SIEMENS

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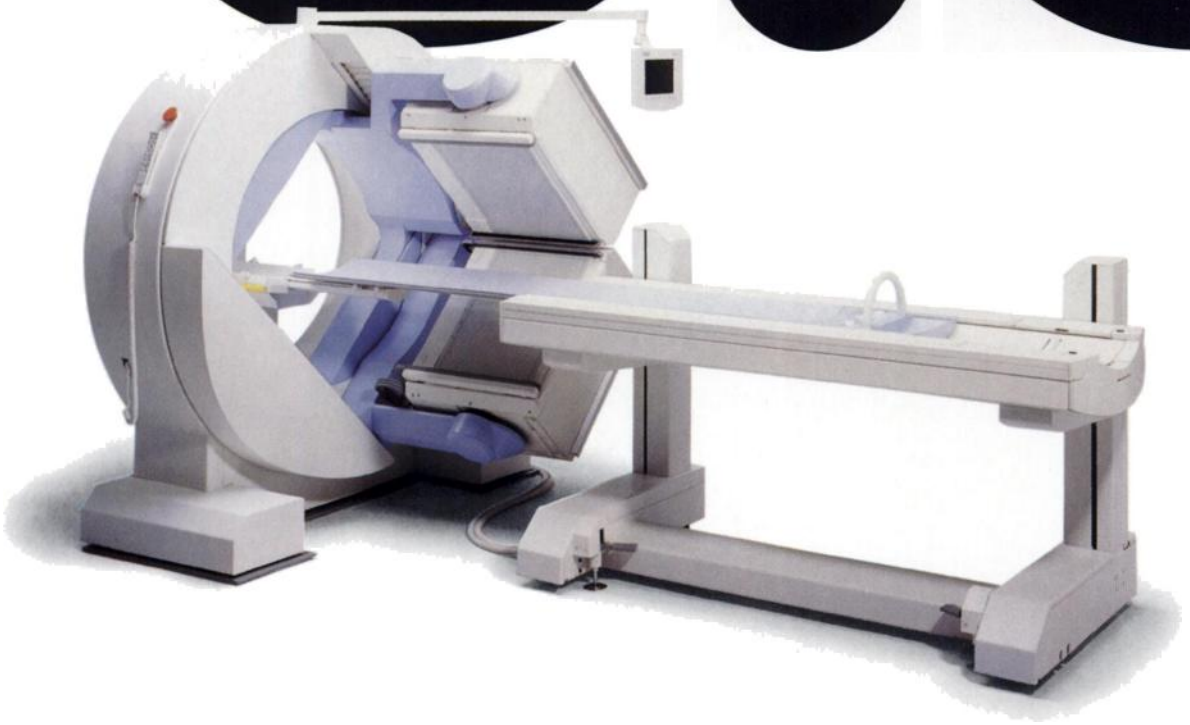

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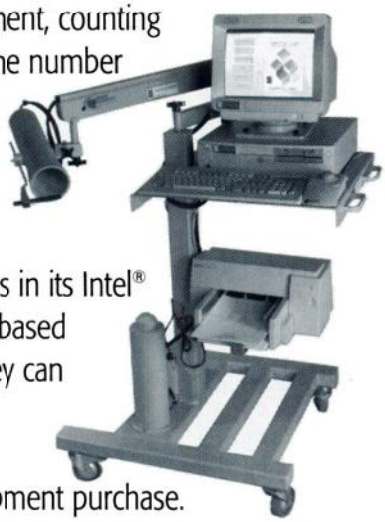

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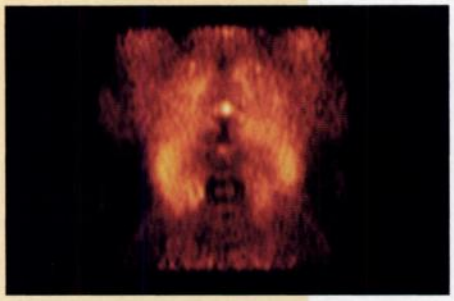
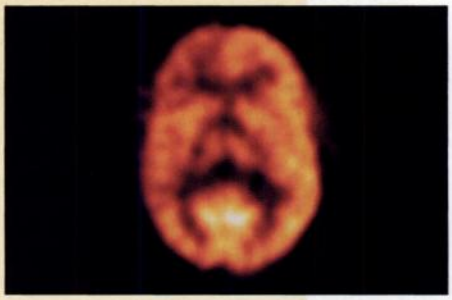
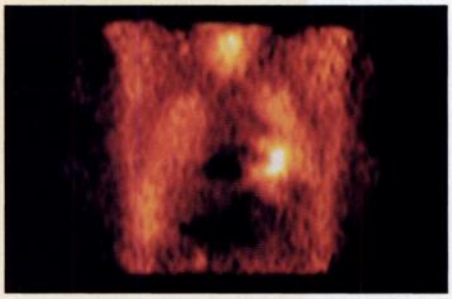


CORONAL VIEW OF PATIENT
with lung cancer. MCD scan revealed abnormal uptake of FDG, showing primary tumor and metastatic disease.



TRANSVERSE VIEW OF PATIENT
with epilepsy. MCD scan revealed decreased activity of FDG in right lobe.



CORONAL VIEW OF PATIENT
with esophageal cancer. MCD scan revealed abnormal uptake of FDG in the neck correlating with PET and CT scans.

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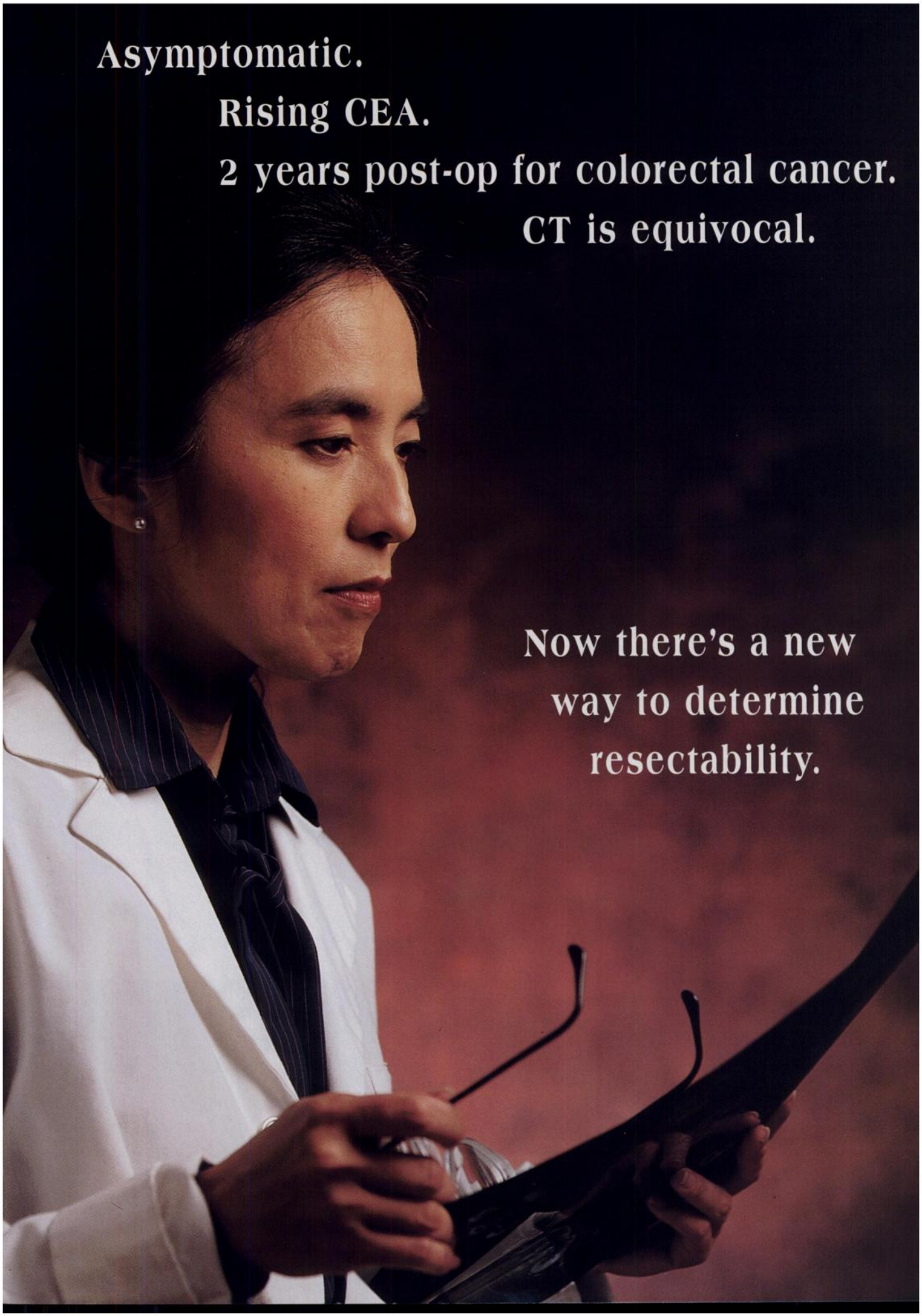
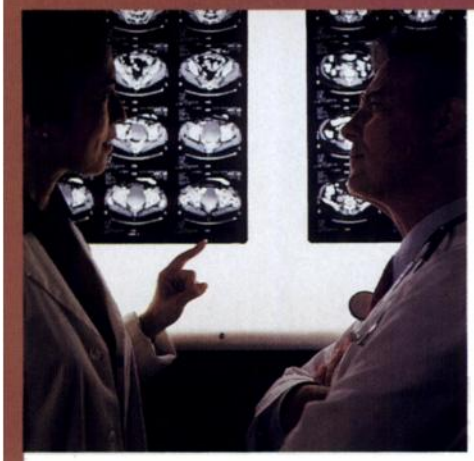

Asymptomatic.
Rising CEA.
2 years post-op for colorectal cancer.
CT is equivocal.
Now there's a new
way to determine
resectability.



INTRODUCING

CEA-SCAN®
(Arcitumomab)

SENSITIVE IMAGING TO HELP DRIVE MANAGEMENT DECISIONS

CEA-Scan is a new imaging agent that enhances your pre-operative determination of colorectal cancer resectability. CEA-Scan is indicated, in conjunction with standard diagnostic evaluations, for detection of the presence, location and extent of recurrent and/or metastatic colorectal carcinoma involving the liver, extra-hepatic abdomen and pelvis in patients with a histologically confirmed diagnosis of colorectal carcinoma.

