

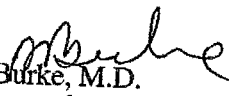
Memorandum

4 February 2003

TO: Mr. David Burton, HPO. fax 356-0086

RE: Radioisotope usage, Authorization #651, Cardiovascular AFIP

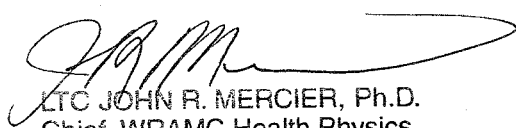
1. Please deactivate room 1030 as an active room on our radioisotope authorization. We do not foresee use of radioisotopes in the near future.
2. As this is the sole room on our authorization, this effectively terminates our authorization for the present time.
3. Thank you for your assistance. If there are any questions, please contact me at 202-782-2846.


Allen Burke, M.D.
Cardiovascular Pathology

The Health Physics Office is
granting interim approval to this
operation until the next
scheduled RCC Meeting on 4/23

Date

APPROVED BY RCC
On MAY 14 2003
DATE


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

MAR 11 2003

Radiation Lab Summary Report

Room: 1030

Building: 54, AFIP

Surveyor: SPC Flores

Authorization: 651, Dr. Allen Burke

Inspection Date: 13 Feb 2003

Department: Cardiovascular Pathology

Last Inspection:

Frequency: 90 days

Meter Model: L3

Radio-Nuclides: H-3, P-32, S-35

Meter SN: 12579

Cal Due: 19 SEP 2003

Initial Checks

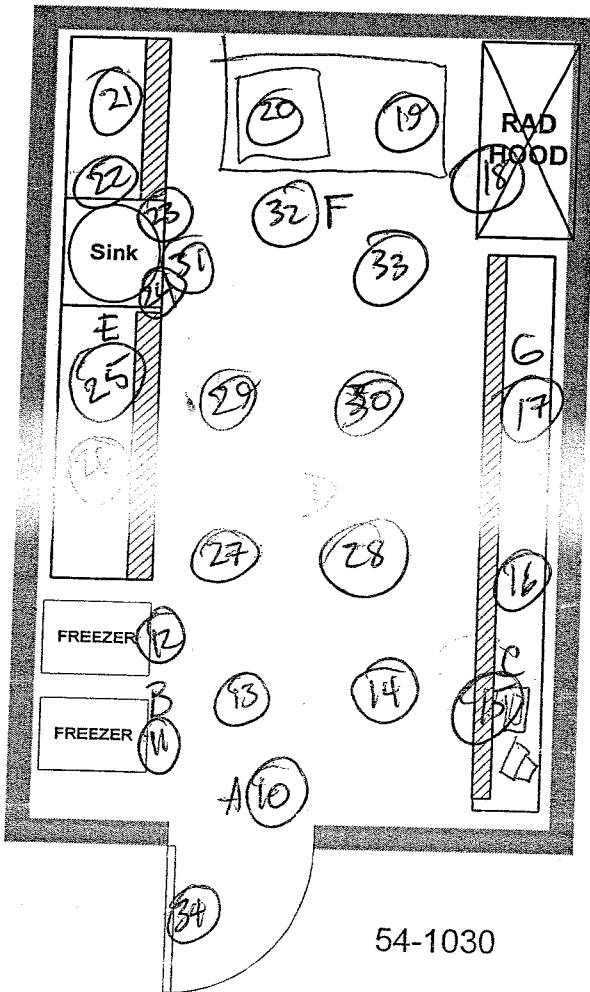
	Yes	No	NA
RAM Secure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Room Posted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work Area Posted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Posted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Surveys Performed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date of Last User Survey: N/A

Isotope / Activity Used: N/A
 User Inventory Log: N/A
 Max Daily Use: N/A
 Lab Survey Meter: Model: L3
 SN:
 Cal Due:

Meter Readings

BKG	cpm mR/hr
A	<u>100</u>
B	<u>100</u>
C	<u>100</u>
D	<u>100</u>
E	<u>100</u>
F	<u>100</u>
G	<u>100</u>



Laboratory Analysis

Technician: Kalobaca
 Auto-gamma: 27132-156
 Date: 13 Feb 03
 Swipe Numbers: 70-74
 LSC: 7117-157

Swipe	Isotope	Efficiency	MDA (dpm)	DPM	Efficiency	MDA (dpm)	DPM	Comments

Room - FINAL

Surveyor Comments

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 REVIEW PROCESS

Authorization Number: 651

Date: February 5, 2003

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		<i>JMB</i>	
WRAMC Form 1643		<i>JMB</i>	
Authorization or Amendments		<i>JMB</i>	<i>Terminate Authorization</i>
Protocol		<i>JMB</i>	
Isotopes		<i>JMB</i>	<i>No inventory</i>

OPERATIONS BRANCH

Pre-Room Survey		<i>C</i>	<i>N/A</i>
Admin Hold Survey		<i>IC</i>	<i>N/A</i>
Final Survey		<i>JMB</i>	<i>survey done 2/13/03</i>
Bioassay Program		<i>JMB</i>	<i>N/A</i>
Dosimetry Program		<i>JMB</i>	<i>N/A</i>
Instrumentation		<i>JMB</i>	<i>NA</i>

GENERAL COMMENTS

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

(TYPE OR PRINT LEGIBLY)

A. GENERAL INFORMATION

APPLICATION FOR: ☐ NEW AUTHORIZATION ☒ RENEWAL OF AUTHORIZATION NUMBER 651 ☐ AMENDMENT TO AUTHORIZATION NUMBER

APPLICANT'S NAME (LAST, FIRST, MI)

BURKE, ALLEN

APPLICANT MAILING ADDRESS (INCLUDE ORGANIZATION)

Dept of CARDIOVASCULAR PATHOLOGY
AFIP, Rm 2005, Building 54
WASHINGTON DC 20306

TELEPHONE NUMBER: 782-2846

FAX NUMBER: 782-9021

B. AUTHORIZED USERS (PLEASE LIST ON PAGE 2)

C. RADIOACTIVITY USAGE LOCATION

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

BUILDING 54, ROOM ~~3014~~ ¹⁰³⁰ ~~1030~~ ^{12/30/92}

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

BUILDING 54, ROOM ~~3014~~ ¹⁰³⁰ ~~1030~~ ^{12/30/92}

LOCATIONS OF WASTE DISPOSAL SINKS (BUILDING AND ASSOCIATED ROOMS):

NONE

D. RADIOACTIVE MATERIAL DATA

RADIOISOTOPE	CHEMICAL AND/OR PHYSICAL FORM (SEALED AND/OR UNSEALED)	POSSESSION LIMIT	USE
35S-	UTP, LIQUID, UNSEALED	1 mCi	In situ hybridization
32p	dNTP, LIQUID, UNSEALED	1 mCi	gel electrophoresis
3H	THYMIDINE	1 mCi	In situ hybridization

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.

Allen Burke
SIGNATURE OF PRINCIPAL INVESTIGATOR

8 Oct 99
DATE

ADMINISTRATIVE APPROVAL - CHIEF, DEPT. OR DIVISION (THE IMMEDIATE SUPERVISOR) OF THE PRINCIPAL INVESTIGATOR.

Allen Burke
SIGNATURE OF CHIEF, DEPT. OR DIV.

6/14/99
DATE

F. WRAMC RADIATION CONTROL COMMITTEE APPROVAL

APPROVED:

William B. Johnson

HEALTH PHYSICS OFFICER, WRAMC

WILLIAM B. JOHNSON

COL, MS

CHIEF, HEALTH PHYSICS OFFICE

APPROVED:

David W. Brock

CHAIRPERSON SUBCOMMITTEE FOR NON-HUMAN
USE: RADIATION CONTROL COMMITTEE, WRAMC

Chief, RMC Branch
Health Physics, WRAMC

AUTHORIZATION NO. :

651

EXPIRATION DATE:

Jan 03

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

6825 SIXTEEN STREET, NORTHWEST • BUILDING 41, ROOM 38 • WASHINGTON, D.C. 20307-5001 • 202-356-0058/59

AUTHORIZATION REVIEW PROCESS

AUTHORIZATION NO.: 651

DATE: 19 October 1999

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		<i>29MB</i>	Already current
WRAMC Form 1643		<i>29MB</i>	On File
Authorization or Amendments		<i>29MB</i>	Renewal
Protocol		<i>29MB</i>	Received
Isotopes		<i>29MB</i>	lower limits

OPERATIONS BRANCH

Pre-Room Survey		<i>ARM</i>	<i>NA</i>
Admin Hold Survey		<i>ARM</i>	<i>NA</i>
Final Survey		<i>ARM</i>	<i>NOTE NA</i>
Bioassay Program		<i>ARM</i>	<i>NA</i>
Dosimetry Program		<i>ARM</i>	<i>✓</i>
Instrumentation		<i>ARM</i>	<i>NA</i>

GENERAL COMMENTS

- Changes*
- 1. Delete Henging Guyang*
 - 2. All isotope limits are 1 mCi*
 - 3. Room 3012 still on 701*

Rec'd by HPO
12/13/02

Memorandum

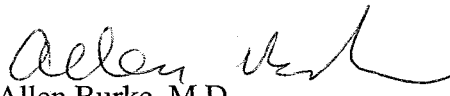
3 December, 2002

TO: Mr. David Burton, HPO. fax 356-0086

RE: Radioisotope usage, Authorization #651, Cardiovascular AFIP

1. Please transfer our authorization from room 3014 as an active room on our radioisotope authorization to room 1030. Renovations of the building are directing this move.

3. Thank you for your assistance. If there are any questions, please contact me at 202-782-2846.


Allen Burke, M.D.
Cardiovascular Pathology

The Health Physics Office is
granting interim approval to this
application until the next
scheduled HPO meeting on 2/20/03

Date DEC 20 2002


LTC JOHN R. MERCIER, Ph.D.
Radiation Safety Officer

APPROVED BY RCC

DATE FEB 1 2003

Pre-Survey Radiation Lab Form

Room: 1030

Authorization: 651

Surveyor: Ms. Coz

Building: 54

Department: Cardiovascular Pathology

Inspection Date: 12/17/02

STRUCTURAL CHECKS

	YES	NO	N/A
1. Surfaces in the room are easily decontaminated.	X		
2. Work area is isolated from pedestrian traffic flow.	X		
3. Adequate shielding is available.			X
4. Hood used for RAM has current certification.			X
5. No acoustical tiles on walls.	X		
6. No carpeting in lab areas.	X		
7. Policy in effect to control access.	X		
8. Adequate storage available for RAM.	X		
9. Adequate storage available for radioactive waste.	X		

HPO TECHNICIAN CHECKS

INITIALS

1. Entrance, work areas, storage areas and waste storage areas are posted.	<u>Coz</u>
2. Equipment for use with Radioactive Material (RAM) is labeled.	<u>TC</u>
3. NRC Form 3 and "Notice to Employees" posted.	<u>TC</u>
4. Master copy of this checklist (File Copy, Technician Copy, User Copy)	
5. Room added to survey database.	
6. Copy of master and completed checklist returned to Survey Program Manager	

COMMENTS:

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 REVIEW PROCESS

Authorization Number: 651

Date: 12/14/02

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		JMB	NA
WRAMC Form 1643		JMB	NA
Authorization or Amendments		JMB	Delete ^{em} 3014 Add ^{em} 1030
Protocol		JMB	
Isotopes		JMB	

OPERATIONS BRANCH

Pre-Room Survey		KDA	1030 posted 12/17/02
Admin Hold Survey		KDA	
Instrumentation		KDA	
Bioassay Program		KDA	
Dosimetry Program		KDA	
Instrumentation		KDA	

GENERAL COMMENTS

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

1. APPLICATION FOR:	<input type="checkbox"/> NEW AUTHORIZATION	<input checked="" type="checkbox"/> RENEWAL OF AUTHORIZATION NUMBER 651	<input type="checkbox"/> AMENDMENT TO AUTHORIZATION NUMBER
---------------------	--	---	--

2. APPLICANT'S NAME (Last, First, MI) (Principal User)

BURKE, ALLEN P

TELEPHONE NUMBER

3. APPLICANT'S MAILING ADDRESS (Include Organization)

Dept. Cardiovascular Pathology
AFIP - CPC DC 20306-6000

(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)

4. List all CO-WORKERS

Wen Min Zuo
(Wendy Creighton)

5. List all TRAINEES

6. List all TECHNICIANS

Hedwig Avallone ^{10/2/90}
Boonam Mannan ^{10/2/90}
Hengjing Ouyang

7. LOCATIONS WHERE MATERIAL WILL BE USED: (Building and Associated Rooms)

Bldg 54 (AFIP) Rooms 3014 (on 701 ~~3088~~) 3012

8. LOCATIONS WHERE MATERIAL WILL BE STORED: (Building and Associated Rooms)

3014 (on 701 ~~3088~~) 1

9. RADIOACTIVE WASTE DISPOSAL SINK IN ROOM:

D. RADIOACTIVE MATERIAL DATA

A. RADIOSOTOPE	B. CHEMICAL AND/OR PHYSICAL FORM (Sealed or Unsealed)	C. POSSESSION LIMIT	D. USE
^{32}P	unsealed	2.0 mCi	Hybridization (gels)
^{35}S	unsealed	5.0 mCi	Hybridization (in situ)
^3H	unsealed	1 mCi	Hybridization

APPROVED BY
RCC
5 JUN 1997
DATE

CERTIFICATE

(This item must be completed by applicant)

I certify that this application is prepared in conformity with WRAMC Regulations and that all information contained herein, including any supplements attached hereto, is true and correct to the best of my knowledge and belief.

