Yun Wang, Ph.D., DABR
Indiana University Health Hematology & Oncology Clinic
1346 E. County Line Road
Indianapolis, IN 46227
NRC license # 13-32241-01

U.S. NRC Region III
2443 Warrenville Road
Suite 210
Lisle, Illinois 60532-4352

Dear Sir/Madam,

As part of Indiana University Health, I would like to add the seven Nuclear Medicine (NM) physicians to our NRC license as the Authorized Users for the Clinical diagnosis as specified in 10CFR35.100 and 10CFR35.200. Their names are listed here:

Vasantha Aaron, M.D.

William Berry, M.D.

Mark Estrada, M.D.

James Fletcher, M.D.

Aslam Siddiqui, M.D.

Mark Tann, M.D.

Steven M. Westphal, M.D.

All of them are currently auth NM Physicians on the IU Radionuclide Use Permit. The copy of the Radionuclide Use Permit, issued by the IU Radiation Safety Office, is attached here.

Also, our organization's name has been finally decided as Indiana University Health/Central Indiana Cancer Centers. We would like to make the name change from the current name: Indiana University Health Hematology & Oncology Clinic to Indiana University Health/Central Indiana Cancer Centers.

Please call me at (317) 250-7435 if you have any questions.

Yours sincerely,

Yun Wang, Ph.D., DABR Yun Wang 12/12/2011

Radiation Safety Officer for IUH/Hematology & Oncology Clinic

NRC License # 13-32241-01

INDIANA UNIVERSITY
Radiation Safety Office
Indianapolis

Radionuclide Use Permit

Authorization Number: UHNM01 **Issued To:** James Fletcher, MD
Issued Date: 03/31/2007 **Expiration Date:** 03/31/2013
Amended Date:

In accordance with the statements and representatives made in your application for Project Approval, Project Amendment, and/ your Progress Report, an approval authorizing the below named individuals to order, possess, and use the materials or items designated below in accordance with NRC regulations, state regulations, University regulations, and such other conditions as ar herein specified is hereby issued.

1. Personnel / Status

Approved
Bruce Mock, Ph.D.

Auth NM Physician

Vasantha Aaron, MD	William Berry, M.D.	Mark Estrada, M.D.
James Fletcher, M.D.	Aslam Siddiqui, M.D.	Mark Tann, M.D.
Steven M. Westphal, M.D.		

DOT - approved

Heather Ardeel, CNMT	Jason Belch, CNMT	Dawn Burkhardt, CNMT
Andrew Moore, CNMT	Mona Patel, CNMT	Christie Wheatley, CNMT
Angela Witt, CNMT		

NM Technologists

Heather Ardeel, CNMT	Jason Belch, CNMT	Dawn Burkhardt, CNMT
Kathy Carlson, CNMT	Judy Kosegi, NMT	Andrew Moore, CNMT
Carmen Noll, CNMT	Mona Patel, CNMT	Kevin Perry, CNMT
Christie Wheatley, CNMT	Angela Witt, CNMT	

NMT Students

Justin Bromm,	Brooke Calo,	Rafael DeSantos,
Emily Farmer,	Allison Giddings,	Jeanie Graham,
Megan Helmerich,	Hayley Holmes,	Cory McCallie,
Samantha Stuitz,	Sarah Swann,	

2. Locations of Use

Approved

UH 0650	UH 0650B	UH 0657
UH 0660	UH 0665	UH 0670
UH 0670A	UH 0670B	UH 0670C
UH 0670D	UH 5505	

3. Nuclides / Chemical Forms / Exp. Limit / Poss. Limit

Ba-133/Cs-137P	1	1	A	6/20/07
sources (A - 6/20/2007)				
Ba-133BA	5	5	A	6/20/07
dose calibrator sources (A - 6/20/2007)				
Ba-133SS	20	21		

Radionuclide Use Permit

Check sources				
point sources (A)				
C-14	0.012	1		
Pytest caps (urea)				
Co-57	0.001	1		
Rubratope				
Co-57BA	10	50	A	6/20/07
dose calibrator sources (A - 6/20/2007)				
flood sources (A - 6/20/2007)				
Co-57PA	0.1	0.1	A	6/20/07
rod source (A - 6/20/2007)				
Co-57SS	10	50		
flood sources				
dose calibrator sources (A - 9/23/2008)				
Co-58	0.01	1		
schillings kits				
Co-60BA	5	5	A	6/20/07
dose calibrator sources (A - 6/20/2007)				
Co-60SS	0.5	0.5		
dose calibrator sources				
Cr-51	0.25	5		
sodium chromate				
Cs-137BA	5	5	A	6/20/07
dose calibrator sources (A - 6/20/2007)				
Cs-137PA	0.1	1	A	6/20/07
Check sources (A - 6/20/2007)				
rod source (A - 6/20/2007)				
Cs-137SS	10	10		
dose calibrator sources				
Check sources				
F-18	15	100		
FDG				
Ga-67	50	50		
citrate				
Gd-153SS	300	1000		
sources				
Ge-68SS	0.5	1		
sources				
I-123	50	80		
capsules				
MIBG				
NaI				
I-125	1	15		

