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ORLANDO

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Join more than 8000 of your colleagues in celebrating the 41st Annual Meeting of the Society of Nuclear Medicine in Orlando, Florida, June 5-8, 1994. Participate in the intensive educational program, review posters, discuss the most recent developments with colleagues, and join any of a host of much talked about extracurricular activities. Don't miss this opportunity to learn, mingle with your colleagues, and visit with the exhibitors.

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

SCIENTIFIC PAPERS

This year's presentation of over 1000 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.

TECHNOLOGIST PROGRAM

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

AUDIOVISUALS, BOOKS, JOURNALS

The Society of Nuclear Medicine is continuously 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 in-depth understanding of their products.

REGISTRATION

Before May 6 After May 6
Physicians/Scientists
Members $160.00 $180.00
Nonmembers $255.00 $275.00
Technologists
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Nonmembers $255.00 $275.00

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Cardiolite fills in the gaps with the superior clarity of technetium

CARDIOLITE fills in information gaps to provide you with a complete clinical picture.

For identifying and localizing ischemia and infarction, CARDIOLITE provides you with much more. Through expanded uses, CARDIOLITE is the only single agent to provide perfusion and function information with gated wall motion or first pass.

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Get superior information and throughput. Fill in the gaps with CARDIOLITE.

Cardiolite
Kit for the preparation of Technetium Tc 99m Sestamibi

Fills in the gaps...with clarity that lasts

Please see next page for brief summary of prescribing information.
DESCRIPTION: Each test vial contains a sterile, non-pyrogenic, hypalized mixture of:
Tetracis (2-methoxyethyl dimethylsilie) Copper (II) tetrathofluoroborate - 1.0mg
Sodium Ctitrate Dihydrate - 2.6mg
L-Cysteine Hydrochloride Monohydrate - 1.0mg
Mannitol - 20mg
Stannous Chloride, Dihydrate, minimum (SnCl2?2H2O) - 0.025mg
Stannous Chloride, Dihydrate, (SnCl2?2H2O) - 0.075mg
Tin Chloride (Stannous and Stannic) Dihydrate, maximum (as SnCl2?2H2O) - 0.006mg
Prior to hypalization the pH is 5.3-5.9. The contents of the vial are hypalized and stored under nitrogen.

This drug is administered by intravenous injection for diagnostic use after reconstitution with sterile, non-pyrogenic, oxidant-free Pertechnetate to Technetium Tc99m Sestamibi. 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(MBIP)

INDICATIONS AND USAGE: CARDILITIE. Kit for the preparation of Technetium Tc99m Sestamibi is a myocardial perfusion agent that is useful in the evaluation of ischemic heart disease. CARDILITIE, 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 complicated using rest and stress techniques.

CARDILITIE, 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 Technetium Tc99m Sestamibi in conjunction with other diagnostic information may be used to evaluate ischemic heart disease and its localisation.

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. Technetium 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 that the patient is in an acceptable state of care and is receiving appropriate treatment in accordance with accepted clinical procedures. Infrremely, death has occurred 4 to 24 hours after Technetium Tc99m Sestamibi use and is usually associated with exercise stress testing. (See Precautions).

PRECAUTIONS:

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.

The components of the kit are sterile and non-pyrogenic 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 handling and 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 reprocessing and support apparatus.

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

- Fatigue
- Dyspnea
- Chest Pain
- ST depression
- Arrhythmia
- Sarcopenia

Carcinogenesis, Mutagenesis, Impairment of Fertility

In combination with other diagnostic technetium labeled radiopharmaceuticals, the radiation dose to the ovaries (1.3md/20mcG at rest, 1.2-radio?20mcG at exercise) is high. Minimal exposure (ALARA) is necessary in women of childbearing age. See Dosimetry subsection in DOSAGE AND ADMINISTRATION section.

The active intermediate, [Cu(MIBI)]BF,

was evaluated for genotoxic potential in a battery of five tests. No genotoxic activity was observed in the Ames, CHOGJHF and sister chromatin exchange tests (all in vitro). At cytotoxic concentrations (mammalian cells), an increase in cells with chromosome aberrations was observed in the in vivo human lymphocyte assay, [Cu(MIBI)]BF, did not show genotoxic effects in the in vitro mouse micronucleus test at a dose which caused systemic and bone marrow toxicity (90mg/kg, > 600 x maximal human dose).

Pregnancy Category C

Animal reproduction and teratogenicity studies have not been conducted with Technetium Tc99m Sestamibi. In the rat, no studies have not been conducted with Technetium Tc99m Sestamibi. In the human, although few mammalian studies have been conducted with Technetium Tc99m Sestamibi, it is not known whether Technetium Tc99m Sestamibi is excreted in human milk during lactation. 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 9% of patients experienced a transient myocardial ischemia immediately after the injection of Technetium Tc99m Sestamibi. A few cases of transient headache, flushing and non-inflating itch has also been attributed to administration of the agent. Cases of angina, chest pain, and death have occurred (See WARNINGS and PRECAUTIONS).

DOSEAGE AND ADMINISTRATION: The suggested dose range for I.V. administration in a single dose to be employed in the average patient (70kg) is: 200-1100MBq (10-30McG) of Technetium Tc99m Sestamibi injected intravenously are shown in Table 4.

