"They've reinvented relativity!"

\[ E^2 = mc \]

(Economically Engineered equals managed care)

Albert Einstein
Great Minds and Nuclear Medicine
First in a series
Circle Reader Service No. 181
Nuclear Medicine products
Economically Engineered for managed care.

At Siemens we’ve always provided you with the technical edge...
from the first Anger gamma camera to the ZLC auto correction circuitry of today’s DIACAM and dual or triple head MULTISPECT. Now in an age of perceived product similarity we add the benefits of Economic Engineering, proof positive of our commitment to your future in the managed care environment of this decade and beyond!

- **Software upgrades that increase your throughput revenue.**
- **Sub-specialty accessories that expand your referral base.**
- **Extended warranties that reduce your operating costs.**
- **Dedicated Nuclear service that guarantees uptime.**

All of our Planar, SPECT and PET systems are designed to potentiate the value of your operations dollar by utilizing detector, gantry, soft and hardware technology guaranteed to maximize your investment and minimize your risk!

Because, relatively speaking, it’s a whole new world in health care.

**Siemens Medical Systems**

**Nuclear Medicine Group**

**2501 Barrington Road**

**Hoffman Estates, IL 60195**

**Telephone: 708-304-7700**

*Siemens... technology in caring hands*
We at Capintec, Inc. would like to thank you for helping us make the CRC-15R the fastest selling and most popular dose calibrator in our 25 year history. Although Capintec has developed many models in the past, none have so captured the market as the CRC-15R. This is not only true in the United States but this unit has become the fastest selling system in the world.

We are proud to serve you as your supplier of quality products for the Nuclear Medicine community and to provide the service required to keep your department running.

This year Capintec will introduce two new and very innovative systems for the calibration of radioisotopes. One of these new systems is specifically designed to count beta radiation in a non-destructive way. The other is a top-of-the-line Dose Calibrator System beyond anything available today. This commitment to new product development is demonstrated in the fact that for every $1.00 you spend with Capintec we invest $.10 of that dollar in the development of new products and the improvement of existing products. No other company participating in our markets offer that commitment.

Again, Thanks for making the CRC-15R Dose Calibrator one of Capintec’s and Nuclear Medicines biggest winners. You can look forward to Capintec’s continued:

"COMMITMENT TO EXCELLENCE IN RADIATION MEASUREMENT"

If you would like to learn more about the CRC-15R or other excellent Capintec, Inc. products, call toll free: 1 - 800 - ASK - 4 - CRC
When pain is a moving target
Simultaneously targets all sites of metastatic bone pain.

LONG-TERM PALLIATION IN ONE CONVENIENT DOSE.

▼ Palliation of pain demonstrated in the majority of patients.1,2

▼ One dose of Metastron provides pain relief for an average of up to 6 months.1

▼ As an adjunct to radiotherapy, 63.6% of patients receiving Metastron (10.8 mCi) had reduced pain at 6 months as compared to 35.0% of patients receiving placebo (n=42).3

▼ Preferentially incorporates into multiple sites of metastatic bone — the dose absorbed in metastatic deposits is approximately ten times that absorbed in normal bone marrow.4,5
ADJUNCTIVELY DELAYS THE MEDIAN TIME TO PROGRESSION OF PAIN BY 28.1 WEEKS OVER RADIOTHERAPY ALONE.

Median time to requirement for additional radiotherapy at new pain site.3

From a multicenter, double-blind study of 126 patients who received a single injection of either Metastron 400 MBq, 10.8 mCi or placebo with fractionated doses of local field radiotherapy (20-30 Gy).

HIGHLY EFFECTIVE NON-NARCOTIC THERAPY.

▼ Metastron may reduce or eliminate the need for dose escalation of narcotic analgesics.1,3

▼ Onset of pain relief is generally within 7 to 20 days — Metastron is therefore not recommended in patients with very short life expectancy.

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.

▼ Metastron should be used with caution in patients with significantly compromised bone marrow from previous treatment. Caution should also be used in patients with platelet counts below 60,000 or white blood cell counts below 2,400.

▼ Some patients have reported a transient increase in bone pain lasting 36 to 72 hours following an injection — this can usually be controlled with analgesics.

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.1,4

Please see following page for full prescribing information.

METASTRON®
(STRONTIUM-89 CHLORIDE INJECTION)

An effective way to manage metastatic bone pain.
An effective way to manage metastatic bone pain.

Metastron® (Strontium-89 Chloride Injection)

Description: Metastron® is a synthetic, non-radioactive, aqueous solution of Strontium-89 Chloride for intravenous administration. The solution contains no preservatives.

Each milliliter contains:

Strontium Chloride 10.9 - 22.6 mg

Water for Injection q.s. to 1 ml

The radioactive concentration is 37 MBq/ml to 1 mCi/ml, and the specific activity is 2.96 - 6.17 MBq/mg, 90-95% 89Sr. The solution is 4.7 to 6.0 mEq/l.

Physical Characteristics: Strontium-89 decay by beta emission with a physical half-life of 50.5 days. The maximum beta energy is 1.450 MeV (100%). Strontium-89 in tissue is approximately 6 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 given in Table 1.

Table 1: Decay of Strontium-89

<table>
<thead>
<tr>
<th>Decay</th>
<th>Factor</th>
<th>Decay</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>1.39</td>
<td>12</td>
<td>1.18</td>
</tr>
<tr>
<td>26</td>
<td>1.36</td>
<td>10</td>
<td>1.15</td>
</tr>
<tr>
<td>20</td>
<td>1.32</td>
<td>8</td>
<td>1.12</td>
</tr>
<tr>
<td>18</td>
<td>1.28</td>
<td>6</td>
<td>1.09</td>
</tr>
<tr>
<td>16</td>
<td>1.25</td>
<td>4</td>
<td>1.06</td>
</tr>
<tr>
<td>14</td>
<td>1.21</td>
<td>2</td>
<td>1.03</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 osteogenesis, thereby primary bone lesions and areas of metastatic involvement (plastic lesions) can accumulate significantly greater concentrations of strontium than surrounding normal bone.

