

Cooperative ventures among professionals, providers thrive in the new era of DRGs.

Thallous Chloride Tl 201

For complete prescribing information, consult package insert, a brief summary of which follows:

DESCRIPTION: Thallous Chloride Tl 201 is supplied in isotonic solution as a sterile, nonpyrogenic diagnostic radiopharmaceutical for intravenous administration. The aqueous solution at calibration time contains 37 MBq (1 mCi)/mL Thallous Chloride Tl 201 adjusted to pH 4.5-6.5 by the addition of hydrochloric acid and/or sodium hydroxide solution. It is made isotonic with 0.9% sodium chloride and is preserved with 0.9% benzyl alcohol. Thallium Tl 201 is cyclotron-produced with no carrier added. Radionuclidic purity at calibration is at least 97.0%.

INDICATIONS AND USAGE: Thallous Chloride Tl 201 may be useful in myocardial perfusion imaging for the diagnosis and localization of myocardial infarction.

It may also be useful in conjunction with exercise stress testing as an adjunct in the diagnosis of ischemic heart disease (atherosclerotic coronary artery disease).

It is usually not possible to differentiate recent from old myocardial infarction, or to differentiate exactly between recent myocardial infarction and ischemia.

CONTRAINDICATIONS: None known.

WARNINGS: If studying patients in whom ischemia or myocardial infarction is known or suspected, care should be taken to assure continuous clinical monitoring and treatment in accordance with safe, accepted procedure. Exercise stress testing should be performed only under the supervision of a qualified physician and in a laboratory equipped with appropriate resuscitation and support apparatus.

PRECAUTIONS: Data are not available concerning the effect on the quality of Thallous Chloride Tl 201 scans of marked alterations in blood glucose, insulin, or pH (such as is found in diabetes mellitus). Attention is directed to the fact that thallium is a potassium analog, and since the transport of potassium is affected by these factors, the possibility exists that thallium may likewise be affected. Data are not available concerning the effect of drug treatment (such as antihistamines and cimetidine, either alone or in combination).

A myocardial imaging study was unsuccessful in one clinical study involving a patient taking cortisone and cimetidine the day of the study.

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 governmental agency authorized to license the use of radionuclides.

As in the use of any radioactive material, care should be taken with Thallous Chloride Tl 201 to minimize radiation exposure to the patient consistent with proper management and to ensure minimal exposure to occupational workers.

This drug should not be used after the expiration date on the label. The expiration date will be six (6) days or less after the calibration date.

Do not use if contents are turbid.

It is recommended that the product be administered close to calibration time to minimize the effect of higher levels of radionuclidic contaminant pre- and post-calibration.

Carcinogenesis: No long-term animal studies have been performed to evaluate carcinogenic potential, mutagenicity potential, or whether Thallous Chloride Tl 201 affects fertility in males or females.

Pregnancy Category C: Adequate reproduction studies have not been performed in animals to determine whether the drug affects fertility in males or females, has teratogenic potential, or has other adverse effects on the fetus. Thallous Chloride Tl 201 should not be used in pregnant women except when benefits clearly outweigh the potential risks.

Ideally, examinations using radiopharmaceutical drug products, especially those elective in nature, in women of child-bearing capability should be performed during the first few (approximately 10) days following the onset of menses.

Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, as a general rule nursing should not be undertaken when a patient is administered radioactive material.

Pediatric Use: Safety and effectiveness in children below age 18 have not been established.

ADVERSE REACTIONS: A single adverse reaction to Thallous Chloride Tl 201 product has been reported consisting of hypotension accompanied by pruritis and rash which responded to antihistamines and steroids within one hour.

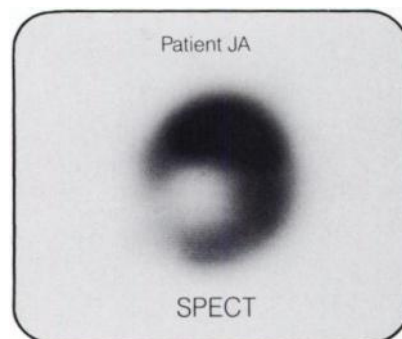
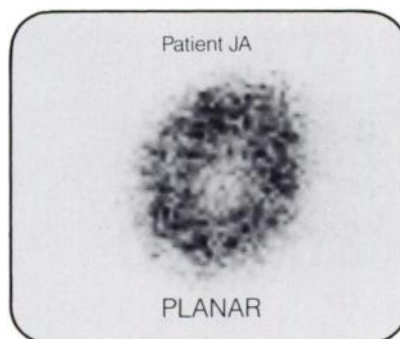
HOW SUPPLIED: Thallous Chloride Tl 201 for intravenous administration is supplied as a sterile nonpyrogenic solution containing at calibration time 37 MBq (1 mCi)/mL Thallium 201, 9 mg/mL sodium chloride and 9 mg/mL of benzyl alcohol. The pH is adjusted to between 4.5-6.5 with hydrochloric acid and/or sodium hydroxide. This product is supplied in a 244 MBq (6.6 mCi) size. Each package contains one vial.

The contents of the vial are radioactive. Adequate shielding and handling precautions must be maintained.

STORAGE: Store Thallous Chloride Tl 201 at 18-25° C.

Manufactured for Medi-Physics by Squibb Diagnostics.
May 1987

Medi-Physics' Profe



Improve Image Quality

Video Consultation #1: "Tomographic Thallous Chloride Tl 201 Imaging"

Tomography expert

Ronald L. Van Heertum, MD

Chief, Section of Nuclear Medicine / Assistant Director, Department of Radiology,
St. Vincent's Hospital & Medical Center, New York, NY

Additional video consultations available soon

"Thallium 201 Quantification"

E. Gordon DePuey, MD
Clinical Director of Nuclear Medicine, and
Ernest V. Garcia, PhD
Director of Nuclear Medicine Physics
Emory University Hospital
Atlanta, GA

"Analyzing Thallium 201 Imaging Problems"

Robert E. Henkin, MD
Director, Nuclear Medicine
Loyola Medical Center
Maywood, IL

"Clinical Correlation Update"

Gerald M. Pohost, MD
Director of Cardiovascular Disease
University of Alabama Medical Center
Birmingham, AL

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Chief of Nuclear Medicine
Medical College of Wisconsin
Milwaukee, WI

“Evaluation of the Patient with Suspected Hepatobiliary Disease”

Heidi Weissmann, MD
Associate Professor of Nuclear Medicine
and Radiology
Albert Einstein College of Medicine
Montefiore Hospital and Medical Center
Bronx, NY

“Evaluation of the Patient with Suspected Renal Disease”

Naomi Alazraki, MD
Co-director, Division of Nuclear Medicine
Emory University Hospital
Atlanta, GA

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Please see adjacent page for brief summary of prescribing information.

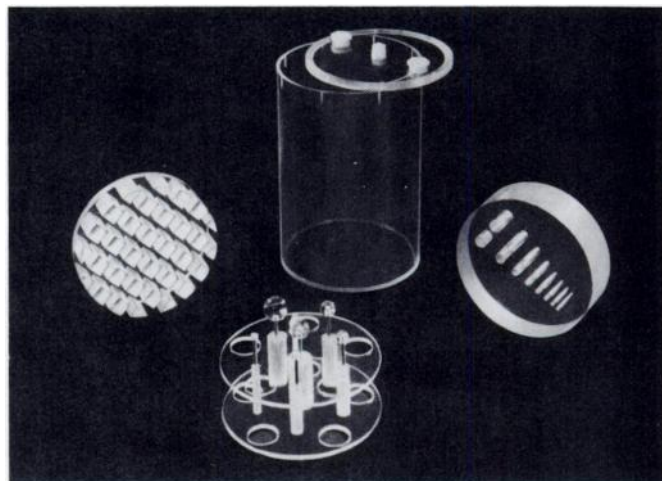
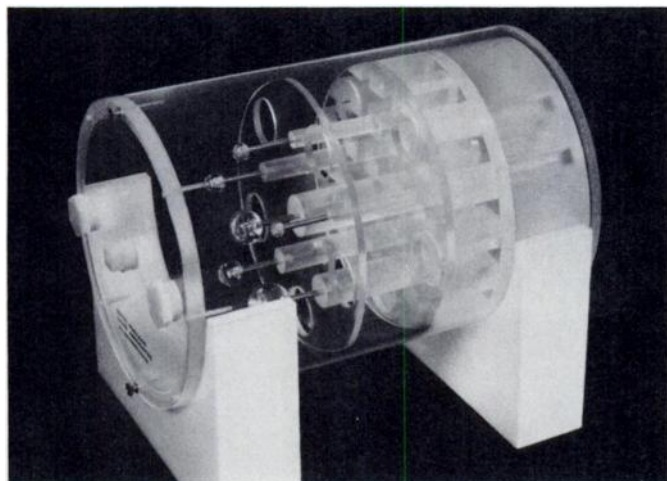
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Paramus, NJ 07652

Circle Reader Service No. 1

Easy to Use...Easy to Interpret

PET/SPECT Performance Phantom*

For Testing Photon Emission CT Systems



- Measures resolution, linearity and uniformity.
- Provides "hot" and "cold" simulated lesions.

