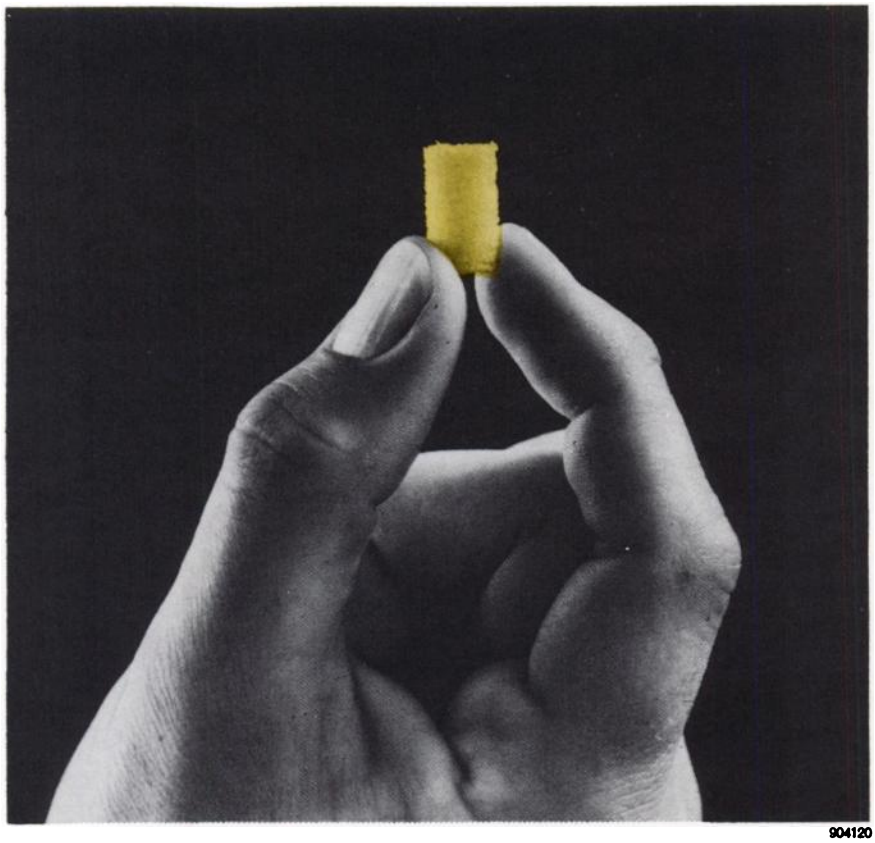
you can "count" on these 2 sponges



904120

Both Triosorb and Tetrasorb are *in vitro* tests providing accuracy, speed and convenience. They are available in disposable kits ready for immediate use at room temperature.

"The T-3 uptake test was vastly improved by a resin-sponge . . . (Triosorb) . . . which is offered as a replacement for the red cells as well as for the loose granular resin which varies from day to day."[3]

Tetrasorb is the first diagnostic kit offering a direct measurement of thyroid function by determining serum thyroxine. Hypothyroid patients show a decrease in serum thyroxine while hyperthyroid patients show an increase. In euthyroidism, interfering conditions cause the T-3 and T-4 to move in opposite directions whereas in hypothyroidism or hyperthyroidism, both tests move in the same direction.

By requesting both Tetrasorb (a direct measure of thyroid activity) and Triosorb (an indirect measure of thyroid activity) for his patient, the physician can make his diagnosis with increased confidence.

3. Manfredi, O. L., et al., J. Nuclear Med., 7:72, 1966.

Abbott Laboratories North Chicago, Illinois 60064
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LABOR-SERVICE GMBH,
Abteilung RADIO-PHARMAZEUTIKA
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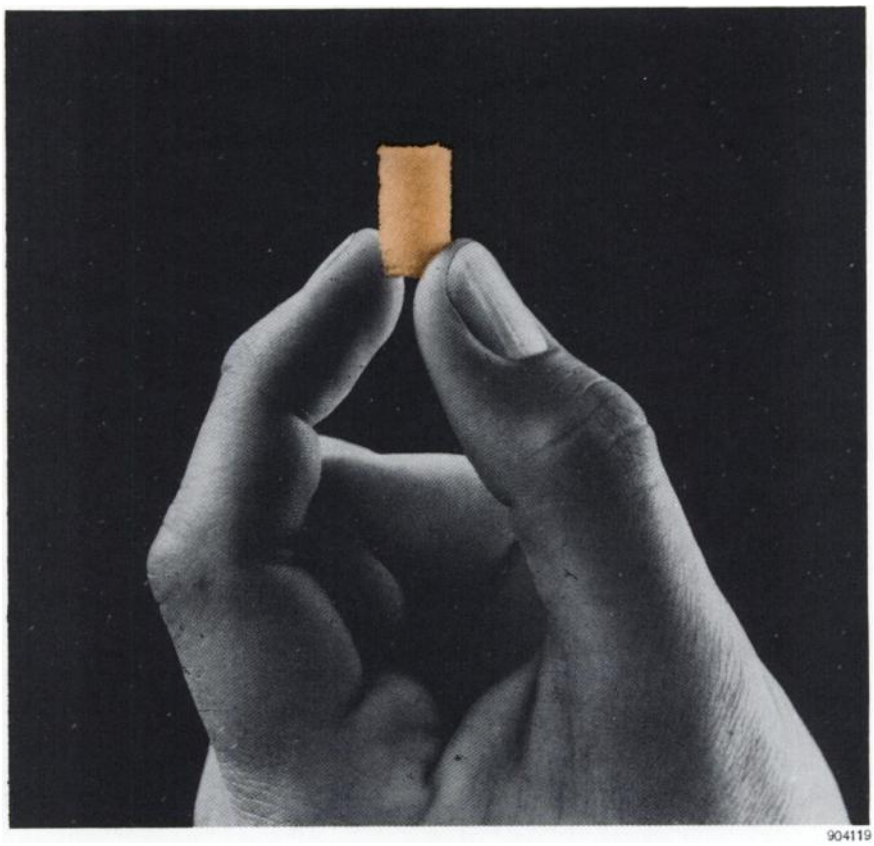
TRIOSORB®-131
TRIOSORB-125
T-3 Diagnostic Kit

If you suspect thyroid dysfunction,



"No single laboratory test of thyroid function is diagnostically perfect for all patients."[1]

That's why Abbott offers both a T-3 test (Triosorb) and a T-4 test (Tetrasorb).

"The serum T4, being completely specific, comes closest to the ideal test and is better correlated with clinical status than any other routine test. The serum T4 alone is adequate for the vast majority of patients. Because of variations in the T4 binding capacity of the serum proteins in pregnancy, in various disease states, and as a result of certain medications, misleading T4 results may be obtained occasionally."[1]

"Fortunately, the generally available *resin uptake of* ^{131}*I-triiodothyronine* (Triosorb test) is a useful procedure to complement the serum thyroxine determination, particularly when values of the latter do not seem consistent with the clinical picture."[2]

"In summary, our experience with the serum T4 in the past three years has proven it a completely specific and highly accurate diagnostic test. Diagnostic errors are relatively easily detected if a T3 Resin test is used concurrently. We now use the T4 instead of the PBI as the routine screening test of thyroid function."[1]

1. Gold, A., Appl. Ther., 9:599, 1967.
2. Editorial, Canad. Med. Assn. J., 97:32, 1967.

TETRASORB™-125
T-4 Diagnostic Kit

TM—Trademark

The LOGIC™ Well Counter

is only inches larger than this page (12¼" x 4 1/16" x 13" to be exact)

