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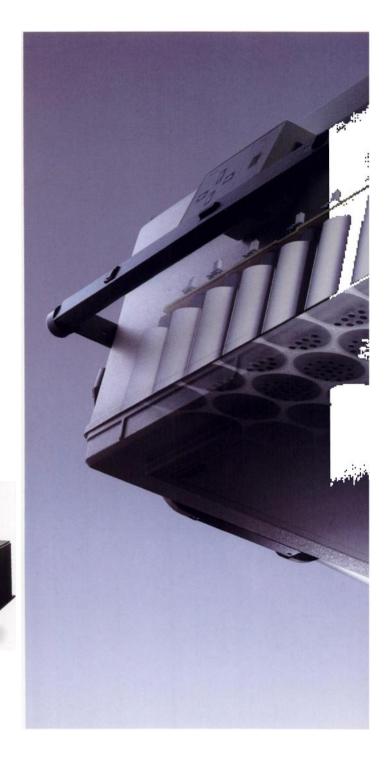
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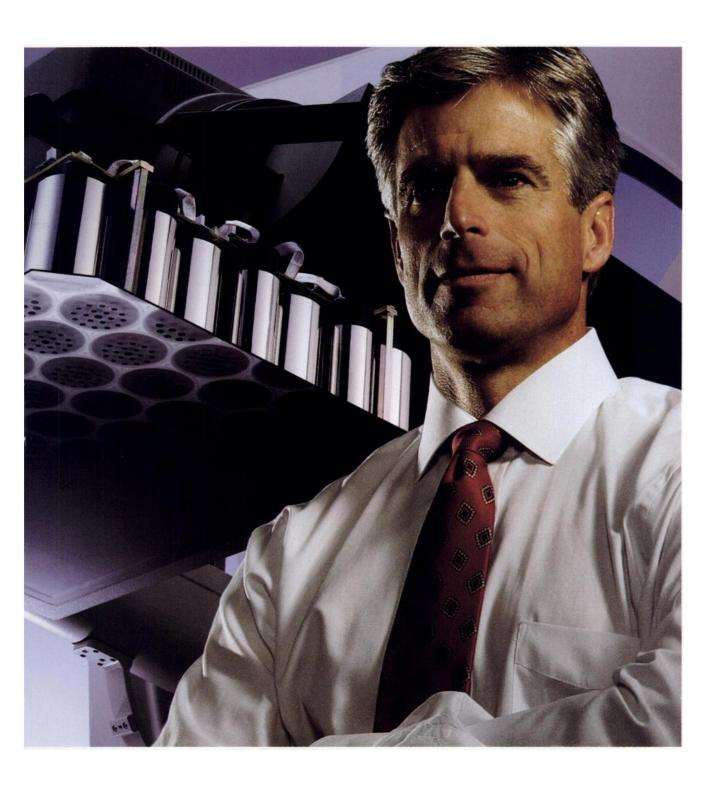
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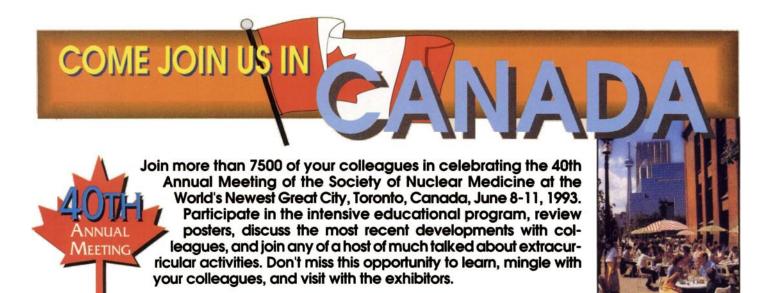
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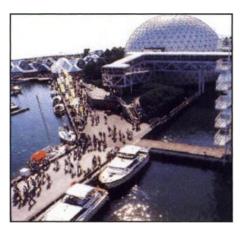
#### SCIENTIFIC PAPERS

This year's presentation of over 900 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 presentation.

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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 contribution to nuclear medicine.



### AUDIOVISUAL, 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.

#### **EXPOSITION**

All the major manufacturers of nuclear medicine products and services-more than 100 in all-will be on hand to explain and demonstrate the most technologically-advanced equipment. Several companies will present User Meetings to give an indepth understanding of their products.

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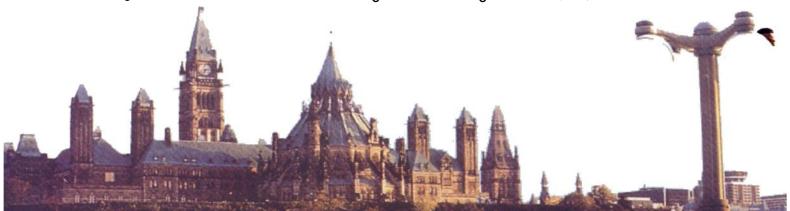
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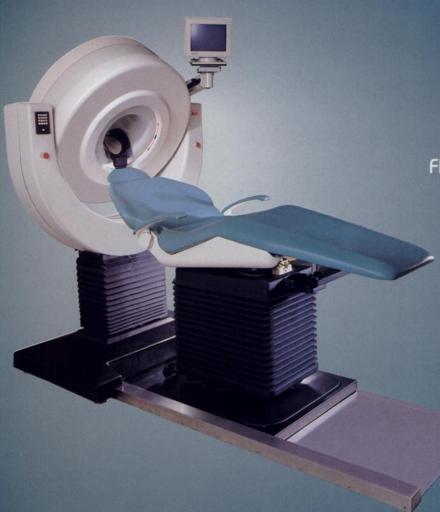
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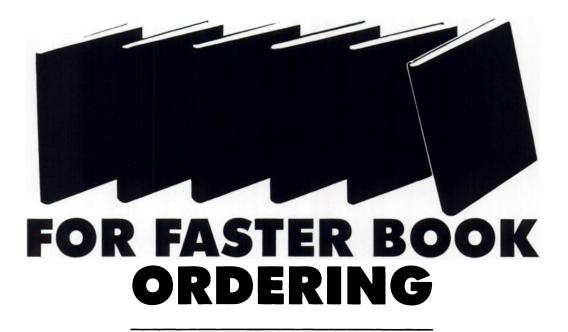
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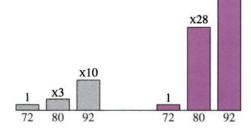
# The answer Here are some

x192

# An expanding base of satisfied users.

The single most important factor behind business growth is customer satisfaction. As our products enjoy growing levels of acceptance, more and more healthcare professionals worldwide join the Elscint "family". This is why we have outpaced even the impressive growth of our industry.

Medical imaging industry growth (below): an estimated 10-fold over the past two decades; Elscint's growth (right): 192-fold. (Arbitrary graph scaling, 1972 base.)



# Pioneering achievements in nuclear medicine.

To many, Elscint means innovation in nuclear medicine technology. For nearly a quarter century, Elscint has been the initiator of many important advances in this field. From pioneering the first digital gamma camera to

bringing the latest continuous-rotation slip-ring technology to nuclear medicine.

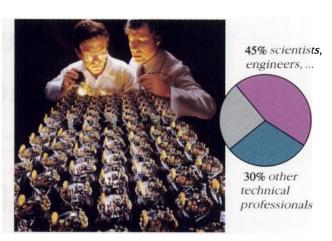


An industry-first: Elscint's unique Evolving-Images™.