Strontium-89 Chloride is retained in metastatic bone lesions much longer than in normal bone, where turnover is about 14 days. In patients without metastases, 1/2 of the radiotracer is excreted in the feces within 2-3 days. In metastases, 1/2 of the radiotracer is excreted in the feces within 2-3 weeks. Strontium-89 Chloride is excreted primarily in the urine. Urinary excretion is higher in patients without lesions than in patients with lesions.

Strontium-89 is a pure beta emitter and Strontium-89 Chloride selectively radionuclides of primary and metastatic bone involvement with minimal irradiation of soft tissue distant from the bone lesion. (The range in free solution is 3 mm, maximum energy is 1.45 MeV.) Strontium-89 Chloride when administered in Radiometry section.

Clinical trials have examined pain in cancer patients who received therapy for bone metastases (external radiation to involved site) but in whom persistent pain recurred. In a multicenter Canadian placebo-controlled trial of 259 patients, pain relief occurred in more patients treated with a single injection of Metastron than in patients treated with an injection of placebo. Results are given in the following tables.

Table 2: Comparison of the effects of Strontium-89 and placebo, as adjunct to radiotherapy, on treatment outcome over time.

<table>
<thead>
<tr>
<th>Month</th>
<th>Post-Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 3: Comparison of the effects of Strontium-89 and placebo, as adjunct to radiotherapy, on reduction of pain scores and analgesics score: to zero.

<table>
<thead>
<tr>
<th>Month</th>
<th>Post-Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

At each visit, treatment success, defined as a reduction in a patient's pain score and without any additional radionuclide therapy at the index site, was more frequent among patients assigned to Metastron than to placebo.

Table 3 compares the number and percentage of patients treated with Metastron or placebo as an adjunct to radiotherapy who achieved pain relief without analgesic therapy at the index site and the index site.

Table 4: Comparison of the effects of Strontium-89 and placebo, as adjunct to radiotherapy, on reduction of pain scores and analgesics score: to zero.

<table>
<thead>
<tr>
<th>Month</th>
<th>Post-Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>6</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.

Pain sites were less frequent in patients treated with Metastron compared with a group treated with non-radioactive strontium-89.

Indications and Usage: Metastron® (Strontium-89 Chloride Injection) is indicated for the relief of bone pain in patients with painful osseous metastases.

The presence of breast cancer should be confirmed prior to therapy.

Contraindications: None known.

Warranty: Use of Metastron in patients with evidence of widely compromised bone marrow from previous therapy or disease infiltration is not recommended unless the patient benefit the treatment outweighs its risks. Bone marrow toxicity is to be expected following the administration of Metastron, particularly white blood cells and platelets. The extent of toxicity is variable. It is recommended that the patient's white blood cell counts be monitored at least once every week. Typically, patients will be decreased by about 30% compared to pre-administration levels. The nadir of platelet counts is found between 12 and 14 days following administration of the radionuclide. While white blood cells are usually depressed to a varying extent compared to pre-administration levels. Therapeutically, recovery occurs slowly, typically reaching pre-administration levels as months after treatment unless the patient's disease or additional therapy intervenes.

in considering repeat administration of Metastron, the patient's hematologic response to the initial dose, current status of the disease, and the availability of alternative therapy should be carefully evaluated.

Verification of dose and patient identification is necessary prior to administration because Metastron delivers a relatively high dose of radiostrontium.

Metastasis may cause lethal harm when administered to a pregnant woman. There are no adequate and well-controlled studies in pregnant women. If the drug is used during pregnancy, or if the patient becomes pregnant while receiving this drug, the drug should be administered with the least potential hazard to the fetus. The patient should be advised to avoid becoming pregnant.

Precautions: Metastron® is not recommended for use in patients with cancer not involving bone. Metastron should be used with caution in patients with platelet counts below 26,000/mm³ and white cell counts below 2,400.

Radiopharmaceuticals should only be used 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 to administer the use of radionuclides.
Combining a Macintosh® computer with 486 power, and a Multi-Channel Analyzer, the NEW ATOMLAB™ 950 THYROID UPTAKE SYSTEM from Biodex is both powerful and easy to use. The system features:

- Thyroid Uptake Studies
- Thyroid Bioassay
- Wipe Tests
- Schilling Tests
- RBC Survival
- Blood Volume

All this with real-time data acquisition, spectrum analysis and superior data storage. The Macintosh® makes everything so easy... each step automatically prompts the user to the next. Calibrations, calculations and reports become fast and effortless. Other programs can be added for Word Processing and patient database management to streamline daily routines.
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.

Cardiolite also fills in scheduling gaps, too. By uncoupling the time of injection from the time of imaging, patients can be stressed one after another, then imaged at any time... up to 4 hours after injection, eliminating camera downtime.

Get superior information and throughput. Fill in the gaps with Cardiolite.
DESCRIPTION: Each 5mI vial contains a sterile, non-pyrogenic, lyophilized mixture of:

- Tetrakis (2-methoxy isobutoximethyl) Copper (I) tetrathalaborate - 1.0mg
- Mannitol - 20mg
- Stannous Chloride, Dihydrate, minimum (SnCl2•2H2O) - 0.025mg
- L-Cysteine Hydrochloride Monohydrate - 1.0mg
- Tin Chloride (Stannous and Stannic) Dihydrate, maximum (as SnCl2•2H2O) - 0.006mg

Prior to lyophilization the pH is 5.3-5.8. 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, oxoid-free Sodium Pertechnetate Tc99m Injection. The pH of the reconstituted product is 5.5 (G.0-6). No bacteriostatic preservative is present.

The precise structure of the technetium complex is Tc99mMBIs+, where MBIs is 2-methoxy isobutoxime.

INDICATIONS AND USAGE: CARDIOLite Kit for the preparation of Technetium Tc99m Sestamibi is a myocardial perfusion agent that is useful in the evaluation of ischemic heart disease.

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 techniques.

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 the patient's cardiac disease.

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 constant monitoring and treatment in accordance with accepted clinical procedures. 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 personnel. Also, care should be taken to minimize radiation exposure to the patient 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, Stannous Chloride Tc99m Injection containing sodium 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 36%
- Dyspnea 17%
- Chest Pain 16%
- ST-depression 7%
- Arhythmia 1%

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.

