


December 12, 2003


From: Dr. Andrew Farb, Cardiovascular Pathology
To: WRAMC, Health Physics Office
Subject: Administrative Hold for Authorization 701

1. Please place my Authorization 701 along with room 5047 in building 54 on administrative hold. We are not using radioactive materials at this time, but we do anticipate future use. We will still need to use the fluoroscope.
2. If you have any questions or need some more information, please do not hesitate to contact me at 202-782-2847.


Dr. Andrew Farb
Cardiovascular Pathology

*Terminating authorization due to expiration
of current authorization and departure of P.I.
D. Farb*

The Health Physics Office is
granting interim approval to this
application until the next
scheduled RCC meeting on 07/09/04
Date


LTC JOHN R. MERCIER, Ph.D.
Chief, WRAMC Health Physics
6900 Georgia Ave., NW
BLDG 41, Room 38
Washington, DC 20307-5001

APPROVED BY RCC
SEP 9 2004
On _____
DATE

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

6900 GEORGIA AVENUE, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • VOICE: 202-356-0058 • FAX: 202-356-0086

AUTHORIZATION AMENDMENT REVIEW

Date of Amendment Initiation: 12/17/03

Authorization Number: 701

Description of the Amendment: Place Authorization on Administrative Hold

Mark appropriately.

Required Items	Item Needed	Item Not needed	Item Completed	Comments
Initial/Annual Training Form (WRAMC Form 538)		X		
Training & Experience Form (WRAMC Form 1643)		X		
Protocol Form (WRAMC Form 1644)		X		
Radioisotope changes		X		
Re-Room Survey conducted		X		
Admin Hold Survey conducted	X		X	Room Never posted
Final Survey conducted		X		
Bioassay Program enrollment		X		
Dosimetry Program enrollment		X		DD Form 1952 received? Y or N
Instrumentation affected		X		

ADDITIONAL INFORMATION

APPROVAL

License and Support Branch Chief: David Bush

Dosimetry Coordinator: Alvin

HPO Representative: ICox

APPLICATION FOR AUTHORIZATION TO USE RADIOACTIVE MATERIAL -- NON-HUMAN USE

(TYPE OR PRINT LEGIBLY)

A. GENERAL INFORMATION

APPLICATION FOR: ☐ NEW AUTHORIZATION ☒ RENEWAL OF AUTHORIZATION ☐ AMENDMENT TO AUTHORIZATION
NUMBER _____ NUMBER _____

APPLICANT'S NAME (LAST, FIRST, MI)

Farb, Andrew

APPLICANT MAILING ADDRESS (INCLUDE ORGANIZATION)

Dept. of Cardiovascular Pathology
AFIP, Washington, DC 20306-6000

TELEPHONE NUMBER:

FAX NUMBER:

B. AUTHORIZED USERS (PLEASE LIST ON PAGE 2)

C. RADIOACTIVITY USAGE LOCATION

LOCATIONS WHERE MATERIALS WILL BE USED (BUILDING AND ASSOCIATED ROOMS):

AFIP Building 54: Room 5047, 5050, 3012 ^{10/7/02}

LOCATIONS WHERE MATERIALS WILL BE STORED (BUILDING AND ASSOCIATED ROOMS):

AFIP Building 54: Room 2008, 3012 ^{10/7/02}

LOCATIONS OF RADIOACTIVE WASH SINKS (BUILDING AND ASSOCIATED ROOMS):

AFIP Building 54: Room 3012 ^{10/7/02}

APPROVED BY RCC

On FEB 28 2002
DATE

D. RADIOACTIVE MATERIAL DATA

RADIOISOTOPE	CHEMICAL AND/OR PHYSICAL FORM (SEALED AND/OR UNSEALED)	POSSESSION LIMIT	USE
H-3	Unsealed liquid	1.0 mCi	Pharmacokinetic studies
I-125	Unsealed liquid	0.1 mCi	Protein labeling
P-32	Unsealed liquid Solid labeled stents	2.0 mCi	Inhibition of restenosis
Sr-90	Sealed	500 mCi	Effect of hemo brachytherapy on plaque macrophages

E. CERTIFICATE (THIS SECTION MUST BE COMPLETED BY APPLICANT)

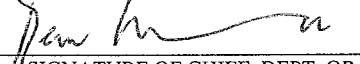
I CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH WRAMC REGULATIONS AND THAT ALL CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

I ACKNOWLEDGE MY RESPONSIBILITY AS PRINCIPAL INVESTIGATOR AS DEFINED IN WRAMC REGULATIONS.


SIGNATURE OF PRINCIPAL INVESTIGATOR

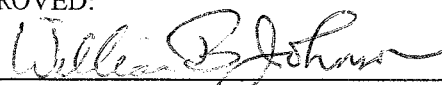
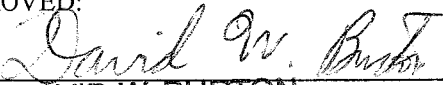
11/16/01
DATE

ADMINISTRATIVE APPROVAL - CHIEF, DEPT. OR DIVISION OF THE PRINCIPAL INVESTIGATOR.


SIGNATURE OF CHIEF, DEPT. OR DIV.

11/16/01
DATE

F. WRAMC RADIATION CONTROL COMMITTEE APPROVAL

APPROVED: 	APPROVED: 	AUTHORIZATION NO. : 701
HEALTH PHYSICS OFFICER, WRAMC WILLIAM B. JOHNSON COL, MS CHIEF, HEALTH PHYSICS OFFICE	CHAIRPERSON, NON-HUMAN USE: RADIATION CONTROL COMMITTEE, WRAMC DAVID W. BURTON Chief, Radiactive Material Control Health Physics, WRAMC	EXPIRATION DATE: Dec 2004

PAGE 1

The Health Physics Office is
granting interim approval to this
application until the next
scheduled RCC Meeting on 2/2002
Date

NOV 30 2001

B. AUTHORIZED USERS

LIST ALL CO-INVESTIGATORS

Kolodgie, Frank, Ph.D.

Virmani, Renu, M.D.

LIST ALL TRAINEES

Acampado, Eduardo, D.V.M.

LIST ALL STAFF WORKERS

John, Michael, B.A.

Wilson, Patty, B.A.

Mr. Nair, Steven

Paierment, Patrice

Tefera, Kiambel 3/18/03

DEFINITIONS FOR USERS

A **"Co-Investigator"** is an individual who possesses adequate training and experience with radioactive material to qualify as a Principle User. The individual works under the direction of and is responsible to the Principal User for the safe and proper use of the materials specified in the application. List all Co-Investigators alphabetically by last name. Each Co-Investigator should be identified as follows: last name, first name, middle initial and rank/grade. Attach a completed Training and Experience Form for each Co-Investigator, if a **current** copy is not on file with the Health Physics Office.

A **"Trainee"** is an individual who works under the direct supervision of a Principal User or Co-Investigator for the purpose of obtaining the necessary training and experience to qualify for either status. List all Trainees alphabetically by last name. Each Trainee should be identified as follows: last name, first name, middle initial and rank/grade.

A **"Staff Worker"** is an individual who works under the direct supervision of a Principal User or Co-Investigator for the purpose of performing certain routine duties associated with the use of radioactive materials specified in the application. The individual does not possess suitable training and experience to be classified as Principal User or Co-Investigator and is not undergoing training that would qualify the individual to attain either status. List all Staff Workers alphabetically by last name. Each Staff Worker should be identified as follows: last name, first name, middle initial and rank/grade.



DEPARTMENT OF DEFENSE
ARMED FORCES INSTITUTE OF PATHOLOGY
WASHINGTON DC 20306-6000

REPLY TO
ATTENTION OF

AFIP-CPC

November 16, 2001

MEMORANDUM FOR: David Burton, Health Physics Office, WRAMC

Subject: Authorization 701 Renewal

1. Attached are our renewal documents for 701.
2. Eduardo Acampado will take the Radiation Safety course the next time it is offered.
3. Please remove Stephan Cameron and Charan Khurana from my authorization. Both are no longer co-workers.
4. Thank you for your assistance. Please contact me if you have any questions.

Andrew Farb, M.D.
Cardiovascular Pathology
Armed Forces Institute of Pathology
Authorization 701
Ph: 202-782-2847
Fax: 202-782-9021
Email: farb@afip.osd.mil

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

6900 GEORGIA AVENUE, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • 202-356-0058/59

AUTHORIZATION REVIEW PROCESS

Authorization Number: 701

Date: 21 November 2001

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538			Rec'd
WRAMC Form 1643			Rec'd
Authorization or Amendments			Renewal
Protocol			on file
Isotopes			

OPERATIONS BRANCH

Pre-Room Survey		W	NA
Admin Hold Survey		W	NA
Essay Program		W	NA
Dosimetry Program		W	DD1952 is on file for Acampado
Instrumentation		W	NA

GENERAL COMMENTS

Changes:

1. DELETE - S. Cameron and C. Khurana ; S. M. Nain ^{leave on}
 2. Add Eduardo Acampado ID #: 4438 ; Training ID #: 1102
 3. P-33 was removed
 4. The following rooms were removed: 5007, 5044
 5. Materials Not used in the following rooms: 2008 & 3012 (just storage)
 6. Materials Not stored in the following rooms: 5047, 5050
- 12/1/01 email PI to make sure the above changes were correct.

(8) Medical Surveillance Program: Medical examinations are not routinely needed incident to occupational exposure to ionizing radiation.

(9) Pregnancy Surveillance Program: When a pregnant woman is occupationally exposed to ionizing radiation, the embryo-fetus enters the radiation environment involuntarily. Therefore, the female employee is responsible for advising her employer of the fact that she is pregnant. The employer must notify Health Physics of the pregnancy as soon as possible so the Pregnancy Surveillance Program can be implemented (see Paragraph 3-2b, AR 40-14).

B. All personnel will acknowledge receiving and understanding the above information by signing and dating this form or WRAMC Form 538, Radiation Worker Briefing.

SIGN-IN FOR INITIAL/ANNUAL TRAINING: DATE: 1/15/03

PERSONNEL

SIGNATURE

~~Cameron, Stephen~~
~~Cockman-Thomas, Rebecca~~
 Farb, Andrew
~~John, Michael~~
~~Khurana, Charan~~
 Kolodgie, Frank
 McNair, Steven
 Virmani, Renu
 Wilson, Patty
 *Henderson, Edna

Not in Dept
Not in Dept
[Signature]
not in Dept
not in Dept
[Signature]
[Signature]
[Signature]

APPROVED BY RCC

The Health Physics Office is granting interim approval to this application until the next scheduled RCC Meeting on 5/13

As Principal Investigator, I have insured that the above named individuals have received a briefing in accordance with 10 CFR Part 19.

Dr. Andrew Farb (701)

[Signature] 1/15/03
 SIGNATURE / DATE

*Individuals indicated with an asterisk may work in or frequent my areas where radioisotopes are used or stored, but do not work with radioactive material under my authorization and are not to be added to my radioactive material authorization.

LTC JOHN R. HIGGINS, Ph.D.
 Chief, WRAMC Health Physics
 6900 Georgia Ave., NW
 BLDG 41, Room 38
 Washington, DC 20307-5001
 MAR 11 2003

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AUTHORIZATION REVIEW PROCESS

Authorization Number: 701

Date: 2/25/03

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		JMB	K. Tefera
WRAMC Form 1643		JMB	NA
Authorization or Amendments		JMB	Delete S. Cameron, R. Cockman, M. John, C. Khurana
Protocol		JMB	NA
Isotopes		JMB	NA

OPERATIONS BRANCH

Pre-Room Survey		VC	NA
Admin Hold Survey		VC	NA
Field Survey		VC	NA
Inventory Program		VC	NA
Dosimetry Program		VC	NA
Instrumentation		JMB	NA

GENERAL COMMENTS

Add K. Tefera ID # 4583; Training added to HP Assist

T90294

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RADIOACTIVE MATERIAL AUTHORIZATIONS AUDIT

Authorization Number: 701

Name of Auditor: Vanessa Coy

Date of Audit: June 18, 2002

Principal Investigator or Authorized Representative: Dr. Freb

Building(s) and room(s) under the Authorization: 54 / Rooms 2008, 3012, 5047 + 5050

COMPLIANCE ITEMS	YES	NO	N/A
Is the area secured (doors and radionuclides storage locked)?	X		
Are the radioactive signs and labels in place?	X		
Is there a Liquid Scintillation Counter with a sealed source?			
If so, what is the Sealed Source Number: <u>N/A</u> and where is it located: <u>N/A</u>			X
Is an inventory logbook kept with the receipt id and the current activity in mCi for each radionuclides?			X
Is the inventory within authorized limits?	X		
Are all the radionuclides present?			X
Is the WRAMC Authorization on hand?	X		
Is the WRAMC Regulation 40-10 on hand?	X		
Is the WRAMC General Provisions on hand?	X		
Is there a survey logbook and is it updated?	X		
Is there a survey meter?			X
Is the survey meter calibration due date current?			X
Is the annual training current?	X		
Have all workers taken IPPP course, which is required by 29 CFR 1910.120(e)(2)(ii)?			

no
Inventory

Authorization Changes (Additions and/or deletions of personnel and/or rooms):

Remove Room 2008 and 5050. Remove Rad Sink in 3012
Delete Room 3012

Comments along with any deficiencies discovered during the audit:

I. E. Acampado and S. McNair need the IPPP Course. The next
Course is July 17, 2002 at WRAIR. - S. McNair works only w/animals

The signature of the Principal Investigator or Authorized Representative below indicates their concurrence of the items discussed during the audit.