A sequence of 4 SPECT images showing evolving image quality as the slip-ring-based Helix™ camera continuously orbits the patient.

# Elscint people – our greatest resource.

Elscint is the product of its people. Behind all our achievements stands a corps of highly-trained scientists and engineers. Nearly every second employee at Elscint holds one or more degrees from world-class academic institutions.



Scientists, engineers, computer programmers and technical experts comprise the majority of Elscint's workforce.

# Which imaging company grew a record 192-fold over the past 21 years?...

... and has MRI, CT, Nuclear Medicine and Ultrasound installations in 54 countries worldwide?

□ Toshiba
□ General Electric
□ Elscint
□ Picker
□ Siemens
□ Hitachi
□ Philips

# is Elscint. reasons why.

"Whatever-it-takes" manufacturing capability: from superconductive magnets to micron-precise optronics.

Elscint's corporate philosophy is to master key technologies vital to medical imaging in

all areas of activity. Our five manufacturing plants in three countries are state-of-the-art in their fields. We take complexity as a challenge. For example, we are one of the very few MRI manufacturers who design and manufacture superconductive magnets in-house.



Elscint's 0.5 and 2-tesla superconductive magnets roll off the production line at our magnet manufacturing plant in the "Magnet Valley" of Oxfordshire, England.



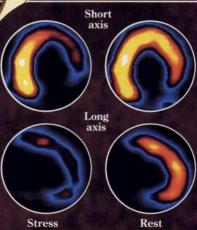
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Some cardiac imaging agents leave something out of the picture...

# INF RMATION & THR UGHPUT



Perfusion Study-Identifying Ischemic Areas



A patient was imaged with CARDIOLITE for perfusion and first pass-function assessment. These tomographic slices show a fixed inferolateral perfusion defect in the territory of old inferior myocardial infarction. There is also a reversible anterolateral defect in the territory of a diagonal branch of the LAD. Coronary angiography showed a totally occluded RCA and a tight proximal stenosis of a large first diagonal branch of the LAD.

First Pass-Function



Stress



D -

End-diastolic perimeter (white line) and endsystolic image acquired following rest injection of CARDIOLITE show LV dilatation with reduced (30%) LVEF and inferior hypokinesis. Stress perimeter and image acquired following exercise injection show decreased anterolateral wall motion, which corresponds anatomically to the perfusion defect seen on the perfusion scans above.

Gated Study (SPECT)– Wall Motion



Diastole



Systole

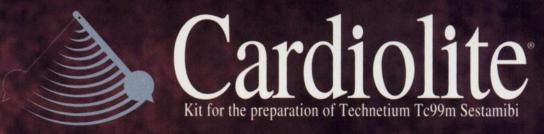
Gated short axis SPECT studies (imaged with CARDIOLITE) of a 64-year-old male with hypertensive cardiomyopathy demonstrate an inferoseptal myocardial infarction. The increased color intensity from diastole to systole represents myocardial wall thickening.

Please see last page of advertisement for Brief Summary of Prescribing Information.

New expanded uses fill in the gaps with more myocardial information

From identifying ischemia to localizing infarction, CARDIOLITE now fills in all the gaps for a complete clinical picture. With a CARDIOLITE study, you can assess the perfusion status of your patients...and much more. CARDIOLITE can also fill in myocardial information that is missing from thallium imaging—wall motion from gated studies and evaluation of function with the first-pass technique.

And, image after image, you won't find any gaps in quality, because CARDIOLITE provides the superior clarity of technetium.

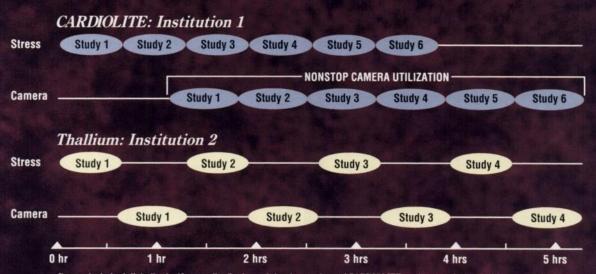


Fills in the gaps...with clarity that lasts





#### CARDIOLITE fills in gaps in your imaging schedule



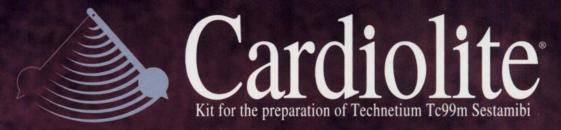
Due to the lack of clinically significant redistribution and the slow washout of CARDIOLITE, patients can be batched for stress injection, then imaged one after another over a broader period of time. In comparison, imaging with thallium must take place almost immediately; therefore the camera is frequently idle.

# Improved camera utilization fills in scheduling gaps for greater throughput

CARDIOLITE virtually eliminates the gaps of time between camera use often associated with thallium. That's because CARDIOLITE allows you to uncouple the

time of injection from the time of imaging. Patients can be batched for stress, then imaged at any time... up to 4 hours after injection. So your patients are ready and waiting for the camera, not the other way around.

As seen in the diagram, this permits the camera schedule to be filled all day...so there are no gaps in productivity.

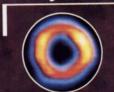


Fills in the gaps...with clarity that lasts



# SUPERIOR RATION & THROUGHPUT

Filling in the gaps with the superior clarity of technetium







Thallium

Rest studies of a 37-year-old male with a 45-inch chest circumference and slightly elevated left hemidiaphragm using CARDIOLITE and thallium-201 as the imaging agents. The images with CARDIOLITE are of superior quality, with less regional variation in count density and less hemidiaphragmatic attenuation.

CARDIOLITE fills in the information gaps to provide more information...all with the superior image clarity of technetium. Through new, expanded uses, CARDIOLITE gives you a complete CAD picture... from ischemia to infarction. CARDIOLITE also fills in gaps in your imaging schedule through the ability to uncouple the time of injection from the time of imaging. Patients can be batched, then imaged one after the other...virtually eliminating downtime for your camera.

More information. Greater throughput. CARDIOLITE fills your cardiac imaging needs.



Cardiolite®

Kit for the preparation of Technetium Tc99m Sestamibi

Fills in the gaps...with clarity that lasts



#### DIAGNOSTIC R 0

DESCRIPTION: Each 5ml vial contains a sterile, non-pyrogenic, lyophilized mixture of:

Tetrakis (2-methoxy isobutyl isonitrile) Copper (I) tetrafluoroborate - 1.0mg

Sodium Citrate Dihydrate - 2.6mg

L-Cysteine Hydrochloride Monohydrate - 1.0mg

Mannitol - 20mg

Stannous Chloride, Dihydrate, minimum (SnCl<sub>2</sub>\*2H<sub>2</sub>O) - 0.025mg Stannous Chloride, Dihydrate, (SnCl<sub>2</sub>\*2H<sub>2</sub>O) - 0.075mg Tin Chloride (Stannous and Stannic) Dihydrate, maximum (as SnCl<sub>2</sub>\*2H<sub>2</sub>O) - 0.086mg

Prior to lyophilization the pH is adjusted with HCl to 5.3-5.9. The contents of the vial are lyophilized and stored under nitrogen

This drug is administered by intravenous injection for diagnostic use after reconstitution with sterile, non-pyrogenic, oxidant-free Sodium Pertechnetate Tc99m Injection. The pH of the reconstituted product is 5.5 (5.0-6.0). No bacteriostatic preservative is present

The precise structure of the technetium complex is Tc99m[MIBI]6\* where MIBI is 2-methoxy isobutyl isonitrile.