Table 4. Radiation Absorbed Doses from Tc99m Sestamibi

<table>
<thead>
<tr>
<th>Organ</th>
<th>2.0 hour void</th>
<th>4.8 hour void</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>rad/s 30Ci</td>
<td>mGy/100MBq</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Breasts</td>
<td>0.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Gallbladder Wall</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Small Intestine</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Upper Large Intestine Wall</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Lower Large Intestine Wall</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Stomach Wall</td>
<td>0.6</td>
<td>6.1</td>
</tr>
<tr>
<td>Heart Wall</td>
<td>0.5</td>
<td>5.1</td>
</tr>
<tr>
<td>Kidneys</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Liver</td>
<td>0.6</td>
<td>5.8</td>
</tr>
<tr>
<td>Lungs</td>
<td>0.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Bone Surfaces</td>
<td>0.7</td>
<td>6.8</td>
</tr>
<tr>
<td>Thyroid</td>
<td>0.7</td>
<td>7.0</td>
</tr>
<tr>
<td>Ovaries</td>
<td>1.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Testes</td>
<td>0.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Red Marrow</td>
<td>0.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Urinary Bladder Wall</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Total Body</td>
<td>0.5</td>
<td>4.8</td>
</tr>
</tbody>
</table>

H.P.W. Printed in U.S.A.
1. Place a 5 mCi point source of Tc-99m at least 15 feet away from the collimator face and collect 1 million counts with your collimator. Defects to be noted are: Linear streaks and cold defects.

2. The next evaluation is with a line source filled with 100 uCi of Tc-99m making an image at 8, 10, and 12 inches from the collimator face. Note defects.

3. Another evaluation can be done by imaging a SPECT phantom filled with 10 mCi Tc-99m. Defects to be noted: Ring artifacts.

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Metastron overall response rate (% of patients).¹,²³

**Highly Effective Non-Narcotic Therapy.**

▲ Metastron may reduce or eliminate the need for dose escalation of narcotic analgesics.²⁴

**Generally Well Tolerated.**

▲ A depression of white blood cell (20%) and platelet (30%) levels may occur in patients treated with Metastron — clinically significant toxicity is rare.²

**An Improved Quality of Life for Patients.**

▲ Metastron may improve patient quality of life, as measured by assessments of mood, mobility, appetite, sleep pattern, and analgesic consumption.¹⁵,⁷

▲ Proven in 7 years of clinical experience in more than 6000 patients worldwide.²

Please see following page for full prescribing information.

---

**Introducing**

**Metastron®**

*(Strontium-89 Chloride Injection)*

A new way to manage metastatic bone pain.
Introducing METASTRON
(STRONTIUM-89 CHLORIDE INJECTION)

Metastron® (Strontium-89 Chloride Injection)

Description: Metastron® is a sterile, non-pyrogenic, aqueous solution of Strontium-89 Chloride for intravenous administration. Solution contains no preservative.

Each milliliter contains: Strontium Chloride 10.9 ± 2.2 mg/ml. Water for Injection q.s. to 1 ml.

The radioactive concentration in this solution is 1.15 mCi/ml, and its radionuclide activity is 2.96 - 6.17 mCi/µg at the time of use in the solution. The maximum beta energy is 1.483 MeV (100%). The maximum range of 8 from Strontium-89 in tissue is approximately 8 mm.

Radioactive decay factors to be applied to the stated value for radioactive concentration at calibration, when calculating injection volumes at the time of administration, are presented in Table 1.

Table 1: Decay of Strontium-89

<table>
<thead>
<tr>
<th>Day</th>
<th>Factor</th>
<th>Day</th>
<th>Factor</th>
<th>Day</th>
<th>Factor</th>
<th>Day</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.86</td>
<td>2</td>
<td>0.88</td>
<td>3</td>
<td>0.90</td>
<td>4</td>
<td>0.92</td>
</tr>
<tr>
<td>2</td>
<td>0.87</td>
<td>3</td>
<td>0.91</td>
<td>4</td>
<td>0.93</td>
<td>5</td>
<td>0.95</td>
</tr>
<tr>
<td>3</td>
<td>0.88</td>
<td>4</td>
<td>0.90</td>
<td>5</td>
<td>0.92</td>
<td>6</td>
<td>0.94</td>
</tr>
<tr>
<td>4</td>
<td>0.89</td>
<td>5</td>
<td>0.91</td>
<td>6</td>
<td>0.93</td>
<td>7</td>
<td>0.95</td>
</tr>
<tr>
<td>5</td>
<td>0.90</td>
<td>6</td>
<td>0.92</td>
<td>7</td>
<td>0.94</td>
<td>8</td>
<td>0.96</td>
</tr>
</tbody>
</table>

*Days before (or after) the calibration date stated on the vial.*

Clinical Pharmacology: Following intravenous injection, soluble strontium compounds behave like their calcium analogs, clearing rapidly from the blood and selectively localizing in bone mineral. Uptake of strontium by bone occurs preferentially in sites of active osteoblastosis; thus primary bone tumors and areas of metastatic involvement (blastic lesions) can accumulate significantly greater concentrations of strontium than surrounding normal bone.

Strontium-89 is retained by metastatic bone in much higher concentration than normal bone tissue. With these characteristics, an estimated 14 days. In patients with extensive skeletal metastasis, well over half of the injected dose is retained in the bone.

Excretion pathways are two-thirds urinary and one-third fecal in patients with bone metastases. Urinary excretion is higher in people without bone lesions. Urinary excretion is greatest in the first two days following injection.

Strontium-89 is a pure beta emitter and Strontium-89 Chloride selectively localizes sites of primary and metastatic bone involvement with minimal radiation of soft tissues distant from the bone lesions. (The maximum range inissue is 8 mm; maximum energy is 1.483 MeV). Measured absorbed doses are listed under the Radiation Dosimetry section.

Clinical trials have examined relief of pain in cancer patients who have received therapy for bone metastases (external radiation to indented sites) and in whom persistent pain recurred.

In a multicenter Canadian placebo-controlled trial of 126 patients, pain relief occurred in more patients treated with a single injection of Metastron than in patients treated with a placebo. Results are given in the following tables.

Table 2 presents the percentage of patients treated with Metastron or placebo who achieved pain relief and pain relief in a analgesic or therapy or re-treatment.

Table 2: Comparison of the effects of Strontium-89 and placebo, as judged by radiologists, on treatment outcome, on pain relief.