Please lift this page
for information about
Tetrasorb™ and Triosorb®

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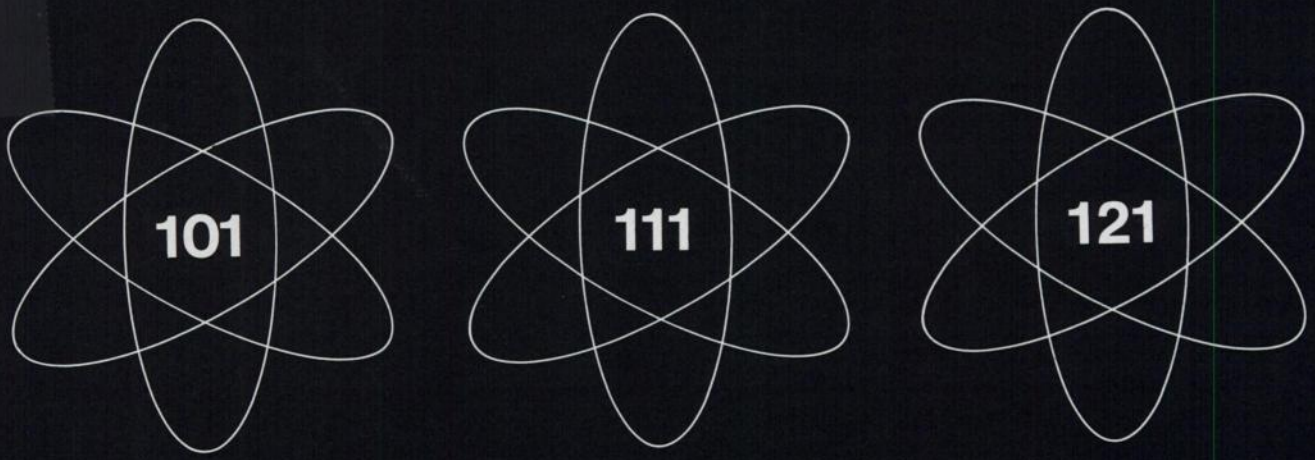
The LOGIC Series–

the most compact counting systems ever designed– is available in 3 models



The LOGIC Counting Systems offer:

Compactness (micrologic integrated circuitry)

Dependability (thoroughly pre-tested)

Portability (25 to 35 lbs.)

Versatility (multi-test capability)

Quality (backed by Abbott)

Abbott Laboratories, North Chicago, Illinois 60064

Nuclear Instruments You Can Count On

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CHARCOAT T-3. No fuss, no muss, no multiple pipetting or rinsing.

You don't even have to throw in a sponge. ☐ What's more, CHARCOAT T-3 tests take only thirty minutes — start to finish — without complicated setups. You do everything in one little two-part vial. ☐ Merely pipette 0.5 ml of patient serum into each test vial, invert, incubate, centrifuge, and count the supernatant. ☐ But don't take our word for how simple and economical CHARCOAT T-3 kits are. Put one to the test. A standard kit (13 test vials) is only $20, and just a phone call away. Moreover, the extra long shelf-life of the CHARCOAT T-3 test kit makes quantity discount purchases practical. ☐ Ask about our Automatic T-3 Computer. Easy to use—no calculations. $1680 sale or lease.

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for production of sterile, pyrogen-free sodium pertechnetate Tc^{99m}

ADVANCED DESIGN

The self-contained unit provides maximum safety.

COMPLETELY PRE-ASSEMBLED

Conveniently ready for use by opening door and starting elution procedure.

DIRECT VOLUME READOUT

The observation and control of volume is accomplished by use of the built-in readout chamber.

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Molybdenum and aluminum levels better than established standards.

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Compact and accessible arrangement in rear of unit provides all accessories needed for complete and accurate calibration.

ISO/SERVE DIVISION

Cambridge Nuclear Corporation

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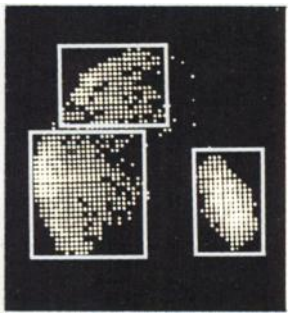
Until Digital Cinescintigraphy becomes part of your scintillation camera or scanner system, you are making only partial use of scintigraphy's powerful diagnostic capabilities.

Digital Cinescintigraphy is a highly versatile system for storing and analyzing scintigraphic information. It takes raw data from a scanner or camera, converts it to digital form, stores it directly in a core memory or on magnetic tape and permits you to manipulate and display it, without loss of true-time relationship, at your convenience. More specifically, you can use Digital Cinescintigraphy to:



For Scanner Systems

- Digitize and store scan data directly in core memory to permit images to be added, subtracted and integrated.
- Precisely integrate irregular organ areas by use of a light pen.
- Switch memory configuration from conventional square (64 x 64) display to rectangular (32 x 128) to suit the shape of the organ under study—for example, the spinal column.
- Permit performance of dual isotope studies using a single or dual headed scanner.
- Preserve data in standard tape cassettes for future analysis.
- Provide a data format compatible with most large computers.

For Scintillation Camera Systems

- Digitize and store raw data from a scintillation camera directly on magnetic tape, on a real time basis, so that time-of-occurrence information is preserved.
- Play back and view any image of any area for any time period during the study.
- Perform compartmental analysis to determine the "time/rate" variation in uptake throughout an organ.
- Precisely integrate irregular organ areas by use of a light pen.
- Set up "windows" over particular regions of interest of an organ and generate differential uptake curves for those specific regions. Up to eight different regions of interest can be established at one time to produce a simultaneous display of eight time-rate curves.
- Record separately and simultaneously the images produced in dual isotope studies.
- Provide a data format compatible with most large computers.

Digital Cinescintigraphy can expand the capabilities of your scintigraphy system. For more information, write or call Don Zahorik at Intertechnique Instruments Inc., Randolph Industrial Park, Dover, New Jersey 07801. Telephone: (201) 361-5550.

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DOVER, NEW JERSEY

Produces ^{113m}In for months—The half-life of ^{113}Sn is 118 days; the ^{113}Sn/^{113m}In Generator can be eluted twice a day or oftener, and continues to produce usable quantities of ^{113m}In for many months.

Easily prepared eluant—Dilute HCl, wide pH range—1.1 to 1.6.

Excellent yield—More than 90% of the theoretically available ^{113m}In.

High concentration—Eluted with 5 to 6 ml. of dilute HCl to provide a solution with high ^{113m}In concentration.

High radionuclide purity
>99.99% ^{113m}In;
<0.01% ^{113}Sn.

Carrier-free eluate—Eliminates the problem of chemical toxicity. No zirconium, aluminum or heavy metal ions detectable by emission spectroscopy.

Thoroughly tested—Each generator is eluted 5 times before shipment. No generator is shipped that shows tin breakthrough or pyrogenicity.

Custom-made—5 mc. to 100 mc.; shipped within one week of order.

Note: Union Carbide's ^{113}Sn/^{113m}In Generator is manufactured under rigid standards and prepared with sterile, pyrogen-free reagents and solutions. However, the product solution is not pharmaceutically refined and no guarantee is made concerning its sterility and freedom from pyrogens. The possession and use of the generator are subject to the licensing regulations of the AEC and agreement states.

Easy-to-use ^{113m}In assay standard available. Product information available on request.

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...Union Carbide

^{113}Sn/^{113m}In Generator

CULVER PICTURES

Timely Technetium.

NEISLER now ships NEIMOTEC® Sterile Generators ($^{99}Mo/^{99m}Tc$) 156 days a year to simplify your scanning scheduling.