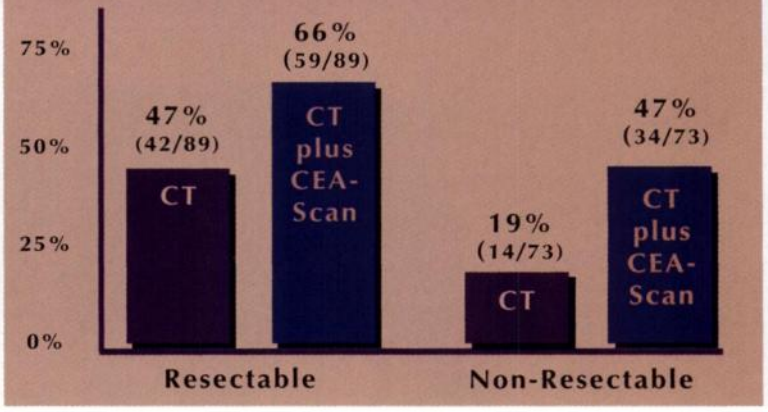
Surgery confirms that CEA-Scan with CT can help you make decisions concerning surgical resectability. Compared to CT alone, CEA-Scan with CT:

- Identified 59/89 versus 42/89 patients with resectable disease, a 40% increase in detection rate
- Identified 34/73 versus 14/73 patients with non-resectable disease, or more than twice as many
- In patients with negative or equivocal CT (occult disease), reduced the number of false-negative patients from 59 to 23, a 60% decrease.[1]

CEA-Scan has a 97% positive predictive value for lesions when concordant with CT (146 true-positive lesions versus 4 false-positives).

BETTER IDENTIFICATION OF RESECTABLE/NON-RESECTABLE DISEASE

Comparison of surgical outcomes correctly identified by CT vs CT plus CEA-Scan (n=209)



IMPROVES SENSITIVITY

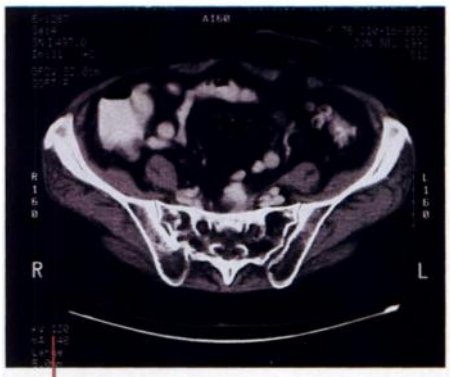
Sensitivity and specificity of CEA-Scan vs standard diagnostic methods (SDM)[1]

	SDM		CEA-Scan
Sensitivity	57.9% (103/178)	*P*=0.006	71.3% (127/178)
Specificity	84.4% (27/32)	*P*=0.12	62.5% (20/32)

SENSITIVE, SAME-DAY IMAGING

CEA-Scan enables improved colorectal cancer detection compared to standard diagnostic methods (SDM, 95% of which were CT).

- In general, CEA-Scan was more sensitive and less specific in the abdomen and pelvis than CT[1]
- However, direct comparisons of the performance characteristics of SDM to CEA-Scan are difficult to interpret, since the results of SDM were entry criteria for both Phase 3 protocols.



Patient underwent abdominoperineal resection in 1987. Presented 5 years post-op with negative CT and rising CEA.

ADVANCED TECHNOLOGY

CEA-Scan offers the advantages of Fab' fragment design.

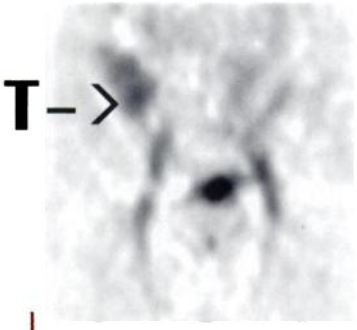
- Short biological half-life (13±4 hours) and rapid blood clearance improve tumor-to-background ratios[2]
- Minimal liver metabolism allows hepatic imaging
- Small fragment size enhances renal clearance
- Fragment technology provides lower immunogenicity

ESTABLISHED SAFETY PROFILE

Over 400 patients who have received CEA-Scan have been evaluated for human anti-mouse antibody (HAMA).

- <1% showed an elevation of HAMA levels
- Limited data are available regarding the safety of re-administration

In the patients studied with CEA-Scan, one patient each developed the following minor self-limiting adverse effects: transient eosinophilia, nausea, bursitis, urticaria, generalized itching, headache, upset stomach and fever. Out of a total of over 500 patients receiving the product to date, there has been a single report of an apparent grand mal epileptic seizure in a severely hypertensive patient that was "possibly related" to CEA-Scan infusion.



CEA-Scan abdominal SPECT image indicating tumor uptake (T, arrow). Surgery confirmed the positive CEA-Scan image.

HELPING YOU MAKE DECISIONS ABOUT TUMOR RESECTABILITY

Manufactured by:
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Please see adjacent page for brief summary of prescribing information

References:
1. Moffat FL Jr., Pinsky CM, Hammershaimb L, et al. Clinical utility of external immunoscintigraphy with the IMMU-4 technetium-99m-Fab' antibody fragment in patients undergoing surgery for carcinoma of the colon and rectum. Results of a pivotal, Phase III trial. *J Clin Oncol.* 1996;14:2295-2305.
2. Tempero M, Brand R, Holdeman K, Matamoros A. New imaging techniques in colorectal cancer. *Semin Oncol.* 1995; 22(5):448-471.

CEA-SCAN®
(Arcitumomab)

For the Preparation of Technetium Tc 99m Arcitumomab.
Sterile, Non-Pyrogenic, Lyophilized Powder for Intravenous Use Only.

DESCRIPTION

CEA-Scan® is a radiodiagnostic agent consisting of a murine monoclonal antibody Fab' fragment, arcitumomab, formulated to be labeled with ^{99m}Technetium [^{99m}Tc].[1] The active component, arcitumomab, is a Fab' fragment generated from IMMU-4, a murine IgG_1 monoclonal antibody produced in murine ascitic fluid supplied to Immunomedics, Inc., by Charles River Laboratories. IMMU-4 is purified from the ascitic fluid and is digested with pepsin to produce $F(ab')_2$ fragments and subsequently reduced to produce the 50,000-dalton arcitumomab. Each vial contains the non-radioactive materials necessary to prepare one patient dose. CEA-Scan® is a sterile, lyophilized formulation, containing 1.25 mg of arcitumomab and 0.29 mg stannous chloride per vial, with potassium sodium tartrate tetrahydrate, sodium acetate trihydrate, sodium chloride, acetic acid, glacial, hydrochloric acid, and sucrose. The imaging agent, technetium Tc 99m CEA-Scan®, technetium Tc 99m arcitumomab, is formed by reconstitution of the contents of the CEA-Scan® vial with 30 mCi of [^{99m}Tc] sodium pertechnetate in 1 ml of Sodium Chloride for Injection, USP. The resulting solution is pH 5-7 and for intravenous use only. Following administration, the labeled antibody can be visualized by common nuclear medicine instrumentation.

INDICATIONS

CEA-Scan® (Arcitumomab) is indicated, in conjunction with standard diagnostic evaluations (e.g., additional imaging evaluation), for detection of the presence, location and extent of recurrent and/or metastatic colorectal carcinoma involving the liver, extrahepatic abdomen and pelvis in patients with a histologically confirmed diagnosis of colorectal carcinoma. CEA-Scan® provides additional information in patients with no evidence of disease by standard diagnostic modalities (SDM) in whom recurrence or metastasis is suspected based upon elevated or rising serum CEA, and in patients with evidence of metastatic or recurrent disease on SDM. A retrospective analysis suggests that these data can be useful in the evaluation of patients in whom surgical intervention (biopsy, exploratory laparotomy and surgical resection) is under consideration.

CEA-Scan® is not indicated for the differential diagnosis of suspected colorectal carcinoma or as a screening tool for colorectal cancer. CEA-Scan® is not intended for readministration or for assessment of response to treatment. (see PRECAUTIONS)

CONTRAINDICATIONS

CEA-Scan® should not be administered to patients who are hypersensitive to products of murine origin or to Technetium [Tc-99m.]

WARNINGS

Anaphylactic and other hypersensitivity reactions can occur following administration of mouse protein to patients. Although serious reactions of this type have not been observed in clinical trials after CEA-Scan® administration, medications for the treatment of hypersensitivity reactions, e.g., epinephrine, antihistamines and corticosteroids, should be available for immediate use in the event of an allergic reaction during administration of this agent.

PRECAUTIONS

General

CEA-Scan® is to be interpreted in conjunction with standard diagnostic modalities. A negative or positive CEA-Scan® by itself should not be utilized in the diagnostic evaluation of colorectal cancer. Discordant results are substantially less predictive than concordant results.

CEA-Scan® should not be used as a screening test for colorectal cancer.

Limited data are available regarding the safety of readministration.[2] There are no data to support the efficacy of CEA-Scan® readministration. CEA-Scan® should be used only once in each patient.

The components of CEA-Scan® are sterile and non-pyrogenic. It is essential to follow preparation directions carefully and to adhere to strict aseptic procedures during preparation of CEA-Scan® [^{99m}Tc]. The contents of the vial are intended only for use in the preparation of CEA-Scan® [^{99m}Tc] and are not to be administered directly to patients.

The contents of the vial before preparation are not radioactive. However, after ^{99m}Tc-pertechnetate is added, adequate shielding of the preparation must be maintained. Appropriate safety measures should be used to minimize radiation exposure to clinical personnel and patients, consistent with proper patient management.

Radiopharmaceuticals should be used only by physicians who are qualified by training and experience in the safe use and handling of radionuclides.

Imaging Interpretation

General

There are limited data to determine the imaging characteristics and efficacy of the CEA-Scan® (Arcitumomab) in detection of lesions outside of the abdominopelvic cavity.[2,3]

Areas of potential false-positive readings, particularly with planar imaging, may be observed near the major bloodpool organs (heart, major vessels, etc.) at very early imaging times, near the sites of antibody fragment metabolism (kidneys and urinary bladder), and in the intestines and gallbladder. Late imaging may also aid in the evaluation of suspected normal bowel activity.

