JCMG
JEFFERSON CITY
MEDICAL GROUP
with Signature Care

April 1, 2013

Materials Licensing Section
U.S. Nuclear Regulatory Commission Region III
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

RE: NRC License No. 24-32132-01

To Whom It May Concern:

We wish to amend our by-product license for Jefferson City Medical Group, Jefferson City, Missouri (USNRC Lic. No. 24-32132-01) in the following are:

We would like to add Dr. Ravi Bodiwala, MD to the license as an authorized user for 10 CFR 35.100, 35.200, and 35.300.

Included is NRC form 313A (AUT) and 313A (AUD), Dr. Bodiwala board certification, and a copy of the Harris County Hospital radioactive material license including letter stating authorized users. If you need any further information please contact Anne Ellis at (573) 635-0234 ext. 5110.

Respectfully Submitted,

Jeff Patrick, MD

Dr. Jeffrey Patrick, MD
General Nuclear Medicine Director
AU License No. 24-32132-01

NRC FORM 313A (AUT) (05-2012) | U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (for uses defined under 35.300) [10 CFR 35.390, 35.392, 35.394, and 35.396]

APPROVED BY OMB: NO. 3150-0120
EXPIRES: (05/31/2015)

Name of Proposed Authorized User	State or Territory Where Licensed
Ravi Bodiwala	MO

Requested Authorization(s) *(check all that apply)*:

☐ 35.300 Use of unsealed byproduct material for which a written directive is required

OR

☑ 35.300 Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)

☑ 35.300 Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)

☐ 35.300 Parenteral administration of any beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required

☐ 35.300 Parenteral administration of any other radionuclide for which a written directive is required

PART I -- TRAINING AND EXPERIENCE
(Select one of the three methods below)

* Training and Experience, including board certification, must have been obtained within the 7 years preceding the date of application or the individual must have related continuing education and experience since the required training and experience was completed. Provide dates, duration, and description of continuing education and experience related to the uses checked above.

☑ 1. **Board Certification**

a. Provide a copy of the board certification.

b. For 35.390, provide documentation on supervised clinical case experience. The table in section 3.c. may be used to document this experience.

c. For 35.396, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. The tables in sections 3.a., 3.b., and 3.c. may be used to document this experience.

d. Skip to and complete Part II Preceptor Attestation.

☐ 2. **Current 35.300, 35.400, or 35.600 Authorized User Seeking Additional Authorization**

a. Authorized User on Materials License _____ under the requirements below or equivalent Agreement State requirements *(check all that apply)*:

☐ 35.390 ☐ 35.392 ☐ 35.394 ☐ 35.490 ☐ 35.690

b. If currently authorized for a subset of clinical uses under 35.300, provide documentation on additional required supervised case experience. The table in section 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation.

c. If currently authorized under 35.490 or 35.690 and requesting authorization for 35.396, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. The tables in sections 3.a., 3.b., and 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation.

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

☐ 3. **Training and Experience for Proposed Authorized User**

a. Classroom and Laboratory Training ☐ 35.390 ☐ 35.392 ☐ 35.394 ☐ 35.396

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation			
Radiation protection			
Mathematics pertaining to the use and measurement of radioactivity			
Chemistry of byproduct material for medical use			
Radiation biology			
	Total Hours of Training: ☐		

b. Supervised Work Experience ☐ 35.390 ☐ 35.392 ☐ 35.394 ☐ 35.396

If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.

Supervised Work Experience	**Total Hours of Experience:**		
Description of Experience Must Include:	Location of Experience/License or Permit Number of Facility	Confirm	Dates of Experience*
Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys		☐ Yes ☐ No	
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters		☐ Yes ☐ No	
Calculating, measuring, and safely preparing patient or human research subject dosages		☐ Yes ☐ No	
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material		☐ Yes ☐ No	
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures		☐ Yes ☐ No	

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Training and Experience for Proposed Authorized User (continued)

b. Supervised Work Experience (continued)

Supervising Individual	License/Permit Number listing supervising individual as an authorized user

Supervising individual meets the requirements below, or equivalent Agreement State requirements *(check all that apply)***:*

☐ 35.390
☐ 35.392
☐ 35.394
☐ 35.396

With experience administering dosages of:

☐ Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)
☐ Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)
☐ Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required
☐ Parenteral administration of any other radionuclide requiring a written directive

** Supervising Authorized User must have experience in administering dosages in the same dosage category or categories as the individual requesting authorized user status.

c. Supervised Clinical Case Experience
If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this page.