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 movement of the right upper extremity. In the absence of other evidence of systemic toxicity, this is believed to be a reflex response to injection. It should be noted that this movement may resemble the symptoms of tetanus. This should be kept in mind during injection of Tc99m Sestamibi. A few cases of transient headache, flushing and non-itching rash have also been attributed to administration of the agent. Cases of angina, chest pain, and death have occurred (See WARNINGS and PRECAUTIONS).

The following adverse reactions have been reported infrequently: signs and symptoms consistent with severe injury occurring shortly after administration of the agent; transient arthritis in the wrist joint; and severe hypersensitivity, which was characterized by dyspnea, hypotension, bradycardia, asthma and vomiting within 2 hours after a second injection of Technetium Tc99m Sestamibi.

DOSEAGE AND ADMINISTRATION: The suggested dose range for I.V. administration is a single dose of 370 to 740 MBq (10-20 mCi) of Technetium Tc99m Sestamibi. 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 administration whenever solution and container permit. Store at 15-25°C before and after reconstitution.

RADIATION DOSEMETRY: The radiation doses to organs and tissues of an average patient (70kg) per 111MBq (30mCi) 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>mGy/cm²</td>
<td>mGy/cm²</td>
</tr>
<tr>
<td></td>
<td>30mCi</td>
<td>1110MBq</td>
</tr>
<tr>
<td></td>
<td>30mCi</td>
<td>1110MBq</td>
</tr>
<tr>
<td>Breast</td>
<td>0.2</td>
<td>0.2</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>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>Lower Large Intestine Wall</td>
<td>3.9</td>
<td>4.2</td>
</tr>
<tr>
<td>Stomach Wall</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Heart Wall</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Kidneys</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Liver</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Kidneys</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Bone Surfaces</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Thyroid</td>
<td>0.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Ovaries</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Testes</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Red Marrow</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Urinary Bladder Wall</td>
<td>2.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Total Body</td>
<td>0.5</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Pediatric Internal Dose Information Center, July 1996. Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, Tennessee (855)-575-3469.

HOW SUPPLIED: Du Pont Radiopharmaceuticals, Inc. The Kit for the Preparation of Technetium Tc99m Sestamibi, is supplied as a 5ml vial in lots of two (2), five (5) and thirty (30) vials, sterile and non-pyrogenic.

Prior to lyophilization the pH is between 5.3-5.8. The contents of the vials are lyophilized and stored under nitrogen. Since 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 25.51 and section 25.50 of Title 10 CFR Part 25.

MARKETED BY: Du Pont Radiopharmaceuticals Division.

The Du Pont Merck Pharmaceutical Co.

331 Treble Cove Road
Billerica, Massachusetts, USA 01862

For ordering Toll Free: 800-225-1572

All other business: 800-362-2668

(For International, call 617-350-8322)

513062

9/92 Printed in U.S.A.
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 correlated 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

<table>
<thead>
<tr>
<th></th>
<th>Before May 6</th>
<th>After May 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians/Scientists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>$160.00</td>
<td>$180.00</td>
</tr>
<tr>
<td>Nonmembers</td>
<td>$255.00</td>
<td>$275.00</td>
</tr>
<tr>
<td>Technologists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Members</td>
<td>$130.00</td>
<td>$150.00</td>
</tr>
<tr>
<td>Nonmembers</td>
<td>$255.00</td>
<td>$275.00</td>
</tr>
</tbody>
</table>

If you need further information, please contact:
The Society of Nuclear Medicine
Department of Meeting Services
136 Madison Avenue
New York, N.Y. 10016-6760
(212) 889-0717
Fax: (212) 545-0221
A diagnostic tool that can assist decision making in patients with colorectal or recurrent ovarian adenocarcinoma.
To enhance decision making in the management of patients with cancer, the first monoclonal antibody-based procedure is revolutionizing the determination of both the location and extent of malignancy.

Reveals malignancy with tumor-targeted accuracy—specifically targets the cell-surface antigen, TAG-72, common to colorectal and ovarian adenocarcinomas, making it possible—with the use of existing nuclear medicine equipment—to detect extrahepatic abdominal and pelvic lesions.

Provides information beyond the scope of standard diagnostic modalities—when interpreted in conjunction with a review of information obtained from other appropriate tests.

Found to be beneficial in these difficult situations:

- Determining the source of a rising serum tumor marker in patients with an otherwise-negative workup.

- Determining extrahepatic abdominal and pelvic involvement in patients thought to have isolated and resectable recurrence.

- Differentiating disease from postsurgical or postradiation anatomic changes.

OncoScint is a registered trademark of CYTOGEN Corporation.

Please see last page for brief summary of prescribing information.
colorectal or recurrent ovarian cancer...

imaging agent effective extent of disease

Assists decision making in patient management—
enhanced medical/surgical management in difficult colorectal and recurrent ovarian cases.

Excellent safety profile—
with generally minor and transient side effects occurring in less than 4% of patients studied (most frequently reported: fever, chills and clinically insignificant changes in blood pressure).

*See Adverse Reactions section of brief summary on following page.

For further information, please call 1-800-833-3533.

**OncoScint® CR/OV**

Satumomab Pendetide (1mg/2mL)

Tumor-targeted cancer detection
OncoScint® CR/OV Kit (satumomab pendetide)

Kit for the Preparation of Indium 111 satumomab pendetide

For Intravenous Use Only

Brief summary of prescribing information

INDICATIONS AND USAGE
OncoScint® CR/OV-In (indium 111 satumomab pendetide) is a diagnostic imaging agent that is indicated for determining the extent and location of extrapelvic malignant diseases in patients with known colorectal or ovarian cancer. Clinical studies suggest that this imaging agent should be used after completion of standard diagnostic tests when additional information regarding disease extent could aid in patient management. The diagnostic images acquired with OncoScint® CR/OV-In should be interpreted in conjunction with a review of the patient's disease history obtained from other appropriate tests. OncoScint® CR/OV-In is not indicated as a screening test for ovarian or colorectal cancer.

