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September 7, 2006

US Nuclear Regulatory Commission
Division of Nuclear Materials Safety
475 Allendale Road
King of Prussia, PA 19406-1415

03010626

RE: Addition of Physician to Materials License Number 45-16231-01

Henrico Doctors' Hospital – Forest Campus is requesting to amend materials license number 45-16231-01 to add Attul Aggarwal, M.D., as an *Authorized User*. Members of the Radiation Safety Committee reviewed the credentials of Dr. Aggarwal during an executive committee meeting on August 11, 2006 and approved Dr. Aggarwal as an Authorized User for radioactive materials under 35.100 and 35.200 based on the fact that Dr. Aggarwal was previously named as an authorized user on Massachusetts State license number 44-0062 issued to Boston University Medical Center (see attached copy).

We would also request that Dr. Hong Andy Park be deleted from our license since he is no longer affiliated with this hospital.

We also would request that the authorization for Gadolinium 153 sealed source be removed from our license. The source that we did possess was removed from our facility, and sent for disposal at Envirocare in Clive, Utah and we do not plan to use this material in the future.

Thank you for your attention to this request. .

Sincerely,

Beth Matish
Administration

Forest Campus
1602 Skipwith Road
Richmond, Virginia 23229
Telephone: 804 289 4500

www.HenricoDoctorsHospital.com

"Compassionate Care, Medical Excellence"



The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
Center for Environmental Health
Radiation Control Program
90 Washington Street, Dorchester, MA 02121
(617) 427-2944 (617) 427-2925 - Fax

MITT ROMNEY
GOVERNOR
KERRY HEALEY
LIEUTENANT GOVERNOR
TIMOTHY R. MURPHY
SECRETARY
PAUL J. COTE, JR.
COMMISSIONER

March 30, 2006

Chris Martel
Radiation Safety Officer
Boston University Medical Center
80 East Concord Street
Boston, MA 02118

**RE: Receipt of License Renewal for
License Number 44-0062**

Dear Mr. Martel:

This letter is to acknowledge the receipt of your application for the renewal of your radioactive materials license for Boston University Medical Center, License Number 44-0062. Your application is deemed timely filed and the license will not expire until final action has been taken by this office.

You will be contacted should additional information be necessary to complete the evaluation of your application.

If you have any questions concerning this renewal, please don't hesitate to contact our office at (617) 427-2944.

Sincerely,

A handwritten signature in cursive script that reads "Kenath O. Traegde".

Kenath O. Traegde, Supervisor
Radiation Control Program

RADIOACTIVE MATERIAL USE PERMIT

-CLINICAL-

DATE ISSUED: 2/27/04
NEXT RENEWAL: 3/01/06
PERMIT HOLDER: Elizabeth Oates, M.D.
LOCATION OF USE: ENC- 1st Floor Nuclear Radiology
ACC 4th Floor Nuclear Radiology
LAB SUPERVISOR: Elizabeth Oates

RADIONUCLIDE	MAX ACTIVITY IN POSSESSION
F-18	1 Ci
Tc-99m	5.5 Ci
I-123	1 Ci
I-131	2 Ci
Tl-201	1 Ci
Xe-133	1 Ci
Ga-67	1 Ci
Gd-153	650 mCi
In-111	1 Ci
Sm-153	1 Ci
Y-90	1 Ci

AUTHORIZED USERS	TECHNOLOGISTS	TECHNOLOGISTS ON CALL
Oates, Elizabeth-Chief	Shea, Daniel	Farago, Patricia
Aggarwal, Attul	Conklin, James	Schleipman, A. Robert
Bunyaviroch, Tira	Gavin, Sheila	
Shah, Nirav	Moy, Hoy Yin	
	Salnikov, Lev	
	Singh, Sarbjit	

1. Last updated on November 28, 2005.
2. Please post a copy of this permit in a conspicuous location in your laboratory.
3. Please notify RPO at 8-7502 to request changes to this permit.

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THE COMMONWEALTH OF MASSACHUSETTS
 DEPARTMENT OF PUBLIC HEALTH
 RADIATION CONTROL PROGRAM
 MATERIALS LICENSE

Pursuant to Massachusetts General Laws Chapter 111, Sections 3, 5M, 5N, 5O and 5P and Massachusetts Regulations for the Control of Radiation, Section 120.100, Licensing of Radioactive Material, and in reliance on statements and representation heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer radioactive materials designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations 105 CMR 120.000. This license shall be deemed to contain the conditions specified in 105 CMR 120.000 and is subjected to all applicable rules, regulations of the Department of Public Health, Commonwealth of Massachusetts, now or hereafter in effect and to any conditions specified below.

