

SUMMIT MEDICAL GROUP
1 Diamond Hill Road
Bensley Pavillion, 2nd floor
Berkeley Heights, NJ 07922

Licensing Assistance Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Br. 1

Re: Amendment NRC License # 29- 15739 -01

03009678

July 6, 2008

Dear Sirs:

Please amend our license for the following:

1. Addition of Andrew Beamer, M.D. (35.200 cardiovascular imaging).

Enclosed are the following documents:

- a) Certification Board of Nuclear Cardiology
- b) Curriculum Vitae

2. Addition of Avinash Kothavale, M.D. (35.200 cardiovascular imaging).

Enclosed are the following documents:

- a) Certification Board of Nuclear Cardiology
- b) Curriculum Vitae
- c) Medical Use Training and Experience and Preceptor Attestation

3. Addition of John S. McCormick, M.D. (35.100, 35.200; Oral administration of I-131 for imaging and localization).

Enclosed are the following documents:

- a) NRC Materials License #29-03308-01, Atlantic Health System, Overlook Hospital, Summit, NJ listing Dr. McCormick as an authorized user.

4. Addition of Sue Jane Grosso, M.D. (35.100, 35.200; Oral administration of I-131 for imaging and localization).

Enclosed are the following documents:

- b) NRC Materials License #29-03308-01, Atlantic Health System, Overlook Hospital, Summit, NJ listing Dr. Grosso as an authorized user.

5. Deletion of authorized users: The following have permanently discontinued their duties as authorized users on our license.

James Korsten M.D.
Laura Weisse, M.D.
Michael Alexander, M.D,

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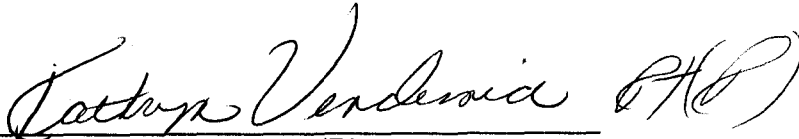
142629
NMSS/RGNI MATER. ALS-002

6. Change of Management:

From Andrew Mintz to Kathryn Vendemia.

Please contact John Gochoco, M.S., DABR, Physicist @ 973-322-5590 if you need additional information.

Thank you in advance for your assistance.

A handwritten signature in cursive script, reading "Kathryn Vendemia", followed by a circled "H" and "P" in parentheses.

Kathryn Vendemia, RT(R)
Medical Imaging Manager
Summit Medical Group
1 Diamond Hill Road
Berkeley Heights, NJ 07922

cc. Robert Slama, M.D., Radiation Safety Officer

THE CERTIFICATION BOARD OF NUCLEAR CARDIOLOGY

Incorporated 1996

CERTIFIES THAT

Andrew Douglas Beamer, M.D.

HAVING MET THE REQUIREMENTS PRESCRIBED BY THIS BOARD FOR PHYSICIANS RESIDING
IN THE UNITED STATES AND HAVING SATISFACTORILY PASSED THE REQUIRED EXAMINATION,
IS HEREBY DESIGNATED

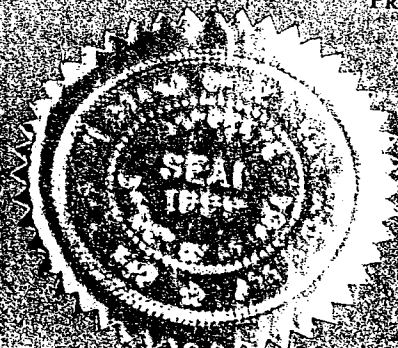
A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

NUCLEAR CARDIOLOGY

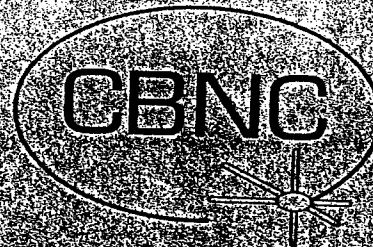
FOR THE PERIOD 2005 THROUGH 2015

Mark D. Enguerra
PRESIDENT

John A. Anigho
SECRETARY



CERTIFICATE # 3784



OCTOBER 23, 2005

Curriculum Vitae

Name: Andrew Douglas Beamer

Office Address: 120 Summit Avenue
Summit, NJ 07901

Home Address: [REDACTED]