Health Physics Office is granting interim approval to this application until the next scheduled RCC Meeting on 11/02

John R. Mercier
LTC JOHN R. MERCIER, Ph.D.
Radiation Safety Officer 40C402

SIGNATURE

/DATE

6/18/02

APPROVED BY: [Signature]
DATE: 6/18/02

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AUTHORIZATION REVIEW PROCESS

Authorization Number: 701

Date: June 19, 2002

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		<i>DNB</i>	<i>NA</i>
WRAMC Form 1643		<i>DNB</i>	<i>NA</i>
Authorization or Amendments		<i>DNB</i>	<i>Delete 1. Room 2008 2. Room 5850 3. Rad SINK in 3012 along w/room</i>
Protocol		<i>DNB</i>	<i>NA</i>
Isotopes		<i>DNB</i>	<i>NA</i>

OPERATIONS BRANCH

Pre-Room Survey		<i>CS</i>	
Admin Hold Survey		<i>CS</i>	
Final Survey		<i>CS</i>	<i>Technician was told to final Room 2008</i>
Dosimetry Program		<i>CS</i>	
Instrumentation		<i>CS</i>	

GENERAL COMMENTS

Room Final

Radiation Lab Summary Report

Room: 2008

Building: 54, AFIP

Authorization: Farb, Andrew (701)

Surveyor: Alston

Department: Auth. 651, Cardiovascular Pathology

Inspection Date: 24 June 02

Last Inspection: 10/18/2001 Frequency: 90 days

Meter Model: L3

Radio- H-3, I-125, P-32

Meter SN: 12568

Nuclides:

Cal Due: 21 Apr 03

54_2008

Initial Checks

	Yes	No	NA
RAM Secure?	X		
Room Posted?	X		
Work Area Posted?	X		
Equipment Posted?	X		
User Surveys Performed?			X

User Inventory Log:

Isotope / Activity Used

Max Daily Use:

Model:

SN:

Cal Due:

Lab Survey Meter:

Date of Last User Survey:

Meter Readings

BKG	cpm	mR/hr
A		
B		
C		
D		
E		
F		
G		

~~RAD HOOD~~

MICROTO ME

MIC

x-ray

FRZR

54-2008

Lab Analysis

Date JUN 25 2002

Swipe Numbers 82-94

Isotope

Efficiency

MDA

DPM

Record any samples > 200 dpm of radioactivity in this room. If > 2000 dpm resurvey within 5 working days.

Isotope

Efficiency

MDA

DPM

Comments

Surveyor Comments

Room fine!

Radiation Lab Summary Report

Room: 5050

Building: 54, AFIP

Authorization: Farb, Andrew (701)

Surveyor: Alston

Department:

Inspection Date: 24 June 02

Last Inspection: 10/18/2001 Frequency:

Meter Model: L3

Radio- H-3, I-125, P-32

Nuclides:

Meter SN: 125268

54_5050

Cal Due: 21 Apr 03

Initial Checks

	Yes	No	NA
RAM Secure?			X
Room Posted?	X		X
Work Area Posted?			X
Equipment Posted?			X
User Surveys Performed?			X

User Inventory Log:

Isotope /
Activity Used

Max Daily
Use:

Model:

SN:

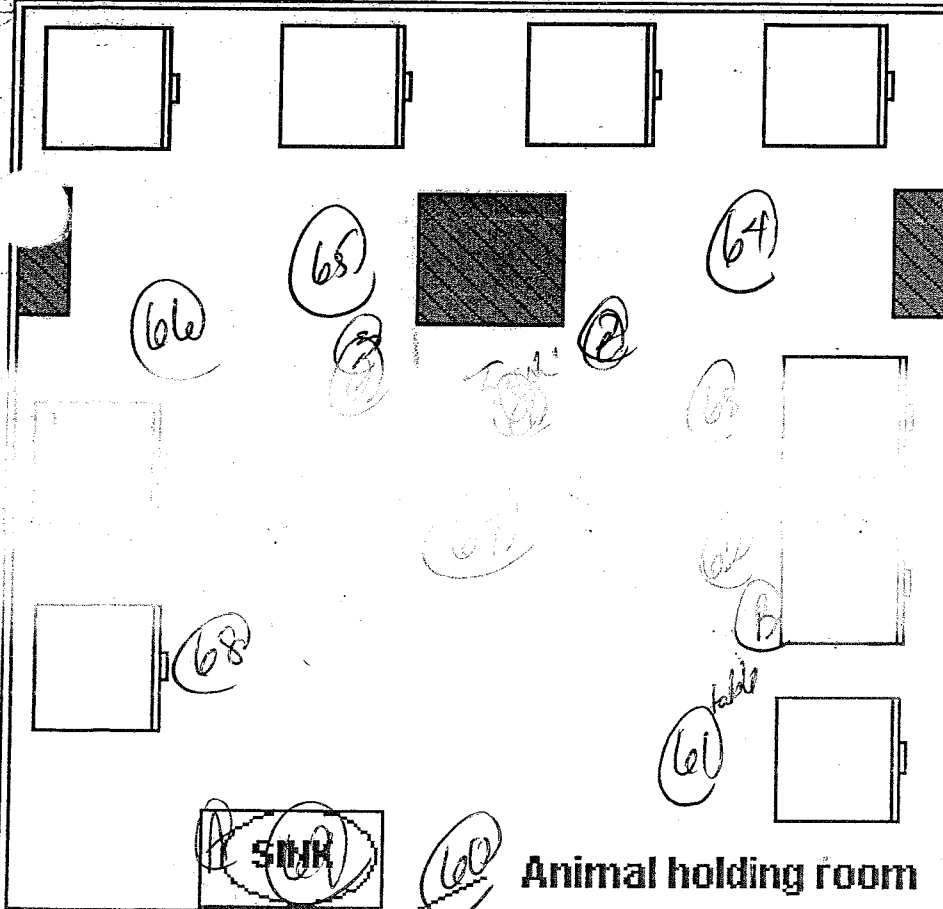
Lab Survey Meter:

Cal Due:

Date of Last User Survey: N/A

Meter Readings

BKG	<u>40</u>	cpm	mR/hr
A		cpm	mR/hr
B		cpm	mR/hr
C	<u>L80</u>	cpm	mR/hr
D		cpm	mR/hr
E		cpm	mR/hr
F		cpm	mR/hr
G		cpm	mR/hr



Animal holding room

54-5005

Lab analysis

Date: JUN 25 2002

Swipe Numbers: 60-69

WALLAC

LSC

Technician

Auto-gamma

Record any samples > 200 dpm of removal:

Record any samples > 200 dpm of removal:

Comments

COMPLETED

Surveyor Comments

Room final

Radiation Lab Summary Report

Room: 3012

Building: 54, AFIP

Authorization: Farb, Andrew (701)

Surveyor: Alston

Department: Auth. 701, Cardiovascular Pathology

Inspection Date: 24 June 02

Last Inspection: 12/13/2001 Frequency: 90 days

Meter Model: L3

Radio- H-3, I-125, P-32

Meter SN: 12508

Nuclides:

Cal Due: 21 Apr 03

54_3012

Initial Checks

	Yes	No	NA
RAM Secure?			X
Room Posted?	X		
Work Area Posted?	X		
Equipment Posted?	X		
User Surveys Performed?			X

User Inventory Log:

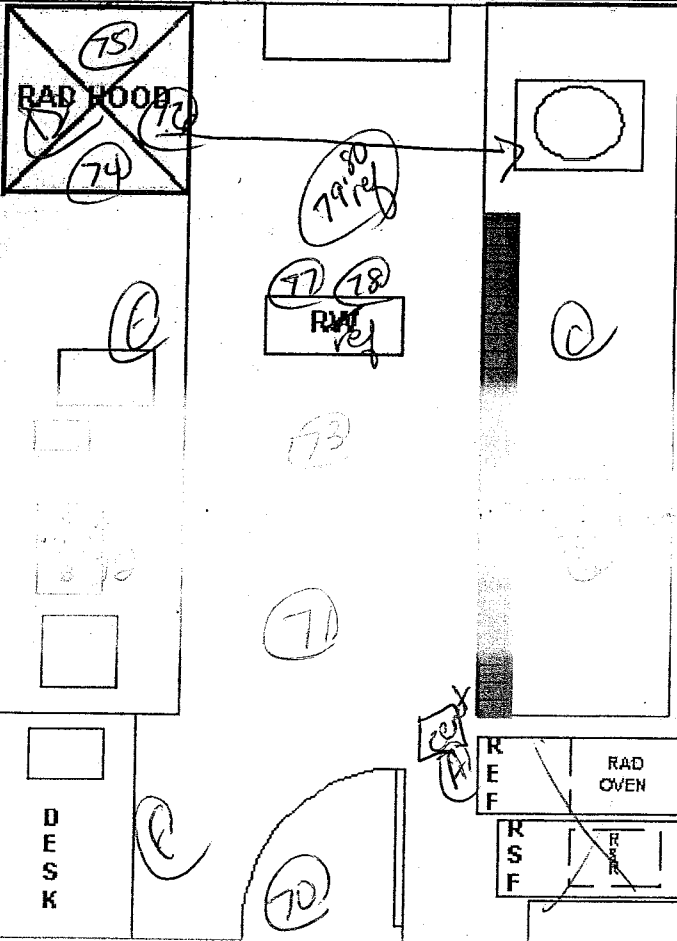
Isotope / Activity Used: N/A
 Max Daily Use: N/A
 Model: N/A
 SN: N/A
 Cal Due: N/A

Lab Survey Meter:

Date of Last User Survey: 4/1

Meter Readings

BKG	cpm	mR/hr
A	<u>70</u>	
B	<u>160</u>	
C		
D		
E		
F		
G		



54-3012

Lab Analysis

Technician: WAWACE Date: JUN 25 2002
 Auto-gamma: 511-22 LSC: 70-81 Swipe Numbers: 70-81

Swipe	Isotope	Efficiency	MDA (dpm)	MDA	DPM

Record any samples > 200 dpm of reus.

COMPLETE

Comments

Surveyor Comments

Radiation Equipment Survey Report

Room: 3012 Building: 54-AFIP
 Authorization: 701
 Department: Cardiovascular Path
 Radio-Nuclides:

Surveyor: Alister

Inspection Date: 30 July 02

Meter Model: L3

Meter SN: 11823

Cal Due: 6 Sep 02

Equipment Information

Nomenclature: Sink
 Manufacturer: /
 Model: /
 Serial Number: /
 MMCN: /

On / Off-Site Repair: ☐
 Turn-in / Transfer: ☐
 Admin Hold: ☐
 Non RAM Use Only: ☒
 Other: ☐

Meter Readings

BKG		cpm	mR/hr
A		cpm	mR/hr
B		cpm	mR/hr
C		cpm	mR/hr
D		cpm	mR/hr
E		cpm	mR/hr
F		cpm	mR/hr
G		cpm	mR/hr

Draw Picture Here

Surveyor Comments

Date: JUL 30 2002

Technician: WALLES

Auto-gamma: 71432

Isotope: 137-100

MDA (dpm): 137-100

Efficiency: 137-100

MDA (dpm): 137-100

Efficiency: 137-100

MDA (dpm): 137-100

Efficiency: 137-100

MDA (dpm): 137-100

Efficiency: 137-100

MDA (dpm): 137-100

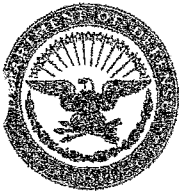
Efficiency: 137-100

MDA (dpm): 137-100

Efficiency: 137-100

COMPLETED

Comments

REPLY TO
ATTENTION OF

AFIP-CPC

May 7, 2002

MEMORANDUM FOR: Mr. David Burton, Health Physics Office, WRAMC

Subject: Modification to Authorization #701

1. Please add ^{90}Sr to authorization #701. This isotope is to be used in the AFIP animal protocol "The effect of beta brachytherapy on plaque macrophages: A model of plaque stabilization (UBQG)." In this protocol, brachytherapy is to administered to atherosclerotic rabbit iliac arteries using the Novoste Beta-Cath system. The Beta-Cath is a catheter-based closed brachytherapy system.
2. Each Beta-Cath device holds a maximal activity of 120 mCi. We plan to have 2 Beta-Cath devices on hand for a total activity under our authorization of 240 mCi.
3. We plan to store the Beta-Cath at the HPO. As the system is closed, the animals will not be radioactive, and there will be no radioactive waste.
4. Prior to the initiation of Beta-Cath use, a qualified person from Novoste Corporation will conduct training for individuals involved in the brachytherapy portion of the protocol. *Add Patrice Paiement from Novoste to Auth as staff worker. He will work with Beta-Cath only.*
5. Thank you very much for your assistance. Please contact me if you have any questions.

Andrew Farb, M.D.

Cardiac and Vascular Pathology
AFIP, Armed Forces Institute of Pathology
Washington, DC 20306-6000
Tel: 202-782-2847
Fax: 202-782-9021
Email: farb@afip.osd.mil

The Health Physics Office is
granting interim approval to this
application until the next
scheduled RCC Meeting on 8/2002

Date

MAY 23 2002

WILLIAM B. JOHNSON, PhD
Radiation Safety Officer
WRAMC

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

6900 GEORGIA AVENUE, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • 202-356-0058 • FAX: 356-0086

AUTHORIZATION

Authorization Number: 7

MEMORANDUM OF CALL

Previous editions usable

22

RM

Init

Pending

WRAMC Form 538	
WRAMC Form 1643	
Authorization or Amendments	
Protocol	
Isotopes	

TO: Lynn Lease

OF (Organization) Novost

☐ YOU WERE CALLED BY— ☐ YOU WERE VISITED BY—

☐ PLEASE PHONE (Enter area code, if necessary) Cell ☐ DSN

☐ WILL CALL AGAIN ☐ IS WAITING TO SEE YOU

☐ RETURNED YOUR CALL ☐ WISHES AN APPOINTMENT

MESSAGE [REDACTED]

PERSONAL INFORMATION WAS REMOVED BY NRC. NO COPY OF THIS INFORMATION WAS RETAINED BY THE NRC.

OPERATIONAL

Pre-Boom Survey	
Post-Boom Survey	
Bioassay Program	
Dosimetry Program	
Instrumentation	

RECEIVED BY

DATE

TIME

NSN 7540-00-634-4018
50303-112

OPTIONAL FORM 363 (Rev. 7-94)
General Services Administration
U.S. GOVERNMENT PRINTING OFFICE: 1995-385-890

GENERAL COMMENTS

SGT Hall is adding to dosimetry including rings

What is the intended dose?

What detection method will be used?

