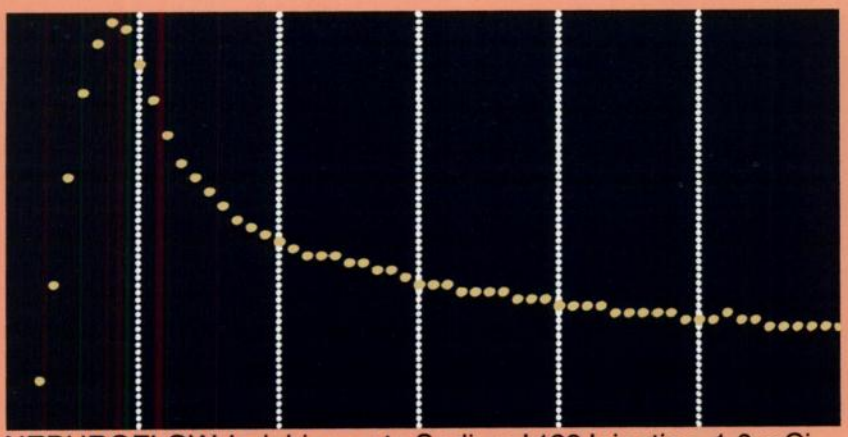
Introducing

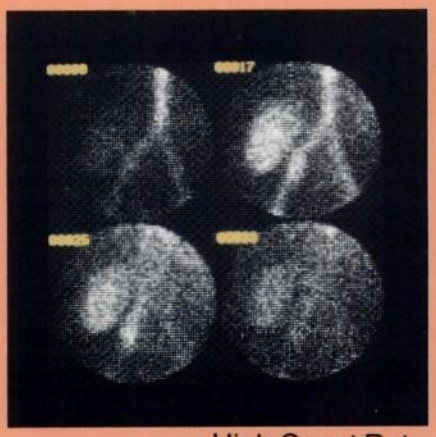
Nephroflow™

IODOHIPPURATE SODIUM I 123 INJECTION

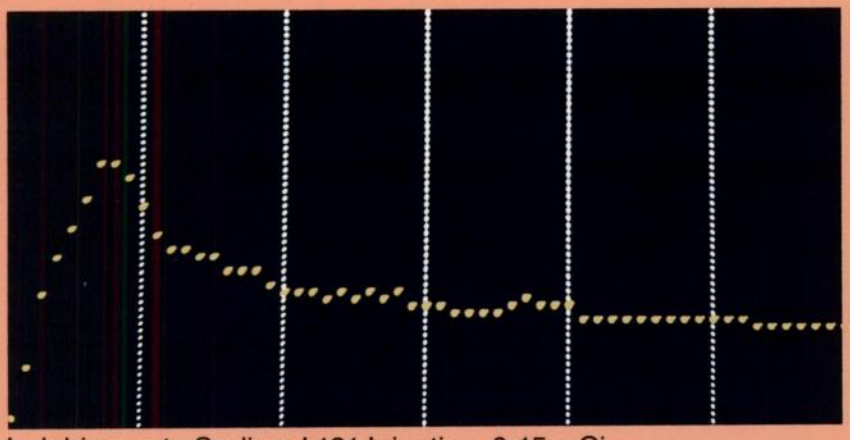
Normal Transplant Renogram[1]



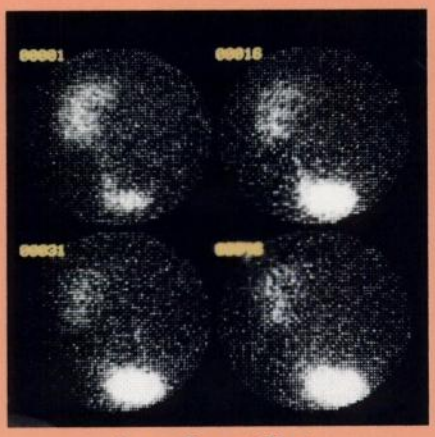
NEPHROFLOW, Iodohippurate Sodium I 123 Injection, 1.0 mCi



High Count Rate
High Detector Efficiency



Iodohippurate Sodium I 131 Injection, 0.15 mCi



Low Count Rate
Low Detector Efficiency

NEPHROFLOW provides better counting statistics and higher data density.

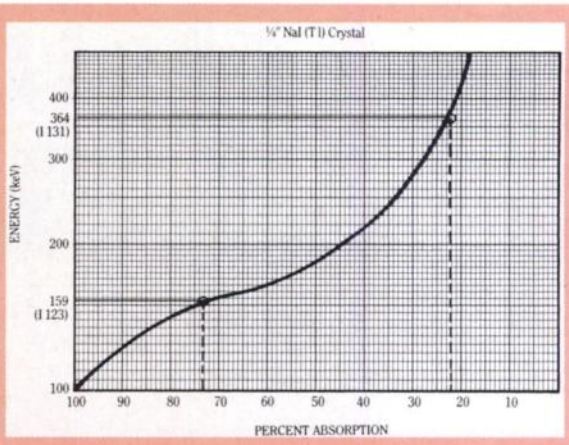
Now Available 2 mCi Vial

To Order call (800) MEDI-123

[1]Reference: Data on file, Medi-Physics, Inc., Richmond, CA

Nephroflow™

- Particularly useful in obstructed patients
- Slight advantage in photon intensity
- Major advantage in ¼ inch crystal efficiency
- Imaging should be performed as close to calibration time as possible



Comparison of I 123 and I 131

Characteristic	I 123	I 131
Mode of Decay	Electron capture	Beta⁻
Half-Life	13.2 hours	193 hours
Principal Gamma Energy (keV)	159	364
Intensity	84%	82%
Half-Value layer, lead, cm	0.037	0.24
Detection Efficiency:		
¼" NaI (Tl) crystal	74.5%	22.5%

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NEPHROFLOW™
IODOHIPPURATE SODIUM I 123 INJECTION

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

DESCRIPTION: Iodohippurate Sodium I 123 Injection is supplied as a sterile, apyrogenic, aqueous, isotonic saline solution for intravenous administration. Each milliliter of the solution contains 37 megabecquerels (1 millicurie) Iodohippurate Sodium I 123 at calibration time, 2 milligrams Iodohippurate Sodium, 1 percent benzyl alcohol (as a preservative), 9 milligrams per milliliter sodium chloride for isotonicity, and up to 0.1 percent ethanol. The solution is buffered with sodium phosphate and the pH is adjusted to 7.0-8.5 with sodium hydroxide or hydrochloric acid. The radionuclidic composition at calibration time is not less than 94.7 percent I 123, not more than 4.8 percent I 124, and not more than 0.5 percent all others (I 125, I 126, I 130, Na 24, Te 121). The radionuclidic composition at expiration time is not less than 85.5 percent I 123, not more than 12.9 percent I 124, and not more than 1.6 percent all others.

INDICATIONS AND USAGE: Iodohippurate Sodium I 123 Injection is a diagnostic aid in determining renal function, renal blood flow, and urinary tract obstruction, and as a renal imaging agent.

CONTRAINDICATIONS: None Known.

WARNINGS: None Known.

PRECAUTIONS:

General

The contents of the vial are radioactive. Adequate shielding of the preparation must be maintained at all times.

Do not use after the expiration time and date (24 hours after calibration time) stated on the label.

The prescribed Iodohippurate Sodium I 123 dose should be administered as soon as practical from the time of receipt of the product (i.e., as close to calibration time as possible) in order to minimize the fraction of radiation exposure due to relative increase of radionuclidic contaminants with time.

Iodohippurate Sodium I 123, as well as other radioactive drugs, must be handled with care and appropriate safety measures should be used to minimize radiation exposure to clinical personnel. Care should also be taken to miminize radiation exposure to the patient consistent with proper patient management.

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

Carcinogenesis, Mutagenesis, Impairment of Fertility

No long term animal studies have been performed to evaluate carcinogenic potential, mutagenicity potential, or whether Iodohippurate Sodium I 123 affects fertility in males or females.

Pregnancy Category C

Animal reporduction studies have not been conducted with this drug. It is also not known whether Iodohippurate Sodium I 123 can cause fetal harm when administered to a pregnant woman, or can affect reproductive capacity. Iodohippurate Sodium I 123 should be given to a pregnant woman only if clearly needed.

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

Nursing Mothers

Since Iodine-123 is excreted in human milk, formula-feeding should be substituted for breast feeding if the agent must be administered to the mother during lactation.

Pediatric Use

Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: As with all organic iodine containing compounds, the possibility of allergic reactions must be kept in mind. Nausea, vomiting, and fainting have been reported in conjunction with the administration of Iodohippurate Sodium I 123.

HOW SUPPLIED: Iodohippurate Sodium I 123 Injection is supplied in nominal 3.5 ml vials as a sterile, nonpyrogenic, aqueous, isotonic saline solution for intravenous injection. Each milliliter contains 37 megabecquerels (1 millicurie) of Iodohippurate Sodium I 123 at calibration time.

It is available, in individual vials, in the following sizes:
MPI Catalog No. 2041; 1 ml and 37 megabecquerels (1 mCi) per vial
MPI Catalog No. 2042; 2 ml and 74 megabecquerels (2 mCi) per vial

Vials are packaged in individual lead shields with plastic outer container.

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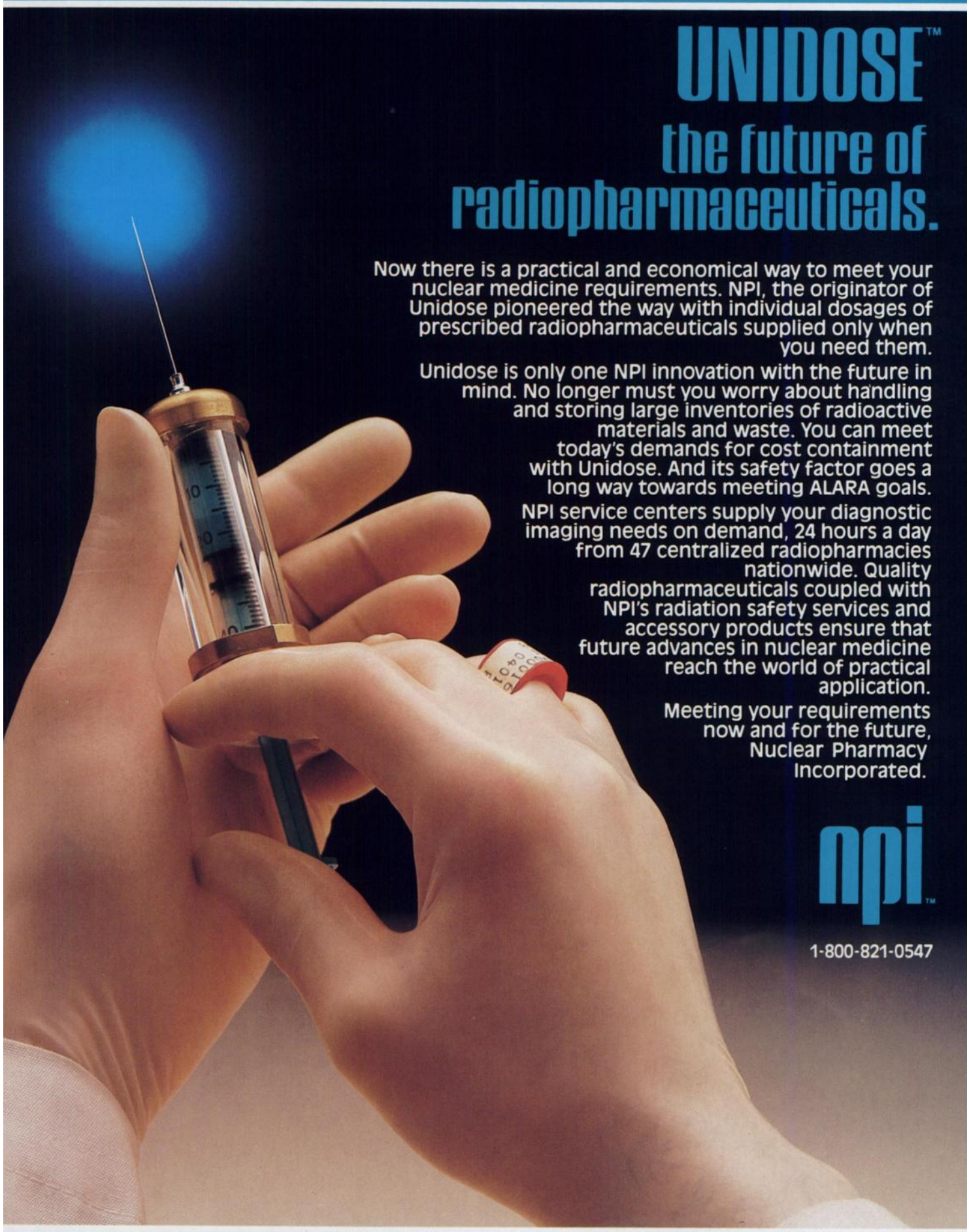
Circle Reader Service No. 2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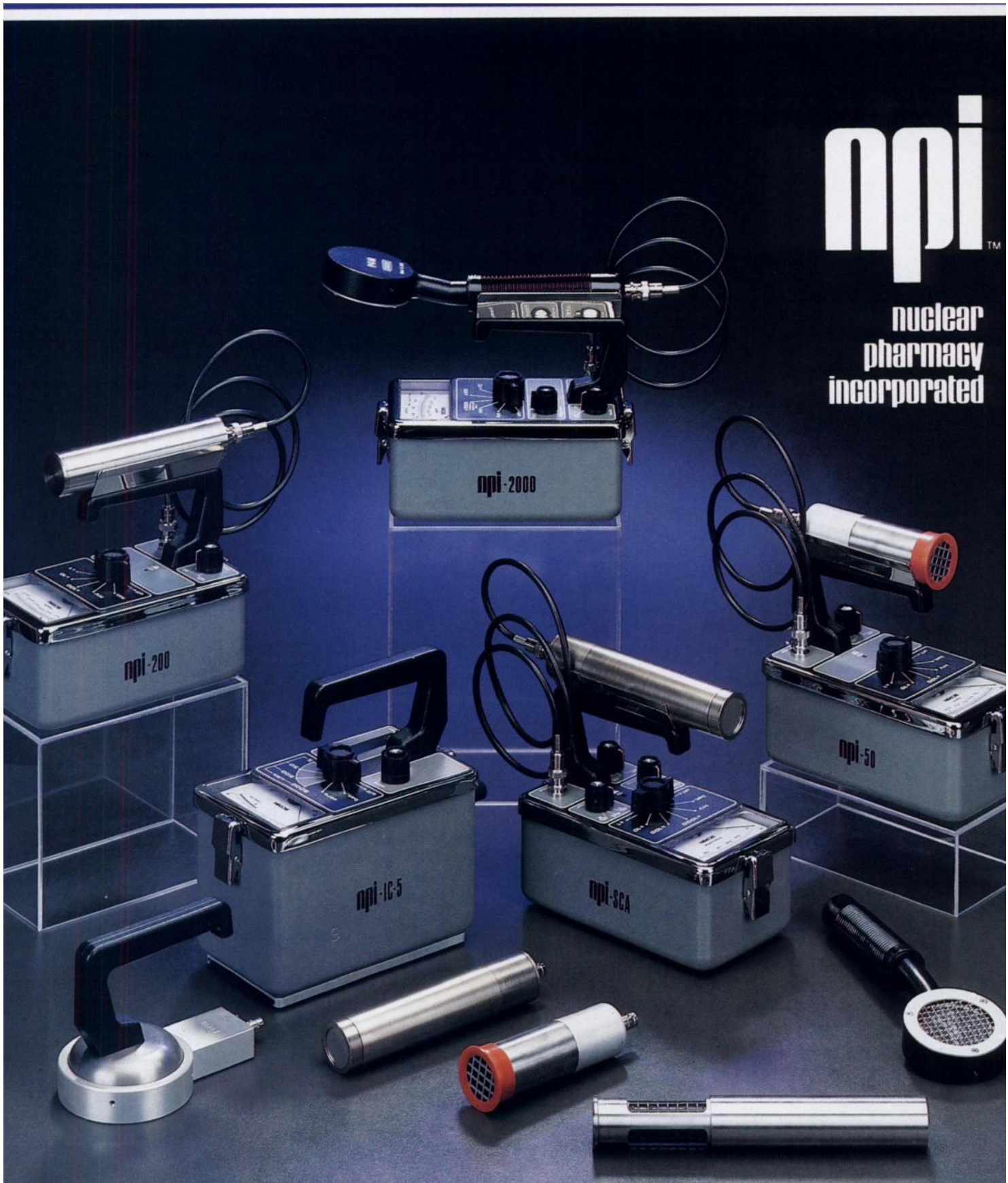