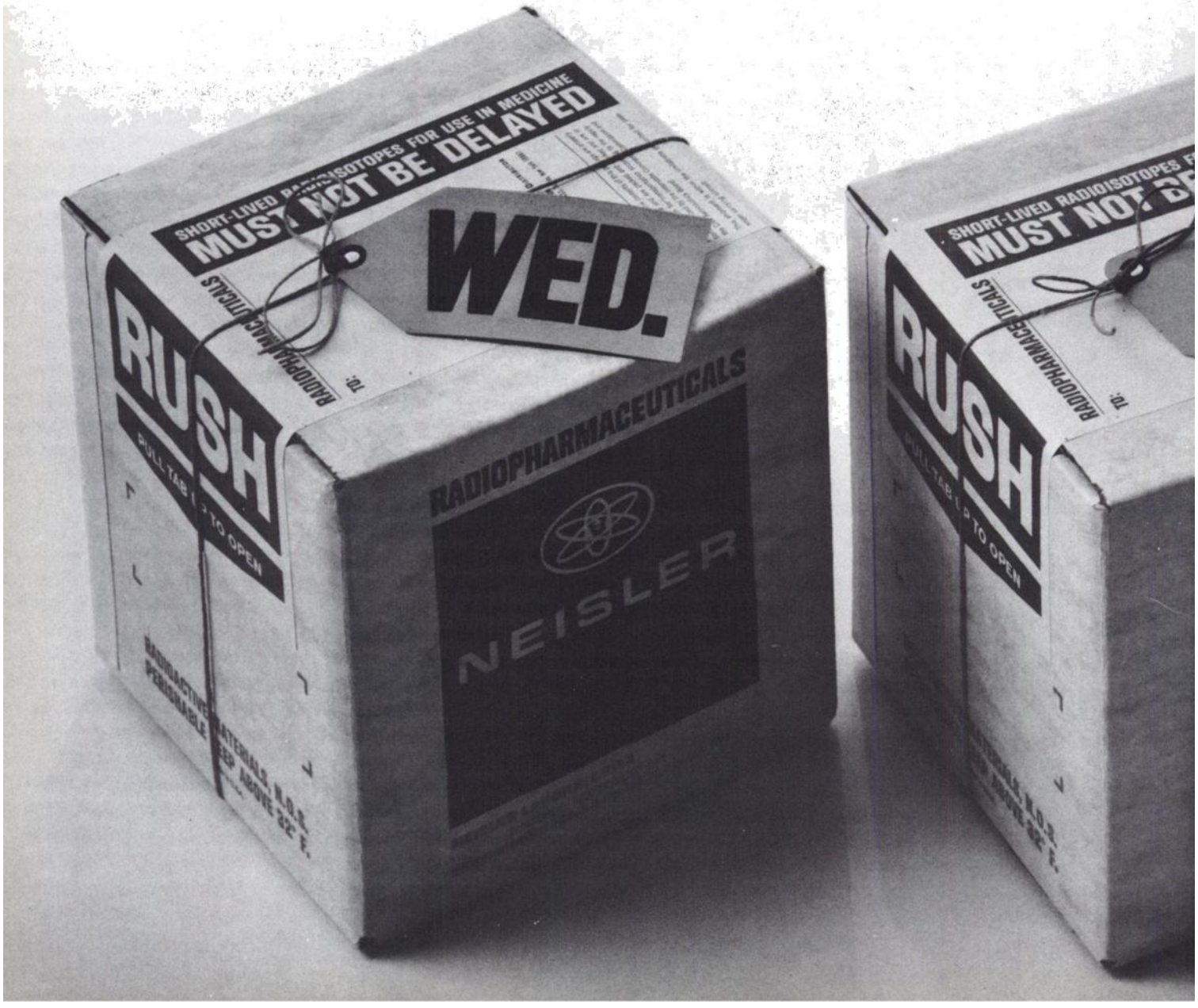
We ship technetium 99m generators every Wednesday, every Friday, and every Sunday* so that your diagnostic needs, whatever they are today, or might become tomorrow, are likely to be met with minimum trauma. Simply tell us how many millicuries of technetium 99m you need on Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and even on Sunday, and we will show you how our three-day-a-week NEIMOTEC® generator shipments can best meet your specific requirements economically.

About the Generator—This is a complete system which is easy to set-up and use. And the unique accessibility of its components allows for adjustments if required. This generator is sterile, pyrogen-free and provides routinely high yields.

Safety Considerations—The NEIMOTEC® generator itself has a well-engineered, effective shield. The eluate vial is married to its own separate lead shield and cannot accidentally leave it.

New Radiometric Assay Kit—This is a complete kit for rapid, accurate and reproducible assay and calibration of the *total* generator eluate. It determines total ^{99m}Tc and ^{99}Mo activities radiometrically in a matter of minutes *without* transferring portions of the eluate from its vial. And no spot tests!

NEISLER Service—(1) Because we are also major suppliers of sodium pertechnetate Tc 99m solution, now calibrated to 3 P.M. New York time, we can always backstop you if required for any reason whatsoever. (2) Local NEISLER salesmen and specialists provide personalized service in virtually all areas. (3) Our Order Department is as near as your phone—call collect—



(212) 682-5057 or 5058. (4) Our Radiopharmaceutical Customer Service Manager (phone 212-682-5057) is available for answering questions or providing technical service having to do with any of NEISLER's radiopharmaceuticals.

Indications—Brain scanning.

Contraindications—Should not be administered to pregnant or lactating women, or to patients under the age of 18 years, except when necessary diagnostic information cannot be obtained by other types of studies or can only be obtained at a risk greater than the radiation exposure caused by this drug.

Warnings—As with all radiopharmaceuticals, dose should be limited to smallest reasonable amount consistent with greatest value in terms of relevant diagnostic information.

Precautions—Approved radiation safety precautions should be maintained at all times. Interpretation of scans should take into consideration the possibility of extracranial contamination with salivary secretions, and should distinguish between abnormalities and areas of normally high vascular activity.

Adverse Reactions—None reported to date; however, patients should be carefully observed.

Dosage and Administration—Up to 10 millicuries per patient, administered by intravenous injection. Physicians should consult product package insert before administering.

*Generators shipped on Sunday can be reliably delivered early Monday A.M. in areas serviced by airports having dependable delivery service.

NEISLER LABORATORIES
Division of MALLINCKRODT CHEMICAL WORKS
Radiopharmaceutical Department
P.O. Box 433, Tuxedo, N.Y. 10987 (Phone 212-682-5057)

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3
ACTIVITY, CONCENTRATION OR SPECIFIC ACTIVITY
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4
HOURS SINCE CALIBRATION
INJECTION
DIAGNOSTIC
MALLINCKRODT/NEISLER
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A sterile, nonpyrogenic, aqueous solution of technetium 99m sodium pertechnetate in isotonic sodium chloride. The pH is adjusted with HCl or NaOH. T½ = 6.1 hours.
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Sodium Pertech
Control # 461P09
Activity 10
Concentration 2.5
Volume 4
Calibrated for 4/10/6
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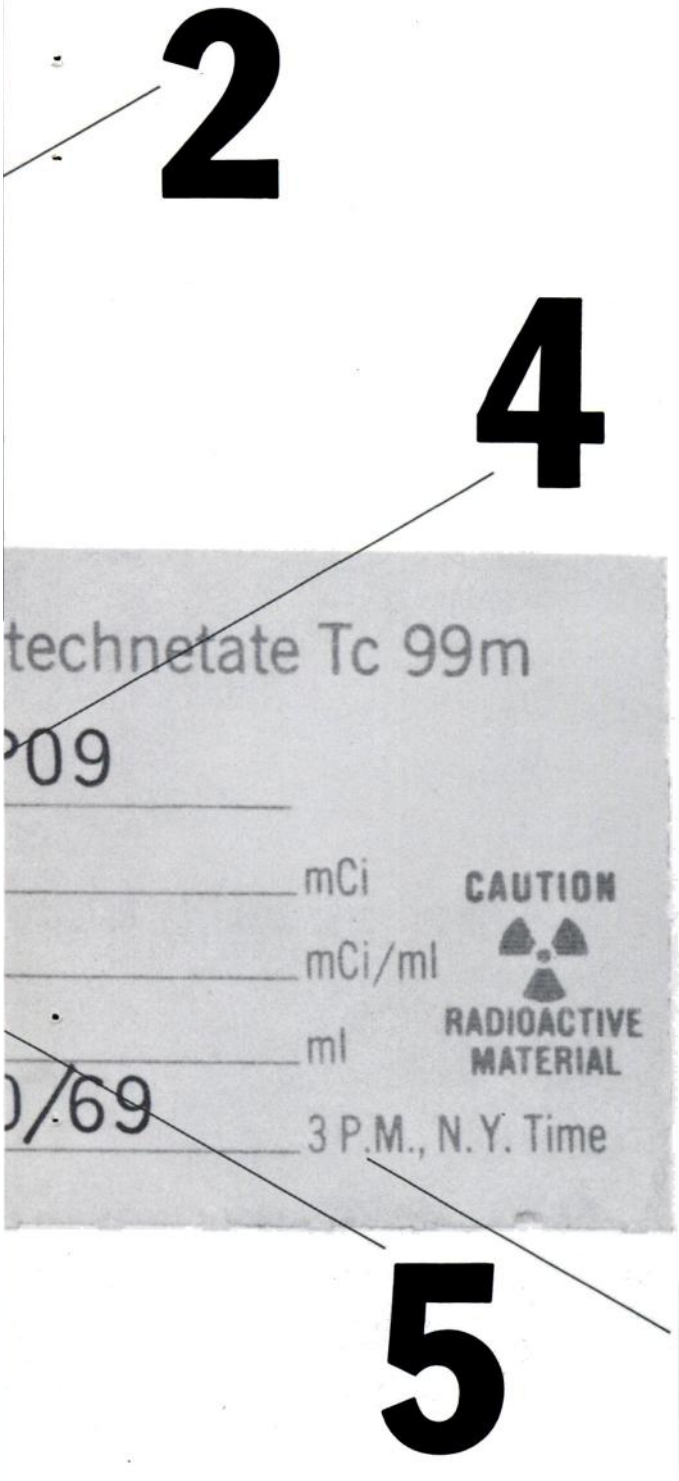
The simple route to pure pertechnetate.