With regard to imaging of tumor near the kidneys or urinary bladder, it is advisable to have the patient void urine prior to acquisition of imaging data to decrease bladder activity. Careful SPECT imaging near the kidneys and bladder has been helpful.

Porta Hepatis Region

Precise localization of lesions in the region of the porta hepatis has been difficult. Lesions within the porta hepatis region may be present within the liver or the portal nodes. At the time of surgical exploration, such lesions (which if nodal would preclude resection of hepatic metastases) should be explored first.

False-Positive Lesions

There were 52 false-positive lesions observed in 41 patients from a total of 209 surgically explored subjects in the two pivotal trials. Thirty-five of these lesions were in occult disease patients. Of the 52 false-positive lesions, 11 were observed in the liver, 17 in the extra-hepatic abdomen, and 24 in the pelvis. A pathological correlate to the lesions was infrequently documented; these included granulomas in the liver (1 instance), adhesions with or without suture granulomas (4 cases), surgical incision site (1 case). Descriptions of false-positive lesions within the abdomen were suggestive of colonic activity in several cases.

Hot, Rimmed, and Cold Lesions

Only hot or rimmed lesions should be considered as positive for tumor. Lesions that are rimmed or cold usually fill in as hot or rimmed, respectively, with time.[3,4] Often, large lesions, due to poor vascularization or central necrosis, will appear to be cold.

Information for Patients

Murine monoclonal antibodies are foreign proteins, and their administration can induce human anti-mouse antibodies (HAMA). While limited data exist concerning the clinical significance of HAMA, the presence of HAMA may interfere with murine antibody-based immunoassays (e.g., serum CEA assays), could compromise the efficacy of *in vitro* or *in vivo* diagnostic or therapeutic murine antibody-based agents, and may increase the risk of adverse reactions. For these reasons, patients should be informed that the use of this product could affect the future use of other murine-based products, including CEA-Scan®, and they should be advised to discuss prior use of murine-based antibody products with their physicians. (see Heterologous Protein Administration)

Heterologous Protein Administration

The presence of HAMA and human anti-mouse fragment antibodies have been reported in patients before and after receiving CEA-Scan® (<1% of patients develop HAMA to the antibody fragment). While hypersensitivity reactions to CEA-Scan® have not been observed to date, it is possible that such reactions could occur, resulting in anaphylactic shock, serum sickness or death. In addition, patients who have previously received murine monoclonal antibody products are more likely to have HAMA. When considering the use of the CEA-Scan® in patients who have previously received murine antibody-based products, physicians should be aware of the potential for HAMA to increase the risk of allergic reactions and to alter clearance and biodistribution. The quality or sensitivity of the imaging study may then be compromised.

Drug/Laboratory Test Interactions

The presence of HAMA in serum may interfere with two-site murine antibody-based immunoassays, such as assays for CEA and CA-125. If HAMA is known or suspected to be present, the clinical laboratory should be notified that interference may occur.

CEA-Scan® may interfere with serum assays for assessment of serum levels of CEA. Therefore, any determination of serum CEA should be made prior to injection with CEA-Scan®. Assays for serum CEA should not be performed within 7 days after injection of CEA-Scan®.

No data are available on possible drug interactions. Do not mix or administer CEA-Scan® with other products. Sufficient time should be allowed for clearance and radioactive decay before and after the use of this product and other products using radionuclides.

Carcinogenesis, Mutagenesis, Impairment of Fertility

No long-term animal studies have been performed to evaluate the carcinogenic or mutagenic potential of Technetium Tc 99m arcitumomab or to determine its effects on fertility in males or females.

Pregnancy - Category C

Animal reproduction studies have not been conducted with CEA-Scan®. It is also not known whether it can cause fetal harm or affect reproductive capacity when administered to a pregnant woman. CEA-Scan® should be used during pregnancy only if, in the opinion of the physician, the information to be gained justifies the potential risk to the fetus. Examinations using a radiopharmaceutical in a woman of child-bearing capability should be performed during the first 8-10 days following the onset of menses, if possible.

Lactation

Before administering a radioactive medicinal product to a mother who is breast feeding, consideration should be given whether the investigation could be reasonably delayed until the mother has ceased breast feeding. If the use of the product is deemed to be clinically indicated, breast feeding should be interrupted, the expressed milk discarded, and formula feedings substituted for breast feeding.

Pediatric Use

Safety and diagnostic accuracy in persons under 21 years of age have not been established.

ADVERSE REACTIONS

In the patients studied with CEA-Scan®, one patient each developed the following minor self-limiting adverse effects: transient eosinophilia, nausea, bursitis, urticaria, generalized itching, headache, upset stomach and fever. Out of a total of over 500 patients receiving the product to date, there has been a single report of an apparent grand mal epileptic seizure in a severely hypertensive patient that was "possibly related" to CEA-Scan® infusion.

Over 400 patients who have received CEA-Scan® have been evaluated for HAMA by Immunomedics using ELISA methodology. Fewer than 1% of the patients showed an elevation of HAMA levels to fragment after being injected with CEA-Scan®. If the physician suspects HAMA based on an adverse reaction or altered biodistribution pattern, and deems that a HAMA assay is clinically warranted, he/she should telephone Immunomedics, Inc., at 800 327-7211, between 8:30 a.m. and 5:00 p.m. Eastern Standard Time, for information on procedures to be followed for submission of patient serum for assessment of HAMA directed against mouse monoclonal antibody fragments.

OVERDOSAGE

Intravenous infusion of intact IgG and $F(ab')_2$ of IMMU-4 in doses of up to 25 mg or arcitumomab at doses up to 10 mg have not shown any serious adverse reaction.

HOW SUPPLIED

Package containing one (1) vial, with a single-use dose of 1.25 mg lyophilized arcitumomab. The product should not be used beyond the expiration date printed on the label.

REFERENCES

1. Hansen HJ, Jones AL, Sharkey RM, Grebenau R, Blazejewski N, Kunz A, Buckley MJ, Newman ES, Ostella F, Goldenberg DM. Preclinical evaluation of an 'instant' ^{99m}Tc-labeling kit for antibody imaging. *Cancer Res.* 1990;50:794-798.
2. Data on File at Immunomedics, Inc.
3. Moffat FL, Pinsky CM, Hammershaimb L, Petrelli NJ, Patt YZ, Whaley FS, Goldenberg DM, and the Immunomedics Study Group. Clinical utility of external immunoscintigraphy with the IMMU-4 technetium-99m-Fab' antibody fragment in patients undergoing surgery for carcinoma of the colon and rectum. Results of a pivotal, Phase III trial. *J Clin Oncol* 1996;14:2295-2305.
4. Behr T, Becker W, Hanappel E, Goldenberg DM, Wolf F. Targeting of liver metastases of colorectal cancer with IgG, F(ab')$_2$, and Fab' anti-carcinoembryonic antigen antibodies labeled with ^{99m}Tc: the role of metabolism and kinetics. *Cancer Res.* 1995;55:5777s-5785s.

Immunomedics, Inc.
300 American Road
Morris Plains, NJ 07950

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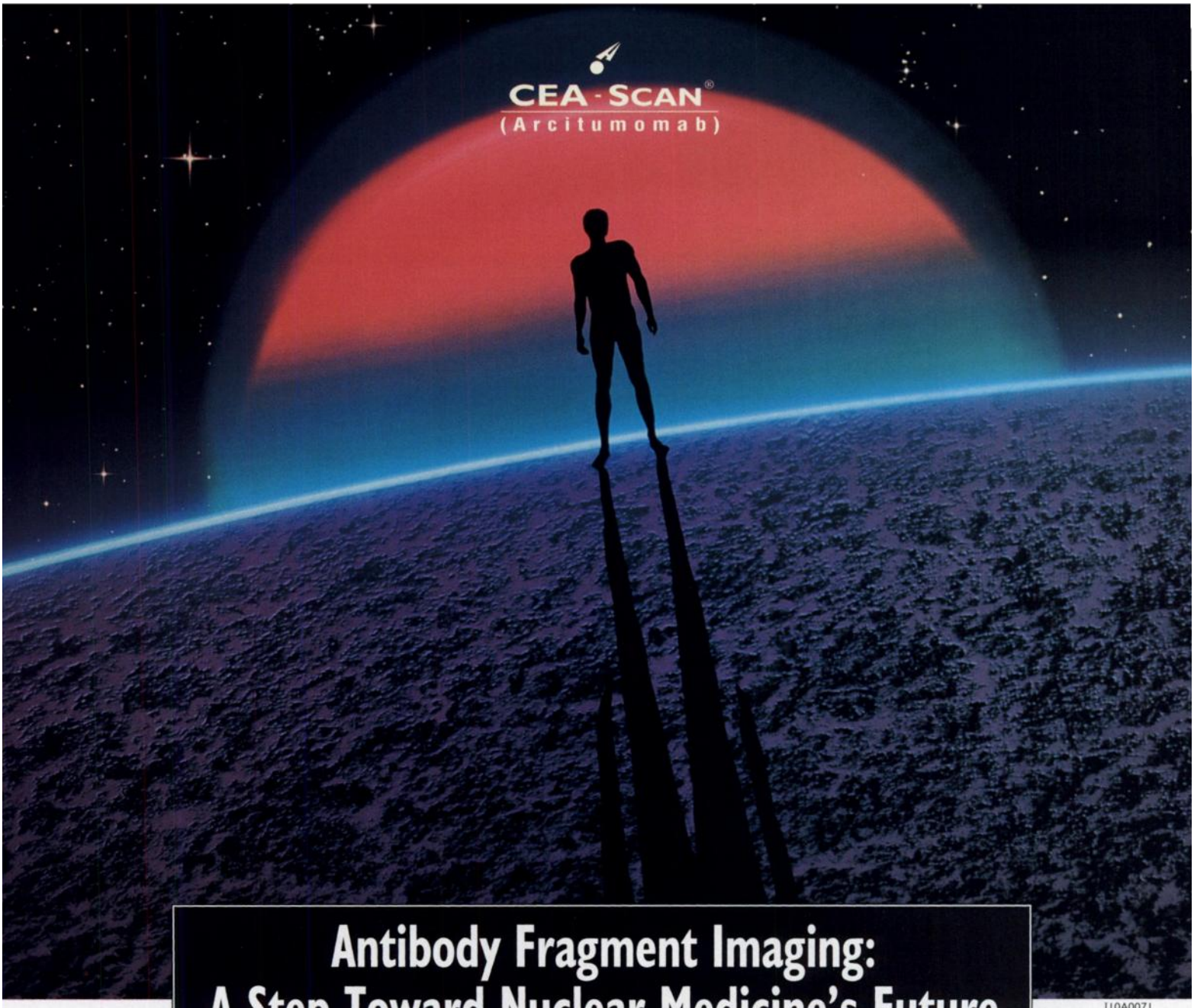

Antibody Fragment Imaging: A Step Toward Nuclear Medicine's Future

110A0071

Nuclear medicine's future depends upon its ability to better detect and treat disease. So you have a stake in the future of CEA-Scan® (Arcitumomab), a new radiodiagnostic agent for detection and staging of recurrent and metastatic colorectal cancer.