Offering a complete line of radiation monitoring devices and sensors.

Circle Reader Service No. 6

Managing Departmental Costs In A Cost Conscious Environment

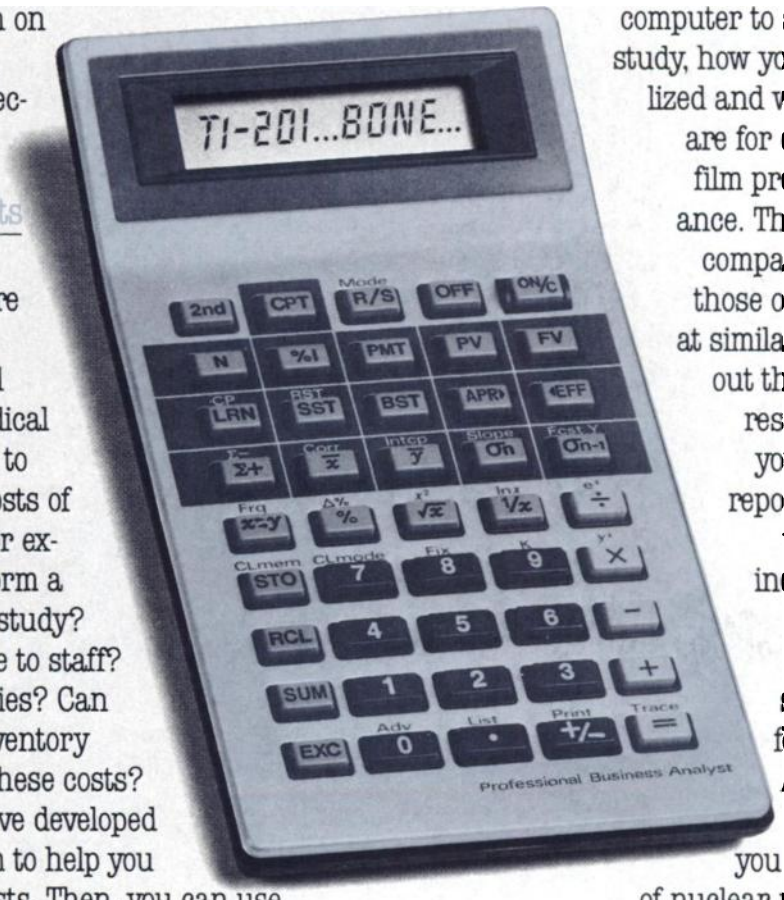
Efficient departmental management is no longer an elective procedure for nuclear medicine.

In the cost-conscious environment of today's hospital, administrators are looking more carefully at departmental budgets. At the same time, attending physicians are ordering tests more selectively, basing their decisions both on the diagnostic information they need and the cost-effectiveness of the study.

Understanding Your Costs

This means that you are being asked to become more of a businessman, adding terms like "efficiency" and "productivity" to your medical vocabulary. Now you have to know the real operating costs of your department. What, for example, does it cost to perform a bone scan? Or a thallium study? Are most costs attributable to staff? To equipment? Or to supplies? Can changes in scheduling, inventory or procedure mix reduce these costs?

At Du Pont NEN we've developed a computer-based program to help you determine and analyze costs. Then, you can use the results to increase productivity in your department. It's called Financial Management Analysis (FMA) and it's available to all our customers.



FMA—A Management Program for You

Here's how it works. Your Du Pont NEN representative will help you collect such data as costs for personnel, supplies and instrumentation, the number and kind of studies you perform and the time the studies take. Then, this input will be analyzed by the computer to show your costs per study, how your staff is being utilized and what your total costs are for every category, from film processing to maintenance. The program can even compare your figures with those of other departments at similar hospitals throughout the country. Your representative will present your FMA in a written report, and will review it with you to help you increase the efficiency of your department.

Ask your representative about FMA for your department. And about our other programs to help you meet the challenges of nuclear medicine in the '80s. Our goal is Imaging Excellence: enhancing the image of your department while improving the images in your department.

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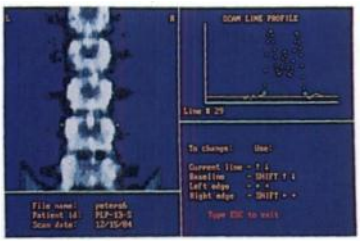
LUNAR DP3-XT/AT, The Unique Clinical Solution For Bone Densitometry



Over a decade of research and clinical testing has gone into the LUNAR DP3 dual-photon spine/femur scanners. LUNAR scientists pioneered both single and dual-photon absorptiometry and helped LUNAR become the world's largest manufacturer of bone measurement instrumentation.

LUNAR now offers the IBM-XT and AT * as options to our acclaimed DP3 scanner. Advanced features of the DP3-XT/AT include:

–Multi-tasking
–Automated peaking
–High-resolution color graphics
–Hard-disk storage

LUNAR continues to set the standard for bone measurement. These new features, plus a light-localizer and a belly-band, add to the DP3's proven capability.

Contact us to see why the clinical leaders have turned to LUNAR with confidence.

Ask A User!

Our customers comprise over 85% of all clinical facilities using dual-photon absorptiometry. They selected the DP3 because LUNAR's exclusive know-how ensures trouble-free, question-free operation and because of distinct advantages such as:

–**Intelligent scans** that reduce scan area, scan time, and patient exposure.
–**Multiple sites**—lumbar spine, proximal femur, tibia, proximal humerus and other areas
–**Graphics displays**—ultrafast, high-resolution images
–**Normal database** of US subjects
–**Accuracy/precision** based on physically correct algorithms
–**High patient throughput** with 15-minute scans
–**Sophisticated software** that takes the guesswork out of scanning
–**Medical physics support** from our in-house staff
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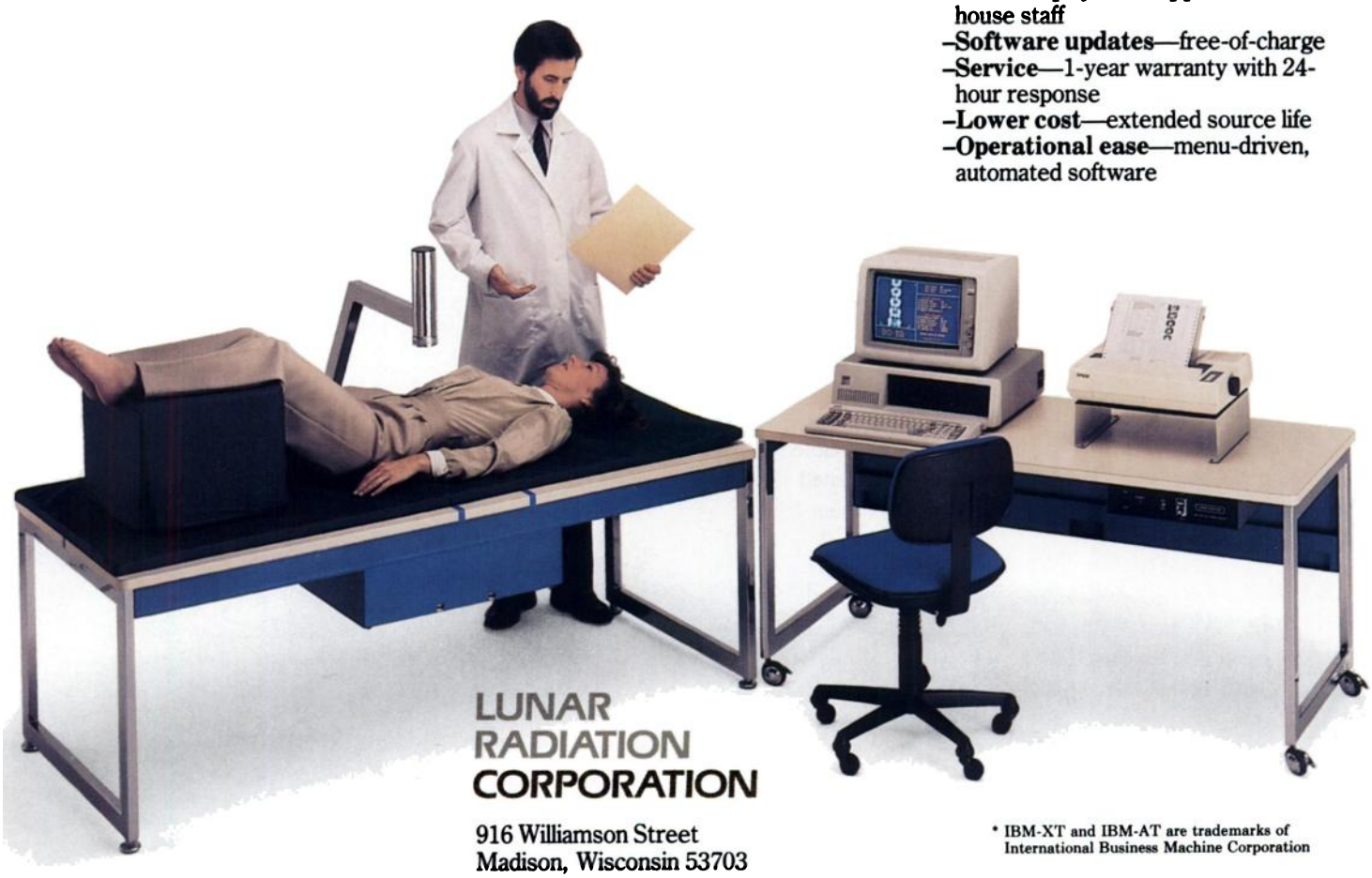
–**Service**—1-year warranty with 24-hour response
–**Lower cost**—extended source life
–**Operational ease**—menu-driven, automated software