AUTHORIZATION REVIEW PROCESS

AUTHORIZATION: 651

DATE: 1 / 30 / 97

RMC BRANCH

Initials

Pending Complete

Comments

WRAMC Form 538		JMB	Received
WRAMC Form 1643		JMB	Creighton Attached on file
Authorization or Amendments		JMB	RENEWAL
Protocol		JMB	P-32 + S-35 needed - Received 2/3/97
Isotopes		JMB	P-32 + S-35, H-3 Same

OPERATIONS BRANCH

Pre-room Survey		ARM	
Admin Hold Survey		ARM	8088 on auth 701 } OK 3014 on hold }
Final Survey		ARM	3012 ? still active
Emergency Program		ARM	
Dosimetry Program		ARM	
Instrumentation		ARM	

952 Received

#532

AUTHORIZATION # 651

(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 RADIATION WORKER BRIEFING

DATE - 14 Jan 98

APPROVED BY
RCC
05 MAR 1998
DATE

~~Avallone, Hedwig~~

Burke, Allen

Creighton (Zuo), Wendy (Wen)

~~Mannan, Poenam~~

~~Creighton, Wendy~~

Allen P Burke
Wen Creighton

Wendy Creighton

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

Burke, Allen (651)

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.

This Application is given
interim approval until the
next meeting of the RCC
which is scheduled for

05 FEB 1998

Revised 1 July 1994

3/98

William B. Johnson
WILLIAM B. JOHNSON
COL, MS
CHIEF, HEALTH PHYSICS OFFICE

AUTHORIZATION REVIEW PROCESS

AUTHORIZATION NO.: 651

DATE: 11/27/98

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		JNB	
WRAMC Form 1643		JNB	
Authorization or Amendments		JNB	Delete P. Mannan H. Brothman
Protocol		JNB	
Isotopes		JNB	

OPERATIONS BRANCH

Pre-Room Survey		ARM	NA
Admin Hold Survey		ARM	NA
Final Survey		ARM	NA
Bioassay Program		ARM	NA
Dosimetry Program		ARM	✓
Environmental		ARM	NA

GENERAL COMMENTS

Audit of Radioactive Materials Authorization

Inspector: Vanessa Coy

Date of Audit: 20 January 1998

Authorization Number: 651

1. Inventory Control Officer: LTC Burke
 Building Number: 54 Room Number: 2003
2. Liquid Scintillator Counter Location: Sealed Source Number: N/A
 Building Number: N/A Room Number: N/A

COMPLIANCE ITEMS	YES	NO	N/A
3. Signs and labels in place	X		
4. Inventory log (DA FORM 3862)	X		
5. Inventory within authorized limits	X		
6. Physical inventory - all isotopes present	X		
7. WRAMC Authorization on hand	X		
8. WRAMC Regulation 40-10	X		
9. WRAMC General Provisions- Terms & Conditions	X		
10. Annual Training (WRAMC Form 538) - Current	X		
10a. All workers taken IPRP Course - Required by WRAMC Regulation 40-10 (CH 2)		X	
11. Radioactive Disposal Sink with Log Book			X

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

1. Delete H. Avallone

13. Deficiencies (if any):

RCC

05 MAR 1998

DATE

14. General Comments:

1. Copy New General Provisions
 2. One person need IPRP Course - She is deleted

Principal Investigator/ Authorized Worker:

ALLEN BURKE

Please Print Name

This Application is given
interim approval until the
next meeting of the RCC
which is scheduled for 3/98

05 FEB 1998

WILLIAM B. JOHNSON
COL, MS
CHIEF, HEALTH PHYSICS OFFICE

Signature

/Date

Allen P. Burke 20 Jan 98

AUTHORIZATION REVIEW PROCESS

AUTHORIZATION NO.: 651

DATE: 1/20/98

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		<i>JNB</i>	<i>NA</i>
WRAMC Form 1643		<i>JNB</i>	<i>NA</i>
Authorization or Amendments		<i>JNB</i>	<i>Delete H. Avallone</i>
Protocol		<i>JNB</i>	<i>NA</i>
Isotopes		<i>JNB</i>	<i>NA</i>

OPERATIONS BRANCH

Pre-Room Survey		<i>ADM</i>	<i>NA</i>
Admin Hold Survey		<i>ADM</i>	<i>NA</i>
Final Survey		<i>ADM</i>	<i>NA</i>
Bioassay Program		<i>ADM</i>	<i>NA</i>
Dosimetry Program		<i>ADM</i>	<i>✓</i>

GENERAL COMMENTS

Memorandum

7 October 1997

TO: Mr. David Burton, HPO. fax 356-0086

RE: Radioisotope usage, Authorization #651, Cardiovascular AFIP

1. Please add room 3014 as an active room on our radioisotope authorization. This room is being reactivated.
2. We are planning to use ^{35}S labelled UTP, at a limit of 1 mCi, or the previous usage limit.
3. Thank you for your assistance. If there are any questions, please contact me at 202-782-2846.

Allen P. Burke
Allen Burke, LtCol, USAF, MC
Cardiovascular Pathology

William B. Johnson
WILLIAM B. JOHNSON
COL, MS
CHIEF, HEALTH PHYSICS OFFICE

30 OCT 1997

APPROVED BY

RCC

12/11/97

DATE

AUTHORIZATION REVIEW PROCESS

AUTHORIZATION: 651

DATE: 10 / 7 / 97

RMC BRANCH

	Initials		Comments
	Pending	Complete	
WRAMC Form 538		<i>DMB</i>	<i>NA</i>
WRAMC Form 1643		<i>DMB</i>	<i>NA</i>
Authorization or Amendments		<i>DMB</i>	<i>Add Rm 3014</i>
Protocol		<i>DMB</i>	<i>NA</i>
Isotopes		<i>DMB</i>	<i>NA</i>

OPERATIONS BRANCH

Pre-room Survey	<i>DMB</i>	<i>DMB</i>	
Admin Hold Survey		<i>ARM</i>	
Final Survey		<i>ARM</i>	
Emergency Program		<i>ARM</i>	
Dosimetry Program		<i>ARM</i>	
Instrumentation		<i>ARM</i>	

Posted By SPC Dupuis

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

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

RADIOACTIVE MATERIAL AUTHORIZATIONS A

Authorization Number: 651

Name of Auditor: **Vanessa Cox**

Date of Audit: 1/9/03

Principal Investigator or Authorized Representative: **Dr. Allen Burke**

Building(s) and room(s) under the Authorization: **Building 54, Room 1030**

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

No inventory

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

Comments along with any deficiencies discovered during the audit:

1. No Inventory
2. Training is due at the end of the month. The annual training form was given in November 2002 along with the renewal packet.
3. Authorization renewal is due no later than the end of the month (January 31, 2003)

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

Allen Burke
SIGNATURE

1-9-03
DATE

T90300

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: 651

Name of Auditor: Vanessa Cox

Date of Audit: July 17, 2002

Principal Investigator or Authorized Representative: Dr. Allen Burke
 Building(s) and room(s) under the Authorization: 54, Room 3014

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

no inventory

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

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.

Allen Burke 7-17-02
 SIGNATURE /DATE

HEALTH PHYSICS OFFICE

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

Summary of Authorization

Date: July 17, 2002

Radioactive Material Authorization Number: 551

Principal Investigator: Dr. Allen Burke

Laboratory Location: Building 54, Rooms: 3014

Radionuclides:

H-3	with a limit of	1 mCi
P-32	with a limit of	2 mCi
S-35	with a limit of	5 mCi

Workers: Creighton(Zuo), Wendy(Wen)

Sealed Sources: NONE

Radionuclides: NO INVENTORY

T90268

WALTER REED ARMY MEDICAL CENTER
HEALTH PHYSICS OFFICE

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

RADIOACTIVE MATERIAL AUTHORIZATIONS AUDIT

Authorization Number: 651

Name of Auditor: Vagussa Coy

Date of Audit: Jan 22, 2002

Principal Investigator or Authorized Representative:

Building(s) and room(s) under the Authorization: 54 / Rm 3014 DR. Burke

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 (1/3/02)	
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

2 no inventory

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

Comments along with any deficiencies discovered during the audit:

Meter is out of calibration. (Not using any material, Really do not need a meter)

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

Allen P. Burke 1-22-02
 SIGNATURE /DATE

Audit
7/5/01

Receipts in Inventory by Licensee

07/05/2001

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
Burke, Allen			Authorization Number 651						
RMR52614	P-32	Deoxycytidine 5'-triphosphate, tetra(triethylammonium) salt, [alpha-32P]-(L)	03/30/2001	2.500E-01 mCi	D	2.28000E-3	0.0845	Dupont NEN Research Products	VISA032601
Total Number of Receipts = 1									

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: Allen Burke Date: 7-5-01

790190

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

RADIOACTIVE MATERIALS AUTHORIZATION AUDIT

Authorization Number: 651

Name of Auditor: Theresa Coy Date of Audit: 1/18/2001

1. Inventory Control Officer: Mr. Burke
 Building Number: 54 Room Number: 2003
2. Liquid Scintillation Counter Location: N/A 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 wash sink with logbook?			X

no inventory

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

13. Deficiencies (if any):

14. General Comments:

A. Annual Training expires at the end of January. An Annual Training form was given to PU w/ suspense date of 1/22/01

Principal User/ Authorized User:

ALIEN BURKE
 PLEASE PRINT NAME

Alien Burke 1/18/01
 SIGNATURE /DATE

Audit

Receipts in Inventory by Licensee

07/18/2000

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
Burke, Allen			651						
RMR52263	P-32	Redivue Deoxycytidine 5'-[alpha-32P]triphosphate(L)	07/05/2000	2.500E-01 mCi	0	1.32530E-1	4.9035	Amersham Corporation	5535
Number of receipts = 1									

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

Signature: Allen P Burke Date: 07.19.00

12

Receipts in Inventory by Licensee

12/13/99

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
Burke, Allen			651						
RMR51965	P-32	Deoxycytidine 5'-[alpha-32P]triphosphate(L)	10/1/99	2.500E-01 mCi	0	7.18000E-3	0.2655	Amersham Corporation	021358SEP2799
RMR51972	P-32	Deoxycytidine 5'-[alpha-32P]triphosphate(L)	10/5/99	2.500E-01 mCi	0	8.70000E-3	0.3218	Amersham Corporation	021359
RMR51935	S-35	2x Uridine 5'-alpha-[35S]thiotriphosphate(L)	9/2/99	5.000E-01 mCi	0	2.22530E-1	8.2336	Amersham Corporation	021239
Number of receipts = 3									

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

Signature: Wally Creighton Date: 12, 14, 99

FROM WRC/MC H-10 202 356 0036

Audit
7/29/99

Receipts in Inventory by Licensee

7/27/99

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
Burke, Allen			Authorization Number 651						
RMR51810	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L)	6/7/99	2.500E-01 mCi	0	1.68110E-1	6.2202	Amersham Corporation	2259
Total Number of Receipts = 1									

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: Allen P Burke

Date: 29 July 1999

Receipts in Inventory by Licensee

3/31/99
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
Burke, Allen			651						
RMR51578	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L	12/30/98	2.500E-01 mCi	2/5/99 balance hand 0	1.33680E-1	4.9462	Amersham Corporation	2259
RMR51582	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L	1/6/99	2.500E-01 mCi	0	1.33660E-1	4.9454	Amersham Corporation	2259
RMR51591	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L	1/7/99	2.500E-01 mCi	0	1.33650E-1	4.9450	Amersham Corporation	2259RPL
Number of receipts = 3									

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

Signature: Dandy Grayson Date: 4 / 27 / 99

Audit
1/11/99

Receipts in Inventory by Licensee

1/11/99
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
Burke, Allen			651						
RMR51536	P-32	Deoxycytidine 5'-[alpha-32P]triphosphate(L)	12/1/98	2.500E-01 mCi	<i>0</i> <i>same</i> <i>11</i> <i>11</i>	3.43400E-2	1.2704	Amersham Corporation	2259
✓ RMR51578	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L)	12/30/98	2.500E-01 mCi		2.27470E-1	8.4163	Amersham Corporation	2259
✓ RMR51582	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L)	1/6/99	2.500E-01 mCi		2.40410E-1	8.8951	Amersham Corporation	2259
✓ RMR51591	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L)	1/7/99	2.500E-01 mCi		2.42300E-1	8.9652	Amersham Corporation	2259RPL
Number of receipts = 4									