Date of Birth: [REDACTED]

Place of Birth: [REDACTED]

Education:

1977 BA, Duke University, Durham, North Carolina
1982 MD, The Johns Hopkins University

Postdoctoral Training:

Internship and Residency:

1982-1983 Intern in Medicine, The Johns Hopkins Hospital, Baltimore, MD
1983-1985 Resident, Department of Medicine, The Johns Hopkins Hospital,
Baltimore, MD

Fellowships:

1982-1985 Clinical Fellow in Medicine, The Johns Hopkins University School of
Medicine, Baltimore, MD
1985-1988 Research Fellow in Medicine (Cardiology), Harvard Medical School,
Boston, MA
1985-1987 Clinical/Research Fellow in Medicine (Cardiology), Brigham and
Women's Hospital, Boston, MA

Licensure:

1982 Maryland State Board of Medical Examiners #D28773 (inactive)
1986 Massachusetts Board of Registration in Medicine #55435 (inactive)
1988 New Jersey State Board of Medical Examiners #51583 (Expires 2005)

Certification:

1985 American Board of Internal Medicine #104676
1987 Subspecialty Examination in Cardiovascular Disease, American Board of
Internal Medicine, #104676

Hospital Appointments:

1987-1988 Associate Physician, Brigham and Women's Hospital, Boston, MA
1988-1989 Provisional Staff, Overlook Hospital, Summit, NJ
1988-1989 Assistant Attending, Newark Beth Israel Medical Center,
Newark, NJ

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

1988-1995	Regional Service Staff, Morristown Memorial Hospital, Morristown, NJ
1995-	Active Staff, Morristown Memorial Hospital, Morristown, NJ
1988-1990	Attending Staff, St. Michael's Hospital, Newark, NJ
1989-1993	Assistant Attending, Overlook Hospital, Summit, NJ
1993-	Associate Attending, Overlook Hospital, Summit, NJ
1989-1992	Associate Attending, Newark Beth Israel Medical Center, Newark, NJ
1992-1993	Courtesy Staff, Newark Beth Israel Medical Center, Newark, NJ

Academic Appointments:

1992-2001	Assistant Clinical Professor of Medicine, Columbia University College of Physicians and Surgeons, New York, NY
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Committee Assignments:

1988-1996	Pharmacy and Therapeutics Committee, Overlook Hospital, Summit, NJ
1990-1996	Medical Care Review Committee, Overlook Hospital, Summit, NJ
1992-1993	Multidisciplinary Heparin Protocol Task Force, Overlook Hospital, Summit, NJ
1992-1994	Chest Pain Emergency Room Task Force, Overlook Hospital, Summit, NJ
1994-1998	Chairman, Chest Pain Advisory Committee, Overlook Hospital, Summit, NJ
1996-1998	Secretary, Cardiology Section, Overlook Hospital, Summit, NJ
1998-2000	Chairman, Cardiology Section, Overlook Hospital, Summit, NJ

Awards and Honors:

1974-1977	Angier B. Duke Memorial Scholar
1977	Graduation Marshal
1977	Phi Beta Kappa
1977	Summa cum laude
1982	Alpha Omega Alpha
1982	Warfield T. Longcope Prize in Clinical Medicine

Administrative Appointments:

1992-	Health Benefits Trust Committee, Summit Medical Group
1994-2004	Board of Directors, Medical Realty Associates
2003-	Board of Directors, Summit Medical Group, PA

Community Activities:

1994-2002	Board of Directors, Blue Streak Aquatic Club, Berkeley Heights, NJ
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1996-1998 Vice President, Blue Streak Aquatic Club, Berkeley Heights, NJ

1998-2000 President, Blue Streak Aquatic Club, Berkeley Heights, NJ

Special Training

1987-1988 Program in Clinical Effectiveness, Brigham & Women's Hospital, Harvard Medical School, and Harvard School of Public Health, course directors: Lee Goldman, MD, and Howard H. Hiatt, MD (Training in biostatistics, clinical epidemiology, and decision analysis)

Original Papers:

Beamer AD, Lee TH, Cook EF, Brand DA, Rouan GW, Weisberg MC, Goldman L, and the Multicenter Chest Pain Study Group. Diagnostic implications for myocardial ischemia of the circadian variation of chest pain. *Am J Cardiol* 1987; 60: 998-1002.