LUNAR RADIATION CORPORATION

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Circle Reader Service No. 8

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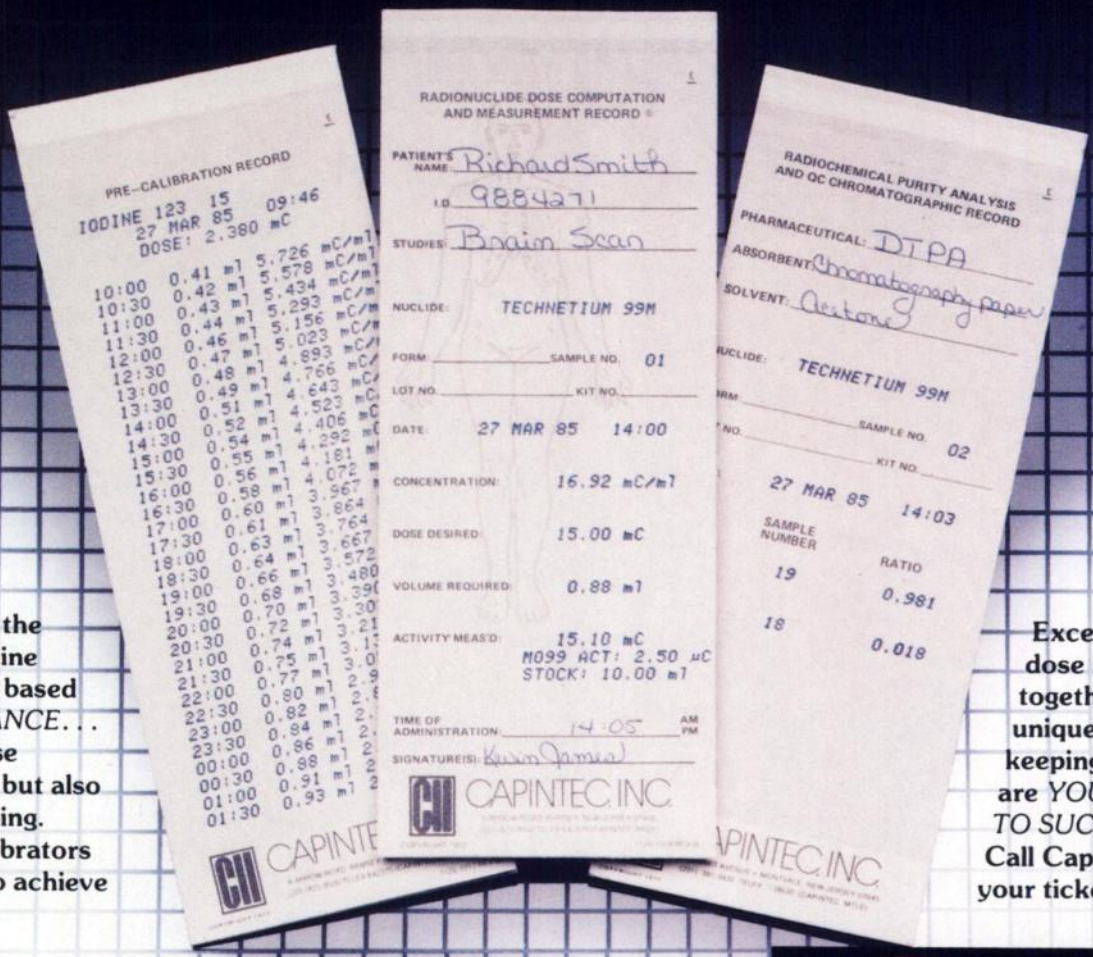

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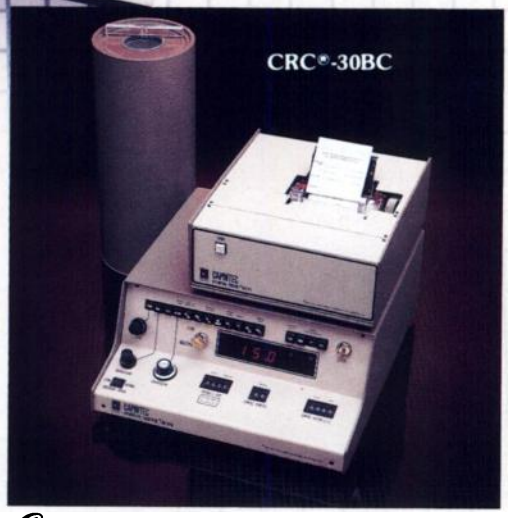

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CENTOCOR ANTIMYOSIN CARDIAC IMAGING AGENT

Myoscint may enhance diagnosis, assessment of myocardial infarction

The imaging techniques currently used to evaluate myocardial infarction (MI) have a major drawback: They do not permit differentiation between cardiac necrosis and ischemia in the early hours following infarction.

Thallium-201, for example, concentrates only in normal myocardial cells. The bone scanning agent ^{99m}Tc-pyrophosphate, on the other hand, is taken up by the ribs as well as by all ischemic cells.

These agents are therefore of little use for differentiating between irreversible necrosis and severe ischemia. Yet the ability to make that distinction—and to make it quickly—could significantly improve management of cardiac patients.

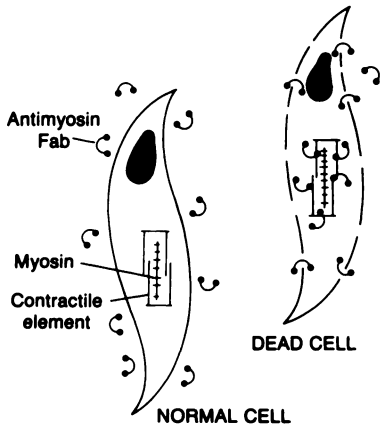
Myoscint,™ an imaging agent based on a monoclonal antibody specific to cardiac myosin, may fill this void in cardiac imaging technology.

Because this MAb binds solely to the intracellular myosin that is exposed on cell death, Myoscint concentrates only in necrotic cells (see diagram). It therefore permits precise localization of unsalvageable tissue.

Improved MI diagnosis may also result

In addition, Myoscint may permit MI detection and localization in areas of the heart that may otherwise be difficult to interpret.

A recent case demonstrates this capability. A 57-year-old male presented with diffuse chest pain. Although neither ECG nor echocardiographic examination revealed abnormalities, an elevated CPK indicated a need for further study.



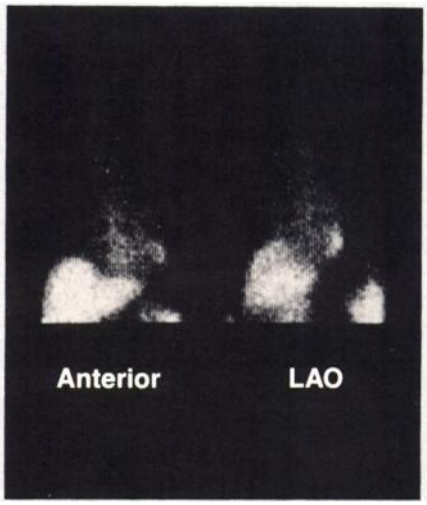
Because it binds exclusively to intracellular myosin—a globulin exposed only upon cell death—Myoscint has demonstrated unprecedented utility for differentiating between cardiac necrosis and ischemia.

Twenty-four hours after being injected with Indium 111-labeled Myoscint DTPA, the patient underwent a nuclear scan. The resulting images clearly demonstrated necrotic tissue in the postero-lateral region, confirming the diagnosis of MI (see images).

Myoscint may be useful for nuclear and MR imaging

Myoscint is being evaluated extensively in conjunction with traditional imaging techniques, including early thallium-201 distribution, early and late wall motion cineventriculography, and gated blood pool scanning. This research continues to verify its efficacy for identifying zones of acute myocardial necrosis.

In addition, paramagnetic-labeled Myoscint is undergoing investigation to evaluate its utility in magnetic resonance studies. Results to date indicate that it may indeed be an effective tool for cardiac assessment in the MR suite.



Images acquired 24 hours after injection of Indium 111-labeled Myoscint DTPA reveal postero-lateral MI. ECG and echocardiographic studies had failed to detect the infarction.

Available for research use

Myoscint is now available FOR RESEARCH USE ONLY. If you would like more information on this product, or other biotechnological products under development at Centocor, please call us, toll free.

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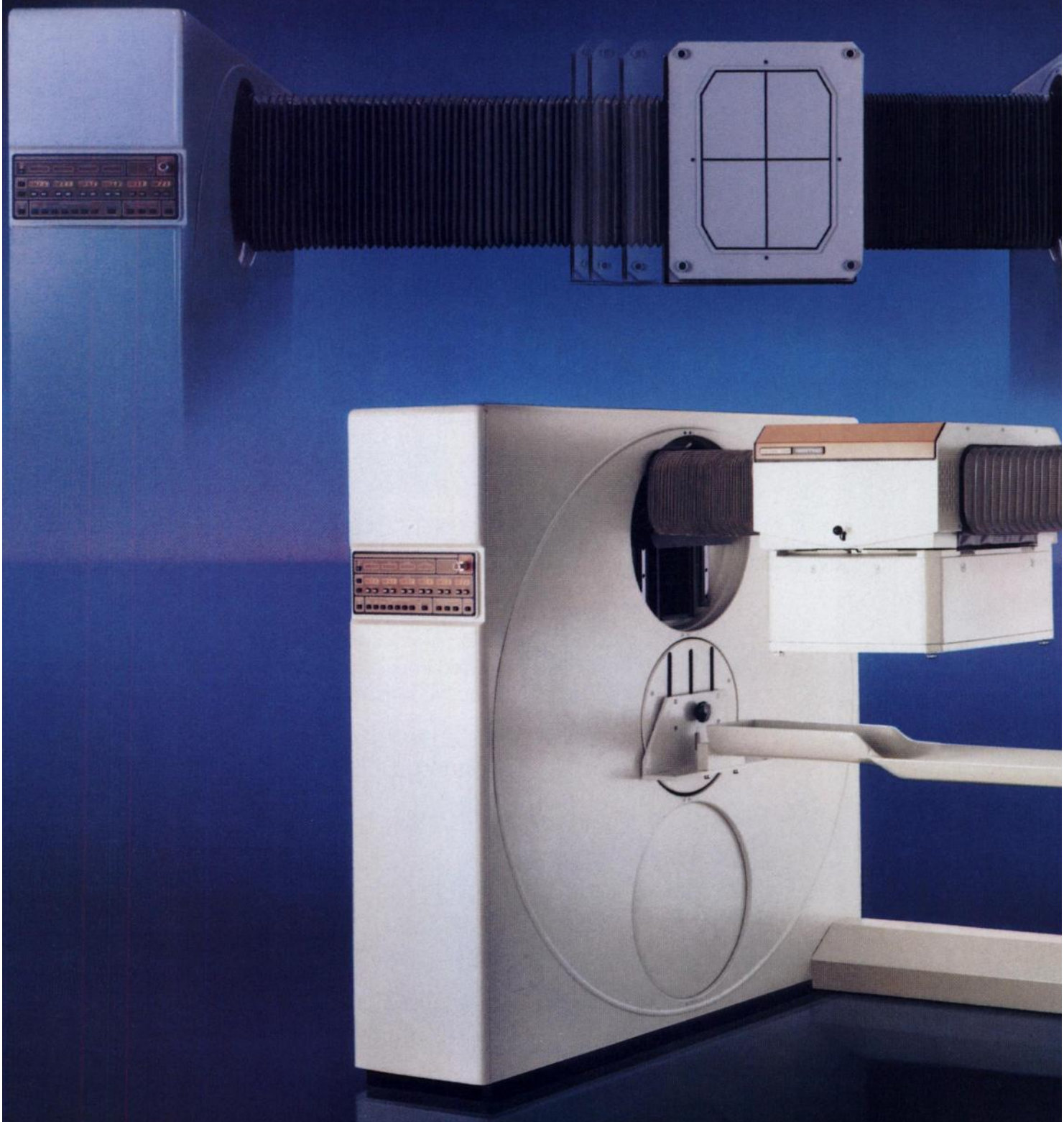

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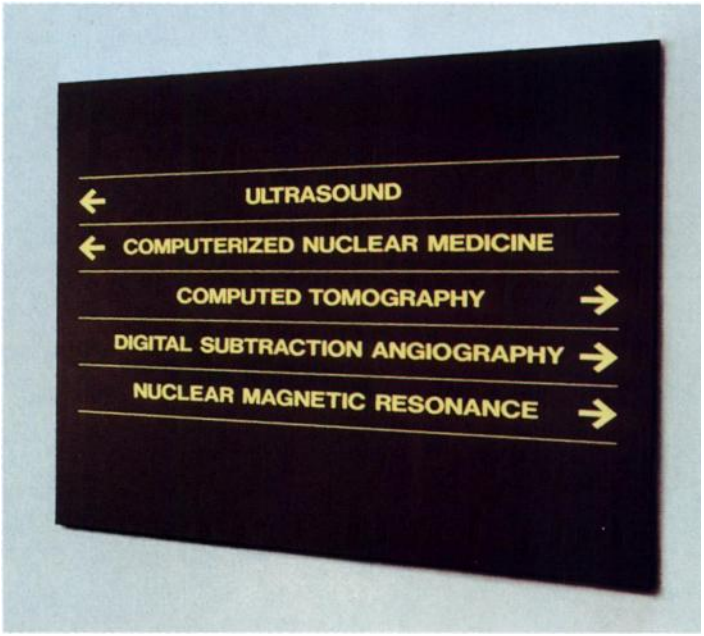

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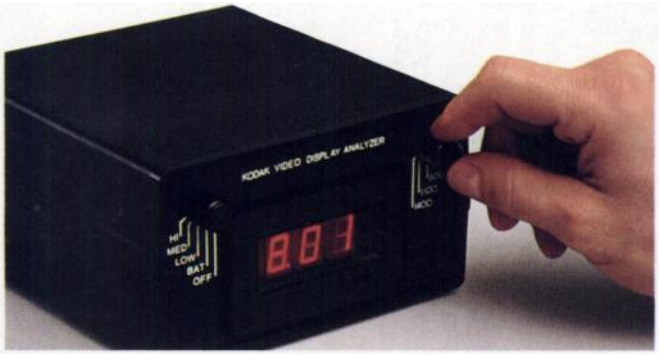