Photon emission computed tomography (PET/SPECT) systems, like any imaging apparatus, require periodic performance testing. This modular phantom is designed to provide the data for such evaluations. It offers a single system for measuring resolution, linearity and uniformity. All components of the phantom fit into an optional, clear-

acrylic source tank which can be filled with a ^{99m}Tc -and-water solution similar to that used for routine flood uniformity testing.

The set of three inserts includes two for resolution (one with "cold" lesions in a "hot" field and one with "hot" lesions in a "cold" field) and one for linearity/uniformity measurements. The visibility of all lesions can be varied by adjusting the concentration of radioisotope in the tank.

*Designed and developed by Ray A. Carlson, Hutzel Hospital, Detroit, MI, and Jeffrey T. Colvin, St. Joseph Mercy Hospital, Ann Arbor, MI.

SPECT System

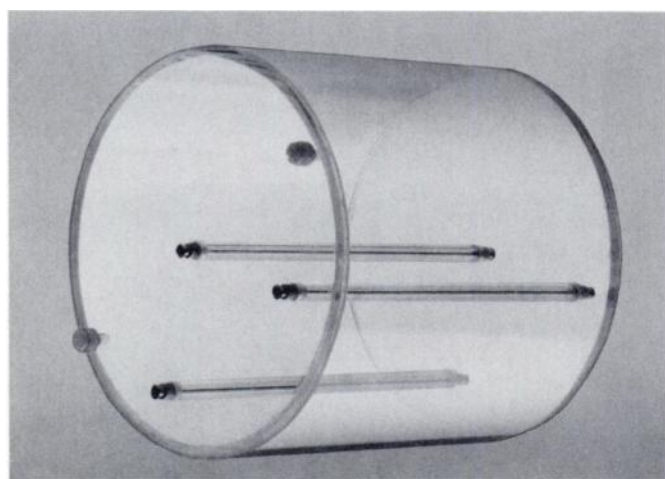
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Cameras," 1986, 8 pp.



Circle Reader Service No. 2

**For more details on the PET/SPECT or Spatial
Resolution Phantoms, request Bulletin SP-35**

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MC-500133 WLM-86

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

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

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

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

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



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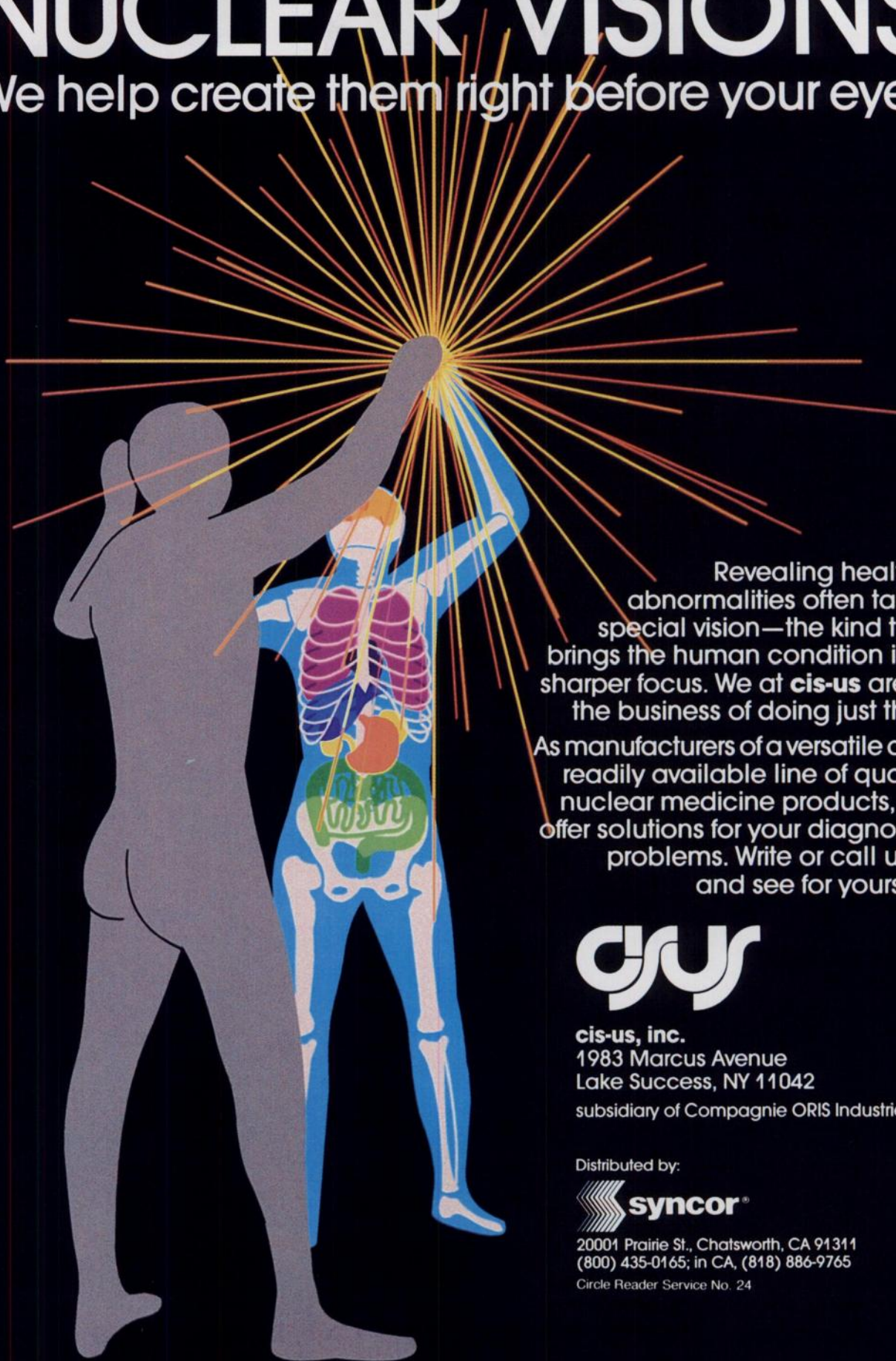
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Circle Reader Service No. 10

NUCLEAR VISIONS

We help create them right before your eyes

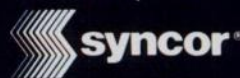


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Circle Reader Service No. 24

Educate your patients with SNM's Patient Information Pamphlets

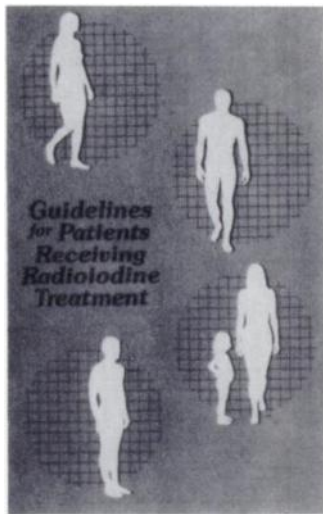
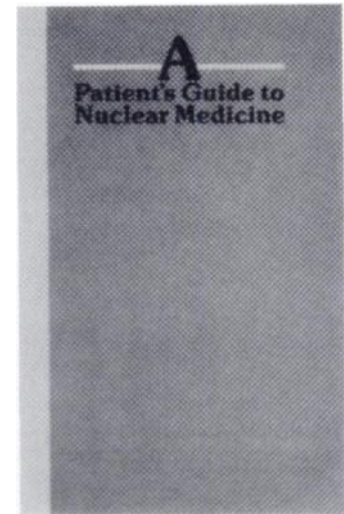
A Patient's Guide to Nuclear Medicine

Well illustrated, this 16-page pamphlet explains what nuclear medicine is, how the procedures are performed, and how they can help in the early detection of disease.