Emergency Response Procedures

Request HP support

P. Payment ID # 4517; Training ID # 1150

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HEALTH PHYSICS OFFICE

6900 GEORGIA AVENUE, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • Office: 202-356-0058 • Fax: 202-356-0066

RADIOACTIVE MATERIAL AUTHORIZATIONS AUI

Authorization Number: 701

Name of Auditor: Vanessa Cox Date of Audit: June 9, 2003

Principal Investigator or Authorized Representative: Dr. Andrew Farb

Building(s) and room(s) under the Authorization: Building 54, Room 5047

COMPLIANCE ITEMS	YES	NO	N/A
Is the area secured (doors and radionuclides storage locked)?	X		
Are the radioactive signs and labels in place?	X		
Is there a Liquid Scintillation Counter with a sealed source? If so, what is the Sealed Source Number: <u>N/A</u> and where is it located: <u>N/A</u>			X
Is an inventory logbook kept with the receipt id and the current activity in mCi for each radionuclides?			X
Is the inventory within authorized limits?	X		
Are all the radionuclides present?	X		
Is the WRAMC Authorization on hand?	X		
Is the WRAMC Regulation 40-10 on hand?	X		
Is the WRAMC General Provisions on hand?	X		
Is there a survey logbook and is it updated?			X
Is there a survey meter?			X
Is the survey meter calibration due date current?			X
Is the annual training current?	X		
Have all workers taken IPRP course, which is required by WRAMC Regulation 40-10 (CH 2)?	X		
Is there a radioactive wash sink with a logbook?			X

Authorization Changes/(Additions and/or deletions of personnel and/or rooms):
N/A

Comments along with any deficiencies discovered during the audit:

The signature of the Principal Investigator or Authorized Representative below indicates their concurrence of the items discussed during the audit.

SIGNATURE

6/9/03
/DATE

HEALTH PHYSICS OFFICE

6900 Georgia Avenue, Northwest • Building 41, Room 38 • Washington, D.C. 20307-5001 • Office: 202-356-0058 • Fax: 202-356-0086

Summary of Authorization

Date: December 17, 2002

Radioactive Material Authorization Number: 701

Principal Investigator: Dr. Andrew Farb

Laboratory Location: Building 54 Rooms: ~~2008~~^{deleted}, 5047 and 5050

Radioactive Material Wash Sink(s): None

Radionuclides:

H-3	with a limit of	1.00 mCi
P-32	with a limit of	2.00 mCi
Sr-90	with a limit of	0.24 mCi
I-125	with a limit of	0.10 mCi

Workers:

Acampado, Eduardo
Farb, Andrew
John, Michael
Kolodgie, Frank

McNair, Steven
Paient, Patrice
Virmani, Renu
Wilson, Patty

Receipts:

NO INVENTORY

Novoste Corporation Didactic Training Seminar

Attendance Record

Signatures below indicate the attendees have completed the Novoste Corporation Didactic Training Seminar- including the following topics:

- Brachytherapy for the Interventional Cardiologist and Cardiac Catheterization Lab Staff
- Interventional Cardiology techniques for the Radiation Oncologist and Medical Physicist
- Novoste™ Beta-Cath™ System Procedure Review / Roles and responsibilities of each VBT team member
 - Indications / Contraindications / Warnings / Precautions / Adverse Events / Anti-platelet therapy and new stents
 - Patient selection / Dosimetry and recommended dose prescription
 - Radiation protection and emergency procedures
- Novoste™ Beta-Cath™ System Product Review:
 - Transfer Device / Radiation Source Train / Delivery Catheter / Accessories
 - Detailed troubleshooting techniques and procedures
- Source Train Placement with respect to interventional injury length

CHAMMP #1156
11 people

MAY 08 2002

WRANL / AFIP

WASHINGTON DC

Date	Hospital Name	City, State	Print Name	Print Title	Phone Number	E-Mail	Signature
			MIKE SETH				Mike Seth
			Tia Coleman				Tia Coleman
			Aaron Jackson #4519				Aaron Jackson
			STEVEN P. McNAUL				Steven P. McNaul
			Rodolfo Marenco				Rodolfo Marenco
			TAVERAS, Manue / #4520				Manuel Taveras
			Eduardo Acampora				Eduardo Acampora
			Andrew Farb				Andrew Farb
			Rebecca Witsche #4521				Rebecca Witsche
			David Burton	Health Physic			David Burton
			CRAG MORRIS	HEALTH PHYSICS	356-0058		Craig Morris

Signature of Novoste Representative holding seminar

Scott Scherer

Novoste Corporation

Mock Procedure Attendance Record

Signatures indicate participation in a Mock Procedure (One mock procedure per trained VBT Team) with the Beta-Cath™ System including:

- Roles and responsibilities review
- Pre-procedure activities (device preparation and procedure set-up)
- Beta-Cath™ System Procedure Demonstration (using an NON-active demonstration device)
- Troubleshooting
- Emergency procedures
- Post-procedure activities (device drying procedure / room surveys)

MAY 28 2002

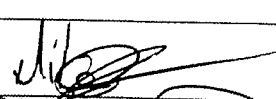
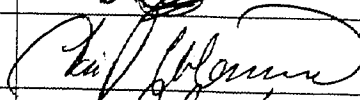
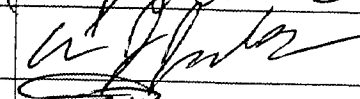
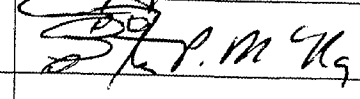
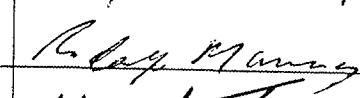



Date

WALTER REED ARMY MEDICAL CENTER

Hospital Name

WASHINGTON DC

City, State

Print Name	VBT Team Role (please check one):	Phone Number	E-Mail	Signature
Mike John	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Tia Coleman	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Aaron Jackson	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Steven P. McNair	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Rodolfo Marenco	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Taveras, Manuel	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Edwards Acampado	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			
Andrew Farb	<input type="checkbox"/> MP <input type="checkbox"/> RO <input type="checkbox"/> IC <input type="checkbox"/> CCL			

Novoste Representative Facilitating Mock Procedure: Scott Schmitt

Regulatory Manager: _____

MT-324-01 02-01

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

6900 GEORGIA AVENUE, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • 202-356-0058 • Fax: 356-0086

RADIOACTIVE MATERIAL AUTHORIZATIONS AUDIT

Authorization Number: 701

Name of Auditor: Vanessa Coy

Date of Audit: June 18, 2002

Principal Investigator or Authorized Representative: Dr. Frank

Building(s) and room(s) under the Authorization: 54 / Rooms 2008, 3012, 5047 + 5050

COMPLIANCE ITEMS	YES	NO	N/A
Is the area secured (doors and radionuclides storage locked)?	<input checked="" type="checkbox"/>		
Are the radioactive signs and labels in place?	<input checked="" type="checkbox"/>		
Is there a Liquid Scintillation Counter with a sealed source? If so, what is the Sealed Source Number: <u>N/A</u> and where is it located: <u>N/A</u>			<input checked="" type="checkbox"/>
Is an inventory logbook kept with the receipt id and the current activity in mCi for each radionuclides?			<input checked="" type="checkbox"/>
Is the inventory within authorized limits?	<input checked="" type="checkbox"/>		
Are all the radionuclides present?			<input checked="" type="checkbox"/>
Is the WRAMC Authorization on hand?	<input checked="" type="checkbox"/>		
Is the WRAMC Regulation 40-10 on hand?	<input checked="" type="checkbox"/>		
Is the WRAMC General Provisions on hand?	<input checked="" type="checkbox"/>		
Is there a survey logbook and is it updated?	<input checked="" type="checkbox"/>		
Is there a survey meter?			<input checked="" type="checkbox"/>
Is the survey meter calibration due date current?			<input checked="" type="checkbox"/>
Is the annual training current?	<input checked="" type="checkbox"/>		
Have all workers taken IPRP course, which is required by WRAMC Regulation 40-10 (CH 2)?		<input checked="" type="checkbox"/>	
Is there a radioactive wash sink with a logbook?	<input checked="" type="checkbox"/>		

no
Inventory

Authorization Changes (Additions and/or deletions of personnel and/or rooms):

Remove Room 2008 and 5050. Remove Rad sink in 3012

Comments along with any deficiencies discovered during the audit:

I. E. Acampado and S. McNair need the IPRP course. The next course is July 17, 2002 at WRAIR. - S. McNair works only w/animals.

The signature of the Principal Investigator or Authorized Representative below indicates their concurrence of the items discussed during the audit.

[Signature]
SIGNATURE

6/18/02
/DATE

Audit
6/26/01

12

Receipts in Inventory by Licensee

06/25/2001

Page 1

Decayed_Inventory

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			Authorization Number 701						
RMR52386	H-3	Tritium-3(L)	10/19/2000	5.000E-01 mCi	same	6.84000E-3	0.2530	Biological Test Center	
RMR52400	H-3	H-3(L)	11/03/2000	2.000E-01 mCi	"	1.95350E-1	7.2280	Biological Test Center	
Total Number of Receipts = 2									

The principal user/s/authorized worker's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Principal User's/ Authorized Worker's Signature: [Signature] Date: 6/26/01

K

Receipts in Inventory by Licensee

3/2/01

Page 1

Decayed_Inventory

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			Authorization Number 701						
RMR52386	H-3	Tritium-3(L)	10/19/00	5.000E-01 mCi	SAME	6.92000E-3	0.2562	Biological Test Center	
RMR52400	H-3	H-3(L)	11/3/00	2.000E-01 mCi	SAME	1.97800E-1	7.3185	Biological Test Center	
Total Number of Receipts = 2									

The principal user's/authorized worker's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Principal User's/ Authorized Worker's Signature:  Date: 3/16/01

*audit
12/19/00*

12

Receipts in Inventory by Licensee

12/14/00
Page 1
M5020SP

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi	0	0.00000E0	0.0001	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi	0	1.00000E-5	0.0003	University of Wisconsin-Madison	
✓ RMR52386	H-3	Tritium-3(L)	10/19/00	5.000E-01 mCi	0.007	4.95710E-1	18.3414	Biological Test Center	
✓ RMR52400	H-3	H-3(L)	11/3/00	2.000E-01 mCi	same	1.98740E-1	7.3534	Biological Test Center	
RMR52006	P-32	11 Stents(S)	11/5/99	4.840E-01 mCi	0 same	0.00000E0	0.0000	ISOSTENT, INC.	
RMR52014	P-32	27 Coronary P32 Stents(S)	11/15/99	2.980E-01 mCi	0 -	0.00000E0	0.0000	ISOSTENT, INC.	
Number of receipts = 6									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: _____

[Handwritten Signature]

Date: _____

12, 19, 00

W

Receipts in Inventory by Licensee

8/31/00
Page 1
M5020SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew				701					
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi	Same	0.00000E0	0.0002	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi	"	1.00000E-5	0.0005	University of Wisconsin-Madison	
RMR51728	P-32	16x Stents(S)	4/18/99	1.470E-01 mCi	"	0.00000E0	0.0000	Guidant Corp	179858
RMR51737	P-32	9x Stents in Pig hearts(S)	4/23/99	8.118E-03 mCi	"	0.00000E0	0.0000	Guidant Corp	
RMR52006	P-32	11 Stents(S)	11/5/99	4.840E-01 mCi	"	1.00000E-5	0.0004	ISOSTENT, INC.	
RMR52014	P-32	27 Coronary P32 Stents(S)	11/15/99	2.980E-01 mCi	"	1.00000E-5	0.0003	ISOSTENT, INC.	
Number of receipts = 6									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: *[Signature]* Date: 9.11.00

Audit

Receipts in Inventory by Licensee

06/19/2000

Page 1

M5020SP

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	07/01/1997	2.100E-03 mCi	SAME ↓	1.00000E-5	0.0003	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	08/13/1997	6.180E-03 mCi		2.00000E-5	0.0009	University of Wisconsin-Madison	
RMR51728	P-32	16x Stents(S)	04/19/1999	1.470E-01 mCi		0.00000E0	0.0000	Guidant Corp	179858
RMR51737	P-32	9x Stents in Pig hearts(S)	04/23/1999	8.118E-03 mCi		0.00000E0	0.0000	Guidant Corp	
RMR52006	P-32	11 Stents(S)	11/05/1999	4.840E-01 mCi		4.00000E-4	0.0149	ISOSTENT, INC.	
RMR52014	P-32	27 Coronary P32 Stents(S)	11/15/1999	2.980E-01 mCi		2.50000E-4	0.0092	ISOSTENT, INC.	
Number of receipts = 6									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature:  Date: 6, 23, 00

Receipts in Inventory by Licensee

9/3/99

Page 1

M5020SP

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
✓ RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi		6.00000E-5	0.0022	University of Wisconsin-Madison	
✓ RMR50657	Co-56	Stents(S)	8/13/97	8.180E-03 mCi		1.50000E-4	0.0057	University of Wisconsin-Madison	
✓ RMR51649	P-32	8x Stents(S)	2/17/99	5.255E-02 mCi		0.00000E0	0.0001	Guidant Corp	
✓ RMR51728	P-32	16x Stents(S)	4/19/99	1.470E-01 mCi		2.40000E-4	0.0090	Guidant Corp	179858
✓ RMR51737	P-32	9x Stents in Pig hearts(S)	4/23/99	8.118E-03 mCi		2.00000E-5	0.0006	Guidant Corp	
✓ RMR51758	P-32	3x Stents in Pig Hearts(S)	5/6/99	2.487E-03 mCi		1.00000E-5	0.0003	Guidant Corp	
Number of receipts = 6									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: _____



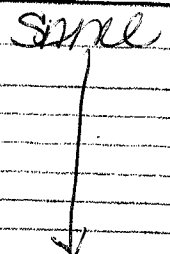
Date: _____

9/25/99

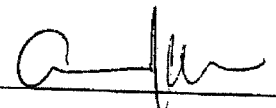
Up

Receipts in Inventory by Licensee

02/28/2000
Page 1
M5020SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	07/01/1997	2.100E-03 mCi		2.00000E-5	0.0008	University of Wisconsin-Madison	
RMR50667	Co-56	Stents(S)	08/13/1997	6.180E-03 mCi		4.00000E-5	0.0016	University of Wisconsin-Madison	
RMR51649	P-32	6x Stents(S)	02/17/1999	5.255E-02 mCi		0.00000E0	0.0000	Guidant Corp	
RMR51728	P-32	16x Stents(S)	04/19/1999	1.470E-01 mCi		0.00000E0	0.0000	Guidant Corp	
RMR51737	P-32	9x Stents in Pig hearts(S)	04/23/1999	8.118E-03 mCi		0.00000E0	0.0000	Guidant Corp	179858
RMR51758	P-32	3x Stents in Pig Hearts(S)	05/06/1999	2.487E-03 mCi		0.00000E0	0.0000	Guidant Corp	
RMR52006	P-32	11 Stents(S)	11/05/1999	4.840E-01 mCi		9.95000E-3	0.3681	ISOSTENT, INC.	
RMR52014	P-32	27 Coronary P32 Stents(S)	11/15/1999	2.980E-01 mCi		6.13000E-3	0.2269	ISOSTENT, INC.	
Number of receipts = 8									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature:  Date: 3 / 20 / 2000