Antman EM, Beamer AD, Cantillon C, McGowan N, Goldman L, Friedman PL. Propafenone for suppression of refractory symptomatic atrial fibrillation. *J Am Coll Cardiol* 1988; 12:1005-11.

Antman EM, Beamer AD, Cantillon C, McGowan N, Friedman PL. Therapy of refractory symptomatic atrial fibrillation and atrial flutter: A staged care approach with new antiarrhythmic drugs. *J Am Coll Cardiol* 1990; 15:698-707.

Smith CR, Petty BG, Hendrix CW, Kernan WN, Garver PL, Fox K, Beamer A, Carbone K, Threlkeld M, Lietman PS. Ceftriaxone compared with cefotaxime for serious bacterial infections. *J Infect Dis* 1989; 160:442-447.

Cole PL, Beamer AD, McGowan N, Cantillon CO, Benfell K, Kelly RA, Hartley LH, Smith TW, Antman EM. Efficacy and safety of perhexiline maleate in refractory angina. A double-blind placebo-controlled clinical trial of a novel antianginal agent. *Circ* 1990; 81:1260-1270.

Espinosa JE, Beamer AD, Kosnik LK. Overlook Hospital's practical experience in reducing time to thrombolytic treatment, and in establishing a Chest Pain Observation Unit. *Clinician* 1996; 14(4): 24-29.

Abstracts:

Beamer AD, Lee TH, Cook EF, Rouan GW, Weisberg MC, Goldman L, and the Multicenter Chest Pain Study Group. Diagnostic significance of the circadian variation of chest pain in emergency room patients. *Clin Res* 1987; 35: 338A.

Beamer AD, Lee TH, Cook EF, Rouan GW, Weisberg MC, Goldman L, and the Multicenter Chest Pain Study Group. Diagnostic implications of the circadian variation of chest pain. *Circ (supp.)* 1987; IV-397.

Antman EM, Beamer AD, Cantillon C, McGowan N, Friedman PL. Propafenone for suppression of refractory symptomatic atrial fibrillation. *Circ (supp. IV)* 1987; IV-68.

Antman EM, Beamer AD, Cantillon C, McGowan N, Friedman PL. Stepped care therapy for refractory symptomatic atrial fibrillation. *Circ (supp. II)* 1988; II-62.

Invited Lectures:

"Complications of Myocardial Infarction," Potpourri for Practicing Physicians, Overlook Hospital, Summit, NJ, May 1992.

"Cardiomyopathy," Resident Lecture, Overlook Hospital, Summit, NJ, September 1992.

"Thrombolysis in Myocardial Infarction," Potpourri for Practicing Physicians, Overlook Hospital, Summit, NJ, September 1993.

"Chest Pain Center," CME Lecture, Our Lady of Lourdes Hospital, Camden, NJ, May 1995.

"Emergency Treatment of Chest Pain," Resident Lecture, Overlook Hospital, Summit, NJ, September 1998.

"Preventive Cardiology," Potpourri for Practicing Physicians, Overlook Hospital, Summit, NJ, June 1999.

"Cardiology Update," Potpourri for Practicing Physicians, Overlook Hospital, Summit, NJ, December 2002.

"New Strategies in Heart Failure," Summit Medical Group, Summit, NJ

Espinosa JE, Beamer AD. "Can the Use of Continuous Quality Improvement (CQI) Tools Reduce Time to Thrombolytic Treatment? Perspectives from the Field and Suggestions for Improvement for the NHAAP," National Heart Attack Alert Program Coordinating Committee, National Institutes of Health, Bethesda, MD, June 1995.

Espinosa JE, Beamer AD. "Chest Pain Centers and the Use of CQI Methods to Reduce Time to Thrombolytic Treatment in ED Patients," CME Lecture, Bayshore Medical Center, NJ, June 1995.

Espinosa JE, Beamer AD. "Chest Pain Centers and the Use of CQI Methods to Reduce Time to Thrombolytic Treatment in ED Patients," Section of Continuous Quality Improvement, American College of Emergency Physicians (National Meeting), Washington, DC, September 1995.