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Number</th>
<th>Pain Relief</th>
<th>Analgesic or Therapy</th>
<th>Re-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Treatment</td>
<td>Metastron</td>
<td>52</td>
<td>71%</td>
<td>90%</td>
<td>80%</td>
</tr>
<tr>
<td>Metastron</td>
<td>Placebo</td>
<td>49</td>
<td>53%</td>
<td>70%</td>
<td>70%</td>
</tr>
</tbody>
</table>

At each visit, treatment success, defined as a reduction in a patient’s pain score without any increase in analgesic intake and without any supplementary radiopharmacy at the site of reference, was more frequent among patients assigned to Metastron than to placebo.

Table 3 presents the number and percentage of patients treated with Metastron or placebo as well as radiologists to whom patients were pain-free without analgesics at the intensively.

Table 3: Comparison of the effects of Strontium-89 and placebo, as judged by radiologists, on treatment pain score and analgesic score.

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Number</th>
<th>Pain Relief</th>
<th>Analgesic</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Treatment</td>
<td>Metastron</td>
<td>52</td>
<td>71%</td>
<td>0%</td>
<td>3.5</td>
</tr>
<tr>
<td>Metastron</td>
<td>Placebo</td>
<td>49</td>
<td>53%</td>
<td>10%</td>
<td>3.7</td>
</tr>
</tbody>
</table>

The number of patients classified at each visit as treatment successes who were pain free at the index site and required no analgesics was consistently higher in the Metastron group.

New pain sites were less frequent in patients treated with Metastron. In another clinical trial, pain relief was greater in a group of patients treated with Metastron compared with a group treated with non-radioactive strontium-89.

Efficacy: Metastron (Strontium-89 Chloride Injection) is indicated for the relief of bone pain in patients with painful skeletal metastases.

The presence of bone metastases should be confirmed prior to therapy.

Contraindications: None known.

Warnings: Use of Metastron in patients with evidence of seriously compromised bone marrow from previous therapy or disease infiltration is not recommended unless the potential benefit of the treatment outweighs the risks. Bone marrow toxicity is to be expected following the administration of Metastron, primarily white cell depression and, in some patients, in the total of vitamin B. It is recommended that the patient’s peripheral blood cell counts be monitored at least once every month. The degree of white cell depression is expressed as a percentage of pre-treatment. The rate of bone marrow depression in most patients is found between 12 and 16 weeks following administration of Metastron. While blood cell counts are usually depressed to a varying extent compared to pre-administration levels. Therefore, recovery occurs slowly, typically reaching normal levels in months after the treatment. Patients who have been recently irradiated or chemotherapy treatments should be considered at high risk of progressive injury.

In considering repeat administration of Metastron, the patient’s hematologic response to the initial dose must be considered prior to therapy.

Metastron may cause fatal harm when administered to a pregnant woman. There are no adequate and well-controlled studies in pregnant women. It is not known whether Metastron is excreted in human milk. It is presumed that the drug is excreted in human milk. However, it is not known whether Metastron is excreted in human milk.

Precautions: Metastron is not indicated for use in patients with cancer not involving bone. Metastron should be used with caution in patients with clotted platelets below 50,000 and white cell counts below 2,000.

Radiochemical purity of Metastron and its radiolabeling of compounds is confirmed by physiologic and clinical examination in the safety and handling of radionuclides and whose experience and training have been approved by the appropriate government agencies authorized to license the use of radionuclides.

References:
4. Reference: fibrin inhibitor therapy for patients with cancer not involving bone. Metastron should be used with caution in patients with clotted platelets below 50,000 and white cell counts below 2,000.
5. Radiochemical purity of Metastron and its radiolabeling of compounds is confirmed by physiologic and clinical examination in the safety and handling of radionuclides and whose experience and training have been approved by the appropriate government agencies authorized to license the use of radionuclides.
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- "Double-Phase Tc-99m Sestamibi Parathyroid Scintigraphy," Raymond Tallifer, Hotel Dieu Hospital, Montreal, Canada
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RADIONUCLIDE THERAPY OF PAINFUL BONE METASTASES: CURRENT STATUS AND FUTURE PROSPECTS

This one day program is designed to provide radiopharmaceutical/nuclear medicine scientists and nuclear medicine practitioners with a comprehensive review and a thorough understanding in the area of radionuclide therapy of intractable pain from osseous metastases in cancer patients. This program will introduce and build upon the basic science and mechanistic aspects of the use of unsealed internal beta emitter radionuclide sources. Among the topics to be discussed are:

- A detailed description of the nuclear, chemical and biological properties of the various radiopharmaceuticals currently available or being investigated for bone pain therapy.
- Technical aspects in using unsealed therapy sources.
- Various short- and long-term benefits, as well as the toxicity of unsealed source therapy vs. external beam therapy.
- Personal experiences in pain management, patient selection criteria, training, licensure requirements and social impacts.
- The latest clinical trial results for agents currently undergoing development.
- Advantages and shortcomings of various radionuclide therapy agents.
- Future improvements in therapy.
- Fifteen national and international faculty will be present to teach this course and share their latest data and experiences.

To register, fill out the form below (use photocopies for additional registrants) and mail or fax to:

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New York, NY 10016; Fax: (212)545-0221.

Remember: You must register before January 18, 1994, to be eligible for the discounted fee.

Fees: Fees include continental breakfast, box lunch and all coffee breaks.

<table>
<thead>
<tr>
<th>Physicians/ Scientists</th>
<th>Before 1/18</th>
<th>On/After 1/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members</td>
<td>$85.00</td>
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<td>$170.00</td>
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<td>Students</td>
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COMPANY ____________________________
ADDRESS ____________________________
CITY ___________________ STATE _______ ZIP __________
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Clinical Development Grants in NUCLEAR MEDICINE

ADAC Laboratories announces the continuing support of development grants to advance CLINICAL nuclear medicine. Several grants from $5,000 to $50,000 will be awarded. Funds can be used for equipment and personnel support for 12 month projects.

Preference will be given to CLINICAL nuclear medicine applications that include the development of new procedures improving medical care.