Divided into 3 sections, the guide opens with a general overview of nuclear medicine. A question-and-answer section follows, addressing such topics as safety, the benefits of nuclear medicine procedures, pre- and post-instructions, and testing of pregnant women and children. The third section explains some of the more commonly performed procedures such as bone, liver, lung, heart, and thyroid uptake scans.

16 pp; 5½ × 8½; in 2 colors;

25¢ per pamphlet; minimum order: 100 copies



Guidelines for Patients Receiving Radioiodine Treatment

See SNM's
other publications at
RSNA Booth No. 3501

Prepared in collaboration with the U.S. Nuclear Regulatory Commission, this 8-page pamphlet answers patients' questions about home care after receiving radioiodine treatment for thyroid conditions.

Easy-to-read language outlines important precautions patients can follow to help reduce radiation exposure to others. It also contains a checklist that physicians can review with their patients to determine which guidelines are appropriate for them and how they should be followed.

8 pp; 5½ × 8½; in 2 colors;

30¢ per pamphlet; minimum order: 25 copies

Healthcare professionals in private practice, hospitals, and clinics will find that these pamphlets provide a brief, attractive, and inexpensive way to educate patients and their families about the importance and safety of nuclear medicine procedures.

TO ORDER: Single copies are available for review at \$1.50 each. All prices include postage and handling. Prepayment required in U.S. funds drawn on U.S. banks only. Make checks payable to: The Society of Nuclear Medicine. *Prices are in U.S. dollars and subject to change without notice.*

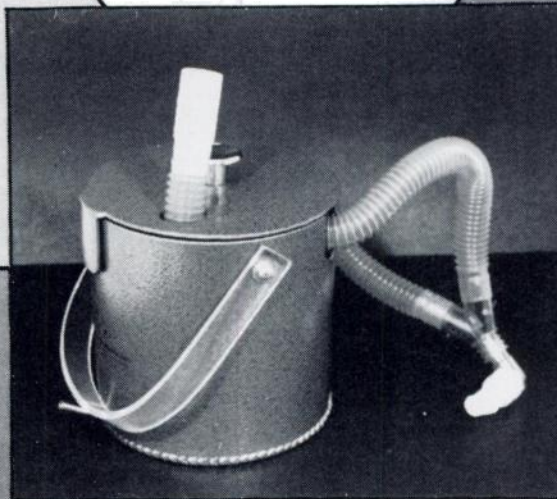
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With more than 30 Apex Systems installed in greater Toronto, Elscint clearly dominates the landscape. The reasons are just as apparent: Superior images, superior hardware, superior software.

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IN A FOG??

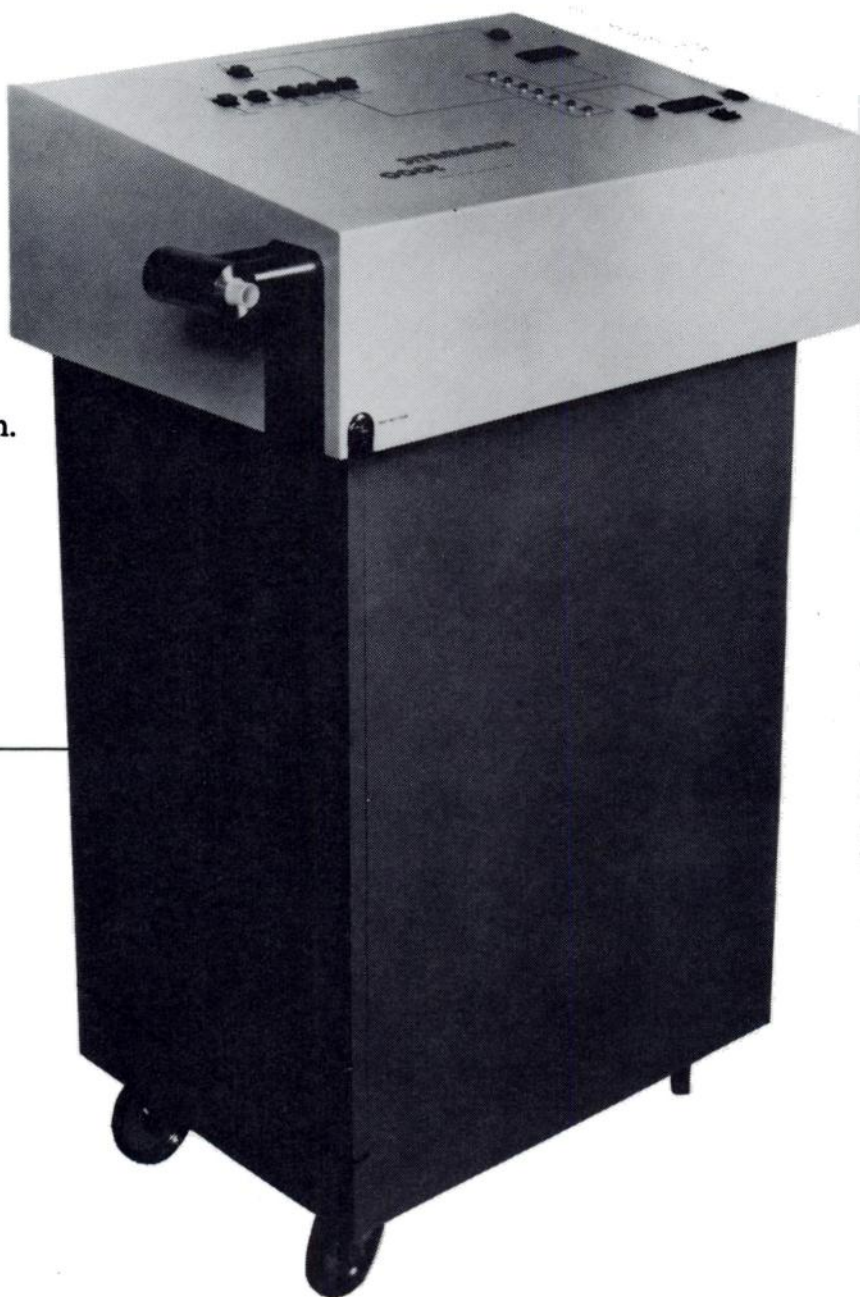
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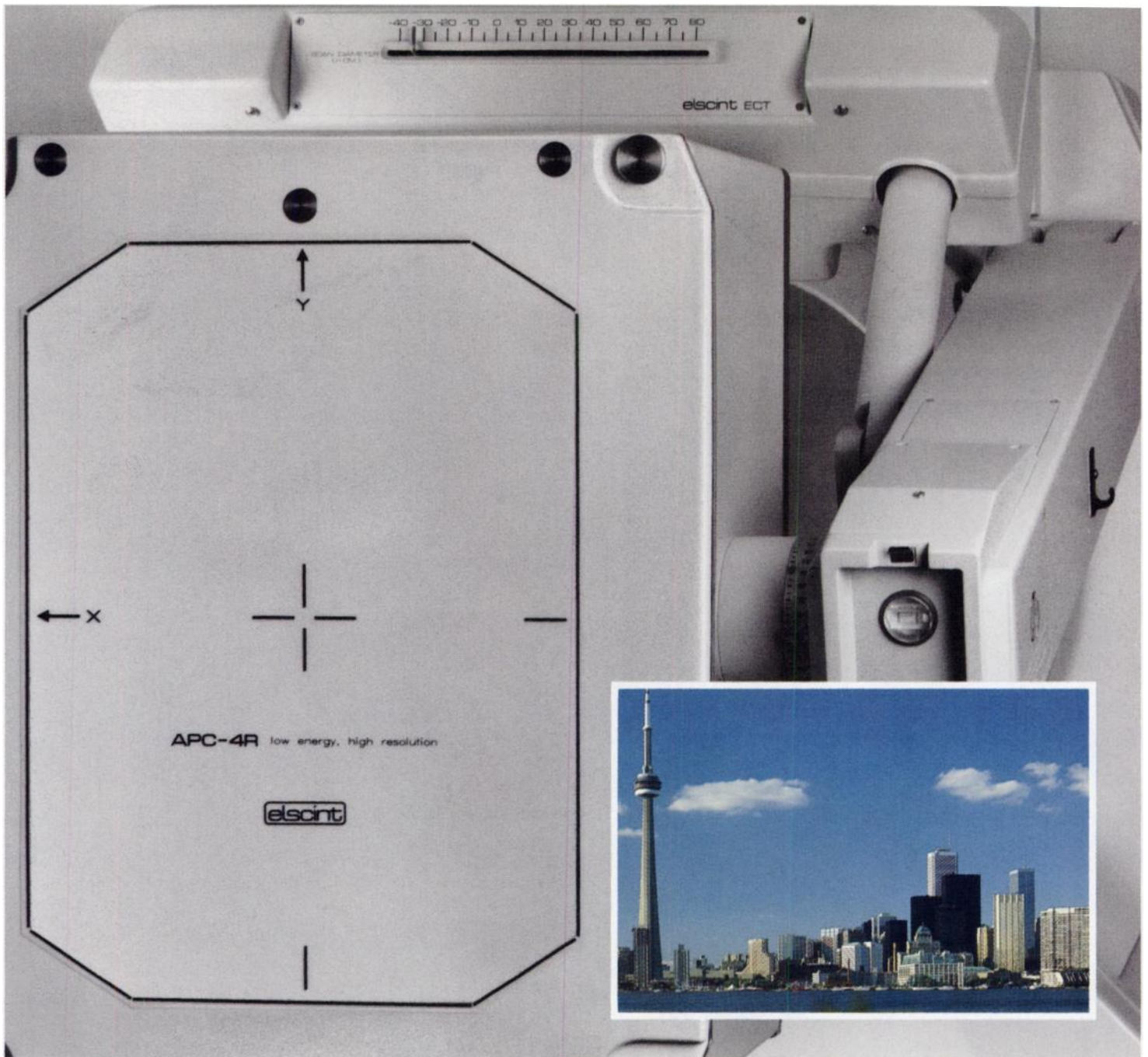
Also available, Model 2000.