Description of Experience	Number of Cases Involving Personal Participation	Location of Experience/License or Permit Number of Facility	Dates of Experience*
Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)	19	MD Anderson Cancer Cntr, Houston TX 77030 Texas RAM L00466	4/02/2007 to 4/30/2007
Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)	13	MD Anderson Cancer Cntr, Houston TX 77030 Texas RAM L00466	4/02/2007 to 4/30/2007
Parenteral administration of any beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required			
Parenteral administration of any other radionuclide for which a written directive is required (List radionuclides)			

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Training and Experience for Proposed Authorized User (continued)

c. Supervised Clinical Case Experience (continued)

Supervising Individual	License/Permit Number listing supervising individual as an authorized user
Edward E. Kim, M.D.	MD Anderson Cancer Ctr Houston, TX 77030 RAM L00466

Supervising individual meets the requirements below, or equivalent Agreement State requirements *(check all that apply)***:

- ☑ 35.390
- ☑ 35.392
- ☑ 35.394
- ☐ 35.396

With experience administering dosages of:

- ☑ Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)
- ☑ Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)
- ☐ Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required
- ☐ Parenteral administration of any other radionuclide requiring a written directive

** Supervising Authorized User must have experience in administering dosages in the same dosage category or categories as the individual requesting authorized user status.

d. Provide completed Part II Preceptor Attestation.

PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each.

By checking the boxes below, the preceptor is attesting that the individual has knowledge to fulfill the duties of the position sought and not attesting to the individual's "general clinical competency."

First Section
Check one of the following for each requested authorization:

For 35.390:

Board Certification

☐ I attest that _____ has satisfactorily completed the training and experience
Name of Proposed Authorized User

requirements in 35.390(a)(1).

OR

Training and Experience

☐ I attest that _____ has satisfactorily completed the 700 hours of training
Name of Proposed Authorized User

and experience, including a minimum of 200 hours of classroom and laboratory training, as required by 10 CFR 35.390 (b)(1).

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Preceptor Attestation (continued)

First Section (continued)

For 35.392 (Identical Attestation Statement Regardless of Training and Experience Pathway):

☑ I attest that Ravi Bodiwala (Name of Proposed Authorized User) has satisfactorily completed the 80 hours of classroom and laboratory training, as required by 10 CFR 35.392(c)(1), and the supervised work and clinical case experience required in 35.392(c)(2).

For 35.394 (Identical Attestation Statement Regardless of Training and Experience Pathway):

☑ I attest that Ravi Bodiwala (Name of Proposed Authorized User) has satisfactorily completed the 80 hours of classroom and laboratory training, as required by 10 CFR 35.394 (c)(1), and the supervised work and clinical case experience required in 35.394(c)(2).

Second Section

☑ I attest that Ravi Bodiwala (Name of Proposed Authorized User) has satisfactorily completed the required clinical case experience required in 35.390(b)(1)(ii)G listed below:

- ☑ Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)
- ☑ Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)
- ☐ Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required
- ☐ Parenteral administration of any other radionuclide requiring a written directive

Third Section

☑ I attest that Ravi Bodiwala (Name of Proposed Authorized User) has satisfactorily achieved a level of competency to function independently as an authorized user for:

- ☑ Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)
- ☑ Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)
- ☐ Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required
- ☐ Parenteral administration of any other radionuclide requiring a written directive

NRC FORM 313A (AUT) U.S. NUCLEAR REGULATORY COMMISSION
(05-2012)

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Fourth Section

For 35.396:

Current 35.490 or 35.690 authorized user:

☐ I attest that _____ is an authorized user under 10 CFR 35.490 or 35.690
Name of Proposed Authorized User

or equivalent Agreement State requirements, has satisfactorily completed the 80 hours of classroom and laboratory training, as required by 10 CFR 35.396 (d)(1), and the supervised work and clinical case experience required by 35.396(d)(2), and has achieved a level of competency sufficient to function independently as an authorized user for:

☐ Parenteral administration of any beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required

☐ Parenteral administration of any other radionuclide for which a written directive is required

OR

Board Certification:

☐ I attest that _____ has satisfactorily completed the board certification
Name of Proposed Authorized User

requirements of 35.396(c), has satisfactorily completed the 80 hours of classroom and laboratory training required by 10 CFR 35.396 (d)(1) and the supervised work and clinical case experience required by 35.396(d)(2), and has achieved a level of competency sufficient to function independently as an authorized user for:

☐ Parenteral administration of any beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required

☐ Parenteral administration of any other radionuclide for which a written directive is required

Fifth Section
Complete the following for preceptor attestation and signature:

☑ I meet the requirements below, or equivalent Agreement State requirements, as an authorized user for:

☑ 35.390 ☑ 35.392 ☑ 35.394 ☐ 35.396

☑ I have experience administering dosages in the following categories for which the proposed Authorized User is requesting authorization.