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

Signature: Allen M. Burke Date: 1/11/99

Receipts in Inventory by Licensee

10/01/1998

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
Burke, Allen			651						
RMR51307	S-35	2x Uridine 5'-alpha-[35S]thiotriphosphate(L	07/29/1998	5.000E-01 mCi	0	3.00910E-1	11.1338	Amersham Corporation	2259
RMR51363	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(L	08/26/1998	2.500E-01 mCi	0	1.87880E-1	6.9515	Amersham Corporation	2259
Total number of receipts = 2									

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

Signature: Allen Burke Date: 28 / Oct / 98

Receipts in Inventory by Licensee

7/2/98
 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
Ray, Prabhati			659						
RMR37399	C-14	LEUCINE(L)	3/8/89	2.500E-01 mCi	.250 mci	2.48710E-1	9.23940E00	Dupont NEN Research Products	AMD1785A500
RMR50720	C-14	2x Formaldehyde, (14C): (L)	9/15/97	5.000E-01 mCi	.250 mci	2.49980E-1	9.24960E00	Dupont NEN Research Products	63414003
RMR42811	H-3	ACETYL CHOLINE(L)	6/10/91	2.500E-01 mCi	.250 mci	1.78920E-1	6.61990E00	Amersham Corporation	AMD1791A118
RMR42816	H-3	ACETYLCHOLINE(L)	6/12/91	2.500E-01 mCi	.250 mci	1.79000E-1	6.62310E00	Amersham Corporation	AMD1791A118
RMR48752	H-3	ARACHIDONIC ACID X 4(L)	6/3/95	2.000E-01 mCi	.800 mci	1.73620E-1	6.42350E00	Dupont NEN Research Products	AMD1791A117
RMR49329	H-3	Arachidonic acid, (5,8,9,11,12,14,15-3H(N)): (L)	12/8/95	2.000E-01 mCi	.200 mci	2.00000E-1	7.40000E00	Dupont NEN Research Products	AMD1796A007
RMR50332	H-3	Norepinephrine, levo-(7-3H): (L)	3/24/87	1.000E+00 mCi	.990 mci	9.90000E-1	3.66300E01	Dupont NEN Research Products	70764070
RMR50363	H-3	3X Choline chloride, (methyl-3H): (L)	4/7/97	3.000E+00 mCi	2 mci	2.75000E0	1.01750E02	Dupont NEN Research Products	7084020659

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

Signature: P. Ray Date: 07/29/98

07/29/98 13:06
7-29-1998 11:02AM

301 295 7755
FROM WRMC

DIV E.T. WRAIR
HPO 202 356 0086

0003
P.3

Receipts in Inventory by Licensee

7/2/98
Page 2
M5000SP

RAM Receipt Id	Radio- nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	FBI In Current Activity	Inventory Activity (mCi)	Inventory Activity (MBq)	Supplier's Name	Purchase Order Number
RMRS1054	P-32	Adenosine 5'-triphosphate, tetra(triethylammonium) salt, [gamma-32P]-L)	3/17/98	1.000E+00 mCi	0	0.00000E0	0.00000E00	Dupont NEN Research Products	80714011
RMRS1104	P-32	Adenosine 5'-triphosphate, tetra(triethylammonium) salt, [gamma-32P]-L)	4/9/98	5.000E-01 mCi	0	5.00000E-1	1.85000E01	Dupont NEN Research Products	80874059
RMRS1205	P-32	Adenosine 5'-triphosphate, tetra(triethylammonium) salt, [gamma-32P]-L)	6/4/98	5.000E-01 mCi	100 mci	5.00000E-1	1.85000E01	Dupont NEN Research Products	81404017650
RMRS1240	P-32	Adenosine 5'-triphosphate, tetra(triethylammonium) salt, [gamma-32P]-L)	6/22/98	5.000E-01 mCi	100 mci	5.00000E-1	1.85000E01	Dupont NEN Research Products	81584041659
Total number of receipts = 12									

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

Signature: P. Ray

Date: 07/29/98

Audit 7/29/98

re

Receipts in Inventory by Licensee

7/28/98
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
Burke, Allen			651						
RMR50966	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(1/28/98	2.500E-01 mCi	0	0.00000E0	0.00000E00	Amersham Corporation	2937
RMR51166	S-35	Uridine 5'-alpha-[35S]thiotriphosphate(5/15/98	2.495E-01 mCi	0	2.49540E-1	9.23300E00	Amersham Corporation	
Total number of receipts = 2									

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

Signature: Allen P Burke Date: 29, Jul, 98

12

001

Receipts in Inventory by Licensee

4/1/98
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
Burke, Allen			651						
RMR50966	S-35	Uridine 5'-alpha-[35S]thiotriphosphate	1/28/98	2.500E-01 mCi	0	1.96770E-1	7.28060E00	Amersham Corporation	2937

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

Signature: Allen I Burke Date: 4, 30, 98

CARDIOVASCULAR

04/30/98 THU 10:42 FAX 1 202 782 9021

Audit 1/20/98

CHAMMP Report

Receipts in Inventory by Activity for Internal License 651(Burke, Allen) (A208)

JAN 20 1998 06:15:16

Receipt Key	Radio- Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR50801	S-35	Uridine 5'-alpha-[35	10/23/1997	2.500E-01 mCi	<u>0</u>	1.295E-01	4.792E+00	Amersham Corporation	2937

1 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: Allen P BurkeDate: 20 Jan 98

CHAMMP Report

OCT 27 1995 08:02:56

Receipts in Inventory by Activity for Internal License 651(Burke, Allen)

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR49156	S-35	probe(L)	09/27/95	1.810E-01	mCi <u>0</u>	1.810E-01	6.697E+00	Lofstrand Labs	007053

1 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: Allen Burke Date: 30, Nov 95

2AC notice

CHAMMP Report
Receipts in Inventory by Activity for Internal License 651(Burke, Allen)

JUN 01 1995 09:30:20

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR48443	S-35	UTP,ALPHA(L)	01/10/95	1.000E+00 mCi	<u>0</u>	3.437E-01	1.272E+01	Amersham Corporation	DADA1595P3462
RMR48574	S-35	ATP,ALPHA(L)	03/06/95	1.000E+00 mCi	<u>0</u>	5.300E-01	1.961E+01	Amersham Corporation	DADA1593P5330
RMR48680	S-35	HIV SENSE(L)	04/07/95	4.500E-02 mCi	<u>0</u>	3.077E-02	1.138E+00	Lofstrand Labs	006503
RMR48681	S-35	HIV ANTISENSE(L)	04/07/95	4.500E-02 mCi	<u>0</u>	3.077E-02	1.138E+00	Lofstrand Labs	006503
RMR48685	S-35	URIDINE(L)	04/07/95	1.000E+00 mCi	<u>0</u>	6.839E-01	2.530E+01	Amersham Corporation	006494

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: Allen V Burke Date: 17, Feb, 95

CHAMMP Report

DEC 27 1994 07:41:45

Receipts in Inventory by Activity for Internal License 651(Burke, Allen)

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR47178	H-3	LEUCINE	11/17/93	2.500E-01 mCi	<u>Auth 701</u>	2.316E-03	8.569E-02	Sigma	DADA1593A0025
RMR48281	S-35	UTP, ALPHA X 2	11/22/94	5.000E-01 mCi	<u>0</u>	5.000E-01	1.850E+01	Amersham Corporation	DADA1595P1578

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: Allen T Burke Date: 01, 03, 95

1.3-85 103 2.2 9355 44
12-88 107 9.24 MBq 249pk

CHAMP Report
Receipts in Inventory by Activity for Internal License d51(Burke, Allen)

UCI 20 1994 03:34:00

Key	Radio- Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(Bq)	Supplier	P.O. Number
RHR47178	H-3	LEUCINE	11/17/93	2.500E-01 mCi	<u>2.500 E-01</u>	2.342E-03	8.645E-02	Sigma	BADA1593A0025
RHR48142	P-32	dCTP, ALPHA	09/27/94	2.500E-01 mCi	<u>0 mci</u>	2.500E-01	9.250E+00	Amersham Corporation	006000
RHR48009	S-35	HIV SENSE	08/12/94	6.800E-02 mCi	<u>0 mci</u>	6.800E-02	2.516E+00	Lofstrand Labs	5888
RHR48010	S-35	HIV ANTISENSE	08/12/94	6.800E-02 mCi	<u>0 mci</u>	6.800E-02	2.516E+00	Lofstrand Labs	5888
RHR48073	S-35	UTP, ALPHA	09/07/94	2.500E-01 mCi	<u>0 mci</u>	2.500E-01	9.250E+00	Amersham Corporation	BADA1593A0092
RHR48143	S-35	UTP, ALPHA	09/27/94	2.500E-01 mCi	<u>0 mci</u>	2.500E-01	9.250E+00	Amersham Corporation	006000

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:

Allen BurkeDate: 11/13/94

8399 424 103

Audit
6/29/94CHAMMP Report
Receipts in Inventory by Activity for Internal License 651(Burke, Allen)

JUN 20 1994 08:10:58

Key	Radio-Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR46938	H-3	PN200-110	09/15/93	2.500E-01 mCi	transferred to Dr. Fawcett			0 Amersham Corporation	DADA1593A0092
RMR47762	S-35	UTP, ALPHA	05/23/94	2.500E-01 mCi	0	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092

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: Allen Burke Date: 6,29,94

CHAMP Report

MAY 12 1994 07:39:40

Receipts in Inventory by Activity for Internal License 651(Burke, Allen)

P.02

AFIP CV PATH

06-06-1994 15:36 202 576 9021

Key	Radio- Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR46938	H-3	PM200-110 → Fair	09/15/93	2.500E-01 mCi	45 μ Ci	9.566E-02	3.539E+00	Amersham Corporation	DADA1593A0092
RMR46942	H-3	TYROSINE → Fair	09/16/93	2.500E-01 mCi	25 μ Ci	5.875E-05	2.174E-03	Sigma	DADA1591A0025
RMR47226	P-32	ATP, GAMMA	12/06/93	2.500E-01 mCi	0	5.923E-02	2.192E+00	Amersham Corporation	DADA1593A0092
RMR47393	P-32	ATP, GAMMA	01/19/94	2.500E-01 mCi	0	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092
RMR47657	P-32	CTP, ALPHA	04/18/94	2.500E-01 mCi	0	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092
RMR47710	P-32	CTP, ALPHA	05/05/94	2.500E-01 mCi	0	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092
RMR47360	S-35	HIV PROBE	01/06/94	1.360E-01 mCi	0	1.360E-01	5.032E+00	Lofstrand Labs	AMP 005372
RMR47392	S-35	UTP, ALPHA X 2	01/19/94	5.000E-01 mCi	0	5.000E-01	1.850E+01	Amersham Corporation	DADA1593A0092
RMR47538	S-35	URIDINE	03/08/94	2.500E-01 mCi	0	2.500E-01	9.250E+00	Amersham Corporation	DADA1593A0092

9 Records Processed

Signature: _____

Allen P Burke

Date: _____

7, June, 94

Receipts in Inventory by Activity for Internal Licensee 651 (Kunko, Allen)

Key	Radio- Article	Chemical/Physical Form	Receipt Date	Amount Ac	Current Activity	Receipt Activity	Inventory Activity	Inventory Quantity	P. O. Number
RMR46938	4-3	PG2601 <i>→ Fairb</i>	09/15/93	2.500E-01	mcg	1.500E-01	1.500E-01	1.500E-01	DATA159340092
RMR46942	4-3	PG2601 <i>→ Fairb</i>	09/15/93	2.500E-01	mcg	2.500E-01	2.500E-01	2.500E-01	DATA159340092
RMR47225	4-32	ATP, GAMMA	12/06/93	2.500E-01	mcg	2.500E-01	2.500E-01	2.500E-01	DATA159340092
RMR47303	4-32	ATP, GAMMA	01/19/94	2.500E-01	mcg	2.500E-01	2.500E-01	2.500E-01	DATA159340092
RMR47657	4-32	CTP, ALPHA	04/18/94	2.500E-01	mcg	2.500E-01	2.500E-01	2.500E-01	DATA159340092
RMR47716	4-32	CTP, ALPHA	05/05/94	2.500E-01	mcg	2.500E-01	2.500E-01	2.500E-01	DATA159340092
RMR47360	4-35	ATP, GAMMA	01/06/94	1.360E-01	mcg	1.360E-01	1.360E-01	1.360E-01	DATA159340092
RMR47392	4-35	CTP, ALPHA X 2	01/19/94	5.000E-01	mcg	5.000E-01	5.000E-01	5.000E-01	DATA159340092
RMR47548	4-35	URIDINE	01/08/94	2.500E-01	mcg	2.500E-01	2.500E-01	2.500E-01	DATA159340092