(A self-guided tour.)



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1 NEIPERTEC 99m is pure, chemically-processed, free from elution contaminants. Sterile, pyrogen-free.

2 Supplied in a vial locked into a lead shield by a safety ring.

3 The COMPUTERCAP® package allows easy calculation of total activity and concentration at any time.

4 Choice of activities in individual vials: 5, 10 and 15 mCi.

5 Constant concentration: 2.5 mCi per ml. at calibration time.

6 Calibration time is now 3 PM New York time. Delivery 5 days a week, every Monday through Friday.

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Indications—Brain scanning.

Warning—Should not be administered to pregnant or lactating women, or to patients under the age of 18 years, except when necessary diagnostic information cannot be obtained by other types of studies or can only be obtained at a risk greater than the radiation exposure caused by this drug.

As with all radiopharmaceuticals, dose should be limited to smallest reasonable amount consistent with greatest value in terms of relevant diagnostic information.

Precautions—Approved radiation safety precautions should be maintained at all times. Interpretation of scans should take into consideration the possibility of extracranial contamination with salivary secretions, and should distinguish between abnormalities and areas of normally high vascular activity.

Adverse Reactions—None reported to date; however, patients should be carefully observed.

Dosage and Administration—Up to 10 millicuries per patient, administered by intravenous injection.

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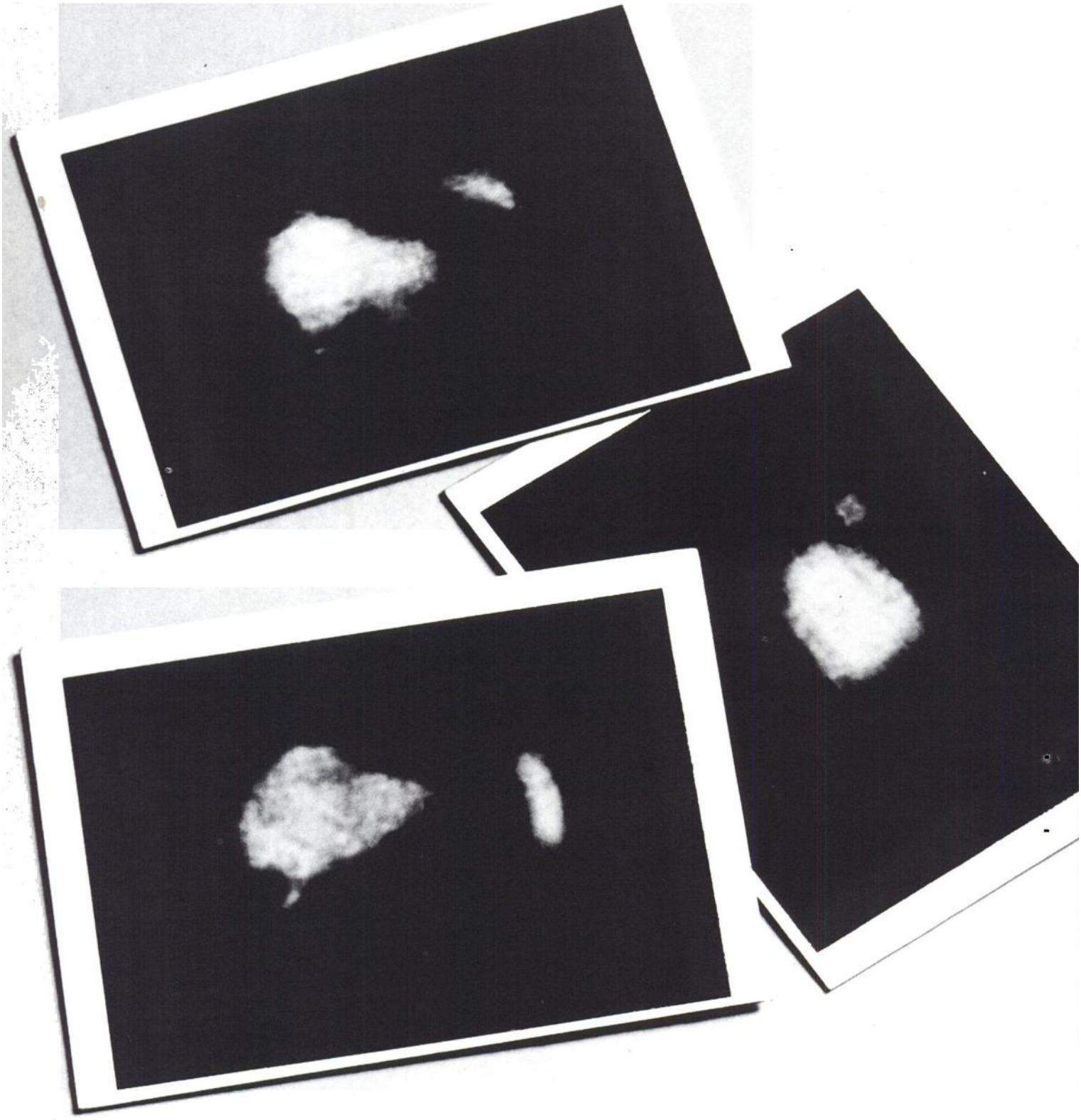

The technetium that shows you the reticuloendothelial system.

What is it?
Technetium sulfide Tc 99m colloid. A sterile, pyrogen-free, gelatin-stabilized aqueous solution for IV administration.

What is it used for?
Colloidal technetium sulfide is a most useful scanning agent for visualizing liver, spleen, and bone marrow. Such visualization of the liver has been effective in helping to determine size, configuration, location, the presence of space-occupying lesions, and in providing an index of the relative reticuloendothelial cell activity.

How does it work?
By virtue of its particle size, intravenously injected colloidal technetium sulfide is primarily concentrated in the Kupffer cells of the liver (typically 80% or more), with the remainder localized in the spleen and bone marrow.

What are its advantages?
Because of a short 6-hour physical half-life and high useful radiation yield, high counting rates can be obtained with low radiation doses. Larger area scans can be carried out in reasonable periods of time without undue patient discomfort.

Why should I use this product?
(1) It's simpler than preparing your own. (2) Our technetium sulfide Tc 99m colloid is *gelatin*-stabilized —no anaphylactoid reactions have been reported. (3) NEISLER salesmen or specialists can service your needs in virtually all areas. And our Radiopharmaceutical Customer Service Manager (phone 212-682-5057 or 212-682-5058) can provide technical service on any NEISLER radiopharmaceutical.
NOTE: AEC or state license required for the use of technetium sulfide Tc 99m colloid.

Indications—Liver, spleen, and bone scanning.

Warning—Should not be administered to pregnant or lactating women or to persons under 18 years unless, in the judgment of the physician, the situation requires its use.

As with all radiopharmaceuticals, dose should be limited to the smallest reasonable amount consistent with the greatest value in terms of relevant diagnostic information.

Precautions—Approved radiation safety precautions should be maintained at all times.

Adverse Reactions—None reported to date; however, patients should be carefully observed.

Dosage and Administration—The usual dosage varies from 1 to 5 mCi administered intravenously.