Audit
12/10/99

MC

Receipts in Inventory by Licensee

12/9/99
Page 1
M5020SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew				701					
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi	<i>Same</i> ↓	2.00000E-5	0.0009	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi		6.00000E-5	0.0024	University of Wisconsin-Madison	
RMR51649	P-32	6x Stents(S)	2/17/99	5.255E-02 mCi		0.00000E0	0.0000	Guidant Corp	
RMR51728	P-32	16x Stents(S)	4/19/99	1.470E-01 mCi		0.00000E0	0.0001	Guidant Corp	179858
RMR51737	P-32	9x Stents in Pig hearts(S)	4/23/99	8.118E-03 mCi		0.00000E0	0.0000	Guidant Corp	
RMR51758	P-32	3x Stents in Pig Hearts(S)	5/6/99	2.487E-03 mCi		0.00000E0	0.0000	Guidant Corp	
RMR52006	P-32	11 Stents(S)	11/5/99	4.840E-01 mCi		9.20700E-2	3.4067	ISOSTENT, INC.	
RMR52014	P-32	27 Coronary P32 Stents(S)	11/15/99	2.980E-01 mCi		9.21700E-2	3.4103	ISOSTENT, INC.	
Number of receipts = 8									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: *Andrew Farb* Date: 12, 10, 99

Audit
6/22/99

Receipts in Inventory by Licensee

6/21/99

Page 1

Decayed_Inventory

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			Authorization Number 701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi	Same	1.10000E-4	0.0040	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi	Same	2.90000E-4	0.0109	University of Wisconsin-Madison	
RMR51371	P-32	15x Balloon Expandable Isostents(S)	8/31/98	9.000E-02 mCi	O	0.00000E0	0.0000	ISOSTENT, INC.	0370048380807-0
RMR51382	P-32	12x Balloon Expandable Isostents(S)	9/8/98	7.200E-02 mCi	O	0.00000E0	0.0000	ISOSTENT, INC.	
RMR51391	P-32	16x Balloon Expandable Isostents(S)	9/14/98	7.680E-01 mCi	O	0.00000E0	0.0001	ISOSTENT, INC.	0430048380819-0
RMR51419	P-32	8x Cardio Stents(S)	9/28/98	7.200E-01 mCi	O	0.00000E0	0.0001	ISOSTENT, INC.	S#212276
RMR51427	P-32	16x Isostents(S)	10/2/98	3.840E-01 mCi	O	0.00000E0	0.0001	ISOSTENT, INC.	0460048380826-0
RMR51442	P-32	16x Radiocoated Stents(S)	10/9/98	9.600E-02 mCi	O	0.00000E0	0.0000	ISOSTENT, INC.	0490048380831-1
RMR51455	P-32	16x Balloon Expandable Isostents(S)	10/19/98	3.840E-01 mCi	O	0.00000E0	0.0002	ISOSTENT, INC.	056048380928-07
RMR51463	P-32	16x Balloon Expandable Isostents(S)	10/26/98	7.680E-01 mCi	O	1.00000E-5	0.0004	ISOSTENT, INC.	0580048381001-1
RMR51476	P-32	16x Balloon Expandable Isostents(S)	11/2/98	3.840E-01 mCi	O	1.00000E-5	0.0003	ISOSTENT, INC.	0600048381008-1
RMR51636	P-32	24x Pig Hearts with Stents(S)	2/9/99	2.500E-02 mCi	Same	2.60000E-4	0.0098	ISOSTENT, INC.	
RMR51649	P-32	6x Stents(S)	2/17/99	5.255E-02 mCi	ii	1.40000E-4	0.0053	Guidant Corp	
RMR51728	P-32	16x Stents(S)	4/19/99	1.470E-01 mCi	*	6.94000E-3	0.2568	Guidant Corp	179858

The principal user's/authorized worker's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Principal User's/ Authorized Worker's Signature: _____

Date: _____

6/22/99

Audit
6/22/99

Receipts in Inventory by Licensee

6/21/99


Page 2

Decayed_Inventory

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
RMR51737	P-32	9x Stents in Pig hearts(S)	4/23/99	8.118E-03 mCi	SAME	4.70000E-4	0.0172	Guidant Corp	
RMR51758	P-32	3x Stents in Pig Hearts(S)	5/6/99	2.487E-03 mCi	SAME	2.70000E-4	0.0099	Guidant Corp	

Total Number of Receipts = 16

The principal user's/authorized worker's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Principal User's/ Authorized Worker's Signature:  Date: 6/22/99

→ TO Mrs. Cox 356-0066

Receipts in Inventory by Licensee

3/19/99
Page 1
MS020SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
✓ RMR50558	Co-56	Mn-52Co-56 .00027/.0021	7/1/97	2.100E-03 mCi		2.40000E-4	0.0069	University of Wisconsin-Madison	
✓ RMR50657	Co-56	Stents(S)	8/13/97	8.180E-03 mCi	10	6.80000E-4	0.0244	University of Wisconsin-Madison	
✓ RMR50777	P-32	15X Stents(S)	10/14/97	2.550E-01 mCi	0	0.00000E0	0.0001	ISOSTENT, INC.	
✓ RMR50794	P-32	18X STENTS(S)	10/21/97	2.298E-01 mCi	Change	0.00000E0	0.0001	Johnson and Johnson	
✓ RMR50804	P-32	20x Stents(S)	10/27/97	2.081E-01 mCi	0	0.00000E0	0.0000	ISOSTENT, INC.	
✓ RMR50838	P-32	4X Stents(S)	11/12/97	2.400E-02 mCi	0	0.00000E0	0.0000	Johnson and Johnson	
✓ RMR50895	P-32	16X STENTS(S)	12/12/97	8.424E-02 mCi	0	0.00000E0	0.0000	Johnson and Johnson	
✓ RMR51371	P-32	15x Balloon Expandable Isostents(S)	8/31/98	8.000E-02 mCi		1.00000E-5	0.0003	ISOSTENT, INC.	0370048380807-0
✓ RMR51382	P-32	12x Balloon Expandable Isostents(S)	9/8/98	7.200E-02 mCi		1.00000E-5	0.0005	ISOSTENT, INC.	
✓ RMR51383	P-32	2x Balloon Expandable Isostents(S)	9/9/98	1.200E-02 mCi		0.00000E0	0.0001	ISOSTENT, INC.	0400048380818-1
✓ RMR51391	P-32	16x Balloon Expandable Isostents(S)	9/14/98	7.680E-01 mCi		1.40000E-4	0.0050	ISOSTENT, INC.	0430048380819-0
✓ RMR51419	P-32	8x Cardio Stents(S)	9/28/98	7.200E-01 mCi		2.50000E-4	0.0093	ISOSTENT, INC.	S#212276
✓ RMR51427	P-32	16x Isostents(S)	10/2/98	3.840E-01 mCi		1.60000E-4	0.0060	ISOSTENT, INC.	0460048380828-0
✓ RMR51442	P-32	16x Radiocoated Stents(S)	10/5/98	9.600E-02 mCi		8.00000E-5	0.0021	ISOSTENT, INC.	0480048380831-1
✓ RMR51455	P-32	16x Balloon Expandable Isostents(S)	10/19/98	3.840E-01 mCi		3.70000E-4	0.0138	ISOSTENT, INC.	056048380828-07
✓ RMR51463	P-32	16x Balloon Expandable Isostents(S)	10/26/98	7.680E-01 mCi		1.04000E-3	0.0386	ISOSTENT, INC.	0580048381001-1
✓ RMR51476	P-32	16x Balloon Expandable Isostents(S)	11/2/98	3.840E-01 mCi		7.30000E-4	0.0272	ISOSTENT, INC.	0600048381008-1
✓ RMR51649	P-32	8x Stents(S)	2/17/99	5.255E-02 mCi		1.22800E-2	0.4542	Guidant Corp	

Number of Receipts = 18

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: [Signature]

Date: 3/19/99

RMR 51636 P-32 stents 2/9/98 0.025 mCi

Audit
12/22/98

Receipts in Inventory by Licensee

12/22/98

Page 1

M5020SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi	Same ↓	4.80000E-4	0.0179	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi		1.42000E-3	0.0525	University of Wisconsin-Madison	
RMR50777	P-32	15X Stents(L)	10/14/97	2.550E-01 mCi		8.00000E-5	0.0028	ISOSTENT, INC.	
RMR50794	P-32	18X STENTS(S)	10/21/97	2.298E-01 mCi		7.00000E-5	0.0025	Johnson and Johnson	
RMR50804	P-32	20x Stents(S)	10/27/97	2.091E-01 mCi		6.00000E-5	0.0023	ISOSTENT, INC.	
RMR50838	P-32	4X Stents(S)	11/12/97	2.400E-02 mCi		1.00000E-5	0.0003	Johnson and Johnson	
RMR50895	P-32	16X STENTS(L)	12/12/97	6.424E-02 mCi		2.00000E-5	0.0007	Johnson and Johnson	
RMR51371	P-32	15x Balloon Expandable Isostents(S)	8/31/98	9.000E-02 mCi		3.30000E-4	0.0121	ISOSTENT, INC.	370048380807-0
RMR51382	P-32	12x Balloon Expandable Isostents(L)	9/8/98	7.200E-02 mCi		6.50000E-4	0.0242	ISOSTENT, INC.	
RMR51383	P-32	2x Balloon Expandable Isostents(L)	9/9/98	1.200E-02 mCi		1.10000E-4	0.0040	ISOSTENT, INC.	400048380819-0
RMR51391	P-32	16x Balloon Expandable Isostents(S)	9/14/98	7.680E-01 mCi		6.33000E-3	0.2341	ISOSTENT, INC.	430048380819-0
RMR51419	P-32	8x Cardio Stents(S)	9/28/98	7.200E-01 mCi		1.16800E-2	0.4323	ISOSTENT, INC.	S#212276
RMR51427	P-32	16x Isostents(S)	10/2/98	3.840E-01 mCi		7.58000E-3	0.2805	ISOSTENT, INC.	460048380826-0
RMR51442	P-32	16x Radiocoated Stents(S)	10/9/98	9.600E-02 mCi		2.66000E-3	0.0984	ISOSTENT, INC.	490048380831-0
RMR51455	P-32	16x Balloon Expandable Isostents(S)	10/19/98	3.840E-01 mCi		1.72700E-2	0.6388	ISOSTENT, INC.	56048380928-07
RMR51463	P-32	16x Balloon Expandable Isostents(L)	10/26/98	7.680E-01 mCi		4.84800E-2	1.7939	ISOSTENT, INC.	580048381001-0
RMR51476	P-32	16x Balloon Expandable Isostents(S)	11/2/98	3.840E-01 mCi		3.41200E-2	1.2625	ISOSTENT, INC.	600048381008-0
Number of receipts = 17									

All in tissue and Rabbits.

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature:

Andrew Farb

Date:

12, 22, 98

m

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE
6825 Sixteenth Street, Northwest • Building 41, Room 38 • Washington, D.C. 20307-5001 • (202) 356-0058/59

SOURCE VIAL RECORD
Radioactive Waste Turn-in

Date: 17 Dec 98

Authorization Number: 701

HPO RECEIPT NO.	ISOTOPES	ORIGINAL QUANTITY	REMAINING QUANTITY	ACTIVITY (mCi)
51326	H-3	1	0	250
51327	H-3	1	0	250

Person Turning In the Vial:

Patty Wilson
PRINT NAME

[Signature]
SIGNATURE

Person Receiving the Vial:

Whicker Christopher S SPC
PRINT NAME

[Signature]
SIGNATURE

Receipts in Inventory by Licensee

9/3/98
Page 1
M5020SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	7/1/97	2.100E-03 mCi	1.13×10^{-3}	1.13000E-3	0.0417	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi	3.32×10^{-3}	3.32000E-3	0.1227	University of Wisconsin-Madison	
RMR51326	H-3	Aspartic acid, D-[2,3-3H]-(L)	8/3/98	2.500E-01 mCi	2.45×10^{-1}	2.48820E-1	9.2063	Dupont NEN Research Products	011252
RMR51327	H-3	Aspartic acid, L-[2,3-3H]-(L)	8/3/98	2.500E-01 mCi	2.45×10^{-1}	2.48820E-1	9.2063	Dupont NEN Research Products	011252
RMR50777	P-32	15X Stents(L)	10/14/97	2.550E-01 mCi	8.22×10^{-3}	8.22000E-3	0.3041	ISOSTENT, INC.	
RMR50794	P-32	18X STENTS(S)	10/21/97	2.298E-01 mCi	7.45×10^{-3}	7.45000E-3	0.2758	Johnson and Johnson	
RMR50804	P-32	20x Stents(S)	10/27/97	2.091E-01 mCi	6.78×10^{-3}	6.78000E-3	0.2508	ISOSTENT, INC.	
RMR50838	P-32	4X Stents(S)	11/12/97	2.400E-02 mCi	7.80×10^{-4}	7.80000E-4	0.0288	Johnson and Johnson	
RMR50895	P-32	16X STENTS(L)	12/12/97	6.424E-02 mCi	2.08×10^{-3}	2.08000E-3	0.0771	Johnson and Johnson	
RMR51371	P-32	15x Ballon Expandable Isostents(S)	8/31/98	9.000E-02 mCi	7.81×10^{-2}	7.81000E-2	2.8897	ISOSTENT, INC.	70048380807-
Number of receipts = 10									

RMR 50949 Y-90 stents 1/20/98 0.380
 RMR 50960 Y-90 " 1/26/98 0.387
 RMR 50977 Y-90 " 2/2/98 0.304
 RMR 50987 Y-90 " 2/9/98 0.315