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Elscint Apex: Bringing Nuclear Medicine technology to new heights in Toronto.

Toronto's most stunning examples of advanced architecture aren't part of its skyline. Rather, they can be seen in major hospitals and clinics around town in the form of Apex Nuclear Medicine systems from Elscint.

Designed around its own patented digital architecture, only Apex is flexible enough to do all this with the same system: SPECT, high-resolution imaging, and fast dynamic scans (such as first pass cardiology studies). This innovative design also makes Apex the most flexible PACS configuration available anywhere in the world.

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With the 150 Series you can have the advantages of a superior-quality system that helps achieve short-term and long-term cost containment goals.

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Now... a superior-quality system that answers both sides of the imaging dilemma: system capability and cost containment

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Raytheon's Spectrum 150 Series offers you:

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Spectrum 150-DT™
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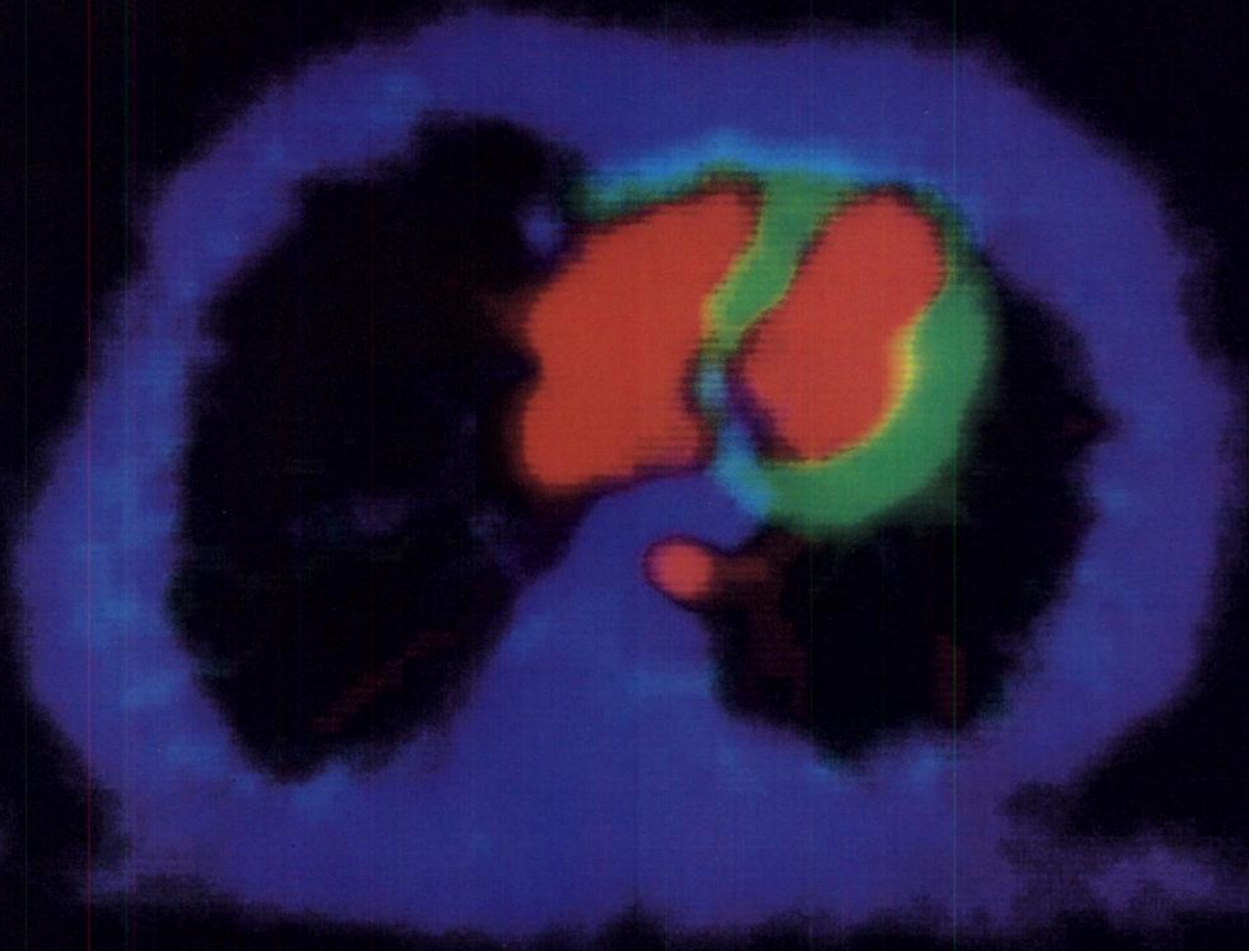
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Circle Reader Service No. 30

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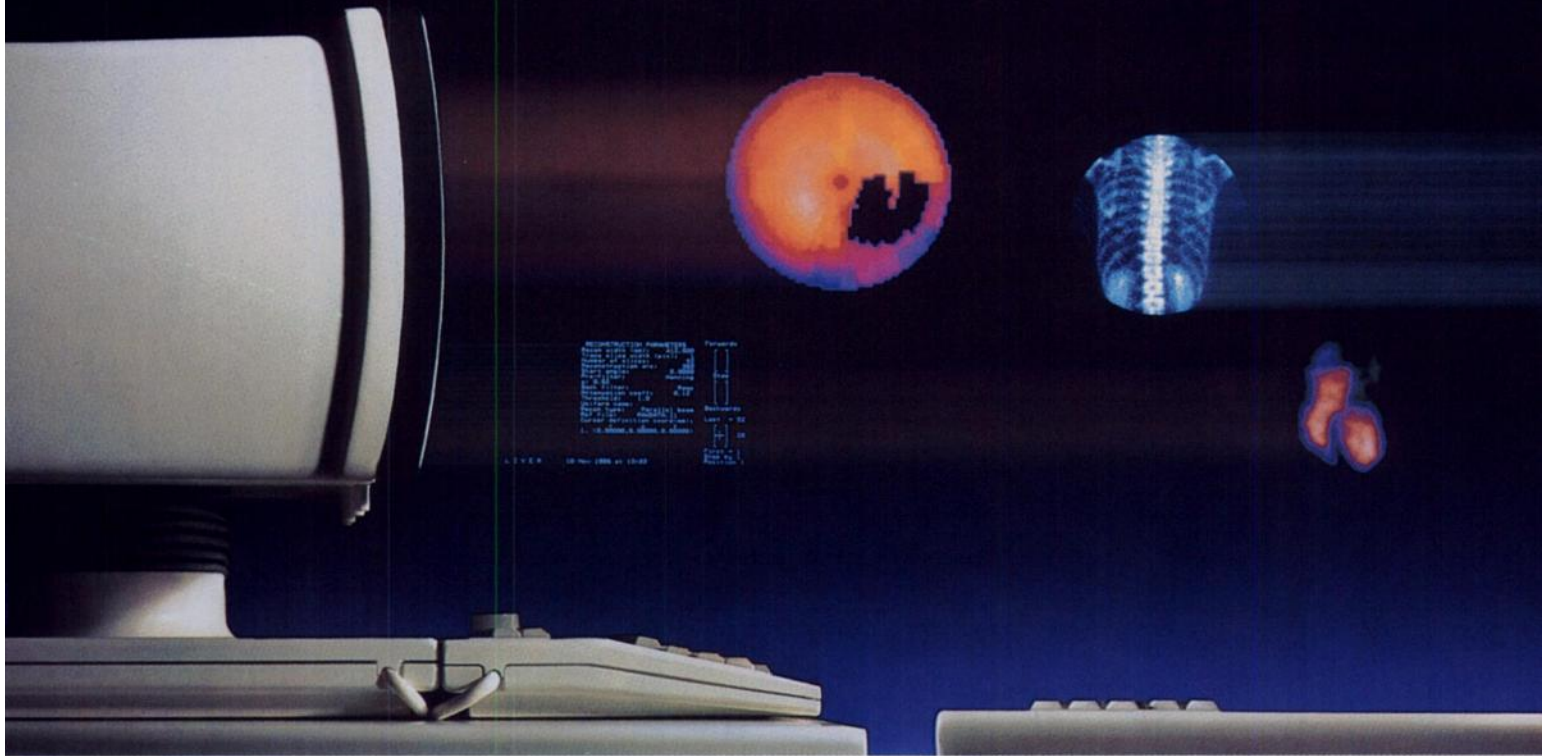
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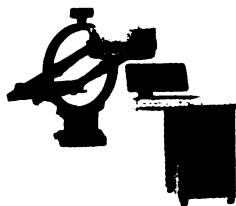
The Star family of nuclear imaging products offers versatility and easy upgrades as your needs change. With Starlink, the Star family works together better than ever to increase your nuclear imaging and processing capabilities. And Starlink can help you access other manufacturers' systems as well.