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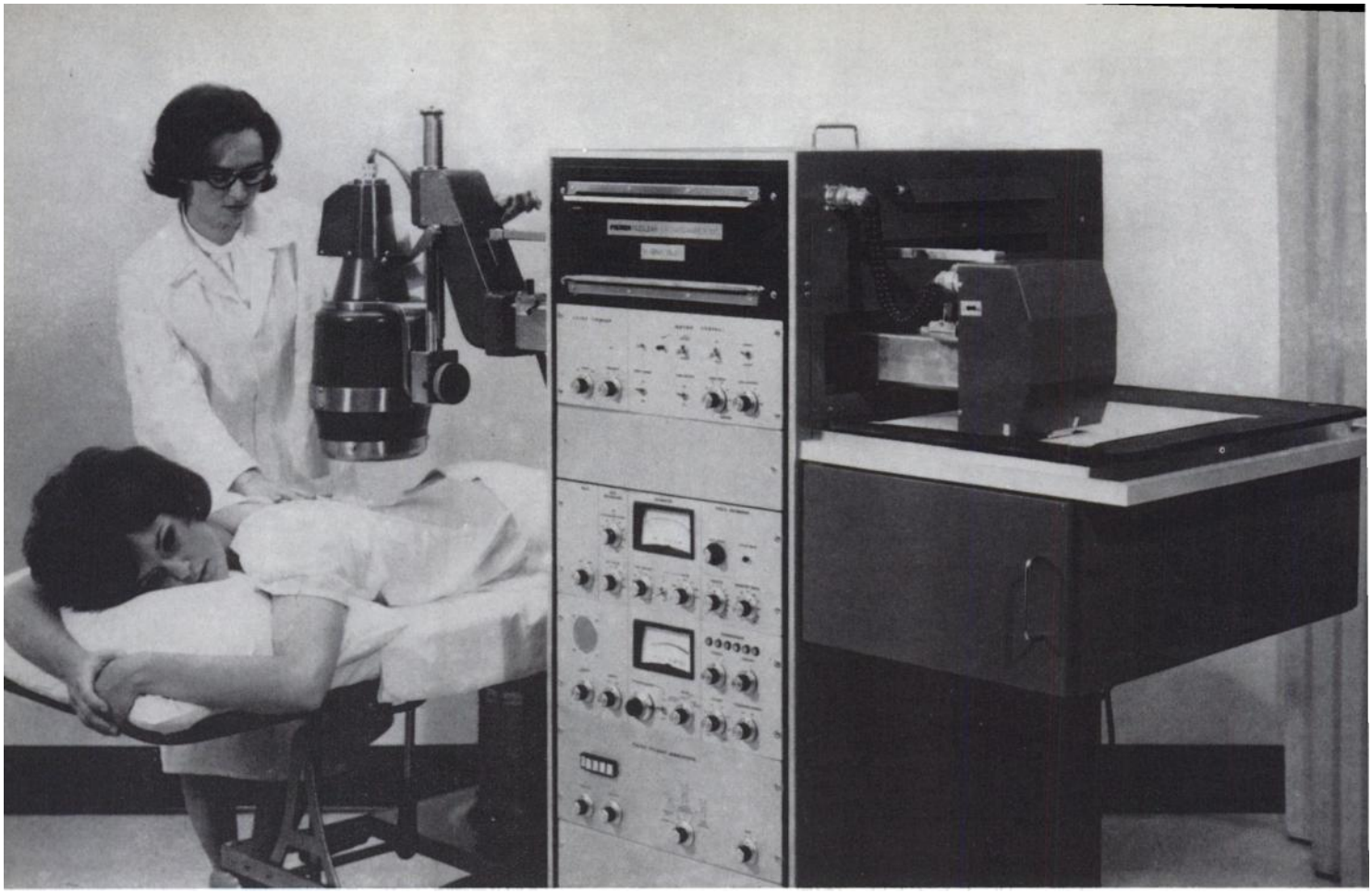

The case for the classical radioisotope scanner, or...

Why does Picker keep refining and improving its basic rectilinear scanner (Magnascanner® 500), when it also has a most sophisticated high-speed scanner (Dynapix®), and two exceptional cameras (Dynacamera™ and Magnacamera®)?

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For a small hospital starting a diagnostic radioisotope laboratory with a small patient load and a modest budget, there is nothing quite as appropriate as a scanner. Hence, four out of five nuclear medicine departments get started with a Magnascanner and there are now over 2500 in use throughout the world. Similarily, a Magnascanner is a most relevant choice for larger hospitals in need of an instrument with the highest resolution for diagnostic confirmation. A basic scanner like the Magnascanner is still the best device available for static-imaging applications by virtue of its very high resolution, large field of view, wide energy range, contrast enhancement, wide choice of focusing collimators, and modest cost.

None of this should imply that the Magnascanner is an untouched island in the stream of progress. Today's instrument is generations away from yesterday's. Note: (1) maximum scan speed has been increased from 200 cm/min to 500 cm/min; (2) detector can be positioned by a control on the detector head itself, and a ratemeter on the detector head facilitates and speeds location of "hot" and "cold" spots; (3) a new color photo recording system is available in addition to black and white photorecording, multicolor dot recording, and Teledeltos black dot recording; (4) push button energy window selection (in addition to manual selection) for the most common radioisotopes used in diagnosis.

And Now the Dual Magnascanner®—This instrument is essentially identical to the Magnascanner® 500 except that it has two separate opposed detectors which acquire information independently. AP and PA, or RL and LL rectilinear scans can be performed simultaneously. This capability minimizes the need for patient re-positioning and reduces the scanning time by half.

Further information is available—Please write for detailed information on the Magnascanner® 500 and the Dual Magnascanner to Picker Nuclear, 1275 Mamaroneck Avenue, White Plains, N.Y. 10605. Please request file 235R.

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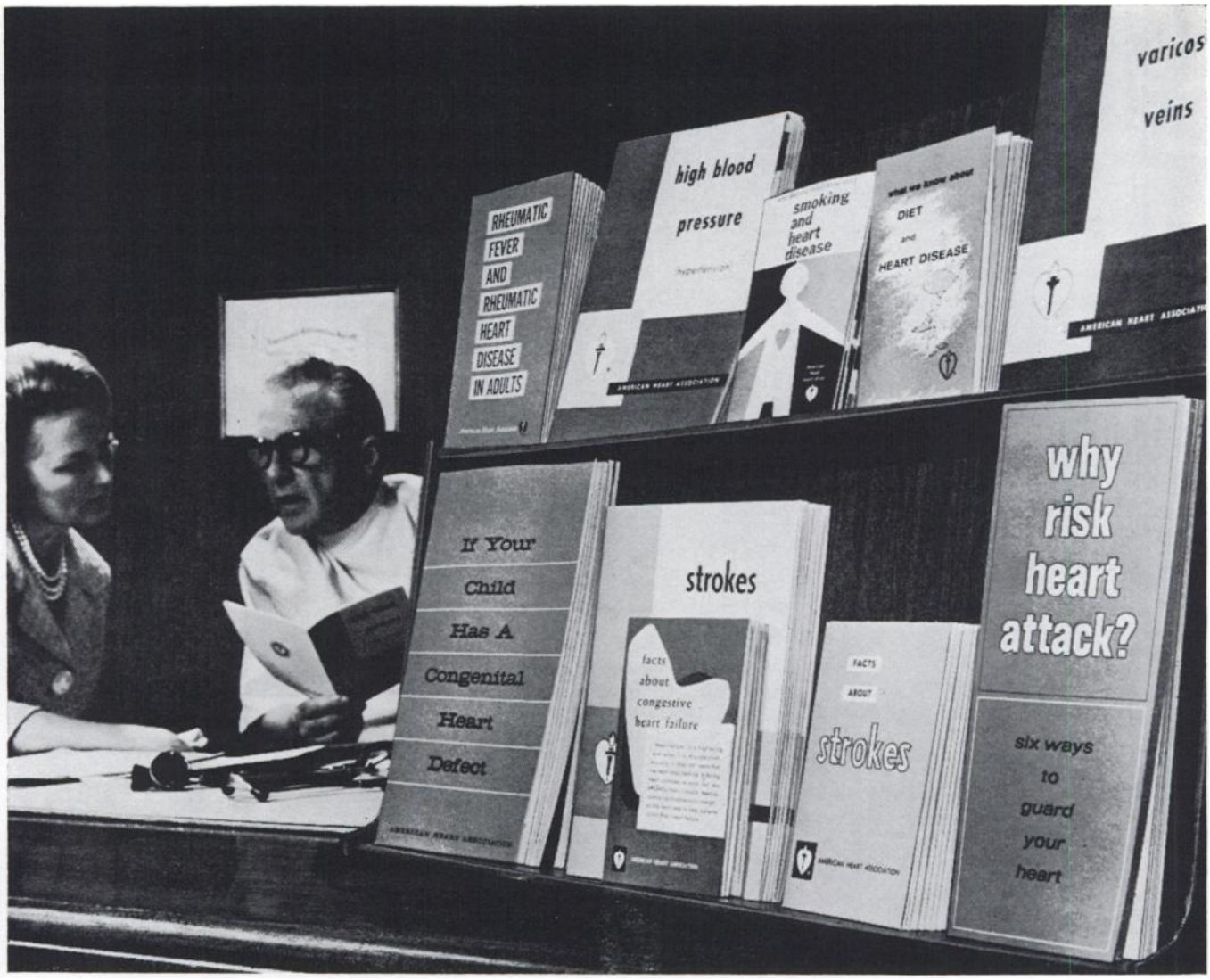