☑ Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)

☑ Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)

☐ Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required

☐ Parenteral administration of any other radionuclide requiring a written directive

Name of Preceptor	Signature	Telephone Number	Date
Isis Gayed	I Gayed	(713) 704-1789	01/30/2013

License/Permit Number/Facility Name
Lyndon Baines Johnson General Hospital Houston, Texas 77026 TX RAM L04412

NRC FORM 313A (AUD) (05-2012) | U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (for uses defined under 35.100, 35.200, and 35.500) [10 CFR 35.190, 35.290, and 35.590]

APPROVED BY OMB: NO. 3150-0120
EXPIRES: (05/31/2015)

Name of Proposed Authorized User	State or Territory Where Licensed
Ravi Bodiwala	Mo

Requested Authorization(s) *(check all that apply)*

- [✓] 35.100 Uptake, dilution, and excretion studies
- [✓] 35.200 Imaging and localization studies
- [ ] 35.500 Sealed sources for diagnosis (specify device) _____

PART I -- TRAINING AND EXPERIENCE
(Select one of the three methods below)

* Training and Experience, including board certification, must have been obtained within the 7 years preceding the date of application or the individual must have obtained related continuing education and experience since the required training and experience was completed. Provide dates, duration, and description of continuing education and experience related to the uses checked above.

[✓] **1. Board Certification**

a. Provide a copy of the board certification.

b. If using only 35.500 materials, stop here. If using 35.100 and 35.200 materials, skip to and complete Part II Preceptor Attestation.

[ ] **2. Current 35.390 Authorized User Seeking Additional 35.290 Authorization**

a. Authorized user on Materials License _____ meeting 10 CFR 35.390 or equivalent Agreement State requirements seeking authorization for 35.290.

b. Supervised Work Experience.
(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)

Description of Experience	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Eluting generator systems appropriate for the preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs			
Total Hours of Experience:			

Supervising Individual	License/Permit Number listing supervising individual as an authorized user

Supervisor meets the requirements below, or equivalent Agreement State requirements *(check all that apply).*

[ ] 35.290 [ ] 35.390 + generator experience in 32.290(c)(1)(ii)(G)

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

☐ **3. Training and Experience for Proposed Authorized User**

a. Classroom and Laboratory Training.

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation			
Radiation protection			
Mathematics pertaining to the use and measurement of radioactivity			
Chemistry of byproduct material for medical use *(not required for 35.590)*			
Radiation biology			
Total Hours of Training:			

b. Supervised Work Experience (completion of this table is not required for 35.590).
(If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this section.)

Supervised Work Experience **Total Hours of Experience:**

Description of Experience Must Include:	Location of Experience/License or Permit Number of Facility	Confirm	Dates of Experience*
Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys		☐ Yes ☐ No	
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters		☐ Yes ☐ No	

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Training and Experience for Proposed Authorized User (continued)

b. Supervised Work Experience. (continued)

Description of Experience Must Include:	Location of Experience/License or Permit Number of Facility	Confirm	Dates of Experience*
Calculating, measuring, and safely preparing patient or human research subject dosages		☐ Yes ☐ No	
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material		☐ Yes ☐ No	
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures		☐ Yes ☐ No	
Administering dosages of radioactive drugs to patients or human research subjects		☐ Yes ☐ No	
Eluting generator systems appropriate for the preparation of radioactive drugs for imaging and localization studies, measuring and testing the eluate for radionuclidic purity, and processing the eluate with reagent kits to prepare labeled radioactive drugs		☐ Yes ☐ No	

Supervising Individual	License/Permit Number listing supervising individual as an authorized user

Supervisor meets the requirements below, or equivalent Agreement State requirements *(check one)*.