INDICATIONS AND USAGE: CARDIOLITE, Kit for the preparation of Technetium Tc99m is a myocardial perfusion agent that is useful in the evaluation of ischemic heart dise CARDIOLITE, Kit for the preparation of Technetium Tc99m Sestamibi is useful in distinguishing normal from abnormal myocardium and in the localization of the abnormality, in patients with suspected myocardial infarction, ischemic heart disease or coronary artery disease. Evaluation of ischemic heart disease or coronary artery disease is accomplished using rest and stress tech-

CARDIOLITE, Kit for the preparation of Technetium Tc99m Sestamibi, is also useful in the evaluation of myocardial function using the first pass technique

Rest-exercise imaging with Tc99m Sestamibi in conjunction with other diagnostic information may be used to evaluate ischemic heart disease and its localization.

In clinical trials, using a template consisting of the anterior wall, inferior-posterior wall and isolated apex, localization in the anterior or inferior-posterior wall in patients with suspected angina pectoris or coronary artery disease was shown. Disease localization isolated to the apex has not been established. Tc99m Sestamibi has not been studied or evaluated in other cardiac diseases.

It is usually not possible to differentiate recent from old myocardial infarction or to differentiate recent myocardial infarction from ischemia.

#### CONTRAINDICATIONS: None known.

WARNINGS: In studying patients in whom cardiac disease is known or suspected, care should be taken to assure continuous monitoring and treatment in accordance with safe, accepted clinical proce dure. Infrequently, death has occurred 4 to 24 hours after Tc99m Sestamibi use and is usually associated with exercise stress testing (See Precautions).

#### PRECAUTIONS:

#### GENERAL

The contents of the vial are intended only for use in the preparation of Technetium Tc99m Sestamibi and are not to be administered directly to the patient without first undergoing the preparative procedure.

Radioactive drugs must be handled with care and appropriate safety measures should be used to minimize radiation exposure to clinical personnel. Also, care should be taken to minimize radiation exposure to the patients consistent with proper patient management.

Contents of the kit before preparation are not radioactive. However, after the Sodium Pertechnetate Tc99m Injection is added, adequate shielding of the final preparation must be maintained.

The components of the kit are sterile and non-pyrogenic. It is essential to follow directions carefully and to adhere to strict aseptic procedures during preparation.

Technetium Tc99m labeling reactions involved depend on maintaining the stannous ion in the reduced state. Hence, Sodium Pertechnetate Tc99m Injection containing oxidants should not be used.

Technetium Tc99m Sestamibi should not be used more than six hours after preparation

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.

Stress testing should be performed only under the supervision of a qualified physician and in a laboratory equipped with appropriate resuscitation and support apparatus.

The most frequent exercise stress test endpoints, which resulted in termination of the test during controlled Tc99m Sestamibi studies (two-thirds were cardiac patients) were:

Fatigue	35%
Dyspnea	17%
Chest Pain	16%
ST-depression	7%
Arrhythmia	1%

#### Carcinogenesis, Mutagenesis, Impairment of Fertility

In comparison with most other diagnostic technetium labeled radiopharmaceuticals, the radiation dose to the ovaries (1.5rads/30mCi at rest, 1.2 rads/30mCi at exercise) is high. Minimal exposure (ALARA) is no ary in women of childbearing capability. (See Dosimetry subsection in DOSAGE AND ADMINISTRA-TION section.)

The active intermediate,  $[Cu(MIB)_A]BF_a$ , was evaluated for genotoxic potential in a battery of five tests. No genotoxic activity was observed in the Ames, CHO/HPRT and sister chromatid exchange tests (all in vitro). At cytotoxic concentrations (≥ 20µg/ml), an increase in cells with chromosome aberrations was observed in the *in vitro* human lymphocyte assay. [Cu(MIBI), IBF, did not show genotoxic effects in the *in vivo* mouse micronucleus test at a dose which caused systemic and bone marrow toxicity  $(9mg/kg, > 600 \times maximal human dose).$ 

Pregnancy Category C

Animal reproduction and teratogenicity studies have not been conducted with Technetium Tc99m Sestamibi. It is also not known whether Technetium Tc99m Sestamibi can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. There have been no studies in pregnant women. Technetium Tc99m Sestamibi should be given to a pregnant woman only if clearly needed.

#### Nursing Mothers

Technetium Tc99m Pertechnetate is excreted in human milk during lactation. It is not known whether Technetium Tc99m Sestamibi is excreted in human milk. Therefore, formula feedings should be substituted for breast feedings

#### Pediatric Use

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

ADVERSE REACTIONS: During clinical trials, approximately 8% of patients experienced a transient metallic or bitter taste immediately after the injection of Technetium Tc99m Sestamibi. A few cases of transient headache, flushing and non-itching rash have also been attributed to administration of the ent. Cases of angina, chest pain, and death have occurred (See WARNINGS and PRECAUTIONS). agent. Cases of angina, chest pain, and dearn have been trarely reported signs and symptoms consistent with seizure.

The following adverse reactions have been rarely reported signs and symptoms consistent with seizure that the wrist ionit: and severe occurring shortly after administration of the agent; transient arthritis in the wrist joint; and severe hypersensitivity, which was characterized by dyspnea, hypotension, bradycardia, asthenia and vomiting within two hours after a second injection of Technetium Tc99m Sestamibi.

DOSAGE AND ADMINISTRATION: The suggested dose range for LV. administration in a single dose to be employed in the average patient (70kg) is:

370-1110MBq (10-30mCi)

The dose administered should be the lowest required to provide an adequate study consistent with ALARA principles (see also PRECAUTIONS).

When used in the diagnosis of myocardial infarction, imaging should be completed within four hours after administration

The patient dose should be measured by a suitable radioactivity calibration system immediately prior to patient administration. Radiochemical purity should be checked prior to patient administration

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

RADIATION DOSIMETRY: The radiation doses to organs and tissues of an average patient (70kg) per 1110MBq (30mCi) of Technetium Tc99m Sestamibi injected intravenously are shown in Table 4.