The applications will be reviewed by an independent review committee of nuclear medicine professionals.

For application forms and information please write to

Advanced Clinical Research Program
ADAC LABORATORIES
540 ALDER DRIVE
MILPITAS, CA 95035

Application Deadline: March 15, 1994

Funding Announcements: June 6, 1994
(Society of Nuclear medicine Meeting)

Funding Availability: July 1, 1994

Leadership • Technology
BEETTER HEALTH CARE

Circle Reader Service No. 1
The Society of Nuclear Medicine Awards Committee announces that two grants for $25,000 each are available for July 1, 1994. 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 Meeting, June, 1994.

Please send for more information and an application to:
The Society of Nuclear Medicine, SNM Awards Committee
136 Madison Avenue, New York, NY 10016

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 7, 1994. 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.

The Society of Nuclear Medicine announces the second in a series of research grants supported by Medi-Physics, Inc., Amersham Healthcare to further work in the use of unsealed sources in therapy applications.

This year’s grant of $30,000 offers you the opportunity to do high quality, innovative research in an exciting therapy area and to enhance the emphasis of therapy in nuclear medicine. Preference will be given to young physicians or scientists who have recently entered the field.

For more information and application forms, please contact:
The Society of Nuclear Medicine
SNM Awards Committee
136 Madison Avenue
New York, NY 10016

Completed applications must be returned by January 7, 1994. The award winner will be announced at the 1994 Annual SNM Meeting in Orlando, FL.
### SNM 41ST ANNUAL MEETING

#### Critical Dates

<table>
<thead>
<tr>
<th>Item</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT FORMS</td>
<td></td>
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<tr>
<td>Scientific Papers</td>
<td>October Issue JNM</td>
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<tr>
<td>Scientific Exhibits</td>
<td>1/5/94</td>
</tr>
<tr>
<td>REGISTRATION FORM</td>
<td>5/6/94</td>
</tr>
<tr>
<td>HOUSING FORM</td>
<td>5/13/94</td>
</tr>
</tbody>
</table>

**DON'T FORGET THE MID-WINTER MEETING IS IN SEATTLE, WASHINGTON**

**TITLE:** Dedicated Instruments and Computer Processing Techniques for Cardiac and Brain Imaging

**DATE:** February 7-8, 1994

**LOCATION:** Westin Hotel, Seattle, WA

**SPONSOR:** The Computer and Instrumentation Council

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**THE WORLD FEDERATION OF NUCLEAR MEDICINE & BIOLOGY**

**SIXTH WORLD CONGRESS**

**SYDNEY, AUSTRALIA**

**23 - 28 OCTOBER 1994**

**CLOSING DATE FOR ABSTRACTS:** 30 APRIL 1994

**PRE-CONGRESS SYMPOSIUM 18 - 20 OCTOBER 1994**

Cairns, Queensland - close to the Barrier Reef

Emission Tomography :
Controversies & Future Directions

**FURTHER INFORMATION**

Congress Secretariat
GPO Box 2609
Sydney NSW 2001
AUSTRALIA

Telephone: (61 2) 241 1478
Facsimile: (61 2) 251 3552
THE SOCIETY OF NUCLEAR MEDICINE

MID-WINTER MEETING

Title: Dedicated Instruments and Computer Processing Techniques for Cardiac and Brain Imaging

Location: Westin Hotel, Seattle, WA

Date: Monday-Tuesday, February 7-8, 1994

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

All Pre-Registrations Must be Received by January 17, 1994

COMPUTER AND INSTRUMENTATION: DEDICATED INSTRUMENTS AND COMPUTER PROCESSING TECHNIQUES FOR CARDIAC AND BRAIN IMAGING

Westin Hotel, Seattle, WA • Monday, February 7–Tuesday, February 8, 1994

Please Enroll the Following (use copies for additional registrants):

Name (as it should appear on badge)

Affiliation

Address

City State Zip

Phone

Mail to: THE SOCIETY OF NUCLEAR MEDICINE

COMPUTER and INSTRUMENTATION SYMPOSIUM

Department of Meeting Services, 136 Madison Avenue

New York, NY 10016-6760 • (212) 889-0717

The Fee Before 1/5 On/After 1/5

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Signature

$ Amount Enclosed (see above)

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The Society of Nuclear Medicine has made it easier and faster for you to order books and pamphlets.

Orders can now be placed with BookMasters, our fulfillment center.

Your orders will be delivered faster, by two or three days, because of this change. And the Society will be streamlining its operations by this move.

Mail your SNM book and pamphlet orders directly to:

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The New SNM Audiovisual Catalog

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Soon
The rule of thumb in stress perfusion imaging

In myocardial perfusion imaging, the quality of information is directly related to the level of exercise, as measured by the percentage of maximal predicted heart rate achieved by the patient at the time of tracer injection. This is because myocardial oxygen demand is mainly determined by the heart rate. When oxygen demand is increased by exercise, the disparity in coronary blood flow caused by the presence of significant CAD produces perfusion defects, which allow for lesion detection. This provides valuable physiological information for CAD diagnosis.1,2

A rule of thumb governs the exercise stress test. Patients are asked to exercise to 85% of their maximal predicted heart rate. This rule has been determined from a review of exercise ECG studies where diagnostic information has been considered inconclusive at heart rates below 85% of the maximal predicted heart rate.2

When to bend it

However, not all patients will achieve 85% of their maximal predicted heart rate. Some may reach diagnostic endpoints in testing. Others will have physical limitations or may be on beta blockers that prevent them from achieving the optimal level.

To maximize diagnostic certainty and avoid the risk of false-negative test results, suboptimal stress should be avoided.