STARCAM™



Integrated camera and computer system.

STARPORT™



Digital camera system.
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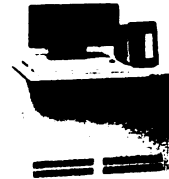
Processing power allows fast transmission of medical images. Starlink was created to efficiently handle the large amounts of information contained in images, unlike many network systems designed for simple data transfer.

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Data acquisition and storage system—can be linked with Starport or other manufacturers' cameras.

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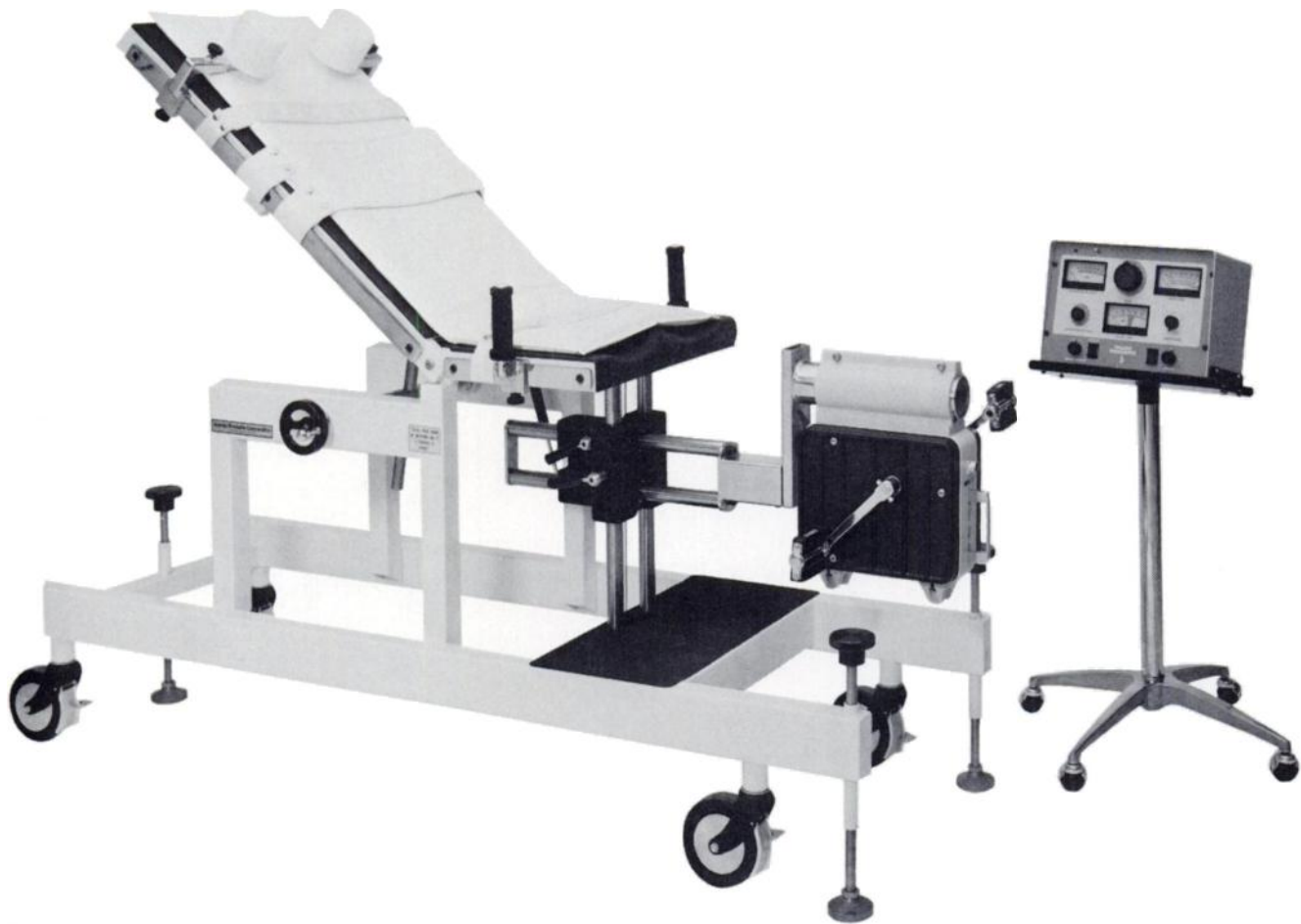
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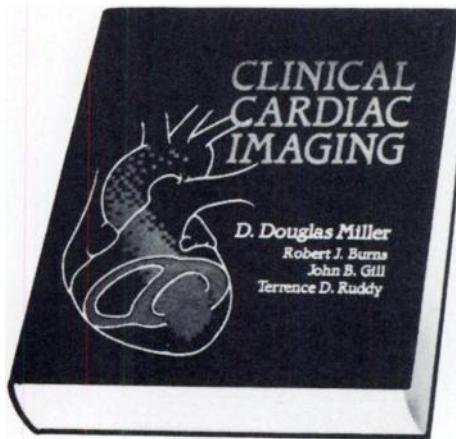
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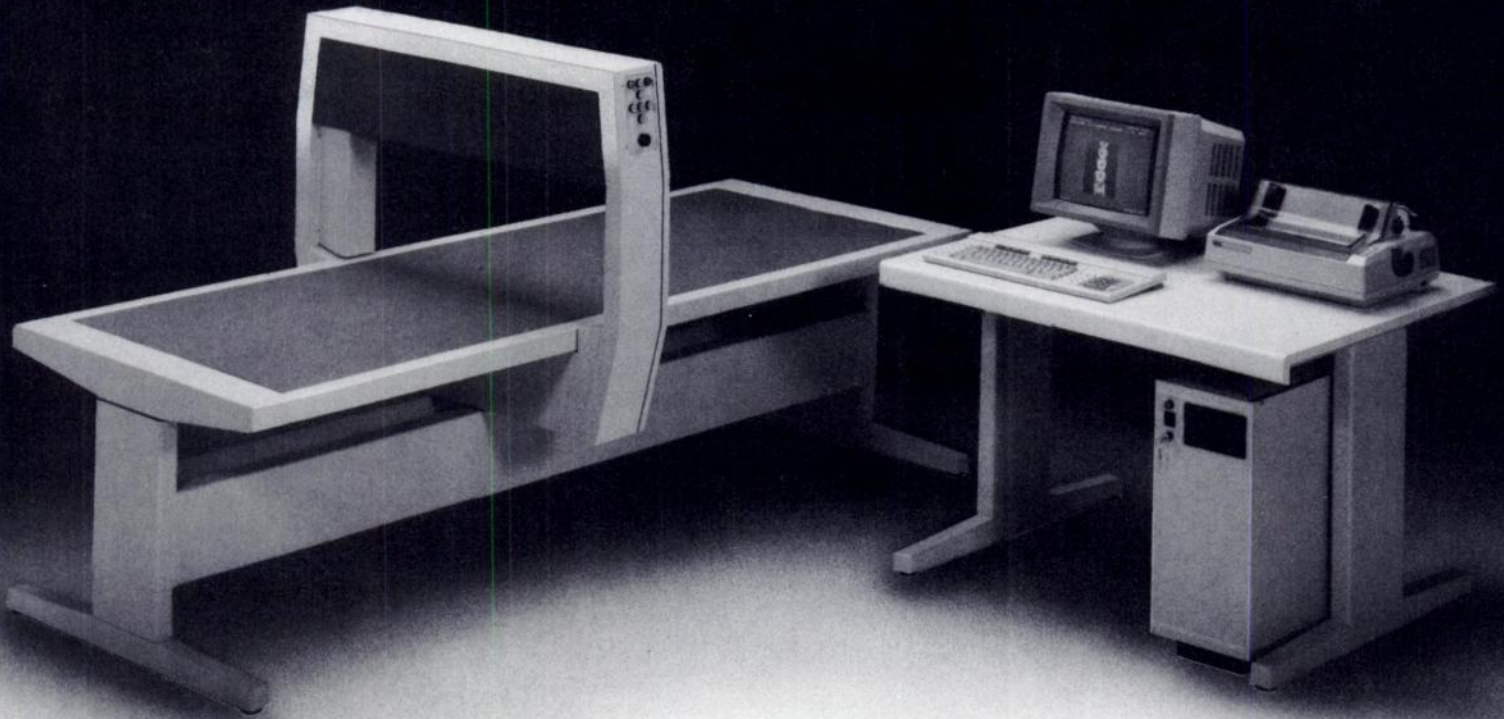
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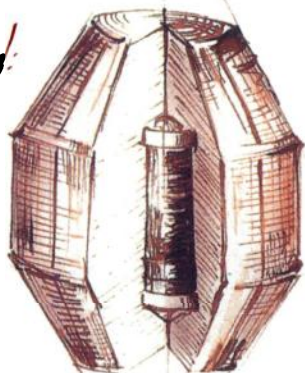
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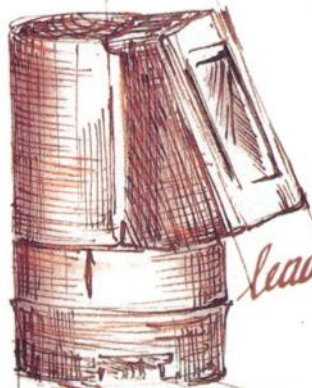
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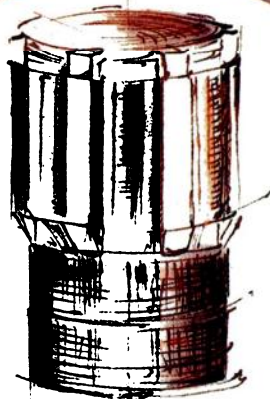