Table 4. Radiation Absorbed Doses from Tc99m Sestamibi

	Estimated Radiation Absorbed Dose				
	Rest				
	2.0 hour void		4.8 hour void		
	rads/	mGy/	rads/	mGy/	
Organ	30mCi	1110MBq	30mCi	1110MBq	
Breasts	0.2	2.0	0.2	1.9	
Gallbladder Wall	2.0	20.0	2.0	20.0	
Small Intestine	3.0	30.0	3.0	30.0	
Upper Large Intestine Wall	5.4	55.5	5.4	55.5	
Lower Large Intestine Wall	3.9	40.0	4.2	41.1	
Stomach Wall	0.6	6.1	0.6	5.8	
Heart Wall	0.5	5.1	0.5	4.9	
Kidneys	2.0	20.0	2.0	20.0	
Liver	0.6	5.8	0.6	5.7	
Lungs	0.3	2.8	0.3	2.7	
Bone Surfaces	0.7	6.8	0.7	6.4	
Thyroid	0.7	7.0	0.7	6.8	
Ovaries	1.5	15.5	1.6	15.5	
Testes	0.3	3.4	0.4	3.9	
Red Marrow	0.5	5.1	0.5	5.0	
Urinary Bladder Wall	2.0	20.0	4.2	41.1	
Total Body	0.5	4.8	0.5	4.8	

	Stress			
	2.0 hour void		4.8 hour void	
Organ	rads/ 30mCi	mGy/ 1110MBq	rads/ 30mCi	mGy/ 1110MBq
Breasts	0.2	2.0	0.2	1.8
Gallbladder Wall	2.8	28.9	2.8	27.8
Small Intestine	2.4	24.4	2.4	24.4
Upper Large Intestine Wall	4.5	44.4	4.5	44.4
Lower Large Intestine Wall	3.3	32.2	3.3	32.2
Stomach Wall	0.5	5.3	0.5	5.2
Heart Wall	0.5	5.6	0.5	5.3
Kidneys	1.7	16.7	1.7	16.7
Liver	0.4	4.2	0.4	4.1
Lungs	0.3	2.6	0.2	2.4
Bone Surfaces	0.6	6.2	0.6	6.0
Thyroid	0.3	2.7	0.2	2.4
Ovaries	1.2	12.2	1.3	13.3
Testes	0.3	3.1	0.3	3.4
Red Marrow	0.5	4.6	0.5	4.4
Urinary Bladder Wall	1.5	15.5	3.0	30.0
Total Body	0.4	4.2	0.4	4.2

Radiopharmaceutical Internal Dose Information Center, July 1990, Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37831, (615) 576-3449.

HOW SUPPLIED: Du Pont Radiopharmaceutical's CARDIOLITE®, Kit for the Preparation of Technetium Tc99m Sestamibi is supplied as a 5ml vial in kits of two (2), five (5) and thirty (30) vials, sterile and non-pyrogenic

Prior to lyophilization the pH is between 5.3-5.9. The contents of the vials are lyophilized and stored under nitrogen. Store at 15-25°C before and after reconstitution. Technetium Tc99m Sestamibi contains no preservatives. Included in each two (2) vial kit are one (1) package insert, six (6) vial shield labels and six (6) radiation warning labels. Included in each five (5) vial kit are one (1) package insert, six (6) vial shield labels and six (6) radiation warning labels. Included in each thirty (30) vial kit are one (1) package insert, thirty (30) vial shield labels and thirty (30) radiation warning labels.

The U.S. Nuclear Regulatory Commission has approved this reagent kit for distribution to persons licensed to use byproduct material pursuant to section 35.11 and section 35.200 of Title 10 CFR Part 35, to persons who hold an equivalent license issued by an Agreement State, and, outside the United States, to persons authorized by the appropriate authority.

> Marketed by Du Pont Radiopharmaceutical Division The Du Pont Merck Pharmaceutical Co. 331 Treble Cove Road Billerica, Massachusetts, USA 01862 For ordering Tel. Toll Free: 800-225-1572

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ADDITIONAL PHANTOMS and INSERTS: 3-Dimensional Brain • 1-Dimensional Brain • Cardiac • Hollow Spheres • Hot Spot • Slice Thickness • Line Fixture • 3-D Plate • Triple Line Source • Partial Volume • Elliptical Phantom • MRI Phantoms and Inserts

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#### SNM 40th Annual Meeting Critical Dates

Item		Due Date
Abstract Forms		
Scientific Papers	October Issue JNM	1/6/93
Scientific Exhibits	Contact SNM, Dept. of Meetings	1/6/93
Registration Form	Contact SNM, Dept. of Meetings	5/7/93
Housing Form	Contact SNM, Dept. of Meetings	5/14/93

#### DON'T FORGET THE MID-WINTER MEETING IN ATLANTA, GEORGIA

TITLE:

**Desktop Computing in Nuclear Medicine** 

DATE:

February 8-9, 1993

**LOCATION:** 

Atlanta Airport Hilton, Atlanta, GA

SPONSOR:

The Computer and Instrumentation Council

THE SOCIETY OF NUCLEAR MEDICINE

MID-WINTER MEETING

Title: Desktop Computing in Nuclear Medicine

Location: Atlanta Airport Hilton, Atlanta, GA

Date: Monday-Tuesday, February 8-9, 1993

**Sponsor:** The Computer and Instrumentation Council of The Society of Nuclear Medicine

CME Credit: Approximately 9.25 Hours AMA Category I VOICE Credit: Approximately 1.06 CEUs available for VOICE

Credit for Technologists

Seminar Notes: Registration includes a luncheon on Monday, February 8th, with a guest speaker. There are a limited amount of lunches available so please register early.

THE FEE	Before 12/18	On/After 12/18
Physicians/Scientists		
Members	\$175.00	\$220.00
Nonmembers	205.00	250.00
Technologists		
Members	80.00	110.00
Nonmembers	110.00	140.00
Students	70.00	70.00

ALL PRE-REGISTRATIONS MUST BE RECEIVED BY JANUARY 15, 1993

COMPUTER AND INSTRUMENTATION: DESKTOP COMPUTING IN NUCLEAR MEDICINE

Atlanta Airport Hilton, Atlanta, GA • Monday, February 8 — Tuesday, February 9, 1993

PLEASE ENROLL THE FOLLOWING (use copies for additional registrants):

Name (as it should appear on badge)

Affiliation

Address

City State Zip

Phone

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COMPUTER and INSTRUMENTATION SYMPOSIUM
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Medicine. Please ma
Do NOT mail housing

To make hotel reservations, call the Atlanta Airport Hilton direct at (404) 767-9000. Indicate you are with The Society of Nuclear Medicine. Please make your reservations by January 13, 1993. Do NOT mail housing informat

#### DU PONT PHARMA CARDIOVASCULAR NUCLEAR MEDICINE RESEARCH GRANTS

#### CALL FOR PROPOSALS

The Society of Nuclear Medicine Awards Committee announces that two grants for \$25,000 each are available for July 1, 1993.

The objectives of these grants are to: (1) Encourage physicians to enter the field of Cardiovascular Nuclear Medicine, and (2) Support high quality nuclear cardiology clinical research.

Funds can be used to support the research and/or salary of the investigator. Preference will be given to young physicians, or those new to the field of Cardiovascular Nuclear Medicine. Awards will be announced at the Annual SNM Business Meeting, June, 1993.

Please send for more information and an application to:

Deadline: January 15, 1993

The Society of Nuclear Medicine SNM Awards Committee 136 Madison Avenue New York, NY 10016

Research and Development Fellowship

#### MALLINCKRODT FELLOWSHIP

Mallinckrodt, Inc. has announced an Annual Fellowship of \$30,000 for a physician fellow active in nuclear medicine research and/or development. The award is to further a research or development project, and applicants are asked to submit their curriculum vitae, a detailed account of their research project including prior accomplishments on the project, and future plans. Deadline for this year's award is January 8, 1993. Requested information, along with at least two letters supporting the application, should be forwarded to: William J. MacIntyre, PhD, The Society of Nuclear Medicine, 136 Madison Ave., New York, NY 10016-6760. The recipient will be announced at the Annual Meeting of The Society of Nuclear Medicine.