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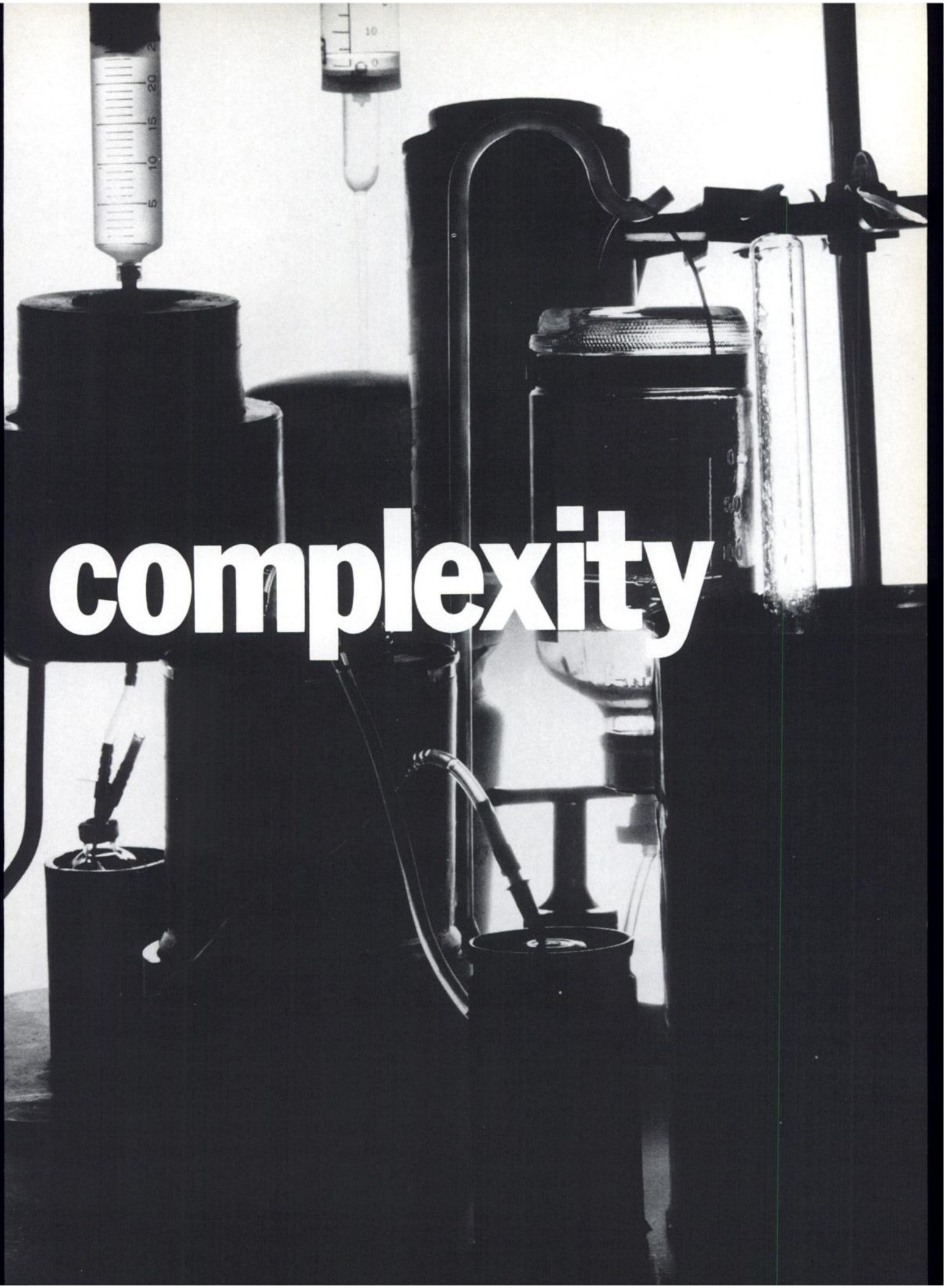
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Scan progress is visually monitored on a storage cathode ray tube, which retains the organ image until manually erased.

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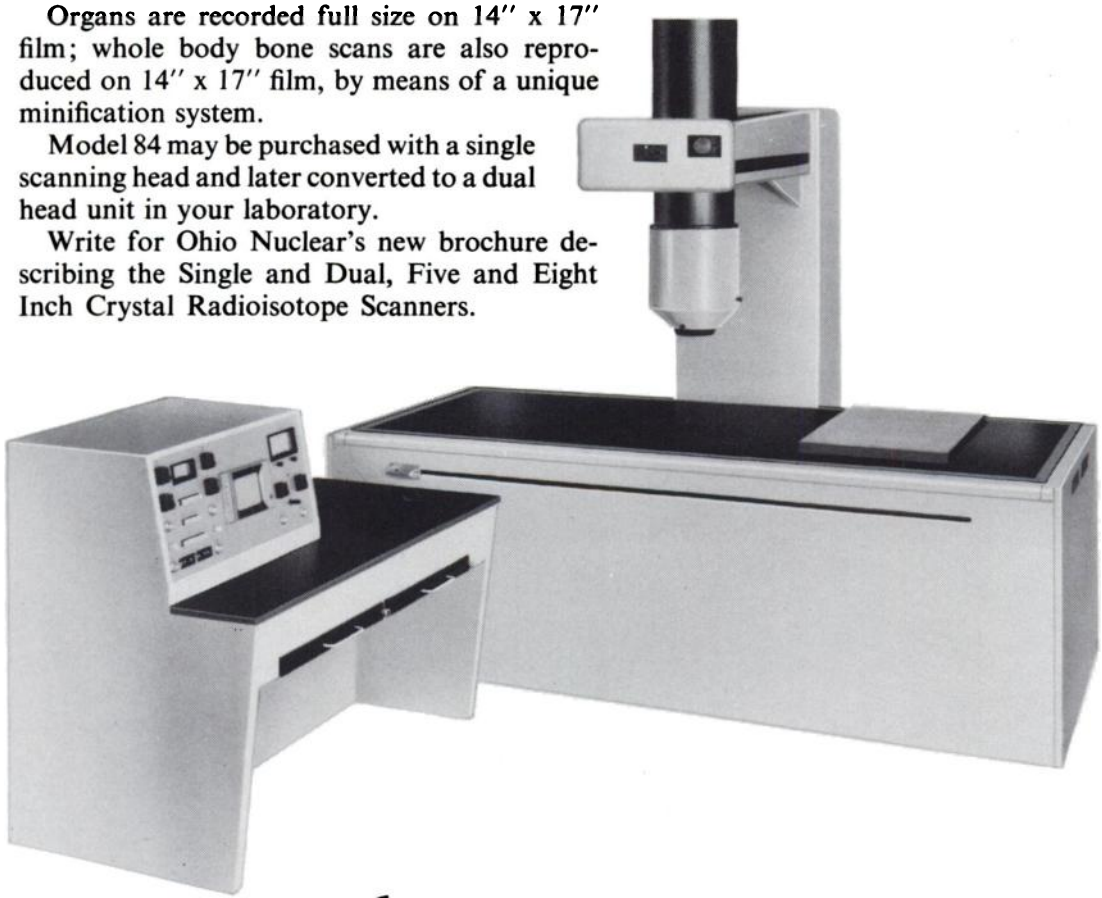
Organs are recorded full size on 14" x 17" film; whole body bone scans are also reproduced on 14" x 17" film, by means of a unique minification system.

Model 84 may be purchased with a single scanning head and later converted to a dual head unit in your laboratory.

Write for Ohio Nuclear's new brochure describing the Single and Dual, Five and Eight Inch Crystal Radioisotope Scanners.



