

You can see the difference.

2 ml Ampul

AGGREGATIN
LUNGACIN

intravenous injection
Indicated Adult Dosage

Insert for

General Use

more

Lungaggregate™ Reagent [Aggregated Albumin (Human)] has eight important advantages for pulmonary scintigraphy.

The first one is obvious:

1. Particles Presuspended in Solution.

Lungaggregate Reagent is the only Tc 99m-labeled MAA agent containing albumin aggregate particles that are already suspended in an aqueous solution. There is less chance for radiation exposure to the user since no visual inspection is required after radioactive labeling.

2. Soft Particles for Rapid Lung Clearance.

The uniform-size particles in Lungaggregate Reagent have a biological half-time of 4.77 hours.

3. Quick, Easy Preparation.

No thawing, reconstitution of lyophilized particles, or ultrasonic agitation are required.

4. Conveniently Stable.

Lungaggregate Reagent, labeled with Tc 99m, may be used up to 24 hours after preparation when stored as directed. A supply of Tc 99m-Lungaggregate Reagent is therefore available when emergency studies are required.

5. Multi-Dose Economy.

Each vial can be used to give several patient doses since Lungaggregate Reagent contains a preservative.

6. Imaging Excellence.

Tc 99m is the radionuclide of choice for scintigraphy. With a 4 mCi dose of Tc 99m-Lungaggregate Reagent, up to 500,000 counts can be

obtained in two to three minutes on a gamma camera.

7. High Lung/Liver Activity Ratio.

The ratio of lung to liver-and-spleen activity is over 10/1.

8. Patient Safety.

No adverse reactions have been reported. See the brief summary section below.

For a monograph summarizing clinical experience with Lungaggregate Reagent, or for additional information, call Medi-Physics toll free: (800) 772-2446 in California or (800) 227-0483 outside California.

Brief Summary

(For full product information including method of preparation and administration procedure, see package insert.)

Description: Lungaggregate™ Reagent is a sterile, apyrogenic, buffered, preserved, aqueous preparation of aggregated albumin from human plasma.

Indications: For imaging regional pulmonary perfusion in the presence of clinically suspected regional ischemia.

Contraindications: This agent is contraindicated (1) in the presence of large right-to-left cardiovascular shunts which could allow direct entry of macroaggregates into systemic circulation; (2) in patients with cyanosis or evidence of severely restricted pulmonary blood flow, as in pulmonary hypertension; (3) in pregnant or lactating women and in patients

under 18 years, unless expected benefits outweigh risks involved.

Warnings: Whenever protein-containing materials such as Tc 99m-labeled Lungaggregate Reagent are used in man, hypersensitivity reactions are possible. Have epinephrine, antihistamines, and corticosteroid agents available.

Precautions: Note—Follow aseptic techniques in preparing this agent to minimize the possibility of contamination with microorganisms. Take steps to minimize exposure to patient and attending personnel, including use of minimum dosage to achieve useful diagnostic data. Make injection slowly. Use an 18-21 gauge needle. After withdrawal from the vial the material should be administered promptly; also avoid aspirating blood and tissue fluids into the syringe.

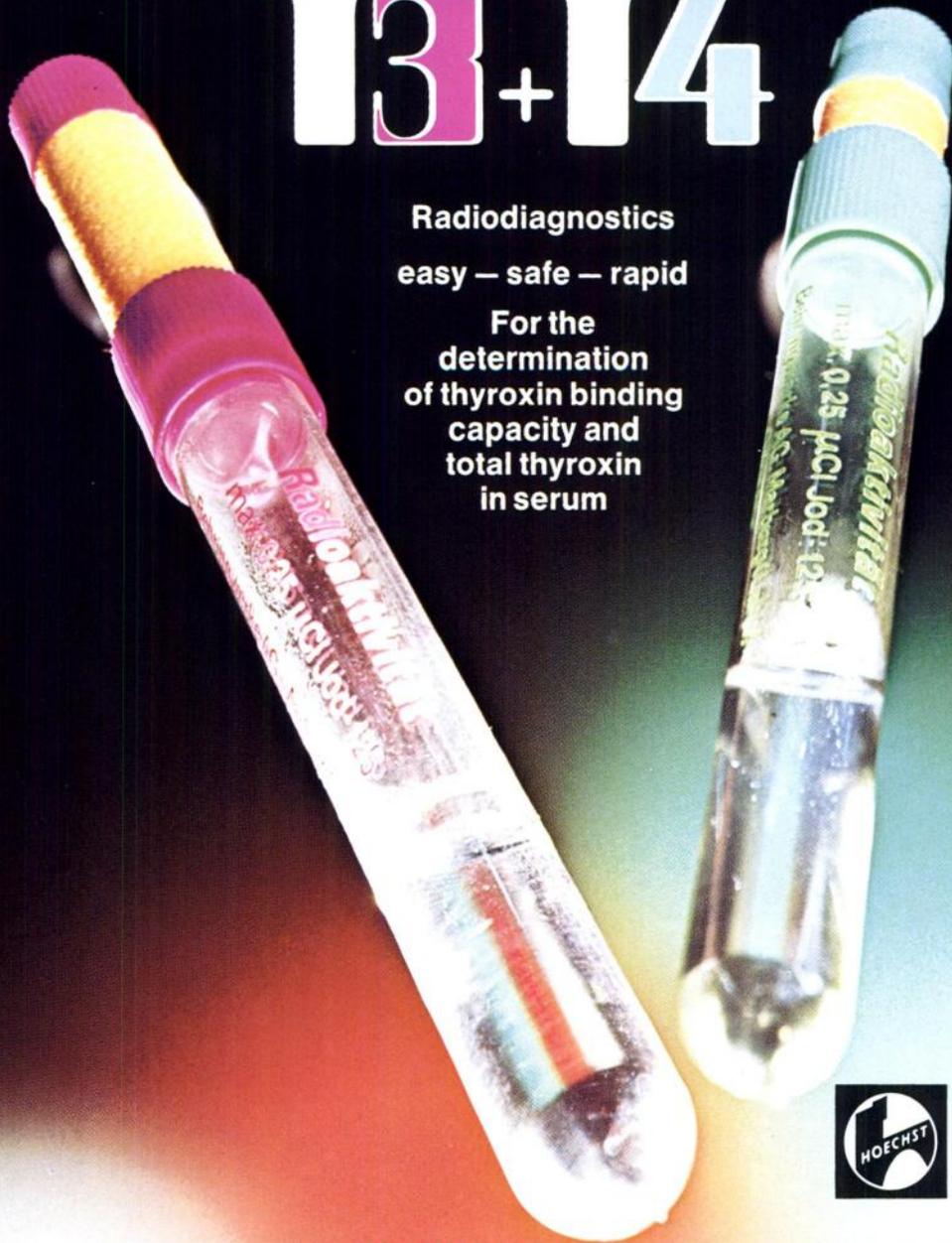
Adverse reactions: None reported in over 4,000 patient studies.



medi+physics

Ultragnost[®]

T3+T4



Radiodiagnostics
easy – safe – rapid

For the
determination
of thyroxin binding
capacity and
total thyroxin
in serum



**Two
time-saving tests
for your lab.:
pipette once,
incubate for one hour,
automatic
phase separation,
measure.**

Contents T3 kit: 12 calibrating tubes with 3.5 ml thybon[®] (J-125)-solution each • total activity: 3 μ Ci J-125 • preservative: 0,02% sodium azide • 12 adsorption tubes • 1 ml standard serum of defined TBG capacity •

Storage: store protected from light in the refrigerator at +4° to +6° C
Stability: 8 weeks at proper storage. The expiry date is indicated on the package.

Order No.: J 5113
for T3 1 package 12 tests

Contents T4 kit: 12 calibrating tubes with 3.3 ml TBG-T4- (J-125)- solution each • total activity: 1 μ Ci J-125 • preservative: 0,02% sodium azide • 12 adsorption tubes • 1 standard serum of defined T4-concentration •

Order No.: J 5114
for T4 1 package 12 tests

HOECHST AG · 6230 Frankfurt (Main) 80 · Behring Department

Don't buy a scintillation camera until you check it for T.S.P.

T. S. P. Total System Performance. *That's* what you should look for in any scintillation camera you consider. Because you can't rely on just one characteristic for optimum results. It takes the *best overall* combination of characteristics such as system and energy resolution, uniformity, linearity, and count rate, to produce the *best overall* results, consistently and efficiently.

That's T. S. P.
And that's what the Raytheon Cameray



has more of
than any other
camera.

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Avenue, Burlington, Mass 01803
(617) 272-7270. T. S. P. It's the
best reason to choose Cameray.

RAYTHEON

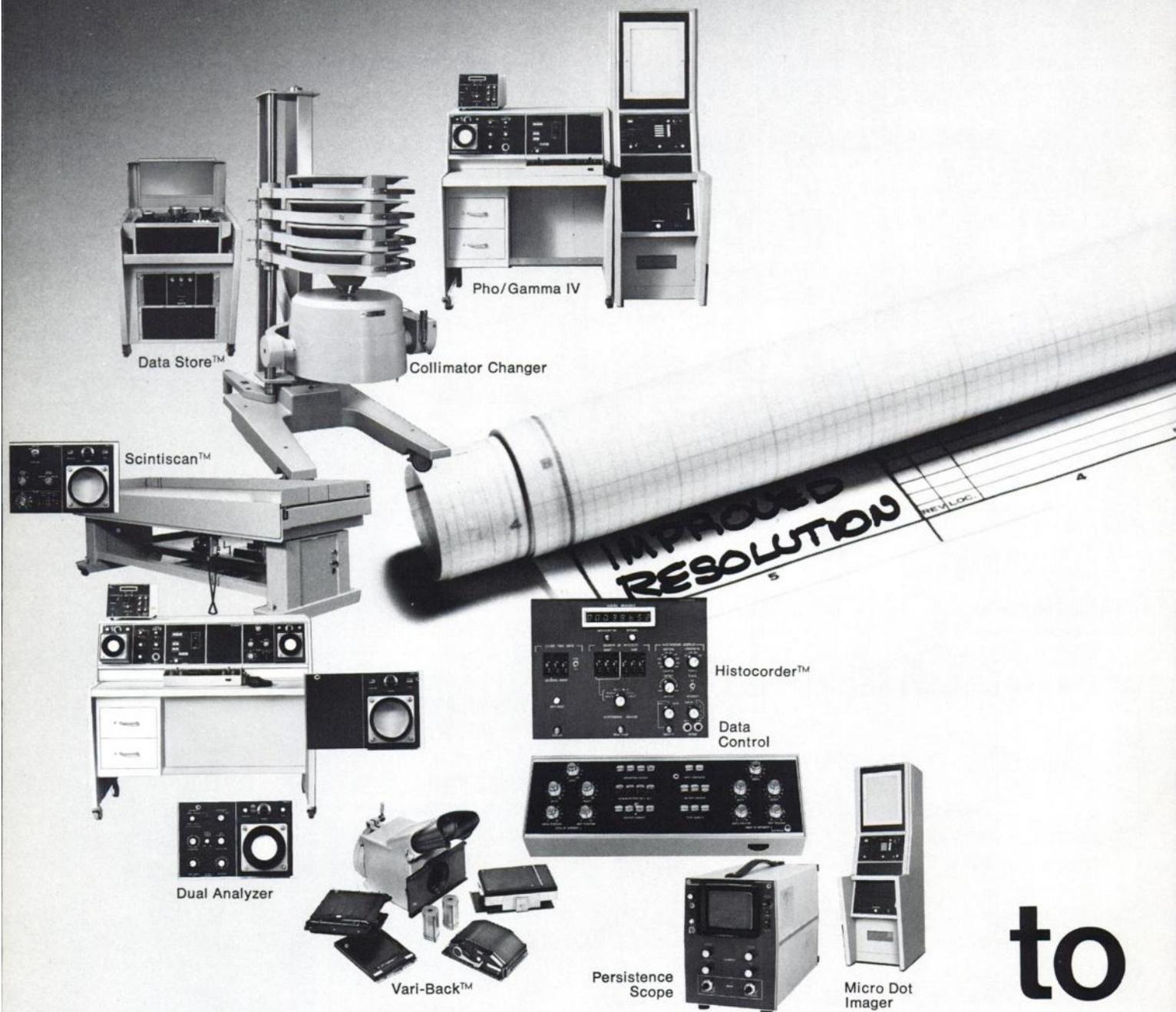
camera.
You can con-
vince yourself that
Cameray is the be-
st gamma camera for
your facility. Just come
to the T. S. P. factory
for price and delivery
information on all
cameras available

A large blue hexagonal graphic with a white border, centered on the page. Inside the hexagon, the text "New England Nuclear Radiopharmaceuticals" is written in white, bold, sans-serif font.

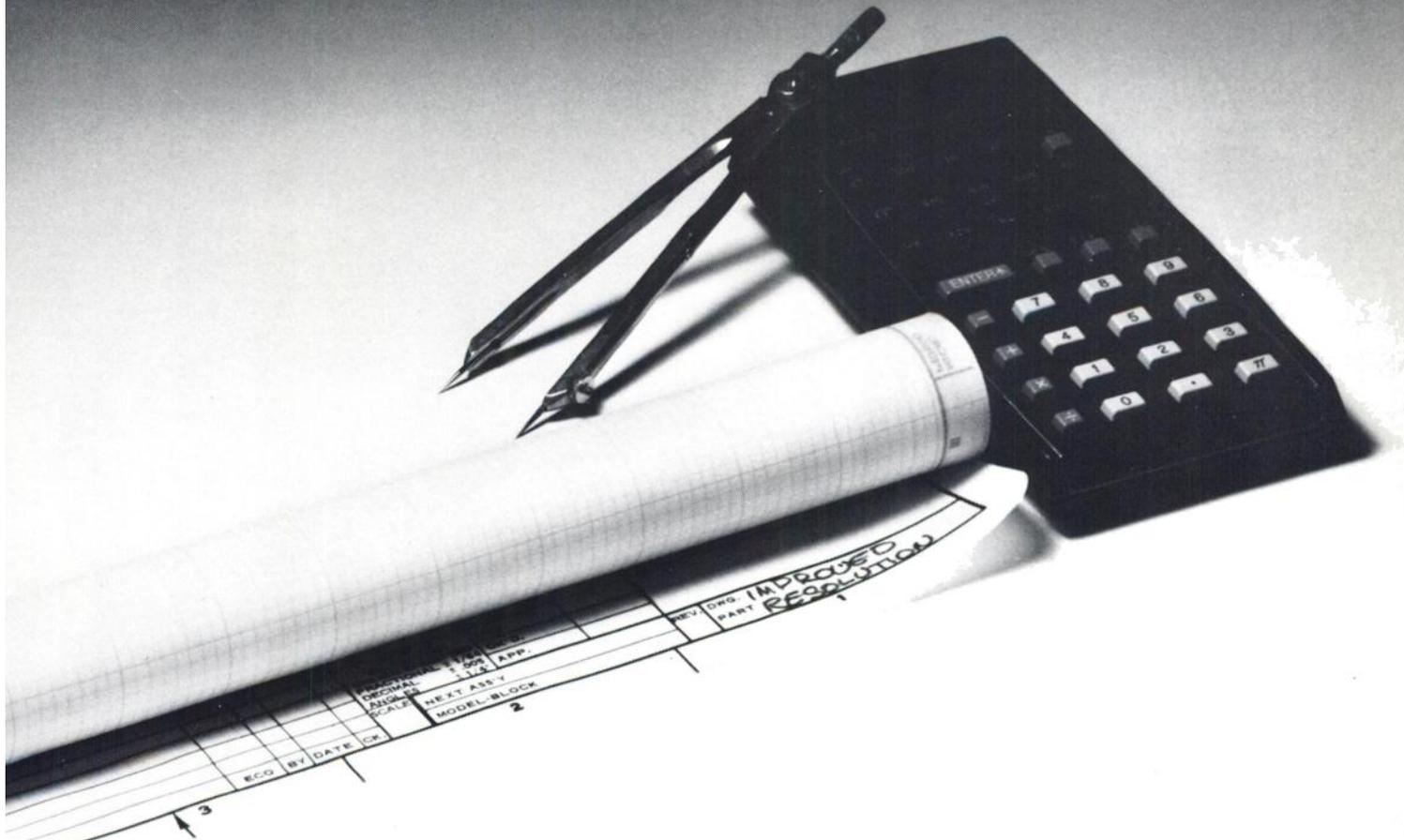
New England Nuclear Radiopharmaceuticals

Call (617) 667-9531 for technical consultation or product information.

Pho/Gamma[®] IV evolution...



to



Even as you read this, evolution of the Pho/Gamma IV Scintillation Camera system goes on. Our product development engineers are in daily contact with working laboratories nationwide. And the Pho/Gamma IV is being continuously improved to meet your growing, changing needs.

One result of this effort is Pho/Gamma IV's versatility. Over the years, accessory adaptability has been expanded so that you can now build *whole systems* around the Pho/Gamma IV, with ease unmatched by any other manufacturer. You can integrate Pho/Gamma IV with units such as the Micro Dot Imager, a wide range of collimators, photographic readout equipment, display and data

recording systems, and much more. Pho/Gamma IV is adaptable to new radioisotopes and procedures as you need them.

This evolutionary process is backed by extensive clinical verification. For example, the Pho/Gamma IV was tested for more than twelve system-months, in two major hospitals, before it was released to the profession. When we release improvements, you can be sure they're *clinically significant*.

Naturally, our continuing improvement of instruments is augmented by continuing improvement of service. As a Searle Instrument custodian, you have the world's largest nuclear

service force at your beck and call. Trained, knowledgeable service is just minutes away.

So if you're considering a scintillation camera today, next month or next year, consider the Pho/Gamma IV system. It's continually refined, engineered, tested and manufactured with *your* clinical needs in mind. Your Searle Representative will give you the latest details.