SNM/MEDI-PHYSICS AWARD
FOR INNOVATION
IN THERAPY
WITH UNSEALED
SOURCES

The Society of Nuclear Medicine Awards Committee announces that a grant for \$30,000 is available.

The funds will be used to support research for therapy by the investigator chosen.

To request more information and an application please contact:

The Society of Nuclear Medicine SNM Awards Committee 136 Madison Avenue New York, NY 10016

Deadline date: January 15, 1993

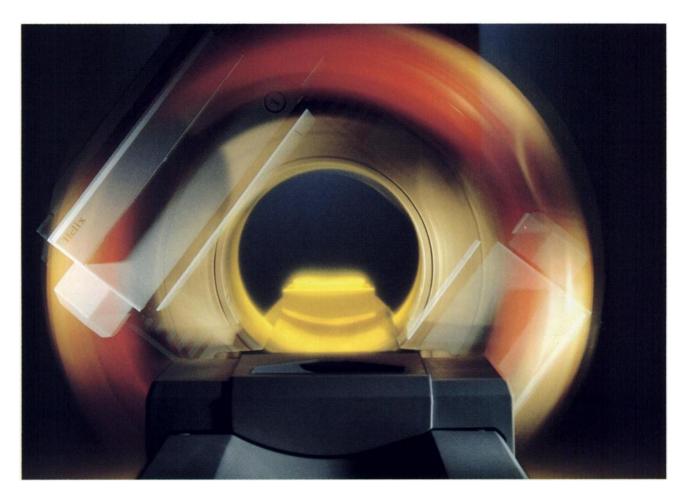
# Which multi-modality company incorporates continuous-rotation high-speed slip-rings in its premium nuclear camera system?

□ Toshiba□ General Electric☑ Elscint□ Picker□ Hitachi

□ Siemens

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# Elscint's APEX® Helix™ is the only nuclear imager with continuous-rotation slip-rings.



Slip-ring technology took CT by storm, and with good reason. Because continuous-rotation slip-ring technology brought powerful clinical applications to the field – like volumetric imaging.

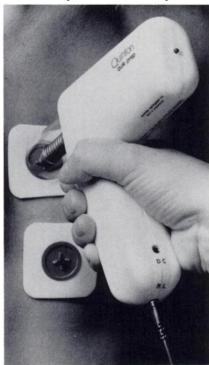
Elscint has introduced the exciting potential of slip-rings to Nuclear Medicine. New horizons in nuclear tomography now include Evolving-Images<sup>TM</sup> and fast dynamic SPECT.



U.S.A. Elscint Inc. (201) 342-2020; 1-800-228-7226 **Belgium** Elscint N.V./S.A. (2) 720.92.46; **Brazil** Elscint Ltda. (011) 869-4644; **Canada** Elscint Ltd. (416) 474-1229; **France** Elscint France S.A.R.L. (1) 48-57-08-18; **Germany** Elscint GmbH (06122) 7070; **Hong Kong** Elscint Asia-Pacific Ltd. (5) 29-2231; **Israel** Elscint Ltd. (04) 310310; **Italy** New Elscint Technologies S.r.l. (02) 3932-0603; **Mexico** Elscint de Mexico (05) 254-5939; **S. Africa** Elscint (Pty) Ltd. (11) 482-3000; **Spain** Elscint España (03) 209.2199 U.K. Elscint (GB) Ltd. (0923) 239511.

Each description of the products below was condensed from information supplied by the manufacturer. The reviews are published as a service to the professionals working in the field of nuclear medicine and their inclusion herein does not in any way imply an endorsement by the Editorial Board of The Journal of Nuclear Medicine or by The Society of Nuclear Medicine. To receive product information, see page 38A.

#### **Quik-Prep Electrode System**



Quinton's Quik-Prep electrode system gives stable ECG baselines, even during motionsensitive tests such as stress testing and exercise or ambulatory monitoring. Fast and simple to use, the patented Quik-Prep applicator measures the electrical impedance between the actual attached electrodes and senses when the skin is optimally prepped. Because the stable baselines give more reliable ECG records, the Quik-Prep system is also economical, saving the time and supplies that are often wasted on repeated tests. Using the applicator and pre-gelled electrodes, a technician can place and prep 10 electrodes properly in less than 3 min. The applicator rotates the mildly abrasive center of the electrode and stops automatically when the proper impedance is reached, usually in less than 1 sec. The silver/silver chloride Quik-Prep electrodes use a low chloride conductive gel and a strong adhesive, making them ideal for long-term monitoring. The translucent centers enhance x-ray and imaging applications. Quinton Sales Dept., 2121 Terry Avenue, Seattle, WA 98121. 1-800-426-0337.

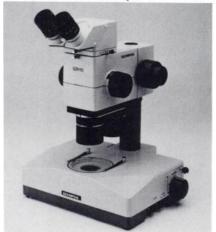
#### Workshops on Videotape

The UCLA Division of Neurosurgery and Department of Radiation Oncology has released its recent "Stereotactic Surgery and Radiosurgery Workshop" on videotape. These tapes can be used to acquaint neurosurgeons, radiation oncologists and medical physicists with computer planning for functional stereotaxis and radiosurgery and to train them with the leading stereotactic frames and 3-D localizer surgical arm. Specific topics included on the videotape are basic science presentation discussing biological, clinical, anatomical, radiological and physical aspects of stereotaxis and radiosurgery; functional stereotaxis; review of available radiosurgery techniques; dosimetry using state-of-the-art imaging techniques and software; indications for radiosurgery; radiological physics of small-field irradiation techniques; three-dimensional imaging techniques; stereotactic biopsy, brachytherapy and stereotactic craniotomy; use of the most common stereotactic frames; and use of radiosurgery planning software. These tapes are ideal for physicians to earn CME credits when unable to attend conferences. CME VIDEO, 1916 Old Cuthbert Road, B-13, Cherry Hill, NJ 08034-1457. 1-800-284-

#### **Preamplifier**

EG & G Ortec announces the release of its Model 9306 1-GHz Preamplifier which has an output rise time of 350 ps. It is also optimized for fast timing and counting applications with microchannel plates, microchannel-plate photomultipliers, channeltrons, silicon photodiodes, fast photomultiplier tubes and electron multipliers. The Model 9306 provides a non-inverting gain of 85, and two identical outputs for convenient connection to separate instruments. The compact preamplifier case with captive power cord permits close detector coupling to minimize sensitivity to environmental noise. The 1-GHz preamplifier derives its +24-V dc power from a NIM module or power supply via a standard 9-pin D connector. The Model 9306 is ideal for picosecond timing applications in fluorescence lifetime measurements, mass spectrometry, pulse laser measurements, heavy-ion physics, nuclear physics and highenergy physics. EG & G Ortec, 100 Midland Road, Oak Ridge, TN 37831-0895. 615-482-4411.