Espinosa JE, Beamer AD, Kosnik LK. "At the threshold of community intervention: Overlook Hospital's practical experience in reducing time to thrombolytic treatment, and in establishing a Chest Pain Observation Unit. Might our TQM/CQI approach be applied to the higher order model of community intervention? Do we have a bioethical imperative to do so?" Second National Congress of Chest Pain Centers, Phoenix, AZ, September, 1995

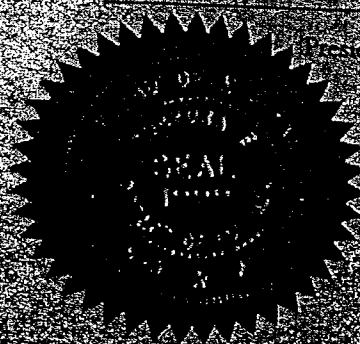
Certification Board of Nuclear Cardiology
Certifies That

Avinash Annash Kothavale, MD

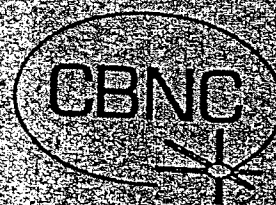
HAVING MET THE REQUIREMENTS PRESCRIBED BY THIS BOARD
FOR PHYSICIANS TRAINED IN THE UNITED STATES
AND HAVING SATISFACTORILY PASSED THE REQUIRED EXAMINATION
IS HEREBY DESIGNATED

A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF
NUCLEAR CARDIOLOGY

FOR THE PERIOD 2006 - 2016



[Signature]
President



[Signature]
Secretary

CERTIFICATE NUMBER 4427

Avinash A. Kothavale, MD, FACC

Current Position

9/2006 – Present Summit Medical Group, Berkeley Heights NJ
Cardiologist

Education & Training

7/2003 – 6/2006 Beth Israel Deaconess Medical Center/Harvard Medical School, Boston, MA
Fellowship in Cardiovascular Diseases

7/2002 – 6/2003 University of California, San Francisco, San Francisco, CA
Fellowship in Echocardiography

6/1999 – 6/2002 University of California, San Francisco, San Francisco, CA
Internship and Residency in Internal Medicine, Primary Care

8/1995 – 5/1999 Case Western Reserve University School of Medicine, Cleveland, OH
Doctor of Medicine: May 1999

9/1990 – 6/1994 Stanford University, Stanford, CA
B.S. in Biological Sciences with Honors

Board Certifications

2006 American Board of Internal Medicine: Cardiovascular Disease
2006 Certification Board of Nuclear Cardiology
2003 National Board of Echocardiography
2002 American Board of Internal Medicine: Internal Medicine

Licensure

2006 New Jersey medical license
2003 Massachusetts medical license
2001 California medical license

Honors

1999 Alpha Omega Alpha
2007 Fellow American College of Cardiology

Research Experience

5/2005 – 6/2006 Beth Israel Deaconess Medical Center, Boston, MA

- Co-investigator: Coronary Artery Disease Screening in Diabetic Renal Transplant Candidates.
- Study subject recruiter: Enrolled patients in coronary stent/anticoagulation studies

7/2002 – 6/2003 University of California, San Francisco, San Francisco, CA

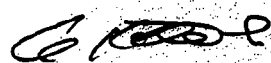
- Co-investigator : Cardiac Response after Subarachnoid Hemorrhage study (CRASH), a prospective cohort study that investigated cardiac dysfunction after subarachnoid hemorrhage

6/1994 – 5/1995 Gilead Sciences, Foster City, CA

- Research Biologist : Developed anti-sense DNA technology to selectively inhibit gene expression

8/1992 – 6/1994 Stanford University/Palo Alto VA Medical Center, Stanford, CA

- Research Biologist: Studied astrocyte proliferation in an animal model of multiple sclerosis


1/7/08

Avinash A. Kothavale, MD, FACC

Publications

Kothavale A, Banki NM, Kopelnik A, Yarlagadda S, Lawton MT, Ko N, Smith WS, Drew B, Foster E, Zaroff JG. Predictors of left ventricular regional wall motion abnormalities after subarachnoid hemorrhage. *Neurocrit Care*. 2006;4(3):199-205.