Administration of OncoScint® CR/OV-In may result in faecally elevated values from in vitro immunoassays, including tests for carcinoembryonic antigen (CEA) and CA 125. Because this interference may persist for months, the clinical laboratory should investigate for assay interference. Patients who develop elevated CEA or CA 125 subsequent to imaging with OncoScint® CR/OV-In (see Drug/Laboratory Test Interactions). Due to insufficient safety and efficacy data regarding repeat administration of this product, this imaging agent is limited to single use only.

CONTRAINDICATIONS
OncoScint® CR/OV-In (indium 111 satumomab pendetide) should not be used in patients who are hypersensitive to this or any other product of murine origin or to indium 111 chloride.

WARNINGS
Allergic reactions, including anaphylaxis, can occur in patients who receive murine antibodies. Although serious reactions of this type have not been observed in clinical trials after OncoScint® CR/OV-In (indium 111 satumomab pendetide) administration, medications for the treatment of hypersensitivity reactions should be available during administration of this agent.

PRECAUTIONS
General The components of the kit are sterile and pyrogen free and contain no preservative. OncoScint® CR/OV-In (indium 111 satumomab pendetide) should be used within 3 hours after radiolabeling. It is essential to follow the directions for preparation carefully and to adhere to strict aseptic procedures during preparation of the radiolabeled product. Each OncoScint® CR/OV kit is a unit of use package. The contents of the kit are to be used only to prepare OncoScint® CR/OV-In; unlabeled OncoScint® CR/OV should NOT be administered directly to the patient. After radiolabeling with indium-111, the entire OncoScint® CR/OV-In dose must be administered to the patient for whom it was prescribed. Reducing the dose of either component may adversely impact imaging results, and, therefore, is not recommended.

The contents of the kit are not radioactive. However, after the indium 111 chloride is added, appropriate shielding of OncoScint® CR/OV-In must be maintained. Care should be taken to avoid exposure to patients and medical personnel, consistent with proper hospital and patient management procedures. In addition, radiopharmaceuticals should be used only by physicians and other professionals who are qualified by training and experience in the safe use and handling of radioisotopes.

Information for Patients Murine monoclonal antibodies are foreign proteins, and their administration can induce human anti-murine antibodies (HAMA). While limited data exist concerning the clinical significance of HAMA, the presence of HAMA may interfere with murine-antibody-based immunoassays, which could compromise the efficacy of diagnostic or therapeutic murine antibody-based agents, and may increase the risk of adverse reactions. For these reasons, patients should be informed that the use of this product could affect the future use of other murine-based products, including OncoScint® CR/OV-In, and should be advised to discuss prior use of murine-antibody-based products with their physician (see Heterologous Protein Administration).

Heterologous Protein Administration Murine monoclonal antibodies (MAbs) are heterologous proteins, and their administration can induce human anti-murine antibodies (HAMA). OncoScint® CR/OV-In has been shown to induce HAMA to murine IgG after single administration in about 40% of patients in tumor imaging trials. HAMA levels became negative (undetectable or < 400 ng/mL) in approximately half of such patients 4 to 12 months after infusion. While limited data exist concerning the clinical significance of HAMA, detectable HAMA levels can alter the clearance and tissue biodistribution of MAbs. In patients who develop HAMA, repeat dosing in the absence of HAMA levels, the efficacy of diagnostic or therapeutic murine antibody-based agents may be compromised.

When considering the administration of OncoScint® CR/OV-In to patients who have previously received murine antibody-based products, physicians should be aware of the potential for HAMA to alter clearance and biodistribution. The quality or sensitivity of the imaging study may be compromised. Therefore, prior to administration of murine antibodies, including OncoScint® CR/OV-In, the physician should review the patient history to determine whether the patient has previously received such products.

Preliminary data are available from repeat-administration studies of OncoScint® CR/OV-In in 69 patients who have received 105 repeat doses. However, there are insuf-}

icient data to determine the safety and efficacy of this product after repeat administration (see ADVERSE REACTIONS).

Drug/Laboratory Test Interactions: The presence of HAMA in serum may interfere with two-site murine antibody-based immunoassays, including assays for carcinoembryonic antigen (CEA) and CA 125. When present, this interference generally results in falsely high values. If HAMA is known or suspected to be present, the clinical laboratory should be notified and appropriate measures taken to avoid this interference. These methods include the use of non-murine immunosassays, or HAMA removal by adsorption, blocking, or heat inactivation.

Carcinogenesis, Mutagenesis, Impairment of Fertility Long-term animal studies have not been performed to evaluate the carcinogenic or mutagenic potential of OncoScint® CR/OV-In or to evaluate its effect on fertility in males or females.

Pregnancy Category C Animal reproduction studies have not been conducted with OncoScint® CR/OV-In. It is also not known whether OncoScint® CR/OV-In can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. OncoScint® CR/OV-In should not be administered to a pregnant woman unless, in the opinion of the physician, the information to be gained outweighs the potential risks. MAb B72.3 has been shown to react with fetal gastrointestinal tissues.

In general, examinations using radiopharmaceuticals in women of childbearing potential should be performed during the first few days (approximately 10) following the onset of menses.

Nursing Mothers and/or Lactating Women It is not known whether OncoScint® CR/OV-In is excreted in human milk and, if so, for how long. It is not known whether OncoScint® CR/OV-In is administered to a nursing woman. OncoScint® CR/OV-In has not been administered to lactating females and therefore should not be administered to nursing mothers unless, in the opinion of the physician, the information to be gained outweighs the potential risks. In such cases, formula feedings should be substituted for breast feedings.

Pediatric Use The safety and effectiveness of OncoScint® CR/OV-In in children have not been established.

To assist decision making in the management of patients with colorectal or recurrent ovarian cancer

**OncoScint® CR/OV**

**Satumomab Pendetide** (1mg/2mL)

**Effective in determining both the location and extent of disease**

Please refer to complete prescribing information before using OncoScint CR/OV.