Pharmacologic stress: The measure of success in imaging after suboptimal exercise

In images taken after patients have failed to reach 85% of their maximal predicted heart rate, defects may go undetected.3 4 I.V. Persantine® (dipyridamole USP) can help salvage potentially nondiagnostic perfusion studies where patients have achieved suboptimal exercise levels. This form of pharmacologic stress, administered when the patient's heart rate has returned to baseline, allows for reliable results and may result in a higher yield of useful imaging information.5

In addition, I.V. Persantine offers a proven safety record,6** gradual onset, and a convenient, easy-to-follow protocol. In pharmacologic stress, it's the rule by which all other agents are measured. In perfusion imaging, anything less diminishes diagnostic certainty.

Ask questions about pharmacologic stress with I.V. Persantine.

Call the Du Pont Pharma Nuclear Cardiology Infoline at 1-800-343-7851 for further information.

*Serious adverse reactions associated with the administration of I.V. Persantine have included fatal and nonfatal myocardial infarction, ventricular fibrillation, symptomatic ventricular tachycardia, transient cerebral ischemia, and bronchospasm. Severe adverse events have occurred infrequently (0.3%) in a study of 3611 patients. Patients with a history of unstable angina may be at a greater risk for severe myocardial ischemia. Patients with a history of asthma may be at a greater risk for bronchospasm.

**Persantine is a registered trademark of Boehringer Ingelheim International GmbH. I.V. Persantine is manufactured and distributed by Du Pont Pharma under license from Boehringer Ingelheim Pharmaceuticals, Inc.

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Brief Summary of Prescribing Information

CONTRAINDICATIONS

Hypersensitivity to dipyridamole.

WARNINGS

Serious adverse reactions associated with the administration of intravenous Persantine® (dipyridamole USP) have included fatal and non-fatal myocardial infarction, ventricular fibrillation, symptomatic ventricular tachycardia, transient cerebral ischemia, and bronchospasm. In a study of 3911 patients given intravenous Persantine as an adjunct to thallium myocardial perfusion imaging, two types of serious adverse events were reported: 1) four cases of myocardial infarction (0.1%), two fatal (0.06%) and two non-fatal (0.06%); and 2) six cases of severe bronchospasm (0.2%). Although the incidence of these serious adverse events was small (0.3%, 10 of 3911), the potential clinical information to be gained through use of intravenous-Persantine thallium imaging must be weighed against the risk to the patient. Patients with a history of unstable angina may be at a greater risk for severe myocardial ischemia. Patients with a history of asthma may be at a greater risk for bronchospasm during IV Persantine use.

When thallium myocardial perfusion imaging is performed with intravenous Persantine, parenteral aminophylline should be readily available for relieving adverse events such as bronchospasm or chest pain. Vital signs should be monitored during, and for 10-15 minutes following, the intravenous injection of Persantine and an electrocardiographic tracing should be obtained using at least one chest lead. Should severe chest pain or bronchospasm occur, parenteral aminophylline may be administered by slow intravenous injection (50-100 mg over 30-60 seconds) in doses ranging from 50 to 250 mg. In the case of severe hypotension, the patient should be placed in a supine position with the head tilted down if necessary, before administration of parenteral aminophylline. If 250 mg of aminophylline does not relieve chest pain symptoms within a few minutes, sublingual nitroglycerin may be administered. If chest pain continues despite use of aminophylline and nitroglycerin, the possibility of myocardial infarction should be considered. If the clinical condition of a patient with an adverse event permits a one minute delay in the administration of parenteral aminophylline, thallium-201 may be injected and allowed to circulate for one minute before the injection of aminophylline. This will allow initial thallium perfusion imaging to be performed before reversal of the pharmacologic effects of Persantine on the coronary circulation.

PRECAUTIONS

See WARNINGS.

Drug Interactions

Oral maintenance theophylline may abolish the coronary repopidation effect seen with intravenous Persantine (dipyridamole USP) administration. This could lead to a false-negative thallium imaging result.

Cardiovascular, Myocardial, Impairment of Fertility

In studies in which dipyridamole was administered in the feed at doses of up to 75 mg/kg/day (9.4 times the maximum recommended daily human oral dose) in mice (up to 128 weeks in males and up to 142 weeks in females) and rats (up to 111 weeks in males and females), there was no evidence of drug-related cardiogenesis. Mutagenicity tests of dipyridamole with bacterial and mammalian cell systems were negative. There was no evidence of impaired fertility when dipyridamole was administered to male and female rats at oral doses up to 500 mg/kg/day (63 times the maximum recommended daily human oral dose). A significant reduction in number of corpora lutea with consequent reduction in implantations and live fetuses was, however, observed at 1250 mg/kg/day.

*Calculation based on assumed body weight of 50 kg.

Pregnancy Category

Reproduction studies performed in mice and rats at daily oral doses of up to 125 mg/kg (15.6 times the maximum recommended daily human oral dose) and in rabbits at daily oral doses of up to 20 mg/kg (2.5 times the maximum recommended daily human oral dose) have revealed no evidence of impaired embryonic development due to dipyridamole. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human responses, this drug should be used during pregnancy only if clearly needed.

*Clinical data based on assumed body weight of 50 kg.

Nursing Mothers

Dipyridamole is excreted in human milk.

Pediatric Use

Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Adverse reaction information concerning intravenous Persantine® (dipyridamole USP) is derived from a study of 3911 patients in which Intravenous Persantine was used as an adjunct to thallium myocardial perfusion imaging and from spontaneous reports of adverse reactions and the published literature.