Flanagan WM, Kothavale A, Wagner RW. Effects of oligonucleotide length, mismatches and mRNA levels on C-5 propyne-modified antisense potency. *Nucleic Acids Res*. 1996; 24(15):2936-41.

Lewis JG, Lin KY, Kothavale A, Flanagan WM, Matteucci MD, DePrince RB, Mook RA Jr., Hendren RW, Wagner RW. A serum-resistant cytofectin for cellular delivery of antisense oligodeoxynucleotides and plasmid DNA. *Proc Natl Acad Sci USA*. 1996; 93(8):3176-81.

Kothavale A, DiGregorio D, Somera FP, Smith ME. GFAP mRNA fluctuates in synchrony with chronic relapsing EAE symptoms in SJL/J mice. *Glia*. 1995; 14(3):216-24.

Kothavale A, DiGregorio D, Smith ME. Glial fibrillary acidic protein mRNA and the development of gliosis in mice with chronic relapsing experimental allergic encephalomyelitis. *Prog Brain Res*. 1995; 105:305-10.

Professional Societies

2002 – Present American College of Cardiology
2007 – Present American Society of Nuclear Cardiology
2007 – Present American Heart Association

A. Kothavale

1/7/08

**MEDICAL USE TRAINING AND EXPERIENCE
AND PRECEPTOR ATTESTATION**APPROVED BY OMB: NO. 3150-0120
EXPIRES: 10/31/2008**PART I -- TRAINING AND EXPERIENCE****Note:** Descriptions of training and experience must contain sufficient detail to match the training and experience criteria in the applicable regulation (10 CFR Part 35)

1. Name of Individual, Proposed Authorization (e.g., Radiation Safety Officer), and Applicable Training Requirements (e.g., 10 CFR 35.50)

Avinash Kothavale, M.D.

2. For Physicians, Podiatrists, Dentists, Pharmacists -- State or Territory Where Licensed
Massachusetts

3. CERTIFICATION

- a. Provide a copy of the board certification. (Stop here if applying under 10 CFR Part 35, Subpart J or 35.590(a); continue if applying under other subparts.)
- b. Provide documentation in appropriate items 4 through 10 of training or clinical case work required by 35.50(e); 35.51(c); 35.290(c)(1)(ii)(G) for AU seeking 35.200 authorization; 35.390(b)(1)(ii)(G); 35.396(d)(1) and 35.396(d)(2); 35.590(c); or 35.690(c).
- c. Provide completed Part II Preceptor Attestation, Items 11a through 11d.
- Stop here after completing items 3a, 3b, and 3c when using board certification to meet 10 CFR Part 35 training and experience requirements.

**4. INDIVIDUALS IDENTIFIED ON A LICENSE OR PERMIT AS RADIATION SAFETY OFFICERS (RSO),
AUTHORIZED USERS (AU), AUTHORIZED MEDICAL PHYSICISTS (AMP), OR
AUTHORIZED NUCLEAR PHARMACISTS (ANP) SEEKING ADDITIONAL AUTHORIZATIONS**

- a. Provide a copy of the license or broadscope permit listing the current authorization and (b) or (c)
- b. Complete items 6c (and 10 when training is provided by an RSO, AMP, ANP, or AU) and preceptor items 11b through 11d to meet requirements for: RSO in 35.50(c)(2) or 35.50(e); or AU in 35.290(c)(1)(ii)(G) or 35.390(b)(1)(ii)(G) or 35.590(c) or 35.690(c); or AMP under 35.51(c).
- c. Complete items 5, 6a, 6b, 10, and Preceptor items 11a through 11d to meet AU requirements in 35.396(a).

5. DIDACTIC OR CLASSROOM AND LABORATORY TRAINING (optional for Medical Physicists)

Description of Training	Location	Clock Hours	Dates of Training
Radiation Physics and Instrumentation	Caritas St. Elizabeth's Med Center, Boston MA	80 hours	Sept through Nov 2005
Radiation Protection	Caritas St. Elizabeth's Med Center, Boston, MA	40 hours	Sept through Nov 2005
Mathematics Pertaining to the Use and Measurement of Radioactivity	Caritas St. Elizabeth's Med Center, Boston, MA	20 hours	Sept through Nov 2005
Radiation Biology	Caritas St. Elizabeth's Med Center, Boston, MA	30 hours	Sept through Nov 2005
Chemistry of Byproduct Material for Medical Use	Caritas St. Elizabeth's Med Center, Boston, MA	30 hours	Sept through Nov 2005
OTHER			