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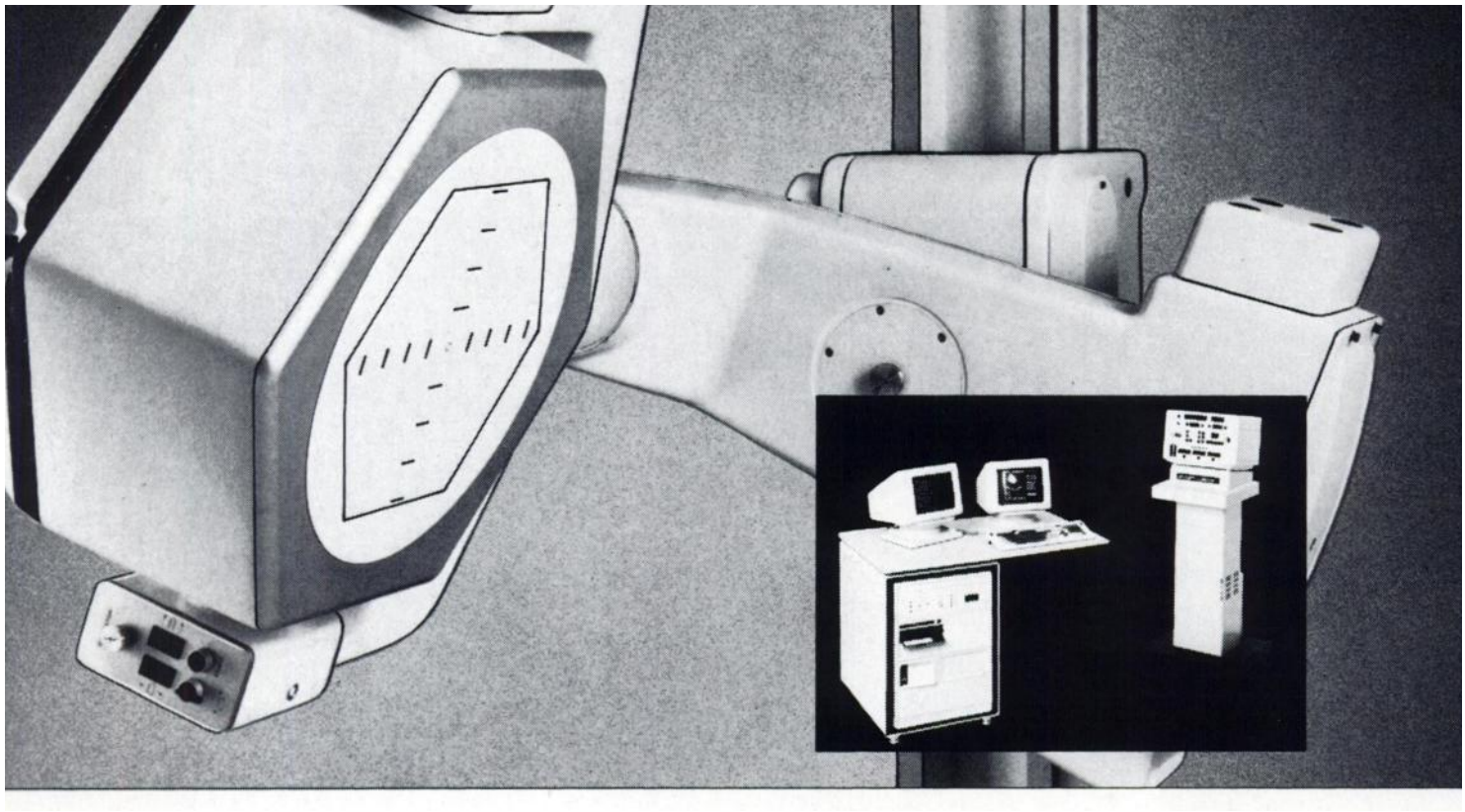

The world's finest digicamera.

Scintronix is a young and fast growing company specializing in equipment for use in nuclear medicine.

We are the only dedicated company able to offer a complete clinical imaging system, from design and manufacture to supply, installation and software development for nuclear medicine departments.

Our digicamera is already acclaimed as one of the world's finest, but in line with our philosophy of continuous research, it has been further improved. Recent innovations include self-optimizing orbiting (a Scintronix first) for tomography, giving greater resolution and markedly improved clinical images.

ReLISM – Residual Light Interface Sensitivity Map – is a new third level correction system, developed by Scintronix to significantly reduce reconstruction artifacts in tomographic studies.

Further developments include a new multiformatter, capable of accepting both analog and digital input data, and producing clear, sharp images on 8″ x 10″ film.

Even the new analog operators console has been refined to offer greater flexibility such as information density, collimator checking and automatic isotope selection.

To enhance the performance of our image processor, we have introduced a number of new clinical software packages, including Cardiac: first pass and equilibrium, brain perfusion and non-circular reconstruction for tomography.

The software is available as FORTRAN modules, enabling the user to construct individual routines as and when necessary.

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Technetium Tc 99m Albumin Aggregated Kit

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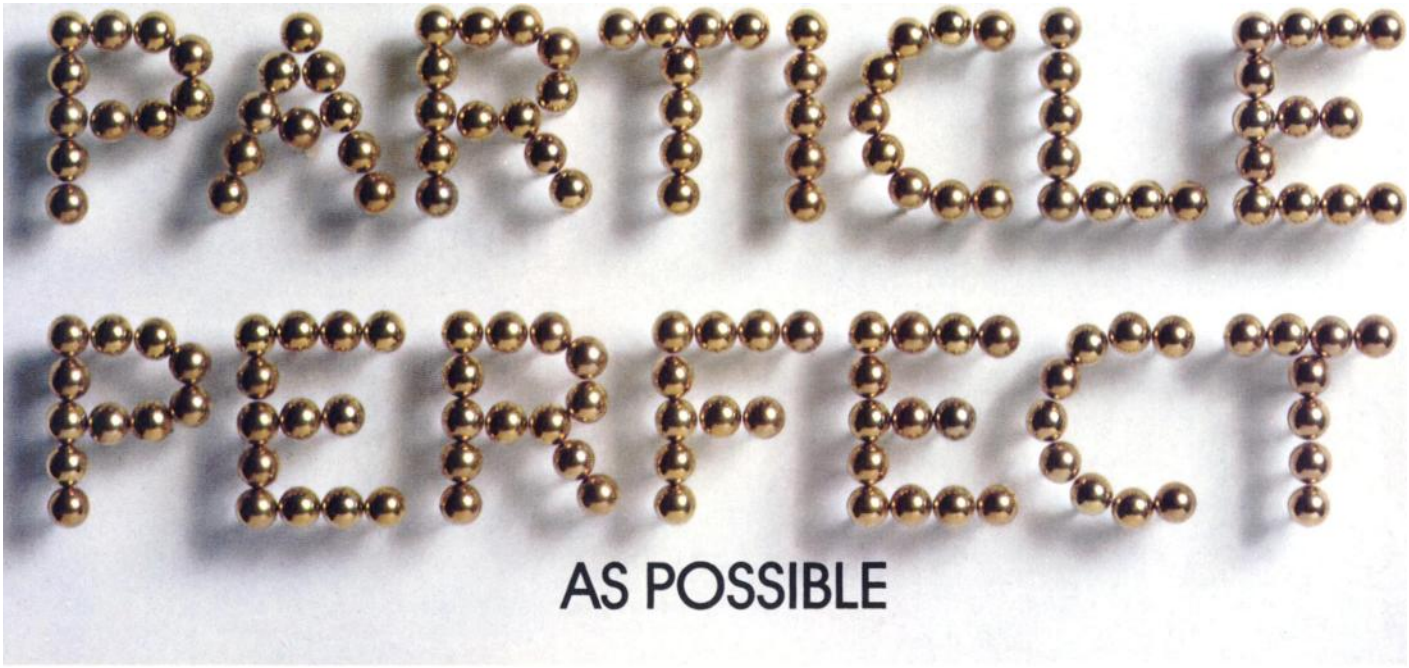

More than 90% of particles in optimal 10 to 90 micron range

The average size is 20 to 40 microns . . . and no particles are greater than 150 microns. You'll get excellent images throughout a full 6 hours after reconstitution. Meets all your lung perfusion evaluation needs . . . scheduled or stat. Reconstitution time . . . only 6 minutes.

More than 80% lung uptake for reliable biological efficacy

Low supernatant activity (SA) and very high radiochemical purity (RCP) help assure biological efficacy you can depend on time after time.

Each Macrotec box label includes the average number of particles per vial.

The only MAA product indicated for use in isotopic venography

Toll-Free Technical Customer Service / 1-800-257-5181 / New Jersey / 1-800-582-5913

Please see adjacent page for brief summary.

SQUIBB™ Diagnostics

MACROTEC®

Technetium Tc 99m Albumin Aggregated Kit

Diagnostic — For Intravenous Use

DESCRIPTION

Macrotec is a sterile, nonpyrogenic, lyophilized preparation of albumin aggregated. Each 5 ml vial of Macrotec contains 1.5 mg of Albumin Aggregated, 10.0 mg Albumin Human, 0.07 mg (minimum) stannous chloride ($SnCl_2 \cdot 2H_2O$) and 0.19 mg total tin, maximum (as stannous chloride, $SnCl_2 \cdot 2H_2O$), 1.8 mg of sodium chloride with trace amounts of sodium acetate, acetic acid and hydrochloric acid. Macrotec contains no preservatives. The pH of the reconstituted product is between 3.8 and 8.0.

The aggregated particles are formed by denaturation of Albumin Human in a heating and precipitation process. Each vial contains 1-8 million particles, 90% of which are between 10 and 90 microns in size. The average size is 20 to 40 microns; no particles are greater than 150 microns.

Reconstitution of Macrotec with sterile sodium pertechnetate Tc 99m forms an aqueous suspension of Technetium Tc 99m Albumin Aggregated for diagnostic use by intravenous injection. No less than 90% of the pertechnetate Tc 99m added to the reaction vial is bound to the aggregates at preparation time and remains bound throughout the 6-hour lifetime of the suspension.

INDICATIONS AND USAGE

Lung Imaging

Macrotec (Technetium Tc 99m Albumin Aggregated Injection) is a lung imaging agent which may be used as an adjunct in the evaluation of pulmonary perfusion in adults and children. It is useful in the early detection of pulmonary emboli and in the evaluation of the status of the pulmonary circulation in such conditions as pulmonary neoplasm, pulmonary tuberculosis and emphysema.

Isotopic Venography

Macrotec is also indicated for use in isotopic venography as an adjunct in the screening, diagnosis and management of deep vein thrombosis in the lower extremities.

Combined isotopic venography of the lower extremities and the pulmonary vasculature may be performed.

CONTRAINDICATIONS

Technetium Tc 99m Albumin Aggregated Injection should not be administered to patients with severe pulmonary hypertension.

The use of Technetium Tc 99m Albumin Aggregated Injection is contraindicated in persons with a history of hypersensitivity reactions to products containing human serum albumin.

WARNINGS

The literature contains reports of deaths occurring after the administration of Albumin Aggregated to patients with pre-existing severe pulmonary hypertension. Instances of hemodynamic or idiosyncratic reactions to preparations of Technetium Tc 99m Albumin Aggregated have been reported.

PRECAUTIONS

General

In patients with right to left heart shunts, additional risk may exist due to the rapid entry of Albumin Aggregated into the systemic circulation. The safety of this agent in such patients has not been established.

Hypersensitivity reactions are possible whenever protein-containing materials such as pertechnetate labeled Albumin Aggregated are used in man. Epinephrine, antihistamines and corticosteroids should be kept available for immediate use.

The intravenous administration of any particulate material such as Albumin Aggregated imposes a temporary, small mechanical impediment to blood flow. While this effect is probably physiologically insignificant in most patients, the administration of Albumin Aggregated is possibly hazardous in acute cor pulmonale and other states of severely impaired pulmonary blood flow.

The components of the Macrotec (Technetium Tc 99m Albumin Aggregated Kit) are sterile and non-pyrogenic. It is essential to follow directions carefully and adhere to strict aseptic procedures during preparation.

Contents of the vial are intended only for use in the preparation of Technetium Tc 99m Albumin Aggregated Injection and are **NOT** to be administered directly to the patient.

The contents of the kit before preparation are not radioactive. However, after the sodium pertechnetate Tc 99m is added, adequate shielding of the final preparation must be maintained.

The technetium Tc 99m labeling reactions involved depend on maintaining the stannous ion in the reduced state. Hence, sodium pertechnetate Tc 99m containing oxidants should not be employed.

The preparation contains no bacteriostatic preservative. Technetium Tc 99m Albumin Aggregated Injection should be stored at 2-8°C and discarded 6 hours after formulation.

Technetium Tc 99m Albumin Aggregated Injection is a physically unstable suspension and consequently the particles settle with time. Failure to agitate the vial adequately before use may result in non-uniform distribution of radioactive particles.

If blood is drawn into the syringe, unnecessary delay prior to injection may result in clot formation.

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.

As in the use of any other radioactive material, care should be taken to minimize radiation exposure to patients consistent with proper patient management, and to minimize radiation exposure to clinical personnel.

Carcinogenesis, Mutagenesis, Impairment of Fertility

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

Pregnancy Category C

Animal reproduction and teratogenicity studies have not been conducted with Technetium Tc 99m Albumin Aggregated Injection. It is also not known whether Technetium Tc 99m Albumin Aggregated Injection can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. There have been no studies in pregnant women. Technetium Tc 99m Albumin Aggregated Injection should be given to a pregnant woman only if clearly needed.