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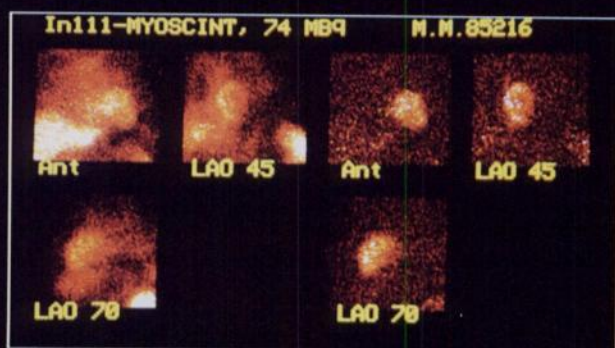
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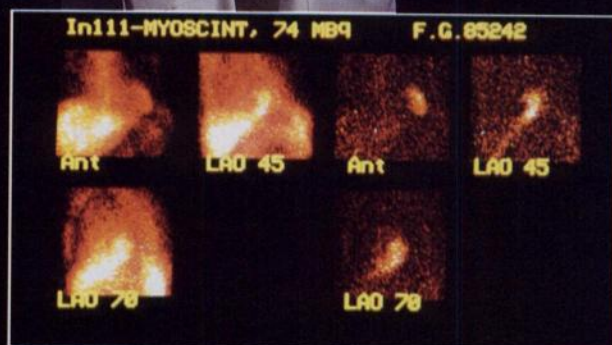
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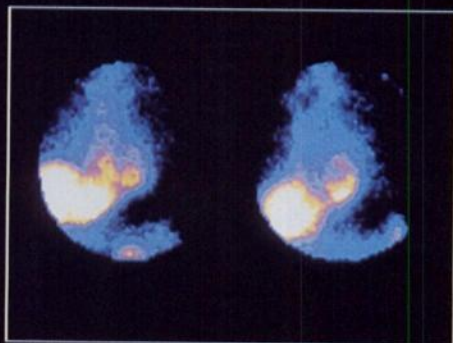
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58 year old male admitted with chest pain. Systemic streptokinase was started immediately. Images were obtained 24 hours after injection of Myoscint and 27 hours after beginning therapy. Images courtesy of Dept. of Nuclear Medicine, Spedali Civili, Brescia, Italy.



Patient admitted 24 hours after onset of chest pain. ECG suggested a "non Q wave" infarct. Images were obtained 24 hours after injection of Myoscint. Images courtesy of Dept. of Nuclear Medicine, Spedali Civili, Brescia, Italy.



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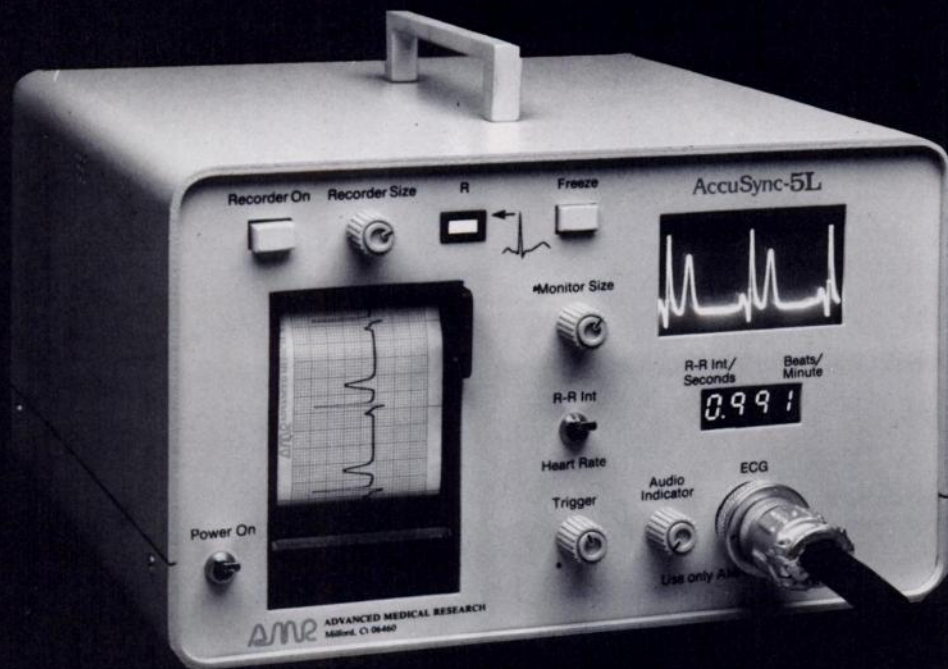


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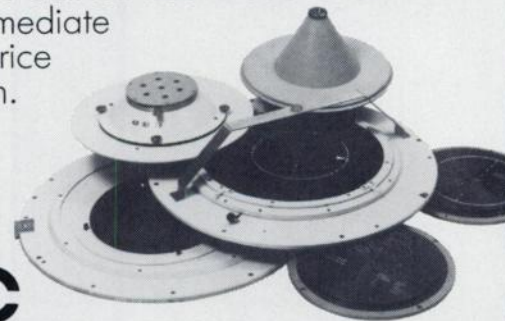
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Call for Abstracts for Scientific Program and Works-in-Progress

