examinations. Equipment includes: Dyna Camera 2 C with Omniview, Picker Microview Small Parts Ultrasound, Dyna Mo Portable Imaging Camera, System I and Cam II Computers, 80LDI Contact "B" Scanner, Picker Realtime Ultrasound, Magnascaner 500. Portable Realtime Ultrasound. For additional information about employment opportunities contact: Personnel Department, St. Luke’s Regional Medical Center, Sioux City, IA 51104 (712)279-3782.

PROGRAM DIRECTOR Nuclear Medicine Technology Program. The University of Iowa Hospitals and Clinics, an 1100-bed tertiary care teaching hospital, is seeking a Program Director, Nuclear Medicine Technology Program (Program Associate II). Requires a Master's degree in an appropriate field and a competitive combination of a Bachelor's degree and directly related experience; certification by ASCP, ARRT or NMTCB in Nuclear Medicine; one or more years of experience as chief technologist and/or as a technical/educational director of a nuclear medicine program providing the opportunity to assume the designing, planning, promoting, and conducting of the BS and certificate Nuclear Medicine Technology Programs. Excellent career opportunity with competitive salary and comprehensive benefits package. The Nuclear Medicine Division offers a full range of in vivo procedures and active cardiovascular imaging section utilizing the most modern instrumentation. Send resume or contact: John A. Bricker, Division of Nuclear Medicine, Department of Radiology, University of Iowa Hospitals and Clinics, Iowa City, IA 52240. Phone collect: (319)356-1912. The University of Iowa is an Equal Opportunity/Affirmative Action Employer.

NUCLEAR MEDICINE TECHNOLOGIST. The University of Nebraska Medical Center in Omaha, Nebraska has an immediate opening for a registered Nuclear Medicine Technologist to work full-time days and some on-call. Must be able to communicate for experience. For more information contact: Dr. Meriton Quade, MD, Radiology Department, University of Nebraska Medical Center, 42nd & Dewey Avenue, Omaha, NE 68105. An Equal Opportunity/Affirmative Action Employer.

NUCLEAR MEDICINE TECHNOLOGIST CMNT or ARRT for a 415-bed acute care hospital located in the Shenandoah Valley of Virginia. Contact: Personnel Department, Winchester Memorial Hospital, South Hospital, Winchester, VA 22601. (703)662-4121, ext. 1121. An Equal Opportunity Employer M/F.

NUCLEAR MEDICINE PHYSICIAN. Full-time junior staff position available at Children's Hospital Medical Center, Harvard Medical School. Clinical, research, and teaching responsibilities. Board certification or eligibility in nuclear medicine or nuclear radiology required. Respond with curriculum vitae to J. A. Dwyer, MD, Department of Radiology, Children's Hospital Medical Center, 300 Longwood Avenue, Boston, MA 02115. An Affirmative Action/Equal Opportunity Employer.

NUCLEAR MEDICINE TECHNOLOGIST. Must be registered. Experience preferred but not required. Full-time position. Call 216-bed hospital located atop the Cumberland Plateau. Competitive salary, excellent benefits. Send resume or call Personnel Department, Cumberland Medical Center, 811 S. Main St., Crossville, TN 38555. (615)494-8511, ext. 276. An equal opportunity employer.

Nuclear Medicine, Fresno, California. The University of California (San Francisco) Medical Education Program seeks a NUCLEAR MEDICINE PHYSICIAN for its affiliated Veterans Administration Medical Center in Fresno, California. Certification or eligibility for California is mandatory. The position combines active clinical teaching and patient care in an academic setting. Inquiries should be addressed to Malcolm Treves, MD, Chief, Nuclear Medicine, Veterans Administration Medical Center, 2615 E. Clinton Ave., Fresno, CA 93703. The University of California is an Equal Opportunity/Affirmative Action Employer.

This is a specialized RESEARCH POSITION in MIIUCULAR NUCLEAR CHEMISTRY in a large medical center. The researcher will synthesize and label organosomal compounds with radiotracers, will develop techniques for nuclear medicine research team on developing and testing radiopharmaceuticals. Requires Ph.D in organic chemistry; $20,000.00 per year. Contact: E. S. Winter, M.D., Veterans Administration Medical Center, 7310 Woodward Avenue, room 415, Detroit, MI 48202, Reference: #25982.

NUCLEARPHARMACIST. Pharmacist in charge of the Nuclear Pharmacists Section, Department of Radiology, Naval Regional Medical Center, San Diego, California (Salary $16,000-18,000). Provides information and consultative services to clinical and technical staff and patients regarding radiopharmaceuticals, and develops procedural guidelines necessary for preparation and dispensing of these pharmaceuticals. Selects and analyzes radiopharmaceuticals for use in clinical nuclear medicine studies. Maintains all records required by the Nuclear Regulatory Commission and other regulatory agencies governing the handling, transport, and disposal of radionuclides so as to keep this hospital in compliance for licensure to procure and dispense these products. Familiarity with 60Co, 111In, 125I, 32P, 35S, 99mTc. Contact: Civilian Personnel Office, Naval Regional Medical Center, San Diego, CA 92134. (714)233-2622. United States citizenship and current licensure required. The Naval Regional Medical Center is an Equal Opportunity Employer.