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

Nursing Mothers

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

Pediatric Use

The lowest possible number of particles should be used in the right-to-left shunting, in neonates and in severe pulmonary disease.

ADVERSE REACTIONS

Although adverse reactions specifically attributable to the Technetium Tc 99m Albumin Aggregated Injection have not been noted, the literature contains reports of deaths occurring after the administration of Albumin Aggregated to patients with pre-existing severe pulmonary hypertension. Instances of hemodynamic or idiosyncratic reactions to preparations of Technetium Tc 99m Albumin Aggregated have been reported.

HOW SUPPLIED

Macrotec (Technetium Tc 99m Albumin Aggregated) is supplied as a kit containing 10 reaction vials (5 mL size).

SQUIBB™ Diagnostics

New Brunswick, NJ 08903

 605-501 March 1985

Leaders in Advanced Diagnostic Imaging

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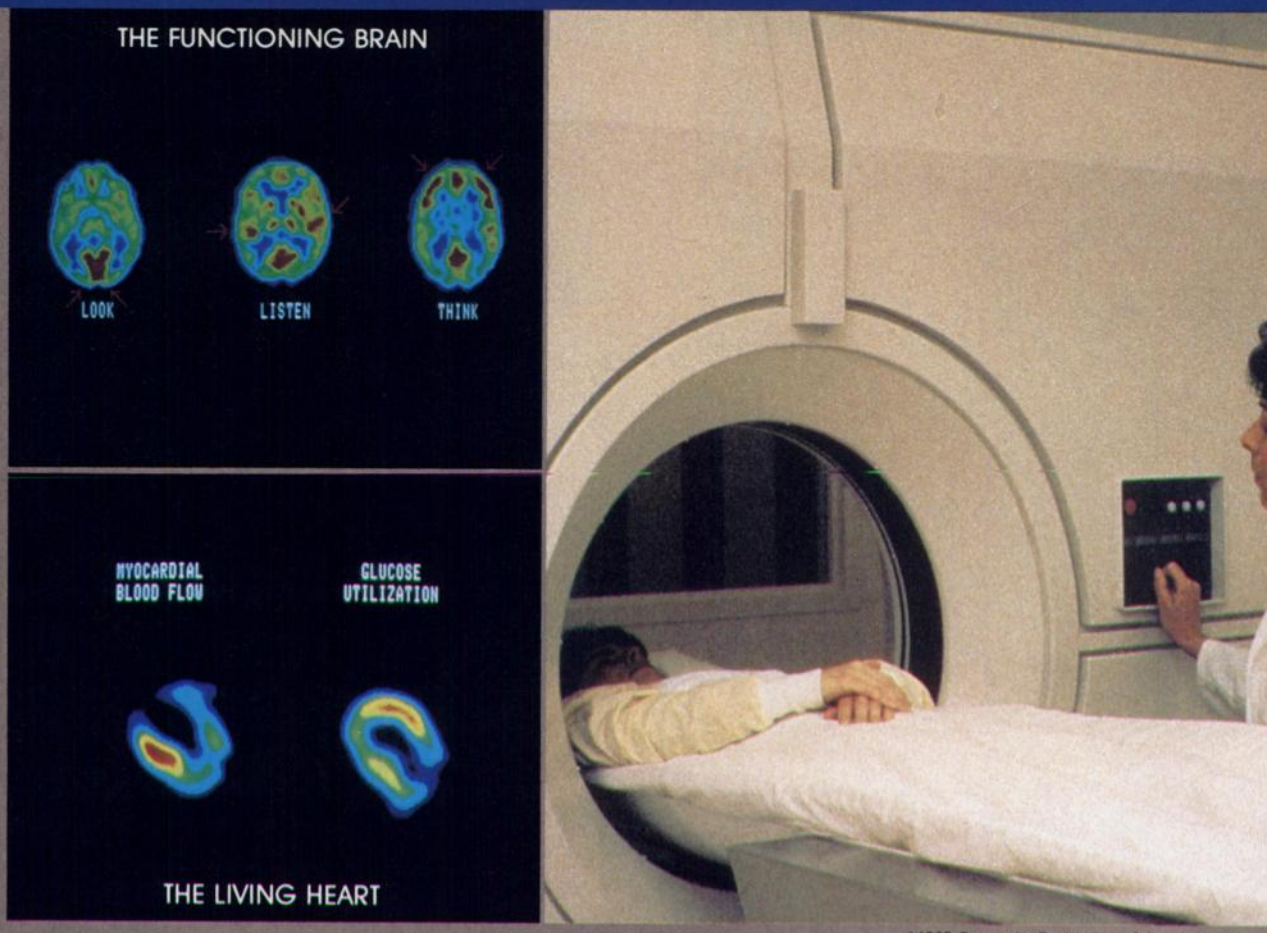

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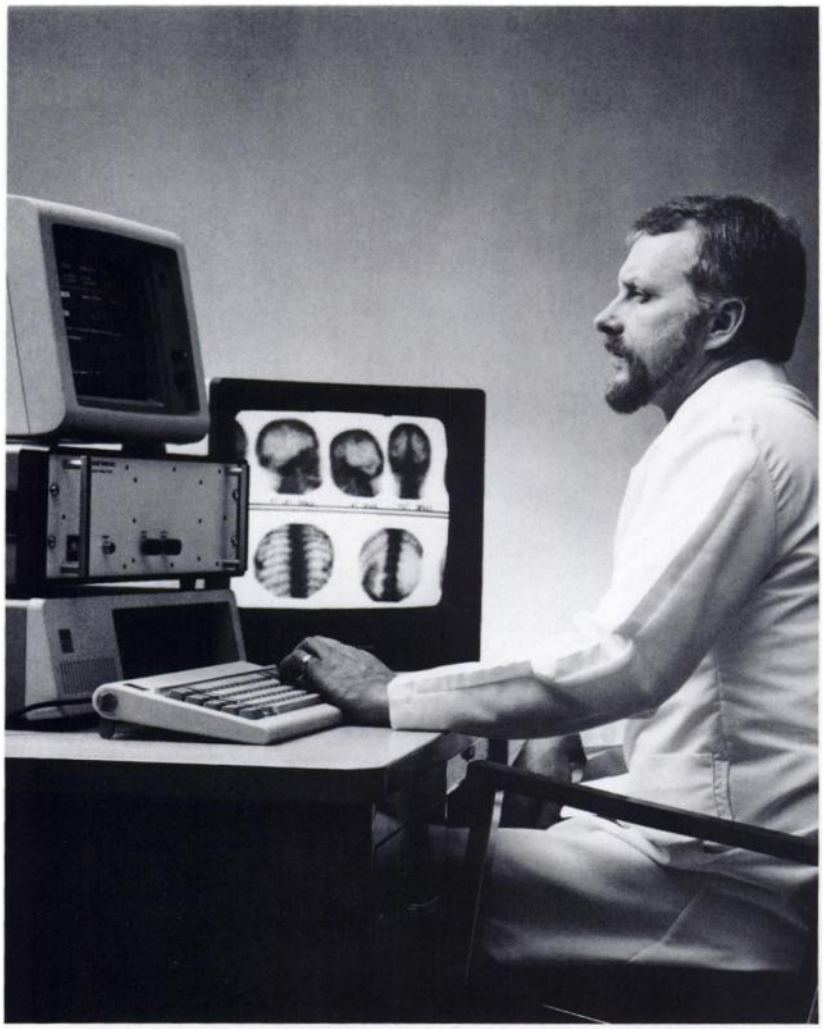

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Raytheon 1985

More than a bold new logo that symbolizes a new approach to the diagnostic imaging marketplace—

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with a prime focus on your current and future needs in nuclear medicine.

A renewed commitment
to nuclear imaging—backed by 16 continuous years of proven performance.

A new level of support
with the resources of one of the world's leading technological, quality-oriented companies.

A new sense of innovation
that stems from attention to *both* advanced technology and the fundamentals critical to nuclear imaging.

The result: All-new systems for nuclear imaging. Systems with more power. More capability. More features than you've ever seen before.

Because, in 1985—if it's new in nuclear imaging, it's from Raytheon.

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MEDICAL EQUIPMENT DIVISION

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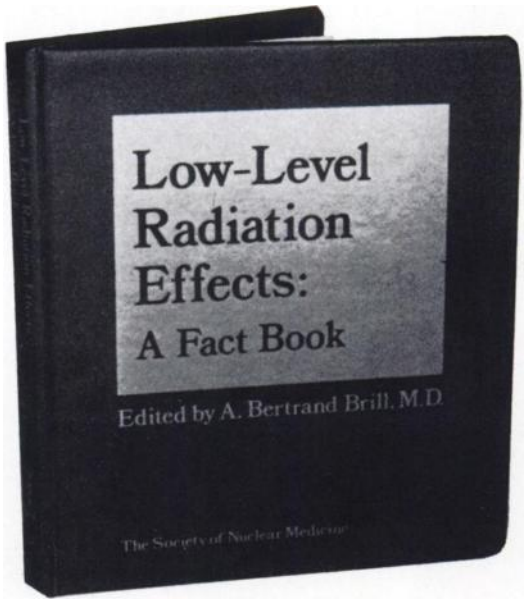
Melrose Park, Illinois 60160

Raytheon: Excitement in nuclear imaging.

Low-Level Radiation Effects:
A Fact Book

Edited by
A. Bertrand Brill, M.D.



This book represents a conscientious attempt to provide an unbiased, up-to-date source of knowledge regarding the potential long- and short-term effects of radiation exposure to humans. Because radiation exposure is an important and controversial topic, so much material is available. This fact book contains a concise reference list for readers wishing to obtain additional, or more detailed, information.

Important new sources of information provided the stimulus for publishing the 1985 updates to keep the fact book current. New reports issued by UNSCEAR, ICRP, and NCRP and references to recent publications of findings among Japanese A-bomb survivors have been added.

Available alone, or included with the original document, the 1985 updates will prove indispensable to a wide range of physicians, scientists, engineers, and technologists involved in the field.

"Only when information issued in a publication such as this becomes widespread and understood can rationality prevail in the public's attitude toward low-level radiation."

— from the Foreword by
Rosalyn Yalow, Ph.D.
Nobel Laureate

Contents

8½ × 11″ looseleaf format: original text, 156 pages, including binder; 1985 updates, 80 pages, without binder.

Prices: $32.00 for original document plus 1985 update package
$10.00 for 1985 update package purchased alone

ORDER NOW!

Postage and handling fees are included in the price. Prepayment required in US funds drawn on US banks only. No foreign funds accepted. For payments made in U.S. dollars, but drawn on a foreign bank, add a bank processing fee of $4.50 for Canadian bank drafts or $40.00 for all other foreign bank drafts. Check or purchase order must accompany all orders. Make checks payable to: **The Society of Nuclear Medicine, 136 Madison Avenue, New York, NY 10016.**
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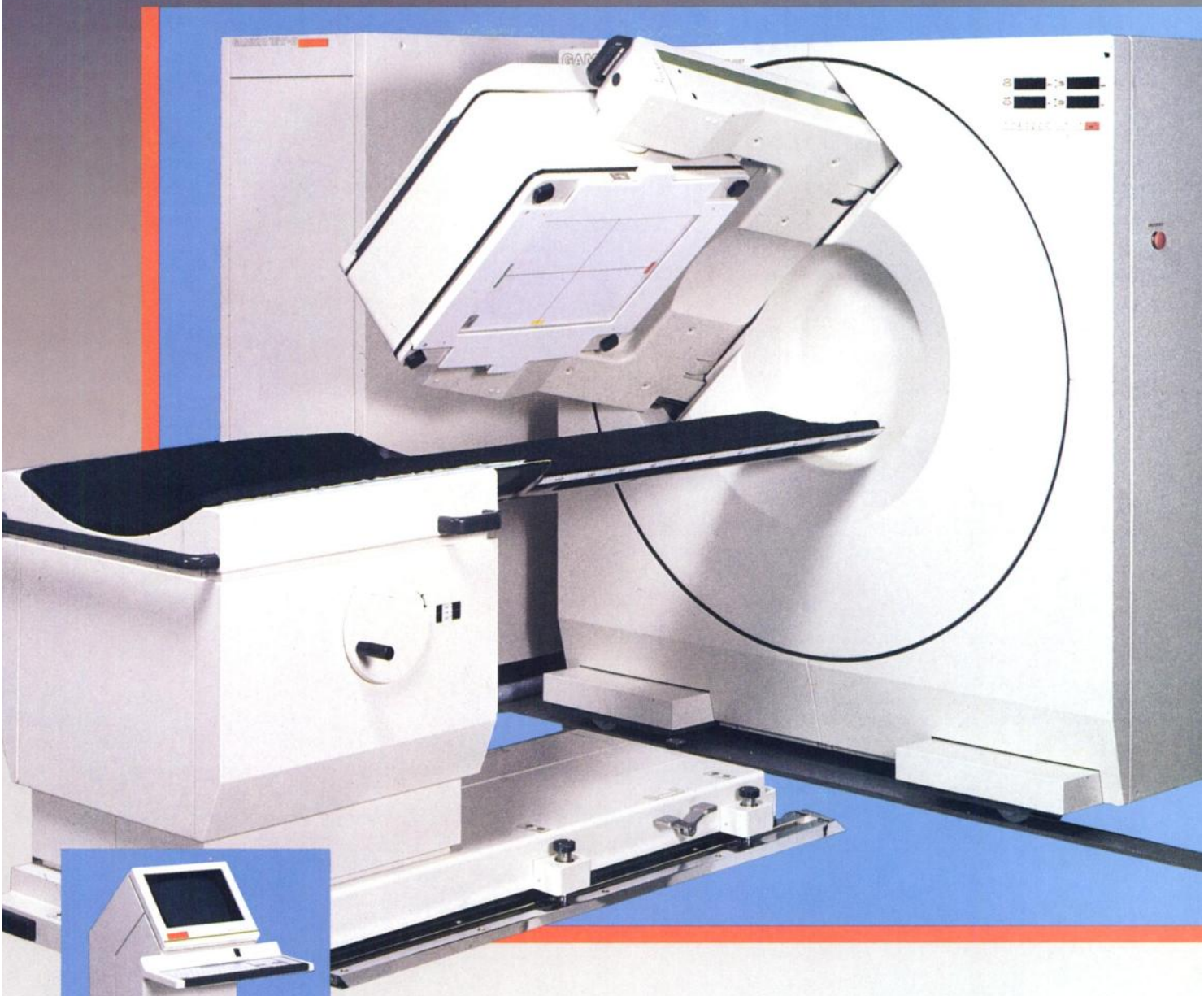
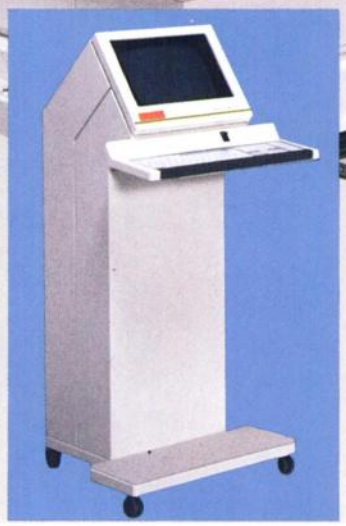
The Raytheon Spectrum 150-DT: Nuclear medicine made faster...more exacting.