Serious adverse events (fatal and non-fatal myocardial infarction, severe ventricular arrhythmias, and serious CNS abnormalities) are described previously (see WARNINGS). In the study of 3911 patients, the most frequent adverse reactions were: chest pain/angina pectoris (19.7%), electrocardiographic changes (most commonly ST-T changes) (15.9%), headache (12.2%), and dizziness (11.6%). Adverse reactions occurring in greater than 1% of the patients in the study are shown in the following table:

<table>
<thead>
<tr>
<th>Incidence (%) of Drug-Related Adverse Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest Pain/Angina Pectoris</td>
</tr>
<tr>
<td>Headache</td>
</tr>
<tr>
<td>Dizziness</td>
</tr>
<tr>
<td>Electrocardiographic Abnormalities/ST-T changes</td>
</tr>
<tr>
<td>Electrocardiographic Abnormalities/Extravasations</td>
</tr>
<tr>
<td>Hypertension</td>
</tr>
<tr>
<td>Nausea</td>
</tr>
<tr>
<td>Flushing</td>
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<tr>
<td>Electrocardiographic Abnormalities/Tachycardia</td>
</tr>
<tr>
<td>Dyspnea</td>
</tr>
<tr>
<td>Pain/Unspecified</td>
</tr>
<tr>
<td>Blood Pressure Lability</td>
</tr>
<tr>
<td>Fatigue</td>
</tr>
</tbody>
</table>

Less common adverse reactions occurring in 1% or less of the patients within the study included:

Cardiovascular System: Electrocardiographic abnormalities unspecified (0.3%), arrhythmia unspecified (0.3%), palpitation (0.3%), ventricular tachycardia (0.2% see WARNINGS), bradycardia (0.2%), myocardial infarction (0.1% see WARNINGS), AV block (0.1%), syncope (0.1%), orthostatic hypotension (0.1%), atrial fibrillation (0.1%), supraventricular tachycardia (0.1%), ventricular arrhythmia unspecified (0.03% see WARNINGS), heart block unspecified (0.03%), cardiomyopathy (0.03%), edema (0.03%)

Central and Peripheral Nervous System: Hypoesthesia (0.5%), hypotension (0.5%), nervousness/anxiety (0.2%), tremor (0.1%), abnormal coordination (0.03%), somnolence (0.03%), dysphoria (0.03%), migraine (0.03%), vertigo (0.03%)

Gastrointestinal System: Dyspepsia (1.0%), dry mouth (0.0%), abdominal pain (0.7%), flatulence (0.6%), vomiting (0.4%), nausea (0.3%), diaphoresis (0.3%), tenesmus (0.3%), appetite increased (0.03%)

Respiratory System: Pharyngitis (0.3%), bronchospasm (0.2% see WARNINGS), hyperventilation (0.1%), rhinitis (0.1%), coughing (0.03%), pleural pain (0.03%)

Other: Myalgia (0.9%), back pain (0.0%), injection site reaction unspecified (0.4%), diaphoresis (0.4%), asthenia (0.3%), malaise (0.3%), arthralgia (0.3%), injection site pain (0.1%), rigor (0.1%), rash (0.1%), tinnitus (0.1%), visual abnormalities unspecified (0.1%), dyspnea (0.1%), thirst (0.03%), decompensation (0.03%), eye pain (0.03%), nasal pain (0.03%), perineal pain (0.03%), breast pain (0.03%), intermittent claudication (0.03%), leg cramping (0.03%)

OVERDOSAGE

No cases of overdose in humans have been reported. It is unlikely that overdosage will occur because of the nature of use (i.e., single intravenous administration in controlled settings). See WARNINGS.

Cautions

Federal law prohibits dispensing without prescription.

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The 1994 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 41st Annual Meeting in Orlando, Florida. Accepted Scientific Paper and Scientific Exhibit abstracts will 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, basic, and PET)
  - Endocrine
  - Gastroenterology
  - Neurosciences: Basic, Neurology and Psychiatry
  - Pediatrics
  - Pulmonary
  - Renal/Electrolyte/Hypertension
  - Hematology/Infectious Disease
  - Oncology Diagnosis (antibody)
  - Oncology Diagnosis (non-antibody)
  - Oncology/Therapy

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

There are two abstract forms for the annual meeting. The Scientific Paper abstract form can be obtained in the October 1993 JNM. The Scientific Exhibits abstract form is only available by calling or writing to:

The Society of Nuclear Medicine
Att: Abstracts
136 Madison Avenue
New York, NY 10016-6760
Tel: (212)889-0717 FAX: (212)545-0221

STATEMENT OF OWNERSHIP, MANAGEMENT, AND CIRCULATION
(REQUIRED BY 39 U.S.C. 3685)

1. A. Title of Publication: Journal of Nuclear Medicine

2. Date of filing: October 1, 1993.


5. Complete mailing address of the headquarters of general business offices of the publisher: 136 Madison Avenue, New York, NY 10016-6760.

6. Full names and complete mailing address of publisher, editor, and managing editor: Publisher—The Society of Nuclear Medicine, Inc., 136 Madison Avenue, New York, NY 10016-6760; Editor—Stanley J. Goldsmith, MD, 136 Madison Ave., New York, NY 10016-6760; Managing Editor: Eleanor Tapscoot, The Society of Nuclear Medicine, Inc., 136 Madison Avenue, New York, NY 10016-6760.


8. Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities: None. The Society of Nuclear Medicine, Inc., is a nonprofit corporation; there are no shareholders.

9. The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes have not changed during the preceding 12 months.


11. I certify that the statements made by me are correct and complete; (signed) John Childs, Publications Director.
Brain Phantom

Nuclemed NV/SA is introducing a new anthropomorphic brain phantom, JB003, which is ready for PET and SPECT evaluation. The JB003 is a three-dimensional, high-resolution brain phantom that is able to simulate the most accurate image of CBF tracer uptake by a normal brain. The accuracy of this phantom means that there is both correct anatomical representation as well as a 4:1 ratio of isotope uptake for gray and white matter. The phantom is composed of 40 numbered round plates and the 4:1 ratio is true for each plate. The JB003 can be efficiently filled with a single radioactive solution despite its concentration due to a highly developed vacuum system which successfully eliminates residual bubbles. Normal plates can be substituted for special plates or hot or cold inserts to simulate various clinical conditions.