Radionuclide Use Permit

NaI				
RIA kits				
HSA				
I-125SS	200	200		
sources				
I-129PA	0.1	0.1	A	6/20/07
sources (A - 6/20/2007)				
I-131	250	1000	A	12/13/07
NaI				
In-111	20	40	A	12/16/09
chloride				
Pentetate (DTPA)				
oxyquinoline (Oxine)				
Zevalin (A)				
Pentetreotide (Octreoscan) (A)				
Capromab pendetide (prostascint) (A)				
J591 (A - 6/1/2010)				
Lu-177	250	250	A	6/1/10
J591 (A - 6/1/2010)				
Mo-99	50	8000		
generators				
N-13	20	100		
ammonia				
P-32	15	30		
chromic phosphate				
sodium phosphate				
Ra-226PA	0.2	0.2	A	6/20/07
sources (A - 6/20/2007)				
Sm-153	100	200		
lexidronam pentasodium (Quadramet)				
Sr-89	4	30		
chloride (Metastron)				
Tc-99m	2000	2000	A	6/4/07
all				
Tl-201	5	75	A	7/9/09
chloride				
Xe-133	50	500		
gas				
Y-90	80	200		
chloride (A)				
Zevalin (A)				
microspheres				

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Radiation Safety Office
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Radionuclide Use Permit

4. Authorized Use

Clinical diagnosis and therapy as specified in 10CFR35.

Human research studies for Principal Investigators other than nuclear medicine physicians involving radionuclides that are utilized clinically and/or are described in a USP monograph (amended 3/13/01).

Iodinations.

5. Conditions of Authorization

Radionuclide Use Permit

A direct radiation survey shall be performed and recorded at the end of each day of all areas where radiopharmaceuticals are routinely prepared for use, stored, and/or administered.

At the beginning of each day, a long-lived radionuclide source shall be assayed with the dose calibrator(s) on a commonly used setting to detrmine constancy and recorded. As approved March 12, 1996, this will be done by comparing the result to the average of the readings from the previous week.

All shipments of radiopharmaceuticals which are delivered to the nuclear medicine department or picked up by nuclear medicine personnel shall be surveyed and logged in per established procedures within 3 hours of receipt or the beginning of the work day (for items received over the weekend).

All radiopharaceuticals to be administered to humans shall be assayed in a dose calibrator prior to administration.

Syringe shields and vial radiation shields shall be utilized for the preparation, transportation, and storage of radiopharmaceuticals.

Syringe shields shall be available and used for adminstration of radiopharmaceuticals except when, in the opinion of the person administering the patient's dose, such use compromises the well-being of the patient.

All syringe shields and vial shields shall be appropriately labeled.

The first elution from a Mo-99/Tc-99m generator shall be assayed and recorded for Mo-99 breakthrough. Doses containing greater than 0.15 uCi of Mo-99 per 1 mCi of Tc-99m shall not be administered to patients.

Utilizing the long-lived constancy source, the relative activity on all commonly used setting of the dose calibrator(s) shall be measured and recorded weekly to ensure constancy.

Contamination (wipe) surveys shall be performed and recorded in all areas where radionuclides are routinely prepared for use, administered, and/or stored.

An inventory of all sealed shall be performed and recorded.

All dose calibrators shall be tested for linearity twice a year.

All dose calibrators shall be tested for accuracy on an annual basis.

All individuals involved in the administration of therapeutic radiopharmaceuticals and/or greater than 30 uCi of I-125 or I-131 shall review and follow the most current version of the Nuclear Medicine QMP.

Iodinations shall take place in the charcoal-filtered hood in UH 0670D.

Portable studies are permitted when performed by qualified Nuclear Medicine staff.

All nuclear medicine staff administering radiopharaceuticals shall wear whole body and ring badges.

Radioactive waste and/or unused doses shall be removed by nuclear medicine personnel from 4 North and a direct radiation survey completed at the end of each day of use.

Applications for human use research studies under Principal Investigators that are not nuclear medicine physicains shall be reviewed and signed by the Permit Holder (app 3/13/01).

Radioactive waste shall be held and surveyed (with all sheilding removed) before disposal. levels shall be at background

levels with all surveys recorded. All labels shall be removed or defaced before disposal.

After the administration of I-131, surveys shall be performed on the administration area. If contamination is found or if an incident occurs during administration (e.g., illness, sneezing, etc), a thyroid scan shall be performed on the individual performing the administration.

Individuals shall monitor their ahnds and clothing routinely during the day and specifically upon leaving anya rea in which they have been handling usealed radiopharmaceuticals.

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