Spectrum 150-DT is the first totally integrated, digital nuclear imaging system with *complete* attention to detail throughout. For *complete* diagnostic imaging opportunities.

- Total imaging capability from whole body to precise, multi-angular ECT.
- Ultra large, rectangular, high-resolution field of view.
- Digital imaging up to 512^2 matrix with video output.
- Real-time digital image correction of linearity, energy and uniformity.
- Symmetric and asymmetric window imaging.
- Precision parallel hexagonal collimators.
- Integrated system self-diagnostics.
- Integral carbon fiber table for both ECT and whole body.

Learn more about Spectrum 150-DT.
Contact your dealer. Or call us toll-free at 1-800-323-2213 (in IL, 1-312-865-2600).

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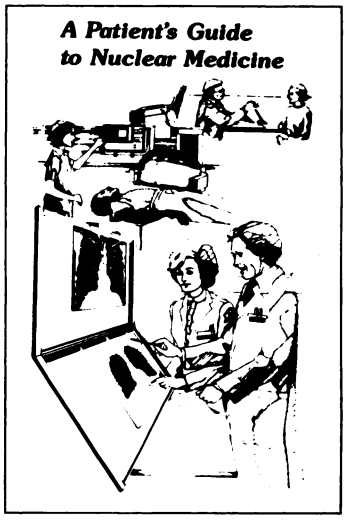
Raytheon: Excitement in nuclear imaging.

Educate your patients with . . .
2 Patient Information Pamphlets

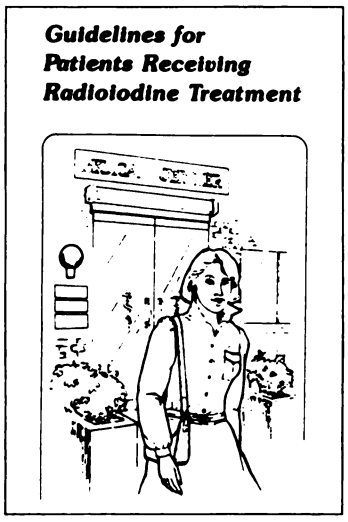
A Patient's Guide to Nuclear Medicine



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 x 8½; in 2 colors;
20¢ per pamphlet; minimum order: 100 copies



Guidelines for Patients Receiving Radioiodine Treatment

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 x 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 of proper health care.

ORDERING INFORMATION

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.*

THE SOCIETY OF NUCLEAR MEDICINE
Book Order Department, 136 Madison Avenue, New York, NY 10016

Circle Reader Service No. 21

Novo BMC-LAB 22a

An advanced diagnostic system for rapid studies, high accuracy and ease-of-use

Meet us at the European Nuclear Medicine Congress Meeting London, England, Booth No. 53 September 3rd-6th, 1985

Dual-photon absorptiometry is the method recommended by the American College of Physicians for study of bone mineral content in patients with suspected or known metabolic bone disease.

The method is no longer in question - only which instrument, and the company that makes it and stands behind it. We'd like you to consider the important differences Novo Diagnostic Systems provides.

Increased Patient Throughput

The Novo BMC-LAB 22a has been optimized for both lumbar spine and femoral neck scanning. With a larger maximum scanning area, four preprogrammed scanning modes and simplified positioning procedures, the BMC-LAB 22a enables:

- More rapid scanning times with the same high accuracy and reproducibility.
- Less patient repositioning.

The result is greater patient throughput for more economic operation and greater patient compliance.

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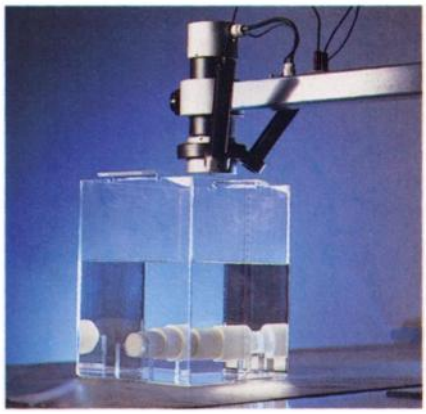
Only the BMC-LAB 22a utilizes a primary hydroxyapatiteequivalent phantom for calibration. Together with automated QC software that provides a continually updated record of instrument performance, Novo instrumentation ensures the highest degree of reproducibility for sequential imaging and comparison with other users' data.

Novo Diagnostic Systems - Meaningful User Support

Novo supports your instrument with:

- NRC licensure assistance (USA).
- On-sight training until you are fully operating.
- Software and computer updating
- Referral-generation programs.



And only Novo can provide the resources of a 60-year-old company with a proven commitment to diagnostic and therapeutic medicine.

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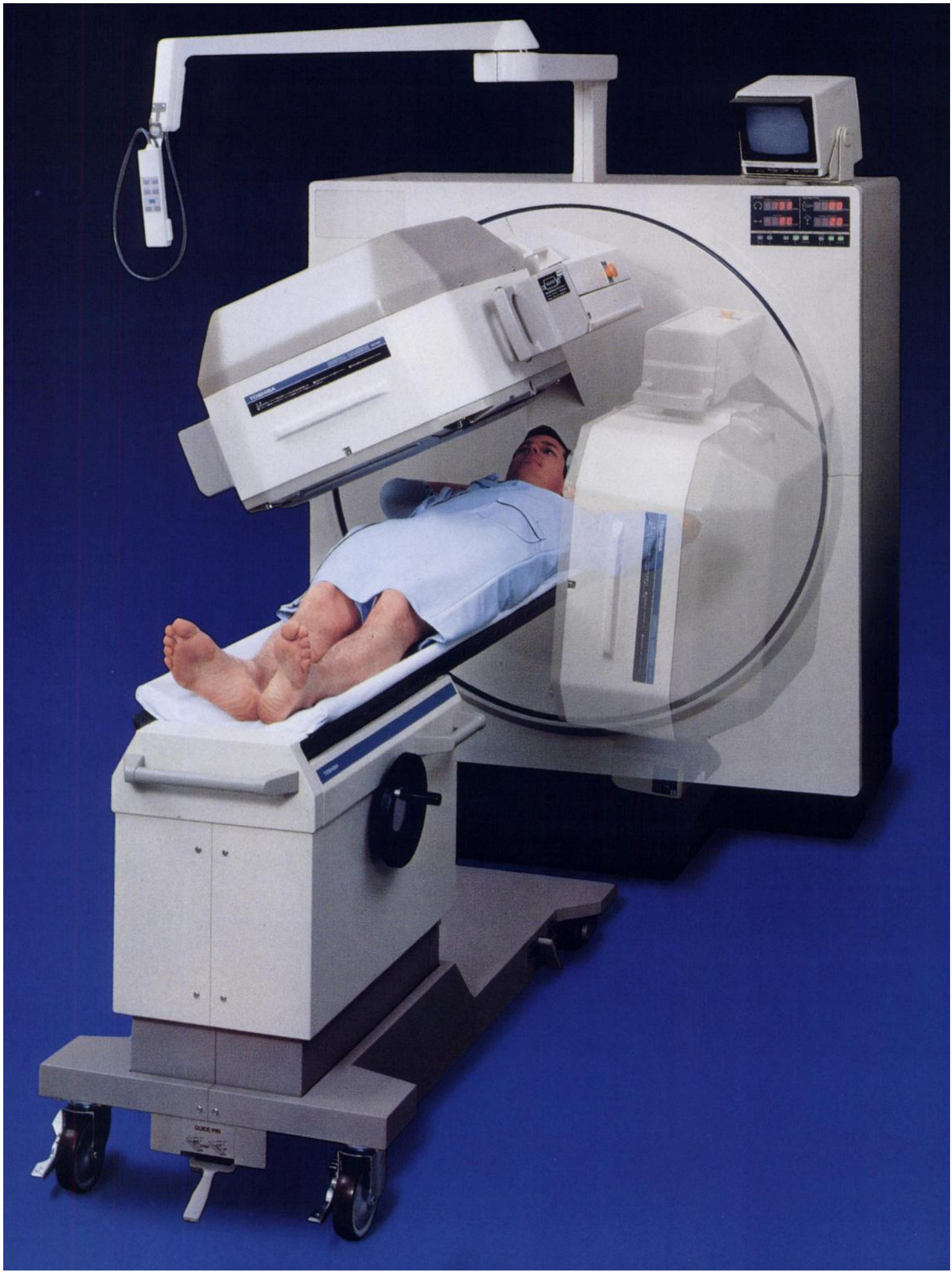
TOSHIBA
GUIDE-PIN

The Art of Toshiba

Nuclear imaging. A stroke of genius.

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A complete revolution of the detector takes thirty seconds, ideal for dynamic ECT.

And, the reconstruction images are displayed in about two seconds per slice by the high speed processing unit. With consistent clarity too. The energy and linearity correction system maintains a uniformity of better than ±5% and ±0.5% linearity. This unparalleled precision is the result of Toshiba's well-known leadership in sophisticated electronics.

Precise hardware engineering of the system allows quick, delicate positioning up, down and around with the touch of a hand. Day after day. Year after year. For reliable longevity is part of the art of Toshiba.

We became accountable for cost-effective quality ages ago. Seventy years in fact. Which means we've also accounted for obsolescence. We believe in enhancement rather than replacement, a view now commonly shared by the entire medical profession. Which shows you why so many radiologists and hospital administrators are taking a closer look at Toshiba.

We'd like you to take a look too. Not only at our jumbo model. But the GCA-501S and GCA-601E digital LFOV cameras. You'll find precisely the right system. For now. And for a long time to come. Because when you invest in Toshiba, you're acquiring the value inherent in a true work of art.

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In Touch with Tomorrow

TOSHIBA

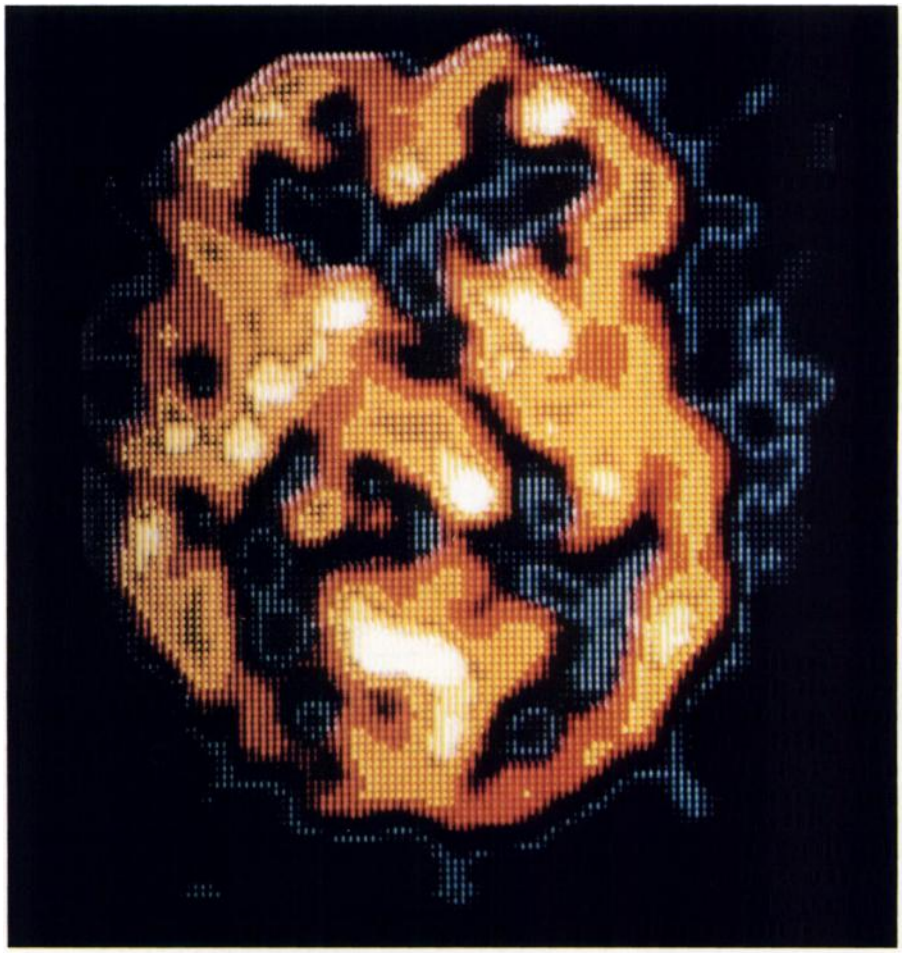
GLOBAL IMAGING SPECIALISTS

Circle Reader Service No. 23

Novo SPECT Systems

Meet us at the European Nuclear Medicine Congress Meeting London, England, Booth No. 53 September 3rd-6th, 1985

High sensitivity, high resolution brain imaging for research and clinical use.