Additional adverse reactions after 105 repeat administrations of OncoScint® CR/OV-In in 69 patients included two reports of fever, one complaint of abdominal pain, and two cases of non-serious, readily reversible reactions characterized primarily by flank pain.

OVERDOSAGE

The maximum amount of OncoScint® CR/OV-In (indium 111 satumomab pendetide) that can be safely administered has not been determined. In clinical trials, single doses of OncoScint® CR/OV-In were administered to 64 patients with various types of epithelial carcinomas; the type and frequency of adverse reactions at this dose were similar to those observed with lower doses.

DOSE AND ADMINISTRATION

The dose of OncoScint® CR/OV-In (satumomab pendetide) is 1 mg radiolabeled with 5mCi of indium 111 chloride. Each dose is administered intravenously over 5 minutes and should not be mixed with any other medication during its administration. The patient dose of the radiolabel should be measured in a dose calibrator prior to administration. Each OncoScint® CR/OV kit is a unit dose package. After radiolabeling with indium-111, the entire OncoScint® CR/OV-In dose should be administered to the patient. Reducing the dose of either component may adversely impact imaging results, and, therefore, is not recommended.

HOW SUPPLIED

**OncoScint® CR/OV Kit** (NDC No. 0044-0579-01) for the preparation of indium-111 labeled OncoScint® CR/OV-In includes one vial containing 1 mg of satumomab pendetide per 2 mL of sodium phosphate buffered saline and one 2 mL vial of sodium acetate buffer solution, 0.5 M. These solutions are sterile and pyrogen free and contain no preservatives. Each kit also includes one sterile 0.22 μm Millipore® GV filter, prescribing information, and two identification labels.

U.S. Patent Nos. 4,671,958 and 4,741,900

© CYTOSGEN Corporation

Revised 12/20/02


Manufactured by: CYTOSGEN Corporation

Distributed by: CYTOSGEN Corporation

30 North Jefferson Road

Whippany, New Jersey 07881

©1993, Knoll Pharmaceutical Company

Printed in USA

COPROMOTED BY CYTOSGEN Corporation

Knoll Pharmaceutical Company
CONTINUING MEDICAL EDUCATION IS THE PRIMARY FOCUS
OF THE SOCIETY OF NUCLEAR MEDICINE’S 41ST ANNUAL MEETING

JUNE 5-8, 1994 • ORLANDO, FLORIDA

The 41st Annual Meeting of The Society of Nuclear Medicine will be held in Orlando, Florida, on Sunday, June 5 through Wednesday, June 8, 1994. Most of the educational activities for this meeting will be held at the Orange County Convention Center.

CONTINUING EDUCATION ACTIVITIES
A primary focus for every SNM Annual Meeting is the Continuing Education activities offered for physicians, scientists, pharmacists, and technologists.

This year we are pleased to offer 12 categorical seminars and 47 continuing education courses. There will also be a Nuclear Medicine Review Course geared toward nuclear medicine residents preparing for the ABNM boards and practitioners who wish to refresh their knowledge of nuclear medicine.

All categorical seminars will take place on Saturday, June 4 from 8:30 a.m. - 2:30 p.m. All other continuing education sessions will occur over the course of the meeting.

Once again, continuing medical education credits will be offered along with VOICE credits for technologist programs. The Scientific and Teaching Sessions Committee invites all physicians to participate.

The Society of Nuclear Medicine is accredited by the American Council on Pharmaceutical Education as a provider of continuing pharmaceutical education.

The Society of Nuclear Medicine is approved by the American Council on Pharmaceutical Education as a provider of continuing pharmaceutical education.

Technologist section courses are approved for continuing education credit by the Technologist section of The Society of Nuclear Medicine under the criteria and guidelines established by the Council on the Continuing Education Unit.

TECHNICAL EXHIBITS
Another important component of the meeting is the technical exhibition, where the most advanced products and services for the nuclear medicine practitioner will be displayed. Attendees will have the opportunity to speak with technical experts and to see demonstrations of new equipment in an atmosphere free from the pressures of their busy practices.

Suppliers to the nuclear medicine community traditionally take advantage of the Society’s Annual Meeting to showcase innovations developed over the past year and to introduce new products. They make a great effort to impress and influence their most important customers—our attendees.

This year will be no different: several long-time exhibitors have increased their space, and we anticipate an even larger show with more exhibitors than 1993’s record-breaking meeting.

SPECT BRAIN IMAGING PRACTICA
Once again, the Brain Imaging Council will be offering a hands-on brain SPECT workshop for physicians desiring to optimize their practice and interpretative skills in this area. Three of the sessions will be allotted to beginners and three to experienced workers in the field. Because of its popularity, early enrollment is advised to avoid disappointment. Please Note: Admission to the advanced course requires previous attendance of the practica offered in the past two years or this year’s basic course. Please refer to the 41st Annual Meeting Preview for registration instructions or call the SNM Department of Meeting Services.

For further information contact:
The Society of Nuclear Medicine
Department of Meeting Services
136 Madison Avenue
New York, NY 10016-6760
212-889-0717
FAX: 212-545-0221
For over fourteen years, Advanced Medical Research, now known as AccuSync Inc., has been serving the cardiac health care industry with the finest line of cardiac gates available in today's market.

Our dedication to service and commitment to provide you with a reliable product have built the reputation of our gates. With a complete line of models available, you are able to choose the gate which best corresponds to your specific requirements.

The AccuSync 5L, our top model (featured at left) includes CRT monitor (visual) and Strip Chart Recorder (hard copy).

**Model Specifications:**

- Auto/Manual trigger control
- No delay
- ECG output
- Audio indicator
- Trigger pulse LED
- Isolation amplifier for patient safety
- Compatible with all computers
- **AccuSync models 5L, 6L and 1L are CSA and ETL (UL544) approved**

<table>
<thead>
<tr>
<th>Model</th>
<th>Strip Chart</th>
<th>CRT Monitor</th>
<th>HR/R-R Int</th>
<th>Trigger</th>
</tr>
</thead>
<tbody>
<tr>
<td>5L</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
<tr>
<td>6L</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
<tr>
<td>1L</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
<tr>
<td>3L</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
<tr>
<td>4M</td>
<td>·</td>
<td>·</td>
<td>·</td>
<td>·</td>
</tr>
</tbody>
</table>

Accessory and optional products available:
The AccuAmp 5, the 5 lead system available for AccuSync 5L, 6L, and 1L, transmits information through fiber optic link. Patient cables, lead wires, and BNC cables available for AccuSync models.
using aerosols to determine the patency of the pulmonary airway system? Use a gas (that's what the airway system is for), and Xenon (127 or 133) are gases which are safe, economical and easy to administer with the XENAMATIC™ 3000.