EDUCATIONAL COORDINATOR. Direct and coordinate the educational program in nuclear medicine technology, according to hospital policies and national accreditation standards, and recognized nuclear and radiation safety requirements. Prepare budget and funding allocations for the educational program. Evaluate the program and related factors, such as selection, training, and placement of students. Plans and develops joint programs in conjunction with other medical facilities. Organize committees to provide technical and administrative assistance to program. Coordinates training programs with employers, and evaluates progress of students in conjunction with program goals. Must have at least a Master of Arts or Science Degree in Medical Technology, Education, or Business Administration. Must also be a registered Nuclear Medicine Technologist and Medical Technologist, and have at least three (3) years experience as a nuclear medicine technologist. Forty hours per week (Monday through Friday, 8:00 am to 4:30 pm) with a salary of $9.16 per hour. Contact the Employment Manager of the University of Tennessee Memorial Hospital of Knoxville at (615)971-3526.

NUCLEAR MEDICINE RESIDENCY. The Nuclear Medicine Division, Department of Radiology of the University of Texas Medical Branch, Galveston, TX (1,200 hospital beds). Applications for its two-year residency training program. The program is approved by the Accreditation Council on Graduate Medical Education and satisfies the residency requirements of the American Board of Nuclear Medicine. Comprehensive training is provided by a large staff that offers both a broad clinical experience and strong basic science instruction. Areas of experience include full range of patient care services (diagnostic and therapeutic imaging procedures, image data processing and computer technology, nuclear medicine laboratory, radiopharmaceutical and radioisotope studies (in vitro and in vivo) and opportunities for research. Excellent salary and benefits package. Contact: Dr. W. C. Rice, Nuclear Medicine Division, Department of Radiology, University of Texas Medical Branch, Galveston, TX 77550, AC (713)756-2925. UTMB is an Equal Opportunity Affirmative Action Employer.

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Two traineeships available immediately at the Donner Laboratory, Biology and Medicine Division, Lawrence Berkeley Laboratory, University of California, for research in the area of cardiovascular disease; circulatory physiology, non-invasive physiological imaging, and nuclear medicine research. The National Research Service Awards pay $13,380 to $18,780 per annum, depending on experience. Training and research experience will be carried out in the context of a National Heart, Lung and Blood Institute Fellowship Program within the Donner Laboratory Research Medicine Group, which conducts an active program in advanced nuclear medical instrumentation, radionuclide development, positron emission tomography, electron microscopy, basic hematology, and computer methods for cardiovascular research.

The participating professionals include nuclear medicine specialists, hematomists, radiologists, pathologists, physicists, and chemists. Facilities include emission tomography instrumentation, nuclear magnetic resonance, cyclotrons, large and small computer facilities, animal surgery techniques, laboratories with technical staff.

Prefer background training in physiology, nuclear medicine, organic chemistry, or physics. U.S. citizens or permanent residents are eligible to apply.

Send resume, transcripts and name and phone number of two references to: Dr. Thomas F. Budinger, Biology and Medicine Division, Lawrence Berkeley Laboratory, University of California, Berkeley, CA 94720; (415)486-5435.

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For more information, please contact Hurley Medical Center, Employment Office, Number One Hurley Plaza, Flint, MI 48502 (313) 766-0140.

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Research oriented department within Harvard Joint Program in Nuclear Medicine welcomes application for its annual visiting faculty position. The visiting faculty member participates in active clinical, teaching and research programs with three other permanent staff. The department performs 7000 exams per year and has a teaching program for both radiology and nuclear medicine residents. Research includes development of an all-digital department, ECT studies (2 types of ECT scanners), nuclear cardiology, computer applications of new radiopharmaceuticals. Previous visiting faculty have been from Israel, Australia, and the U.S. Applicants should have MD degree, certification in nuclear medicine and a current faculty appointment. Send curriculum vitae with names of three references to: Gerald M. Kolodny, MD, Division of Nuclear Medicine, Beth Israel Hospital, 330 Brookline Ave., Boston, MA 02215.

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BRITISH NUCLEAR MEDICINE SOCIETY
11th ANNUAL MEETING
18th–20th April 1983
Imperial College
London U.K.

ANNOUNCEMENT AND CALL FOR ABSTRACTS

The British Nuclear Medicine Society announces its Eleventh Annual Meeting, to be held from 18th to 20th April 1983 at Imperial College, London.

The programme includes review and original presentations, specialist sessions in radiopharmacy and computing and for technicians, poster sessions and a Commercial Exhibition.

Abstracts must be prepared for direct photo-reproduction using the official abstract form.