Early assessment of suspected neurologic disorders continues to pose important clinical challenges – challenges largely unmet by the restricted availability of positron-emission tomography (PET) and the acknowledged limitations of transmission computed tomography and SPECT as performed by rotating gamma-cameras. Noninvasive single-photon emission computed tomography (SPECT) can provide highly sensitive, early diagnostic information useful in the management of the hundreds of thousands of patients who each year develop central nervous system disease.

Novo enters SPECT

Novo's entry into SPECT imaging means that clinicians at most institutions will be able to routinely obtain data on cerebral function and metabolism thus far only possible with PET imaging – but without the high costs and procedural difficulties associated with PET. Utilizing newly available iodine-123 monoamine tracers that cross the blood-brain barrier and are taken up by brain tissue, Novo SPECT can acquire multiple sequential high sensitivity and high resolution tomographic images of regional brain perfusion.

Proven applications

Already, many studies have documented the advantages of SPECT brain imaging in a number of clinical settings:
In stroke: SPECT imaging may have its greatest utility in the early demonstration of regional ischemia or hyperemia, and the distinction between ischemic and infarcted tissue, for which conventional brain imaging and CT are often inadequate.
In tumor localization: Tumors can be accurately located in three dimensions as areas of increased or decreased uptake.
In epilepsy: Quantitative SPECT studies demonstrate epileptogenic foci as areas of increased uptake. SPECT imaging permits localization of even deep foci inaccessible to EEG.
In therapeutic monitoring: SPECT imaging enables clinicians to assess normalization following medical or surgical therapy.

Novo SPECT System

A sophisticated, dedicated multidetector diagnostic instrument for brain imaging, with high sensitivity and excellent spatial resolution.

For further information please contact:

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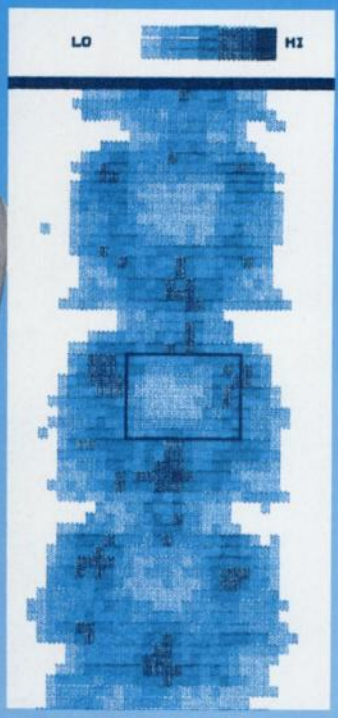

- ***IBM-PC-XT* COMPUTER WITH COLOR GRAPHICS DISPLAY*** *plus independent microprocessor to operate the scanner simultaneously while you analyze another patient's data on the IBM-PC. IBM-AT and color printer are also available.*
- ***WHOLE BODY SCANNING TABLE*** *capable of* ***lumbar spine and femoral neck*** *measurements without moving the patient, plus optional* ***Whole Body Calcium*** *software.*
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- ***UNIQUE LOCAL REGION ANALYSIS MODE*** *permits measurement of intra-vertebral bone structure or any portion of the scanned data,* ***even a kidney stone.***
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- ***ULTRASAFE RADIOISOTOPE CAPSULE*** *design features a built-in shutter to insure the maximum safety during source handling.*

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The Norland 2780 single beam densitometer, the most popular system world wide, *is now available with advanced software to measure the "5 mm site" of the distal radius recently characterized by Dr. Roy Talmage and colleagues at the University of North Carolina at Chapel Hill, N.C.*

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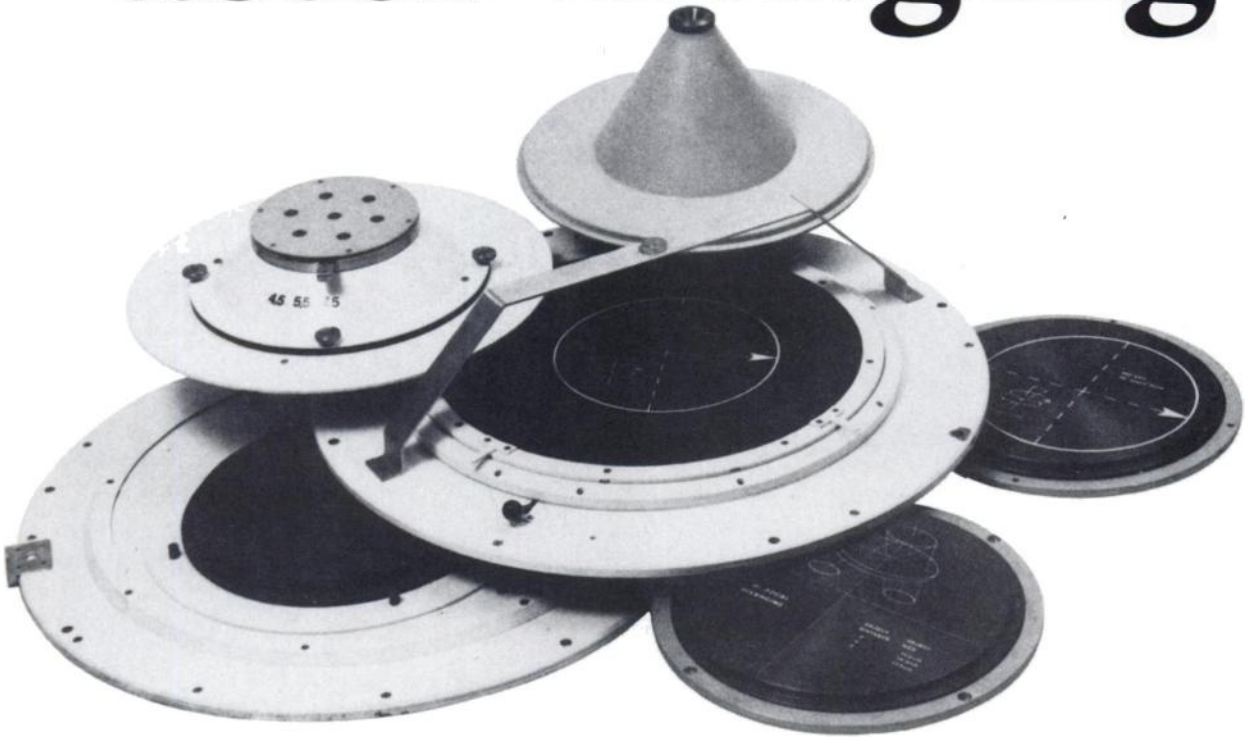
Faster Imaging



For Less Money.

Depend on EDC... the leader in innovative, state-of-the-art collimator design.

Collimator specialization makes for a better product.

That's why so many leading nuclear medicine departments rely on collimators from EDC for unsurpassed quality and value.

Get superior imaging capabilities while handling greater patient loads, at less cost.

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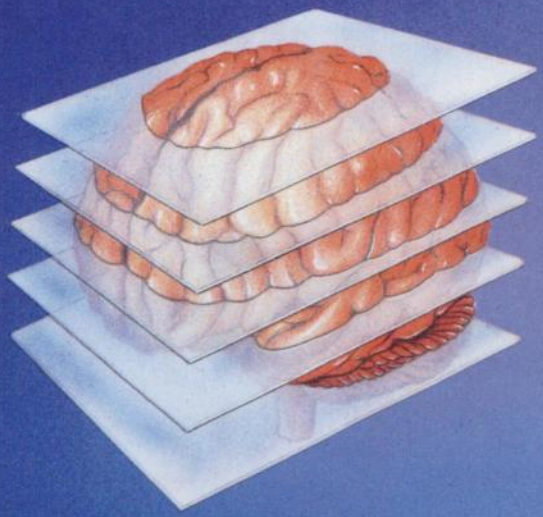

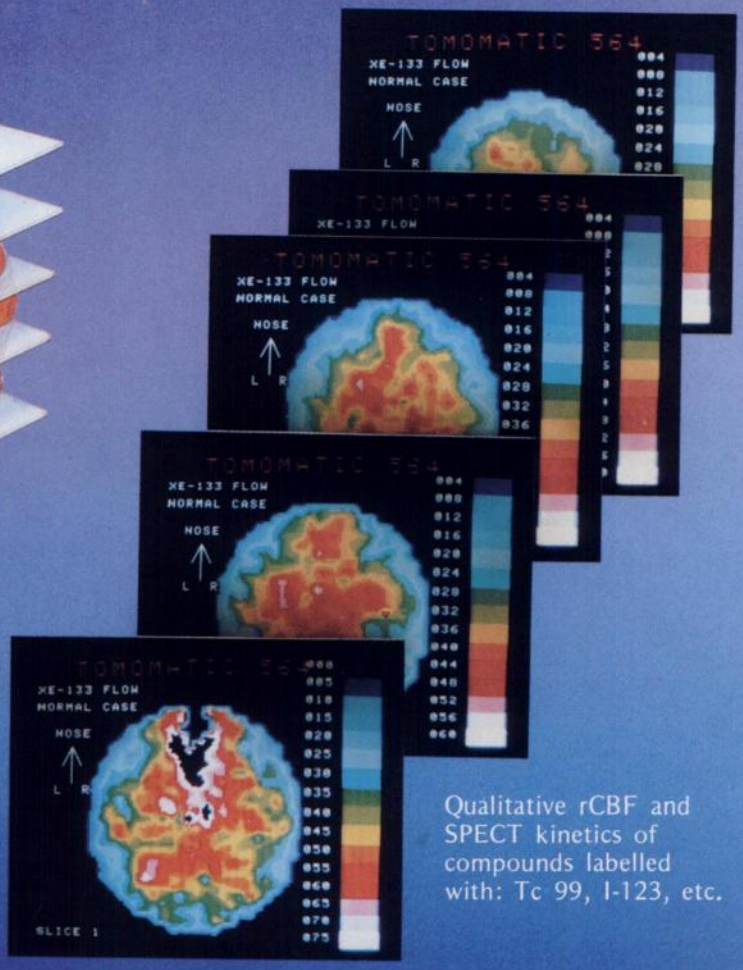

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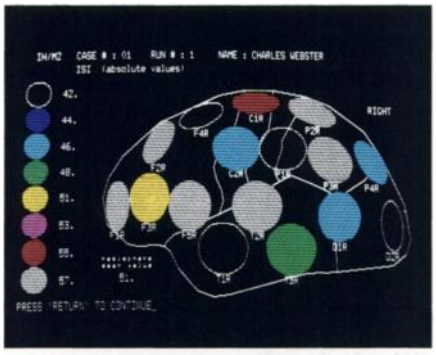

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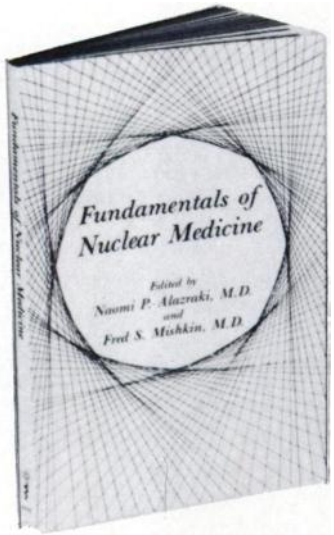

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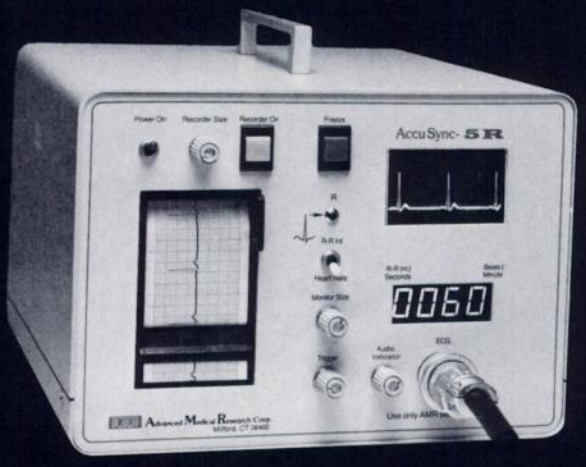