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: [Signature] Date: 9.9.98

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE
6825 Sixteenth Street, Northwest • Building 41, Room 38 • Washington, D.C. 20307-5001 • (202) 356-0058/59

SOURCE VIAL RECORD

Radioactive Waste Turn-in

Date: 23 July 98

Authorization Number: 701

HPO RECEIPT NO.	ISOTOPES	ORIGINAL QUANTITY	REMAINING QUANTITY	ACTIVITY (mCi)
50291	H ³	1mCi	Trace	Trace

Person Turning In the Vial:

Ruthy Wilson
PRINT NAME

SIGNATURE

Person Receiving the Vial:

Michael Hiett
PRINT NAME

Michael Hiett
SIGNATURE

Audit 6/24/98

Receipts in Inventory by Licensee

06/23/1998

Page 1

M5000SP

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Inventory Activity (mCi)	Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50558	Co-56	Mn-52/co-56 .000027/.0021 Stents(S)	07/01/1997	2.100E-03 mCi	same	2.10000E-3	7.77000E-02	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	08/13/1997	6.180E-03 mCi	"	6.18000E-3	2.28700E-01	University of Wisconsin-Madison	
RMR50291	H-3	[methyl-3H]Thymidine(L)	02/28/1997	1.000E+00 mCi	same	7.42440E-1	2.74701E01	Amersham Corporation	3501
RMR50658	Mn-52	Stents(S)	08/13/1997	4.600E-04 mCi	same	0.00000E0	0.00000E00	University of Wisconsin-Madison	
RMR50777	P-32	15X Stents(L)	10/14/1997	2.550E-01 mCi	"	2.55000E-1	9.43500E00	ISOSTENT, INC.	
RMR50794	P-32	18X STENTS(S)	10/21/1997	2.298E-01 mCi	"	2.29840E-1	8.50410E00	Johnson and Johnson	
RMR50804	P-32	20x Stents(S)	10/27/1997	2.091E-01 mCi	"	2.09000E-1	7.73300E00	ISOSTENT, INC.	
RMR50838	P-32	4X Stents(S)	11/12/1997	2.400E-02 mCi	"	2.40000E-2	8.88000E-01	Johnson and Johnson	
RMR50895	P-32	16X STENTS(L)	12/12/1997	6.424E-02 mCi	"	6.42400E-2	2.37690E00	Johnson and Johnson	
RMR50949	Y-90	33x Yttrium Stents(S)	01/20/1998	4.759E-01 mCi	same	3.80000E-1	1.40600E01	ISOSTENT, INC.	
RMR50960	Y-90	11x Stents(L)	01/26/1998	3.870E-01 mCi	same	3.87000E-1	1.43190E01	Johnson and Johnson	
RMR50977	Y-90	Stents(L)	02/02/1998	3.040E-01 mCi	same	3.04000E-1	1.12480E01	Johnson and Johnson	
RMR50987	Y-90	30X y-90 Stents(S)	02/09/1998	3.115E-01 mCi	"	3.11500E-1	1.15255E01	Johnson and Johnson	
Total number of receipts = 13									

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: [Signature] Date: 6,24,98

**Workers Linked to Internal License # 701
Farb, Andrew**

06/23/1998

Page 1

P0100SP

Worker ID	Name	Role	Work Voice Phone	Department
N184	Farb, Andrew	PI	(202) 782-2847 x2840	Auth. 701 Animal Medicine AFIP
N1033	Gorman, Patrick	TR	(202) 782-6411	DOM Cardiology Service
N320	Kolodgie, Frank	CI	(202) 782-2847 x2840	Auth. 701 Animal Medicine AFIP
N3064	Tang, Anita	SW	(202) 782-2847 x2840	Auth. 701 Animal Medicine AFIP
N1772	Taylor, Allen	TR	(202) 782-3385	DOM Cardiology Service
N1266	Virmani, Renu	CI	(202) 782-2847 x2840	Auth. 701 Animal Medicine AFIP
N607	Wilson, Patty	SW	(202) 782-2847 x2840	Auth. 701 Animal Medicine AFIP

Labs

Bldg. 54 Rm. 2008
Rm. 3012

Rm. 5003 / 5007 / 5047 / 5050

Rm. B088

Receipts to Inventory by Licensee

4/2/98
Page 1
M5000SP

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	FIB In Current Activity	Inventory Activity (mCi)	Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			701						
RMR50657	Co-56	Stents(S)	8/13/97	6.180E-03 mCi	6.180E-3 mCi	3.16000E-3	1.16900E-01	University of Wisconsin-Madison	
RMR50658	Co-56	Mn-52/Co-56 0000271.0021 Stents(S)	7/1/97	2.100E-03 mCi	2.100 E-3 mCi	7.40000E-4	2.72000E-02	University of Wisconsin-Madison	
RMR50291	H-3	[methyl-3H]Thymidine(L)	2/28/97	1.000E+00 mCi	750 mCi	7.42440E-1	2.74701E01	Amersham Corporation	3501
RMR50656	Mn-52	Stents(S)	8/13/97	4.600E-04 mCi	4.600E-4 mCi	0.00000E0	0.00000E00	University of Wisconsin-Madison	
RMR50804	P-32	20x Stents(S)	10/21/97	2.091E-01 mCi	2.091E-1 mCi	5.30000E-4	1.95000E-02	ISOSTENT, INC.	
RMR50895	P-32	16X STENTS(L)	12/12/97	6.424E-02 mCi	6.424E-2 mCi	2.59000E-3	9.57000E-02	Johnson and Johnson	
RMR50777	P-32	15X Stents(L)	10/14/97	2.550E-01 mCi	2.550 E-1 mCi	1.02700E-2	3.79900E-01	ISOSTENT, INC.	
RMR50838	P-32	4X Stents(S)	11/12/97	2.400E-02 mCi	2.400 E-2 mCi	9.60000E-4	3.55000E-02	Johnson and Johnson	
RMR50784	P-32	18X STENTS(S)	10/21/97	2.298E-01 mCi	2.2984E-1 mCi	4.30000E-4	1.60000E-02	Johnson and Johnson	
RMR50987	Y-90	30X Y-90 Stents(S)	2/3/98	3.115E-01 mCi	3.115 E-1 mCi	2.75000E-3	1.01800E-01	Johnson and Johnson	
RMR50948	Y-90	33x Yttrium Stents(S)	1/26/98	4.758E-01 mCi	3.800 E-1 mCi	2.00000E-5	8.00000E-04	ISOSTENT, INC.	
RMR50977	Y-90	Stents(L)	2/2/98	3.040E-01 mCi	3.040 E-1 mCi	4.20000E-4	1.58000E-02	Johnson and Johnson	
RMR50960	Y-90	11x Stents(L)	1/26/98	3.870E-01 mCi	3.870 E-1 mCi	9.00000E-5	3.20000E-03	Johnson and Johnson	

Please note: Y-90 stents have been implanted in dogs which are currently housed off-site per protocol

The principal user's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Signature: _____

Date: _____

4, 3, 98

Audit 12/23/97

AC

CHAMP Report
Receipts in Inventory by Activity for Internal License 701(Farb, Andrew) (A208)

DEC 22 1997 07:12:22

Receipt Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
✓ RMR50558	Co-56	Mn-52/co-56 .000027/	07/01/1997	2.100E-03 mCi	<u>SAME</u>	1.314E-03	4.862E-02	University of Wisconsin-Madison	
✓ RMR50657	Co-56	Stents(S)	08/13/1997	6.180E-03 mCi	<u>SAME</u>	5.647E-03	2.090E-01	University of Wisconsin-Madison	
✓ RMR50291	H-3	[methyl-3H]Thymidine	02/28/1997	1.000E+00 mCi	<u>0.750 mCi</u>	7.423E-01	2.747E+01	Amersham Corporation	3501
✓ RMR50658	Mn-52	Stents(S)	08/13/1997	4.600E-04 mCi	<u>SAME</u>	1.293E-04	4.783E-03	University of Wisconsin-Madison	
✓ RMR50777	P-32	15X Stents(L)	10/14/1997	2.550E-01 mCi	<u>SAME</u>	2.550E-01	9.435E+00	ISOSTENT, INC.	
✓ RMR50794	P-32	18X STENTS(S)	10/21/1997	2.298E+02 mCi	<u>SAME</u>	2.298E+02	8.504E+03	Johnson and Johnson	
✓ RMR50804	P-32	20x Stents(S)	10/27/1997	2.091E+02 mCi	<u>SAME</u>	2.091E+02	7.736E+03	ISOSTENT, INC.	
- RMR50838	P-32	4X Stents(S)	11/12/1997	2.400E-02 mCi	<u>SAME</u>	2.400E-02	8.880E-01	Johnson and Johnson	
✓ RMR50895	P-32	16X STENTS(L)	12/12/1997	6.424E-02 mCi	<u>SAME</u>	6.424E-02	2.377E+00	Johnson and Johnson	

9 Records Processed

Were the above isotopes on hand? All except one, that I have to check on.
Check on 50838.

He had 50838, but could not locate the inventory sheet
Rd 12/23/97

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: [Signature] Date: 12/23/97

CHAMMP Report

AUG 28 1997 07:51:06

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew) (A208)

Receipt Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR50558	Co-56	Mn-52/co-56 .000027/	07/01/1997	2.100E-03 mCi	<u>0.07 uCi / 2.1 uCi</u>	1.426E-03	5.274E-02	University of Wisconsin-Madison	
RMR50657	Co-56	Stents(S)	08/13/1997	6.180E-03 mCi	<u>6.18 uCi</u>	6.126E-03	2.267E-01	University of Wisconsin-Madison	
RMR50291	H-3	[methyl-3H]Thymidine	02/28/1997	1.000E+00 mCi	<u>750 uCi</u>	7.434E-01	2.750E+01	Amersham Corporation	3501
RMR50658	Mn-52	Stents(S)	08/13/1997	4.600E-04 mCi	<u>0.46 uCi</u>	4.068E-04	1.505E-02	University of Wisconsin-Madison	

4 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: _____

Date: _____

9, 2, 97

Audit 6/17/97

CHAMMP Report

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew) (A208)

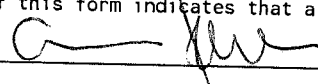
JUN 17 1997 06:44:37

Receipt Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
✓RMR49984	H-3	Cyclic GMP [3H] assay	10/03/1996	1.600E-03 mCi	<u>0.00152mCi</u>	9.933E-04	3.675E-02	Amersham Corporation	008473
✓RMR50291	H-3	[methyl-3H]Thymidine	02/28/1997	1.000E+00 mCi	<u>0.75mCi</u>	9.906E-01	3.665E+01	Amersham Corporation	3501
RMR50225	I-125	2X I-125 FGF SAP(L)	01/22/1997	5.000E-02 mCi	<u>0</u>	1.612E-02	5.963E-01	ICN Micromedics	
✓RMR50276	I-125	I-125 FGF SAP(L)	02/25/1997	4.000E-01 mCi	<u>0.15mCi</u>	1.908E-01	7.059E+00	ICN Micromedics	

4 Records Processed

Were the above isotopes on hand? yes

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: Date: 6/17/97

CHAMMP Report
 Receipts in Inventory by Activity for Internal License 701(Farb, Andrew) (A208)

FEB 26 1997 09:01:59

Receipt Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR49984	H-3	Cyclic GMP [3H] assay	10/03/96	1.600E-03 mCi	(0.001)	1.581E-03	5.848E-02	Amersham Corporation	008473
RMR50276	I-125	I-125 FGF SAP(L)	02/25/97	4.000E-01 mCi	(0.150)	4.000E-01	1.480E+01	ICN Micromedics	
RMR050291	H-3	[3H] Thymidine	02/28/97	1.0mCi	mCi(1.0)			Amersham	3501

2 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: _____

Date: 3/17/97

SOURCE VIAL RECORD

DATE: 13 FEB 97

As stated in the errata sheet dated 8 October 96, an amendment to the General Provisions - Radioactive Waste, Condition No. 9. - DISPOSAL OF STOCK SOURCE VIALS, each user must abide to the following when turning in vials:

d. When source vials are turned in to Health Physics, please provide the source HPO identification number (Yellow Tag Number).

e. If there are multiple vials listed under the same identification number, list the vials still in your possession.

f. The inventory log will be adjusted to show the change in the authorization inventory. Health Physics personnel will sign the inventory log if provided at the time of turn-in. In addition, Health Physics personnel will provide a signed receipt for possession of the source vial(s).