Licensee	3. License Number: 44-0062 is amended in its entirety, in accordance with letter dated December 4, 2003, to read as follows: Amendment No: 11
1. Boston University Medical Center	4. Expiration Date: February 28, 2006
2. 80 East Concord Street Boston, Massachusetts 02118	
	5. Docket No: 04-0067

6. Radioactive Material	7. Chemical/Physical Form	8. Maximum Possession Limit
A. Any radioactive material with Atomic Numbers between 3-83 with a half-life less than or equal to 120 days	A. Any	A. Not to exceed 1 curie per radionuclide and 10 curies total
B. Any radioactive material with Atomic Numbers between 1-83 with a half-life greater than 120 days	B. Any	B. See Condition 13
C. Phosphorus-32	C. Any	C. 2 curies
D. Sulfur-35	D. Any	D. 3 curies
E. Nickel-63	E. Plated source	E. Not to exceed 20 millicuries per source and 200 millicuries total

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6. Radioactive Material	7. Chemical/Physical Form	8. Maximum Possession Limit
F. Strontium-90	F. Sealed sources	F. Not to exceed 100 millicuries per source and 4 curies total
G. Strontium-90	G. Sealed sources (Nuclear Associates Model PTW-09)	G. 900 microcuries
H. Molybdenum-99	H. Any	H. 5.5 curies
I. Technetium-99m	I. Any	I. 5.5 curies
J. Palladium-103	J. Sealed Sources	J. Not to exceed 100 millicuries per source and 4 curies total
K. Iodine-125	K. Any	K. 2 curies
L. Iodine-125	L. Sealed Sources	L. Not to exceed 100 millicuries per source and 4 curies total
M. Iodine-131	M. Any	M. 2 curies
N. Cesium-137	N. Sealed Sources (Technical Operations Model 773)	N. 165 millicuries
O. Cesium-137	O. Sealed Sources	O. Not to exceed 100 millicuries per source and 4 curies total
P. Iridium-192	P. Sealed Sources	P. Not to exceed 100 millicuries per source and 4 curies total

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6. Radioactive Material	7. Chemical/Physical Form	8. Maximum Possession Limit
Q. Cesium-137	Q. Sealed Sources	Q. Not to exceed 2,000 curies per source and 8,000 curies total
R. P-32	R. Sealed Sources (Guidant Corporation Model GDT P-32 Series)	R. 275 millicuries per source; 875 millicuries total
S. Gd-153	S. Sealed Sources	S. Not to exceed 24 millicuries per source and 650 millicuries total

9. Authorized use:

- A. through P. Medical uses included under 105 CMR 120.531, 533, 537, 541, 543. Research in humans in accordance with any applicable Food and Drug Administration (FDA) requirements. Research and development as defined in 105 CMR 120.005, including animal studies. Instrument calibration.
- Q. In AECL Model Gammacell 40 Irradiator and CIS-US Incorporated Model IBL 437C Irradiator for the irradiation of material except explosives, flammables, or corrosives.
- R. For use in Guidant Corporation VI intravascular brachytherapy (IVB) high dose rate (HDR) device model GALILEO™ as described in Sealed Source and Device Sheet # TX-1070-D-102-S.
- S. For use in Siemen's ECAM cameras as described in Sealed Source and Device Sheet # IL-650-D-105-S.

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CONDITIONS

10. Radioactive materials listed in items 6.A. through 6.P. and 6.R. shall only be used at the licensee's facilities located at Boston University Medical Center, Boston, Massachusetts. Radioactive materials listed in item 6 Q. shall only be used at the licensee's facilities located at 80 E. Concord Street, Boston, Massachusetts and 88 E. Newton Street, Boston, Massachusetts.
11. This license is subject to an annual fee as determined by the Executive Office for Administration and Finance.
12.
 - A. Radioactive material shall only be used by, or under the supervision of, individuals designated by the Radiation Safety Committee, Richard Cohen, M.D., Chairperson.
 - B. The use of licensed material in or on humans shall be by a physician as defined in 105 CMR 120.005.
 - C. Individuals designated in writing to work as authorized users or authorized nuclear pharmacists, as defined in 105 CMR 120.502, shall meet the training and experience criteria established in 105 CMR 120.500 and shall be designated by the licensee's Radiation Safety Committee.
 - D. Licensed material listed in item 6 Q. shall only be used by, or under the supervision of, individuals who have received the training described in letters to the U.S. NRC dated March 8, 1989 and July 21, 1994.
 - E. The Radiation Safety Officer for the activities authorized by this license is Christopher B. Martel.
13. If only one radionuclide is possessed, the possession limit is the quantity less than or equal to 10,000 times the applicable quantity for that radionuclide in 105 CMR 120.196, Appendix B, Table II. If two or more radionuclides are possessed, the possession limit is determined as follows: For each radionuclide, determine the ratio of the quantity possessed to 10,000 times the applicable quantity specified in 105 CMR 120.196, Appendix B, Table II, for that radionuclide. The sum of the ratios for all radionuclides possessed under the license shall not exceed unity.