CEA-Scan is the first Tc99m-labeled antibody. The first antibody fragment. The first same-day antibody fragment imaging agent. The first antibody fragment diagnostic agent with the ability to detect liver metastases. And the first with virtually no immunogenicity (less than 1%).

With CEA-Scan and CT, you can help oncologists and surgeons better evaluate the 600,000 Americans who've undergone laparotomy for colorectal cancer. You can better detect lesions which, if excised, make surgical cure possible. Conversely, CEA-Scan and CT can detect otherwise occult disease that can make such resection useless.

Soon, we'll be introducing additional products for the diagnosis and treatment of other diseases, providing truly new capabilities for nuclear medicine, and those who practice it.

IMMUNOMEDICS, INC.
300 American Road, Morris Plains NJ 07950
Phone: 201-605-8200 Fax: 201-605-8282

Manufactured by Immunomedics, Inc.

Please see preceding page for a brief summary of prescribing information.

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The Society of Nuclear Medicine Invites You to Attend the 44th Annual Meeting in San Antonio, Texas, June 1-5, 1997.

Mark your calendar now! The Annual Meeting Preview will be mailed to you in January, 1997. If you have questions, please contact the SNM Department: Meeting Services. (703) 708-9000 x-229 or fax (703) 709-9274. SNM's home page: http://WWW.SNM.ORG

44th Annual Meeting
SOCIETY OF NUCLEAR MEDICINE

Introducing a view from the heart.

Technetium Tc99m Tetrofosmin for Injection

A clear view.

- Technetium – labeled
- Rapid and sustained myocardial uptake, with images available from 15 minutes to 4 hours post-injection
- Rapid GI clearance

A convenient view.

- Room temperature preparation, and 8 hour reconstituted shelf-life
- No redistribution
- Available in unit dose

An efficient view.

- Flexible scheduling
- Assessment of myocardial perfusion and ventricular function with a single injection
- Sensitive and reliable detection of coronary disease

A patient's view.

- Low-radiation exposure compared to other myocardial perfusion agents
- Less than 1% of patients experienced side effects in clinical trials of 764 adults.

Amersham **HEALTHCARE**

See brief summary of prescribing information on following page

Brief Summary

MYOVIEW™

Kit for the Preparation of Technetium Tc99m Tetrofosmin for injection

Diagnostic radiopharmaceutical For intravenous use only
Code N166A

DESCRIPTION

The Medi-Physics Myoview™ kit is supplied as a pack of five vials for use in the preparation of a technetium Tc99m tetrofosmin intravenous injection to be used for the scintigraphic delineation of regions of reversible myocardial ischemia in the presence or absence of infarcted myocardium. Each vial contains a pre-dispensed, sterile, non-pyrogenic, lyophilized mixture of 0.23 mg tetrofosmin [6,9-bis(2-ethoxyethyl)-3,12-dioxa-6,9-diphospha-tetradecane], 30 µg stannous chloride dihydrate (minimum stannous tin 5.0 µg; maximum total stannous and stannic tin 15.8 µg), 0.32 mg disodium sulphosalicylate and 1.0 mg sodium D-gluconate, and 1.8 mg sodium hydrogen carbonate. The lyophilized powder is sealed under a nitrogen atmosphere with a rubber closure. The product contains no antimicrobial preservative.

Caution: Federal (USA) law prohibits dispensing without a prescription

CLINICAL PHARMACOLOGY

General
When technetium Tc99m pertechnetate is added to tetrofosmin in the presence of stannous reductant, a lipophilic, cationic technetium Tc99m complex is formed, Tc99m tetrofosmin. This complex is the active ingredient in the reconstituted drug product, on whose biodistribution and pharmacokinetic properties the indications for use depend.

Clinical Trials
A total of 252 patients with ischemic heart disease or atypical chest pain who had a reason for exercise stress imaging were studied in two open-label, multi center, clinical trials of Tc99m tetrofosmin (study a and study b). Of these 252 patients there were 212 (83%) males and 40 (17%) females with a mean age of 60.5 years (range 33.7 to 82.4 years). At peak exercise, maximum heart rate achieved and peak systolic blood pressure were comparable after Myoview and thallium-201 exercise studies.

All patients had exercise and rest planar imaging with Myoview and thallium-201; 191 (76%) patients also had SPECT imaging. The Myoview and thallium-201 images were separated by a mean of 5.1 days (1-14 days before or 2-14 days after Myoview). For Myoview imaging, each patient received 185-296 MBq (5-8 mCi) Tc99m tetrofosmin at peak exercise and 555-888 MBq (15-24 mCi) Tc99m tetrofosmin at rest approximately 4 hours later. For thallium-201 imaging, patients received thallium-201 55.5-74 MBq (1.5-2.0 mCi) at peak exercise.

The images were evaluated for the quality of the image (excellent, good or poor) and the diagnosis (with scores of 0 = normal, 1 = ischemia, 2 = infarct, 3 = mixed infarct and ischemia). The primary outcome variable was the percentage of correct diagnoses in comparison to the final clinical diagnosis. All planar images were blindly read; SPECT images were evaluated by the unblinded investigator. A subset of 181/252 (71%) patients had coronary angiography comparisons to the planar images of Myoview or thallium-201.

INDICATIONS AND USAGE

Myoview is indicated for scintigraphic imaging of the myocardium following separate administrations under exercise and resting conditions. It is useful in the delineation of regions of reversible myocardial ischemia in the presence or absence of infarcted myocardium.

CONTRAINDICATIONS

None known.

WARNINGS

In studying patients with known or suspected coronary artery disease, care should be taken to ensure continuous cardiac monitoring and the availability of emergency cardiac treatment.

PRECAUTIONS

General
To minimize radiation dose to the bladder, the patient should be encouraged to void when the examination is completed and as often thereafter as possible. Adequate hydration should be encouraged to permit frequent voiding.

The contents of the Myoview vial are intended only for use in the preparation of technetium

Tc99m tetrofosmin injection and are NOT to be administered directly to the patient.

As with all injectable drug products, allergic reactions and anaphylaxis may occur.

Sometimes Tc99m labeled myocardial imaging agents may produce planar and SPECT images with different imaging information.

Technetium Tc99m tetrofosmin injection, like other radioactive drugs must be handled with care and appropriate safety measures should be used to minimize radiation exposure to clinical personnel. Care should also be taken to minimize radiation exposure to the patient consistent with proper patient management.

Radiopharmaceuticals should be used by or under the control of physicians who are qualified by specific training and experience in the safe use and handling of radionuclides, and whose experience and training have been approved by the appropriate governmental agency authorized to license the use of radionuclides.

Drug Interactions: Drug interactions were not noted and were not studied in clinical studies in which Myoview was administered to patients receiving concomitant medication. Drugs such as beta blockers, calcium blockers and nitrates may influence myocardial function and blood flow. The effects of such drugs on imaging results are not known.

Carcinogenesis, Mutagenesis, Impairment of Fertility
Studies have not been conducted to evaluate carcinogenic potential or effects on fertility. Tetrofosmin sulphosalicylate was not mutagenic *in vitro* in the Ames test, mouse lymphoma, or human lymphocyte tests, nor was it clastogenic *in vivo* in the mouse micronucleus test.

Pregnancy Category C
Animal reproduction studies have not been conducted with Myoview. It is not known whether Myoview can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Therefore, Myoview should not be administered to a pregnant woman unless the potential benefit justifies the potential risk to the fetus.

Nursing Mothers
Technetium Tc99m Pertechnetate can be excreted in human milk. Therefore, formula should be substituted for breast milk until the technetium has cleared from the body of the nursing woman.

Pediatric Use
Safety and effectiveness in pediatric patients have not been established.

ADVERSE REACTIONS

Adverse events were evaluated in clinical trials of 764 adults (511 men and 253 women) with a mean age of 58.7 years (range 26-94 years). The subjects received a mean dose of 7.67 mCi on the first injection and 22.4 mCi on the second injection of Myoview.

Deaths did not occur during the clinical study period of 2 days. Six cardiac deaths occurred 3 days to 6 months after injection and were thought to be related to the underlying disease or cardiac surgery. After Myoview injection, serious episodes of angina occurred in 3 patients. Overall cardiac adverse events occurred in 5/764 (less than 1 %) of patients after Myoview injection.

The following events were noted in less than 1 % of patients:
Cardiovascular: angina, hypertension, Torsades de Pointes
Gastrointestinal: vomiting, abdominal discomfort
Hypersensitivity: cutaneous allergy, hypotension, dyspnea
Special Senses: metallic taste, burning of the mouth, smelling something

There was a low incidence (less than 4%) of a transient and clinically insignificant rise in white blood cell counts following administration of the agent.

DOSAGE AND ADMINISTRATION

For exercise and rest imaging, Myoview is administered in two doses:

- The first dose of 5-8 mCi (185-296 MBq) is given at peak exercise.
- The second dose of 15-24 mCi (555-888 MBq) is given approximately 4 hours later, at rest.

Imaging may begin 15 minutes following administration of the agent.

Dose adjustment has not been established in renally or liver impaired, pediatric or geriatric patients.

RADIATION DOSIMETRY

Based on human data, the absorbed radiation doses to an average human adult (70 kg) from intravenous injections of the agent under exercise and resting conditions are listed in Table 1. The values are listed in descending order as rad/mCi and µGy/MBq and assume urinary bladder emptying at 3.5 hours.