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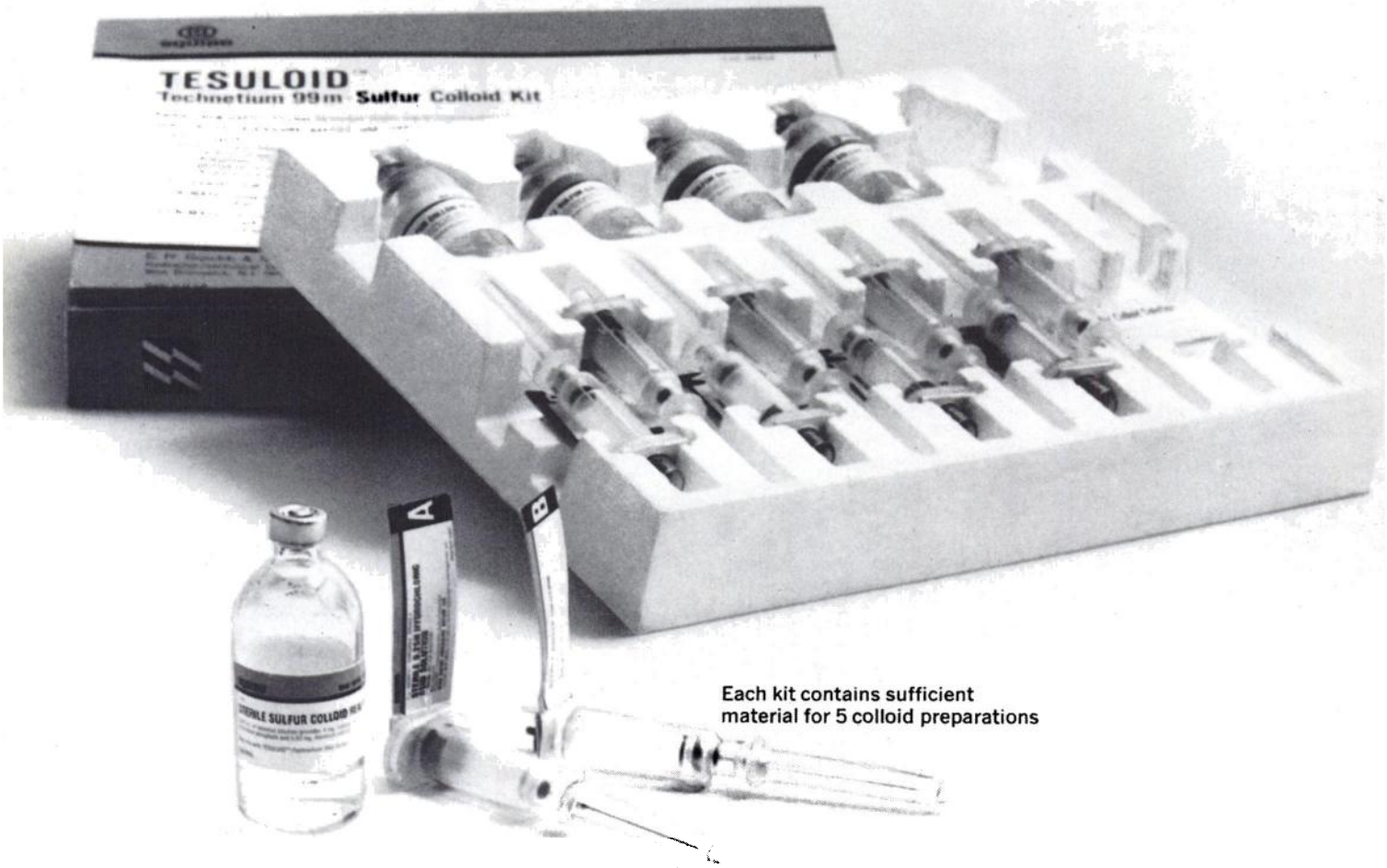

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Package contains:

5 vials (3 cc. each) Sterile Sulfur Colloid Reaction Mixture. Each cc. of aqueous solution provides 4 mg. sodium thiosulfate, 3 mg. gelatin, 8.5 mg. potassium phosphate and 0.93 mg. disodium edetate. Contains no preservative.

5 UNIMATIC® Disposable Syringes (2 cc. each) of Sterile 0.25N Hydrochloric Acid Solution. Each cc. of aqueous solution provides 9 mg. hydrochloric acid.

5 UNIMATIC Disposable Syringes (2 cc. each) of Sterile Buffer Solution. Each cc. of aqueous solution provides 35 mg. sodium biphosphate and 10 mg. sodium hydroxide.

Warning: Solutions of sodium pertechnetate ^{99m}Tc withdrawn from the generator should always be adequately shielded. Early elutions from the generator are highly radioactive.

Precaution: Radiopharmaceuticals should not be administered to pregnant women or patients under 18 unless the information to be gained outweighs the hazards.

*However, adequate shielding of the Technetium 99m—Sulfur Colloid solution should be maintained.

Please send me complete information on new **Tesuloid™** Technetium 99m—Sulfur Colloid Kit.

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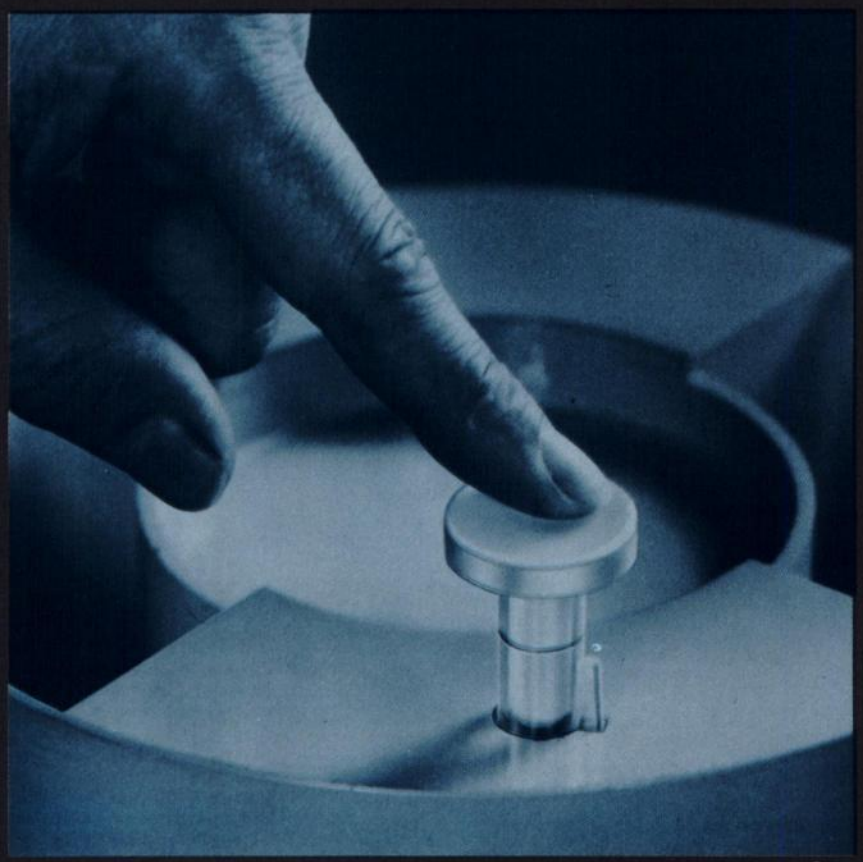