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14. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material at a single location to quantities below the limits specified in 105 CMR 120.196, Table III, which require consideration of the need for an emergency plan for responding to a release of licensed material.
15. Notwithstanding the requirements of 105 CMR 120.515(D), 120.531, 120.533, 120.537, 120.541 and 120.543 the licensee may use for medical use any radioactive material. The licensee shall possess and use radioactive material for medical use in accordance with the prescriptive and performance criteria in the other sections of 105 CMR 120.500. This does not relieve the licensee from complying with applicable U.S. Food and Drug Administration (FDA) and other Federal and State requirements.
16. Notwithstanding the requirements of 105 CMR 120.543(E) and (G), the licensee may use iridium-192 as seeds encased in nylon ribbon and palladium-103 as a sealed source in seeds for topical, interstitial, and intracavitary treatment of cancer. The licensee may deviate from the manufacturer's radiation safety and handling instructions to the extent that the instructions are not applicable to the type of use proposed by the licensee.
17. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
18. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Removal, replacement, and disposal of sealed sources in the irradiator shall be performed by persons specifically licensed by the Agency, the U.S. NRC or an Agreement State to perform such services.
19. The procedures contained in the manufacturer's instruction manual for the irradiator authorized by this license shall be followed and a copy of this manual shall be made available to each person using or having responsibility for the use of the device.
20. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
21. The licensee shall conduct a physical inventory every three months to account for all sealed sources and devices containing licensed material received and possessed pursuant to 105

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CMR 120.521, 120.541 and 120.543 and every six months for all other sealed sources and devices.

22. A. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents the foil temperatures from exceeding that specified in the certificate of registration referred to in 10 CFR 32.210.
- B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.
23. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
24. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
25. The licensee is authorized to hold radioactive material with a physical half-life of less than 270 days for decay-in-storage before disposal in ordinary trash, provided:
 - A. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
 - B. A record of each such disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the radioactive material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.
26. Pursuant to 105 CMR 120.252 and 120.154, the licensee is authorized to dispose of licensed material by incineration.
27. Notwithstanding the requirements of 105 CMR 120.539(A)(4), the licensee may use the alternate method for determining the dose rates in room 7W28 during the use of room 7W26

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for radiopharmaceutical therapy for doses of 201 millicuries or less of iodine-131 as described in the application dated May 30, 1995, page 61 and letter dated March 11, 1996.

28. Notwithstanding the requirements of 105 CMR 120.545(A)(4), the licensee may use the alternate method for determining the dose rates in contiguous restricted and unrestricted areas described in the application dated May 30, 1995, page 58 and letters dated September 28, 1995, November 1, 1995, May 6, 1996 and June 11, 1996.
29. The licensee is authorized to release patients administered radioactive material in accordance with procedures contained in the letters dated June 15, 2000; July 18, 2000; and August 11, 2000.
30. The licensee shall only transport radioactive material or deliver radioactive material to a carrier for transport in accordance with the provisions of 49 CFR Parts 170 through 189, 10 CFR Part 71, and 105 CMR 120.770 "Transportation of Radioactive Material."
31. Except as specifically provided otherwise by this license, the licensee shall conduct its program in accordance with statements, representations and procedures contained in the documents, including any enclosures, listed below. The Massachusetts Regulations for the Control of Radiation (105 CMR 120.000) shall govern, unless statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.
 - A. Application dated April 4, 1995
 - B. Letter dated December 21, 1995
 - C. Letter dated October 31, 1996
 - D. U.S. NRC License No. 20-02215-01, Amendment No. 54, second corrected copy, dated October 25, 1996 and transferred to Massachusetts on March 21, 1997
 - E. U.S. NRC License No. 20-02215-03, Amendment No. 3 transferred to Massachusetts on March 21, 1997
 - F. Letter dated May 1, 1997
 - G. Letter dated August 12, 1997
 - H. Letter dated April 22, 1999
 - I. Letter dated June 15, 2000
 - J. Letter dated July 18, 2000
 - K. Letter dated July 26, 2000
 - L. Letter dated August 11, 2000
 - M. Letter dated September 6, 2000

This is to acknowledge the receipt of your letter/application dated

9/7/2006, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment 45-16231-01 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 139406.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.