SEARLE

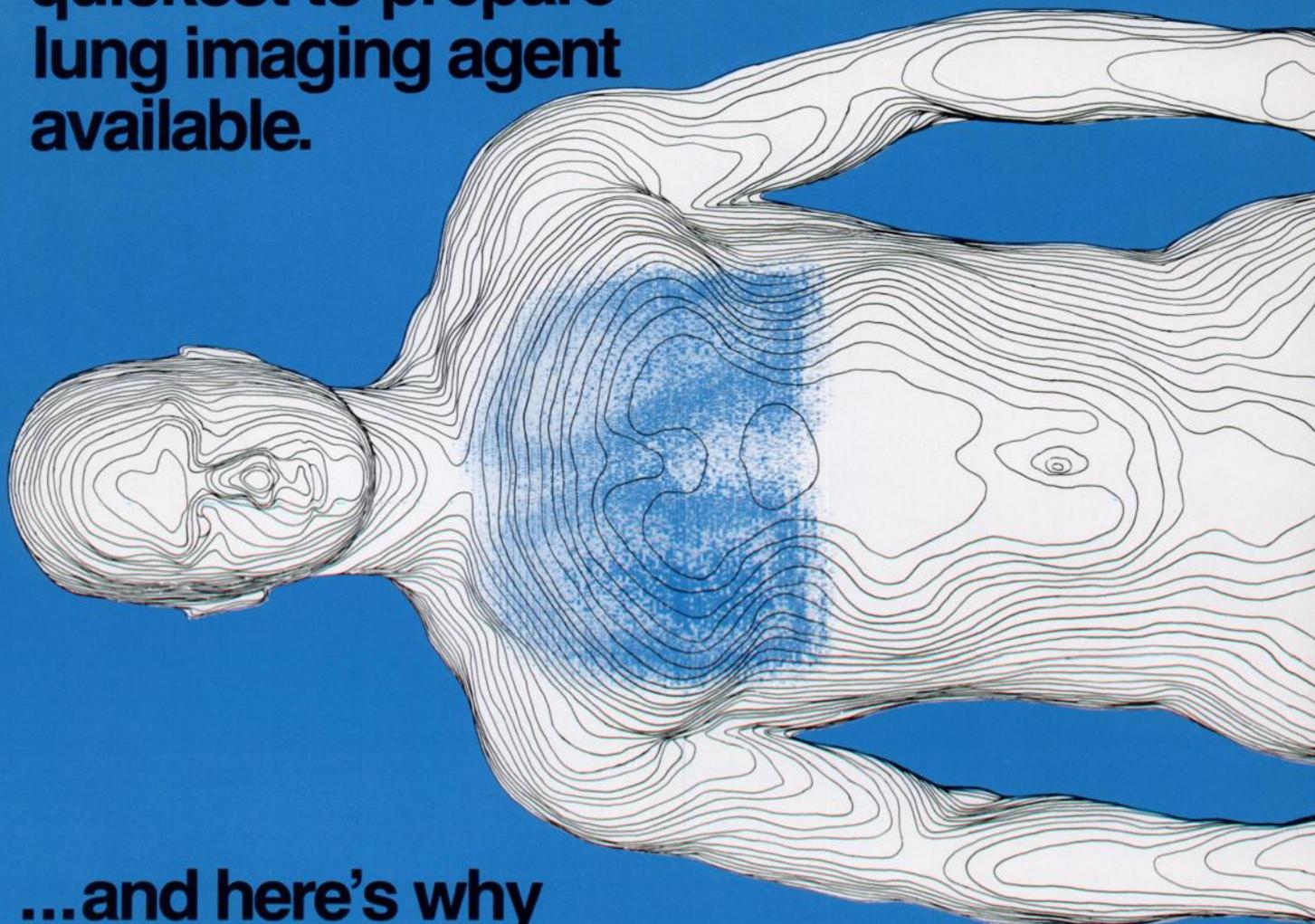
Searle Radiographics Inc.
Subsidiary of G. D. Searle & Co.
2000 Nuclear Drive
Des Plaines, Illinois 60018
312-298-6600

Offices in principal cities throughout the world

be continued...

Macrotec[®]
Aggregated Albumin (Human)
 for labeling with technetium 99m

**STILL! the simplest,
 quickest to prepare
 lung imaging agent
 available.**



...and here's why

Simple, two-step procedure. Not an ampul, not a frozen material. No waiting, no complicated procedures or specialized equipment required. Just two easy steps and you're ready to assay and inject.

Uniform particle size, excellent labeling efficiency. Particle size meets or exceeds Bureau of Biologics standards; 90% in 5-60 micron range. Excellent labeling efficiency when reconstituted with a compatible technetium 99m.

Won't agglomerate in the vial, loses virtually no labeling for 8 hours (if stored between 2°C. and 8°C.).

More scans per vial. Recommended 99mTc activity higher than that of competitive products. Check figures adjacent.

BASIC STEPS IN PREPARING FOUR TECHNETIUM

Squibb Macrotec[®] Aggregated Albumin (Human)	1. Add 1-3 ml. of 99mTc** Maintain shielding at all times.	2. Shake vigorously for 10-15 seconds.
Mallinckrodt TechneScan[™] MAA Aggregated Albumin (Human)	1. Remove reaction vial from freezer and wait approxi- mately 5 minutes for con- tents to come to room temperature.	2. Add 99mTc** Maintain shielding at all times.
3M Albumin Microspheres (Human)	1. Add 4-10 ml. of 99mTc**	2. Shield completely and vigorously shake for 5-15 seconds.
Medi+Physics Lungaggregate[™] Reagent Aggregated Albumin (Human)	1. Shake ampul vigorously to suspend particles.	2. Open ampul.

Emphasis added by Squibb to point out certain differences in procedures.

MACROTEC® (Aggregated Albumin [Human])

Macrotec (Aggregated Albumin [Human]) is a sterile, non-pyrogenic, lyophilized preparation of aggregated albumin. Each vial of the preparation contains 0.08 mg. tin as chloride, 1.5 mg. denatured human serum albumin, and 10 mg. Normal Serum Albumin (Human).

INDICATIONS: For use in perfusion lung imaging as an adjunct to other diagnostic procedures.

CONTRAINDICATIONS: At present there are no known contraindications to the use of this product.

WARNINGS: Radiopharmaceuticals should not be administered to patients who are pregnant, or during lactation, unless the benefits to be gained outweigh the potential hazards.

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.

Since ^{99m}Tc is excreted in milk during lactation, formula-feedings should be substituted for breast-feedings.

Radiopharmaceuticals should be used only by physicians who are qualified by specific training in the safe use and handling of radionuclides pro-

duced by nuclear reactor or particle accelerator and whose experience and training have been approved by the appropriate government agency authorized to license the use of radionuclides.

Note: Macrotec (Aggregated Albumin [Human]) is not radioactive. However, after ^{99m}Tc is added, adequate shielding of the resultant preparation should be maintained.

PRECAUTIONS: In the use of any radioactive material, care should be taken to insure minimum radiation exposure to the patient consistent with proper patient management, and to insure minimum radiation exposure to occupational workers.

Aseptic technique is essential in the preparation of Technetated ($\text{Tc-}^{99\text{m}}$) Aggregated Albumin (Human).

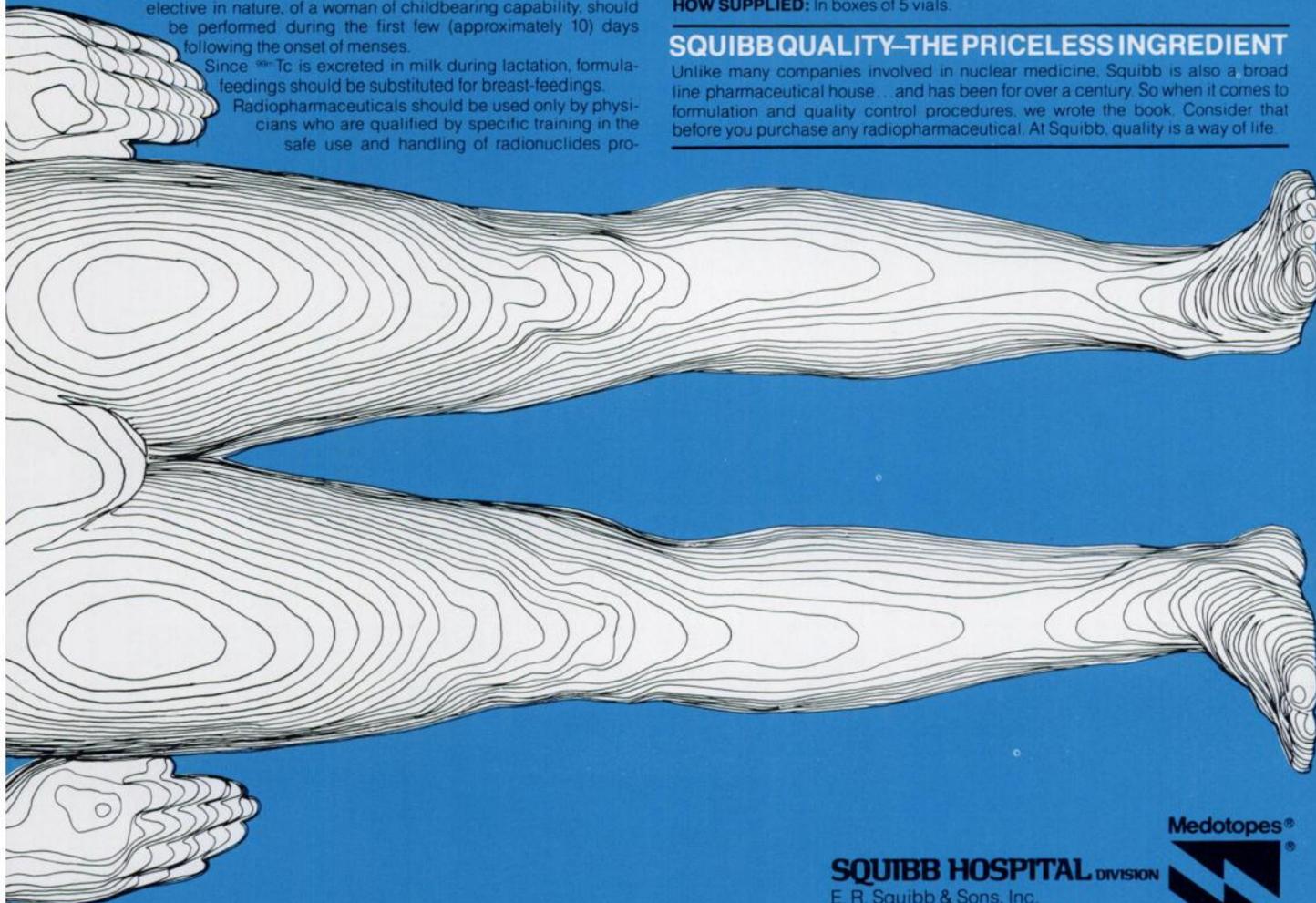
ADVERSE REACTIONS: At present, adverse reactions have not been reported following the administration of this product.

For full prescribing information, consult package insert.

HOW SUPPLIED: In boxes of 5 vials.

SQUIBB QUALITY—THE PRICELESS INGREDIENT

Unlike many companies involved in nuclear medicine, Squibb is also a broad line pharmaceutical house... and has been for over a century. So when it comes to formulation and quality control procedures, we wrote the book. Consider that before you purchase any radiopharmaceutical. At Squibb, quality is a way of life.



$^{99\text{m}}$ -LABELED LUNG IMAGING AGENTS*

SQUIBB HOSPITAL DIVISION

E. R. Squibb & Sons, Inc.
Princeton, N.J. 08540

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H605-039

Medotopes®



3. Gently agitate vial for few seconds.

4. Allow to stand for 15 minutes at room temperature.

5. Visually inspect vial for presence of large aggregates. If present, do not use.

6. Agitate to effect homogenous suspension of the aggregated albumin.

**Recommended maximum activity: 50 mCi.

3. Remove vial from shield (with forceps) and place in center of operating ultrasonic bath containing 3/4" of water. Bath should be protected by lead glass or bricks. Ultrasound for 5 minutes.

**Recommended maximum activity: 20 mCi.

3. Withdraw (very slowly) 1.5-2.0 ml. of aggregate from ampul with syringe.

4. Inject (very slowly) syringe contents into mixing vial.

5. Wrap mixing vial in absorbent paper disc and place in lead shield.

6. Add 0.5-2.0 ml. of $^{99\text{m}}\text{Tc}$ ** in saline into shielded mixing vial. Shake vigorously for at least 30 seconds. Incubate at room temperature for 30 minutes.

7. Shake contents vigorously just before removing aliquot intended for patient use.

**Recommended maximum activity: 30 mCi.

**Recommended maximum activity: 25 mCi/ml.

*Based on manufacturers' product information. NOTE: See manufacturers' package inserts before the preparation of any of these products.

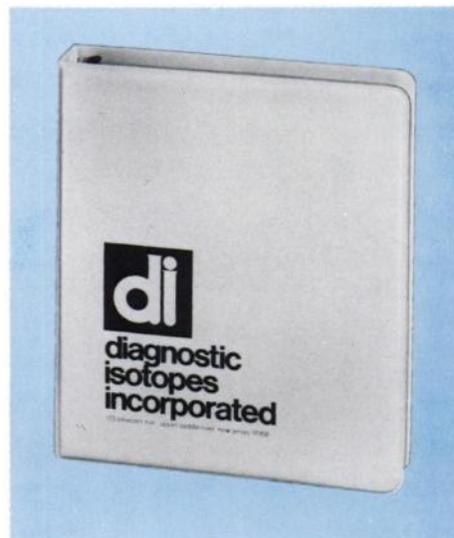
You can pay more for radiopharmaceuticals. But don't expect more.

We're not modest about our reputation in the field of nuclear medicine. But we are modest when it comes to price.

Radiopharmaceuticals is our only business. We were pioneers. We are innovators. And we will always be perfectionists.

And yet many of our kits and ready-to-use radiopharmaceuticals cost less than products of comparable purity, stability and consistency. That means you can count on reliable results patient after patient, and at the same time lower your cost of supplies.

If you're interested in good, consistent images, at a good price . . . write to us. We'll send you our comprehensive new catalogue which will prove it to you. If you have any specific questions, dial (201) 825-2310 and speak directly with our Vice President or Marketing Manager.



KITS:

- **99m Tc Diphosphonate-Tin**
5mg Diphosphonate and 0.5mg Stannous Chloride
- **99m Tc Polyphosphate-Tin**
100mg Polyphosphate and 2mg Stannous Chloride
- **99m Tc DTPA-Tin**
5mg DTPA and 0.25mg Stannous Chloride

Ready-to-use:

- **Gallium-67 Citrate**
3 mCi/Vial
- **Xenon-133 in Gas Phase**
10 or 20 mCi/Vial
- **Xenon-133 in Saline**
10 or 20 mCi/Vial
- **Selenomethionine (Se-75)**
0.250 mCi/Vial



diagnostic isotopes incorporated

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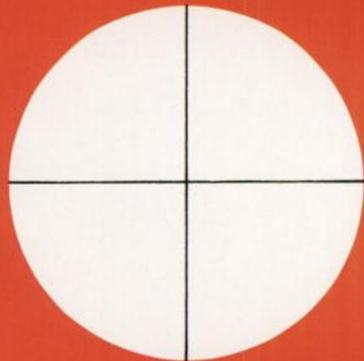
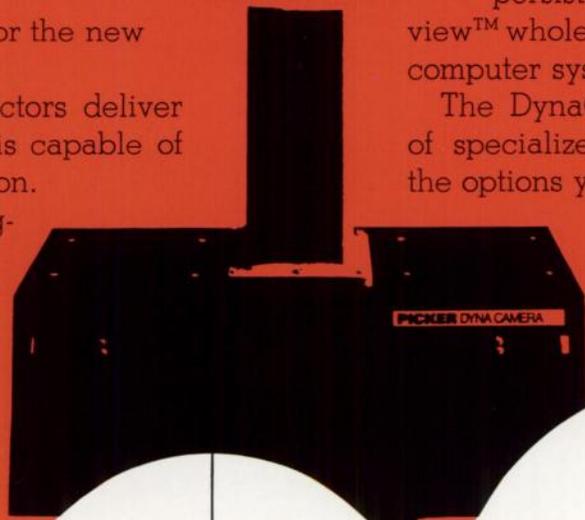
Only Picker's Dyna™ Camera 4 system offers you a choice of 10" or 12" detectors at no extra cost, or the new giant-size 15" detector.

Both 10" and 15" detectors deliver 1/8" resolution. The 12" is capable of better than 5/32" resolution.

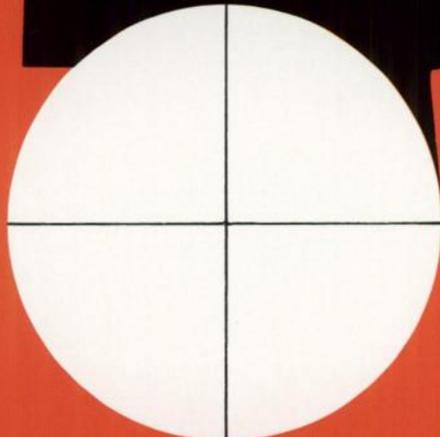
The DynaCamera 4 imaging system also includes a wide range of accessories—Clinical Analyzer

with tape recorder, sequence camera, variable persistence storage scope, Omni-view™ whole body system, the Gamma 11 computer system.

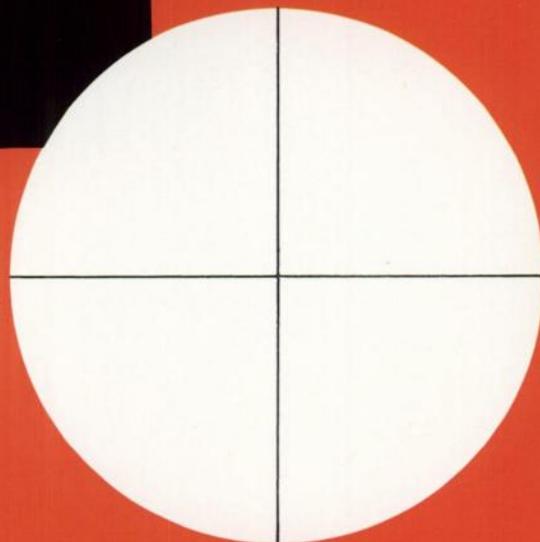
The DynaCamera family is an array of specialized capabilities matched to the options you prefer. Each component represents additional flexibility. You decide just how much flexibility you need.



High Resolution Detector
10" Diameter
1/8" Resolution
± 10% Uniformity



Lowest Cost Large Field Detector
12" Diameter
Better than 5/32" Resolution
± 10% Uniformity

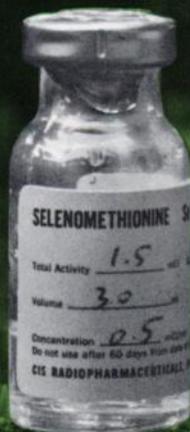


Ultra-Large Field High Resolution Detector
15" Detector
1/8" Resolution
± 10% Uniformity

PICKER®
ONE OF THE C.I.T. COMPANIES

Picker's synergy

L-selenomethionine



naturally safer

Our selenomethionine is biosynthetically produced. Because it is "all natural", it has inherent advantages over chemically synthesized pancreas imaging agents which are racemic and which may have a lower specific activity. Our L-selenomethionine has an average specific activity of about 100 mCi/mg (successive batches contained 102, 100, 92.7 and 100 mCi/mg respectively). Much smaller amounts (from 1.25 to 2.50 micrograms) are required to obtain a pancreas image.

True, it is not carrier-free, but a 2.50-microgram injection of selenomethionine compared to 230 milligrams of methionine present in a glass of milk, for instance, is very very small. Why administer more when less will do?

Write or call for descriptive literature on our "all natural" selenomethionine.

Product Description

L-Selenomethionine Se 75 Injection is a sterile, pyrogen-free solution of selenomethionine in sodium chloride injection.

Suggested Dosage Range

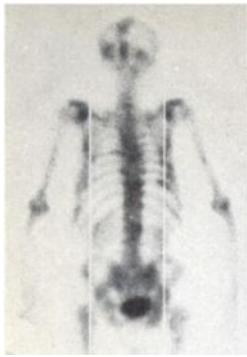
125 to 250 microcuries or 1.8 to 3.5 microcuries/kilogram body weight.