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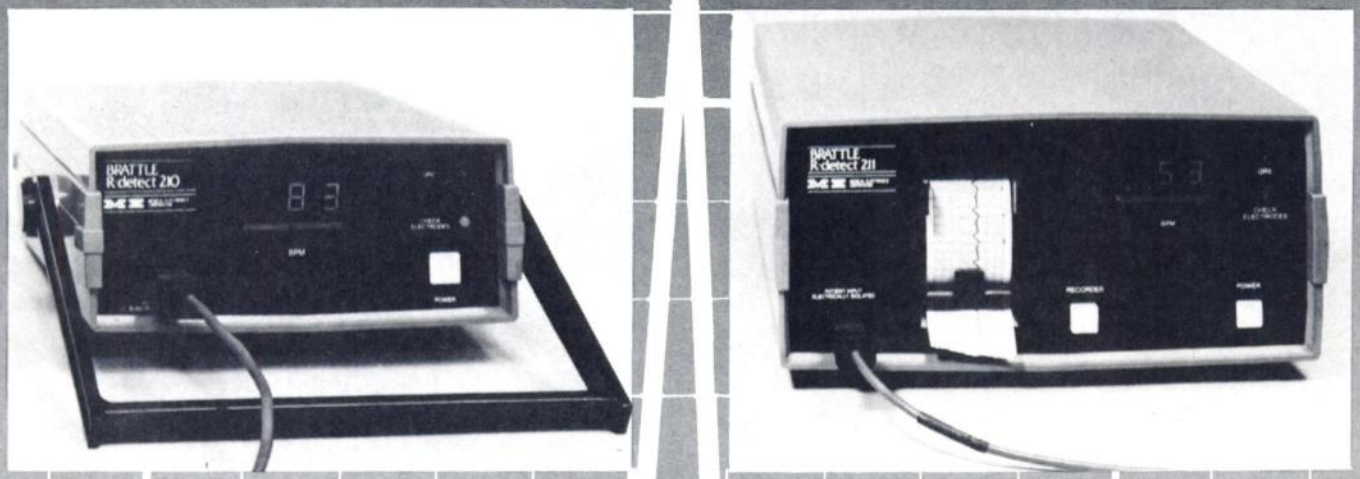

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ADELAIDE CHILDREN'S HOSPITAL INC., North Adelaide, South Australia 5006. Head of Nuclear Medicine. Applications for this position are invited from trained nuclear medicine physicians with acceptable postgraudate qualifications. The position is available from late 1985. The ACH is the main pediatric teaching hospital in SA, has 215 beds, and is affiliated with the University of Adelaide. The Department is well equipped and performs 1,400 studies each year. The appointee is likely to receive a liaison with the Royal Adelaide (Adult) Hospital and academic affiliation with the University. Salary range is A$44,421 to A$59,459 pa and conditions include 5 weeks annual leave and 12 days sick leave per year. For further information contact: Dr. J. Savage who will be in London at the European N.M. Congress from September 3rd–6th or at the Hospital (618) 267-4999. Applications in writing close with the Director of Medical Services on September 30, 1985. EOE.

Scientist

NUCLEAR MEDICINE PHYSICIST. We are recruiting for a physicist to supervise nuclear medicine laboratory at Yale-New Haven Hospital. The laboratory includes eight imaging instruments and four computers. Approximately 10,000 examinations are performed each year. Major responsibilities include supervision of technology training program, instruction of residents, consultation with physician staff regarding clinical and research studies, supervision of clinical computer applications, supervision of quality control and advise regarding equipment purchase and maintenance. Excellent opportunities exist for collaboration with both clinicians and other scientists in the Department of Diagnostic Imaging. If you are interested, please send a copy of your curriculum vitae by September 30, 1985 to: Paul B. Hoffer, MD, Department of Diagnostic Imaging, Yale University School of Medicine, 333 Cedar St., New Haven, CT 06510. Yale University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority groups are encouraged.

RESEARCH PHYSICIST. The Department of Radiology, Hospital of the University of Pennsylvania, invites applications for two research positions in medical imaging instrumentation. The successful applicants should have a PhD or equivalent and at least 3 years experience in nuclear physics and/or nuclear medicine research. They will join a group of investigators in developing advanced gamma-ray and position imaging instruments for nuclear medicine. Submit CV to: Gerd Muehllehner, PhD, Department of Radiology, Hospital of the University of Pennsylvania, 3400 Spruce St., Philadelphia, PA 19104. The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Qualified minority and women applicants are encouraged to apply.

Resident

STANFORD UNIVERSITY SCHOOL OF MEDICINE, Nuclear Medicine Residency Program. Resident positions are available beginning July 1, 1986, for a 2-year program at Stanford University Medical Center and affiliated Veterans' Adm. Medical Center. Patients from the Children's Hospital at Stanford are also studied or treated at the University Hospital. The program, approved by the AMA and satisfying the requirements of the American Board of Nuclear Medicine, includes didactic instruction in radiologic mathematics and physics, radiation safety, dosimetry, electronics, and nuclear medicine instrumentation. A major portion provides practical experience in dynamic and static imaging, computer-assisted manipulation, radioimmunoassay methodology, other in vitro test procedures, and radiopharmacy as part of an integrated patient care program, both diagnostic and therapeutic. Prerequisite for entry into program: 2 years prior training in AMA-approved program in internal medicine, radiology, pathology, or pediatrics. Requests for further information (include CV and reference list) should be directed to: I. Ross McDougall, MB, ChB, PhD, Professor of Radiology and Medicine Stanford University Medical Center, Stanford, CA 94305. Stanford is an Equal Opportunity Affirmative Action Employer.

POSTDOCTORAL FELLOW, University of Michigan. Unexpected opening for postdoctoral fellow. Position open October 1, 1985. Laboratory involved in developing, evaluating in vitro and in vivo monoclonal antibodies for purposes of scintigraphic tumor diagnosis and therapy. PhD in immunology, molecular biology, or chemistry desirable. Salary is in excess of $20K/yr. Send CV with letter of application and 3 references to: Richard L. Wahl, MD, Division of Nuclear Medicine, Box 21, W5514, University of Michigan Medical Center, Ann Arbor, MI 48109-10. A Non-Discriminatory, Affirmative Action Employer.

Technologist

NUCLEAR MEDICINE TECHNOLOGIST. Registered or registry eligible technologist to work in private office. Special emphasis on nuclear cardiology. Salary negotiable. Send resume to: Box 902, Society of Nuclear Medicine, 136 Madison Ave., 8th fl., New York, NY 10016. EOE.

Positions Wanted

Technologist

THE UNIVERSITY OF ALABAMA at Birmingham announces the graduation of its 1984–85 class of Baccalaureate nuclear medicine technology students in September, 1985. For information please contact: Nuclear Medicine Technology Program, Rm 214 RTI Bldg., Birmingham, AL 35294.

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO SCHOOL OF MEDICINE

A Nuclear Medicine resident position is available beginning July 1, 1986 for a 2-year program at San Francisco General Hospital Medical Center.

The program, approved by the ACGME and satisfying the requirements of the American Board of Nuclear Medicine, includes didactic instruction in radiological physics and mathematics, electronics, radiation safety, dosimetry, and nuclear medicine instrumentation.

Practical experience is provided in performance and interpretation of static and dynamic imaging, computer techniques, radioimmunoassay and other in vitro tests, radiopharmacy, and therapy with radionuclides. Residents participate fully in the integration of these modalities into patient care.

Prerequisite: Prior training in a ACGME-approved program in internal medicine, pathology, pediatrics, or radiology.

The University of California is an Equal Opportunity, Affirmative Action Employer.

Requests for further information (include CV) should be directed to:

Myron Pollycove, MD
Chief, Nuclear Medicine Department
San Francisco General Hospital Medical Center
San Francisco, CA 94110

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PHYSICIAN IN NUCLEAR MEDICINE

Applications are invited for the above post. The appointee must hold the F.R.A.C.P. or its equivalent and be eligible for membership of the Australian and New Zealand Association of Physicians in Nuclear Medicine.

The Department of Nuclear Medicine has a full range of diagnostic equipment, with 4 gamma cameras, dedicated Nuclear Medicine computers, in vivo and in vitro counting equipment. Radioisotope synovectomy and treatment of thyroid diseases are also undertaken by Physicians in the department.

Remuneration will be within the range of $49,023-$65,308 per annum, according to qualifications and experience. Conditions of service are as detailed in the document "Western Australia Metropolitan Teaching Hospitals Salaries and Conditions of Service Agreement, 1979 — Clinical Staffs".

Written applications should include personal particulars, details of qualifications and experience, present and previous appointments, names and addresses of three professional referees, and a list of publications, and should be addressed to the Medical Superintendent, Sir Charles Gairdner Hospital, Verdun Street, Nedlands 6009, Western Australia.

A memorandum of information is available on request from the **Medical Personnel Officer, telephone (09) 380 1122, ext. 2444.** Further information may also be obtained from **Dr. F. Lovegrove, Head of Department of Nuclear Medicine, Telephone (09) 389 3333.**

Applications close on Friday 27th September, 1985.

HEPATOBILIARY SYMPOSIUM:

NOVEMBER 7 AND 8, 1985
PORTLAND, OREGON

A multi-disciplinary symposium presented by Portland VA Medical Center and School of Medicine of the Oregon Health Sciences University to acquaint nuclear medicine physicians, gastroenterologists, radiologists, internists, surgeons, and allied health professionals with recent developments in the diagnosis and therapy of hepatobiliary diseases. New developments, such as biliary monometry, interventional radiologic techniques, planar and SPECT scintigraphy, ultrasonography and RIA tests for hepatitis will be presented.

Course Directors: G.T. Krishnamurthy, MD and Paul H. Brown, PhD

Guest Faculty: Naomi Alazraki, MD, Salt Lake City, Utah; H. Joachim Burhenne, MD, Vancouver BC, Canada; and Jack A. Vennes, MD, Minneapolis, MN

Local Faculty: Ruza Antonovic, MD; Paul H. Brown, PhD; Susan Gilbert, CNMT; Jerry V. Glowniak, MD; Emmet B. Keeffe, MD; G.T. Krishnamurthy, MD; David A. Lieberman, MD; Anna Sasaki, MD; Truman Sasaki, MD; H. David Spect, MD; Frederick E. Turner, RPh, MS; and Eileen A. Westcott, CNMT

For more information contact (503) 222-9221, ext. 2520.

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INTERNATIONAL SYMPOSIUM ON RECENT ADVANCES IN MEDICAL IMAGING AND NUCLEAR MEDICINE

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Co-Sponsors in India: Institute of Nuclear Medicine and Allied Sciences, Indian Radiological and Imaging Association, Indian College of Radiology, National Academy of Medical Sciences, and The Society of Nuclear Medicine.

HIGHLIGHTS OF THE SCIENTIFIC PROGRAM

INTERNATIONAL SYMPOSIUM ON RADIOPHARMACEUTICALS AND SOCIETY OF NUCLEAR MEDICINE, INDIA, 17th ANNUAL MEETING IN BANGALORE JAN. 1-5

The primary emphasis of the Symposium will be on correlative imaging and all aspects of diagnostic imaging, which will include talks on theory, clinical applications, equipment purchase, and specifications in the area of magnetic resonance, computerized tomography, digital radiography and nuclear medicine. The topics will include social, economic, and cost analysis of the entire field of diagnostic imaging. Time has been set aside for proffered papers at the meeting.

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FOR FURTHER INFORMATION PLEASE CONTACT:

REGISTRATION & ABSTRACT FORMS:
Program Chairman: Vijay M. Varna, MD
Department of Radiology, George Washington University
901 23rd Street, N.W., Washington, D.C 20037
TELEPHONE: 202-676-3814
DEADLINE: Extended to October 31, 1985

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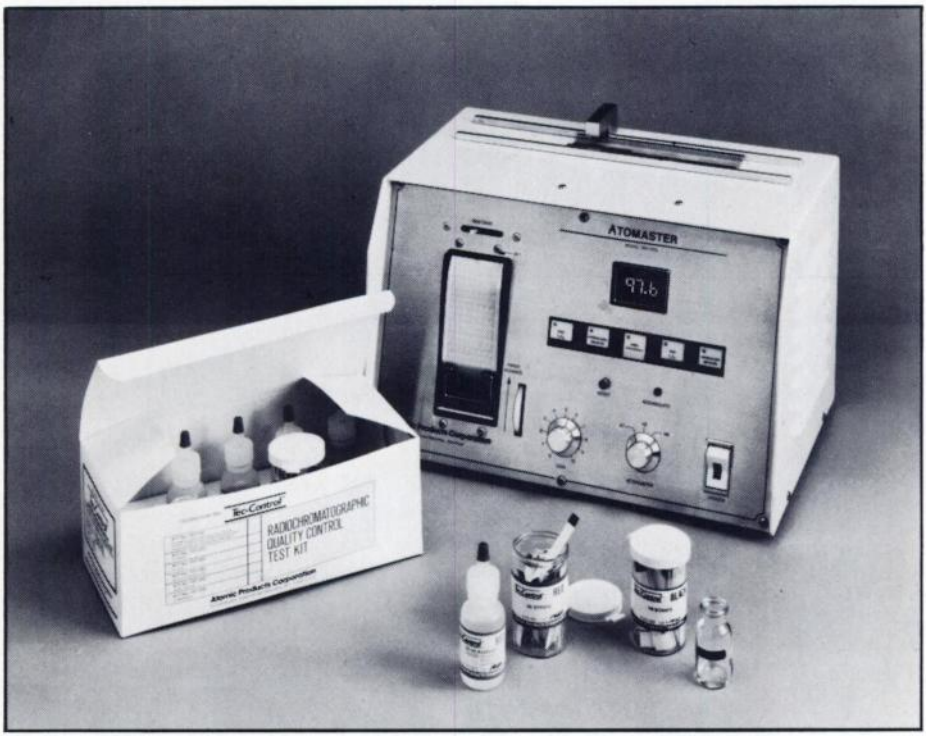

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