Table 1
Estimated Absorted Radiation Dose (Technetium Tc99m Tetrofosmin Injection)

	Absorbed radiation dose			
	Exercise		Rest	
Target Organ	rad/mCi	µGy/MBq	rad/mCi	µGy/MBq
Gall bladder wall	0.123	33.2	0.180	48.6
Upper large intestine	0.075	20.1	0.113	30.4
Bladder wall	0.058	15.6	0.071	19.3
Lower large intestine	0.057	15.3	0.082	22.2
Small intestine	0.045	12.1	0.063	17.0
Kidney	0.039	10.4	0.046	12.5
Salivary glands	0.030	8.04	0.043	11.6
Ovaries	0.029	7.88	0.035	9.55
Uterus	0.027	7.34	0.031	8.36
Bone surface	0.023	6.23	0.021	5.58
Pancreas	0.019	5.00	0.018	4.98
Stomach	0.017	4.60	0.017	4.63
Thyroid	0.016	4.34	0.022	5.83
Adrenals	0.016	4.32	0.015	4.11
Heart wall	0.015	4.14	0.015	3.93
Red marrow	0.015	4.14	0.015	3.97
Spleen	0.015	4.12	0.014	3.82
Muscle	0.013	3.52	0.012	3.32
Testes	0.013	3.41	0.011	3.05
Liver	0.012	3.22	0.015	4.15
Thymus	0.012	3.11	0.009	2.54
Brain	0.010	2.72	0.008	2.15
Lungs	0.008	2.27	0.008	2.08
Skin	0.008	2.22	0.007	1.91
Breasts	0.008	2.22	0.007	1.83

Dose calculations were performed using the standard MIRD method (MIRD Pamphlet No.1 (rev). Society of Nuclear Medicine, 1976. Effective dose equivalents (EDE) were calculated in accordance with ICRP 53 (Ann. ICRP 18 (1-4), 1988) and gave values of 8.61 x 10^{-3} mSv/MBq and 1.12 x 10^{-2} mSv/MBq after exercise and rest respectively.

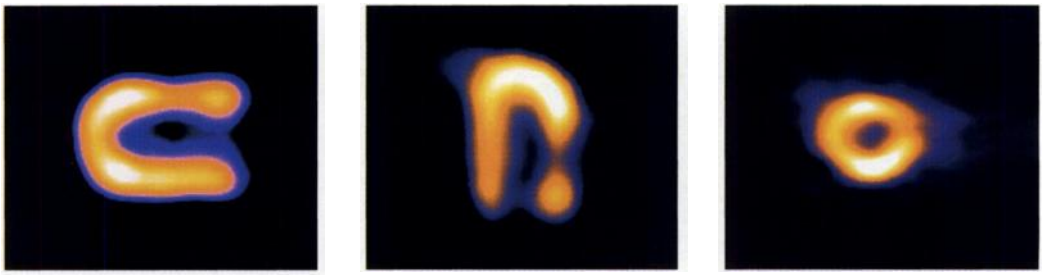
Manufactured by Amersham International plc – Amersham, United Kingdom
Patent No. 5,045,302 (r)

Distributed by: Medi-Physics, Inc., Amersham Healthcare
2636 S. Clearbrook Dr., Arlington Heights, IL 60005
1-800- 633-4123 (Toll Free)
February, 1996

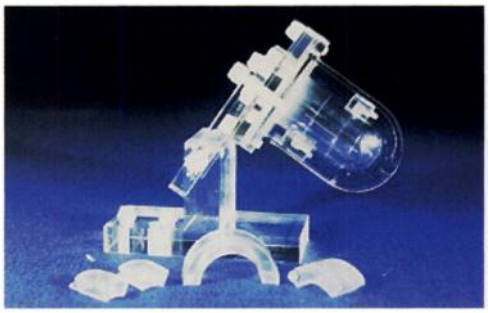
Amersham HEALTHCARE

DATA SPECTRUM CORPORATION

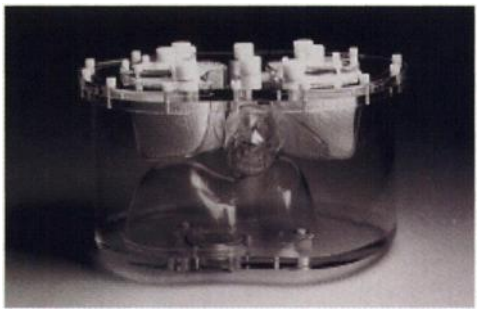
ECT Cardiac Insert Phantom with Fillable Defect Set (Model ECT/CAR/I)



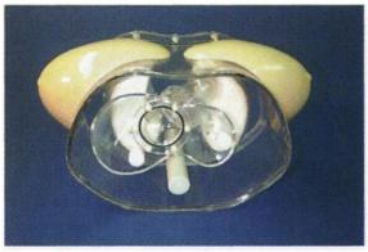
Example SPECT horizontal long-axis (left), vertical (center) and short axis (right) images of Cardiac Insert with 50% cold defect. Filtered backprojection images acquired with Cardiac Insert mounted in Anthropomorphic Torso Phantom (optionally available) as pictured below.

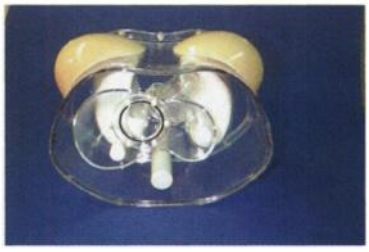


Cardiac Insert shown separately with Fillable Defect Set. Insert may also be used in Cylindrical and Elliptical Phantoms.



Cardiac Insert shown mounted in Anthropomorphic Torso Phantom Model ECT/TOR/P.





To study the effect of breast attenuation on cardiac images, Breast Attachments large (left) or medium (right) may be used together with the Torso Phantom and Cardiac Insert.

UNIQUE FEATURES AND APPLICATIONS

• Assures overall system quality • Solid and fillable inserts simulate transmural and non-transmural cold and hot abnormalities • Evaluates cardiac ECT data acquisition protocols and reconstruction methods • Image interpretation training • Quantitative evaluation of uniform and nonuniform attenuation and scatter compensation methods • Evaluate cardiac image contrast, % rms noise and signal/noise ratio.

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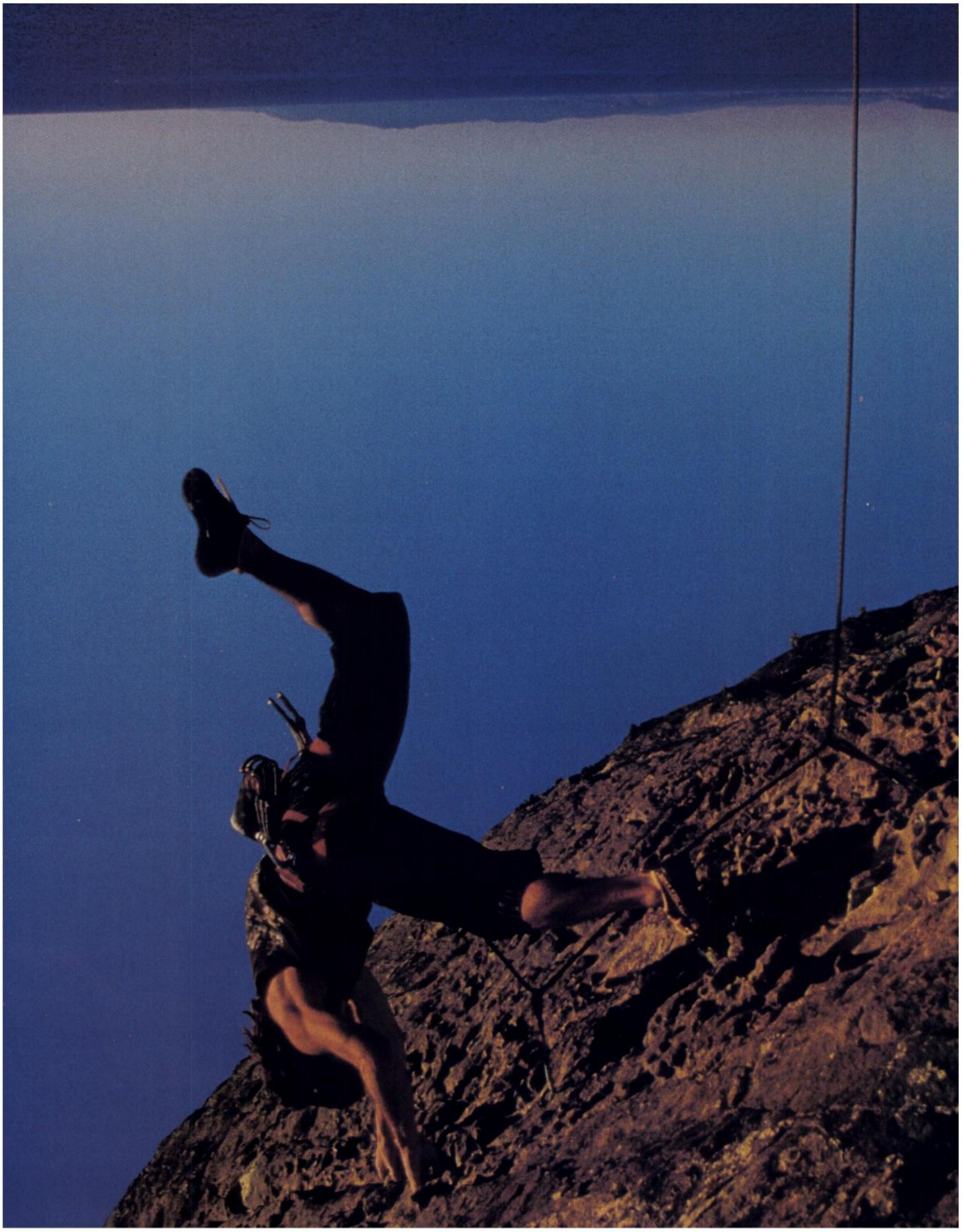
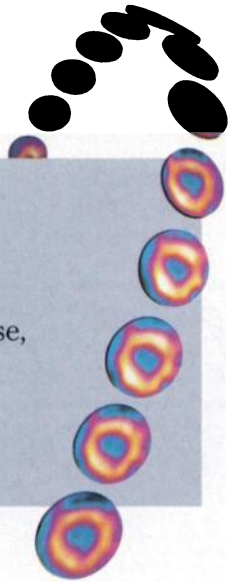


It's better under stress

The value of cardiac imaging lies in the accuracy of stress perfusion images. And that's where Cardiolite® comes through.