#### Stereo Microscope



Olympus Corporation's Precision Instrument Division announces its new SZH-10 stereo research microscope system. The magnification range with 1× objective and 10× widefield high eyepoint eyepieces is from 7× to 70×. The wide choice of prime objectives and eyepieces provides a total magnification range from  $3.5 \times$  to  $420 \times$ . The SZH-10 zoom body contains a built-in series of magnification click stops which can be easily disengaged by the user. All controls are positioned for maximum operator comfort. The new coaxial coarse and fine focusing knobs on both sides of the microscope body, combined with the counterbalance mechanism, provide quick and precise focusing, even at high magnifications. The low eyelevel binocular eyepiece tube ensures fatigue-free observation over hours of prolonged use. Zoom magnification controls with built-in magnification factor windows are located on both sides of the microscope body. Olympus Corporation, Precision Instrument Division, Nevada Drive, Lake Success, NY 11042-1179. 1-800-446-5967.

#### Nuclear Supplies Catalog

Biodex Medical Systems announces the release of its Nuclear Supplies Catalog #75. Biodex, formerly Atomic Products Corporation, will continue to offer the highest quality equipment, supplies and accessories which are shipped in environmentally conscious packaging. The 130-page catalog features nearly 1,000 products essential to the nuclear medicine department including the Atomlab 900 Thyroid Uptake System, Atomlab Dose Calibrators, imaging tables designed exclusively for nuclear medicine and a new line of xenon disposables. Biodex Medical Systems, P.O. Box 702, Shirley, NY 11967-0702. 516-924-9000.

#### SPECT BRAIN IMAGING CLINICAL FELLOWSHIP MEDICAL

**Department of Radiology** Section of Nuclear Medicine



#### **BEMEFIT:**

This program is designed for nuclear medicine physicians, radiologists, technologists and referring physicians. It is intended to educate participants about the clinical utility of SPECT brain imaging with agents such as SPECTamine® and Ceretec®. Objectives include:

- Development of interpretation skills for brain images.
- Appreciation of clinical applications of SPECT brain
- Knowledge of image acquisition and reconstruction.
- Appreciation of factors that influence image quality.
- Knowledge of quality control techniques for SPECT.

#### SPONSORSHIP:

This program is sponsored by the Medical College of Wisconsin.

The tuition fee of \$650 includes the course syllabus, handouts, breaks, breakfasts, lunches, and other amenities involved in making this a pleasant learning experience. Maximum enrollments have been established. Cancellations prior to the course will be refunded, less a \$30 administrative fee.

#### CREDIT:

The Medical College of Wisconsin is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

Accordingly, the Medical College of Wisconsin designates this continuing medical education activity as meeting the criteria for 13.00 hours in Category I toward the Physician's Recognition Award of the American Medical Association.

Nuclear Medicine Technologists who attend the SPECT Brain Imaging Clinical Fellowship are eligible for 1.0 VOICE credit.

Register me for the following dates: (P	llease indicate a second choice)
☐ January 11–12, 1993	☐ March 8–9, 1993
□ September 13–14, 1993 I will need hotel reservations for only Monday night.	Sunday and Monday night/
I will need a single	/ double room.
	uld accompany this registration form al College of Wisconsin. Telephone check within 10 days.
Name	
Address	
City/State/Zip	
Office Phone ()	
work address	home address
Registrations and payment should it	be sent to:
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Policy — The Journal of Nuclear Medicine accepts classified advertisements from medical institutions, groups, suppliers, and qualified specialists in nuclear medicine. Acceptance is limited to Positions Open. Positions Wanted, and Equipment. We reserve the right to decline, withdraw, or modify advertisements.

Rates for Classified Listings—\$19.00 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 \$1400 Quarter page \$550

Full page \$1400 Quarter page \$550 Half page 825 Eighth page 450

**Publisher-Set Charges** — Page \$100; half page \$75; quarter page \$40; eighth page \$25.

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 submit classified listings typed double spaced. No telephone 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 FAX: (212) 545-0221

#### **Positions Available**

#### Fellowship

FELLOWSHIP IN BRAIN SPECT IMAGING. The Department of Radiology at the Brigham and Women's Hospital/Harvard Medical School, has an opening for one year fellowship, and an optional second year, in brain SPECT imaging. The department has a high-resolution SPECT system dedicated to brain imaging, four rotatinghead gamma cameras capable of SPECT imaging and workstations for MRI/CT/SPECT super impostion. The department does approximately 1,000 brain SPECT examinations per year, including perfusion, tumor seeking, and blood pool studies. Ongoing research areas include dementia, substance abuse, tumor detection and therapy, and cerebrovascular disease. Please send curriculum vitae to:

B. Leoanrd Holman, MD. Chairman, Department of Radiology, Brigham and Women's Hospital/Harvard Medical School is an affirmative action/equal opportunity educator and employer.

#### Physician

NUCLEAR MEDICINE PHYSICIAN—BC/BE. 5/8 position in the Nuclear Medicine Service of the Harry S. Truman Memorial Veterans Hospital to perform and interpret a variety of nuclear imaging and in vitro studies. Resident and Nuclear Medicine technology training and active clinical research. Send CV to: Richard A. Holmes, MD, Chief, Nuclear Medicine Service, 800 Hospital Drive, Columbia, MO 65201.

#### Radiologist

NW Rocky Mountains: RADIOLOGIST-NUCLEAR MEDICINE. Highly respected eight person group with strong subspecialty interests seeks highly qualified individual. Fellowship or academic experience preferred. Nuclear Medicine boarded or ABR special competency strongly desired. Position includes all aspects of nuclear medicine in a comprehensive advanced department. Practice is located in Boise, Idaho, which has many recreational and cultural amenities. Reply to Paul Traughber, MF or J. Tim Hall, MD, Department of Radiology, St. Alphonsus Regional Medical Center, 1055 No. Curtis Rd., Boise, ID 83706, (208) 378-2161.

The Creighton University School of Medicine, Omaha, Nebraska has instituted a search to fill the position of CHAIR OF THE DEPARTMENT OF RADIOLOGY, Significant research accomplishments and publications, demonstrated clinical skills, and a commitment to teaching

at both the student and resident level are the characteristics which will be most valued by the Search Committee. The Department include a nationally recognized PET Center with emphasis on both basic research and clinical applications. Nominations are welcome. Applicants should submit a curriculum vitae to: Michael H. McGuire, MD. Professor and Chairman. Department of Surgery, Radiology Search Committee Chair. Creighton University School of Medicine. 601 North 30th Street. Omaha, NE 68131. Creighton University is an Equal Opportunity Employer.

DIVISION HEAD, NUCLEAR MEDICINE. The Department of Radiology invites applications for the above post at the Toronto Hospital. Toronto, Ontario, Canada. The Department is a major teaching facility of the University of Toronto and the Nuclear Medicine Division is equipped with 12 gamma cameras performing 2,500 examinations per year including general nuclear medicine and cardiac nuclear medicine. It is also an approved site for radio-nuclide preparation. The Department has two clinical sites: one at the Toronto General and the other at the Toronto Western. The Division Head is responsible for providing clinical service, research, undergraduate and postgraduate teaching. The successful candidate must have obtained a fellowship in Nuclear Medicine from the Royal College of Physicians and Surgeons of Canada; dual fellowship in diagnostic radiology is desirable but not essential. Previous experience in administration and Nuclear Cardiology is an asset. Please send curriculum vitae to Dr. C.S. Ho. Department of Radiology. The Toronto Hospital. 585 University Avenue, Toronto, Ontario, Canada M5G 2C4.