Records Processed

Signature: _____

Allen P Kunko

7 June 94

P.02

AFIP CV PATH

200 4 16 5021

200 4 16 1994 15:35

701*8

CHAMMP Report

DEC 28 1993 07:53:59

Receipts in Inventory by Activity for Internal License 651(Burke, Allen)

Audit
Key

Radio- Nuclide	Chemical/Physical Form	Receipt Date	Receipt Activity	Current Activity	Inventory Activity(mCi)	Inventory Activity(MBq)	Supplier	P.O. Number
RMR46938 ✓	H-3	PN200-110	09/15/93	2.500E-01 mCi	<u>0.15</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092
RMR46942 ✓	H-3	TYROSINE	09/16/93	2.500E-01 mCi	<u>0.250</u>	2.500E-01	9.250E+00 Sigma	DADA1591A0025
RMR46979 ✓	H-3	cAMP X 2	09/27/93	1.000E-02 mCi	<u>0.00630</u>	1.000E-02	3.700E-01 Amersham Corporation	DADA1593A0092
RMR46980 ✓	H-3	cGMP X 2	09/28/93	3.000E-03 mCi	<u>0.003</u>	3.000E-03	1.110E-01 Amersham Corporation	DADA1593A0092
RMR47067	P-32	ATP, GAMMA	10/19/93	2.500E-01 mCi	<u>0</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092
RMR47066	P-32	UTP X 2	10/19/93	5.000E-01 mCi	<u>0</u>	5.000E-01	1.850E+01 Amersham Corporation	DADA1593A0092
RMR46904	P-32	ATP	09/13/93	2.500E-01 mCi	<u>0</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092
RMR47137	P-32	ATP	11/08/93	2.500E-01 mCi	<u>0</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092
RMR47226	P-32	ATP, GAMMA	12/06/93	2.500E-01 mCi	<u>0.250</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092
RMR46905	S-35	UTP	09/13/93	2.500E-01 mCi	<u>0</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092
RMR47279	S-35	UTP, ALPHA	12/14/93	2.500E-01 mCi	<u>0</u>	2.500E-01	9.250E+00 Amersham Corporation	DADA1593A0092

Trans
to faro
DINOI

0.00630

11 Records Processed

45748 Thymidine ✓ 0.15 mCi AUTH 701

Signature: Allen Burke Date: Jan 15, 94

06/24/93

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 651

HPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ORIGINAL ACTIVITY IN MILLCURIES	ENTER CURRENT ACTIVITY IN MILLCURIES	LAST UPDATED ACTIVITY IN MILLCURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
=====									
Total millicuries H-3									
5748	THYMIDINE	12/03/92	1.0000	<u>AUTH 701</u>	0.5000	AMERSHAM	DADA1590A0041	12Q1	
6424	ESTRADIOL	05/20/93	0.2500	<u>✓</u>	0.2500	AMERSHAM	DADA1590A0041	5Q65	
Total activity			1.2500		Isotope possession limit		1.0000		
Total millicuries P-32									
6143	ATP, GAMMA	03/22/93	0.2500	<u>0</u>	0.0000	AMERSHAM	DADA1590A0041	3Q3	
6278	ATP, GAMMA	04/19/93	0.2500	<u>0</u>	0.1700	AMERSHAM	DADA1590A0041	4Q3	
6406	ATP, GAMMA	05/17/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	5Q3	
6530	ATP, GAMMA	06/14/93	0.2500	<u>0.13</u>	0.2500	AMERSHAM	DADA1593A0041	6Q2	
Total activity			1.0000	<u>0.13</u>	Isotope possession limit		1.0000		
Total millicuries S-35									
6139	ALKALINE HYDROL	03/18/93	0.5270	<u>0.2635</u>	0.0000	LOFSTRANDS LABS	DADA1593P2637		
6164	UTP	03/26/93	1.0000	<u>0</u>	0.8500	AMERSHAM	DADA1590A0041	3Q5	
6185	HIV PROBE X 2	04/01/93	0.1495	<u>0</u>	0.0000	LOFSTRAND LABS	DADA1593P2637		
6186	NICK TRANS X 2	04/01/93	0.1495	<u>0</u>	0.0000	LOFSTRAND LABS	DADA1593P2637		
6286	UTP	04/20/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	4Q2	
6423	UTP	05/20/93	1.0000	<u>0.50</u>	1.0000	AMERSHAM	DADA1590A0041	5Q6	
6501	HIV-PROBE	06/08/93	0.1360	<u>0</u>	0.1360	LOFSTRAND LABS	DADA1593P2637		
Total activity			3.2120	<u>0.7635</u>	Isotope possession limit		5.0000		

Signature

Allen Kuch

Date

29 June

09/16/93

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 651

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 H-3									
46938	PN200-110	09/15/93	0.2500	<u>0.25</u>	0.2500	AMERSHAM	DADA1593A009		
Total Activity			0.2500	<u>0.25</u>		Isotope Possesion Limit		1.0000	
Total millicuries P-32									
46530	ATP,GAMMA	06/14/93	0.2500	<u>0</u>	0.1300	AMERSHAM	DADA1593A004	6Q2	
46585	ATP,GAMMA	06/29/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A004	6Q7	
46674	ATP,GAMMA	07/19/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1593A009		
46735	ATP,GAMMA	08/02/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1593A009	7Q8	
46823	ATP,GAMMA	08/19/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1593A009	8Q7	
46904	ATP	09/13/93	0.2500	<u>0.25</u>	0.2500	AMERSHAM	DADA1593A009		
Total Activity			1.5000	<u>0.25</u>		Isotope Possesion Limit		1.0000	
Total millicuries S-35									
46139	ALKALINE HYDROL	03/18/93	0.5270	<u>0</u>	0.2635	LOFSTRANDS	DADA1593P263		
46423	UTP	05/20/93	1.0000	<u>0</u>	0.5000	AMERSHAM	DADA1590A004	5Q6	
46586	UTP	06/29/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A004	6Q7	
46690	HIV-1 PROBE	07/22/93	0.2720	<u>0</u>	0.2720	LOFSTRAND LAB	DADA1593P263		
46692	UTP	07/22/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1593A009	7Q6	
46905	UTP	09/13/93	0.2500	<u>0.25</u>	0.2500	AMERSHAM	DADA1593A009		
Total Activity			2.5490	<u>0.25</u>		Isotope Possesion Limit		5.0000	

Signature

Robert Burke Date 21 Sept

AUTHORIZATION ISOTOPE INVENTORY

04/30/93

(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 651

HPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ORIGINAL ACTIVITY IN MILLCURIES	ENTER CURRENT ACTIVITY IN MILLCURIES	LAST UPDATED ACTIVITY IN MILLCURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
=====									
Total millicuries Ca-45									
45025	CaCl	07/20/92	5.0000	<u>4.04</u>	4.0400	AMERSHAM	DADA1590A0041 7Q4		hld @ HPO
Total activity			5.0000		Isotope possession limit		<u>5.0000</u>		
Total millicuries Ce-151									
45974	MICROSPHERES	02/05/93	0.5000	<u>1.00</u>	0.5000	NEN DUPONT	0041		
Total activity			0.5000		Isotope possession limit		2.0000		
Total millicuries Cr-51									
45651	NaCHROMATE	11/12/92	1.0000	<u>0.52</u>	0.5200	AMERSHAM	DADA1590A0041 11Q3		
45916	NaCHROMATE	01/15/93	0.5000	<u>0.25</u>	0.5000	NEN DUPONT	2500		
45942	NaCHROMATE	01/25/93	1.0000	<u>0.50</u>	1.0000	AMERSHAM	DADA1590A0041 1Q8		
Total activity			2.5000	<u>1.27</u>	Isotope possession limit		2.0000		
Total millicuries H-3									
45429	COCAINE	09/29/92	0.1000	<u>0.0876</u>	0.0876	NEN DUPONT	DADA1592PH408		
45748	THYMIDINE	12/03/92	1.0000	<u>0.15</u>	0.5000	AMERSHAM	DADA1590A0041 12Q1		
45863	PHENYLISOPROPYA	12/31/92	0.2500	<u>0.25</u>	0.2500	AMERSHAM	DADA1590A0041 12Q8		
Total activity			1.3500	<u>0.488</u>	Isotope possession limit		1.0000		
Total millicuries P-32									
45870	ATP, GAMMA	01/05/93	0.2500	<u>0</u>	0.1500	AMERSHAM	DADA1590A0041 12Q9		
45949	ATP, GAMMA	01/27/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 12Q10		
46017	ATP	02/16/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041		
46143	ATP, GAMMA	03/22/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 3Q3		
46278	ATP, GAMMA	04/19/93	0.2500	<u>0.17mCi</u>	0.2500	AMERSHAM	DADA1590A0041 4Q3		
Total activity			1.2500	<u>0.17mCi</u>	Isotope possession limit		1.0000		
Total millicuries S-35									
45892	HIV-1 PROBE	01/08/93	0.3750	<u>0</u>	0.3750	LOFSTRAND LABS	2545		
45893	PUC-19 PROBE	01/08/93	0.3750	<u>0</u>	0.3750	LOFSTRAND LABS	2545		
45950	UTP	01/27/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 1Q5		
46028	HIV-1 PROBEX 2	02/18/93	0.1360	<u>0</u>	0.1360	LOFSTRAND LABS	0074		
46139	ALKALINE HYDROL	03/18/93	0.5270	<u>0</u>	0.5270	LOFSTRANDS LABS	DADA1593P2637		
46164	UTP	03/26/93	1.0000	<u>0.84</u>	1.0000	AMERSHAM	DADA1590A0041 3Q5		

HPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ORIGINAL ACTIVITY IN MILLCURIES	ENTER CURRENT ACTIVITY IN MILLCURIES	LAST UPDATED ACTIVITY IN MILLCURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
6185	HIV PROBE X 2	04/01/93	0.1495	<u>0</u>	0.1495	LOFSTRAND LABS	DADA1593P2637		
6186	NICK TRANS X 2	04/01/93	0.1495	<u>0</u>	0.1495	LOFSTRAND LABS	DADA1593P2637		
6286	UTP	04/20/93	0.2500	<u>.25</u>	0.2500	AMERSHAM	DADA1590A0041	4Q2	
Total activity			3.2120		Isotope possession limit		5.0000		

Signature Ahle Date 4 May

AUTHORIZATION ISOTOPE INVENTORY

3/23/93

(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 651

HPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ORIGINAL ACTIVITY IN MILLCURIES	ENTER CURRENT ACTIVITY IN MILLCURIES	LAST UPDATED ACTIVITY IN MILLCURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
=====									
Total millicuries Ca-45									
45025	CaCl	07/20/92	5.0000	<u>4.04</u>	4.0400	AMERSHAM	DADA1590A0041 7Q4		hld @ HPO
Total activity			5.0000		Isotope possession limit		6 1.0000		
Total millicuries Ce-151 → 1.000									
45974	MICROSPHERES	02/05/93	0.5000	<u>1.000</u>	0.5000	NEN DUPONT	0041		
Total activity			0.5000		Isotope possession limit		2.0000		
Total millicuries Cr-51 → 1.000									
45651	NaCHROMATE	11/12/92	1.0000	<u>0.52</u>	0.5200	AMERSHAM	DADA1590A0041 11Q3		
45916	NaCHROMATE	01/15/93	0.5000	<u>0.25</u>	0.5000	NEN DUPONT	2500		
45942	NaCHROMATE	01/25/93	1.0000	<u>0.50</u>	1.0000	AMERSHAM	DADA1590A0041 1Q8		
Total activity			2.5000	<u>1.27</u>	Isotope possession limit		2.0000		
Total millicuries H-3									
45429	COCAINE	09/29/92	0.1000	<u>0.0876</u>	0.0876	NEN DUPONT	DADA1592PH408		
45748	THYMIDINE	12/03/92	1.0000	<u>0.15</u>	0.5000	AMERSHAM	DADA1590A0041 12Q1		
45863	PHENYLISOPROPYA	12/31/92	0.2500	<u>0.250</u>	0.2500	AMERSHAM	DADA1590A0041 12Q8		
Total activity			1.3500	<u>0.488</u>	Isotope possession limit		1.0000		
Total millicuries P-32									
45870	ATP, GAMMA	01/05/93	0.2500	<u>0</u>	0.1500	AMERSHAM	DADA1590A0041 12Q9		
45949	ATP, GAMMA	01/27/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 12Q10		
46017	ATP	02/16/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041		
46143	ATP, GAMMA	03/22/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 3Q3		
Total activity			1.0000	<u>0</u>	Isotope possession limit		1.0000		
Total millicuries S-35									
45252	METHIONINE X 2	01/13/93	2.0000	<u>0</u>	0.0000	AMERSHAM	DADA1590A0041 8Q7		
45892	HIV-1 PROBE	01/08/93	0.3750	<u>0</u>	0.3750	LOFSTRAND LABS	2545		
45893	PUC-19 PROBE	01/08/93	0.3750	<u>0</u>	0.3750	LOFSTRAND LABS	2545		
45950	UTP	01/27/93	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 1Q5		
46028	HIV-1 PROBEX 2	02/18/93	0.1360	<u>0</u>	0.1360	LOFSTRAND LABS	0074		
46139	ALKALINE HYDROL	03/18/93	0.5270	<u>0</u>	0.5270	LOFSTRANDS LABS	DADA1593P2637		