CIS Radiopharmaceuticals, Inc.
5 DeANGELO DRIVE/BEDFORD, MA. 01730/Tel. (617) 275-7120

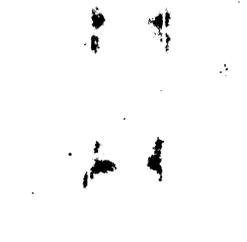


**You depend on a
bone imaging agent
for consistent detection
of skeletal lesions...**



A 65-year-old patient with known carcinoma of the prostate. Note pelvic, skull, rib, sternum and vertebral lesions.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Anterior Count per Time:
> 1,000,000/30 min
Posterior Count per Time:
> 1,000,000/30 min
Instrument:
Searle Pho/Gamma®
HP camera with whole body table, Microdot Imager® and high-sensitivity collimator
Scanned:
3 hours postinjection



L POSTERIOR R R ANTERIOR L

When selecting a bone scanning agent for your department, there is a single overriding concern: Which will most consistently image the patient's detectable bone lesions?

When labeled with ^{99m}Tc, the physical and chemical properties of Osteoscan's diphosphonate formula deliver the excellent lesion imaging you need . . . scan after scan, day after day.

- P-C-P molecular bonding assures excellent in vivo stability—to minimize soft tissue uptake.
- Dry mix diphosphonate formulation reduces potential for hydrolysis.
- Formulated to produce consistently high tagging efficiency.

L POSTERIOR R

R ANTERIOR L



An 82-year-old patient with extensive metastatic bone disease secondary to known carcinoma of the prostate.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Anterior Count per Time:
561,220/30 min
Posterior Count per Time:
631,388/30 min
Instrument:
Picker Dynacamera®
2C with Omniview® table and ultrafine collimator
Scanned:
4 hours postinjection



A 66-year-old male with prostatic carcinoma and no conclusive evidence of metastasis to bone.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Posterior Count per Time:
636,690/35 min
Anterior Count per Time:
613,007/35 min
Instrument:
Picker Dynacamera®
2C with Omniview® table and ultrafine collimator
Scanned:
4 hours postinjection

L POSTERIOR R R ANTERIOR L

The result:

- Rapid blood clearance
- High target/non-target ratios
- Clear imaging of detectable bone lesions

If you would like further information about Osteoscan's performance benefits or would like to prove Osteoscan's consistent lesion imaging for yourself—please call Arnold Austin, Technical Manager, Professional Services Division, Procter & Gamble, (513) 977-8547.

PROCTER & GAMBLE

OSTEOSCAN®

(5.9 mg disodium etidronate
0.16 mg stannous chloride)

SKELETAL IMAGING AGENT

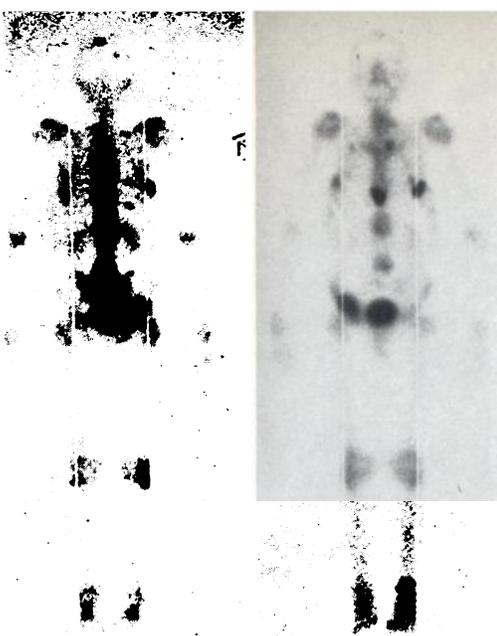
L POSTERIOR R

R ANTERIOR L



A 79-year-old male with known prostatic carcinoma metastatic to bone. Multiple lesions are seen throughout skeletal system.

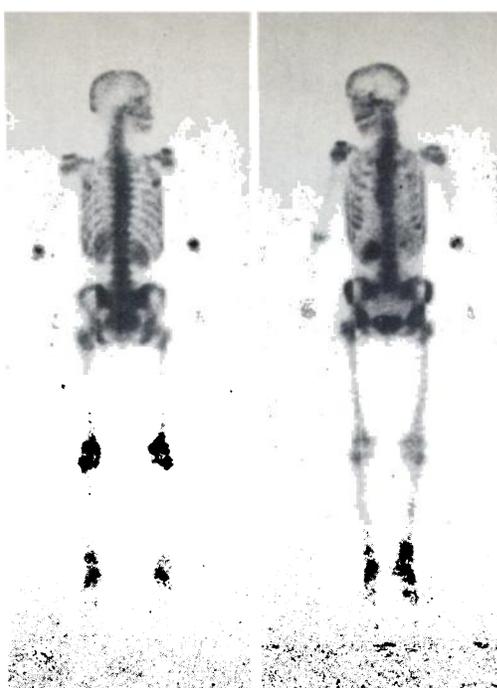
Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Posterior Count per Time:
621,153/26 min
Anterior Count per Time:
649,702/31 min
Instrument:
Picker Dynacamera®
2C with Omniview® table and ultrafine collimator
Scanned:
4 hours postinjection



A 58-year-old male with a 41-year history of smoking displays extensive metastatic disease in ribs, vertebral bodies, pelvis, sternum and skull, secondary to known carcinoma of the lung.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Anterior Count per Time:
> 1,000,000/30 min
Posterior Count per Time:
> 1,000,000/30 min
Instrument:
Searle Pho/Gamma® HP camera with whole body table, Microdot Imager® and high-sensitivity collimator
Scanned:
3 hours postinjection

L POSTERIOR R R ANTERIOR L



A 49-year-old female with previous right radical mastectomy for malignancy, having rib pain. Increased uptake in ribs suggests metastatic disease.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Posterior Count per Time:
500,361/28 min
Anterior Count per Time:
508,462/27 min
Instrument:
Picker Dynacamera® 2C with Omniview® table and ultrafine collimator
Scanned:
4 hours postinjection

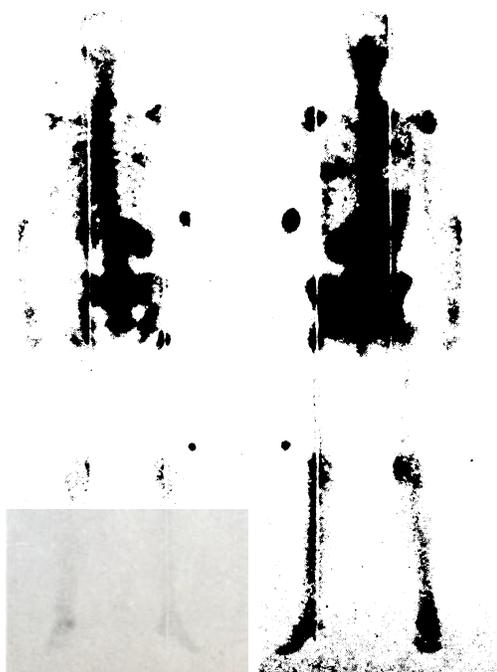
L POSTERIOR R R ANTERIOR L

OSTEOSCAN® consistently delivers:

- Clear, sharp images
- High-quality lesion detection

See following page for brief summary of package insert.

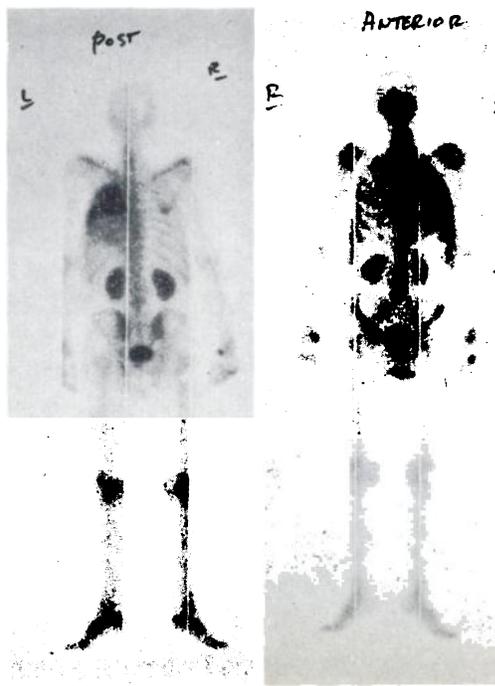
L POSTERIOR R R ANTERIOR L



A 43-year-old female with known metastatic disease secondary to carcinoma of the left breast. Swollen left arm is secondary to lymphedema, a result of radical mastectomy. (Note negative defect in region of left breast as a result of prosthesis.) Metastatic disease clearly visualized in vertebral bodies and ribs. Uptake at elbow is extravasation at injection site.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Anterior Count per Time:
> 1,000,000/30 min
Posterior Count per Time:
> 1,000,000/30 min
Instrument:
Searle Pho/Gamma® HP camera with whole body table, Microdot Imager® and high-sensitivity collimator
Scanned:
3 hours postinjection

L POSTERIOR R R ANTERIOR L



A 61-year-old male following thoracotomy for carcinoma of the left lung. Two rib fractures (anterior view) of unknown etiology. Right thumb uptake (posterior view) secondary to arthritic changes.

Imaging Agent:
15 mCi
^{99m}Tc-OSTEOSCAN
Anterior Count per Time:
> 1,000,000/30 min
Posterior Count per Time:
> 1,000,000/30 min
Instrument:
Searle Pho/Gamma® HP camera with whole body table, Microdot Imager® and high-sensitivity collimator
Scanned:
5 hours postinjection

OSTEOSCAN... Clear, sharp images for high-quality lesion detection... consistently

Brief summary of Package Insert. Before using, please consult the full Package Insert included in each kit.

DESCRIPTION

Each vial of OSTEOSCAN contains 5.9 mg disodium etidronate and 0.16 mg stannous chloride as active ingredients. Upon addition of ADDITIVE-FREE ^{99m}Tc -pertechnetate, these ingredients combine with ^{99m}Tc to form a stable soluble complex.

ACTIONS (CLINICAL PHARMACOLOGY)

When injected intravenously, ^{99m}Tc -labeled OSTEOSCAN has a specific affinity for areas of altered osteogenesis. Areas of bone which are undergoing neoplastic invasion often have an unusually high turnover rate which may be imaged with ^{99m}Tc -labeled OSTEOSCAN.

Three hours after intravenous injection of 1 ml ^{99m}Tc -labeled OSTEOSCAN, an estimated 40-50% of the injected dose has been taken up by the skeleton. At this time approximately 50% has been excreted in the urine and 6% remains in the blood. A small amount is retained by the soft tissue. The level of ^{99m}Tc -labeled OSTEOSCAN excreted in the feces is below the level detectable by routine laboratory techniques.

INDICATIONS

OSTEOSCAN is a skeletal imaging agent used to demonstrate areas of altered osteogenesis.

CONTRAINDICATIONS

None.

WARNINGS

This radiopharmaceutical should not be administered to patients who are pregnant or lactating unless the information to be gained outweighs the potential hazards.

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.

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

The ^{99m}Tc -generator should be tested routinely for molybdenum breakthrough and aluminum. If either is detected, the eluate should not be used.

PRECAUTIONS

Both prior to and following ^{99m}Tc -labeled OSTEOSCAN administration, patients should be encouraged to drink fluids. Patients should void as often as possible after the ^{99m}Tc -labeled OSTEOSCAN injection to minimize background interference from accumulation in the bladder and unnecessary exposure to radiation.

As in the use of any other radioactive material, care should be taken to insure minimum radiation exposure to the patient, consistent with proper patient management, and to insure minimum radiation exposure to occupational workers.

ADVERSE REACTIONS

None.

DOSAGE AND ADMINISTRATION

The recommended adult dose of ^{99m}Tc -labeled OSTEOSCAN is 1 ml with a total activity range of 10-15 mCi. ^{99m}Tc -labeled OSTEOSCAN should be given intravenously by slow injection over a period of 30 seconds within three (3) hours after its preparation. Optimum scanning time is 3-4 hours postinjection.

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



PROCTER & GAMBLE

OSTEOSCAN[®]

(5.9 mg disodium etidronate
0.16 mg stannous chloride)

SKELETAL IMAGING AGENT



Monitor and Survey with the Searle Dual-duty Log Series Meter

WHY BUY TWO WHEN ONE WILL DO?

Need an area monitor *and* a survey meter? Consider the versatile Log Series Meter from Searle. Rugged and easy to use, these meters do double duty, saving you the cost of an additional instrument. Fitted with rechargeable Nickel-Cadmium batteries for long life, the meter stands in a charging base and functions as a highly accurate area monitor. When you need a survey meter, simply remove it from the base and take it to the site. Fully-charged NiCad batteries will provide at least 25 hours of continuous operation. (The meter will also accept standard "D" size flashlight batteries.)

Available in 3 sensitivity ranges (0.02 to 200, 0.2 to 2,000 and 2 to 20,000 mR/hr), these instruments are designed for ease of operation and reliability. The 4-decade meter is always on-scale, so you never need search for the right range. The only controls are an on-off switch

and battery check button. Rugged, all solid-state electronics assure drift-free performance. Waterproof construction means the Searle Log Series Meter can be used in severe environmental conditions and is totally immersible for cleaning.

Searle Log Series Meters are available with your choice of 2 bases. The standard charging-monitoring base produces an audible click with each radiation detection event. The deluxe base has an adjustable audible/visual alarm that can be set for any dose rate in the top 3 decades of the meter range.

If your laboratory needs an area monitor *and* a survey meter, why pay for two when one will do? Get all the facts about the Searle dual-duty radiation monitors. Just write or call us for complete technical information.

SEARLE

Searle Analytic Inc.

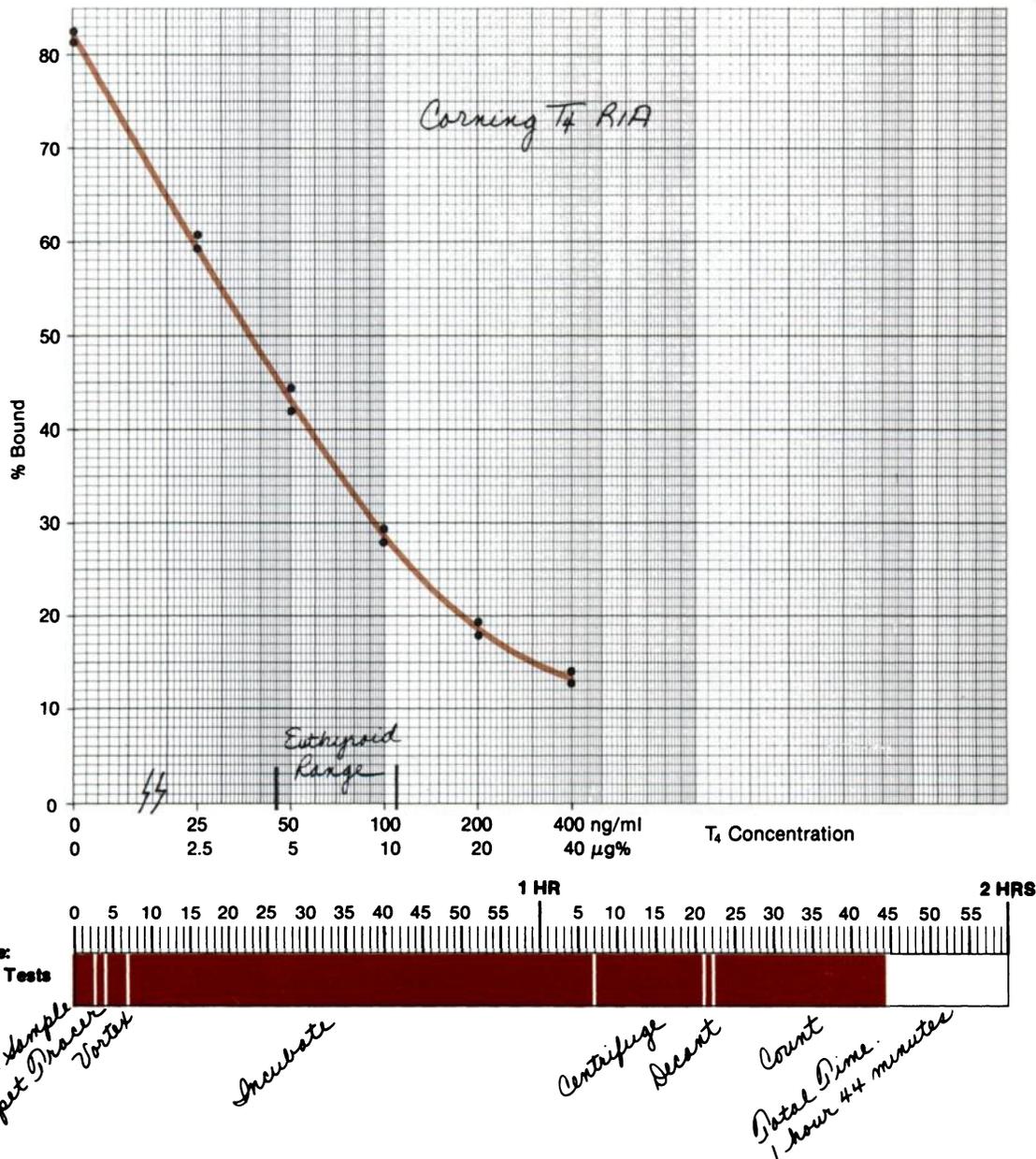
Subsidiary of G. D. Searle & Co.
2000 Nuclear Drive
Des Plaines, Illinois 60018
Attn: Health Physics
Instrumentation Manager
(312) 298-6600

IN CANADA:

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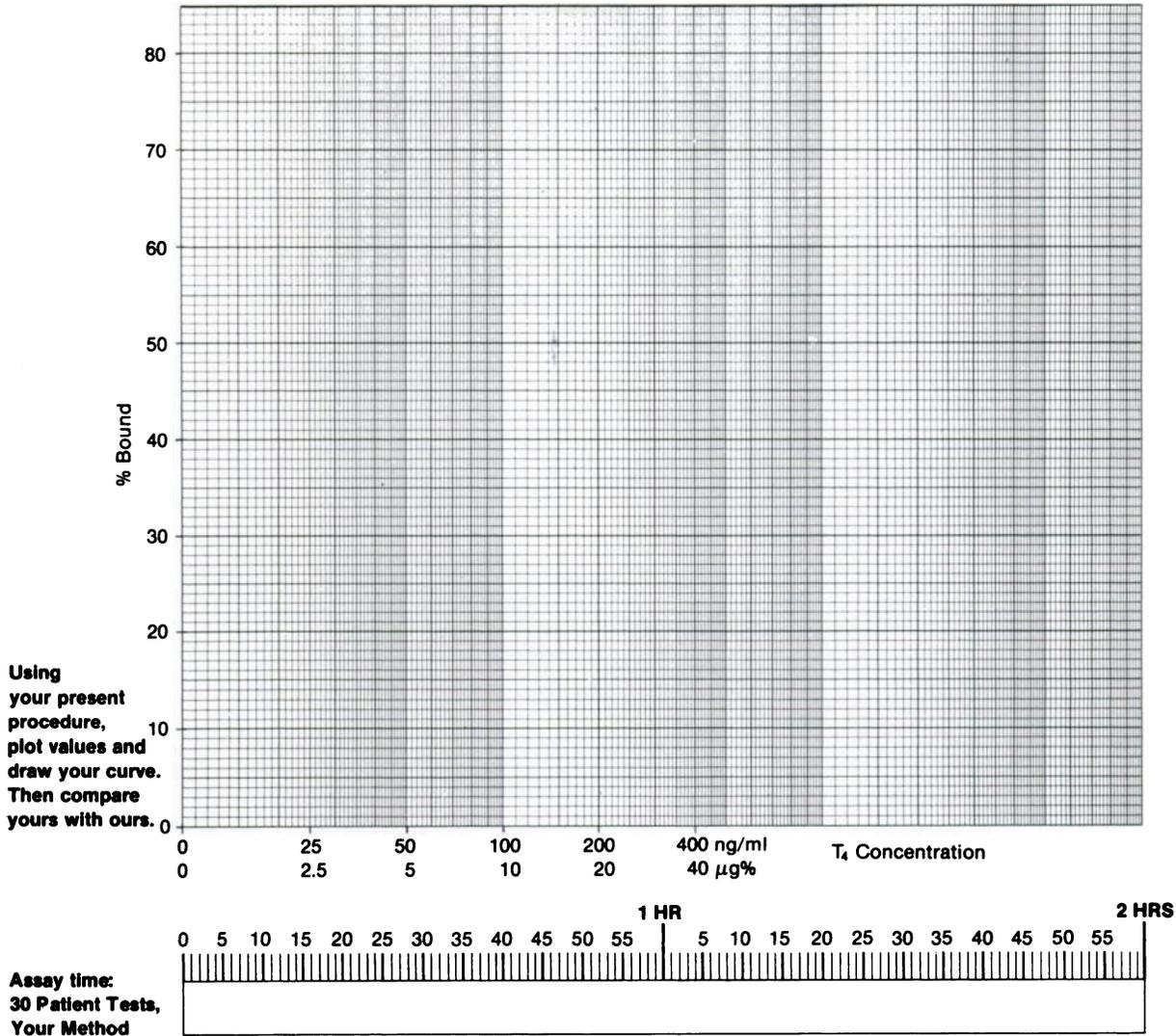
The bead and you. Our minute beads are so small that you could put 2½ million of

them on the head of a common pin. When we covalently bond antibodies to the beads, what we get is a unique, stable antibody-glass composite.