Radiation Monitoring System

Teledyne Isotopes has released the System 300, a thermoluminescent dosimetry (TLD) system for personnel and environmental radiation monitoring. The System 300 incorporates a TLD reader, software, TLD cards, badge cases, an automatic irradiator and uses a highly sensitive phosphor that measures exposures less than 100 mrem. Other features of the System 300 include digitized glow curves recorded for analysis of each TLD card, automatic calibration, reader speed of 25 sec for each card, traceability through recording of 78 critical readout parameters for each TLD card and bar coding for accurate identification. Teledyne Isotopes, TLD Department, 50 Van Buren Ave., Westwood, NJ 07675-1235. (201) 664-7070.

Ultrasound Phantom

Gammex RMI has introduced the new RMI 403 Multi-Purpose Ultrasound Phantom which addresses the quality assurance needs of the latest high performance scanners and allows current RMI phantom users to upgrade without significantly changing their existing test protocol. Axial resolution targets are now 50% more challenging and are capable of measurements down to 0.25 mm. The new design features an extremely durable rounded case for easier handling with an innovative water dam that allows gel-free scanning when desired and conveniently flips out of the way when not in use. An integral cover shields the scanning surface and converts the phantom into its own air-tight storage case. Gammex RMI, P.O. Box 620327, Middleton, WI 53562-0327. 1-800-GAMMEX 1.

Safety Shield

Splash Shield has introduced a new safety face shield that protects a technician’s face while allowing to circulate. The Short Shield™ is shorter than full-face shields and features a patented hypoallergenic foam head band which contours to any size forehead for a secure fit. When worn in conjunction with a surgeon’s mask, the Short Shield keeps blood or other potentially infectious matter away from the skin, eyes, mouth and nose to fully comply with OSHA regulations. Splash Shield, 52 Dragon Court, Woburn, MA 01801. (617) 935-9060.

Laboratory Floor Covering

Nomad, a new floor covering made specifically for medical, chemical and industrial laboratories has been introduced by Martin-Nicholls, Inc. This new matting is a vinyl, nonwoven continuous filament bonded covering that withstands the abuse of most chemical spills, including sulfuric acid. Nomad is ideal for histology labs because it is scientifically engineered to trap paraffin-embedded cuttings and catches paraffin in its weaves helping to remove them from shoes. A special surfactant prevents wax from sticking to its surface. Nomad also has a unique cushion which relieves leg strain and stress associated with standing for long periods on concrete floors. It is extremely durable and wear-resistant and can be custom fit for any application. It is cleaned by simply shaking, vacuuming or rinsing with a hose and water. Martinson-Nicholls, Inc., 7863 Enterprise Drive, Box 296, Mentor, OH 44061-0296. (216) 951-1312.

Dropper Bottles

A new line of dropper bottles has been introduced by the Nalge Company to provide accurate, reliable and repeatable dispensing of aqueous reagents. The bottles are molded out of flexible, contact-clear, low-density polyethylene and have color-coded polycarbonate closures for easy sample identification. These bottles deliver 50-µl drops, feature a wide, 15-mm neck finish for easier filling and come in three convenient sizes: 4-ml, 8-ml and 15-ml. The one-handed flip-top dispensers eliminate cross-contamination and are nonpyrogenic, noncytotoxic and meet USP Class VI and FDA requirements for food contact. The dropper bottles can be sterilized by ionizing radiation or ethylene oxide and are available with white, yellow, orange, green, red or blue caps. Nalge Company, P.O. Box 20365, Rochester, NY 14602. (716) 264-3985. Fax: (716) 586-8431.
Policy — The Journal of Nuclear Medicine accepts classified advertisements from medical institutions, groups, suppliers of nuclear medicine, 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 — $22.00 per line or fraction of line (approx. 50 characters per line, including spaces). Please allow 25 characters for the first line which will appear in capital letters. Special rates for Suppliers and Equipment. 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 $1500
- Quarter page $650
- Half page $900
- Eighth page $500

Publisher-Set Charges — Page $150; half page $100; quarter page $75; eighth page $50.

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:
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New York, NY 10016-6760
(212) 889-9717
FAX: (212) 545-0221

Schools

Positions Available

Physician
CHIEF, NUCLEAR MEDICINE PHYSICIAN. Vacancy exists at the Philadelphia VA Medical Center. Service affiliated with Ivy-League academic department with residency program in nuclear medicine. ABNM certification with experience in all aspects of nuclear medicine including radiopharmacy, nuclear medicine imaging, and clinical trials. A minimum of 8 years experience in nuclear medicine. Salary $75,000 to $100,000 commensurate with experience. Send CV to: Mary A. McNeil, Jr., MD, Chief of Staff, Department of Veterans Affairs Medical Center, University of Pennsylvania, Philadelphia, PA 19104.

Nuclear Medicine PHYSICIAN with Internal Medicine background wanted to join established practice at the Welborn Clinic as an 85-doctor multi-specialty group. Fully equipped nuclear lab at hospital, which is directly across the street from the clinic. Family oriented community of 135,000 on Ohio River, two universities, and a variety of recreational and cultural amenities. Send CV to: R. Denny Currier, Welborn Clinic, 421 Chestnut Street, Evansville, IN 47713.

Radiologist
Seven-member group of American trained B.C., radiologists in 450-bed tertiary care hospital, located in 125,000 populated city, 90 minutes from Pittsburgh, seeks a B.C. capable, motivated radiologist qualified in all phases of diagnostic radiology with special interest, ability, and fellowship training and board certification in nuclear medicine to be the Director of our Nuclear Medicine Division. We presently do approximately 5,500 nuclear scans/year, 1/3 of which are nuclear cardiology. Generous starting salary and benefit package with complete and equal partnership to follow. If interested, send CV to: Jon Abrahams, MD, Chairman, Department of Radiology, Conevaugh Hospital, Johnstown, PA 15905 or call 814-536-7227.

Nuclear radiology position available in University Hospital for an academically oriented physician. Salary and title commensurate with experience and accomplishments. Opportunities for teaching, research, and clinical work. Certified in nuclear medicine or nuclear radiology required. Send resume to: Dr. Steven Finsky, Professor and Head, Department of Radiology, University of Illinois Hospital, 1740 N. Taylor St., Chicago, IL 60612. University of Illinois is an affirmative action/equal opportunity employer.