With Cardiolite, you can simultaneously obtain stress perfusion and resting function *(gated stress Cardiolite study)*—that's critical diagnostic information regarding cardiac perfusion, wall motion, wall thickening, and LVEF—all of which can help with patient management decisions. And, for patients unable to achieve adequate levels of stress through exercise, imaging results can be optimized by using pharmacologic agents such as I.V. Persantine® (dipyridamole USP).

To enhance patient management, find out about the advantages of stress Cardiolite before you order your next study.



By performing stress Cardiolite studies you can...

- Accurately diagnose CAD
- Risk stratify patients with known or suspected CAD
- Reduce equivocal interpretation in difficult-to-image patients (women, obese, and large-chested)
- Acquire stress perfusion and resting function information
- Improve patient management decisions, which may reduce costs

Cardiolite®

Kit for the preparation of Technetium Tc99m Sestamibi

To reduce the uncertainty Cardiolite comes through

DU PONT PHARMA
Radiopharmaceuticals

Stress testing should be performed only under the supervision of a qualified physician in a laboratory equipped with appropriate resuscitation and support apparatus. There have been infrequent reports of signs and symptoms consistent with seizure and severe hypersensitivity after administration of Tc99m Sestamibi. Pharmacologic stress may be associated with serious adverse events such as myocardial infarction, arrhythmias, hypertension, bronchoconstriction, and cerebrovascular events. Caution should be used when pharmacologic stress is selected as an alternative to exercise.

Persantine® is a registered trademark of Boehringer Ingelheim International GmbH. *I.V. Persantine*® is manufactured and distributed by DuPont Pharma under license from Boehringer Ingelheim Pharmaceuticals, Inc.

Please see brief summary of prescribing information on adjacent page.

Brief Summary

Cardiolite®

Kit for the preparation of Technetium Tc99m Sestamibi

FOR DIAGNOSTIC USE

INDICATIONS AND USAGE: CARDIOLITE®, Kit for the preparation of Technetium Tc99m Sestamibi, is a myocardial perfusion agent that is indicated for detecting coronary artery disease by localizing myocardial ischemia (reversible defects) and infarction (non-reversible defects), in evaluating myocardial function and developing information for use in patient management decisions. CARDIOLITE® evaluation of myocardial ischemia can be accomplished with rest and cardiovascular stress techniques (e.g., exercise or pharmacologic stress in accordance with the pharmacologic stress agent's labeling).

It is usually not possible to determine the age of a myocardial infarction or to differentiate a recent myocardial infarction from ischemia.

CONTRAINDICATIONS: None known.

WARNINGS: In studying patients in whom cardiac disease is known or suspected, care should be taken to assure continuous monitoring and treatment in accordance with safe, accepted clinical procedure. Infrequently, death has occurred 4 to 24 hours after Tc99m Sestamibi use and is usually associated with exercise stress testing (See PRECAUTIONS).

Pharmacologic induction of cardiovascular stress may be associated with serious adverse events such as myocardial infarction, arrhythmias, hypotension, bronchoconstriction and cerebrovascular events. Caution should be used when pharmacologic stress is selected as an alternative to exercise; it should be used when indicated and in accordance with the pharmacologic stress agent's labeling.

PRECAUTIONS:

GENERAL

The contents of the vial are intended only for use in the preparation of Technetium Tc99m Sestamibi and are not to be administered directly to the patient without first undergoing the preparative procedure.

Radioactive drugs must be handled with care and appropriate safety measures should be used to minimize radiation exposure to clinical personnel. Also, care should be taken to minimize radiation exposure to the patients consistent with proper patient management.

Contents of the kit before preparation are not radioactive. However, after the Sodium Pertechnetate Tc99m Injection is added, adequate shielding of the final preparation must be maintained.

The components of the kit are sterile and non-pyrogenic. It is essential to follow directions carefully and to adhere to strict aseptic procedures during preparation.

Technetium Tc99m labeling reactions involved depend on maintaining the stannous ion in the reduced state. Hence, Sodium Pertechnetate Tc99m Injection containing oxidants should not be used.

Technetium Tc99m Sestamibi should not be used more than six hours after preparation.

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

Stress testing should be performed only under the supervision of a qualified physician and in a laboratory equipped with appropriate resuscitation and support apparatus.

The most frequent exercise stress test endpoints, which resulted in termination of the test during controlled Tc99m Sestamibi studies (two-thirds were cardiac patients) were:

Fatigue	35%
Dyspnea	17%
Chest Pain	16%
ST-depression	7%
Arrhythmia	1%

Carcinogenesis, Mutagenesis, Impairment of Fertility

In comparison with most other diagnostic technetium labeled radiopharmaceuticals, the radiation dose to the ovaries (1.5rads/30mCi at rest, 1.2 rads/30mCi at exercise) is high. Minimal exposure (ALARA) is necessary in women of childbearing capability. (See Dosimetry subsection in DOSAGE AND ADMINISTRATION section.)

The active intermediate, $[Cu(MIBI)_4]BF_4$, was evaluated for genotoxic potential in a battery of five tests. No genotoxic activity was observed in the Ames, CHO/HPRT and sister chromatid exchange tests (all *in vitro*). At cytotoxic concentrations (≥ 20μg/ml), an increase in cells with chromosome aberrations was observed in the *in vitro* human lymphocyte assay. $[Cu(MIBI)_4]BF_4$ did not show genotoxic effects in the *in vivo* mouse micronucleus test at a dose which caused systemic and bone marrow toxicity (9mg/kg, > 600 × maximal human dose).

Pregnancy Category C

Animal reproduction and teratogenicity studies have not been conducted with Technetium Tc99m Sestamibi. It is also not known whether Technetium Tc99m Sestamibi can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. There have been no studies in pregnant women. Technetium Tc99m Sestamibi should be given to a pregnant woman only if clearly needed.

Nursing Mothers

Technetium Tc99m Pertechnetate is excreted in human milk during lactation. It is not known whether Technetium Tc99m Sestamibi is excreted in human milk. Therefore, formula feedings should be substituted for breast feedings.

Pediatric Use

Safety and effectiveness in children below the age of 18 have not been established.

ADVERSE REACTIONS: During clinical trials, approximately 8% of patients experienced a transient parosmia and/or taste perversion (metallic or bitter taste) immediately after the injection of Technetium Tc99m Sestamibi. A few cases of transient headache, flushing, edema, injection site inflammation, dyspepsia, nausea, vomiting, pruritus, rash, urticaria, dry mouth, fever, dizziness, fatigue, dyspnea, and hypotension also have been attributed to administration of the agent. Cases of angina, chest pain, and death have occurred (see WARNINGS and PRECAUTIONS). The following adverse reactions have been rarely reported: signs and symptoms consistent with seizure occurring shortly after administration of the agent; transient arthritis in a wrist joint; and severe hypersensitivity, which was characterized by dyspnea, hypotension, bradycardia, asthenia and vomiting within two hours after a second injection of Technetium Tc99m Sestamibi.

DU PONT PHARMA
Radiopharmaceuticals

Marketed by
DuPont Radiopharmaceutical Division
The DuPont Merck Pharmaceutical Co.
331 Treble Cove Road
Billerica, Massachusetts, USA 01862
For ordering Tel. Toll Free: 800-225-1572
All other business: 800-362-2668
(For Massachusetts and International, call 508-667-9531)

513121-0296 2/96 Printed in U.S.A.

I.V. PERSANTINE®

(dipyridamole USP) Injection 5mg/ml

Brief Summary of Prescribing Information

INDICATIONS AND USAGE IV Persantine® (dipyridamole USP) is indicated as an alternative to exercise in thallium myocardial perfusion imaging for the evaluation of coronary artery disease in patients who cannot exercise adequately.

CONTRAINDICATIONS Hypersensitivity to dipyridamole.

WARNINGS Serious adverse reactions associated with the administration of intravenous Persantine® (dipyridamole USP) have included cardiac death, fatal and non-fatal myocardial infarction, ventricular fibrillation, symptomatic ventricular tachycardia, stroke, transient cerebral ischemia, seizures, anaphylactoid reaction and bronchospasm. There have been reported cases of asystole, sinus node arrest, sinus node depression and conduction block. Patients with abnormalities of cardiac impulse formation/conduction or severe coronary artery disease may be at increased risk for these events.

In a study of 3911 patients given intravenous Persantine® as an adjunct to thallium myocardial perfusion imaging, two types of serious adverse events were reported: 1) four cases of myocardial infarction (0.1%), two fatal (0.05%), and two non-fatal (0.05%); and 2) six cases of severe bronchospasm (0.2%). Although the incidence of these serious adverse events was small (0.3%, 10 of 3911), the potential clinical information to be gained through use of intravenous Persantine® thallium imaging must be weighed against the risk to the patient. Patients with a history of unstable angina may be at a greater risk for severe myocardial ischemia. Patients with a history of asthma may be at a greater risk for bronchospasm during IV Persantine® use.

When thallium myocardial perfusion imaging is performed with intravenous Persantine®, parenteral aminophylline should be readily available for relieving adverse events such as bronchospasm or chest pain. Vital signs should be monitored during, and for 10-15 minutes following, the intravenous infusion of Persantine® and an electrocardiographic tracing should be obtained using at least one chest lead. Should severe chest pain or bronchospasm occur, parenteral aminophylline may be administered by slow intravenous injection (50-100 mg over 30-60 seconds) in doses ranging from 50 to 250 mg. In the case of severe hypotension, the patient should be placed in a supine position with the head tilted down if necessary, before administration of parenteral aminophylline. If 250 mg of aminophylline does not relieve chest pain symptoms within a few minutes, sublingual nitroglycerin may be administered. If chest pain continues despite use of aminophylline and nitroglycerin, the possibility of myocardial infarction should be considered. If the clinical condition of a patient with an adverse event permits a one minute delay in the administration of parenteral aminophylline, thallium-201 may be injected and allowed to circulate for one minute before the injection of aminophylline. This will allow initial thallium perfusion imaging to be performed before reversal of the pharmacologic effects of Persantine® on the coronary circulation.

PRECAUTIONS See WARNINGS

Drug Interactions Oral maintenance theophylline and other xanthine derivatives such as caffeine may abolish the coronary vasodilatation induced by intravenous Persantine® (dipyridamole USP) administration. This could lead to a false negative thallium imaging result (see Mechanism of Action).

Myasthenia gravis patients receiving therapy with cholinesterase inhibitors may experience worsening of their disease in the presence of dipyridamole.