What you get is a ready-to-use antibody with a built-in solid-phase separator—the bead. Extraction is completely eliminated. And you get a curve that is unmatched in sensitivity over the complete range of values.

The simplest procedure. You get real bonuses when you pick our T₄. Because, along with exceptional performance and speed, you have the simplest T₄ procedure available. And the bead separator allows unsurpassed flexibility when running the assay. The IMMO PHASE T₄ is even compatible with automated pipetting equipment.

Assay.



How is your time line? Take a look at our time line under the graph. Check it out closely. After you've plotted your curve and compared it to ours, plot your time line. Then compare that with ours. Now draw your own conclusions!

It started with digoxin. Last year we introduced our first IMMO PHASE assay. It was digoxin and was greeted with justifiable enthusiasm. Why? Because the glass bead offers the simplest procedure. Moreover, the results were, and are, both accurate and reproducible.

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- (1) Yes, I want to compare your IMMO PHASE T_4 Assay with my T_4 procedure.
 Have a tech rep contact me.
- (2) I want to move quickly so call me at
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Institution _____ Dept. _____

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Area Scan. May be added to any Series 100 or Series 110 Ohio-Nuclear Camera. Moves the detector instead of the patient. Requires minimal space (fits in a $10' \times 10'$ [3.05m x 3.05m] room). Excellent for whole body scans or scans of large areas.

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Series 110 Camera.

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Area Scan.

than better resolution

Processing

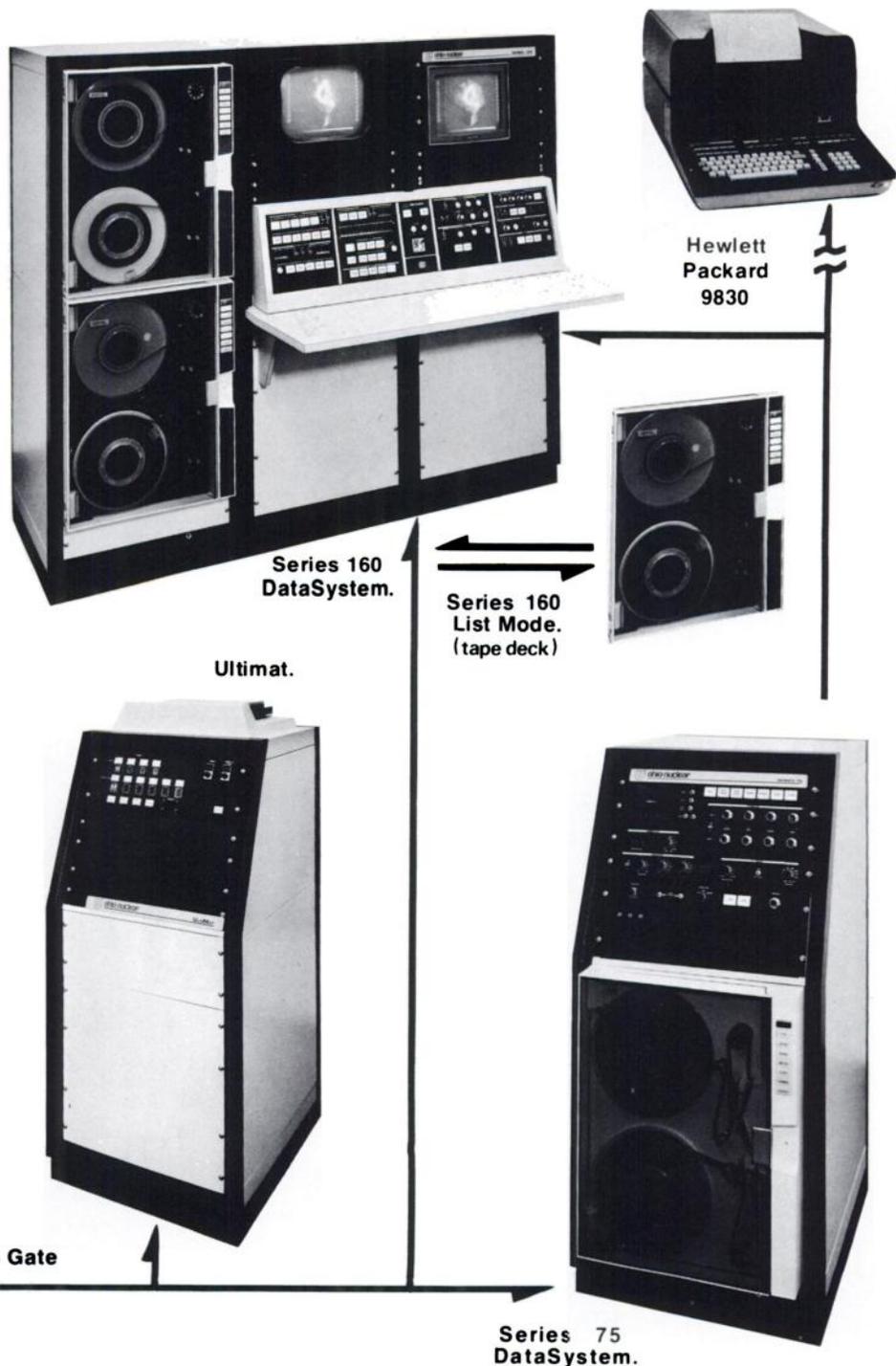
Series 160 DataSystem. A complete digital imaging system offering non-flickering interactive video display; fast dynamic studies (up to 50 frames/sec. with no data loss); optional variable persistence viewing; high resolution (up to 16K-128 x 120 matrix depending on selected mode of operation); CRT viewing of isometric displays, profile histograms and uptake studies; 8, 16, or continuous color video presentation; computer compatible (uses 9 track 800 B.P.I. tape); up to 16 rectangular and/or 6 irregular regions of interest; contrast enhancement; alpha numeric correction; and statistical smoothing.

Series 75 DataSystem. An economical storage and retrieval system that will record and playback studies, playback, in compressed time, and which offers histograms, 2 regions of interest, and variable framing rate on playback for recording dynamic studies on film.

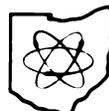
Series 160 List Mode. Allows collection of dynamic study data in real time, and playback at variable framing rates of up to 50 frames/sec. at 16K resolution.

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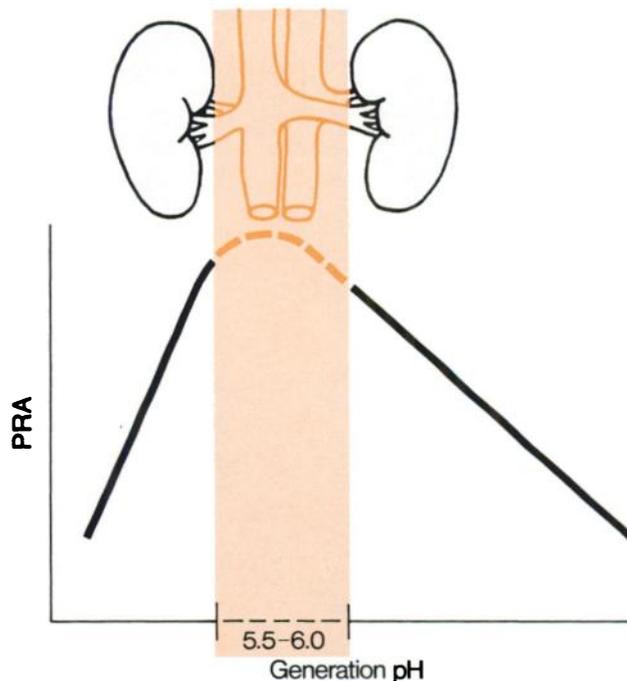
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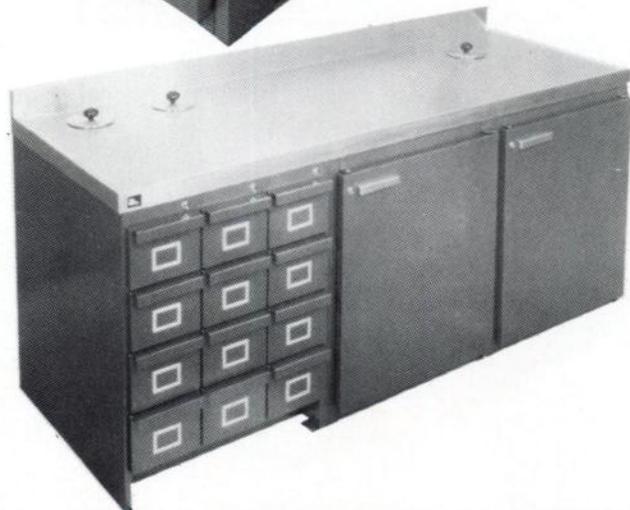
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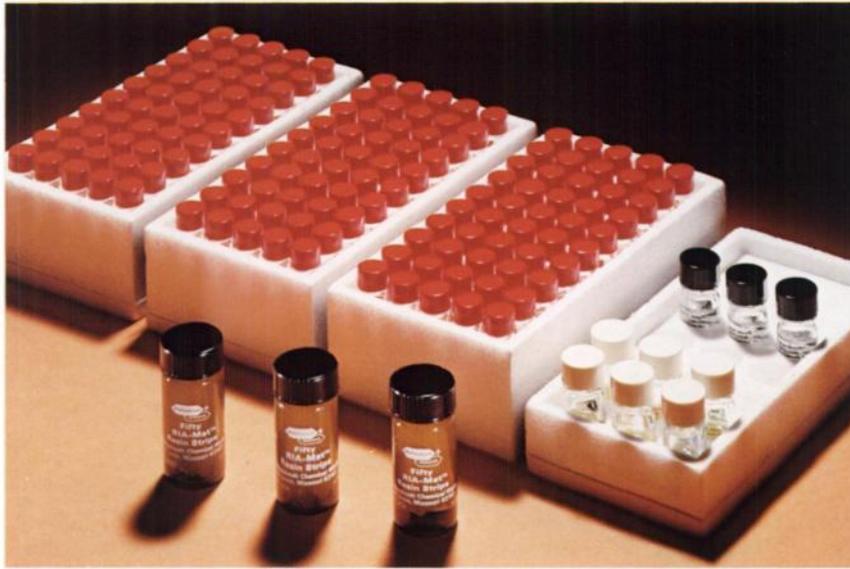
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Yes, I am requesting a 600 brochure
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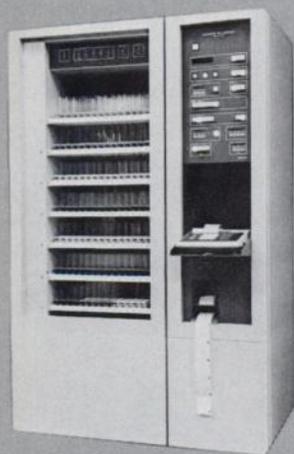
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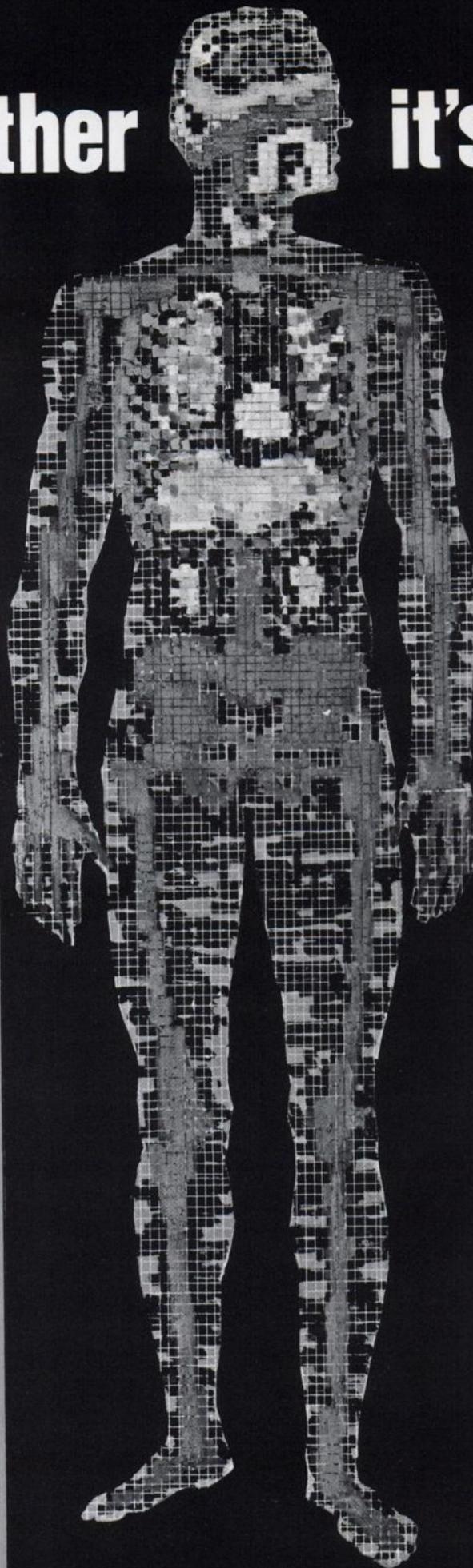
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Whether it's *in-vivo* or



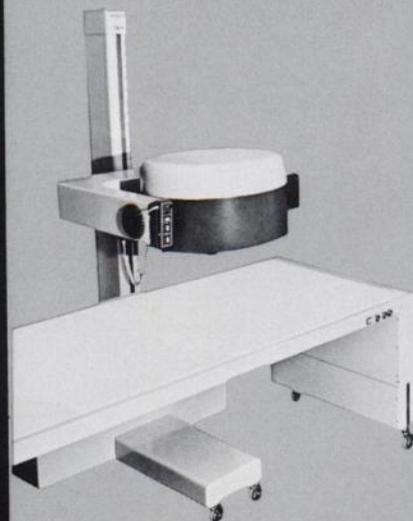
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180-1260 sample capacity. Accepts most standard sized test tubes. Rack/tray based to save handling time. Built-in calculator-printer. Optional teletype printout/punchout.