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 activity

3.6630

Isotope possession limit

5.0000

Signature *Alfredo*

Date 4 May

AUTHORIZATION ISOTOPE INVENTORY

01/04/93

(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 651

HPO	CHEMICAL	ORIGINAL	ENTER CURRENT	LAST UPDATED	VENDOR	PURCHASE	CALL	REMARKS
TAG	FORM	DATE	ACTIVITY IN	ACTIVITY IN	ACTIVITY IN	ORDER	NO	
NO		RECEIVED	MILLCURIES	MILLCURIES	MILLCURIES	NUMBER		
=====								
Total millicuries Ca-45								
45025	CaCl	07/20/92	5.0000	<u>4.04</u>	5.0000	AMERSHAM	DADA1590A0041 7Q4	hld @ HPO
Total activity			5.0000	<u>4.04</u>	Isotope possession limit		<u>6.0000</u>	
Total millicuries Ce-141								
44682	MICROSPHERES	05/19/92	0.5000	<u>0</u>	0.4280	NEN DUPONT	DADA1592PA952	
Total activity			0.5000	<u>0</u>	Isotope possession limit		2.0000	
Total millicuries Cr-51								
44421	NaCr	04/01/92	2.0000	<u>0</u>	1.9000	AMERSHAM	DADA1590A0041 3Q6	
44683	MICROSPHERES	05/19/92	1.0000	<u>0</u>	0.6760	NEN DUPONT	DADA1592PA952	
45651	NaCHROMATE	11/12/92	1.0000	<u>0.520</u>	1.0000	AMERSHAM	DADA1590A0041 11Q3	
45864	NaCHROMATE	12/31/92	1.0000	<u>transferred 671</u>	1.0000	AMERSHAM	DADA1590A0041 12Q8	
Total activity			5.0000	<u>0.520</u>	Isotope possession limit		2.0000	
Total millicuries H-3								
45429	COCAINE	09/29/92	0.1000	<u>0.0876</u>	0.1000	NEN DUPONT	DADA1592PH408	
45748	THYMIDINE	12/03/92	1.0000	<u>0.50</u>	1.0000	AMERSHAM	DADA1590A0041 12Q1	
45863	PHENYLISOPROPYA	12/31/92	0.2500	<u>0.250</u>	0.2500	AMERSHAM	DADA1590A0041 12Q8	
Total activity			1.3500	<u>0.8376</u>	Isotope possession limit		1.0000	
Total millicuries Nb-95								
44686	MICROSPHERES	05/19/92	0.5000	<u>0</u>	0.4280	NEN DUPONT	DADA1592PA952	
Total activity			0.5000	<u>0</u>	Isotope possession limit		2.0000	
Total millicuries P-32								
44870	ADENOSINE	06/22/92	1.0000	<u>0</u>	0.2300	AMERSHAM	DADA1590A0041	
44971	dCTP	07/13/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 6Q9	
45101	ATP, GAMMA	08/03/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 7Q12	
45228	ATP	08/24/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	
45229	dCTP	08/24/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	
45415	dCTP	09/28/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	
45446	ATP, GAMMA	10/05/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 9Q11	
45571	dCTP	10/28/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 10Q3	
45668	ATP, GAMMA	11/16/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 11Q3	

45530 P32 ATP 60uCi 0 Page 1 trans from 680

IPO TAG NO	CHEMICAL FORM	ORIGINAL DATE RECEIVED	ORIGINAL ACTIVITY IN MILLCURIES	ENTER CURRENT ACTIVITY IN MILLCURIES	LAST UPDATED ACTIVITY IN MILLCURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMARKS
45763	UTP	12/07/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	12Q2	
45870				<u>0.150</u>					
	Total activity		3.2500	<u>0.150</u>		Isotope possession limit		1.0000	
Total millicuries S-35									
44897	METHIONINE	06/29/92	1.0000	<u>0</u>	1.0000	AMERSHAM	DADA1590A0041	6Q6	
44957	HIV-1	07/10/92	0.1540	<u>0</u>	0.1540	LOFSTRAND LABS	2059		
44989	UTP	07/14/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	6Q8	
45026	METHIONINE	07/20/92	1.0000	<u>0</u>	1.0000	AMERSHAM	DADA1590A0041	7Q5	
45067	dATP	07/27/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	7Q9	
45252	METHIONINE X 2	08/26/92	2.0000	<u>0</u>	2.0000	AMERSHAM	DADA1590A0041	8Q7	
45320	PROBE	09/08/92	0.3180	<u>0</u>	0.3180	LOFSTRAND LABS	2206		
45416	UTP	09/28/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041		
45447	UTP	10/05/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	9Q11	
45570	dATP	10/28/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	10Q3	
45669	dATP	11/16/92	1.0000	<u>0</u>	1.0000	AMERSHAM	DADA1590A0041	11Q3	
45670	UTP	11/16/92	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	11Q3	
45892				<u>0.375</u>					
45893	Total activity		6.9720	<u>0.75</u>		Isotope possession limit		5.0000	
Total millicuries Sc-46									
44685	MICROSPHERES	05/19/92	0.5000	<u>0</u>	0.4100	NEN DUPONT	DADA1592PA952		
	Total activity		0.5000	<u>0</u>		Isotope possession limit		1.0000	
Total millicuries Sr-85									
44684	MICROSPHERES	05/19/92	0.5000	<u>0</u>	0.3920	NEN DUPONT	DADA1592PA952		
	Total activity		0.5000	<u>0</u>		Isotope possession limit		2.0000	

Signature Allen Smith Date 13 Jan 93

Allen P Burke

8 July 92

Page No. 1
07/01/92

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.)

HPD TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
Audit 7/8/92									

** Authorization Number: 651

* Total Millicuries Ce-141

44127	MICROSPHERES	02/06/92	0.5000	0	0.2600	NEN DUPONT	DADA1592P3694		
44682	MICROSPHERES	05/19/92	0.5000	0.428	0.5000	NEN DUPONT	DADA1592PA952		
* Subsubtotal *			1.0000		0.7600				

* Total Millicuries Cr-51

44128	MICROSPHERES	02/06/92	1.0000	0	0.0140	NEN DUPONT	DADA1592P3694		
44421	NaCr	04/01/92	2.0000	1.90	2.0000	AMERSHAM	DADA1590A0041 3Q6		
44683	MICROSPHERES	05/19/92	1.0000	0.676	1.0000	NEN DUPONT	DADA1592PA952		
* Subsubtotal *			4.0000		3.0140				

* Total Millicuries Nb-95

43648	MICROSPHERES	11/01/91	0.5000	0	0.5000	NEN DUPONT	DADA1592P0965		
44131	MICROSPHERES	02/06/92	0.5000	0	0.3560	NEN DUPONT	DADA1592P3694		
44686	MICROSPHERES	05/19/92	0.5000	0.428	0.5000	NEN DUPONT	DADA1592PA952		
* Subsubtotal *			1.5000		1.3560				

* Total Millicuries P-32

44332	ATP, GAMMA	03/16/92	0.2500	0	0.1000	AMERSHAM	DADA1590A0041 3Q1		
44518	ATP, GAMMA	04/15/92	0.2500	0	0.2500	AMERSHAM	DADA1590A0041 4Q2		
44712	ATP, GAMMA	05/26/92	0.2500	0	0.2500	AMERSHAM	DADA1590A0041 5Q2		
44870	ADENOSINE	06/22/92	1.0000	0.23	1.0000	AMERSHAM	DADA1590A0041		
* Subsubtotal *			1.7500		1.6000				

* Total Millicuries S-35

44026	UTP	01/15/92	0.2500	0.20	0.2500	AMERSHAM	DADA1590A0041 1Q2		
44510	HIV PROBES	04/13/92	0.6710	0	0.6710	LOFSTRAND LABS	ARP 3557		DELROD B
44649	NICK TRANS X 4	05/12/92	0.7860	0	0.7860	LOFSTRAND	3594		
44810	HIV-1 PROBE	06/09/92	0.2590	0	0.2590	LOFSTRAND LABS	1975		
44897	METHIONINE	06/29/92	1.0000	1.0	1.0000	AMERSHAM	DADA1590A0041 6Q6		
* Subsubtotal *			2.9660		2.9660				

* Total Millicuries Sc-46

44130	MICROSPHERES	02/06/92	0.5000	0	0.3620	NEN DUPONT	DADA1592P3694		
44685	MICROSPHERES	05/19/92	0.5000	0.041	0.5000	NEN DUPONT	DADA1592PA952		

Allen P. Kuehse
8 July 92

Page No. 2
 07/01/92

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.)

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

* Subsubtotal *

1.0000 0.8620

* Total Millicuries Sr-85

44-29	MICROSPHERES	02/06/92	0.5000	<u>0</u>	0.3840	NEN DUPONT	DADA1592P3694
44-84	MICROSPHERES	05/19/92	0.5000	<u>0.245 0.392</u>	0.5000	NEN DUPONT	DADA1592PA952

* Subsubtotal *

1.0000 0.8840

** Subtotal **

13.2160 11.4420

*** Total ***

13.2160 11.4420

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.)

HPD TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
4/15/92 recd									

** Authorization Number: 651

* Total Millicuries Ce-141

43644	MICROSPHERES	11/01/91	0.5000	0	0.5000	NEN DUPONT	DADA1592P0965		
44127	MICROSPHERES	02/06/92	0.5000	0.260	0.5000	NEN DUPONT	DADA1592P3694		
* Subsubtotal *			1.0000		1.0000				

* Total Millicuries Cr-51

43645	MICROSPHERES	11/01/91	1.0000	0	1.0000	NEN DUPONT	DADA1592P0965		
44128	MICROSPHERES	02/06/92	1.0000	0.014	1.0000	NEN DUPONT	DADA1592P3694		
44421	NaCr	04/01/92	2.0000	2.0	2.0000	AMERSHAM	DADA1590A0041	3Q6	
* Subsubtotal *			4.0000		4.0000				

* Total Millicuries Nb-95

43648	MICROSPHERES	11/01/91	0.5000	0	0.5000	NEN DUPONT	DADA1592P0965		
44131	MICROSPHERES	02/06/92	0.5000	0.356	0.5000	NEN DUPONT	DADA1592P3694		
* Subsubtotal *			1.0000		1.0000				

* Total Millicuries P-32

43801	dATP	12/02/91	0.2500	0	0.2500	AMERSHAM	DADA1590A0041	11Q1	
44024	ATP, GAMMA	01/15/92	0.2500	0	0.2500	AMERSHAM	DADA1590A0041	1Q2	
44025	dATP	01/15/92	0.2500	0	0.2500	AMERSHAM	DADA1590A0041	1Q2	
44207	ATP, GAMMA	02/18/92	0.2500	0	0.2500	AMERSHAM	DADA1590A0041	2Q3	
44332	ATP, GAMMA	03/16/92	0.2500	0.1	0.2500	AMERSHAM	DADA1590A0041	3Q1	
* Subsubtotal *			1.2500		1.2500				

* Total Millicuries S-35

43795	UTP	11/27/91	0.2500	0	0.1500	AMERSHAM	DADA1590A0041	11Q1	
44026	UTP	01/15/92	0.2500	0.25	0.2500	AMERSHAM	DADA1590A0041	1Q2	
* Subsubtotal *			0.5000		0.4000				

* Total Millicuries Sc-46

43647	MICROSPHERES	11/01/91	0.5000	0	0.5000	NEN DUPONT	DADA1592P0965		
44130	MICROSPHERES	02/06/92	0.5000	0.362	0.5000	NEN DUPONT	DADA1592P3694		
* Subsubtotal *			1.0000		1.0000				

* Total Millicuries Sr-85

43646	MICROSPHERES	11/01/91	0.5000	0	0.5000	NEN DUPONT	DADA1592P0965		
-------	--------------	----------	--------	---	--------	------------	---------------	--	--

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.)

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
44129	MICROSPHERES	02/06/92	0.5000	<u>0.384</u>	0.5000	NEN DUPONT	DADA1592P3694		
* Subsubtotal *			1.0000		1.0000				
** Subtotal **			9.7500		9.6500				
*** Total ***			9.7500		9.6500				

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.)