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

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

Also available, Model 2000.

For more information, please call or write,
Circle Reader Service No. 32

DIVERSIFIED DIAGNOSTIC PRODUCTS, INC.
11603 Windfern
Houston, TX 77064
713-955-5323
CALL FOR ABSTRACTS
Fifth Conference on Radioimmunodetection and Radioimmunotherapy of Cancer
*** October 6-8, 1994 ***
Princeton Marriott, Princeton, New Jersey
Conference Chairman: David M. Goldenberg, Sc.D., M.D., Center for Molecular Medicine and Immunology
Jeffrey Schlam, Ph.D., National Institutes for Health

ABSTRACT DEADLINE: JUNE 1, 1994
Abstracts may be submitted on:
Radiochemistry of antibodies • Radiation physics and dosimetry of radiolabeled antibodies • Radiation biology
• Experimental targeting studies • Clinical studies of radioimmunodetection and other diseases • Experimental and clinical radioimmunotherapy • New approaches to improved antibodies and targeting

For abstract forms and further information contact:
Lois Gillespie, Center for Molecular Medicine and Immunology, One Bruce Street, Newark, NJ 07103;
Telephone (201) 982-4600 FAX: (201) 982-7047

Registration:
$400 before July 1, 1994; $475 after July 1, 1994

SPECT BRAIN IMAGING CLINICAL FELLOWSHIP

Department of Radiology
Section of Nuclear Medicine

BENEFIT
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 Ceretec® and Neurolite®.

Objectives include:
• Development of interpretation skills for brain images.
• Appreciation of clinical applications of SPECT brain imaging.
• 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.

TUITION:
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: (Please indicate a second choice)
☐ March 7-8, 1994 ☐ November 14-15, 1994
☐ September 12-13, 1994

I will need reservations for Sunday and Monday night / __________ only on Monday night,
I will need a __________ single / __________ double room.

A check in the amount of $650 should accompany this registration form and be made payable to the Medical College of Wisconsin. Telephone registrations must be confirmed by check within 10 days.

Name ____________________________
Address ____________________________
City/State/Zip ____________________________
Office Phone ____________________________
☐ work address ☐ home address

Registrations and payment should be sent to:
LisaAnn Trembath
SPECT Brain Imaging Fellowship Coordinator
Nuclear Medicine Division
Medical College of Wisconsin
8700 W. Wisconsin Avenue
Milwaukee, WI 53226 • (414) 777-3756
ANNOUNCING THE AMERICAN BOARD OF SCIENCE IN NUCLEAR MEDICINE 1994 CERTIFICATION EXAMINATION

The 1994 examination will be given Saturday, June 4, 1994, in Orlando, Florida, in conjunction with the 41st Annual Meeting of The Society of Nuclear Medicine.

The examination is written and consists of two parts. Part 1 (approximately 3.5 hr) assesses knowledge of basic aspects of Nuclear Medicine Science. Part 2 (approximately 2.5 hr) examines in depth the knowledge of a predetermined subspecialty area of the candidate's choice including:

- Nuclear Medicine Physics
- Radiopharmaceutical and Radiochemistry
- Radiation Protection and Instrumentation
- NMR Physics and Instrumentation

Completed Applications must be received by April 15, 1994. The examination fee is $450 ($400 refundable if you do not qualify).

For applications and more information please contact:
Christine Santos, Associate Coordinator
American Board of Science in Nuclear Medicine
The Society of Nuclear Medicine
Department of Meetings Services
136 Madison Avenue
New York, NY 10016;
(212) 889-0717 Fax: (212)545-0221.

THE WORLD FEDERATION OF NUCLEAR MEDICINE & BIOLOGY

SIXTH WORLD CONGRESS

SYDNEY, AUSTRALIA
23 - 28 OCTOBER 1994

Pre-Congress Symposia will be held in Cairns, North Queensland on 19 - 21 October 1994. Pre & Post Congress Tours to the Great Barrier Reef, Ayers Rock & Northern Territory will be available.

FURTHER INFORMATION
Congress Secretariat
GPO Box 2609
Sydney NSW 2001
AUSTRALIA
Telephone: (61 2) 241 1478
Facsimile: (61 2) 251 3552
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.

Explosion-Proof Compactor
The new Ram Flat Compactor Model 55SC-EX, introduced by S & G Enterprises, Inc., has explosion-proof controls and motor, but is economically priced for the low-volume generator that needs to crush empty drums and/or compact hazardous material within drums only several times a week. Although the compactor’s streamlined design uses a single lever control to lower and raise the compaction head, the heavy-duty NFPA standard, 4" cylinder and two-stage gear pump produces a powerful 40,000 lbs of compaction force. Featured on the Model 55SC-EX Ram Flat Compactor is a three-phase, explosion-proof motor and a NEMA 7/9 explosion-proof electric power switch. Other configurations available include a standard electric motor starter and single-phase capability. Despite its economical design, the 44" high chamber totally encloses the drum to ensure protection of operating personnel during the crushing cycle, and the door is interlocked to automatically stop the cycle when opened. S & G Enterprises, Inc., N115 W19000 Edison Dr., Germantown, WI 53022. (414) 251-8300.