☐ 35.190 ☐ 35.290 ☐ 35.390 ☐ 35.390 + generator experience in 35.290(c)(1)(ii)(G)

c. For 35.590 only, provide documentation of training on use of the device.

Device	Type of Training	Location and Dates

d. For 35.500 uses only, stop here. For 35.100 and 35.200 uses, skip to and complete Part II Preceptor Attestation.

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each. (Not required to meet training requirements in 35.590)

By checking the boxes below, the preceptor is attesting that the individual has knowledge to fulfill the duties of the position sought and not attesting to the individual's "general clinical competency."

First Section
Check one of the following for each use requested:

For 35.190

Board Certification

☑ I attest that Ravi Bodiwala (Name of Proposed Authorized User) has satisfactorily completed the requirements in 10 CFR 35.190(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100.

OR

Training and Experience

☐ I attest that _____ (Name of Proposed Authorized User) has satisfactorily completed the 60 hours of training and experience, including a minimum of 8 hours of classroom and laboratory training, required by 10 CFR 35.190(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100.

For 35.290

Board Certification

☑ I attest that Ravi Badiwala (Name of Proposed Authorized User) has satisfactorily completed the requirements in 10 CFR 35.290(a)(1) and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

OR

Training and Experience

☐ I attest that _____ (Name of Proposed Authorized User) has satisfactorily completed the 700 hours of training and experience, including a minimum of 80 hours of classroom and laboratory training, required by 10 CFR 35.290(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

Second Section
Complete the following for preceptor attestation and signature:

☑ I meet the requirements below, or equivalent Agreement State requirements, as an authorized user for:

☑ 35.190 ☑ 35.290 ☐ 35.390 ☑ 35.390 + generator experience

Name of Preceptor	Signature	Telephone Number	Date
Isis Gayed	I Gayed	(713) 704-1789	01/30/2013

License/Permit Number/Facility Name

Lyndon Baines Johnson General Hospital Houston Texas 77026 Texas RAM L04412

Department of State Health Services

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Texas Radiation Control Act and Texas Department of State Health Services (Agency) regulations on radiation, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the Agency now or hereafter in effect and to any conditions specified below.

LICENSEE		This license is issued in response to an application
1. Name	HARRIS COUNTY HOSPITAL DISTRICT DBA **LYNDON BAINES JOHNSON GENERAL HOSPITAL** ATTN LOUIS K WAGNER PHD	Dated: August 14, 2009 Signed by: Louis K. Wagner, Ph.D.
2. Address	6431 FANNIN **STREET 2.130** MSB HOUSTON TX 77030	3. License Number: L04412 / Amendment Number: 40 PREVIOUS AMENDMENTS ARE VOID 4. Expiration Date: **August 31, 2019**

RADIOACTIVE MATERIAL AUTHORIZED

5. Radioisotope	6. Form of Material	7. Maximum Activity	8. Authorized Use
A. Any radio-active material with a half-life < 120 days, except positron emitters	A. Any radiopharma-ceutical, except gas and aerosol	A. As needed for diagnostic purposes	A. Any diagnostic use indicated in Title 25 TAC° §289.256(ff) and (hh).
B. Tc-99m	**B. Bulk liquid elution from a generator authorized in 25 TAC §289.256(hh)**	**B. As needed for diagnostic purposes**	**B. Preparation and use of radiopharmaceutical reagent kits authorized in 25 TAC §289.256(hh).**
C. Tc-99m	C. DTPA as an aerosol	C. **100** millicuries	C. Lung imaging studies using a commercially available radio-aerosol generator in accordance with the manufacturer's instructions.
D. Xe-133	D. Any radio-pharmaceutical	D. 150 millicuries	D. Pulmonary function studies and lung imaging.
E. I-131	E. Sodium iodide (Liquid or Capsule)	E. **400** millicuries	E. Treatment of hyperthyroidism **and thyroid cancer** in accordance with 25 TAC §289.256(kk).
F. Cs-137	F. Sealed source (IPL HEG-137)	F. Two sources not to exceed 30 millicuries each	**F. Storage pending transfer to an authorized recipient.**
G. Gd-153	G. Sealed line sources (NAS MED 3601; DuPont NES-8412; IPL A3410)	G. No single source to exceed 300 millicuries Total: 1 curies	**G. Storage pending transfer to an authorized recipient.**

° Texas Administrative Code (TAC)

Department of State Health Services

RADIOACTIVE MATERIAL LICENSE

LICENSE NUMBER	AMENDMENT NUMBER
L04412	40

9. Radioactive material shall only be stored and used at:

Site Number	Location
000	Houston - 5656 Kelly

10. Each site shall maintain documents and records pertinent to the operations at that site. Copies of all documents and records required by this license shall be maintained for Agency review at Site 000.