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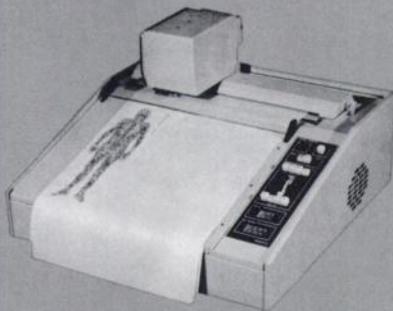
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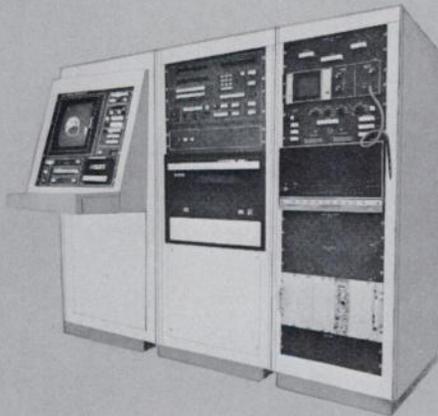
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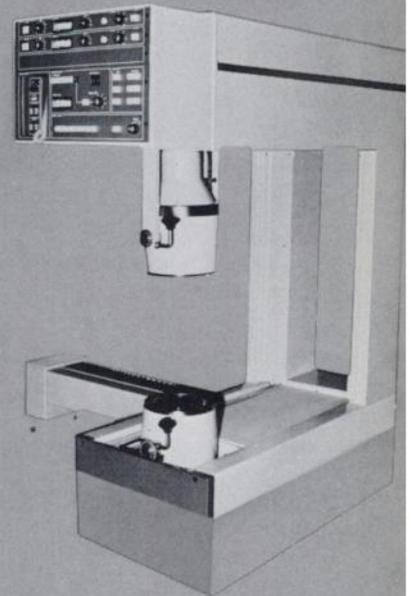
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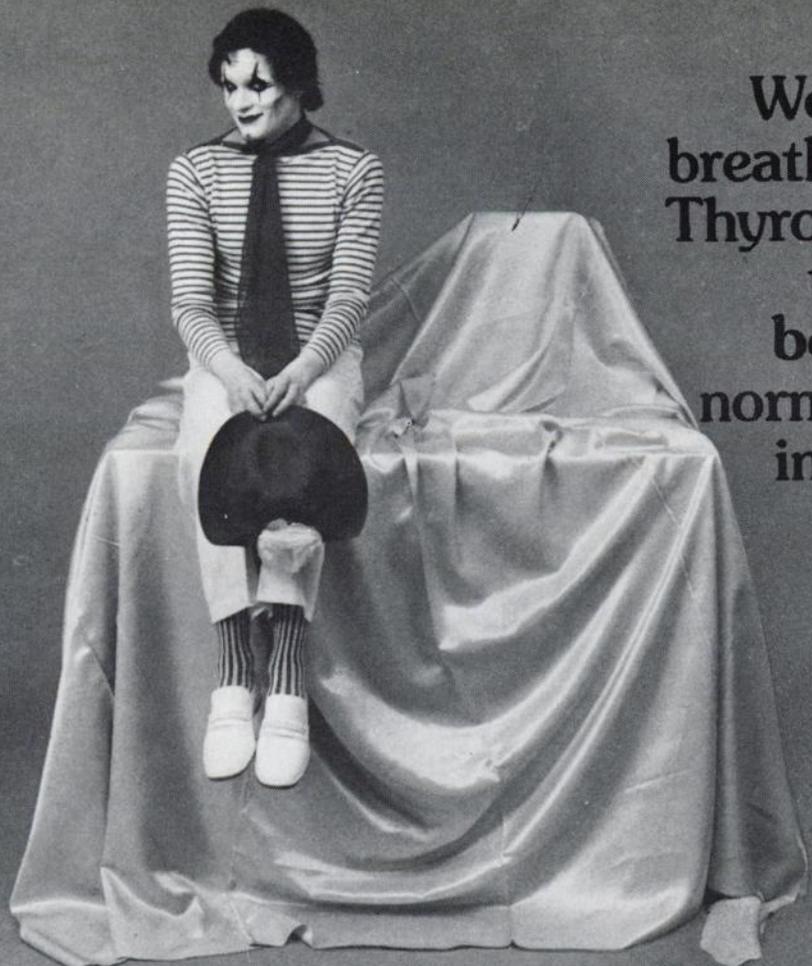
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Photo of Gamma-11 installation at
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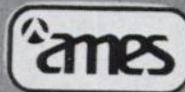
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Not just better images, an entire system for under \$30,000



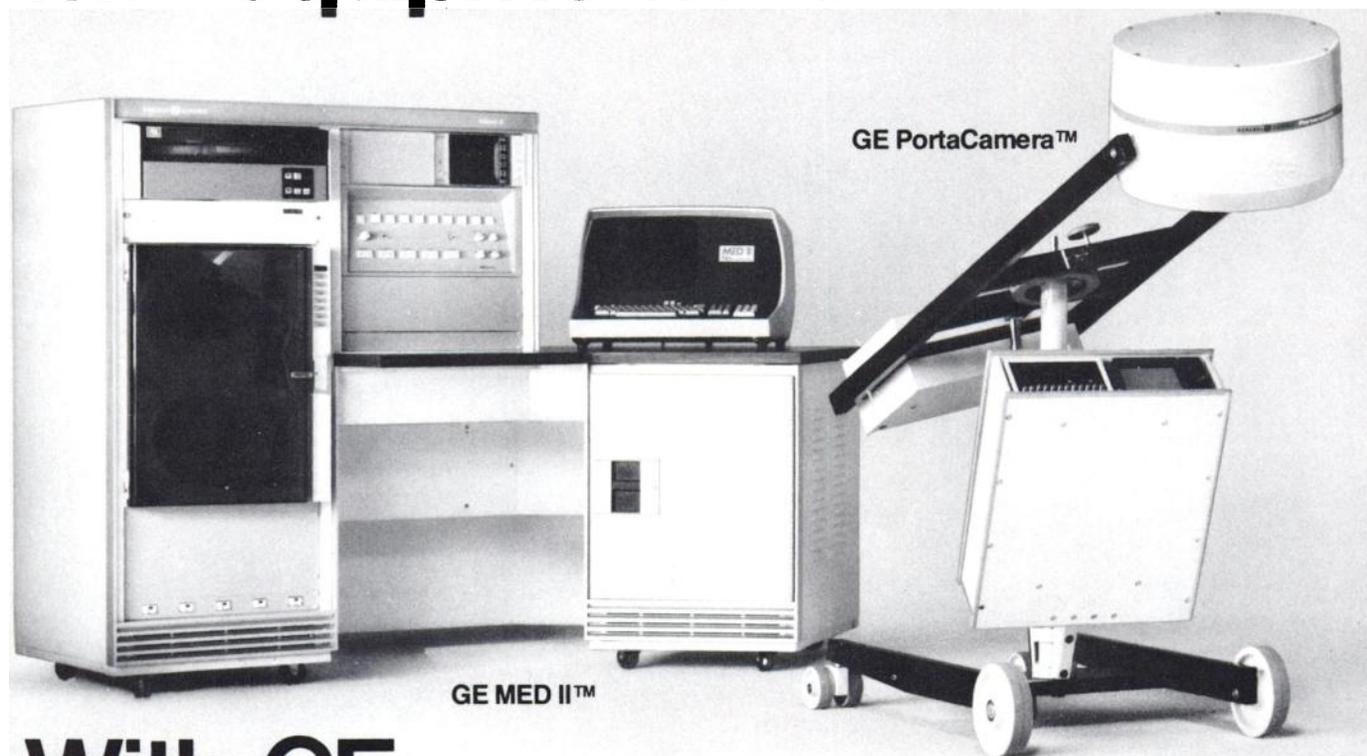
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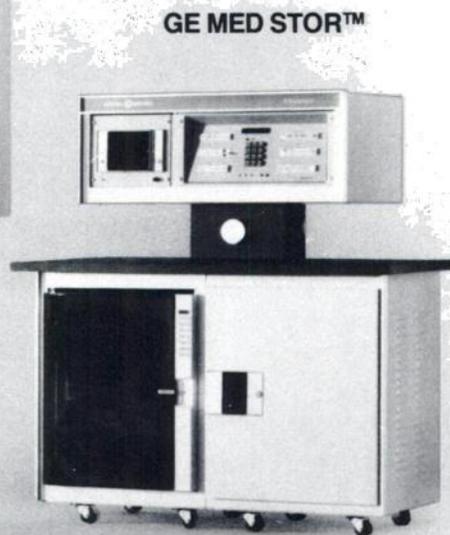
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GE RadiCamera II™



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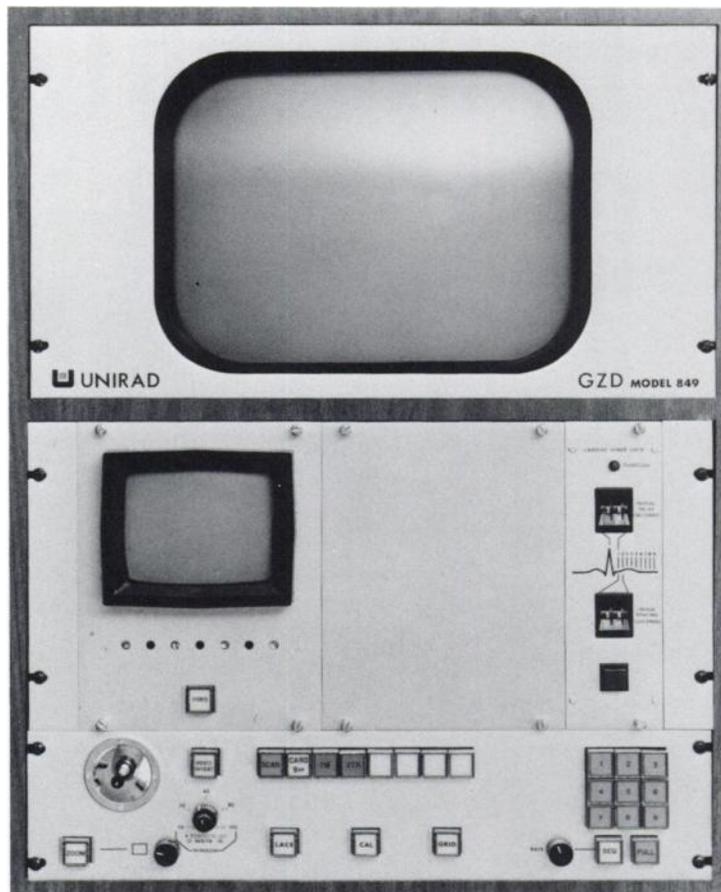
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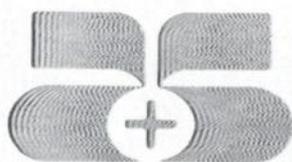
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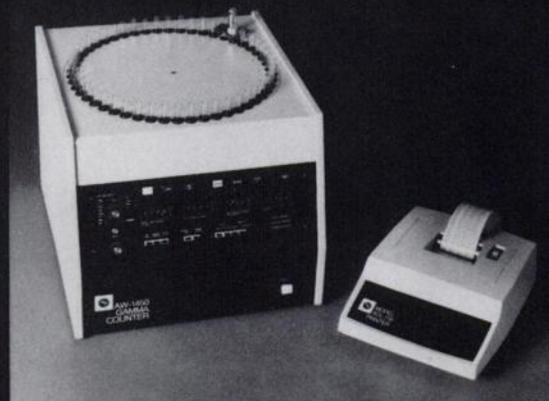
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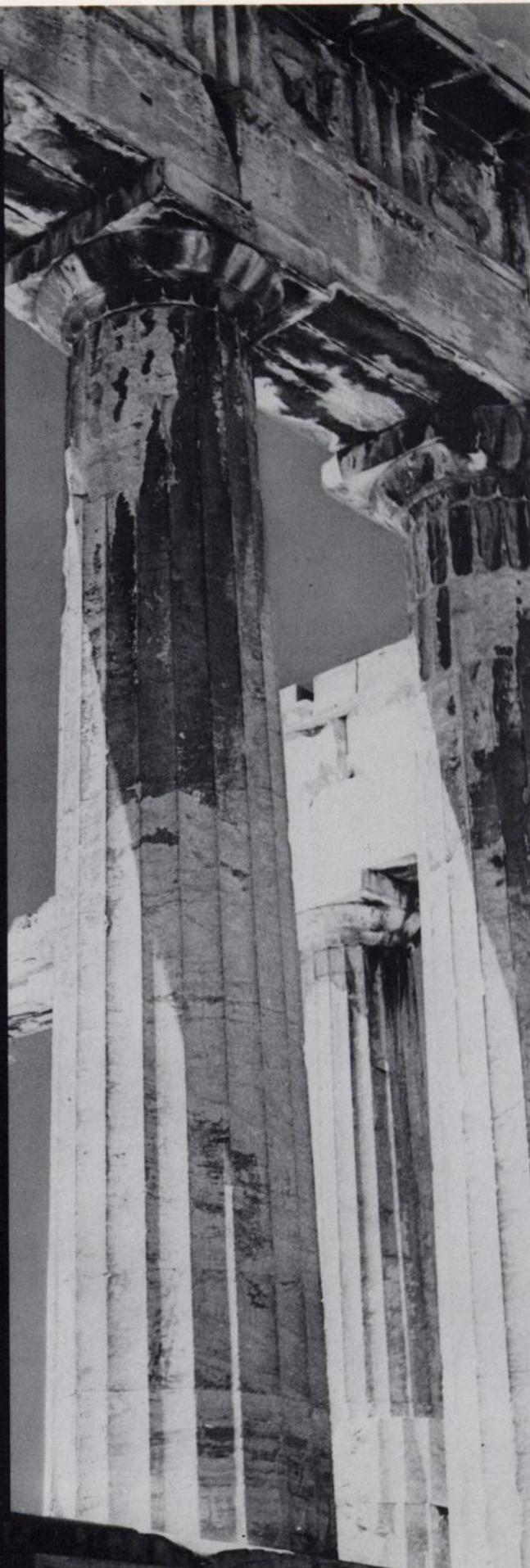
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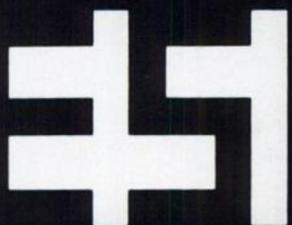


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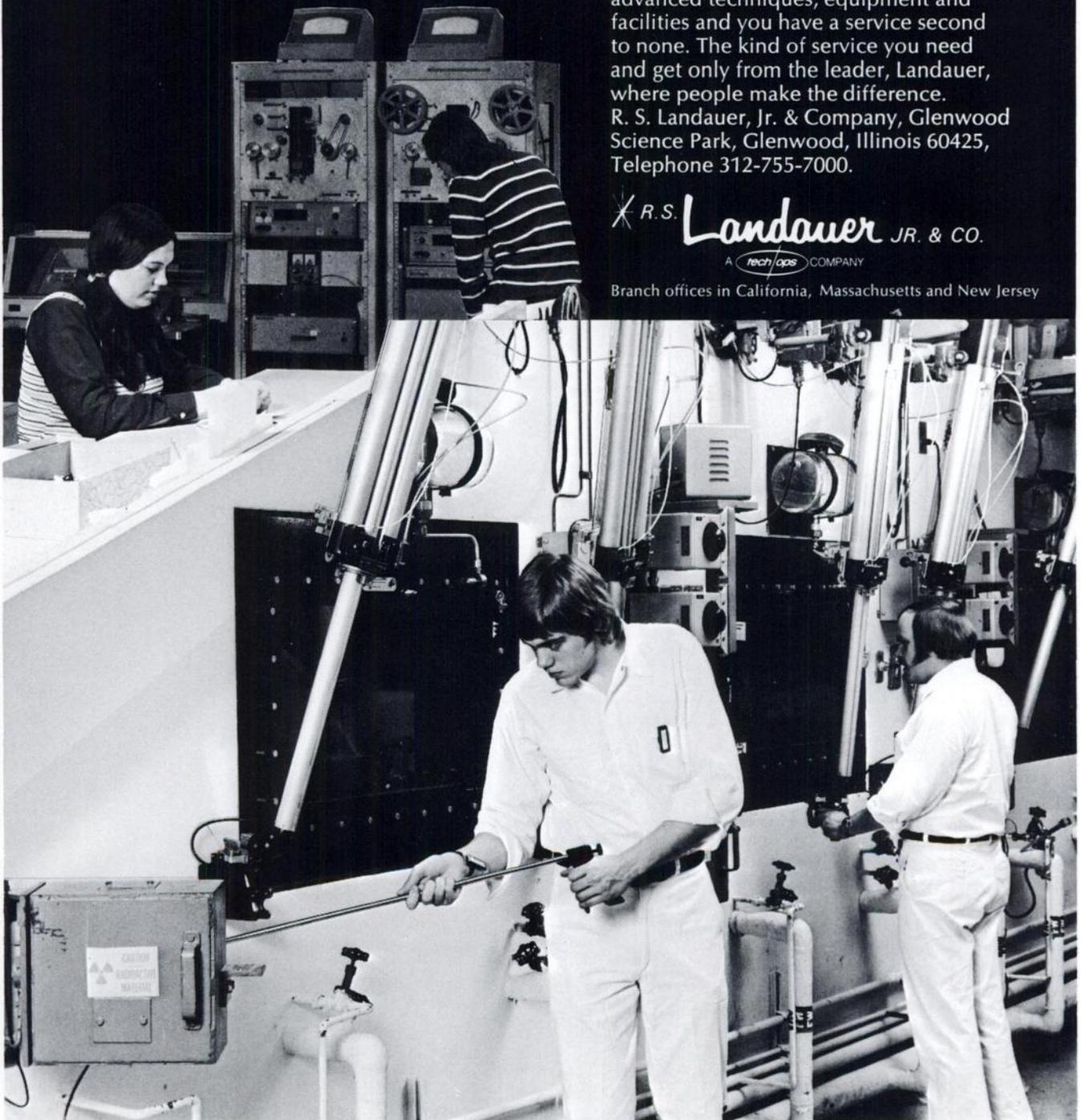
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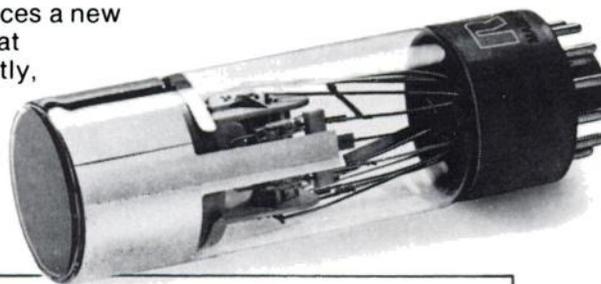
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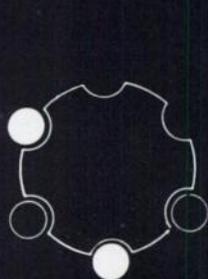
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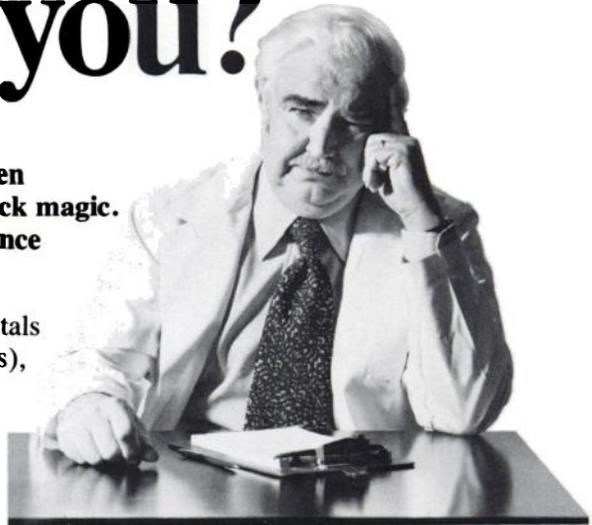
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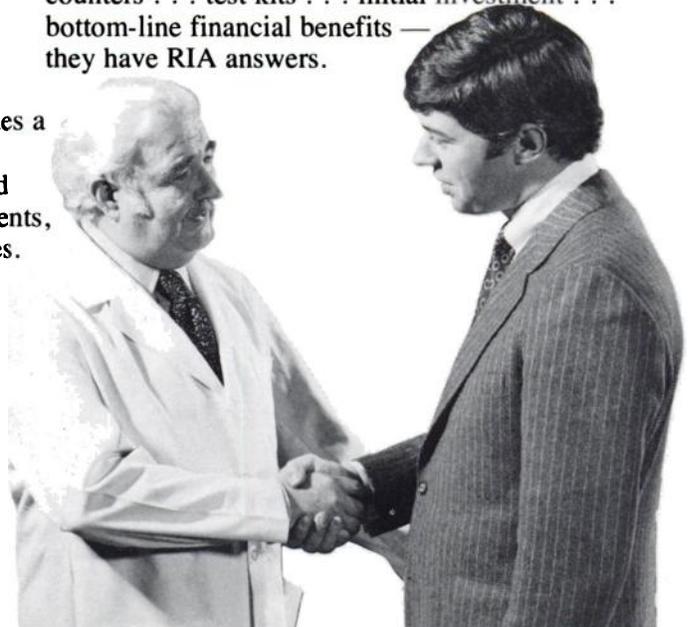
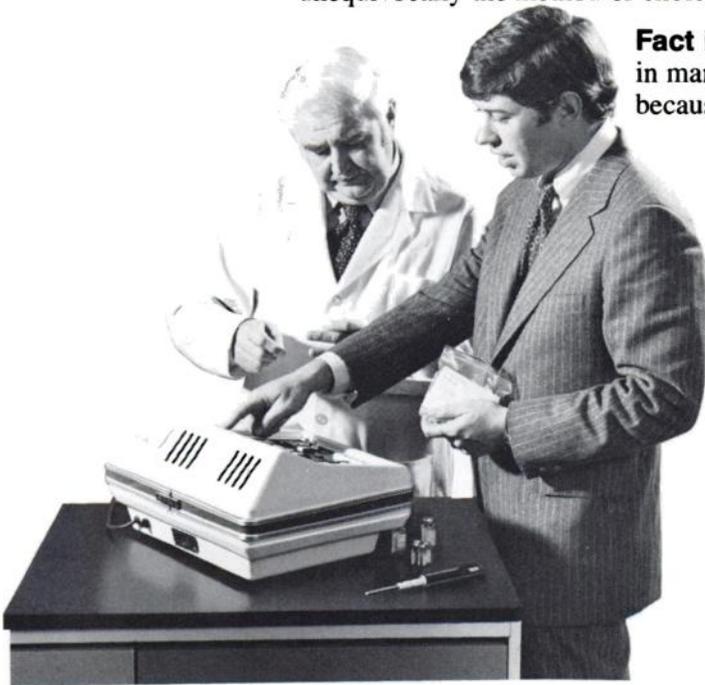
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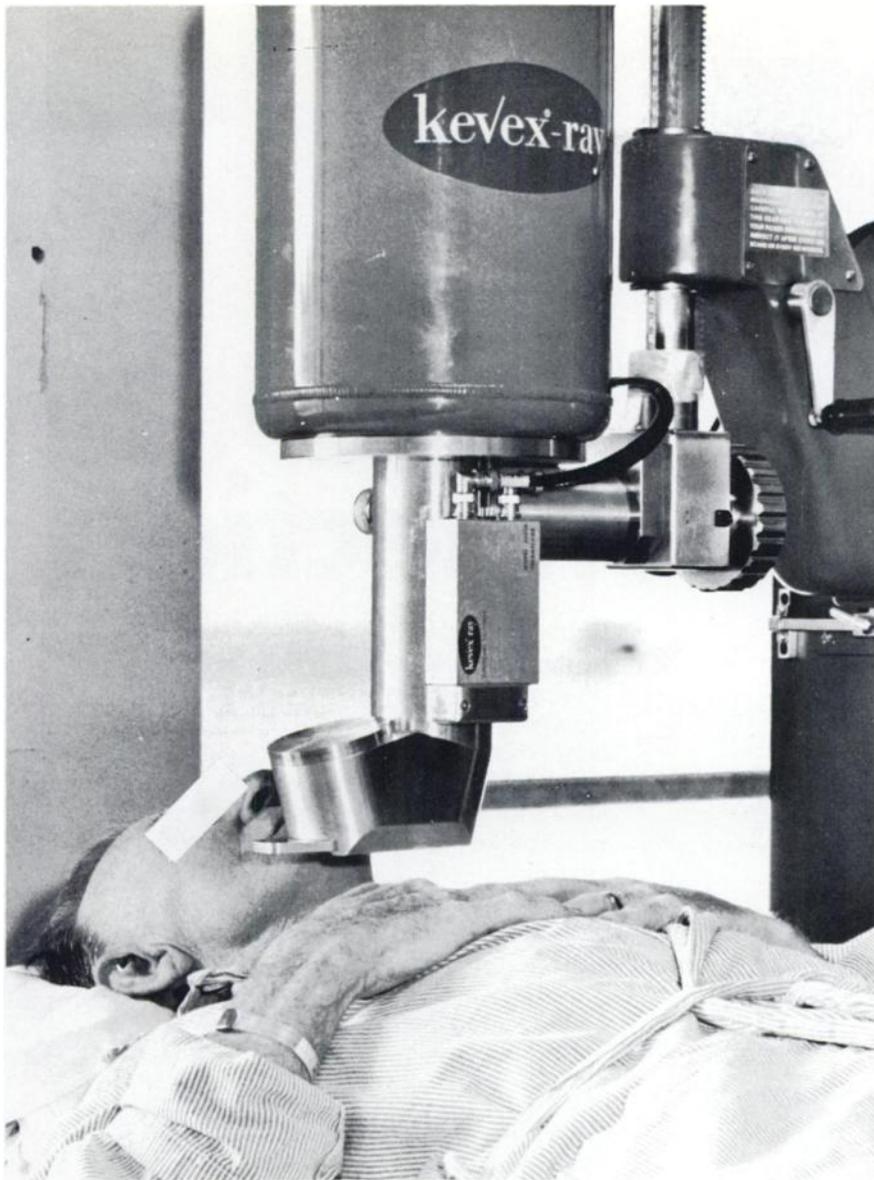
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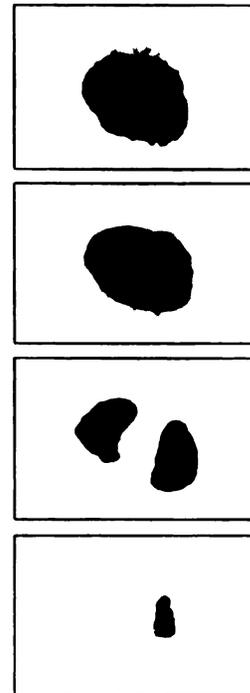