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
Audit	1/9/92								

** Authorization Number: 651

* Total Millicuries Ce-141

42547	DOG HEARTS	04/30/91	0.0040	<u>0</u>	0.0040	VANDERBILT UNIV	N/A		
43340	MICROSPHERES	09/06/91	0.5000	<u>0</u>	0.3725	NEN DUPONT	W74M4H1240060		
43544	MICROSPHERES	11/01/91	0.5000	<u>0.5</u>	0.5000	NEN DUPONT	DADA1592P0965		
* Subsubtotal *			1.0040		0.8765				

* Total Millicuries Cr-51

42548	DOG HEARTS	04/30/91	0.0040	<u>0</u>	0.0040	VANDERBILT UNIV	N/A		
43341	MICROSPHERES	09/06/91	0.5000	<u>0</u>	0.1320	NEN DUPONT	W74M4H1240060		
43545	MICROSPHERES	11/01/91	1.0000	<u>1.0</u>	1.0000	NEN DUPONT	DADA1592P0965		
* Subsubtotal *			1.5040		1.1360				

* Total Millicuries I-125

42544	DOG HEARTS	04/30/91	0.0040	<u>0</u>	0.0040	VANDERBILT UNIV	N/A		
* Subsubtotal *			0.0040		0.0040				

* Total Millicuries Nb-95

42545	DOG HEARTS	04/30/91	0.0040	<u>0</u>	0.0040	VANDERBILT UNIV	N/A		
43344	MICROSPHERES	09/06/91	0.5000	<u>0</u>	0.4040	NEN DUPONT	W74M4H1240060		
43548	MICROSPHERES	11/01/91	0.5000	<u>0.5</u>	0.5000	NEN DUPONT	DADA1592P0965		
* Subsubtotal *			1.0040		0.9080				

* Total Millicuries P-32

43519	ATP, GAMMA	10/07/91	0.2500	<u>0</u>	0.2500	AMERSHAM	3150		
43616	ATP, GAMMA	10/28/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	10Q2	
43794	ATP, GAMMA	11/27/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	11Q1	
43800	ATP X 2	12/02/91	0.5000	<u>0</u>	0.5000	AMERSHAM	DADA1590A0041	11Q1	
43801	dATP	12/02/91	0.2500	<u>0.250</u>	0.2500	AMERSHAM	DADA1590A0041	11Q1	
* Subsubtotal *			1.5000		1.5000				

* Total Millicuries S-35

43474	UTP	09/30/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DAMD1791M3150		
43626	URIDINE	10/29/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041		
43795	UTP	11/27/91	0.2500	<u>0.15</u>	0.2500	AMERSHAM	DADA1590A0041	11Q1	
* Subsubtotal *			0.7500		0.7500				

Chunhe 1-9-92

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.)

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
* Total Millicuries Sc-46									
43543	MICROSPHERES	09/06/91	0.5000	<u>0</u>	0.3950	NEN DUPONT	W74M4H1240060		
43647	MICROSPHERES	11/01/91	0.5000	<u>0.5</u>	0.5000	NEN DUPONT	DADA1592P0965		
* Subsubtotal *			1.0000		0.8950				
* Total Millicuries Sr-85									
42546	DOG HEARTS	04/30/91	0.0040	<u>0</u>	0.0040	VANDERBILT UNIV	N/A		
43342	MICROSPHERES	09/06/91	0.5000	<u>0</u>	0.4200	NEN DUPONT	W74M4H1240060		
43646	MICROSPHERES	11/01/91	0.5000	<u>0.5</u>	0.5000	NEN DUPONT	DADA1592P0965		
* Subsubtotal *			1.0040		0.9240				
** Subtotal **			7.7700		6.9935				
*** Total ***			7.7700		6.9935				

A Burke 1-9-92

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.)

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

** Authorization Number: 651

* Total Millicuries Ce-141

41946	MICROSPHERES	01/23/91	0.5000	<u>0</u>	0.4460	NEN DUPONT	DADA1590M4633		
42547	DOG HEARTS	04/30/91	0.0040	<u><.004</u>	0.0040	VANDERBILT UNIV	N/A		
42846	MICROSPHERES	06/17/91	0.5000	<u>0</u>	0.5000	NEN DUPONT	DADA1591PA164		
43340	MICROSPHERES	09/06/91	0.5000	<u>0.372</u>	0.5000	NEN DUPONT	W74M4H1240060		
* Subsubtotal *			1.5040		1.4500				

* Total Millicuries Cr-51

41949	MICROSPHERES	01/23/91	0.5000	<u>0</u>	0.4280	NEN DUPONT	DADA1590M4633		
42548	DOG HEARTS	04/30/91	0.0040	<u><.004</u>	0.0040	VANDERBILT UNIV	N/A		
42847	MICROSPHERES	06/17/91	1.0000	<u>0</u>	1.0000	NEN DUPONT	DADA1591PA164		
43341	MICROSPHERES	09/06/91	0.5000	<u>0.132</u>	0.5000	NEN DUPONT	W74M4H1240060		
* Subsubtotal *			2.0040		1.9320				

* Total Millicuries I-125

42544	DOG HEARTS	04/30/91	0.0040	<u><.004</u>	0.0040	VANDERBILT UNIV	N/A		
* Subsubtotal *			0.0040		0.0040				

* Total Millicuries NONRAD

43061	HIV DETECT KIT	07/23/91	0.0000	<u>N/A</u>	0.0000	ONCOR	DADA1590MB409		
43200	HIV DETECT KIT	08/13/91	0.0000	<u>N/A</u>	0.0000	ONCOR	DADA1590MB409		
43395	HIV DETECT KITS	09/17/91	0.0000	<u>N/A</u>	0.0000	ONCOR	DADA1590MB409		
* Subsubtotal *			0.0000		0.0000				

* Total Millicuries Nb-95

41976	MICROSPHERES	01/30/91	0.5000	<u>0</u>	0.4780	NEN DUPONT	DADA1590M4633		
42545	DOG HEARTS	04/30/91	0.0040	<u><.004</u>	0.0040	VANDERBILT UNIV	N/A		
42850	MICROSPHERES	06/17/91	0.5000	<u>0</u>	0.5000	NEN DUPONT	DADA1591PA164		
43344	MICROSPHERES	09/06/91	0.5000	<u>0.404</u>	0.5000	NEN DUPONT	W74M4H1240060		
* Subsubtotal *			1.5040		1.4820				

* Total Millicuries P-32

41530	ATP, GAMMA	10/30/90	0.2500	<u>0</u>	0.2300	AMERSHAM	DADA1590A0041 10Q7		
41531	dCTP	10/30/90	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 10Q7		
42454	ATP, GAMMA	04/15/91	1.0000	<u>0</u>	1.0000	AMERSHAM	DADA1590A0041 4Q1		
42478	ATP	04/17/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1591A0041 4Q1		
42662	ATP, GAMMA	05/20/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041 5Q5		

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.)

HPG TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
42807	ATP, GAMMA	06/10/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041		
42808	ATP, GAMMA	06/24/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	6Q7	
43002	ATP GAMMA	07/15/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	7Q6	
43002	ATP GAMMA	07/16/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	7Q2	
43003	UTP	07/16/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	7Q2	
43104	ATP, GAMMA	08/05/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	7Q12	
43102	ATP, GAMMA	08/12/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	8Q2	
43207	ATP, GAMMA	08/19/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	8Q3	
43307	ATP, GAMMA	09/03/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	8Q6	
43408	ATP, GAMMA	09/23/91	0.2500	<u>0</u>	0.2500	AMERSHAM	3052		
* Subsubtotal *			4.5000		4.4800				
* Total Millicuries S-35									
41440	dATP	10/10/90	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	10Q1	CALL #10Q1/1
41444	UTP	10/10/90	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	10Q1	CALL #10Q1/1
41450	UTP	10/11/90	0.2500	<u>0</u>	0.1500	AMERSHAM	DADA1590A0041	10Q1	CALL #10Q1/1
41451	dATP	10/11/90	0.2500	<u>0</u>	0.1000	AMERSHAM	DADA1590A0041	10Q1	CALL #10Q1/1
42244	dCTP	03/12/91	0.2500	<u>0</u>	0.2500	AMERSHAM	HJF101683		
42312	HIV PROBE X 4	03/26/91	0.2000	<u>0</u>	0.0500	ONCOR	DADA1590MB409		
42314	HIV PROBE X 9	03/26/91	0.4500	<u>0</u>	0.4500	ONCOR	DADA1590MB409		
42408	HIV PROBE	04/16/91	0.2720	<u>0</u>	0.2720	LOFSTRAND LABS	AM REG PATH	2682	
42502	UTP	04/23/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	4Q2	
42511	dCTP	04/25/91	0.2500	<u>0</u>	0.2500	AMERSHAM	HJF101683RPL		
42634	dCTP	05/14/91	0.2500	<u>0</u>	0.2500	AMERSHAM	HJF101683		
42808	URIDINE	06/10/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041		
42818	dCTP	06/12/91	0.2500	<u>0</u>	0.2500	AMERSHAM	HJF101683		
42825	HIV PROBE X 5	06/13/91	0.0540	<u>0</u>	0.0540	ONCOR	DADA1590MB409		
42916	RNA PROBE X 5	06/27/91	0.0225	<u>0</u>	0.0225	ONCOR	DADA1590MB409		
42993	dCTP	07/10/91	0.2500	<u>0</u>	0.2500	AMERSHAM	HJF 101683		
43007	HIV PROBE	07/12/91	0.4090	<u>0</u>	0.4090	LOFSTRAND	2754		
43054	UTP	07/22/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	7Q7	
43163	dCTP	08/06/91	0.2500	<u>0</u>	0.2500	AMERSHAM	HJF101683		
43234	UTP	08/16/91	0.2500	<u>0</u>	0.2500	AMERSHAM	2829		
43360	UTP	09/12/91	0.2500	<u>0</u>	0.2500	AMERSHAM	3006		
43446	UTP	09/24/91	0.2500	<u>0</u>	0.2500	AMERSHAM	3052		
* Subsubtotal *			5.4075		5.0075				

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.)

HPC TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* Total Millicuries Sc-46									
41948	MICROSPHERES	01/23/91	0.5000	<u>0</u>	0.4730	NEN DUPONT	DADA1590M4633		
42849	MICROSPHERES	06/17/91	0.5000	<u>0</u>	0.5000	NEN DUPONT	DADA1591PA164		
43343	MICROSPHERES	09/06/91	0.5000	<u>0.395</u>	0.5000	NEN DUPONT	W74M4H1240060		
* Subsubtotal *			1.5000		1.4730				
* Total Millicuries Sr-85									
41947	MICROSPHERES	01/23/91	0.5000	<u>0</u>	0.4730	NEN DUPONT	DADA1590M4633		
42546	DOG HEARTS	04/30/91	0.0040	<u>0.004</u>	0.0040	VANDERBILT UNIV	N/A		
42848	MICROSPHERES	06/17/91	0.5000	<u>0</u>	0.5000	NEN DUPONT	DADA1591PA164		
43342	MICROSPHERES	09/06/91	0.5000	<u>0.420</u>	0.5000	NEN DUPONT	W74M4H1240060		
* Subsubtotal *			1.5040		1.4770				
** Subtotal **			17.9275		17.3055				
*** Total ***			17.9275		17.3055				

WRAMC
Audit of Radioactive Material
(In accordance with AR 48-37 & 48-61)

Inspector: C. Collins Date: 2 APR 91 Auth# 651

1. DA form 3862 [NO] [YES]
2. Within limits [NO] [YES]
3. Inventory Control Officer: Dr. Shigehiro Sato
Room: BLDG 54, 2001
4. WRAMC Regulation 48-18 [NO] [YES]
5. WRAMC Authorization on hand [NO] [YES]
6. General Provisions - Terms & Conditions [NO] [YES]
7. LSC - Source No. & Location: N/A
8. WRAMC form 538 - current [NO] [YES]
9. Sink log [NO] [YES]
10. Signs & Labels: Rm 3012, 3014 needs notice to employee letter
11. Personnel [Additions] [Deletions]
Delete: Dawn Boykin, Denise Young
12. General Comments: change last name Hedwig Baxter to: H. Avallone
sink is not posted in room 2014, but is posted in Room 2012
Drop Rm 2014, Due to double shipments arriving went
over limit for S³⁵ Increase S³⁵ limit 5m Ci

Principal User: Dr. S. Sato Authorized Representative:

Shigehiro Sato 4/2/91
Signature Date

DAVID W. BURTON
Radioactive Material Control Br.
Health Physics Office

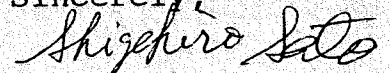
4/Apr./91

Dear Mr. Burton:

Recently, Department of Cardiovascular Pathology has been involved in HIV-I study as a member of the Joint Committee on AIDS Research and Education (JCARE). Dr. Allen Burke has become one of the principal investigator for this project and has started an in situ hybridization experiment using ^{35}S -probes. We propose to increase the limit for ^{35}S up to 5 mCi, because Dr. Burke's project requires relatively large amount of ^{35}S . We hope this new limit will be approved by your office.