RADIOACTIVE WASTE TURN-IN

AUTHORIZATION NUMBER 701

HPO RECEIPT NO.	ISOTOPE	ACTIVITY (mCi)	VOLUME (If known)
50225	I125	0.396 mCi	0.8 1.6 mL

Person Turning In the Vial:

Andrew Farb
PRINT NAME

[Signature]
SIGNATURE

Person Receiving the Vial:

Bruce Fontaine
PRINT NAME

[Signature]
SIGNATURE

Audit 12/17/96

CHAMMP Report

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew) (A208)

DEC 17 1996 07:10:21

Receipt Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier
RMR69	H-3	PN200-110(L)	01/13/94	1.500E-01 mCi	0.045 mCi	8.775E-02	3.247E+00	Amersham Corporation
RMR70	H-3	TYROSINE(L)	01/13/94	2.456E-01 mCi	0.045 mCi	8.775E-02	3.247E+00	Sigma
RMR49984	H-3	Cyclic GMP [3H] assay	10/03/96	1.600E-03 mCi	<u>Same</u>	1.596E-03	5.906E-02	Amersham Corporation

P.O. Number

DADA1593A0092

DADA1591A0025

008473

Turned in Sept 96

3 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: *Andrew Farb*Date: 12, 17, 96

CHAMMP Report

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew) (A208)

AUG 28 1996 15:25:45

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR69	H-3	PN200-110(L)	01/13/94	1.500E-01 mCi	<u>1.08941</u>	8.941E-02	3.308E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE(L)	01/13/94	2.456E-01 mCi	<u>1.08941</u>	8.941E-02	3.308E+00	Sigma	DADA1591A0025
RMR48306	H-3	cAMP(L)	11/30/94	5.000E-03 mCi	<u>0 turned in 8/8/96</u>	4.662E-03	1.725E-01	Amersham Corporation	DADA1595P1738
RMR48389	H-3	cAMP(L)	12/21/94	5.000E-03 mCi	<u>0 turned in 8/8/96</u>	4.603E-03	1.703E-01	Amersham Corporation	DADA1595P1961
RMR49590	H-3	[methyl-3H]Thymidine	04/03/96	1.000E+00 mCi	<u>0 turned in 9/12/96</u>	7.500E-01	2.775E+01	Amersham Corporation	007708

5 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: Date: 9/12/96

Audit 6/10/96

CHAMMP Report
 Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

JUN 10 1996 10:22:34

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR69	H-3	PN200-110(L)	01/13/94	1.500E-01 mCi	<u>0.095mCi</u>	9.043E-02	3.346E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE(L)	01/13/94	2.456E-01 mCi	<u>0.095mCi</u>	9.043E-02	3.346E+00	Sigma	DADA1591A0025
RMR48306	H-3	cAMP(L)	11/30/94	5.000E-03 mCi	<u>4.867mCi</u>	4.715E-03	1.745E-01	Amersham Corporation	DADA1595P1738
RMR48389	H-3	cAMP(L)	12/21/94	5.000E-03 mCi	<u>4.882mCi</u>	4.656E-03	1.723E-01	Amersham Corporation	DADA1595P1961
RMR49438	H-3	[methyl-3H]Thymidine	01/24/96	2.500E-01 mCi	<u>0.904mCi</u>	1.546E-01	5.719E+00	Amersham Corporation	007412
RMR49590	H-3	[methyl-3H]Thymidine	04/03/96	1.000E+00 mCi	<u>0.75mCi</u>	1.000E+00	3.700E+01	Amersham Corporation	007708

6 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: _____

Date: 6/10/96

CHAMMP Report
Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

MAR 05 1996 07:49:14

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR69	H-3	PN200-110(L)	01/13/94	1.500E-01 mCi	<u>same</u>	9.172E-02	3.394E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE(L)	01/13/94	2.456E-01 mCi	<u>same</u>	9.172E-02	3.394E+00	Sigma	DADA1591A0025
RMR48306	H-3	cAMP(L)	11/30/94	5.000E-03 mCi	<u>same</u>	4.782E-03	1.769E-01	Amersham Corporation	DADA1595P1738
RMR48389	H-3	cAMP(L)	12/21/94	5.000E-03 mCi	<u>same</u>	4.722E-03	1.747E-01	Amersham Corporation	DADA1595P1961
RMR49077	H-3	[methyl-3H]Thymidine	08/29/95	1.000E+00 mCi	<u>1.000E+00</u>	7.489E-01	2.771E+01	Amersham Corporation	DADA1595A0012
RMR49438	H-3	[methyl-3H]Thymidine	01/24/96	2.500E-01 mCi	<u>155 uCi</u>	2.500E-01	9.250E+00	Amersham Corporation	007412

6 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: [Signature] Date: 3.11.96

CHAMMP Report

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

DEC 11 1995 15:00:58

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR69	H-3	PN200-110(L)	01/13/94	1.500E-01 mCi	<u>0.095 μCi</u>	9.313E-02	3.446E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE(L)	01/13/94	2.456E-01 mCi	<u>0.095 μCi</u>	9.313E-02	3.446E+00	Sigma	DADA1591A0025
RMR47508	H-3	ADENINE(L)	02/28/94	1.000E+00 mCi	<u>0</u>	9.313E-01	3.446E+01	Amersham Corporation	DADA1593A0092
RMR48306	H-3	CAMP(L)	11/30/94	5.000E-03 mCi	<u>4.867 μCi</u>	4.856E-03	1.797E-01	Amersham Corporation	DADA1595P1738
RMR48389	H-3	CAMP(L)	12/21/94	5.000E-03 mCi	<u>4.882 μCi</u>	4.795E-03	1.774E-01	Amersham Corporation	DADA1595P1961
RMR48660	H-3	THYMIDINE X 2(L)	04/03/95	2.000E+00 mCi	<u>0</u>	1.948E+00	7.209E+01	Amersham Corporation	DADA1595P6725
RMR49077	H-3	[methyl-3H]Thymidine	08/29/95	1.000E+00 mCi	<u>750 μCi</u>	9.966E-01	3.687E+01	Amersham Corporation	DADA1595A0012

7 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: *[Signature]*Date: 12/19/95

CHAMMP Report

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

JUN 01 1995 09:09:07

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR47494	Ca-45	CALCIUM(L)	02/24/94	4.000E+00 mCi	<u>0</u>	5.999E-01	2.220E+01	Amersham Corporation	DADA1593A0092
RMR45942	Cr-51	NaCHROMATE(L)	01/25/93	1.000E+00 mCi	<u>Same</u>	1.765E-04	6.532E-03	Amersham Corporation	DADA1590A0041
RMR69	H-3	PN200-110(L)	01/13/94	1.500E-01 mCi	<u>Same</u>	9.483E-02	3.509E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE(L)	01/13/94	2.456E-01 mCi	<u>Same</u>	9.483E-02	3.509E+00	Sigma	DADA1591A0025
RMR72	H-3	cGMP X 2(L)	01/13/94	1.092E-01 MBq	<u>0</u>	1.517E-03	5.614E-02	Amersham Corporation	DADA1593A0092
RMR100	H-3	LEUCINE(L)	08/22/94	9.355E-02 mCi	<u>0</u>	8.966E-02	3.317E+00	Sigma	DADA1593A0025
RMR103	H-3	LEUCINE(L) <i>no record</i>	01/03/95	2.294E-03 mCi	<u>Same</u>	2.244E-03	8.304E-02	Sigma	DADA1593A0025
RMR45429	H-3	COCAINE(L)	09/29/92	1.000E-01 mCi	<u>Same</u>	4.666E-02	1.726E+00	Dupont NEN Research Products	DADA1592PH408
RMR45863	H-3	PHENYLISOPROPYA(L)	12/31/92	2.500E-01 mCi	<u>0</u>	1.422E-01	5.263E+00	Amersham Corporation	DADA1590A0041
RMR46424	H-3	ESTRADIOL(L)	05/20/93	2.500E-01 mCi	<u>Same</u>	2.371E-01	8.772E+00	Amersham Corporation	DADA1590A0041
RMR47508	H-3	ADENINE(L)	02/28/94	1.000E+00 mCi	<u>Same</u>	9.484E-01	3.509E+01	Amersham Corporation	DADA1593A0092
RMR47648	H-3	COCAINE(L)	04/13/94	1.000E-01 mCi	<u>0.09144</u>	9.484E-02	3.509E+00	Dupont NEN Research Products	DADA1594P2806
RMR47658	H-3	RYANODINE(L)	04/19/94	2.500E-01 mCi	<u>0</u>	1.422E-01	5.263E+00	Dupont NEN Research Products	DADA1594P6112
RMR47996	H-3	THYMIDINE(L)	08/05/94	1.000E+00 mCi	<u>0</u>	5.761E-01	2.132E+01	Amersham Corporation	DADA1593A0092
RMR48162	H-3	cAMP(L)	10/05/94	5.000E-03 mCi	<u>Same</u>	1.318E-03	4.877E-02	Amersham Corporation	006019
RMR48306	H-3	cAMP(L)	11/30/94	5.000E-03 mCi	<u>Same</u>	4.867E-03	1.801E-01	Amersham Corporation	DADA1595P1738
RMR48389	H-3	cAMP(L)	12/21/94	5.000E-03 mCi	<u>Same</u>	4.882E-03	1.806E-01	Amersham Corporation	DADA1595P1961
RMR48448	H-3	THYMIDINE(L)	01/12/95	1.000E+00 mCi	<u>0.35</u>	9.798E-01	3.625E+01	Amersham Corporation	006265
RMR48660	H-3	THYMIDINE X 2(L)	04/03/95	2.000E+00 mCi	<u>Same</u>	1.984E+00	7.341E+01	Amersham Corporation	DADA1595P6725
RMR48002	P-33	ATP, GAMMA(L)	08/08/94	2.500E-01 mCi	<u>0</u>	2.741E-03	1.014E-01	Amersham Corporation	DADA1593A0092
RMR48231	P-33	ATP, GAMMA(L)	11/02/94	2.500E-01 mCi	<u>0</u>	3.425E-03	1.267E-01	Amersham Corporation	DADA1593A0092

47178 from 651

21 Records Processed

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: Date: 6/13/95

CHAMMP Report

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

DEC 13 1994 07:50:39

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR47494	Ca-45	CALCIUM	02/24/94	4.000E+00 mCi	<u>1.91</u>	1.910E+00	7.068E+01	Amersham Corporation	DADA1593A0092
RMR45651	Cr-51	NaCHROMATE	11/12/92	1.000E+00 mCi	<u>0</u>	9.028E-08	3.340E-06	Amersham Corporation	DADA1590A0041
RMR45942	Cr-51	NaCHROMATE	01/25/93	1.000E+00 mCi	<u>0.1749</u>	1.749E-01	6.472E+00	Amersham Corporation	DADA1590A0041
RMR69	H-3	PN200-110	01/13/94	1.500E-01 mCi	<u>0.09893</u>	9.893E-02	3.661E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE	01/13/94	2.456E-01 mCi	<u>0.09893</u>	9.893E-02	3.661E+00	Sigma	DADA1591A0025
RMR71	H-3	CAMP X 2	01/13/94	3.639E-01 MBq	<u>0</u>	5.441E-03	2.013E-01	Amersham Corporation	DADA1593A0092
RMR72	H-3	cGMP X 2	01/13/94	1.092E-01 MBq	<u>0.001583</u>	1.583E-03	5.857E-02	Amersham Corporation	DADA1593A0092
RMR100	H-3	LEUCINE	08/22/94	9.355E-02 mCi	<u>0.09355</u>	9.355E-02	3.461E+00	Sigma	DADA1593A0025
RMR45429	H-3	COCAINE	09/29/92	1.000E-01 mCi	<u>0.04868</u>	4.868E-02	1.801E+00	Dupont NEN Research Products	DADA1592PH408
RMR45748	H-3	THYMIDINE	12/03/92	1.000E+00 mCi	<u>0</u>	4.947E-02	1.830E+00	Amersham Corporation	DADA1590A0041
RMR45863	H-3	PHENYLISOPROPYA	12/31/92	2.500E-01 mCi	<u>0.1484</u>	1.484E-01	5.491E+00	Amersham Corporation	DADA1590A0041
RMR46424	H-3	ESTRADIOL	05/20/93	2.500E-01 mCi	<u>0.2473</u>	2.473E-01	9.151E+00	Amersham Corporation	DADA1590A0041
RMR47508	H-3	ADENINE	02/28/94	1.000E+00 mCi	<u>0.9894</u>	9.894E-01	3.661E+01	Amersham Corporation	DADA1593A0092
RMR47648	H-3	COCAINE	04/13/94	1.000E-01 mCi	<u>0.09894</u>	9.894E-02	3.661E+00	Dupont NEN Research Products	DADA1594P2806
RMR47658	H-3	RYANODINE	04/19/94	2.500E-01 mCi	<u>0.1484</u>	1.484E-01	5.491E+00	Dupont NEN Research Products	DADA1594P6112
RMR47922	H-3	THYMIDINE	07/12/94	2.500E-01 mCi	<u>0</u>	2.484E-01	9.192E+00	Amersham Corporation	DADA1593A0092
RMR47996	H-3	THYMIDINE	08/05/94	1.000E+00 mCi	<u>0.590</u>	9.973E-01	3.690E+01	Amersham Corporation	DADA1593A0092
RMR48162	H-3	CAMP	10/05/94	5.000E-03 mCi	<u>0.00135</u>	5.000E-03	1.850E-01	Amersham Corporation	006019
RMR48306	H-3	CAMP	11/30/94	5.000E-03 mCi	<u>0.005</u>	5.000E-03	1.850E-01	Amersham Corporation	DADA1595P1738
RMR48002	P-33	ATP, GAMMA	08/08/94	2.500E-01 mCi	<u>0.200</u>	2.000E-01	7.400E+00	Amersham Corporation	DADA1593A0092
RMR48088	P-33	ATP, GAMMA	09/13/94	2.500E-01 mCi	<u>0</u>	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092
RMR48231	P-33	ATP, GAMMA	11/02/94	2.500E-01 mCi	<u>0.25</u>	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092
RMR48282	P-33	dATP, ALPHA X 2	11/22/94	5.000E-01 mCi	<u>0</u>	5.000E-01	1.850E+01	Amersham Corporation	DADA1595P1578

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: Andrew FarbDate: 12, 21, 94

CHAMMP Report
Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

AUG 04 1994 07:38:18

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR47494	Ca-45	CALCIUM	02/24/94	4.000E+00 mCi	<u>Same</u>	2.560E+00	9.472E+01	Amersham Corporation	DADA1593A0092
RMR45651	Cr-51	NaCHROMATE	11/12/92	1.000E+00 mCi		5.161E-07	1.910E-05	Amersham Corporation	DADA1590A0041
RMR45942	Cr-51	NaCHROMATE	01/25/93	1.000E+00 mCi		1.000E+00	3.700E+01	Amersham Corporation	DADA1590A0041
RMR69	H-3	PN200-110	01/13/94	1.500E-01 mCi		1.000E-01	3.700E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE	01/13/94	2.456E-01 mCi		1.000E-01	3.700E+00	Sigma	DADA1591A0025
RMR71	H-3	cAMP X 2	01/13/94	3.639E-01 MBq		5.500E-03	2.035E-01	Amersham Corporation	DADA1593A0092
RMR72	H-3	cGMP X 2	01/13/94	1.092E-01 MBq		1.600E-03	5.920E-02	Amersham Corporation	DADA1593A0092
RMR45429	H-3	COCAINE	09/29/92	1.000E-01 mCi		4.920E-02	1.820E+00	Dupont NEN Research Products	DADA1592PH408
RMR45748	H-3	THYMIDINE	12/03/92	1.000E+00 mCi		5.000E-02	1.850E+00	Amersham Corporation	DADA1590A0041
RMR45863	H-3	PHENYLISOPROPYA	12/31/92	2.500E-01 mCi		1.500E-01	5.550E+00	Amersham Corporation	DADA1590A0041
RMR46424	H-3	ESTRADIOL	05/20/93	2.500E-01 mCi		2.500E-01	9.250E+00	Amersham Corporation	DADA1590A0041
RMR47508	H-3	ADENINE	02/28/94	1.000E+00 mCi		1.000E+00	3.700E+01	Amersham Corporation	DADA1593A0092
RMR47648	H-3	COCAINE	04/13/94	1.000E-01 mCi		1.000E-01	3.700E+00	Dupont NEN Research Products	DADA1594P2806
RMR47658	H-3	RYANODINE	04/19/94	2.500E-01 mCi		1.500E-01	5.550E+00	Dupont NEN Research Products	DADA1594P6112
RMR47922	H-3	THYMIDINE	07/12/94	2.500E-01 mCi	<u>1.000E-01</u>	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092

15 Records Processed

33P ATP
H-3 Thymidine
3H Leucine
H-3 7/78 Transfer from AUTH 651
08/08/94 2.500E+01 mCi 200 mCi
08/05/94 1.000E+00 mCi 1.00E+00 mCi
11/17/93 2.500E+01 mCi 0.100E+00 mCi

The principal users signature on the bottom of this form indicates that a physical inventory of the radionuclides listed has been performed.