NUCLEAR RADIOLOGIST—Immediate opening for Director of Nuclear Medicine in large private hospital in Charlotte, NC. 15-person subspecialty-oriented radiology group seeks fellowship trained ABR & ABNM certified colleague to practice nuclear medicine and some general radiology. Reply to Henry T. Adkins, P.O. Box 221249, Charlotte, NC 28222.

#### Pharmacia

STAFF NUCLEAR PHARMACIST, Temple, Texas. Scott and White, a major clinic and 353-bed teaching hospital located in central Texas is seeking a trained pharmacist to provide expanded nuclear pharmacy services. Candidates must be licensed or eligible for Texas licensure with one year of advanced radiopharmacy studies or two years of experience in a Nuclear Pharmacy. Position is responsible for the procurement, preparation, distribution and disposal of radioactive and related non-radioactive pharmaceuticals. Scott and White offers an excellent benefits package, highly competitive salaries, and relocation assistance. Qualified candidates send resume and salary history for position #2857 to: Grace Cole, Employment Manager, 2401 S. 31st St., Temple, Texas 76508. EOE.

#### Residency

NUCLEAR MEDICINE RESIDENCY. July 1993. Comprehensive imaging/RIA/therapy program in 3 hospitals (private, county, VA) with 2800 total beds. Mobile imaging for 216 ICU beds. Large pediatric population. Strong cardiovascular emphasis. State-of-the-art instrumentation including SPECT and computer processing. Training includes introductory rotations in NMR. PET and CT/Ultrasound. Contact: Warren H. Moore. MD. Department of Radiology, Baylor College of Medicine. One Baylor Plaza, Houston, TX 77030-3498. Baylor College of Medicine is an equal opportunity/affirmative action employer.

Two and three year NUCLEAR RESIDENCIES are available at St. Luke's Medical Center, Milwaukee, WI. St. Luke's is a 600-bed general and acute care community hospital, and is one of the largest cardiac care centers in the US. The program gives the resident very strong training in nuclear cardiology, SPECT imaging, and general nuclear medicine. Instrumentation is modern and includes one triple head SPECT camera, one dual head SPECT camera, five single head SPECT camera, one dual head whole body camera, one LFOV camera, one mobile gamma camera, and a large networked nuclear medicine computer system. Well-over II.000 imaging procedures are performed annually. Staff includes 2 full-time double boarded ABNM certified physicians, I medical physicist. I nuclear pharmacist, I programmer and a technical staff of 16. The residency is structured around a strong teaching program in the basic sciences and clinical nuclear medicine. Call is shared among multiple individuals. residents are always backed up by staff, and adequate time is available for reading and research. Residents are required to write one paper per year. Address applications and inquires to Dr. David Yuille, Director of Nuclear Medicine Residency, St. Luke's Medical Center, 2900 W. Oklahoma Avenue, Milwaukee, WI 53215, (414) 649-6418.

#### Technologist

NUCLEAR MEDICINE TECHNOLOGIST positions available nationwide. Confidential searches. All fees employer-paid. Dunhill of Bel Air, P.O. Box 267, Bel Air. MD 21014; (800) 753-6693; Fax: (410) 836-0953; EOE.

#### **Positions Wanted**

ABNM eligible MD available July '93. Experienced in all aspects of Nuclear Medicine including SPECT, cardiac, thyroid, and research. Internal Medicine background. Reply: Box 1201, The Society of Nuclear Medicine. 136 Madison Ave., New York, NY 10016.

# See Page 36 for information about SNM Grants and Fellowships



#### NUCLEAR MEDICINE TECHNOLOGIST

The Mayo Clinic in Rochester, Minnesota is seeking a registered or registry eligible (ARRT or NMTCB) Nuclear Medicine technologist to join our 62-member, team-oriented department. This is a full-time position enabling the technologist to perform diagnostic procedures in all areas of Nuclear Medicine and Nuclear Cardiology.

You will have the opportunity and personal satisfaction of working with state-of-the-art equipment in one of the largest Nuclear Medicine departments in the country. Our current facilities include over 20 gamma cameras, including multi-headed SPECT systems, as well as a large networked computer system. Our department is active in research and provides a clinical and didactic environment for students in our Nuclear Medicine training program.

Mayo Clinic is located in Rochester, Minnesota, a dynamic community of 62,000 located 75 miles southeast of Minneapolis/St. Paul. The Mayo Medical Center with a staff of over 17,000 employees is a leader in health care, education, and research. Mayo Clinic provides an attractive compensation package including an outstanding personal security and benefits program. Interested candidates may send resume to:



Douglas A. Parks Personnel Section MAYO CLINIC 200 First Street, SW Rochester, MN 55905

Mayo Foundation is an affirmative action and equal opportunity educator and employer.



### Saudi Arabian Opportunities

The King Faisal Specialist Hospital and Research Centre in Riyadh is a 500 bed tertiary referral center for the Kingdom of Saudi Arabia. The Research Centre has modern, fully equipped research laboratories as well as the only Cyclotron in the Middle East. The Cyclotron (CS 30) produces radionuclides for medical research and distribution. In addition, a state-of-the-art PET facility is being planned for the coming year. Opportunities are available for the following positions:

**Consultant Physician, Nuclear Medicine** - Completion of training in Nuclear Medicine with full board certification and 7 years experience.

Hot Cell Radiochemist - B.S. degree in Chemistry and experience in the preparation and production of radioactive isotopes as well as proficiency in the use of manipulators.

**Radiochemist II** - B.S. degree in Biology, Chemistry or Pharmacy, with a minimum of two years experience with radioactive materials.

**Cyclotron Operator** - A.S. degree in Electronics, Physics or related field and three years experience operating and maintaining cyclotrons or related experience.

Benefits include competitive, potentially tax-free salary, 50 days leave each year, free furnished accommodation, return air fares, medical care and educational assistance for dependent children. To apply, send complete curriculum vitae or resume to: Hospital Corporation International, 2515 Park Plaza, Nashville, TN 37203, or call toll-free 800-251-2561 (800-342-2110 in TN). From Canada, call collect (615)320-2440.

HCI is an equal opportunity employer.

#### **CALL FOR ABSTRACTS FOR** SCIENTIFIC PAPERS AND SCIENTIFIC EXHIBITS

The Society of **Nuclear Medicine Annual Meeting** Tuesday June 8-Friday, June 11, 1993

Toronto Convention Center Toronto, Ontario, Canada

The 1993 Scientific Program Committee, Scientific Exhibits Subcommittee, and the Scientific & Teaching Sessions Committee solicit the submission of abstracts from members and nonmembers of The Society of Nuclear Medicine for the 40th Annual Meeting in Toronto, Ontario, Canada. Accepted Scientific Paper and Scientific Exhibit abstracts be published in a special supplement to the May issue of The Journal of Nuclear Medicine and accepted Technologist Section abstracts will be published in the June issue of the Journal of Nuclear Medicine Technology. Original contributions on a variety of topics related to nuclear medicine will be considered, including:

- ► Instrumentation and Data Analysis
- ► Radioassay
- ► Radiopharmaceutical Chemistry
- ► Dosimetry/Radiobiology
- **►** Nuclear Magnetic Resonance Chemistry
- **►** Clinical Science Applications:
  - Bone/Joint
  - Cardiovascular (clinical and basic)
  - Endocrine
  - Gastroenterology
  - Neurology (clinical and basic)
- Hematology/ Infectious Disease

• Pediatrics

Pulmonary

• Immunology (antibody)

• Renal/Electrolyte/

Hypertension

• Oncology (non-antibody)

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

> Deadline for receipt of abstracts for SCIENTIFIC PAPERS is Wednesday, January 6, 1993.