Carcinogenesis, Mutagenesis, Impairment of Fertility In studies in which dipyridamole was administered in the feed at doses of up to 75 mg/kg/day (9.4 times* the maximum recommended daily human oral dose) in mice (up to 128 weeks in males and up to 142 weeks in females) and rats (up to 111 weeks in males and females), there was no evidence of drug related carcinogenesis. Mutagenicity tests of dipyridamole with bacterial and mammalian cell systems were negative. There was no evidence of impaired fertility when dipyridamole was administered to male and female rats at oral doses up to 500 mg/kg/day (63 times* the maximum recommended daily human oral dose). A significant reduction in number of corpora lutea with consequent reduction in implantations and live fetuses was, however, observed at 1250 mg/kg/day.

*Calculation based on assumed body weight of 50 kg.

Pregnancy Category B Reproduction studies performed in mice and rats at daily oral doses of up to 125 mg/kg (15.6 times* the maximum recommended daily human oral dose) and in rabbits at daily oral doses of up to 20 mg/kg (2.5 times* the maximum recommended daily human oral dose) have revealed no evidence of impaired embryonic development due to dipyridamole. There are, however, no adequate and well controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human responses, this drug should be used during pregnancy only if clearly needed.

*Calculation based on assumed body weight of 50 kg.

Nursing Mothers Dipyridamole is excreted in human milk.

Pediatric Use Safety and effectiveness in the pediatric population have not been established.

ADVERSE REACTIONS Adverse reaction information concerning intravenous Persantine® (dipyridamole USP) is derived from a study of 3911 patients in which intravenous Persantine® was used as an adjunct to thallium myocardial perfusion imaging and from spontaneous reports of adverse reactions and the published literature.

Serious adverse events (cardiac death, fatal and non-fatal myocardial infarction, ventricular fibrillation, asystole, sinus node arrest, symptomatic ventricular tachycardia, stroke, transient cerebral ischemia, seizures, anaphylactoid reaction and bronchospasm.) are described above (see WARNINGS).

In the study of 3911 patients, the most frequent adverse reactions were: chest pain/angina pectoris (19.7%), electrocardiographic changes (most commonly ST-T changes) (15.9%), headache (12.2%), and dizziness (11.8%).

Drug-related adverse events occurring with >1% incidence in this study were: chest pain/angina pectoris (19.7%), headache (12.2%), dizziness (11.8%), electrocardiographic abnormalities/ST-T changes (7.5%), electrocardiographic abnormalities/extrasystoles (5.2%), hypotension (4.6%), nausea (4.6%), flushing (3.4%), electrocardiographic abnormalities/tachycardia (3.2%), dyspnea (2.6%), pain unspecified (2.6%), blood pressure lability (1.6%), hypertension (1.5%), paresthesia (1.3%), and fatigue (1.2%).

Less common adverse reactions occurring in 1% or less of the patients within the study included:

Cardiovascular System: Electrocardiographic abnormalities unspecified (0.8%), arrhythmia unspecified (0.6%), palpitation (0.3%), ventricular tachycardia (0.2% see WARNINGS), bradycardia (0.2%), myocardial infarction (0.1% see WARNINGS), AV block (0.1%), syncope (0.1%), orthostatic hypotension (0.1%), atrial fibrillation (0.1%), supraventricular tachycardia (0.1%), ventricular arrhythmia unspecified (0.03% see WARNINGS), heart block unspecified (0.03%), cardiomyopathy (0.03%), edema (0.03%).

Central and Peripheral Nervous System: Hypothesia (0.5%), hypertonia (0.3%), nervousness/anxiety (0.2%), tremor (0.1%), abnormal coordination (0.03%), somnolence (0.03%), dysphonia (0.03%), migraine (0.03%), vertigo (0.03%).

Gastrointestinal System: Dyspepsia (1.0%), dry mouth (0.8%), abdominal pain (0.7%), flatulence (0.6%), vomiting (0.4%), eructation (0.1%), dysphagia (0.03%), tenesmus (0.03%), appetite increased (0.03%).

Respiratory System: Pharyngitis (0.3%), bronchospasm (0.2% see WARNINGS), hyperventilation (0.1%), rhinitis (0.1%), coughing (0.03%), pleural pain (0.03%).

Other: Myalgia (0.9%), back pain (0.6%), injection site reaction unspecified (0.4%), diaphoresis (0.4%), asthenia (0.3%), malaise (0.3%), arthralgia (0.3%), injection site pain (0.1%), rigor (0.1%), earache (0.1%), tinnitus (0.1%), vision abnormalities unspecified (0.1%), dysgeusia (0.1%), thirst (0.03%), depersonalization (0.03%), eye pain (0.03%), renal pain (0.03%), perineal pain (0.03%), breast pain (0.03%), intermittent claudication (0.03%), leg cramping (0.03%). In additional postmarketing experience, there have been rare reports of allergic reaction including urticaria, pruritus, dermatitis and rash.

DU PONT PHARMA
Radiopharmaceuticals

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The DuPont Merck Pharmaceutical Co.
Billerica, MA 01862

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44th

Annual Meeting

June 1- June 5, 1997

San Antonio, Texas

The 1997 Scientific Program Committee, Scientific Exhibits Subcommittee and the Scientific & Teaching Sessions Committee solicit the submission of abstracts from members and nonmembers of the Society of Nuclear Medicine for the 44th Annual Meeting in San Antonio, TX. Accepted Scientific Paper and Scientific Exhibit abstracts will be published in a special supplement to the May issue of *The Journal of Nuclear Medicine* and accepted Technologist Section abstracts will be published in the June issue of the *Journal of Nuclear Medicine Technology*. Original contributions on a variety of topics related to nuclear medicine will be considered, including:

- Instrumentation and Data Analysis
- Radioassay
- Radiopharmaceutical Chemistry
- Dosimetry/Radiobiology
- Clinical Science Applications:
  - Bone/Joint
  - Cardiovascular (clinical, basic, and PET)
  - Endocrine
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Authors seeking publication for the full text of their papers are strongly encouraged to submit their work for immediate review to JNM, and for the technologist section, to JNMT.

The Scientific Paper and Exhibit abstract form can be obtained in the September and October 1996 JNM. You can also obtain an abstract form by writing to:

Society of Nuclear Medicine
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DEADLINE FOR RECEIPT OF ABSTRACTS FOR SCIENTIFIC PAPERS IS THURSDAY, JANUARY 9, 1997.

DEADLINE FOR RECEIPT OF ABSTRACTS FOR SCIENTIFIC EXHIBITS IS THURSDAY, JANUARY 9, 1997.

DuPont Pharma Nuclear Cardiology
Research Fellowship

The Society of Nuclear Medicine (SNM) Awards Committee announces that a fellowship for $20,000 is available for July 1, 1997.

The objectives of this fellowship are to (1) Encourage physicians to enter the field of Nuclear Cardiology and (2) Support clinical research in any of the following areas: Gated SPECT, Heart Failure, CAD Prognosis or CAD in Women. Funds can be used to support the research and/or salary of the investigator. Preference will be given to those new to the field of Nuclear Cardiology. The Award will be announced at the next Annual SNM Meeting, June, 1997 in San Antonio, Texas.

For more information and an application contact:

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SNM AWARDS COMMITTEE
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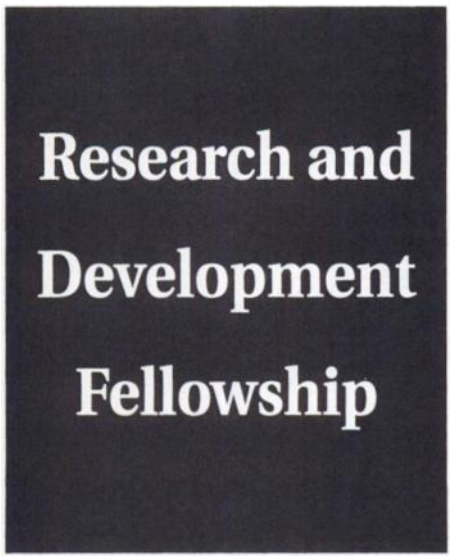


MALLINCKRODT FELLOWSHIP

Mallinckrodt, Inc. is announcing it's Annual Fellowship of $30,000 for a physician fellow active in nuclear medicine research and/or development. The award is to further a research project involving the development of single photon radiopharmaceuticals or beta emitters to be used in nuclear medicine oncology. Applicants are asked to submit their curriculum vitae, a detailed account of their research project including prior accomplishments on the project, and future plans. Deadline for this year's award is January 6, 1997. Requested information, along with at least two letters supporting the application, should be forwarded to: William J. MacIntyre, PhD, Society of Nuclear Medicine, 1850 Samuel Morse Drive, Reston, VA 20190. The recipient will be announced at the Annual Meeting of the Society of Nuclear Medicine.

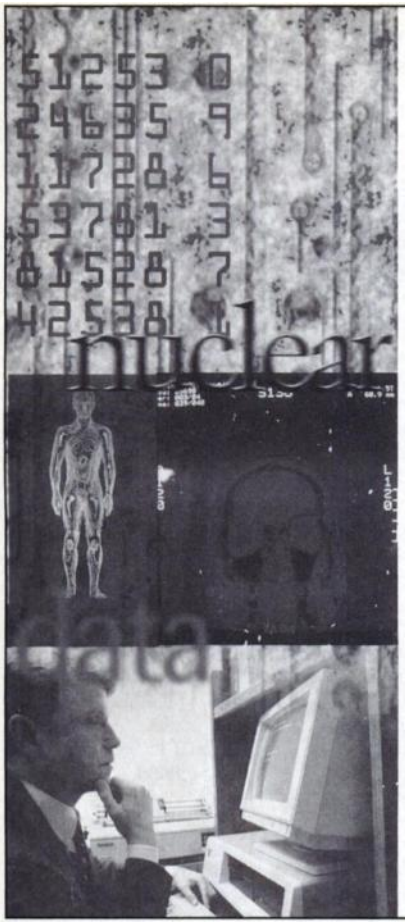
DuPont Pharma Nuclear Oncology
Research Fellowship

The Society of Nuclear Medicine (SNM) Awards Committee announces that a fellowship for $10,000 is available for July 1, 1997.

The objectives of this fellowship are to (1) Encourage physicians to enter the field of Nuclear Oncology and (2) Support clinical research in the area of Technetium Tc 99m labeled compounds for breast imaging as a complement to mammography. Funds can be used to support the research and/or salary of the investigator. Preference will be given to those new to the field of Nuclear Oncology. The Award will be announced at the next Annual SNM Meeting, June, 1997 in San Antonio, Texas.