For abstract forms and further information, contact:

Mrs. A.M. Taylor
22 Leinster Avenue
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London SW14 7JP
England

Closing date for receipt of abstracts—February 1, 1983.
FELLOWSHIP AND RESIDENCY PROGRAM
BAYLOR COLLEGE OF MEDICINE
NUCLEAR MEDICINE SECTION

Baylor College of Medicine is now accepting applications for residency and fellowship positions for the 1983-84 academic year. The residency program includes training in two large nuclear medicine laboratories, St. Luke's Episcopal Hospital-Texas Children's Hospital-Texas Heart Institute joint facilities and Ben Taub General Hospital.

Residency training encompasses the full spectrum of nuclear medicine procedures, both in vivo and in vitro, in pediatric and adult inpatients and outpatients. Instruction includes clinical nuclear medicine, radiopharmacy, radioimmunossay, and basic sciences, as well as experience with computer applications and tomographic imaging.

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Requests for further information should be directed to:

John A. Burdine, MD, Chief
or Paul H. Murphy, PhD, Training Coordinator

Nuclear Medicine Section, Department of Radiology
Baylor College of Medicine
Houston, Texas 77030

Nuclear Medicine Technologist

Mary Hitchcock Memorial Hospital, a 411-bed component of the Dartmouth-Hitchcock Medical Center, combines a sophisticated academic referral facility with unusual social, cultural and recreational opportunities.

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AUDIOVISUAL EDUCATIONAL PROGRAMS
VOICE APPROVED

NT-1 INTRODUCTION TO CARDBOVAER AL NUCLEAR MEDICINE, Stewart M. Spies, M.D.
OBJECTIVE: The viewer should acquire a basic knowledge of the radiopharmaceuticals and techniques utilized for radionuclide cardiac imaging. Upon completion of the program, the viewer will be able to calculate ejection fraction via two different methods as well as perform the cardiac imaging procedures necessary for the calculation.

NT-2 RADIOPHARMACEUTICAL DEVELOPMENT AND REGULATION, Kenneth Hetzel, M.S.
OBJECTIVE: The purpose of this audiovisual is to expand the knowledge of the viewer in the area of radiopharmaceutical regulations. The development of new radiopharmaceuticals, manufacture, production, transportation and disposition of radiopharmaceuticals are included.

NT-3 INTRODUCTION TO COMPUTERS, Robert E. Polcyn, M.D.
OBJECTIVE: The viewer should acquire a basic knowledge of computer applications in nuclear medicine. At the conclusion of the program, the viewer will have gained a basic understanding of computer components, operations and terminology.

NT-4 GALLIUM IMAGING, Susan Weiss, CNMT, James J. Conway, M.D.
OBJECTIVE: The course is a basic review of the state of the art of gallium imaging. The viewer should become familiar with gallium’s properties as a radiopharmaceutical and the instrumentation techniques necessary to produce optimum gallium images on several different instruments.

NT-5 VENOUS THROMBOSIS DETECTION, Loren McKovek, CNMT, Stephen G. Weiss, Ph.D.
OBJECTIVE: The protocol for detecting thrombosis with NaI fibrinogen is delineated in this audiovisual. Data plotting and analysis are also reviewed.

NT-6 RADIONUCLIDE THROMBOEMBOLGRAPHY (TEG), Sally Russell, CNMT, Robert E. Henkin, M.D.
OBJECTIVE: The viewer should acquire a basic knowledge of the technique and clinical indications for thromboembolography. The technologist viewer should, upon completion of the program, be able to prepare the radiopharmaceutical and equipment, and perform the thromboembolography procedure.

NT-7 INSTRUMENTATION FOR CARDBOVAL NUCLEAR MEDICINE, Edward A. Silverstein, Ph.D.
OBJECTIVE: The Anger camera, gating devices, microcomputers and minicomputers, multicrystal cameras, various collimators and probes systems are discussed in this audiovisual and their applications to nuclear cardiology are delineated.

NT-8 MYOCARDIAL NUCLEAR IMAGING: THALLIUM AND 82THALLIUM AND 99mTc PYROPHOSPHATE, David Turner, M.D., Deborah L. Grynewicz, CNMT
OBJECTIVE: This audiovisual presents a discussion of the physiological basis of perfusion imaging with NaI Thallium and 99mTc pyrophosphate. Various techniques of rest and stress imaging are reviewed and the audience is introduced to the concept of tomographic imaging with the seven pinhole collimator.

NT-9 GATED BLOOD POOL IMAGING, Stewart M. Spies, M.D.
OBJECTIVE: This audiovisual overviews the protocol for performing gated blood pool imaging, including computer set-up and data analysis.

NT-10 FIRST TRANSIT CARDIOVASCULAR RADIONUCLIDE STUDIES, Daniel G. Pavel, M.D., Ronnie Balon, R.T.
OBJECTIVE: Camera techniques, probe techniques and the relative merits of performing first pass studies are discussed in this audiovisual presentation.

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