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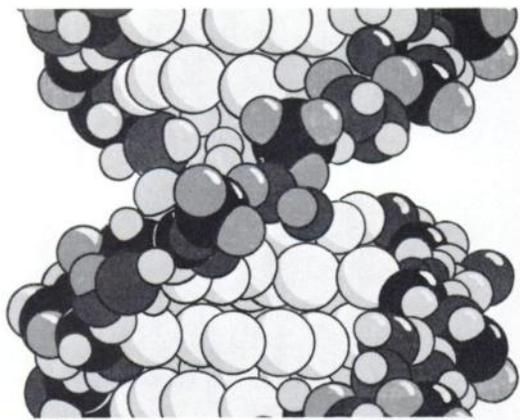
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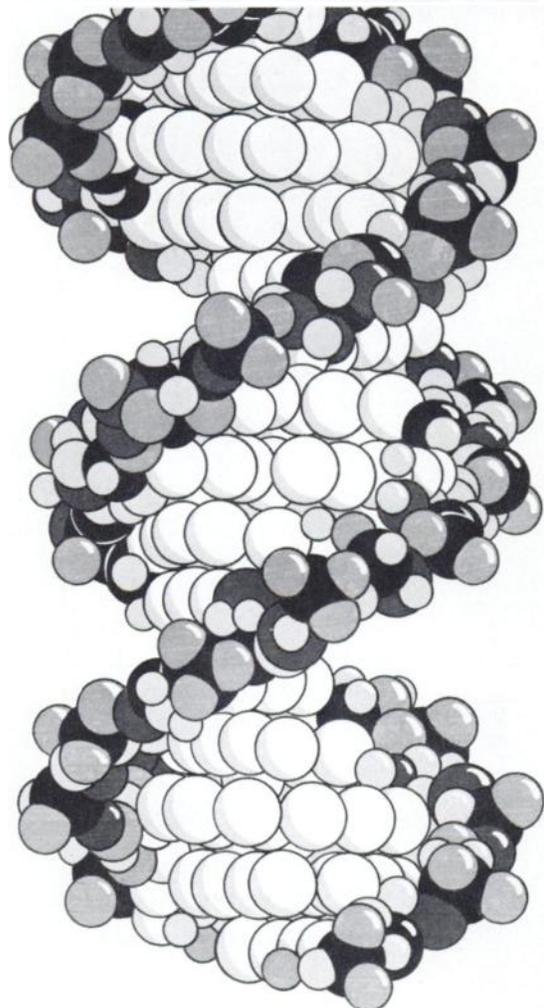
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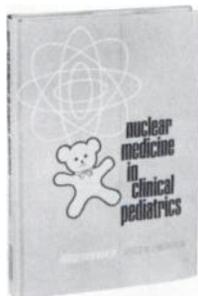


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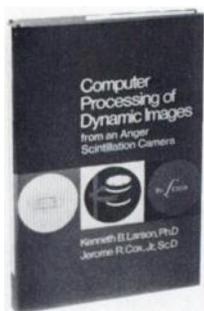
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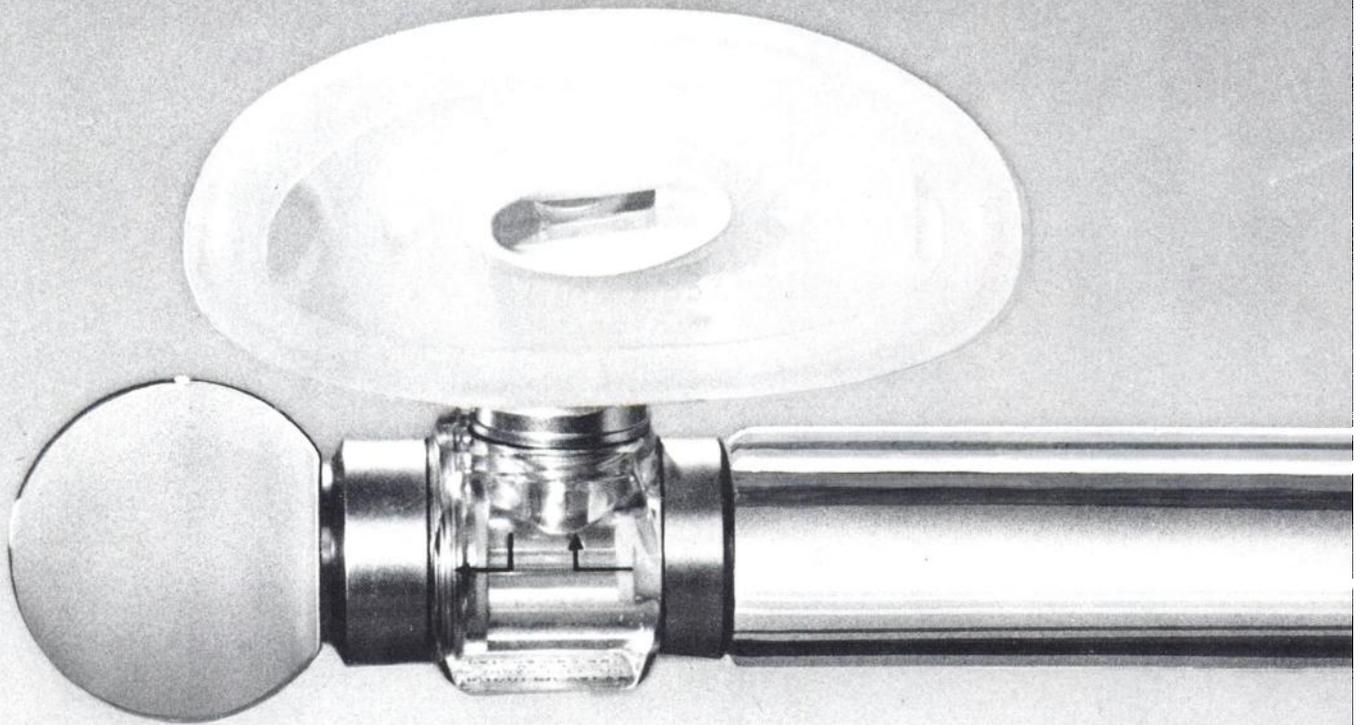
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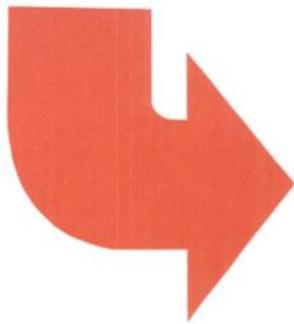
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100	2	79.4	16	15.8
78.0	3	70.7	17	14.0
60.9	4	63.0	18	12.5
47.5	5	56.2	19	11.2
37.0	6	50.0	20	10.0
28.9	7	44.6	21	8.9
22.5	8	39.7	22	7.9
17.6	9	35.4	23	7.0
13.7	10	31.5	24	6.2
10.7				

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Before prescribing please consult the complete product information, a summary of which follows:

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WARNINGS—In acute cor pulmonale the administration of aggregated albumin is theoretically hazardous due to the temporary small additional mechanical impediment to pulmonary blood flow. Although not reported with *TechneScan MAA Tc 99m* there are three reports in the literature of deaths occurring after the administration of radiiodinated aggregated albumin as a result of pre-existing primary pulmonary hypertension.^{1,2,3}

The contents of the *TechneScan MAA* reaction vial are intended only for use in the preparation of *TechneScan MAA Tc 99m* and are not to be directly administered to the patient.

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

This radiopharmaceutical preparation should not be administered to patients with severe kidney disease unless the benefits to be gained outweigh the potential hazards. Similar care should be observed with patients who are pregnant or who are lactating.

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

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

PRECAUTIONS—As in the use of any other radioactive material, care should be taken to insure minimal radiation exposure to the patient, consistent with proper patient management, and to insure minimum radiation exposure to occupational workers.

ADVERSE REACTIONS—Although no anaphylactoid reactions have been reported in patients following the administration of *TechneScan MAA Tc 99m*, the possibility should be considered that hypersensitivity reactions may occur rarely in patients who, after the initial administration, receive additional doses a number of weeks after the initial dose.

¹Dworkin, H. J.; Smith, J. R. and Bull, F. E.: Reaction after Administration of Macroaggregated Albumin for a Lung Scan, *New England J. Med.*, 275:376, August 18, 1966.

²Roberts, H. J.: Fatal hemoptysis in pulmonary embolism probably precipitated by pulmonary scanning—Report of a case and suggested precautions. *Angiology*, 21:270, 1970.

³William, J. O.: Death following injection of lung scanning agent in a case of pulmonary hypertension. *Br. J. Radiol.* 47:61, 1974.

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Technescan™ MAA Lung Scan Kit
CONTRAINDICATIONS: The safety of *Technescan MAA Tc 99m* in patients with a known right-to-left cardiac shunt has not been established and its use in such patients is contraindicated.

WARNINGS: In acute cor pulmonale the administration of aggregated albumin is theoretically hazardous due to the temporary small additional mechanical impediment to pulmonary blood flow. Although not reported with *Technescan MAA Tc 99m* there are three reports in the literature of deaths occurring after the administration of radioiodinated aggregated albumin as a result of pre-existing primary pulmonary hypertension.^{1,2,3}

The contents of the *Technescan MAA* reaction vial are intended only for use in the preparation of *Technescan MAA Tc 99m* and are not to be directly administered to the patient.

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

This radiopharmaceutical preparation should not be administered to patients with severe kidney disease unless the benefits to be gained outweigh the potential hazards. Similar care should be observed with patients who are pregnant or who are lactating.

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

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

PRECAUTIONS: As in the use of any other radioactive material, care should be taken to insure minimal radiation exposure to the patient, consistent with proper patient management, and to insure minimum radiation exposure to occupational workers.

ADVERSE REACTIONS: Although no anaphylactoid reactions have been reported in patients following the administration of *Technescan MAA Tc 99m*, the possibility should be considered that hypersensitivity reactions may occur rarely in patients who, after the initial administration, receive additional doses a number of weeks after the initial dose.

¹Dworkin, H. J., Smith, J. R. and Bull, F. E.: Reaction after Administration of Macroaggregated Albumin for a Lung Scan, *New England J. Med.*, 275:376, August 18, 1966.

²Roberts, H. J.: Fatal hemoptysis in pulmonary embolism probably precipitated by pulmonary scanning—Report of a case

and suggested precautions. *Angiology*, 27:270, 1970.

³William, J. O.: Death following injection of lung scanning agent in a case of pulmonary hypertension. *Br. J. Radiol.* 47:61, 1974.

Technescan™ PYP™ Bone Scan Kit
CONTRAINDICATIONS: None.

WARNINGS: This radiopharmaceutical should not be administered to patients who are pregnant or lactating unless the information to be gained outweighs the potential hazards.

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.

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

The *Technescan PYP* Kit must be maintained at refrigerator temperature until use.

The contents of the *Technescan PYP* reaction vial are intended only for use in the preparation of Technetium Tc 99m Stannous Pyrophosphate and are not to be directly administered to the patient.

Sodium pertechnetate Tc-99m solutions containing an oxidizing agent are not suitable for use with the *Technescan PYP* Kit. The contents of the kit are not radioactive.

However, after the sodium pertechnetate Tc-99m is added, adequate shielding of the final preparation must be maintained.

The *Technescan PYP Tc 99m* should not be used more than six hours after preparation.

PRECAUTIONS: Both prior to and following *Technescan PYP Tc 99m* administration, patients should be encouraged to drink fluids. Patients should void as often as possible after the *Technescan PYP Tc 99m* injection to minimize background interference from accumulation in the bladder and unnecessary exposure to radiation.

As in the use of any other radioactive material, care should be taken to insure minimum radiation exposure to the patient, consistent with proper patient management, and to insure minimum radiation exposure to occupational workers.

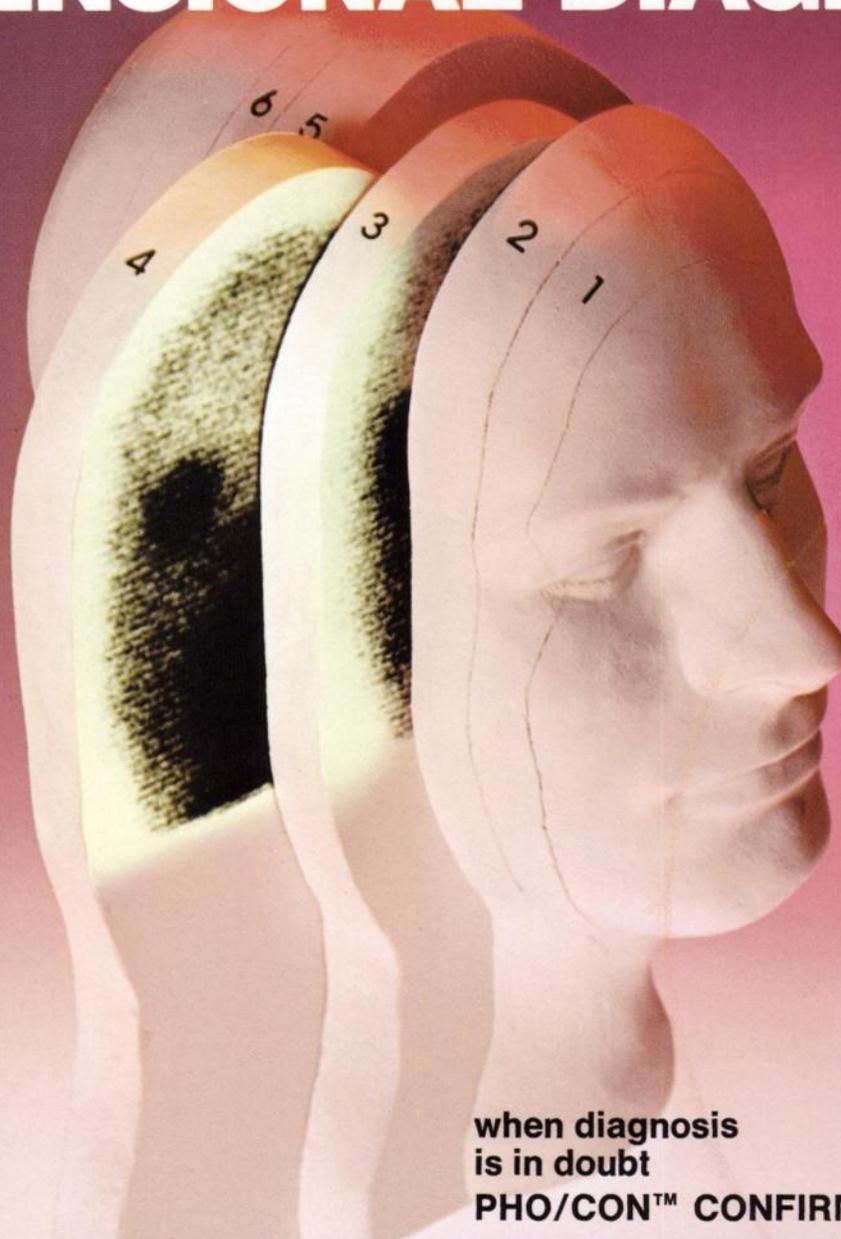
ADVERSE REACTIONS: None.