During the last Health Physics Office Audit, we had over-limited ^{35}S . Most of them were my old ^{35}S . Others were due to double shipment of HIV-I kits by the standing order. The old isotopes have been discarded. Please call if you have any questions.

Sincerely,



Shigehiro Sato, M.D.
Principal User
Dept. Cardiovascular
Pathology

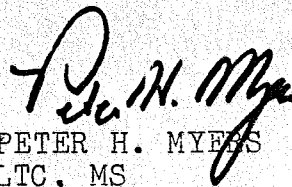
HS HL-H-HP (385-11h) 1st End

Mr. David W. Burton/ab/427-5107

Health Physics Officer, WRAMC

APR 18 1991

FOR: Cardiovascular Pathology, ATTN: Dr. Shigehiro Sato



PETER H. MYERS
LTC, MS
Health Physics Officer

This Application is given
interim approval until the
next meeting of the RCC
which is scheduled for: JUNE 91

AUTHORIZATION ISOTOPE INVENTORY

HPC TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
<u>4141</u>	<u>2APR91</u>								
** Authorization Number: 651									
* Total Millicuries Ce-141									
39385	MICRO SPHERES	12/12/89	0.5000	<u>0</u>	0.1810	NEN DUPONT	DADA1590M1786		
40052	MICROSPHERES	03/14/90	0.5000	<u>0</u>	0.4820	NEN DUPONT	DADA1590M4633		
41946	MICROSPHERES	01/23/91	0.5000	<u>0.446</u>	0.5000	NEN DUPONT	DADA1590M4633		
* Subsubtotal *			1.5000		1.1630				
* Total Millicuries Cr-51									
39389	MICRO SPHERES	12/12/89	1.0000	<u>0</u>	0.1760	NEN DUPONT	DADA1590M1786		
40056	MICROSPHERES	03/14/90	1.0000	<u>0</u>	0.9640	NEN DUPONT	DADA1590M4633		
41949	MICROSPHERES	01/23/91	0.5000	<u>0.428</u>	0.5000	NEN DUPONT	DADA1590M4633		
* Subsubtotal *			2.5000		1.6400				
* Total Millicuries NONRAD									
41460	OLIGONUC SYSTEM	10/12/90	0.0000		0.0000	NEN DUPONT	1629		
41702	HIV DETECTION	12/04/90	0.0000		0.0000	ONCOR	DADA1590MB409		
41706	HIV DETECTION	12/04/90	0.0000		0.0000	ONCOR	DADA1590MB409		
42311	HIV DETECTION	03/26/91	0.0000		0.0000	ONCOR	DADA1590MB409		
42313	HIV DETECTION 2	03/26/91	0.0000		0.0000	ONCOR	DADA1590MB409		
* Subsubtotal *			0.0000		0.0000				
* Total Millicuries Nb-95									
39388	MICRO SPHERES	12/12/89	0.5000	<u>0</u>	0.1300	NEN DUPONT	DADA1590M1786		
40055	MICROSPHERES	03/14/90	1.0000	<u>0</u>	0.4820	NEN DUPONT	DADA1590M4633		
41976	MICROSPHERES	01/30/91	0.5000	<u>0.478</u>	0.5000	NEN DUPONT	DADA1590M4633		
* Subsubtotal *			2.0000		1.1120				
* Total Millicuries P-32									
40737	ATP	06/25/90	0.2500	<u>0</u>	0.1500	AMERSHAM	DADA1590A0041 6Q6		
41068	ATP	08/14/90	0.2500		0.1500	AMERSHAM	DADA1590A0041 8Q2		
41441	ATP	10/10/90	0.2500		0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41442	CTP	10/10/90	0.2500		0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41452	ATP	10/11/90	0.2500		0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41453	CTP	10/11/90	0.2500		0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41490	dCTP	10/19/90	0.2500		0.2500	AMERSHAM	DADA1590A0041 10Q6		
41530	ATP, GAMMA	10/30/90	0.2500	<u>0.23</u>	0.2500	AMERSHAM	DADA1590A0041 10Q7		
41531	dCTP	10/30/90	0.2500	<u>0.250</u>	0.2500	AMERSHAM	DADA1590A0041 10Q7		
41660	UTP	11/20/90	0.2940	<u>0.117</u>	0.2940	AMERSHAM	DADA1590A0041 11Q1		

→ 535 not p32

Shigehiro Sato

4/2/91

AUTHORIZATION ISOTOPE INVENTORY

HPG TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
41867	ATP	01/07/91	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA159080041		
* Subsubtotal *			2.7940		2.5940				
* Total Millicuries Ru-103									
38011		06/06/89	1.0000	<u>0</u>	0.0002	NEN DUPONT			
* Subsubtotal *			1.0000		0.0002				
* Total Millicuries S-35									
41069	URIDINE	08/14/90	0.2500	<u>0</u>	0.1500	AMERSHAM	DADA1590A0041 8Q2		
41440	dATP	10/10/90	0.2500	<u>0.250</u>	0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	
41444	UTP	10/10/90	0.2500	<u>0.250</u>	0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41450	UTP	10/11/90	0.2500	<u>0.150</u>	0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41451	dATP	10/11/90	0.2500	<u>0.100</u>	0.2500	AMERSHAM	DADA1590A0041 10Q1	CALL	#10Q1/1
41458	dATP X 2	10/12/90	0.5000	<u>0</u>	0.5000	NEN DUPONT	1629		
41703	HIV PROBE X 4	12/04/90	0.2000	<u>0</u>	0.2000	ONCOR	DADA1590MB409		
41888	HIV PROBE X 5	01/10/91	0.2500	<u>0</u>	0.2500	ONCOR	DADA1590MB409		
41889	HIV PROBE	01/10/91	0.0500	<u>0</u>	0.0500	ONCOR	DADA1590MB409		
42151	HIV PROBE	02/27/91	0.0540	<u>0</u>	0.0540	ONCOR	DADA1590MB409		
42244	dCTP	03/12/91	0.2500	<u>0.250</u>	0.2500	AMERSHAM	HJF101683		
42252	dATP X 2	03/13/91	0.5000	<u>0</u>	0.5000	NEN DUPONT	2626		
42312	HIV PROBE X 4	03/26/91	0.2000	<u>0.050</u>	0.2000	ONCOR	DADA1590MB409		
42314	HIV PROBE X 9	03/26/91	0.4500	<u>0.450</u>	0.4500	ONCOR	DADA1590MB409		
* Subsubtotal *			3.7040		3.6040				
* Total Millicuries Sc-46									
38613		08/30/89	0.5000	<u>0</u>	0.0850	NEN DUPONT	1086		
39387	MICRO SPHERES	12/12/89	0.5000	<u>0</u>	0.0850	NEN DUPONT	DADA1590M1786		
40054	MICROSPHERES	03/14/90	0.5000	<u>0</u>	0.4820	NEN DUPONT	DADA1590M4633		
41948	MICROSPHERES	01/23/91	0.5000	<u>0.473</u>	0.5000	NEN DUPONT	DADA1590M4633		
* Subsubtotal *			2.0000		1.1520				
* Total Millicuries Sr-85									
39386	MICRO SPHERES	12/12/89	0.5000	<u>0</u>	0.2800	NEN DUPONT	DADA1590M1786		
40053	MICROSPHERES	03/14/90	0.5000	<u>0</u>	0.4880	NEN DUPONT	DADA1590M4633		
41947	MICROSPHERES	01/23/91	0.5000	<u>0.473</u>	0.5000	NEN DUPONT	DADA1590M4633		
* Subsubtotal *			1.5000		1.2680				

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
Audit	10/31/90								

* Total Millicuries Ce-141

39385	MICRO SPHERES	12/12/89	0.5000	<u>0.181</u>	0.1810	NEN DUPONT	DADA1590M1786
40052	MICROSPHERES	03/14/90	0.5000	<u>0.482</u>	0.4820	NEN DUPONT	DADA1590M4633
* Subsubtotal *			1.0000		0.6630		

* Total Millicuries Cr-51

39389	MICRO SPHERES	12/12/89	1.0000	<u>0.176</u>	0.1760	NEN DUPONT	DADA1590M1786
40056	MICROSPHERES	03/14/90	1.0000	<u>0.964</u>	0.9640	NEN DUPONT	DADA1590M4633
* Subsubtotal *			2.0000		1.1400		

* Total Millicuries NONRAD

41070	LABELING KIT	08/14/90	0.0000	0.0000	AMERSHAM	DADA1590A0041	8Q2
* Subsubtotal *			0.0000	0.0000			

* Total Millicuries Nb-95

35388	MICRO SPHERES	12/12/89	0.5000	<u>0.130</u>	0.1760	NEN DUPONT	DADA1590M1786
40055	MICROSPHERES	03/14/90	1.0000	<u>0.612482</u>	0.9640	NEN DUPONT	DADA1590M4633
* Subsubtotal *			1.5000		1.1400		

* Total Millicuries P-32

40737	ATP	06/25/90	0.2500	<u>0.15</u>	0.2500	AMERSHAM	DADA1590A0041	6Q6
41067	DDTT	08/14/90	0.2500	<u>0</u>	0.2500	AMERSHAM	DADA1590A0041	8Q2
41068	ATP	08/14/90	0.2500	<u>0.1</u>	0.2500	AMERSHAM	DADA1590A0041	8Q2
* Subsubtotal *			0.7500		0.7500			

† Total Millicuries Ru-103

38011	06/06/89	1.0000	<u>0.00015</u>	0.0002	NEN DUPONT
* Subsubtotal *		1.0000		0.0002	

* Total Millicuries S-35

0045	URIDINE	03/13/90	0.2500	0	0.1100	AMERSHAM	DADA1590A0041 3Q1
0374	HIV-1 RNA PROBE	04/27/90	0.0500	0	0.0500	ONCOR	
0472	URIDINE	05/08/90	0.2500	0	0.2500	AMERSHAM	DADA1590A0041 5Q1
0657	HIV RNA PROBE	06/07/90	0.0500	0	0.0500	ONCOR	
0703	URIDINE	06/19/90	0.2500	0	0.2500	AMERSHAM	DADA1590A0041 6Q4
1069	URIDINE	08/14/90	0.2500	0.15	0.2500	AMERSHAM	DADA1590A0041 8Q2
* Subsubtotal *							
00137-A		6/25/90	1.1000		0.9600		

AUTHORIZATION ISOTOPE INVENTORY

HPC TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES	LAST UPDATED ACTIVITY IN MILLICURIES	VENDOR	PURCHASE ORDER NUMBER	CALL NO	REMA
* Total Millicuries Sc-46									
38613		08/30/89	0.5000	0.170 0.085	0.1700	NEN DUPONT	1086		
39387	MICRO SPHERES	12/12/89	0.5000	0.170 0.085	0.4820	NEN DUPONT	DADA1590M1786		
40054	MICROSPHERES	03/14/90	0.5000	0.482	0.5000	NEN DUPONT	DADA1590M4633		
* Subsubtotal *									
0.0000 Microspheres 2/20/90			1.5000	0.460	1.1520				
* Total Millicuries Sr-85									
39386	MICRO SPHERES	12/12/89	0.5000	0.280	0.2800	NEN DUPONT	DADA1590M1786		
40053	MICROSPHERES	03/14/90	0.5000	0.488	0.4880	NEN DUPONT	DADA1590M4633		
* Subsubtotal *									
			1.0000		0.7680				
** Subtotal **									
			9.8500		6.5732				
*** Total ***									
			9.8500		6.5732				

Shigehiro Sato
3/10/90

AUTHORIZATION ISOTOPE INVENTORY

HPC TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
Audit 4/5/90				

WJ Meyer
4/5/90

** Authorization Number: 651

* Total Millicuries Ce-141

38153		06/23/89	1.0000	<u>0</u>	
38800	DOG HEARTS	09/21/89	0.0050	<u>day 196 decay</u>	± 0.001
39385	MICRO SPHERES	12/12/89	0.5000	<u>0.181</u>	
40052	MICROSPHERES	03/14/90	0.5000	<u>0.482</u>	
* Subsubtotal *			2.0050		

* Total Millicuries Cr-51

38011		06/06/89	1.0000	<u>0</u>	
38613		08/30/89	1.0000	<u>0</u>	
38800	DOG HEARTS	09/21/89	0.0030	<u>day 196 decay</u>	± 0.001
39389	MICRO SPHERES	12/12/89	1.0000	<u>0.176</u>	
40056	MICROSPHERES	03/14/90	1.00 0.5000	<u>0.964</u>	
* Subsubtotal *			3.5030		