11. The licensee shall comply with the provisions (as amended) of Title 25, Texas Administrative Code (TAC) §289.201, §289.202, §289.203, §289.204, §289.205, §289.251, §289.252, §289.256 and §289.257.

12. Radioactive material may be used only by the individuals listed below for the uses specified:

All diagnostic uses authorized by the license, therapy with I-131 for hyperthyroidism **and thyroid cancer.**

Isis W. Gayed, M.D. Usha Joseph, M.D. David Qiang Wan, M.D.

13. The individual designated to perform the functions of Radiation Safety Officer (RSO) for activities covered by this license is Louis K. Wagner, Ph.D.

14. The licensee shall not open sealed sources containing radioactive material.

15. All radiopharmaceuticals to be used in humans must be from suppliers approved for distribution by the United States Food and Drug Administration (FDA), prepared from reagent kits and/or radionuclide generators from suppliers approved for distribution by the FDA, or obtained from a licensed nuclear pharmacy.

16. **Licensee may store Cs-137 and Gd-153 sealed sources pending transfer to authorized recipient. This authorization will expire September 30, 2013. The licensee shall submit an amendment request to remove the sources from the license immediately upon transfer to an authorized recipient.**

17.. The licensee shall maintain a current copy of the safety evaluation from "The Registry of Radioactive Sealed Sources and Devices" for each sealed source received under authority of this license, in excess of 100 microcuries of beta/gamma-emitting material or 10 microcuries of alpha-emitting material.

18. Unless authorized in Condition 8 above, installation or replacement of transmission sources may only be performed by the manufacturer under the auspices of a current reciprocity radioactive material license. Documentation of this authorization shall be maintained by the licensee for Agency review.

Department of State Health Services

RADIOACTIVE MATERIAL LICENSE

LICENSE NUMBER	AMENDMENT NUMBER
L04412	40

19. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material authorized by this license in accordance with statements, representations, and procedures contained in the following:

application dated August 14, 2009,
letter dated October 26, 2010.

Title 25 TAC §289 shall prevail over statements contained in the above documents unless such statements are more restrictive than the regulations.

PS:ps

FOR THE DEPARTMENT OF STATE HEALTH SERVICES

Date September 9, 2011

J. Scott Kee, Program Coordinator
Medical and Academic Licensing Program

THE UNIVERSITY OF TEXAS
MD Anderson
~~Cancer~~ Center
Making Cancer History®

Environmental, Safety, and Health
T 713-745-6852 F 713-745-2025
Unit 0713
P. O. Box 301439
Houston, Texas 77230

MEMORANDUM

Date: February 4, 2013

To: Charles W. Beasley, Ph.D., DABMP, DABSNM
The University of Texas, Health Science Center at Houston

From: J. W. Poston, Jr., PhD, LMP, CHP, CSP JWP 2/4/13
Radiation Safety Officer

Attached is the current Nuclear Medicine Staff Physicians authorization as approved by the MD Anderson Cancer Center, Radiation Safety Committee on January 12, 2012. This authorization allows the listed physicians, including Dr. E. Edmund Kim, to use any radioisotope covered by license L00466 for diagnostic and therapy purposes.

Though not specifically listed this authorization is considered to include uptake, dilution, imaging and localization studies with proper training and credentialing for the specific activity types as noted above.

Since 1993, the MD Anderson, Radiation Safety Committee has allowed any Nuclear Medicine staff physician who is certified by the American Board of Nuclear Medicine or equivalent to use radiopharmaceuticals in humans. Dr. Kim has been included on this authorization since 1993.

Since 2005, the MD Anderson, Radiation Safety Committee has included a specific listing of physicians meeting these requirements on a broad authorization for the Department of Nuclear Medicine. Dr. Kim has been included on this authorization since 2005.

Please do not hesitate to contact me if there are any further questions. Thank you.