Profitable and Practical PET
A new breakthrough has been introduced by PracSys Corporation to make PET accessible to virtually all clinical facilities. The PracSys PET System comes complete with an accelerator, imager, laboratory instrumentation and technical support and costs approximately $3 million, roughly half the price of competing systems. The low capital outlay for the PracSys PET System allows a PET center to be profitable within the first year of operation if an average of three studies per day are performed. Operating costs are minimized by reduced staff and space requirements, simplified operation and standard utility costs. The projected cost-per-study is so low that the PracSys PET System allows PET operating costs to be comparable with other imaging modalities. The system combines state-of-the-art technology with simplified operation and the 4.4-MeV NHVG accelerator produces sufficient radioisotope yields for multiple cameras while minimizing radiation risks and features dual-particle, negative ion technology. The PracSys system includes the PENN-PET imager which features septa-less, three-dimensional imaging, superior image quantification and easy-to-use, intuitive software. Clinicians may request the imager of their choice as all imagers are compatible with the system. Easy to operate, the system comes with a point-and-click personal computer network. Site-Manager™ software guides users through every procedure, linking the PracSys NHVG accelerator, radiochemistry equipment and quality control functions and even coordinates procedures with the patient’s schedule; records and reports chemistry production and medical functions; and monitors safety systems and diagnostics. PracSys Corporation, (617) 938-7144.

Compact Laser Imager
A new laser imager that provides high performance in a compact size has been introduced by Agfa. The LR3300 P can produce more than 200 light box-ready films per hour with access to the first film in about 1 min. This new imager is the first with a 16-bit modulation system which means that 16 times as many gradations can be achieved than by other imagers. The LR3300 also offers the highest spatial resolution (4256 x 5174 pixels) on a 14"x17" film. When used with Agfa MG3000 medical gateways, the LR3000 P becomes part of an Agfa IMPAX image management and distribution system. The basic unit can interface to three host scanners as well as to a DICOM-compatible network interface. MG3000 medical gateways can expand the system to handle as many as 256 inputs. Agfa LR3300 laser imagers are also available with the processor docked in parallel or serial modes; but with the LR3300 version, the processor is integrated on top of the imager resulting in a total footprint of only 28"x35". Agfa Technical Imaging Systems, 100 Challenger Rd., Ridgefield Park, NJ 07660. (201) 641-9566. Fax: (201) 440-1512.

Heavy-Duty Lab Bottles
Durable, thick-walled bottles for use in biotechnology labs have recently been introduced by Nalge Company. These new bottles are molded out of rugged polypropylene with a white closure and a thermoplastic elastomer gasket for leak-proof service under vacuum and come in 1-liter and 2-liter sizes. Autoclavable and chemical-resistant, the bottles can withstand repeated application of full vacuum for 24 hr at room temperature (20°C). They can be used as waste-aspirator bottles with a filling/venting closure or as autoclavable vessels for scale-up activities in cell culture applications. The bottles are made from nontoxic materials which meet FDA requirements. Nalge Company, P.O. Box 20365, Rochester, NY 14602. (716) 264-3985. Fax: (716) 586-8431.

Portable Scanner System
Gammax RMI recently introduced the RMI 445 Portable Water Phantom Scanner which will provide high-quality beam scans for photon and electron beam analysis. The unit can perform up to 45-cm profile scans, 20-cm depth scans and delivers a two-dimensional positioning accuracy of ± 0.2 mm. Outputs to a digital or analog plotter provide high-speed plots. A remote touchpad operator’s console featuring simple labels with single-key command functions, offers continuous display of position and dose information. The system is convenient and easy to use and comes fitted in two light-weight carrying cases. The tank assembly can be completed in minutes. Larger, more rigid tanks are also available to meet precise beam-analysis requirements. The use of a personal computer and a menu-driven software program in combination with the RMI 445 provides advanced interactive graphics for comprehensive beam analysis. Gammax RMI, P.O. Box 620327, Middleton, WI 53562-0327. 1-800-GAMMEX.
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—$22.00 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. 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

<table>
<thead>
<tr>
<th>Full page</th>
<th>Quarter page</th>
<th>Half Page</th>
<th>Publisher/Set Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1500</td>
<td>$700</td>
<td>$500</td>
<td>$150; half page $100; quarter page $75; eighth page $50</td>
</tr>
</tbody>
</table>

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 of the issue of the Journal. 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

Faculty
University of California, Irvine, Department of Radiological Sciences is recruiting a faculty position for an individual who will be half-time in Nuclear Medicine and half-time in the General Radiology area, and is Board certified in Nuclear Medicine. Responsibilities include clinical service, medical student and resident teaching. The appoint-ment will be at the level of Assistant or Associate Clinical Professor. Applicants should possess a California license and certification by the American Board of Radiology. Salary is commensurate with rank and experience. Please forward curriculum vitae to M. Joyce Pais, MD, Chairperson, Department of Radiological Sciences, University of California Irvine Medical Center, 101 City Drive South, Route 140, Orange, CA 92668. The University of California is an Affirmative Action/Equal Opportunities employer.

RESEARCH TRACK FACULTY POSITION A research track faculty position in tracer kinetics and modeling is available. Candidates should have either a Ph.D. or an M.D. degree with experience in in vivo imaging. Knowledge of tracer kinetics is helpful but not necessary. The scientist will participate as a team member in developing tracers for functional imaging of CNS receptors with PET and SPECT. The scientist is expected to develop extramural research support. Academic rank and salary are commensurate with experience. Send resume to: Dr. Hank F. Kung, Department of Radiology, University of Pennsylvania, Room 305, 3700 Market Street, Philadelphia, PA 19104 (Internet: kunghf@pobox.upenn.edu). EOE

University of California, San Francisco, Department of Radiology, has a faculty position available in the Assistant Adjunct Professor level for a physical scientist with a Ph.D. in biomedical physics, physics, computer science or related field, to work in the Nuclear Medicine Section. Requirements include direct experience with, and publications related to, PET, tracer kinetic modeling, image processing, gamma camera systems and other medical imaging devices. Minority groups, women and handicapped individuals are encouraged to apply. Respond with curriculum vitae and names of three references to: Ran-dall A. Hawkins, M.D., Ph.D., Chief, Nuclear Medicine Section, Department of Radiology, 505 Parnassus Ave., Box 0028, Room L340, University of California, San Francisco 94143-0288.