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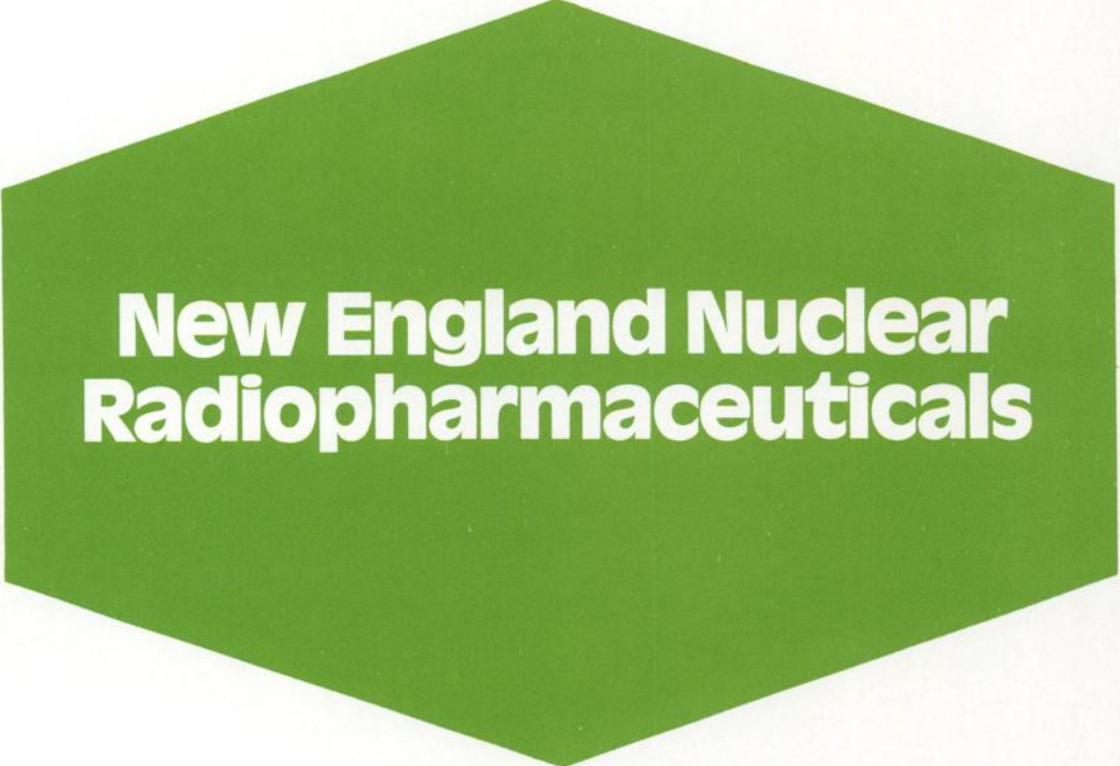
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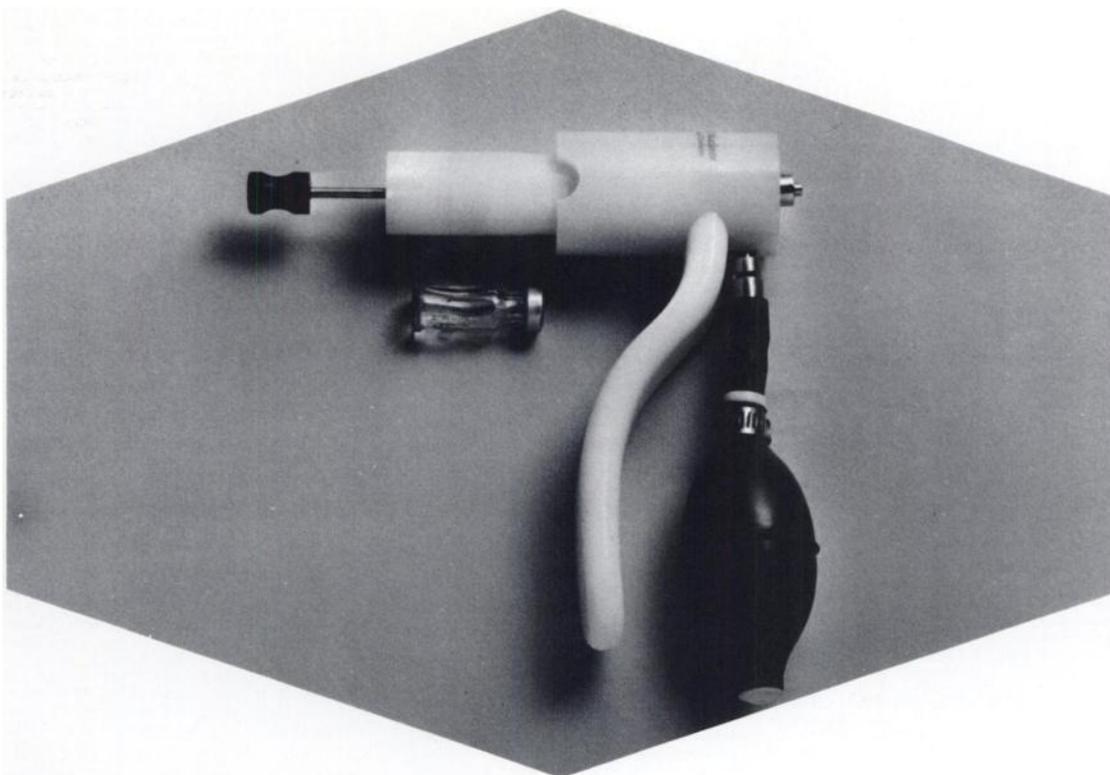
¹ Hare, D.L., Hendee, W. R., Whitney, W.P., and Chaney, E. L.: Accuracy of Well Ionization Chamber Isotope Calibrators, *J. of Nucl Med* 15,1138-1141, 1974.

² Rosenblum, L. H., Bartky, W. S., and Shaifer, R. F., Jr., A technique for Measuring Extremely Low Ionization Chamber Currents Using MOS FET Circuitry. *IEEE Transactions On Nuclear Science*, NS-20, No. 1, Feb. 1973.

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NUCLEAR MEDICINE TECHNOLOGIST or technician for a VA Hospital, fully affiliated with University of Alabama Medical School. Excellent fringe benefits; salary dependent on qualifications. Contact Personnel Office, VA Hospital, 700 S. 19th Street, Birmingham, Ala., (205) 933-8101, ext. 243. Equal opportunity employer.

NUCLEAR MEDICINE — UNIVERSITY of Washington. Approved two-year comprehensive residency training program. Applications for July 1976 and July 1977 now being considered. Contact Thomas G. Rudd, M.D., Division of Nuclear Medicine RC-70, BB20 University Hospital, Seattle, Wash. 98195.

GOOD SALARY AT 145-BED HOSPITAL for a certified technologist in nuclear medicine and preferably diagnostic radiology at Oxford, Mississippi 38655. Contact O. W. Hyman, Jr., M.D.

RESIDENCY IN NUCLEAR MEDICINE (AMA approved) 800-bed VA General Hospital offers two-year program closely affiliated UCLA and Wadsworth VA Hospital. Two positions available July 1976. Located San Fernando Valley 15 minutes from UCLA. Pre-requisite one year approved residency radiology, pathology, or internal medicine. Nondiscrimination in employment. Contact Marvin B. Cohen, M.D., Chief, Nuclear Medicine Service, VA Hospital, 16111 Plummer, Sepulveda, Calif. 91343.

DISTINGUISHED RESEARCH PROFESSORSHIP. Chief, Division of Nuclear Medicine Research, UCLA School of Medicine. Position has admirable tradition, excellent facilities and colleagues. For M.D., clinical oriented researcher. Nuclear medicine or related fields. Equal opportunity, affirmative action employer. Write to Box 701, Society of Nuclear Medicine, 475 Park Ave. South, New York, N.Y. 10016.

ASSISTANT/ASSOCIATE PROFESSOR of Radiology (Nuclear Medicine), Department of Radiology, University of Colorado Medical Center—M.D., Board certified or eligible in nuclear medicine. The department provides a nuclear medicine service for both the Colorado General Hospital and the adjacent Denver VA Hospital. The successful applicant will be responsible for day to day supervision of the VA Hospital service, but will participate in reading sessions, conferences and teaching at the Medical Center. Research facilities are based mainly at the VA Hospital, and the ap-

pointee will have the opportunity of participating in research programs. Salary open. Send curriculum vitae, reprints and work history to Peter M. Ronai, Department of Radiology, University of Colorado Medical Center, Denver, Colo. 80220. The University of Colorado is an equal opportunity employer. Women and minority applicants are encouraged to apply for the above-described position.

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NUCLEAR MEDICINE PHYSICIAN, Board certified, to coordinate Department of Nuclear Medicine for progressive 384-bed, acute care hospital. Contact Ted Stang, Salem Hospital, 665 Winter St., S.E., Salem, Or. 97301. Tel. (503) 370-5347.

NUCLEAR MEDICINE PHYSICIAN: Board eligible or certified in nuclear medicine, to join Department of Nuclear Medicine in Pittsburgh, Pa., July 1976. Large, modern, progressing department. Appropriate salary and fringe benefits. Write Box 702, Society of Nuclear Medicine, 475 Park Ave. South, New York, N.Y. 10016.

EXPANDING NUCLEAR MEDICINE Department with very modern equipment seeks a certified or eligible technologist to fill a new position. Duties will include imaging, both static and dynamic, as well as in vitro procedures including RIA. Prefer a technologist who has exposure and interest in RIA procedures or willing to be trained in this area. Interested persons should send detailed resumes to: Chief, Department of Nuclear Medicine, St. Peter's Hospital, 315 S. Manning Blvd., Albany, N.Y. 12208. Tel.: (518) 471-1407.

POSITION AVAILABLE FOR REGISTERED nuclear medicine technologist experienced in micro-dot and radioimmunoassay. An opportunity to work in rapidly expanding department. \$11,000 range. Contact: Chief Technologist, Department of Radiology, St. Joseph's Hospital, 2200 East Washington, Bloomington, Ill. 61701.

NUCLEAR MEDICINE TECHNOLOGIST. Scanning position immediately available in expanding large department of Arizona's largest teaching hospital (750 beds). Requires ARRT registry. Competitive salary and paid benefits. Send detailed resume or call collect: Gene Frenz, Personnel Department, (602) 252-6611, Ext. 3421. Good Samaritan Hospital, 1033 E. McDowell Road, Phoenix, Ariz. 85006. An Equal Opportunity Employer M/F.

STAFF TECH NUCLEAR MEDICINE. Immediate opportunity for ARRT or eligible. Excellent salary and benefits at a progressive, 217-bed acute care hospital in beautiful Palm Springs. Contact Desert Hospital, Personnel Dept., P.O. Box 1627, Palm Springs, Calif. 92262.

NUCLEAR MEDICINE TECHNOLOGIST. Staff position available with progressive 392-bed general hospital. Prefer graduate from an accredited nuclear medicine technology program, however will consider a person with experience in the field or a radiologic technologist. Salary is negotiable. Excellent fringe benefits. For more information call or write R. C. Pearson, Personnel Director, Amarillo Hospital District, Box 1110, Amarillo, Tex. 79175. Phone (806) 376-4431, Ext. 385. An Equal Opportunity Employer.

RADIOPHARMACEUTICAL CHEMIST position open—1 July 1976. Faculty position involving teaching, research and service in academic institution. Contact C. M. Boyd, M.D., Division of Nuclear Medicine, University of Arkansas Medical Center, Little Rock, Ark. 72201. An equal opportunity employer.

APPLICATIONS ARE INVITED FOR an appropriate faculty appointment in diagnostic radiology with specialization in medical electronics. A Ph.D., D.E., or Masters with some experience is required; responsibilities will include research, service, and teaching. The Division of Radiological Sciences is involved in research in image processing and pattern recognition of nuclear medicine and ultrasound images, electronic radiography, and radioisotope tracer techniques. A successful candidate is expected to have experience in some of the following areas: computer interfaces, direct interprocessor links, rotating memory, logic circuitry, gamma cameras, x-ray equipment, RF circuitry (1-15 MHz), and medical electronics instrumentation. Candidates should direct inquiries to: Dr. Richard C. Riley, Head, Division of Radiological Sciences, Department of Diagnostic Radiology, University of Kansas Medical Center, 39th and Rainbow, Kansas City, Kans. 66108. An equal opportunity employer.

NUCLEAR MEDICINE TECHNOLOGIST for 600-bed teaching hospital providing excellent experience and opportunity for continued learning. Excellent fringe benefits. Graduate of AMA-approved program in nuclear medicine (university and community employer). Send resume to: Personnel Dept., U. of I. Med. Center, P.O. Box 6998, Chicago, Ill. 60680.

POSITIONS WANTED

NUCLEAR MEDICINE PHYSICIST with supervisory experience seeks a position in nuclear medicine department immediately. Please reply to Box 703, Society of Nuclear Medicine, 475 Park Ave. South, New York, N.Y. 10016.

PHYSICIAN, AGE 36, BOARD CERTIFIED (ABNM & ABR), six years experience in nuclear medicine (university and community hospital) and full range of diagnostic radiology. Desires position in nuclear medicine or nuclear medicine and radiology. Please reply to Box 704, Society of Nuclear Medicine, 475 Park Ave. South, New York, N.Y. 10016.

TOPICS IN NUCLEAR MEDICINE

The Seventh Annual Seminar in Nuclear Medicine will be held at Colby College and Thayer Hospital in Waterville, Maine, August 18-22, 1975. Thirty hours of lecture, workshops and interesting cases will be presented by Drs. Henry N. Wagner, Jr., C. Douglas Maynard, Steven M. Larson, Thomas G. Mitchell, H. William Strauss, and Irving Goodof. Accredited Category I, AMA's Physician Recognition Award.

For further information, contact Dr. Robert Kany, Director of Special Programs, Colby College, Waterville, Maine 04901.

JNM CLASSIFIED PLACEMENT SERVICE SECTION

This section in the Journal of Nuclear Medicine contains "Positions Open", "Positions Wanted", and "For Sale" listings. Nondisplay "Positions Wanted" ads by members of the Society are billed at 30¢ per word for each insertion with no minimum rate. Nondisplay "Positions Wanted" ads by nonmembers and all nondisplay "Positions Open" and "For Sale" ads by members and nonmembers are charged at 65¢ per word, with a minimum of \$15. Display advertisements are accepted at \$50 for 1/8 page, \$90 for 1/4 page, \$165 for 1/2 page, and \$295 for a full page. Closing date for each issue is the 15th of the second month preceding publication. Agency commissions and cash discounts are allowed on display ads only. Box numbers are available for those who wish them. All ads must be prepaid. Please note our new address.

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Announcement and Call for Abstracts

The Scientific Program Committee welcomes the submission of abstracts of original contributions in Nuclear Medicine from members and nonmembers. All abstracts must be postmarked on or before August 15, 1975.

Guidelines for abstracts:

1. Abstracts should not exceed 400 words.
2. Abstracts should contain a statement of purpose, methods used, results and conclusions.
3. Give title of paper and name of author(s) and underline the name of the author who will present the paper.
4. Supporting data must accompany the abstract (limit 3 pages).
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c/o Dept. of Nuclear Medicine (172)
Veterans Administration Hospital
Tucson, Ariz. 85723**

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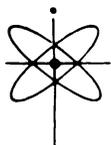
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- H.C.S. (Human Chorionic Somatomammotropin)
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- Estradiol
- Estrinol
- Estrone
- Progesterone

- Testosterone
- Cortisol
- Aldosterone
- Insulin
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MODEL 145 LOCALIZATION MONITOR

Detection of Deep Vein Thrombosis

and other in vivo applications



- CPS & PERCENTAGE READOUT
- COMPACT & PORTABLE
- BATTERY OPERATED (3 D cells)
- FULLY TRANSISTORISED
- LINEAR SCALE & WIDE RANGE
- RECORDER OUTPUT
- VARIABLE DEPTH COLLIMATOR
- UNLIMITED CHANNEL SELECTION
- MANUFACTURED & SERVICED IN THE U. S. A.
- CLINICALLY PROVEN FOR OVER ONE YEAR

CONTROLS

High voltage
Threshold
Window
Battery test
Response (fast & slow)
CPS or percent switch
Reset

For DEEP VEIN THROMBOSIS DETECTION, the Model 145 offers the important features of portability, standard D cell operation yielding at least 100 hours of uncycled use, unlimited channel selection, and prompt servicing.

Using I-125 labelled fibrinogen and the Model 145, early detection of deep vein thrombosis of the legs can be accomplished. With the Model 145, the leg is scanned after intravenous injection of the labelled fibrinogen. As a thrombosis develops, the radioactive fibrinogen is detected with the Model 145 and measured directly in percentage, where 100% is determined over the precordial area.

SPECIFICATIONS

RANGE: 30, 100, 300, 1000, 3000 cps
and 0 - 120%

TIME CONSTANT: Fast 2 sec., slow 14 sec.

SIZE: 4½ x 5½ x 8 inches (HxWxL exclusive
of handle).

WEIGHT: 6.5 lbs total

DETECTOR: 1mm x 1 inch NaI (TL) mounted
on PMT and 7 mg/cm² aluminum
window. Optional - 1 inch x 1 inch
NaI (TL) detector with thin window
at extra cost.



jasins & sayles associates

892 Worcester Street - Wellesley, Massachusetts 02181

telephone (617) 235-6691

RADX **has the system** **...for Xenon** **ventilation and perfusion studies**



Xenon-Kow

Xenon-Kow

A safe, economical method of storing, dispensing and controlling radioactive gas. It utilizes the most inexpensive form of ^{133}Xe presently available—a 1 curie, 5cc glass ampoule. The system is contained in two free-standing consoles.

The Radx



Ventil-Con

The Radx Xenon-Kow transfers high specific activity gas to a clinically useful dose—either gas or gas/saline solution. For ventilation studies ^{133}Xe gas can be transferred directly to the Radx Ventil-Con.