For more information and an application contact:

THE SOCIETY OF NUCLEAR MEDICINE
SNM AWARDS COMMITTEE
1850 Samuel Morse Dr., Reston, VA 20190-5316
(703) 708-9000 / FAX: (703) 708-9015



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LOCATION AND DATES

Palm Springs Riviera Resort and Racquet Club
Monday, February 10, through Tuesday, February 11, 1997

Call SNM Department: Meeting Services
703-708-9000

	Before 1/14/97	On/After 1/14/97
Physicians/Scientists		
Members	$185.00	$230.00
Nonmembers	$215.00	$260.00
Technologists		
Members	$90.00	$120.00
Nonmembers	$120.00	$150.00
Students	$70.00	$70.00

SNM
44TH ANNUAL MEETING
Critical Dates

Item		Due Date
ABSTRACT FORMS		
Scientific Papers	October Issue JNM	1/9/97
Scientific Exhibits	October Issue JNM	1/9/97
REGISTRATION FORM	Contact: Dept. Meeting Services	4/28/97
HOUSING FORM	Contact: Dept. Meeting Services	5/2/97

DON'T FORGET THE MID-WINTER MEETING IS IN PALM SPRINGS, CALIFORNIA

DATE: February 5-11, 1997

LOCATION: The Palm Springs Riviera Resort and Racquet Club

EDUCATION PROGRAM SPONSOR: The Computer and Instrumentation Council

Position Available

Brain SPECT Imaging Fellowship

A one or two year fellowship position in brain imaging is available beginning July 1, 1997 in the Division of Nuclear Medicine, Department of Radiology, at the University of Alabama Medical Center at Birmingham. Applicants should have completed a residency in nuclear medicine or radiology, have an intense interest in both clinical and research brain imaging and should be eligible for licensure in the state of Alabama. Successful candidates will assume a significant role in multiple research projects involving all aspects of clinical brain SPECT imaging, triple head dynamic brain SPECT, quantitative Xe-133 brain SPECT on the Picker Prism, and 4.1T NMR metabolic and fMR brain imaging. Please send letter of interest and curriculum vitae to: James M. Mountz, MD, PhD, Director of Neuro-Nuclear Imaging, Division of Nuclear Medicine, Department of Radiology, The University of Alabama at Birmingham, 619 South 19th Street, Birmingham, AL 35233-6835. Phone: 205-975-8336, Fax: 205-934-5589. E-mail: medy010@uab dpo.dpo.uab.edu (UAB is an Affirmative Action/Equal Opportunity Employer).

Fellowship

The Department of Radiology at the University of Pittsburgh School of Medicine is recruiting for a fellowship position in our PET Center Facility which has an active and growing clinical service and research effort in oncology, as well as a large neuroscience research program. This is a non-tenure stream position with an expected hiring date in the fall of 1996. The position requires a board eligible radiologist or nuclear medicine physician and preferably with ABNM or ABR certification. The physician should be licensed (or eligible for licensure) to practice medicine in the Commonwealth of Pennsylvania. Interested candidates should submit a curriculum vitae to: Carolyn Cidis Meltzer, MD, Acting Medical Director, PET Facility, University of Pittsburgh Medical Center, Room B938, 200 Lothrop St., Pittsburgh, PA 15213. The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.

Nuclear Medicine Physician

The Dept. of Radiological Sciences of the University of Oklahoma Health Sciences Center has an opening for a staff radiologist with specialization in nuclear medicine. Faculty rank and remuneration will depend on credentials and experience. Members of the nuclear medicine section provide coverage for the University Hospital (adult), Children's Hospital of Oklahoma and the DVA Medical Center in Oklahoma City. The section is well-equipped and performs approximately 10,000 studies/yr in aggregate. The individual selected will have primary responsibilities in one of the adult units, but will be expected to provide cross coverage within the other units. In addition, the individual will spend at least one day a week covering other areas of radiology and will be included in radiology on-call coverage. If interested, please contact: Joe C. Leonard, MD, Chief, Pediatric Imaging Service, Childrenís Hospital of Oklahoma, P.O. Box 26307, Oklahoma City, OK 73126.

Nuclear Medicine Residency

July 1997. Comprehensive imaging/RIA/therapy program in 4 hospitals (private, county, VA) with 2500 total beds. Mobile imaging for over 200 ICU beds. Large pediatric population. Strong cardiovascular emphasis. State-of-the-art instrumentation including SPECT computer processing. Once year of ACGME-approved preparatory residency required prior to entry. Contact: Warren H. Moore, MD, Department of Radiology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Baylor College of Medicine is an EO/AA employer.

PET Fellowship

Research fellowship in PET at the Northern California PET Imaging Center affiliated with the University of California at Davis, for one year starting 7/1/97. Active clinical and research facility, 800 studies per year in oncology, neurology and cardiology. BC/BE applicant expected to participate in interpretation of studies, oncologic PET research, presentation of results and teaching. Please send curriculum vitae to: Peter E. Valk, MD, Northern California PET Imaging Center, 3195 Folsom Blvd., Sacramento, CA 98516.

Postdoctoral Research Fellowship (MD, PhD): Cancer Imaging (UCSF and LBNL)

Two-year research training fellowship in diagnostic oncology imaging. Research training focuses on NMR imaging and spectroscopy, as well as emission tomography (PET and SPECT). Equipment includes state-of-the-art MRI, PET and other imaging devices and laboratory facilities at the UCSF Department of Radiology and at the Lawrence Berkeley National Laboratory Center for Functional Imaging. Trainees work under direct guidance of a faculty preceptor. Program funded by the National Cancer Institute (T32 CA 66527). Minorities and women are encouraged to apply. Send inquiries to: Randell A. Hawkins, MD, PhD, Department of Radiology, University of California, San Francisco, (UCSF), 505 Parnassus Ave., San Francisco, CA 94143-0252. Phone: 415-476-1521. E-mail: randy_hawkins@radmac1.ucsf.edu.

Radiology Residency

PGY-1 radiology residency, beginning July 1997. Internship required prior to beginning. Teaching hospital since 1954 with medical students from the University of Michigan Medical School and Wayne State University. State-of-the-art equipment and personalized teaching. Fax CV to: Russell Nusynowitz, MD at 313-493-3516. Sinai Hospital, Detroit, MI.

Position Wanted

ABNM certified, young physician with expertise in all clinical aspects of nuclear medicine seeks a temporary or permanent, part-time or full-time employment in a Veterans administration hospital beginning immediately. Phone: 210-616-5311.

Equipment For Sale

409 Elscint SPEK gamma camera, Baird multicrystal gamma camera, DP3 bone densitometer (Lunar), Mark III beta scintillation counter. For details phone: 818-986-1553. Fax: 818-986-5373.

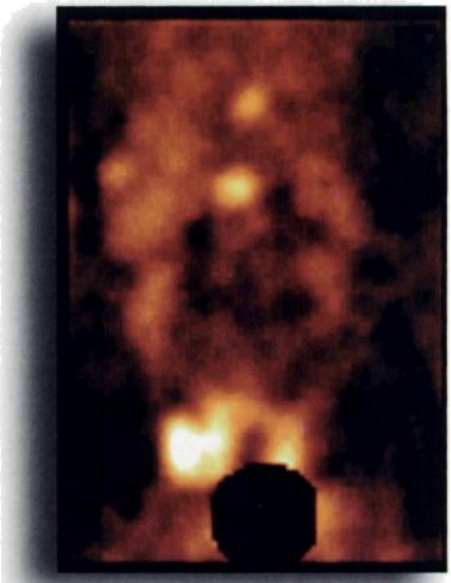
Radiopharmacist

Radiopharmacist position with the Henry M. Jackson Foundation at the Tomography Department (PETD) of the Clinical Center, National Institutes of Health, in Bethesda, MD. Active program in radiopharmaceuticals, radiopharmacy, imaging physics, modeling and data analysis sciences. Resources include two medical cyclotrons, six hot cells and laboratories for radiochemistry, three PET tomographs (two brain units and a whole-body instrument) and computer hardware and software for the generation and analysis of physiological images. The radiopharmacist assists in total PETD quality assurance with primary responsibility for quality control of a wide variety of new and established PET radiopharmaceuticals. Applicants must possess a bachelorís degree in pharmacy and be licensed to practice pharmacy. Applicants must also have experience in radiopharmacy (dispensing, sterility and apyrogenicity testing), and analytical techniques, e.g., HPLC, either through a formal training program or experience in a nuclear medicine department. Salary commensurate with qualifications. Excellent benefits package. Send a cover letter and resume to:

Human Resources Department
Attn: PL1960489
Henry M. Jackson Foundation for the Advancement of Military Medicine
1401 Rockville Pike, Suite 600
Rockville, MD 20852
or E-mail at: hr@mail.hjf.org
AA/EOE

^{18}F-FDG SPECT Imaging

Oncology Series



Multiple Myeloma: *Coronel slices of a patient with Multiple Myeloma Diagnosis confirmed with CT and MRI*

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Lymphoma: *Coronal slice of a patient with Lymphoma. ^{18}F-FDG SPECT revealed several lesions of diameters less than 1cm. Diagnosis confirmed by CT, PET and Biopsy.*

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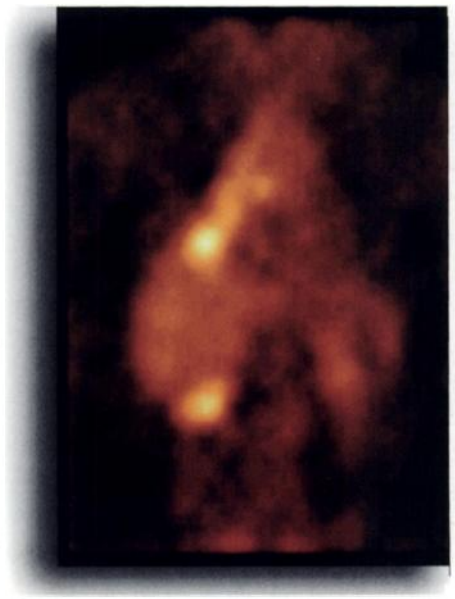

Lung Cancer: *Coronal slice of a patient with known Lung Cancer. ^{18}F-FDG SPECT revealed metastasis to mediastinum and supraclavicular nodes Diagnosis confirmed by CT, MRI and Biopsy*

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