THE UNIVERSITY OF TEXAS
MD Anderson ~~Cancer~~ Center
Making Cancer History

AMENDMENT UPDATE
FOR HUMAN USE

AUTHOROZATION NUMBER 0988

APPLICATION FOR APPROVAL OF USE OF RADIOISOTOPES IN HUMANS

APPLICANT: Nuclear Medicine staff physicians Certified by the American Board of Nuclear Medicine or equivalent, See attached DEGREE: M.D. TITLE: _____ DATE: November 3, 2011

DEPARTMENT: Nuclear Medicine BUILDING /LOCATION: _____ EXT. _____ BOX: _____

EXPERIENCE: (Briefly describe type and number of years of radioisotope experience including special courses.)
See attached

RADIOISOTOPE: Any radioisotope covered by License PHARMACEUTICAL FORM OR LABELED COMPOUND: Various

SOURCE OF RADIOPHARMACEUTICAL: Various manufactures/distributors licenses by the NRC or agreement states.

Amount to be ordered at one time: * Estimated Yearly Use: * Maximum amount to have on hand: *
* As determined by the RSO not to exceed applicable License limit.
TYPE OF HUMAN USE: Diagnostic: X Therapeutic: X

SUMMARY STATEMENT OF PROPOSED USE: (Include in summary number and type of patients, human dosage, biological samples to be taken for measurement, and that informed consent will be obtained. ATTACH COMPLETE, APPROVED PROTOCOL and fully completed Supplemental Information Form – Human Use.)

Patient dingnosis and therapy as approved/allowed by the FDA

PROTOCOL No: N/A WHERE will radioisotope be used (Room No.)? Designated Nuclear Medicine prep., scanning and storage rooms/areas, Nursing Units(G10 for therapy), Operating Rooms.

WHAT arrangements have been made for room and personnel training? As needed by Nuclear Medicine and Radiation Safety

HOW will radioactivity, including residues, be disposed? (Estimate yearly disposal in mCi by each method.) As approved by Radiation Safety

Human Administration: X Decay: X Commercial Disposal: X
NOTE: Proposed changes in the information submitted or in the approved protocol must be submitted in writing for approvals by the Chairman, Radiation Safety Committee and the Radiation Safety Officer.

SIGNATURE: [signature] Telephone No.: 713-792-7126

APPROVALS

THE RADIATION SAFETY COMMITTEE (APPROVES) (DISAPPROVES) THE USE OF THE RADIOISOTOPE IN HUMANS AS INDICATED ABOVE.

THE MAXIMUM AMOUNT TO BE ORDERED AT ONE TIME: See above*

THE MAXIMUM AMOUNT TO BE ON HAND AT ONE TIME: See above*

DATE: 1/12/2012 [signature] Chairman, Radiation Safety Committee [signature] Radiation Safety Officer 11/03/11

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November 3, 2011

Beth A.Chasen, MD	American Board of Radiology, 2006 American Board of Nuclear Medicine, 2007
Hubert H. Chuang, MD, PhD	American Board of Nuclear Medicine, 2007
Aaron C. Jessop, MD	American Board of Nuclear Medicine, 2010
E. Edmund Kim, MD	American Board of Diagnostic Radiology with Special Competence in Nuclear Radiology, 1981 American Board of Nuclear Medicine, 1976 American Board of Radiology, 1976 Korean Specialty Board of Preventive Medicine, 1970
Homer A. Macapinlac, MD	American Board of Nuclear Medicine, 1991 Certification Board of Nuclear Cardiology, 2000
Donald A. Podoloff, MD	American Board of Nuclear Medicine, 1975 American Board of Radiology, 1973 American Board of Radiology Special Competence in Nuclear Radiology, 1975
Eric M. Rohren, MD, PhD	American Board of Radiology, 2001 American Board of Nuclear Medicine, 2002
Gregory C. Ravizzini MD*	**American Board of Nuclear Medicine, 2006**
Franklin C. Wong, MD	American Society of Clinical Pathologists – Specialist in Chemistry, 1985 National Board of Medical Examiners, 1987 American Board of Nuclear Medicine, 1991 American Board of Psychiatry and Neurology, 1991 American Board of Legal Medicine, 1997 Certification Board of Nuclear Cardiology, 1998

* *Dr. Gregory C. Ravizzini's name was added to the list based on the information provided by the Department of Nuclear Medicine on November, 3, 2011.*

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Ravi Kishor Bodiwala, MD

Has pursued an accepted course of graduate study
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