Fellowship PEDIATRIC NUCLEAR MEDICINE FELLOWSHIP position in 270-bed preeminent pediatric center that conducts 2,800 imaging procedures per year encompassing all aspects of nuclear medicine with emphasis on teaching and research. Staff includes three full-time ABNM, ABP-certified practitioners. Four state-of-the-art gamma cameras and image processing and display system with networking. Salary 30-45K per annum. ABNM/ABP eligibility or certification required. Contact: James J. Conway, MD, The Children’s Memorial Hospita1, 2300 Children’s Plaza, Chicago, IL 60614. (312) 880-4416.

Resident Two and three-year Nuclear Medicine 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 U.S. 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 cameras, one dual head whole body camera, one LFOV camera, one mobile gamma camera, and a large networked nuclear medicine computer system. Well over 11,000 procedures are performed annually. Staff includes 2 full-time double boarded ABNM certified physicians, 1 medical physicist, 1 nuclear pharmacist, 1 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 residents, 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 inquiries to Dr. David Vuille, Director of Nuclear Medicine Residency, St. Luke’s Medical Center, 2900 W. Oklahoma Avenue, Milwaukee, WI 53215, (414)649-6418.

Technologist
NUCLEAR MEDICINE TECHNOLOGIST Must be AART and/or NMTCB registered. Salary range: $28,648-$37,239 based on experience and qualifications. Full-time: day shift; no holidays/weekends. Excellent benefits. Contact: Christina Snellings, Veterans Affairs Medical Center, Salem, VA 24433, (703) 982-2463, ext. 2818. EOE

Positions Wanted

NUCLEAR MEDICINE PHYSICIAN ABNM-certified, ABIM-certified (Internal Medicine, Nephrology). Eight years of Nuclear Medicine experience including clinical research and medical teaching (Nuclear Medicine Radiology residents predominantly). Group or Association preferred, but all opportunities considered. Please write to: Box 301, The Society of Nuclear Medicine, 136 Madison Avenue, New York, NY 10016.

NUCLEAR MEDICINE SUPERVISOR

The University of Maryland Medical System (UMMS), a 900+ bed academic medical center and a regional leader in providing quality healthcare services is seeking a qualified, experienced Nuclear Medicine Supervisor. The principle responsibilities of the position include supervision of the Nuclear Medicine staff in the performance of a variety of nuclear medicine procedures. The candidates should possess special experience in protocol development, SPECT and PET camera, quality assurance. The qualified and interested candidate must graduate from an AAN approved school of N.M.T. and/or R.T., registered by the A.R.R.T. and licensed by the MDHMH as a Nuclear Medicine Technologist. A minimum of four years progressively responsible experience as a senior level technologist with demonstrated supervisory, leadership, and interpersonal skills required. A B.S. or B.A. or equivalent is preferred.

UMMS offers a competitive salary with a comprehensive benefits package. For immediate consideration, please submit resume in confidence to:

Department of Human Resources
UNIVERSITY OF MARYLAND MEDICAL SYSTEM
22 South Greene Street, Box 289
Baltimore, MD 21201

We Touch Maryland’s Life Every Day
An Equal Opportunity Employer
The King Faisal Specialist Hospital and Research Centre is a major tertiary care referral hospital in Riyadh, Saudi Arabia with an international staff working in a highly academic setting. A new PET Centre with a Siemens PET camera will open in Spring 1994 for clinical and research studies in the fields of cardiology, neurology and oncology. Extensive research in the development of radiotracers labeled with positron-emitters is also planned. The hospital has a cyclotron CS-30 and is currently engaged in production of various radioisotopes for medical imaging.

The following 2 positions are available:

**PET Physician** - Board Certification in Nuclear Medicine, Radiology or Internal Medicine with fellowship training in PET and 2 years post fellowship experience in an active PET imaging center. Will supervise the daily operation of the PET scanner including all patient and technical related aspects.

**PET Scientist** - PhD with several years experience in PET radiotracer development, organic synthesis, medicinal chemistry, and radioanalytical techniques. Documented achievements and experiences in terms of publications is highly desirable.

You'll enjoy free furnished housing, free airfare, 50 paid days of leave each year, free medical care and a potentially tax-free salary.

Please send a current CV to: HCA International, 2515 Park Plaza, Nashville, TN 37203. Or call 1-800-932-4685. EOE.
Amazing

How the cardiac images of our new PRISM™ XP make the competition's heart skip a beat.
Nuclear medicine has never seen clear, high-resolution images like ours, because there's never been technology as advanced as Picker's new PRISM XP Series system. It includes fully digitally controlled technology, extremely high count capacity, remote diagnostics, and the smallest siting requirements in the industry. It all adds up to make diagnosis easier, improve patient throughput, and speed your return on investment.

Our digitized detector technology increases camera control and provides microprocessor-based correction circuitry, all for better, more consistent images. Remote performance monitoring and software diagnostics make service easy and fast, greatly increasing uptime. And to complete the system, the Odyssey™ VP provides maximum workstation power and flexibility. This also allows additional clinical features like our new CardioFan™ technology that acquires cardiac images 50% faster while maintaining exceptional resolution.

The PRISM XP Series also provides the greatest clinical utility in every detector configuration. Our three-head configuration for maximum tomographic throughput and image quality. Or dual or single-head configurations for versatility of planar and whole-body imaging.

For the complete story on the new PRISM XP Series, call 1-800-323-0550.
The Industry's First 3-Year Crystal Warranty

We understand why others haven't made this offer . . .
If we used their crystals, we wouldn't either!

Let's face it, in today's cost conscious health care environment good medicine means being a "best value" provider.

At Siemens this means providing for your technical requirements as well as protecting your bottom line.

That's why we're proud to introduce this exclusive 3-Year Crystal Warranty.

Our patented double-seal detector assembly process prevents yellowing and hydration. So you won't have to pay to replace one of the most expensive components in any of our new gamma cameras.

Just another innovation from Siemens Nuclear Medicine Group, where all systems are Economically Engineered for managed care.

Siemens Medical Systems
Nuclear Medicine Group
2501 Barrington Road
Hoffman Estates, IL 60195
Telephone: 708-304-7700

Siemens...
technology in caring hands