> Deadline for receipt of abstracts for SCIENTIFIC EXHIBITS is Wednesday, January 6, 1993.

There are two abstract forms for the annual meeting. The Scientific Paper abstract form can be obtained in the October 1992 JNM. The Scientific Exhibits abstract form is only available by calling or writing:

The Society of Nuclear Medicine

Att: Abstracts

136 Madison Avenue

New York, NY 10016-6760

Tel: (212) 889-0717 • FAX: (212) 545-0221

## **Nuclear Medicine** Physician

The DIVISION OF NUCLEAR MEDICINE at Lutheran General Hospital is seeking a physician boarded in nuclear medicine with internal medicine background. The hospital has 750 beds and is a teaching affiliate of the University of Chicago. The Division of Nuclear Medicine is very active with over 8,000 patient procedures done per year in a wide variety of studies. There are two full-time internal medicine and nuclear medicine boarded physicians and a part-time physician. The division has 7 cameras, four of which are SPECT, and is totally digitally integrated with a complete Ethernet. We have Radiology residency training and Cardiology fellowship training in our division. The applicant should be less than 3-5 years post training. Teaching and research will comprise a large portion of his/her duties in addition to clinical work. Please send CV and cover letter directly to Charles J. Martinez, M.D., Director, Division of Nuclear Medicine, Lutheran General Hospital, 1775 Dempster Street, Park Ridge, IL 60068. We are an equal opportunity employer.



Lutheran General Hospital



The Mount Sinai Medical Center of New York

#### **NUCLEAR MEDICINE**

#### PHYSICIAN BC/BE

Full-time faculty position at either a junior or senior level. Candidate should have completed a Nuclear Medicine residency and be Board-certified or -eligible in Nuclear Medicine.

#### PHYSICIST. PhD

We require PhD in Physics and experience in Nuclear Medicine. The successful candidate will provide support to the Department by supervising QC and new equipment installation, developing and implementing new software, and assisting in educational and research activities. State-of-the-science facility featuring PET

Competitive salaries and benefits. Please send CV/inquiries to: Josef Machac, MD, Box 1030, The Mount Sinai Medical Center, One Gustave L. Levy Place, New York, NY 10029-6574, (212) 241-4040. An Equal Opportunity Employer.

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Science/Engineering Education Division
Oak Ridge Institute for Science and Education

P.O. Box 117 Oak Ridge, TN 37831-0117 (615) 576-9975

Deadline January 15, 1993

## NUCLEAR MED TECH

**Dominican Santa Cruz Hospital**, the pacesetter in the Monterey Bay area when it comes to quality care and professional expertise, currently has a full-time opportunity for a Nuclear Medicine Technologist.

You will perform an extensive range of advanced levels of nuclear medicine procedures. Requires CNMT and graduation from an approved school of Nuclear Medicine.

We offer an excellent compensation and benefits package, including tuition reimbursement and a Child Care Center. For consideration, please send resume to: **Dominican Santa Cruz Hospital, Human Resources**, 1555 Soquel Drive, Santa Cruz, CA 95065. (408) 462-7725. EOE.



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In this position, you will apply imaging techniques such as MRI, angiography, quantitative autoradiography and radionuclide imaging in the evaluation of new therapeutic and diagnostic agents. Requires a BS/MS with 2 - 6 years experience, a strong background in biology and expertise in animal models.

Please forward your resume, to: Bristol-Myers Squibb Pharmaceutical Research Institute, Dept. 356-PF, P.O. Box 4000, Princeton, NJ 08543-4000. Equal Opportunity Employer, M/F/D/V.



**Bristol-Myers Squibb Company** 

#### **Management Opportunity**

Tucson Medical Center is a 615-bed acute care teaching hospital and trauma center located in Tucson, Arizona. Our well-equipped, independent Nuclear Medicine Department is losing their Director to retirement and this has created an excellent opportunity for a talented Nuclear Medicine Specialist to assume a leadership role.

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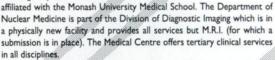
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#### Director of Nuclear Medicine

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The current staff component within the Department comprises a full-time Director, a part-time Physician in Nuclear Medicine, a full-time trainee Registrar and five Technologists. The new Director appointment can be either a full-time position or a maximum part-time position. Private practice arrangements are negotiable.

Enquiries regarding further details of this position ought to be directed to Dr Fred Jensen, Chairman, Division of Diagnostic Imaging, on (613)550 2200 or (613)550 2274.

Application forms may be obtained from Miss Fay Jones on (613)550 2745 and ought to be returned to Dr Syd Allen, Executive Director, Medical Services, by 4.1.93.

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- B. Publication Number: 281560.
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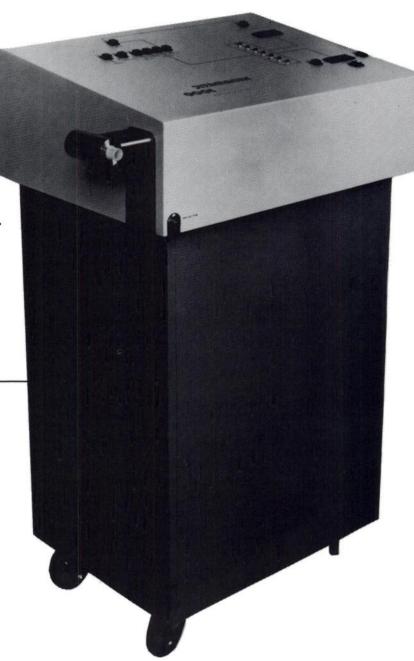
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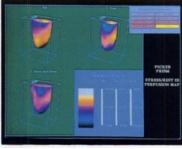
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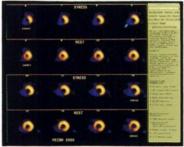
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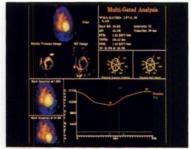
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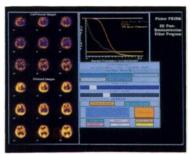
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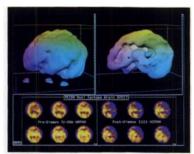
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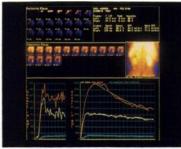
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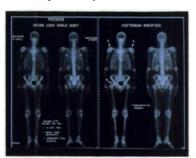
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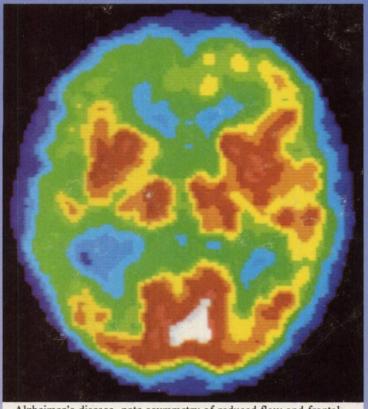
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