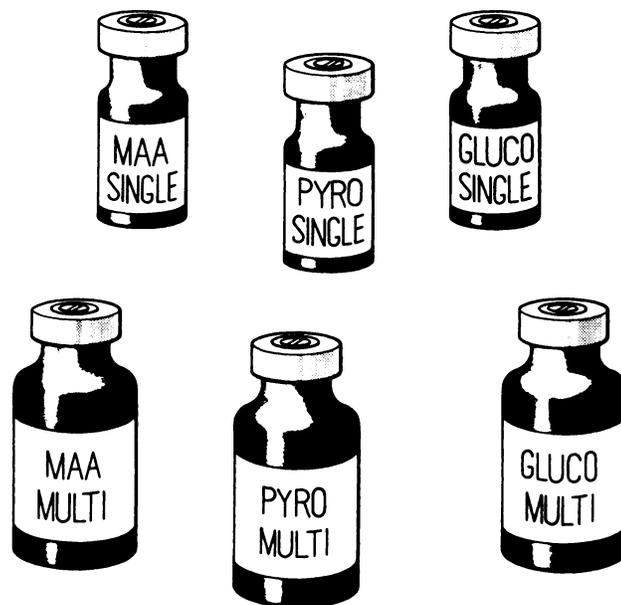
The Ventil-Con console dispenses controlled gas to the patient for pulmonary investigations. A system designed for the convenience of the technologist, the physician and the patient.

Call RADX or write for complete literature.

RADX
CORP

P.O. Box 19164 • Houston, Texas 77024 • (713) 468-9628

**THERE ARE TIMES ...
IT'S BETTER TO BE
SINGLE!**



**THEN AGAIN
THERE ARE TIMES
IT'S BETTER TO BE
MULTI!**

Like when you have only one study to run that day or six for that matter (Multi-Dose plus Single Dose vials).

ANI PRODUCTS OFFER YOU . . .

quality, dependability, convenience, economy, consistent reproducibility, safety, stability, specificity, uniformity, excellence, superiority, reliability, suitability, etc., etc., etc.

OH YES,

You will certainly get great looking scans at considerable savings to your department.

WOULD YOU BELIEVE that a company has finally done the obvious — introduced **MULTI-DOSE** and **SINGLE-DOSE** vials to the Nuclear Medicine Community.

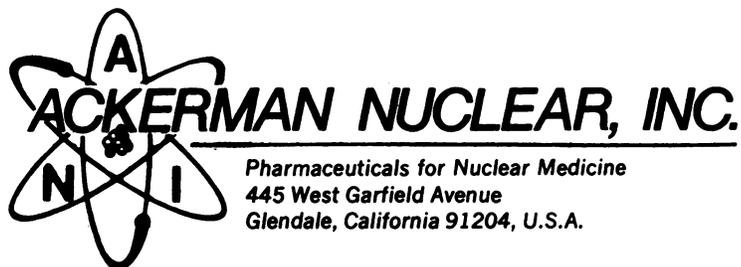
A survey of hospitals in the Greater Los Angeles Area has shown typical cost savings of 20% to 50% by proper combination of singles and multies based on daily demand.

ANI offers this unique concept in three initial products:

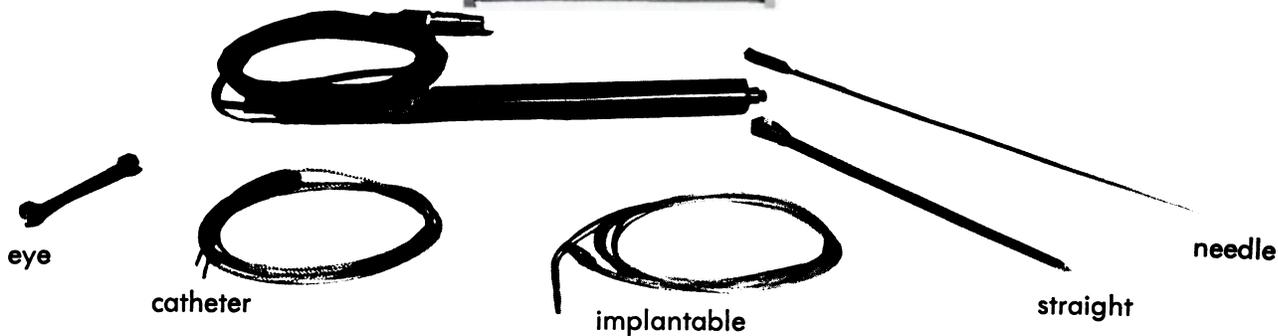
- Instant MAA Reagent
(MacroAggregated Albumin)
- AN-PYROTEC
(Pyrophosphate)
- AN-GLUCOTEC
(Glucoheptonate)

Call **ANI** collect for prices and availability in your area.

(213) 246-2555



the proven clinical counting system



Solid State Probes



G.I.



Scintillator

- Operating room design
- In vivo use
- Single, dual and multiple or matrix detectors
- Intracavitary, intraorgan, or surface
- Real time information
- Chart, printer, and computer compatible



TECHNICAL ASSOCIATES

7051 ETON AVE., CANOGA PARK, CA. 91303
(213) 883-7043

Clinical Assays introduces the first digoxin specific antibody-coated tube assay system. This assay, in conjunction with the well established GammaCoat ^{125}I Digoxin Kit, permits the identification and quantitation of both glycosides. The use of the antibody-coated tube and ^{125}I derivative tracer shortens each RIA procedure to five simple steps.

1. Add buffer.
2. Add serum. Incubate.
3. Add tracer. Incubate.
4. Aspirate and wash.
5. Count the coated tubes.

This important development lowers overall costs and assay time significantly. The simplicity of the methodology minimizes variations from technician to technician and from laboratory to laboratory.

The use of a special additive, unique in the GammaCoat Systems, substantially eliminates the errors associated with variable serum proteins (1,2), resulting in a highly accurate assay. The GammaCoat assays for digoxin and digitoxin are the first such ^{125}I assays to consistently correlate with the established ^3H methodologies.

Other kits available:

- GammaCoat Cortisol (^{125}I)
- GammaCoat Renin Activity (^{125}I)
- Vitamin B₁₂ (^{57}Co)
- Folate (^{125}I)
- Folate (^3H)
- Digoxin (^3H)
- Digitoxin (^3H)
- Cortisol (^3H)
- Prostaglandins (^3H)

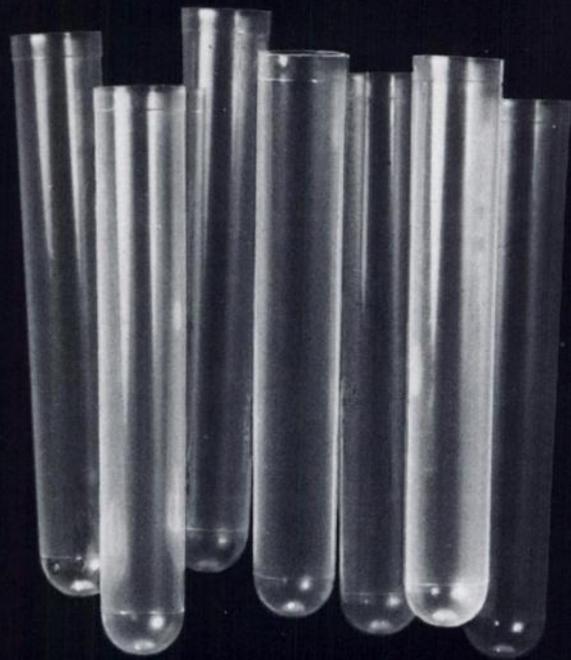
For Full Details Contact:



**Clinical
Assays, Inc.**

237 Binney Street • Cambridge,
Massachusetts 02142 • (617) 492-2526

References: 1) Burnett, G. H.; Conklin, R. L.; Wasson, G. W.; MacKinney, A. A.; Clin. Chem. 19 No. 7 725, 1973. 2) Holtzman, J. L.; Shafer, R. B.; Erickson, R. R.; Clin. Chem. 20 No. 9 1194, 1974.



GammaCoat™ ^{125}I Digoxin & ^{125}I Digitoxin RIA Kits





WE MISSED YOU...

But we didn't forget you!



The Second Annual Winter Meeting in Houston provided an exciting exchange of professional and educational concepts, ideas and information on nuclear medicine technology. For those who couldn't attend, we had the sessions professionally recorded and are offering the major highlights of the event on cassette tapes. For a limited time only, the cassettes are available at the special convention price of only **\$4.50 each**. (After April 10, 1975, our catalog price for cassette programs will be \$6.00 each.) Orders for six cassettes or more will be packaged in attractive vinyl storage albums.

Send your order off today and take advantage of the 25% price savings. Don't miss this opportunity to "attend."

W1 – Instituting a RIA Laboratory

Presents physical and equipment requirements for a limited facility (4-5 assays), a complete facility (15-20 assays), and cost accounting formula for procedure costs.

W2 – Thyroid-Related Hormones (T-4, T-3, and TSH)

Thyroxine-Triiodothyronine relationships, thyroid medications, typical results in disease states.

W3 – Serum Folate and Vitamin B-12

Causes of deficiencies; the results of deficiencies, the value of the assay by the serum method, the general format of the assay, normal values and quality control points.

W4 – Adrenal-Related Hormones

Cortisol, ACTH, Renin and Aldosterone.

W5 – TRH Stimulation of TSH Production

Response of serum GHG levels to insulin, L-Dopa, and glucose.

W8A – Part I

W8B – Part II

Educational Programs

Past, present and future educational training programs; a national sample of educational programs—hospital based (certificate).

W9A – Part I

W9B – Part II

Teaching Methodology

An in-depth discussion of academic and clinical curriculum planning, scheduling, testing and evaluation, interrelationship of academic and clinical programs, developing student response and interaction, and other training techniques, educational objectives "The End Product."

Send with check to **INFONETICS CORPORATION, 17981C Sky Park Drive, Irvine, CA 92707**

SECOND WINTER MEETING: TECHNOLOGIST SECTION

Please send me the following cassettes @ \$4.50 each (after April 10, 1975, @ \$6.00 each).

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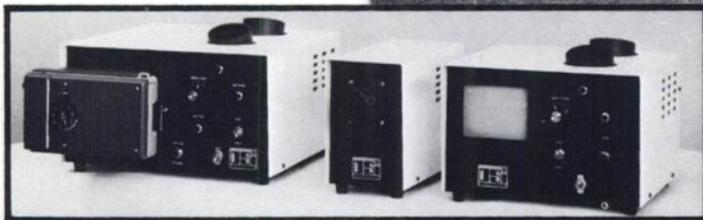
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← Thyroid

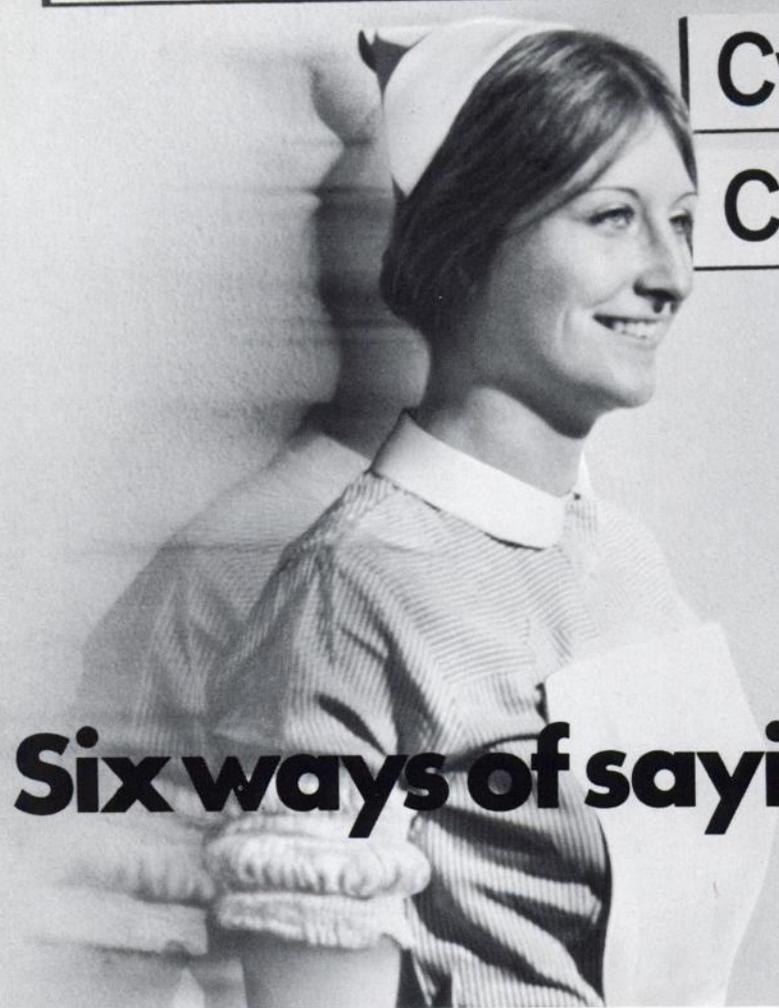
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ACTH →

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Every one of our radioassays is developed to give the highest standards of precision, accuracy and reliability. We also concentrate on making them simple to use and interpret, leaving you free to concentrate on the other important aspects of your work.

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Insulin
ACTH
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For only \$895.00 you could perform Xenon Gas studies and trap the expired Xenon Gas instead of spending \$5,000.00 or more for competitive systems.

A Disposable Xenon-133 Rebreathing System Model DX-133T is used for administering the Xenon Gas and the Xenon-133 Gas Trap Model XE-102 is used for trapping the expired Xenon Gas.

Model XE-102\$895.00
 Model DX-133T.....13.95

DISPOSABLE ADMINISTERING AND TRAPPING SYSTEM FOR ONLY \$13.95

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Model DX-133

- Disposable combination inhalation and trap system.
- Inexpensive, easy to use.
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This inexpensive, disposable device is used to both administer Xenon-133 and to collect the expired gas. Made entirely of plastic, the system is used for one patient only, and then discarded, after the Xenon has been allowed to decay or has been exhausted from the collection bag.

Model DX-133\$13.95



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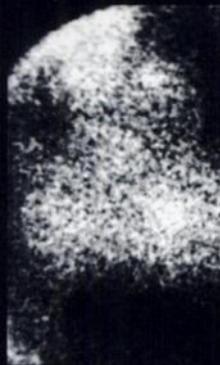
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Help your cardiologist study heart kinetics non-invasively with Brattle-gated scintiphotos.



RAO, DIASTOLE



RAO, SYSTOLE



LAO, DIASTOLE

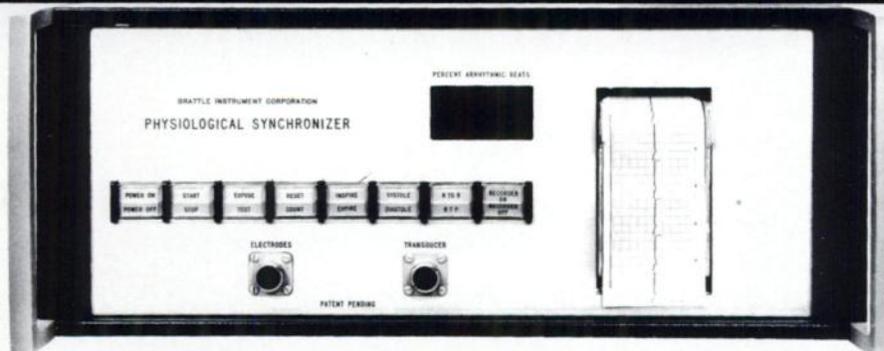


LAO, SYSTOLE

The RAO view shows akinesis of the lower antero-lateral wall and apex; and contraction of the inferior wall and high up the antero-lateral wall. The LAO view shows good contrac-

tion posteriorly and akinesis of the septal aspect of the chamber. Patient was injected IV with 20mCi of ^{99m}Tc -labelled Human Serum Albumin. The agent was prepared using the New

England Nuclear Electrolysis Kit for labelling HSA. Write or call for a portfolio of Brattle-gated lung, liver and heart studies.



No knobs, no meters, no errors
The spartan panel above tells the second-best part of our story. If you want to photograph peak systole, press the SYSTOLE button. If, say, you want systole only at full expiration, press the EXPIRATION button as well. If only breathing is relevant, don't press the heart button.

The Brattle is connected to the patient and to your gamma (or x-ray or ultrasonic) camera. Whenever the patient is in the selected phase, both the scope and the scaler on your gamma camera are gated ON, and film is exposed. Otherwise, they are OFF.

Brattles lock onto patients — and stay locked on

It doesn't matter if the patient's heart rate and breathing depth change while he's under the collimator be-

cause we stay right with him. Brattles contain an ECG to track heart, a plethysmograph to track respiration, and a tiny computer to deduce systole and diastole times from the heart signal. And because it's all built in, your operator need not be a physiologist.

We don't cover our tracks — we print them

The panel lights flash whenever the patient reaches the selected phases; and pushing the RECORDER-ON button gets you an ECG tracing marked with breathing and camera-on times. You can verify function before, during and after exposure.

A single pair of axillary electrodes captures both heart and breath

It's easy. And we supply disposable, pre-filled electrodes.

Some Brattles have been in clinical use for over three years — in community and major hospitals

More than half of our instruments are in community hospitals and the list is growing rapidly. Upon request, we'll supply names of happy users in your area.

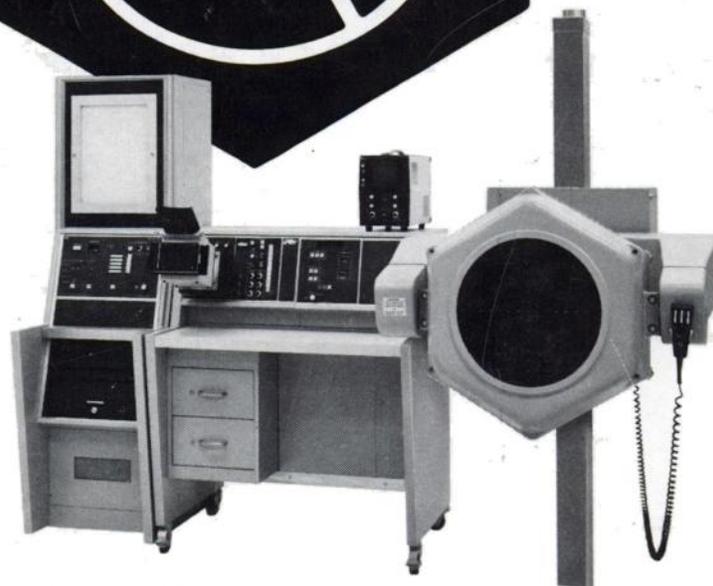
What's the next step? Get in touch

Ask your NEN man about Brattles and HSA Kits. He can show you a portfolio of clinical pictures and arrange to have one of our people give you a demo. Or write or call us direct. We'll send you brochures on this and other models, and will give you your own set of clinical pictures and a bibliography on gated scintigraphy. If you wish, we'll even make you a Brattle owner. (This is the best part of our story.)

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