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

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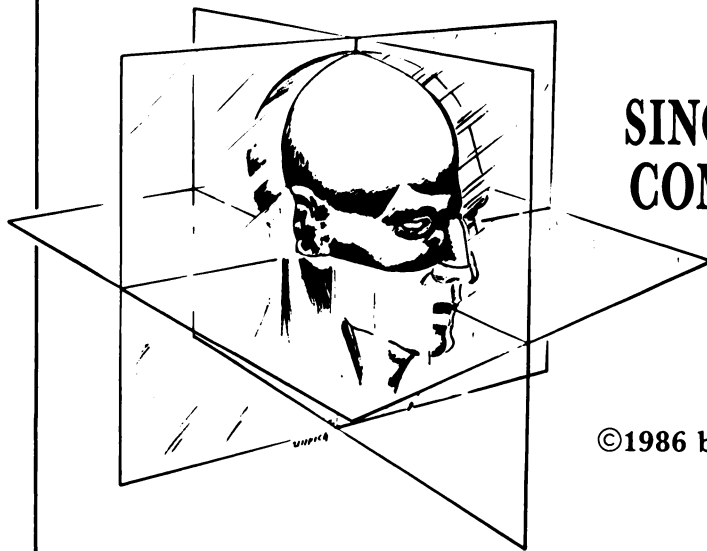
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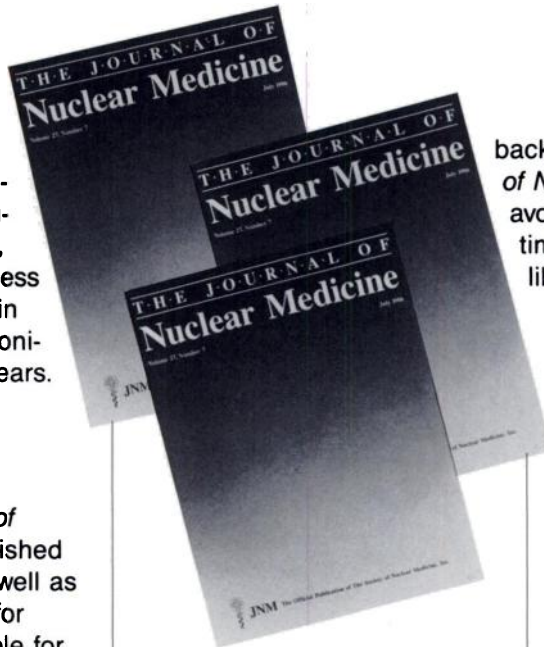
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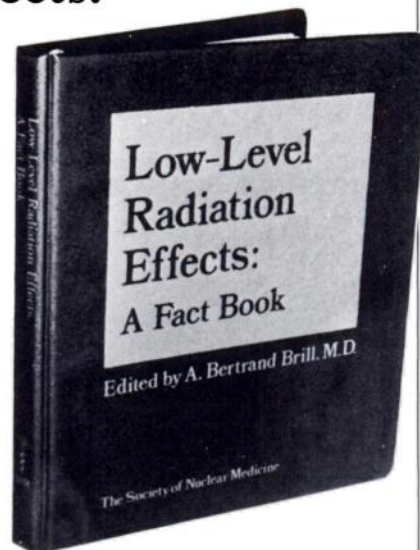
Edited by A. Bertrand Brill, M.D., Ph.D.

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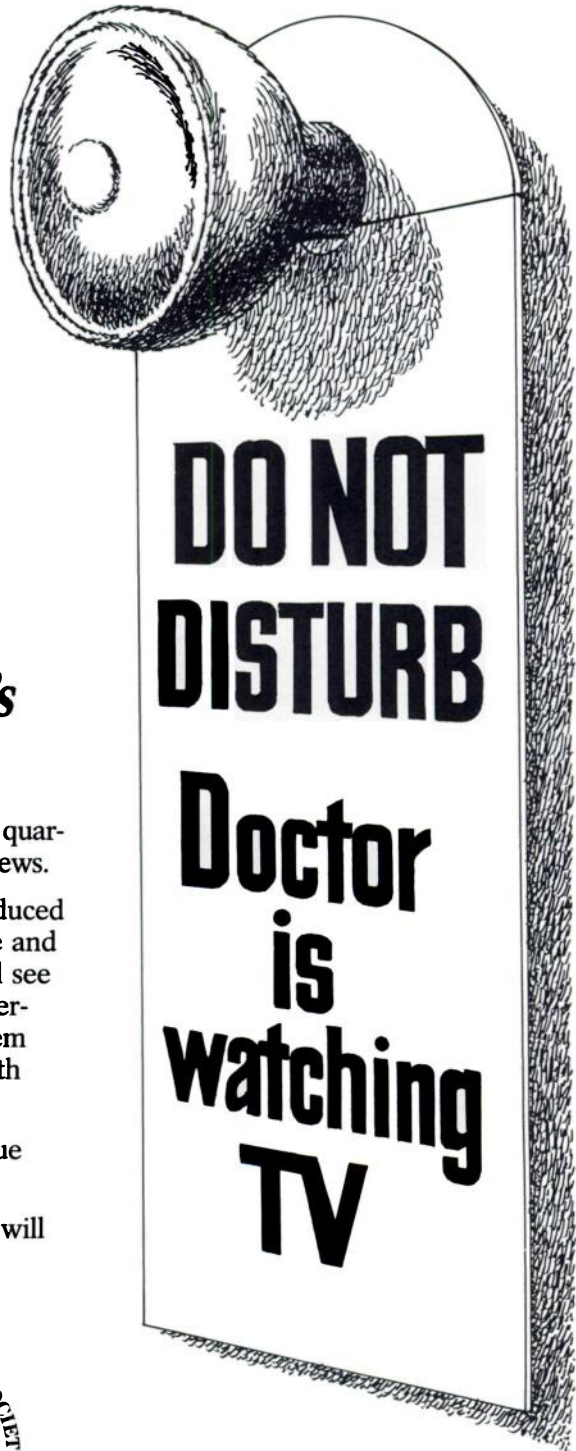
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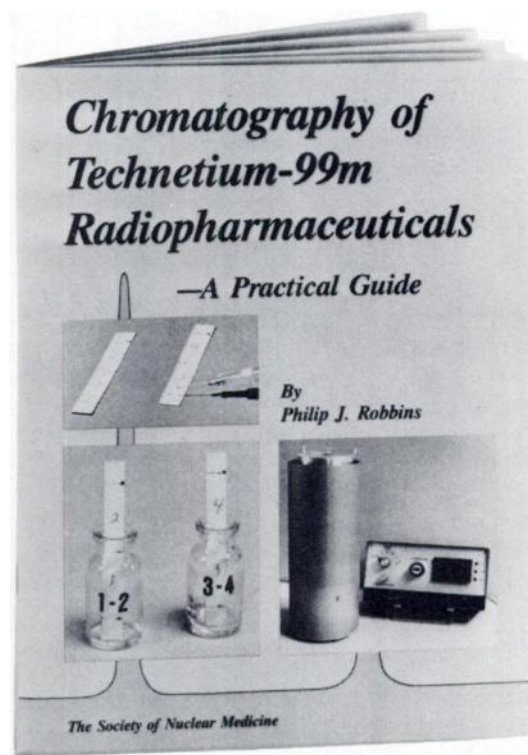
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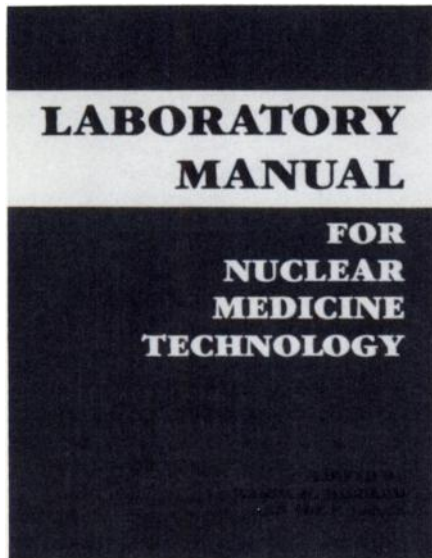