Signature: [Signature] Date: 08/22/94

CHAMMP Report
Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

MAY 25 1994 09:35:38

Audit
Key 6/14/94

Radio- Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR47494	Ca-45	CALCIUM	02/24/94	4.000E+00 mCi	<u>2.56</u>	4.000E+00	1.480E+02 Amersham Corporation	DADA1593A0092
RMR45651	Cr-51	NaCHROMATE	11/12/92	1.000E+00 mCi	<u>0.52</u>	5.200E-01	1.924E+01 Amersham Corporation	DADA1590A0041
RMR45916	Cr-51	NaCHROMATE	01/15/93	5.000E-01 mCi	<u>0</u>	5.000E-01	1.850E+01 Dupont NEN Research Products	2500
RMR45942	Cr-51	NaCHROMATE	01/25/93	1.000E+00 mCi	<u>8.78</u>	1.000E+00	3.700E+01 Amersham Corporation	DADA1590A0041
RMR69	H-3	PN200-110	01/13/94	1.500E-01 mCi	<u>0.10</u>	1.500E-01	5.550E+00 Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE	01/13/94	2.456E-01 mCi	<u>0.10</u>	2.456E-01	9.087E+00 Sigma	DADA1591A0025
RMR71	H-3	CAMP X 2	01/13/94	3.639E-01 MBq	<u>0.0055</u>	5.000E-03	1.850E-01 Amersham Corporation	DADA1593A0092
RMR72	H-3	CGMP X 2	01/13/94	1.092E-01 MBq	<u>0.0016</u>	1.000E-03	3.700E-02 Amersham Corporation	DADA1593A0092
RMR45429	H-3	COCAINE	09/29/92	1.000E-01 mCi	<u>0.0492</u>	8.700E-02	3.219E+00 Dupont NEN Research Products	DADA1592PH408
RMR45748	H-3	THYMIDINE	12/03/92	1.000E+00 mCi	<u>0.05</u>	1.500E-01	5.550E+00 Amersham Corporation	DADA1590A0041
RMR45863	H-3	PHENYLISOPROPYA	12/31/92	2.500E-01 mCi	<u>0.15</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1590A0041
RMR46424	H-3	ESTRADIOL	05/20/93	2.500E-01 mCi	<u>0.25</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1590A0041
RMR47087	H-3	LEUCINE	11/22/93	9.243E+00 MBq	<u>0</u>	2.498E-01	9.243E+00 Sigma	DADA1593A0025
RMR47508	H-3	ADENINE	02/28/94	1.000E+00 mCi	<u>1.0</u>	1.000E+00	3.700E+01 Amersham Corporation	DADA1593A0092
RMR47648	H-3	COCAINE	04/13/94	1.000E-01 mCi	<u>0.100</u>	1.000E-01	3.700E+00 Dupont NEN Research Products	DADA1594P2806
RMR47658	H-3	RYANODINE	04/19/94	2.500E-01 mCi	<u>0.15</u>	2.500E-01	9.250E+00 Dupont NEN Research Products	DADA1594P6112

~~476938 H3 PN200 H10~~

16 Records Processed

47178 H3 Leucine 11/17/93 (0.25) 0.10 mCi
Transfer from AUTH 651

~~45942 Cr 51 transfer from AUTH 651 1.52 mCi~~

~~46980 H3 CGMP " " " " 0.0016 mCi~~

~~46979 H3 CAMP " " " " 0.0055 mCi~~ 0.0055 mCi

Signature: C. Farb

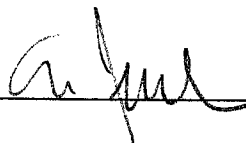
Date: 6, 14, 94

Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR45025	Ca-45	CaCl	07/20/92	5.000E+00 mCi	<u>6.00E+00</u>	4.040E+00	1.495E+02	Amersham Corporation	DADA1590A0041
RMR45651	Cr-51	NaCHROMATE	11/12/92	1.000E+00 mCi	<u>0.52 mCi</u>	5.200E-01	1.924E+01	Amersham Corporation	DADA1590A0041
RMR45916	Cr-51	NaCHROMATE	01/15/93	5.000E-01 mCi	<u>0.5 mCi</u>	5.000E-01	1.850E+01	Dupont NEN Research Products	2500
RMR45942	Cr-51	NaCHROMATE	01/25/93	1.000E+00 mCi	<u>1.0 mCi</u>	1.000E+00	3.700E+01	Amersham Corporation	DADA1590A0041
RMR69	H-3	PN200-110	01/13/94	1.500E-01 mCi	<u>0.15 mCi</u>	1.500E-01	5.550E+00	Amersham Corporation	DADA1593A0092
RMR70	H-3	TYROSINE	01/13/94	2.456E-01 mCi	<u>0.25 mCi</u>	2.456E-01	9.087E+00	Sigma	DADA1591A0025
RMR71	H-3	cAMP X 2	01/13/94	3.639E-01 MBq	<u>5 uCi</u>	9.835E-03	3.639E-01	Amersham Corporation	DADA1593A0092
RMR72	H-3	cGMP X 2	01/13/94	1.092E-01 MBq	<u>10 uCi</u>	2.951E-03	1.092E-01	Amersham Corporation	DADA1593A0092
RMR45429	H-3	COCAINE	09/29/92	1.000E-01 mCi	<u>87 uCi</u>	8.760E-02	3.241E+00	Dupont NEN Research Products	DADA1592PH408
RMR45748	H-3	THYMIDINE	12/03/92	1.000E+00 mCi	<u>0.15 mCi</u>	5.000E-01	1.850E+01	Amersham Corporation	DADA1590A0041
RMR45863	H-3	PHENYLISOPROPYA	12/31/92	2.500E-01 mCi	<u>0.25 mCi</u>	2.500E-01	9.250E+00	Amersham Corporation	DADA1590A0041
RMR46424	H-3	ESTRADIOL	05/20/93	2.500E-01 mCi	<u>0.25 mCi</u>	2.500E-01	9.250E+00	Amersham Corporation	DADA1590A0041
RMR47087	H-3	LEUCINE	11/22/93	9.243E+00 MBq	<u>0.25 mCi</u>	2.498E-01	9.243E+00	Sigma	DADA1593A0025

13 Records Processed

Signature: _____



Date: _____

2, 16, 94

CHAMMP Report
Receipts in Inventory by Activity for Internal License 701(Farb, Andrew)

NOV 29 1993 14:12:41

Audit
Key 12/7/93

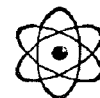
Radio- Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR45025	Ca-45	CaCl	07/20/92	5.000E+00 mCi	<u>4.04</u>	4.040E+00	1.495E+02 Amersham Corporation	DADA1590A0041
RMR45942	Cr-51	NaCHROMATE	01/25/93	1.000E+00 mCi	<u>1.0</u>	1.000E+00	3.700E+01 Amersham Corporation	DADA1590A0041
RMR45916	Cr-51	NaCHROMATE	01/15/93	5.000E-01 mCi	<u>0</u>	5.000E-01	1.850E+01 Dupont NEN Research Products	2500
RMR45651	Cr-51	NaCHROMATE	11/12/92	1.000E+00 mCi	<u>0.52</u>	5.200E-01	1.924E+01 Amersham Corporation	DADA1590A0041
RMR45748	H-3	THYMIDINE	12/03/92	1.000E+00 mCi	<u>0</u>	5.000E-01	1.850E+01 Amersham Corporation	DADA1590A0041
RMR45429	H-3	COCAINE	09/29/92	1.000E-01 mCi	<u>0.0876</u>	8.760E-02	3.241E+00 Dupont NEN Research Products	DADA1592PH408
RMR46424	H-3	ESTRADIOL	05/20/93	2.500E-01 mCi	<u>0.25</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1590A0041
RMR45863	H-3	PHENYLISOPROPYA	12/31/92	2.500E-01 mCi	<u>0.25</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1590A0041
RMR47087	H-3	LEUCINE	11/22/93	9.243E+00 MBq	<u>0</u>	2.498E-01	9.243E+00 Sigma	DADA1593A0025
					<u>0.250</u>			

47178
9 Records Processed

Signature: *Andrew Farb* Date: 12, 7, 93

08/24/93

AUTHORIZATION ISOTOPE INVENTORY



(The Principle User's signature on the bottom of this form indicates that
a physical inventory of the isotopes listed has been performed.)

Authorization Number 701

HPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ACTIVITY IN MILLICURIES			VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
			ORIGINAL	ENTER CURRENT	LAST UPDATED				
Total millicuries Ca-45									
45025	CaCl	07/20/92	5.0000	<u>4.04</u>	4.0400	AMERSHAM	DADA1590A004	7Q4	hld @ HPO
	Total Activity		5.0000	<u>4.04</u>		Isotope Possesion Limit		6.0000	
Total millicuries Ce-141									
45974	MICROSPHERES	02/05/93	0.5000	<u>0</u>	0.5000	NEN DUPONT	0041		
	Total Activity		0.5000	<u>0</u>		Isotope Possesion Limit		2.0000	
Total millicuries Cr-51									
45651	NaCHROMATE	11/12/92	1.0000	<u>.52</u>	0.5200	AMERSHAM	DADA1590A004	11Q3	
45916	NaCHROMATE	01/15/93	0.5000	<u>.30</u>	0.5000	NEN DUPONT	2500		
45942	NaCHROMATE	01/25/93	1.0000	<u>1.00</u>	1.0000	AMERSHAM	DADA1590A004	1Q8	
	Total Activity		2.5000	<u>2.02</u>		Isotope Possesion Limit		2.0000	
Total millicuries H-3									
45429	COCAINE	09/29/92	0.1000	<u>.0876</u>	0.0876	NEN DUPONT	DADA1592PH40		
45748	THYMIDINE	12/03/92	1.0000	<u>.30</u>	0.5000	AMERSHAM	DADA1590A004	12Q1	
45863	PHENYLISOPROPYA	12/31/92	0.2500	<u>.250</u>	0.2500	AMERSHAM	DADA1590A004	12Q8	
46424	ESTRADIOL	05/20/93	0.2500	<u>.250</u>	0.2500	AMERSHAM	DADA1590A004	5Q65	
	Total Activity		1.6000	<u>1.0876</u>		Isotope Possesion Limit		1.0000	

Signature

Date

9/16/93

05/24/93

AUTHORIZATION ISOTOPE INVENTORY

(The Principle User's signature on the bottom of this form indicates that a physical inventory of the isotopes listed has been performed.)

Authorization Number 701

HPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	ENTER CURRENT ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
=====									
Total millicuries NONRAD									

01/01/99

0.0000

0.0000

Total activity

0.0000

Isotope possession limit

0.0000

Signature

Date

Trans from AUTH 651

45974

 ^{141}Ce microspheres0.420 mCi

15916

 ^{51}Cr microspheres0.390 ^{45}Ca CaCl4.04 mCi ^3H Cocaine 45429 0.0876 mCi ^3H 5503 Phenylisopropylad 12/31/92 0.250 mCi15942 ^{51}Cr Nachromate 1.52 mCi45051 Trans to AUTH 671 1.0 mCi ^{51}Cr

54-5007

Room Final

Room: 5007 Building: 54

Authorization: 701-FARB

Department:

Radio-Nuclides: H-3, I-125, P-32, P-33

Surveyor: PARMLEY

Inspection Date: 17 Dec 01

Meter Model: C3

Meter SN: 18123

Cal Due: 17 Oct 02

Room Checks

All RAM removed from the room

Radioactive waste removed

All RAM use equipment cleared

All radiation labels removed

Initials

PP
PP
NP
NP

Entrances un-posted

Other

Initials

NP
1

Administrative Checks

Equipment / Room final forms completed

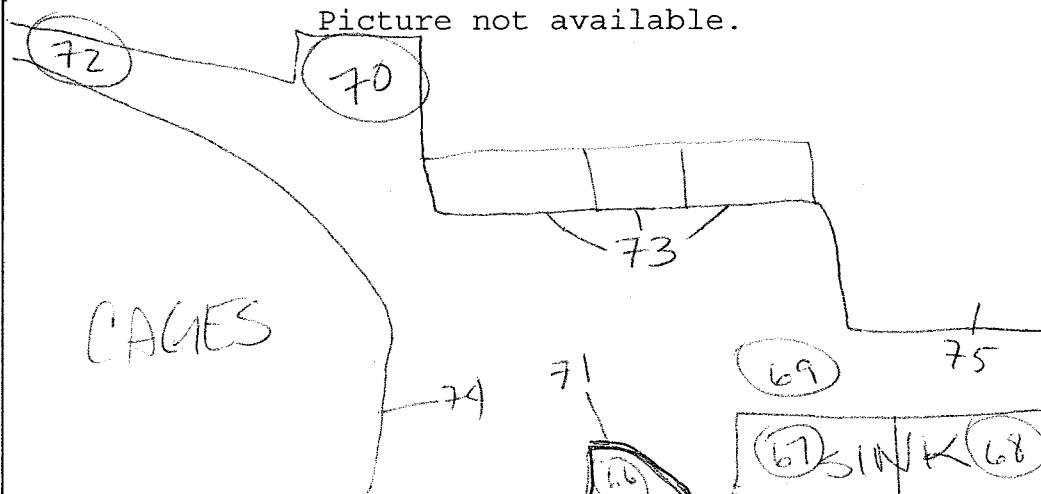
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Meter Readings

BKG		cpm	mR/hr
A	70	cpm	mR/hr
B		cpm	mR/hr
C		cpm	mR/hr
D		cpm	mR/hr
E		cpm	mR/hr
F		cpm	mR/hr
G		cpm	mR/hr

CAGES

Picture not available.