* Total Millicuries I-125

38800	DOG HEARTS	09/21/89	0.0040	<u>day 196 decay</u>	± 0.001
* Subsubtotal *			0.0040		

* Total Millicuries Nb-95

38011		06/06/89	1.0000	<u>0</u>	
38613		08/30/89	0.5000	<u>0</u>	
39388	MICRO SPHERES	12/12/89	0.5000	<u>0.130</u>	
40055	MICROSPHERES	03/14/90	0.5000	<u>0.482</u>	
* Subsubtotal *			2.5000		

* Total Millicuries Ni-63

35519		04/21/88	15.0000	<u>Transferred to 691</u>	
* Subsubtotal *			15.0000		

* Total Millicuries Ru-103

38011		06/06/89	1.0000	<u>0.00015</u>	
* Subsubtotal *			1.0000		

* Total Millicuries S-35

40045	URIDINE	03/13/90	0.2500	<u>0.110</u>	
* Subsubtotal *			0.2500		

AUTHORIZATION ISOTOPE INVENTORY

HPC TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
=====				
* Total Millicuries Sc-46				
37752		04/26/89	0.0068	<u>0</u>
38613		08/30/89	0.5000	<u>0.170</u>
38800	DOG HEARTS	09/21/89	0.0050	<u>day 196 decay 20.001</u>
39387	MICRO SPHERES	12/12/89	0.5000	<u>0.480</u>
40054	MICROSPHERES	03/14/90	0.5000	<u>0.632-0.50</u>
* Subsubtotal *				
			1.5118	
* Total Millicuries Sr-85				
38613		08/30/89	0.5000	<u>0</u>
38800	DOG HEARTS	09/21/89	0.0060	<u>day 196 decay 20.001</u>
39386	MICRO SPHERES	12/12/89	0.5000	<u>0.280</u>
40053	MICROSPHERES	03/14/90	0.5000	<u>0.488</u>
* Subsubtotal *				
			1.5060	
** Subtotal **				
			27.2798	
*** Total ***				
			27.2798	

10/04/89

AUTHORIZATION ISOTOPE INVENTORY

HFO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
** Authorization Number: 651				
* Total Millicuries Ce-141				
37500		03/22/89	1.0000	0.0
37705		04/20/89	1.0000	6.0
37752		04/26/89	0.0079	day 175 decay 4.001
38153		06/23/89	1.0000	1.0
38160		06/23/89	0.0010	day 117 decay 4.001
38391		07/28/89	0.0010	day 82 decay 4.001
38800	DOG HEARTS	09/21/89	0.005	day 27 decay .0028
* Subsubtotal *			3.0109	
* Total Millicuries Cr-51				
37500		03/22/89	1.0000	0 27.7 d
37705		04/20/89	2.0000	5
37752		04/26/89	0.0038	day 175 decay 4.001
38011		06/06/89	1.0000	0.508
38160		06/23/89	0.0010	day 117 decay 4.001
38391		07/28/89	0.0010	day 82 decay 4.001
38613		08/30/89	1.0000	1.0 0.508
38800	DOG HEARTS	09/21/89	0.003	day 27 decay .0015
* Subsubtotal *			5.0068	
* Total Millicuries I-125				
37752		04/26/89	0.0059	day 175 decay 4.001 60 d
38160		06/23/89	0.0010	" 117 " 4.001
38391		07/28/89	0.0010	" 82 " 4.001
38800	DOG HEARTS	09/21/89	0.004	day 27 " .0029
* Subsubtotal *			0.0089	
* Total Millicuries Nb-95				
37503		03/22/89	1.0000	0 3.5 d
37752		04/26/89	0.0010	day 175 decay 4.001
38011		06/06/89	1.0000	0.782
38160		06/23/89	0.0010	" 117 decay 4.001
38391		07/28/89	0.0010	82 decay 4.001
38613		08/30/89	0.5000	0.5
38800	DOG HEARTS	09/21/89	0.0010	day 27 decay 4.001
* Subsubtotal *			2.5040	
* Total Millicuries Ni-63				
35519		04/21/88	15.0000	15.0

10/04/89

AUTHORIZATION ISOTOPE INVENTORY

HPO TAG NUMBER	CHEMICAL FORM	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
=====				
* Subsubtotal *			15.0000	
* Total Millicuries Ru-103				394
37500		03/22/89	1.0000	<u>0</u>
38011		06/06/89	1.0000	<u>0.86</u>
* Subsubtotal *			2.0000	
* Total Millicuries Sc-46				338.2
37752		04/26/89	0.0068	<u>day 175 decay .0016</u>
38160		06/23/89	0.0010	<u>" 117 decay 4.001</u>
38391		07/28/89	0.0010	<u>" 82 decay 4.001</u>
38613		08/30/89	0.5000	<u>0.5</u>
38800	DOG HEARTS	09/21/89	<u>0.005</u> 0.0010	<u>day 27 decay .004</u>
* Subsubtotal *			0.5098	
* Total Millicuries Sr-85				65.2
36337		09/12/88	0.0100	<u>day 401 decay 4.001</u>
36447		09/29/88	0.0100	<u>" 384 " 4.001</u>
36478		10/04/88	0.0200	<u>" 379 " 4.001</u>
36811		12/02/88	0.0061	<u>" 319 " 4.001</u>
37118		01/25/89	0.0060	<u>" 266 " 4.001</u>
37752		04/26/89	0.0061	<u>" 175 " 4.001</u>
38160		06/23/89	0.0010	<u>" 117 " 4.001</u>
38391		07/28/89	0.0010	<u>" 82 " 4.001</u>
38613		08/30/89	0.5000	<u>0.5</u>
38800	DOG HEARTS	09/21/89	<u>0.006</u> 0.0010	<u>day 27 " .0045</u>
* Subsubtotal *			0.5612	
** Subtotal **			28.6016	
*** Total ***			28.6016	

18 Oct 89

Holly Rice

04/03/89

AUTHORIZATION ISOTOPE INVENTORY

HFO TAG NUMBER	PURCHASE ORDER & CALL NUMBER	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
<u>Audit 11 APR 89</u>	<u>=====</u>	<u>=====</u>	<u>=====</u>	<u>=====</u>
** Authorization Number: 651				
* Total Millicuries Ce-141				
36478		10/04/88	0.0200	<u>0</u>
36811		12/02/88	0.0079	<u>0</u>
36951	806	12/29/88	1.0000	<u>0</u>
37118		01/25/89	0.0080	<u>0</u>
37194	840	02/06/89	1.0000	<u>0</u>
37500	911 AMER REGI PATHO	03/22/89	1.0000	<u>0.0080 0.80</u>
* Subsubtotal *			3.0359	
* Total Millicuries Cr-51				
36478		10/04/88	0.0300	<u>0</u>
36811		12/02/88	0.0038	<u>0</u>
36951	806	12/29/88	1.0000	<u>0</u>
37118		01/25/89	0.0040	<u>0</u>
37500	911 AMER REGI PATHO	03/22/89	1.0000	<u>0.60</u>
* Subsubtotal *			2.0378	
* Total Millicuries I-125				
36478		10/04/88	0.0200	<u>0</u>
36811		12/02/88	0.0059	<u>0</u>
37118		01/25/89	0.0060	<u>0</u>
* Subsubtotal *			0.0319	
* Total Millicuries NONRAD				
36623		11/02/88	0.0000	
37051		01/13/89	0.0000	
* Subsubtotal *			0.0000	
* Total Millicuries Nb-95				
36337		09/12/88	0.0100	<u>0</u>
36447		09/29/88	0.0100	<u>0</u>
36478		10/04/88	0.0200	<u>0</u>
36811		12/02/88	0.0010	<u>0</u>
36951	806	12/29/88	1.0000	<u>0</u>
37118		01/25/89	0.0010	<u>0</u>
37194	840	02/06/89	1.0000	<u>0</u>
37503	912 AMER REGI PATHO	03/22/89	1.0000	<u>0.80</u>
* Subsubtotal *			3.0420	
* Total Millicuries Ni-63				
35519		04/21/88	15.0000	<u>15.0</u>

104/03/89

AUTHORIZATION ISOTOPE INVENTORY

HPPO TAG NUMBER	PURCHASE ORDER & CALL NUMBER	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
<hr/>				
* Subsubtotal *			15.0000	
* Total Millicuries Ru-103				
36951	806	12/29/88	1.0000	<u>0</u>
37194	840	02/06/89	1.0000	<u>0</u>
37500	911 AMER REGI PATHO	03/22/89	1.0000	<u>0.80</u>
* Subsubtotal *			3.0000	
* Total Millicuries Sc-46				
36337		09/12/88	0.0100	<u>0</u>
36447		09/29/88	0.0100	<u>0</u>
36478		10/04/88	0.0200	<u>0</u>
36811		12/02/88	0.0068	<u>0</u>
37118		01/25/89	0.0680	<u>0</u>
37194	840	02/06/89	1.0000	<u>0</u>
* Subsubtotal *			1.1148	
* Total Millicuries Sr-85				
36337		09/12/88	0.0100	<u>0.01</u>
36447		09/29/88	0.0100	<u>0.01</u>
36478		10/04/88	0.0200	<u>0.02</u>
36811		12/02/88	0.0061	<u>0.0061</u>
37118		01/25/89	0.0060	<u>0.0060</u>
* Subsubtotal *			0.0521	
** Subtotal **			27.3145	
*** Total ***			27.3145	

Jacob Cherian
4/11/89

AUTHORIZATION ISOTOPE INVENTORY

PRO TAG NUMBER	PURCHASE ORDER & CALL NUMBER	DATE RECEIVED	ORIGINAL ACTIVITY IN MILLICURIES	NEW ACTIVITY IN MILLICURIES
=====	=====	=====	=====	=====
** Authorization Number: 651				
* Total Millicuries Ce-141				
36478		10/04/88	0.0200	<u>0.02</u> 10-20-88
* Subsubtotal *			0.0200	
* Total Millicuries Cr-51				
36478		10/04/88	0.0300	<u>0.03</u> "
* Subsubtotal *			0.0300	
* Total Millicuries I-125				
36478		10/04/88	0.0200	<u>0.02</u> "
* Subsubtotal *			0.0200	
* Total Millicuries Nb-95				
36337		09/12/88	0.0100	<u>0.01</u> "
36447		09/29/88	0.0100	<u>0.01</u> "
36478		10/04/88	0.0200	<u>0.02</u> "
* Subsubtotal *			0.0400	
* Total Millicuries Ni-63				
35174	SERVICE CONTR	03/02/88	15.0000	<u>15.0</u> "
35519		04/21/88	15.0000	<u>15.0</u> "
* Subsubtotal *			30.0000	
* Total Millicuries Sc-46				
36337		09/12/88	0.0100	<u>0.01</u> "
36447		09/29/88	0.0100	<u>0.01</u> "
36478		10/04/88	0.0200	<u>0.02</u> "
* Subsubtotal *			0.0400	
* Total Millicuries Sr-85				
36337		09/12/88	0.0100	<u>0.01</u> "
36447		09/29/88	0.0100	<u>0.01</u> "
36478		10/04/88	0.0200	<u>0.02</u> "
* Subsubtotal *			0.0400	
** Subtotal **			30.1900	
*** Total ***			30.1900	

John V. ...

AUTHORIZATION ISOTOPE INVENTORY

INFO TAG NUMBER =====	PURCHASE ORDER & CALL NUMBER =====	DATE RECEIVED =====	ORIGINAL ACTIVITY =====	NEW ACTIVITY =====
-----------------------------	--	---------------------------	-------------------------------	--------------------------

** Authorization Number: 651

* Total Millicuries I-125

35326 DAMD1785A5005 WK1 03/24/88

0.0040 wrong shipment

* Subsubtotal * transferred to 518

0.0040

* Total Millicuries Ni-63

35174 SERVICE CONTR 03/02/88

15.0000

* Subsubtotal *

15.0000

** Subtotal **

15.0040

*** Total ***

15.0040

For use of this form, see AR 40-2; the proponent agency is Office of The Surgeon General.

DA FORM 3862
1 JUNE 72

REPLACES DA FORM 8-235, 1 AUG 51, WHICH WILL BE USED.

For use of this form, see AR 40-2; the proponent agency is Office of The Surgeon General.

For use of this form, see AR 40-2; the proponent agency is Office of The Surgeon General.

DA FORM 3862
1 JUNE 72

REPLACES DA FORM 8-235, 1 AUG 51, WHICH WILL BE USED.

(AR 40-2)

☆ U.S. Government Printing Office: 1986-491-003/50217

(AR 40-2)

☆ U.S. Government Printing Office: 1986-491-003/50217

(AR 40-2)

☆ U.S. Government Printing Office: 1986-491-003/50217

For use of this form, see AR 40-2; the proponent agency is Office of The Surgeon General.

DA FORM 3862
1 JUNE 72

REPLACES DA FORM 8-235, 1 AUG 51, WHICH WILL BE USED.