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CONTRIBUTORS

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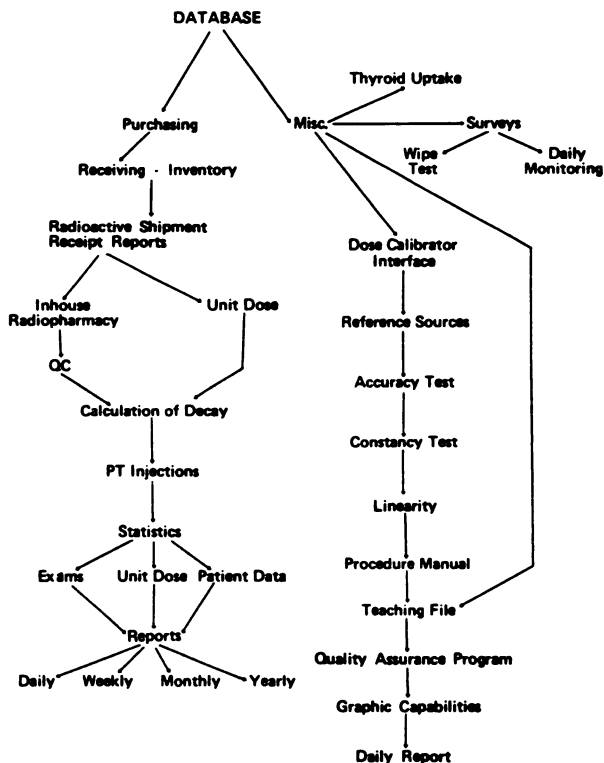
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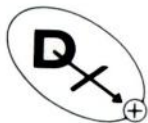
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The Society of
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35th ANNUAL MEETING

Tuesday, June 14-
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Call for Scientific Exhibits

"One Picture Is Worth a Thousand Words"

The 1988 Scientific Exhibits Subcommittee welcomes the display of scientific exhibits at the 35th Annual Meeting in San Francisco, June 14-17, 1988. A visual discipline like nuclear medicine is particularly suited for information exchange via an exhibit format that allows the viewer time to study, criticize, and assimilate the material; exhibits can also supplement a presented paper and provide an alternate medium of expression for the author. Exhibits can be displayed on posterboard, viewbox or booth.

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

Scientific awards, based on scientific merit, originality, appearance, and other criteria will be presented in several categories this year. The official abstract form may be obtained from the October 1987 *JNM* or by calling or writing:

The Society of Nuclear Medicine

Att: Abstracts

136 Madison Avenue

New York, NY 10016-6760

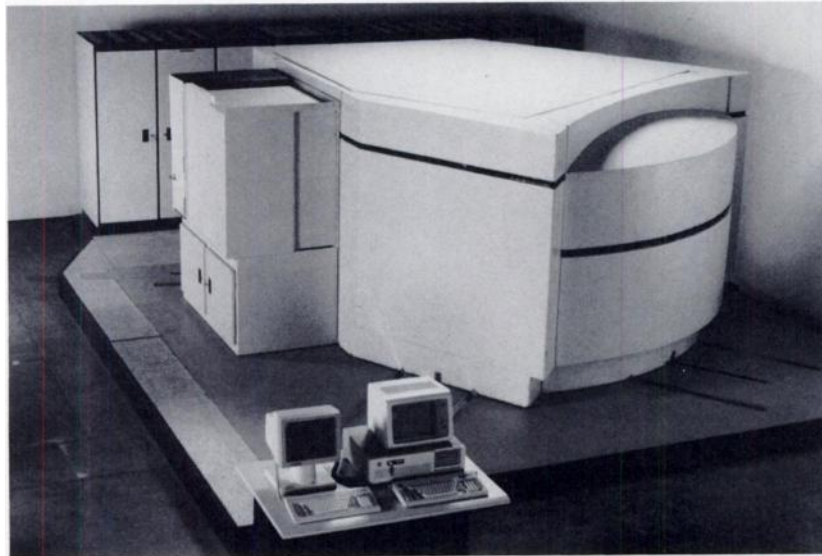
Tel: (212)889-0717

*Abstracts must be submitted on the official form and received (not postmarked)
no later than Monday, January 25, 1988*

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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.

Compact Radioisotope Delivery System

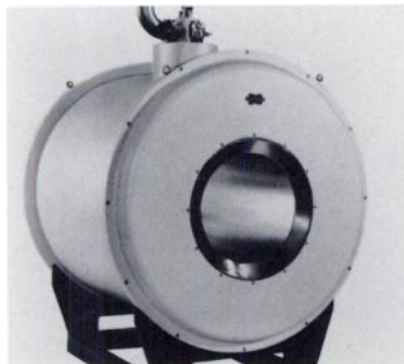


CTI Group, Inc. has introduced the self-shielded RDS Model 112 Radioisotope Delivery System which is capable of automatically producing and delivering the major positron-emitting isotopes. The 11 MeV energy of the RDS is high enough to produce substantial quantities of positron emitters but low enough to offer practical shielding of neutron flux, according to the company. Four targets, carbon-11, nitrogen-13, oxygen-15, and fluorine-18, can be mounted to the RDS simultaneously, utilizing stripping foils for beam extraction instead of electrostatic extractors. Two targets can be irradiated concurrently via the computer-controlled insertion of two stripping foils into the beam path. Yields are: ^{11}C 1.3 Ci (40 min. at 30A), ^{13}N 0.3 Ci (10 min.

at 40A), ^{15}O 1.8 Ci (10 min. at 40 A), and ^{18}F 1.2 Ci (110 min. at 20 A), according to CTI. Production of a specific radiochemical is accomplished by stepping through a set of menu selections on the terminal display, and the command language allows users to create their own synthesis procedures. A general-purpose chemical process control unit (CPCU) allows the automated routine synthesis of a variety of radiochemicals labeled with positron-emitting radioisotopes. For example, ^{18}F fluoride ion is used to prepare ^{18}F 2-deoxy-2-fluoro-D-glucose in radiochemical yields greater than 50%, according to the company. **CTI Group, Inc., 810 Innovation Dr., Knoxville, TN 37932.**

Circle Reader Service No. 101

60-cm Magnet for NMR Imaging and Spectroscopy In Vivo



Bruker Instruments, Inc. has introduced a large bore diameter (60 cm) magnet operating at a field strength of 2.35 tesla. The magnet is compatible with the Bruker Medspec/Biospec system, and can be used for imaging and spectroscopic analysis of limbs, extremities, and animals. Other specifications include: ^1H frequency, 100 MHz; maximum subject diameter, 30 cm; height, 230 cm; length, 167 cm. **Bruker Instruments, Inc., Manning Park, Billerica, MA 07932.**

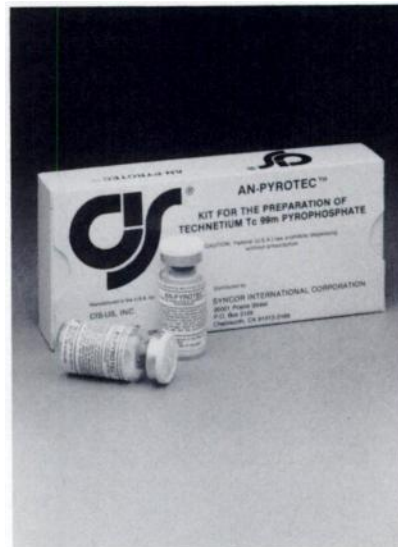
Circle Reader Service No. 102

Iodine-125 Sealed Source

Medi-Physics, Inc. has introduced an iodine-125 sealed source, produced by Cintichem, Inc., for use in single-photon absorptiometers. The sealed source, a double encapsulation of ^{125}I , "provides the photon energy needed to measure bone mineral content in patients suspected of having osteoporosis," said Medi-Physics. Available in activities from 100 mCi to 1,000 mCi, it has a high level of purity, according to the company, with the level of ^{126}I less than 0.002%. Medi-Physics said that it provides a complete sealed source service system, including a depleted sealed source return package and disposal of the depleted source. **Cintichem, Inc., P.O. Box 816, Tuxedo, NY 10987.**

Circle Reader Service No. 103

Pyrophosphate Reagent Kit



CIS-US, Inc. will market a pyrophosphate cold kit under the brand name An-Pyrotec. It contains 5 10-ml multidose reaction vials, each with 12.0-mg sodium phosphate and from 2.8 mg to 4.9 mg stannous tin as stannous chloride dihydrate. An-Pyrotec, which may be stored at room temperature both before and after reconstitution, is indicated for gated blood pool studies, myocardial infarct imaging, and bone imaging exams. Approximately 76% of the injected activity remains in the blood pool, according to the company. **CIS-US, Inc., 1983 Marcus Ave., Lake Success, NY 11042-1016.**

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