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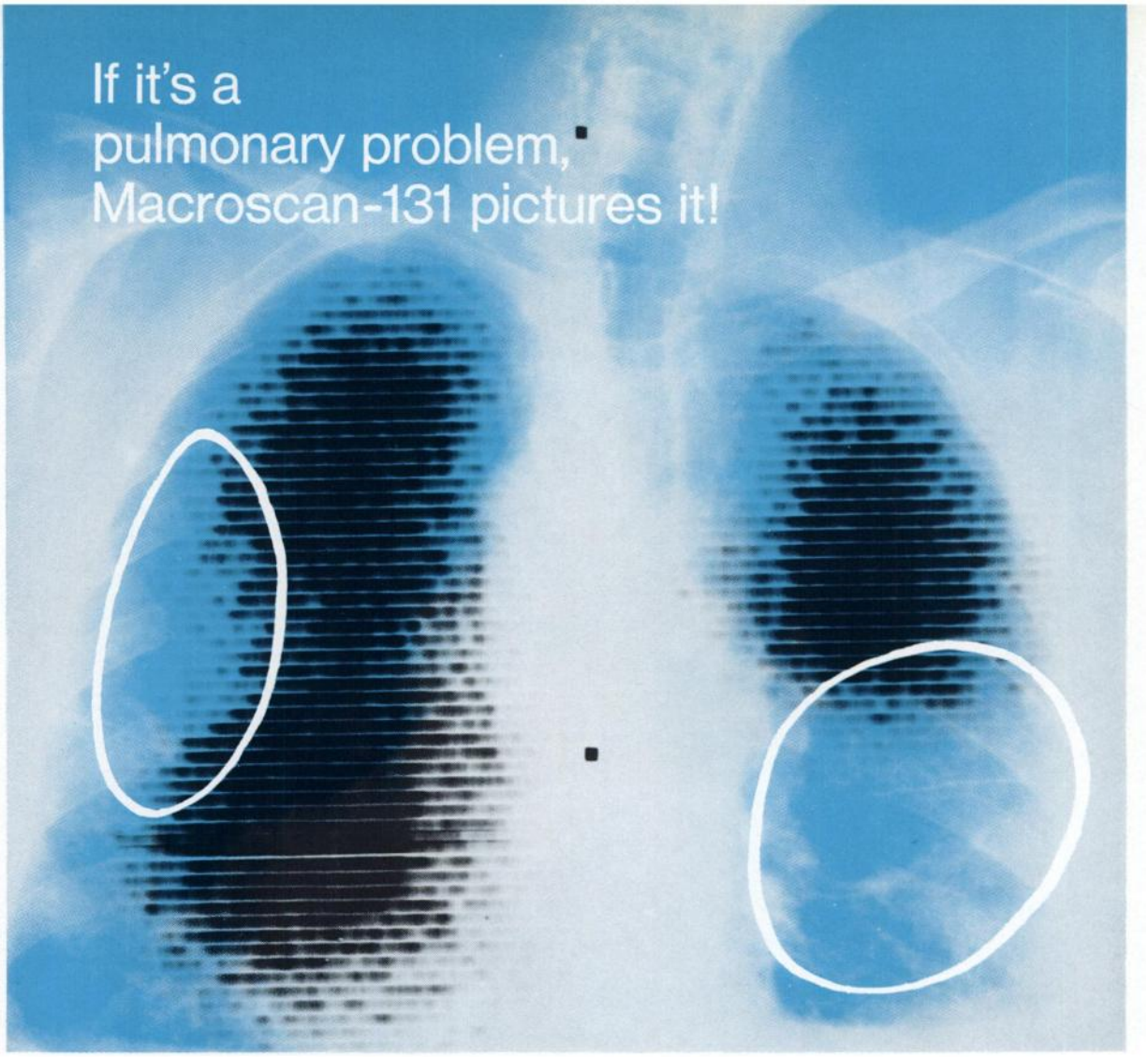

A 70-year old man was admitted unconscious to the intensive care unit. Studies failed to reveal evidence of a myocardial infarction and the X-ray was not revealing. A pulmonary infarct was suspected and this diagnosis was established by a lung scan.

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Pulmonary embolism, suspected: To confirm (or rule out) its occurrence.

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Macroscan-131 is sterile and non-pyrogenic. It is ready to use and should not be heated prior to use.

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CONTRAINDICATIONS: Radio-pharmaceutical agents should not be administered to pregnant women or to persons less than 18 years old unless the indications are very exceptional.

PRECAUTIONS, SIDE EFFECTS: Care should be taken to administer the minimum dose consistent with safety and validity of data. The possibility of an immunological response to albumin should be kept in mind when serial scans are performed. There is a theoretical hazard in acute cor pulmonale, because of the temporary small additional mechanical impediment to pulmonary blood flow. A possible case of urticaria has been related to a similar preparation. The thyroid gland should be protected by prophylactic administration of concentrated iodide solution. 903116

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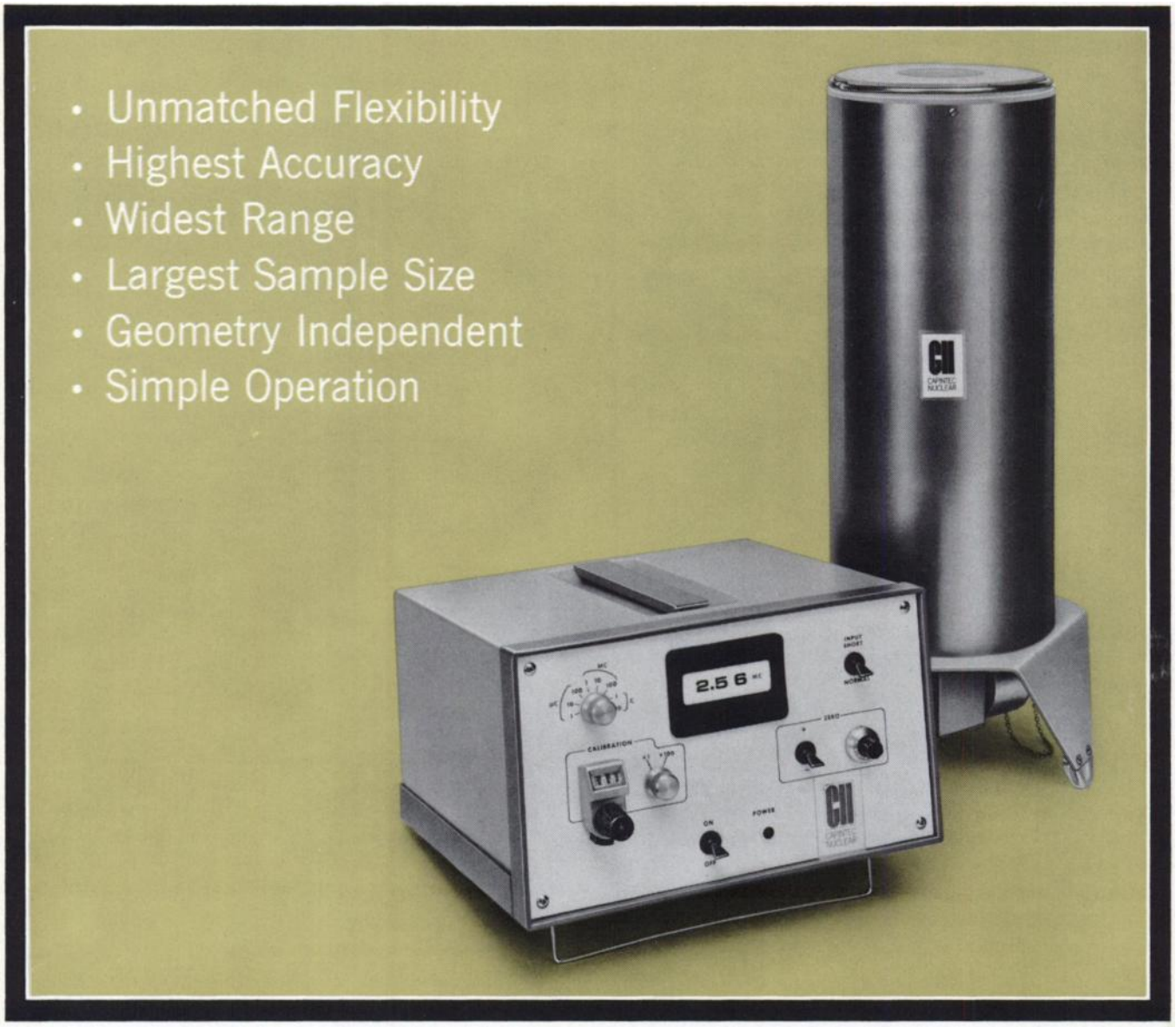

• **Unmatched Flexibility** — CRC-2 provides calibrations for up to 40 radioisotopes of interest to medicine and industry. New calibrations are made available on a continuing basis.

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Squibb has sharply reduced the amount of radioactivity in the supernatant, decreasing the possibility of liver interference with the lung scan.

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Squibb has substantially reduced the amount of unbound iodine 131, effectively reducing the problem of blood background radioactivity.

Albumotope—LS—a good example of Squibb leadership in radiopharmaceutical research and development. Some people won't leave "well enough" alone.

Contraindications: Radiopharmaceuticals should not be administered to pregnant women or to persons under the age of 18 years unless the indications are very exceptional. Because iodide is excreted in human milk, aggregated radioalbumin should not be administered to nursing mothers.

Side Effects and Precautions: There have been no reported cardiovascular or other untoward effects attributable to Albumotope—LS. Extensive clinical use of Albumotope—LS has not borne out the hypothetical possibility that particles of large size might induce deleterious cardiovascular or cerebrovascular effects. The product appears to possess no antigenic properties. One patient with a known history of angioneurotic edema, who had been given Lugol's solution in conjunction with aggregated radioalbumin similar to Albumotope—LS, developed urticaria.

For full prescribing information, see package insert.

Available: As a sterile, nonpyrogenic, aqueous suspension. Each cc. contains approximately 0.5 mg. aggregated human serum albumin labeled with iodine 131. Not less than 90% of the aggregates are between 10 and 90 microns and none are more than 150 microns in size. The preparation also contains 0.9% (w/v) benzyl alcohol as a preservative. The potency ranges from 250 to 450 microcuries per cc. on date of assay.

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