Laboratory Analysis

Date: 17 Dec 2001

Swipe Numbers: 66-75

Technician: SFC Metelli

LSC: 12-21

Auto-gamma

6-4-20

Record any samples > 200 dpm or removable contamination. If > 2000 dpm resurvey within 5 working days.

Swipe	Isotope	Efficiency	MDA (dpm)	DPM	MDA	DPM

COMPLETED

Comments

Surveyor Comments

Storage Room Only

17 Dec 2001 14:14 ALPHA/BETA - 1.09 Page #1
 Protocol #: 1 Routine A User : CPL Whicke

Time: 2.00
 Data Mode: Dual DPM Nuclides: 3H-14C-UG Quench Sets
 Low Energy: 3H-UG
 High Energy: 14C-UG
 Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.0 - 18.6		0	0.0	13.82
Region B:	18.6 - 156		0	0.0	8.28
Region C:	156 - 2000		0	0.0	3.50

Quench Indicator: tSIE/AEC
 Ext Std Terminator: Count
 Coincidence Time(ns): 18
 Delay Before Burst(ns): Normal

S#	TIME	CPMA A:2S%	CPMB B:2S%	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	13.82 17.01	8.28 21.98	3.50			507.15	B
2	2.00	0.00 0.00	0.00 0.00	1.00	0.00	0.00	456.22	
3	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	482.71	
4	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	489.47	
5	2.00	0.00 0.00	0.22 2049	0.00	0.00	0.31	489.57	
6	2.00	0.00 0.00	1.72 281.1	1.00	0.00	2.38	489.72	
7	2.00	0.00 0.00	0.72 643.4	0.00	0.00	1.01	439.46	
8	2.00	0.00 0.00	0.00 0.00	2.00	0.00	0.00	490.92	
9	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	482.95	
10	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	487.71	
11	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	492.19	
12	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	484.63	
13	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	490.43	
14	2.00	0.00 0.00	1.38 344.5	0.00	0.00	1.92	480.03	
15	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	455.27	
16	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	489.28	
17	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	478.63	
18	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	474.56	
19	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	514.20	
20	2.00	0.00 0.00	2.60 192.6	0.00	0.00	3.59	526.44	
21	2.00	0.00 0.00	0.00 0.00	0.50	0.00	0.00	475.97	

17 Dec 2001 11:59

Packard Instrument Company

Page #:

Protocol #: 6

Swipes

User : SPC Bal

Count Time(minutes): 2.00
 Assay Type: CPM
 Background Subtract : IPA Bkg
 Outlier: 5.0 FLAG
 %Spillup: 0.00
 %Spilldown: 0.00
 Screening: OFF

	Window A		Window B		Window C
Nuclide:	MAN	15 - 250 keV	MAN	250 - 950 keV	MAN 950 - 2000 keV
Bkg:	100		114		44.3
Sigma:	0.00		0.00		0.00
LCR:	0		0		0
Half Life(hours):	0.00		0.00		
Multiplier:	1.0000				
%CV Flag Limit:	0.00		0.00		

P#	S#	A:CPM	A:%SIG	B:CPM	B:%SIG	C:CPM	C:%SIG	TIME
6	1	0.0		8.9	23.7	3.2	39.8	2.00
6	2	0.0		5.4	30.5	5.7	29.7	2.00
6	3	4.3	34.0	8.4	24.4	0.7	87.0	2.00
6	4	7.8	25.3	0.0		4.2	34.7	2.00
6	5	0.0		5.4	30.5	0.0		2.00
6	6	0.0		0.0		0.0		2.00
6	7	1.8	52.4	0.0		0.0		2.00
6	8	0.0		0.0		2.2	48.1	2.00
6	9	0.0		0.0		0.0		2.00
6	10	0.0		0.0		0.2	177	2.00
6	11	0.0		4.4	33.8	4.2	34.7	2.00
6	12	2.8	42.1	5.9	29.2	0.0		2.00
6	13	0.0		1.4	60.2	3.2	39.8	2.00
6	14	0.0		7.9	25.2	0.0		2.00
6	15	0.0		4.9	32.0	4.7	32.8	2.00
6	16	0.0		1.9	51.6	4.7	32.8	2.00
6	17	0.0		0.0		8.7	24.0	2.00
6	18	4.8	32.2	0.0		5.2	31.1	2.00
6	19	0.0		2.4	45.8	0.0		2.00
6	20	0.0		0.0		5.2	31.1	2.00

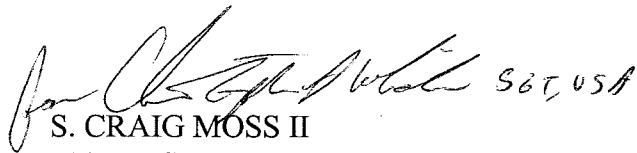
MEMORANDUM FOR: Dr. Farb, Cardiovascular Pathology
Authorization No. 701

SUBJECT: Radiological Safety Certification: Building 54, Rooms 5007 and 5044

1. The following rooms has been inspected, tested, and certified by the Health Physics Office to be free of any hazards associated with removable radioactive contamination. Any previous radiological safety restrictions are hereby removed. In the future, adding these rooms to the authorization, will require approval from the Health Physics office.

Building	Room
54	5007
54	5044

2. If you have any questions regarding this survey, you may contact SPC Parmley at 356-0058.


S. CRAIG MOSS II
MAJ, MS
Chief, Health Physics Operations

Time: 2.00
 Data Mode: Dual DPM Nuclides: 3H-14C-UG Quench Sets
 Low Energy: 3H-UG
 High Energy: 14C-UG
 Background Subtract: 1st Vial

	LL	UL	LCR	2S%	BKG
Region A:	0.0 - 18.6		0	0.0	13.82
Region B:	18.6 - 156		0	0.0	8.28
Region C:	156 - 2000		0	0.0	3.50

Quench Indicator: tSIE/AEC
 Ext Std Terminator: Count
 Coincidence Time(ns): 18
 Delay Before Burst(ns): Normal

S#	TIME	CPMA A:2S%	CPMB B:2S%	CPMC	DPM1	DPM2	tSIE	FLAG
1	10.00	13.82 17.01	8.28 21.98	3.50			507.15	B
2	2.00	0.00 0.00	0.00 0.00	1.00	0.00	0.00	456.22	
3	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	482.71	
4	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	489.47	
5	2.00	0.00 0.00	0.22 2049	0.00	0.00	0.31	489.57	
6	2.00	0.00 0.00	1.72 281.1	1.00	0.00	2.38	489.72	
7	2.00	0.00 0.00	0.72 643.4	0.00	0.00	1.01	439.46	
8	2.00	0.00 0.00	0.00 0.00	2.00	0.00	0.00	490.92	
9	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	482.95	
10	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	487.71	
11	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	492.19	
12	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	484.63	
13	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	490.43	
14	2.00	0.00 0.00	1.38 344.5	0.00	0.00	1.92	480.03	
15	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	455.27	
16	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	489.28	
17	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	478.63	
18	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	474.56	
19	2.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00	514.20	
20	2.00	0.00 0.00	2.60 192.6	0.00	0.00	3.59	526.44	
21	2.00	0.00 0.00	0.00 0.00	0.50	0.00	0.00	475.97	

17 Dec 2001 11:59

Packard Instrument Company

Page #:

Protocol #: 6

Swipes

User : SPC Bal

Count Time(minutes): 2.00
 Assay Type: CPM
 Background Subtract : IPA Bkg
 Outlier: 5.0 FLAG
 %Spillup: 0.00
 %Spilldown: 0.00
 Screening: OFF

	Window A		Window B		Window C
Nuclide:	MAN	15 - 250 keV	MAN	250 - 950 keV	MAN 950 - 2000 keV
Bkg:	100		114		44.3
Sigma:	0.00		0.00		0.00
LCR:	0		0		0
Half Life(hours):	0.00		0.00		
Multiplier:	1.0000				
%CV Flag Limit:	0.00		0.00		

P#	S#	A:CPM	A:%SIG	B:CPM	B:%SIG	C:CPM	C:%SIG	TIME
6	1	0.0		8.9	23.7	3.2	39.8	2.00
6	2	0.0		5.4	30.5	5.7	29.7	2.00
6	3	4.3	34.0	8.4	24.4	0.7	87.0	2.00
6	4	7.8	25.3	0.0		4.2	34.7	2.00
6	5	0.0		5.4	30.5	0.0		2.00
6	6	0.0		0.0		0.0		2.00
6	7	1.8	52.4	0.0		0.0		2.00
6	8	0.0		0.0		2.2	48.1	2.00
6	9	0.0		0.0		0.0		2.00
6	10	0.0		0.0		0.2	177	2.00
6	11	0.0		4.4	33.8	4.2	34.7	2.00
6	12	2.8	42.1	5.9	29.2	0.0		2.00
6	13	0.0		1.4	60.2	3.2	39.8	2.00
6	14	0.0		7.9	25.2	0.0		2.00
6	15	0.0		4.9	32.0	4.7	32.8	2.00
6	16	0.0		1.9	51.6	4.7	32.8	2.00
6	17	0.0		0.0		8.7	24.0	2.00
6	18	4.8	32.2	0.0		5.2	31.1	2.00
6	19	0.0		2.4	45.8	0.0		2.00
6	20	0.0		0.0		5.2	31.1	2.00

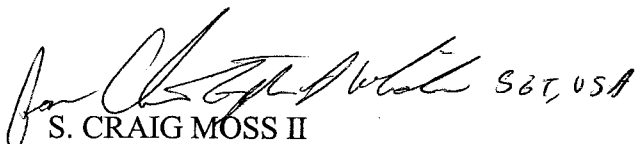
MEMORANDUM FOR: Dr. Farb, Cardiovascular Pathology
Authorization No. 701

SUBJECT: Radiological Safety Certification: Building 54, Rooms 5007 and 5044

1. The following rooms has been inspected, tested, and certified by the Health Physics Office to be free of any hazards associated with removable radioactive contamination. Any previous radiological safety restrictions are hereby removed. In the future, adding these rooms to the authorization, will require approval from the Health Physics office.

Building	Room
54	5007
54	5044

2. If you have any questions regarding this survey, you may contact SPC Parmley at 356-0058.


S. CRAIG MOSS II
MAJ, MS
Chief, Health Physics Operations

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

6900 GEORGIA AVENUE, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • 202-356-0058/59

AUDIT OF RADIOACTIVE MATERIALS AUTHORIZATIONS

Authorization Number: 701

Name of Auditor: Varessa Cox Date of Audit: 12/18/01

1. Inventory Control Officer: Dr. Park
Building Number: 54 Room Number: 3012

2. Liquid Scintillation Counter Location: Sealed Source Number: N/A
Building Number: N/A Room Number: N/A

COMPLIANCE ITEMS	YES	NO	N/A
3. Are the radioactive signs and labels in place?	X		
4. Is an inventory logbook (DA FORM 3862) kept?			X
5. Is the inventory within authorized limits?	X		
6. Are all the isotopes present (physical inventory)?			X
7. Is the WRAMC Authorization on hand?	X		
8. Is the WRAMC Regulation 40-10 on hand?	X		
9. Is the WRAMC General Provisions-Terms & Conditions on hand?	X		
10. Is the annual training (WRAMC Form 538) current?	X		
10a. Have all workers taken IPRP course which is required by WRAMC Regulation 40-10 (CH 2)?	X		
11. Is there a radioactive disposal sink with logbook?	X		

} NO Inventory

12. Personnel Changes (Additions and/or Deletions):

No changes

13. Deficiencies (if any):

NONE

14. General Comments:

NONE

Principal Investigator/ Authorized Worker:

Andrew Farb
Please Print Name

a
Signature

12/18/01
/Date

356-0086

Receipts in Inventory by Licensee									
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09/07/2001

Page 1

Decayed Inventory

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MEq)	Supplier's Name	Purchase Order Number
Farb, Andrew			Authorization Number 701						
RMR52386	H-3	Tritium-3(L)	10/11/2000	5.000E-01 mCi		6.76000E-3	0.2501	Biological Test Center	
RMR52400	H-3	H-3(L)	11/03/2000	2.000E-01 mCi		1.93150E-1	7.1464	Biological Test Center	
Total Number of Receipts :: 2									

all turned in
No isotopes in lab

The principal user's/authorized worker's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Principal User's/ Authorized Worker's Signature: *[Signature]* Date: 10/15/01

WALTER REED ARMY MEDICAL CENTER

HEALTH PHYSICS OFFICE

6900 Georgia Avenue, Northwest • Building 41, Room 38 • Washington, D.C. 20307-5001 • (202) 356-0058/59

SOURCE VIAL RECORD

Radioactive Waste Turn-in

Date: 24 Sept 01

Authorization Number: #701

HPO RECEIPT NO.	ISOTOPES	ORIGINAL QUANTITY	REMAINING QUANTITY	ACTIVITY (mCi)
052400	#-3	1	∅	0.2
052386	#-3	1	∅	0.5

Person Turning In the Vial: Patty Wilson
PRINT NAME

Patty Wilson
SIGNATURE

Person Receiving the Vial: Toulia M. Baldock
PRINT NAME

Toulia M. Baldock
SIGNATURE

Receipts in Inventory by Licensee

09/24/2001

Page 1

Decayed_Inventory

RAM Receipt Id	Radio-nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Fill In Current Activity	Decayed Inventory Activity (mCi)	Decayed Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
Farb, Andrew			Authorization Number 701						
RMR52366	H-3	Tritium-3(L)	10/19/2000	5.000E-01 mCi		6.74000E-3	0.2495	Biological Test Center	
RMR52400	H-3	H-3(L)	11/03/2000	2.000E-01 mCi		1.92840E-1	7.1278	Biological Test Center	
Total Number of Receipts = 2									

Both to be turned in today 9/24/01

The principal user's/authorized worker's signature on this form indicates that a physical inventory of the radionuclides listed above has been performed.

Principal User's/ Authorized Worker's Signature: [Signature] Date: 9/24/01