Residency
NUCLEAR MEDICINE RESIDENT. St. Luke's-Roosevelt Hospital Center, a 1315 bed voluntary university hospital of Columbia University College of Physicians and Surgeons, is offering a two-year Nuclear Medicine residency position beginning July 1994 consisting of concurrent training in clinical imaging, physics, radiopharmacy, and radiomunnoassay. The program is designed to prepare residents for certification by the American Board of Nuclear Medicine. The Nuclear Medicine Service, a division of the Department of Radiology, is equipped with 16-state-of-the-art computer systems housed in laboratories for which new construction/renovation is nearly complete. A full spectrum of nuclear medicine and nuclear cardiology studies is performed. Research involves both clinical and basic sciences. Training programs include radiology and nuclear medicine residencies and a nuclear cardiology fellowship. A letter of inquiry should be sent to: Steven Parmett, M.D., St. Luke's Hospital Site Director, Division of Nuclear Medicine, St. Luke's-Roosevelt Hospital, 1111 Amsterdam Avenue, New York, NY 10025. St. Luke's-Roosevelt is an Equal Opportunity Employer.

NUCLEAR MEDICINE TRAINING PROGRAMS State University of New York. The Department of Nuclear Medicine at SUNY/Buffalo offers the following residency training programs: 1) two-year nuclear medicine residency; 2) five-year track programs combining nuclear medicine with radiology or internal medicine or neurology or psychiatry leading to board eligibility in both specialties; and 3) one-year nuclear medicine program for qualified radiologists. These programs offer a comprehensive exposure to all aspects of nuclear medicine, including PET and allied imaging fields and research. Applications/information: Dr. Joseph Prezio, SUNY/Buffalo Nuclear Medicine, 105 Parker Hall, 3435 Main Street, Buffalo, NY 14214-3007. AA/EOE.

Senior Radiochemist
The Division of Nuclear Medicine at the University of Pennsylvania is seeking a senior radiochemist for its radiopharmacy laboratory. The Division of Nuclear Medicine has strong research and clinical programs in both PET and SPECT. The successful candidate must have a background in radiochemistry research and in synthesizing both positron and single emitting compounds. Salary will be commensurate with experience of the qualified candidate. Please send curriculum vitae to Abass Alavi, M.D., Chief, Division of Nuclear Medicine, Department of Radiology, Hospital of the University of Pennsylvania, 3400 Spruce St., Philadelphia, PA 19104. The University of Pennsylvania Medical Center is an affirmative action/equal opportunity educational employer.

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CHIEF, NUCLEAR MEDICINE SERVICE

The Portland Veterans Affairs Medical Center (PVAMC) and its affiliate, the Oregon Health Sciences University (OHSU) invite applications for the position of Chief, Nuclear Medicine Service, PVAMC. PVAMC is a Dean’s Committee Medical Center comprised of a modern 400 bed tertiary care hospital, a large outpatient program (218,000 visits per year) partially located at an outpatient clinic three miles from the hospital, and an extended care facility in nearby Vancouver, Washington with a 120 bed Nursing Home Care Unit, a homeless domiciliary, inpatient rehabilitation medicine ward and an alcohol/drug treatment center. A research center adjoining the main hospital has current annual funding of over 11 million dollars.

Ninety-eight funded principal investigators share 39,000 square feet of laboratory space including a fully equipped AAALAC approved animal research facility. An additional 28,000 square feet of space is allocated to research in the Vancouver Division and building adjacent to the medical center. The Nuclear Medicine Service consists of 17 FTE including 2 physicians, 1 nuclear pharmacist, 1 nuclear physicist, 9 technologists and is responsible for more than 36,000 nuclear medicine tests per year. Testing consists of RIA-ligand assay procedures, imaging procedures, and radionuclide therapy.

The house-staff program includes 3 nuclear medicine students. In addition, all VA/OHSU radiology residents rotate through the service. The Service Chief is the Program Director for a VA one-year certificate program for 6 nuclear medicine technologists. The Chief, Nuclear Medicine must be an MD, board certified in Nuclear Medicine and be qualified and acceptable to the University as an Associate Professor or full Professor. Additional certification in Internal Medicine or Radiology desirable. He/She must have demonstrated experience in academic medicine as a clinician, educator and researcher. It is equally important that the candidate have proven leadership and management capability. It will be the Service Chief’s charge to be the clinical/academic executive who manages the human and fiscal resources of Nuclear Medicine Service to assure the highest quality tertiary clinical care, education, training and research program. PVAMC and OHSU are equal opportunity employers. Applicant may be subject to drug testing. Send curriculum vitae and three references to: John Kendall, MD, Chairman; Chief, Nuclear Medicine Search Committee, Portland VA Medical Center, P.O. Box 1034, Portland, OR 97207.
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The Intramural Research Program (Addiction Research Center) of the National Institute on Drug Abuse, NIH, has immediate openings for physicians (MD and OD). The clinical research program includes studies of the epidemiology, etiology, treatment and medical complications of drug abuse and of the mechanisms of action of drugs using techniques of clinical pharmacology, behavioral and cognitive sciences, genetics, electrophysiology, brain imaging (PET and MRI) and molecular biology. The development of new medications and innovative treatment approaches are high research priorities. Salary range is $39,000 to $73,472 with an annual $2,000 stipend increase. Applicants should have completed residency training or have 5 years of relevant clinical experience. Educational loan forgiveness of up to $20,000 yearly may be possible. The Addiction Research Center is located at the Johns Hopkins Bayview Research Campus in Baltimore, U.S. citizenship or permanent resident status is required. Submit Application for Federal Employment (SF-171), curriculum vitae and the names of three references to:

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To apply send résumé (include reference number, salary requirements and references) to:

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