MEDICAL USE TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

6a. WORK OR PRACTICAL EXPERIENCE WITH RADIATION

Description of Experience	Name of Supervising Individual(s)	Location and Corresponding Materials License Number	Dates and/or Clock Hours of Experience
Elution of generators, use of dose calibrator, monitoring of eluate, preparation of reagent kits, use of radiation monitoring equipment	Alan B. Ashare, M.D.	Caritas St. Elizabeth's Med Ctr, Boston, MA 44-0075 COM RCP	Aug 2005 through Dec 2005 500 hours

6b. SUPERVISED CLINICAL CASE EXPERIENCE (describe experience elements in 6a)

Radionuclide	Type of Use	No. of Cases Involving Personal Participation	Name of Supervising Individual	Location and Corresponding Materials License Number	Dates and/or Clock Hours of Experience

MEDICAL USE TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

6c. TRAINING FOR SECTIONS 35.50(e), 35.51(c), 35.590(c), or 35.690(c)

Training Element	Type of Training *	Location and Dates

* Types of training may include supervised (complete Item 10 for 35.50(e), 35.51(c), and 35.690(c)), didactic, or vendor training.

7. FORMAL TRAINING Physicians (for uses under 35.400 and 35.600) and Medical Physicists

Degree, Area of Study or Residency Program	Name of Program and Location with Corresponding Materials License Number	Dates	Name of Organization that Approved the Program (e.g., Accreditation Council for Graduate Medical Education) and the Applicable Regulation (e.g., 10 CFR 35.490)

8. RADIATION SAFETY OFFICER (RSO) -- ONE-YEAR FULL-TIME EXPERIENCE

- ☐ YES Completed 1 year of full-time radiation safety experience (in areas identified in Item 6a) under supervision.
☒ N/A of _____ the RSO for License No. _____

9. MEDICAL PHYSICIST -- ONE-YEAR FULL-TIME TRAINING/WORK EXPERIENCE

- ☐ YES Completed 1 year of full-time training (for areas identified in item 6a) in therapeutic radiological physics (35.961) or medical physics (35.51) under the supervision of _____
☒ N/A who is a medical physicist (35.961) or meets requirements for Authorized Medical Physicists (35.51);

and

- ☐ YES Completed 1 year of full-time work experience (at location providing radiation therapy services described and for topics identified in Item 6a) for (specify use or device) _____
☒ N/A under the supervision of _____ who is a medical physicist (35.961) or meets requirements for Authorized Medical Physicists (35.51) (specify use or device) _____

MEDICAL USE TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

10. SUPERVISING INDIVIDUAL -- IDENTIFICATION AND QUALIFICATIONS

The training and experience indicated above was obtained under the supervision of (if more than one supervising individual is needed to meet requirements in 10 CFR Part 35, provide the following information for each):

A. Name of Supervisor

Alan B. Ashare, M.D.

B. Supervisor is:

☒ Authorized User☐ Authorized Medical Physicist☒ Radiation Safety Officer☐ Authorized Nuclear PharmacistC. Supervisor meets requirements of Part 35, Section(s) 35.57(a) and 35.57(b)for medical uses in Part 35, Section(s) 35.100, 35.200, 35.300, 35.392, 35.394

D. Address

Caritas St. Elizabeth's Medical Center
736 Cambridge Street
Boston, MA 02135-2997

E. Materials License Number

Comm of Mass 44-0075

PART II -- PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each. This part is not required to meet training requirements in 35.590 or Part 35, Subpart J (except 35.980).

I attest the individual named in Item 1:

11a.

☒has satisfactorily completed the requirements in Part 35, Section(s) and Paragraph(s) 35.290(c)(1) as documented in section(s) 5. and 6. of this form.

11b. Select one

☐meets the requirements in ☐ 35.50(e) ☐ 35.51(c) ☐ 35.390(b)(1)(ii)(G) ☐ 35.690(c) for _____☒ N/A

types of use, as documented in section(s) _____ of this form.

11c.

☐has achieved a level of competency sufficient to independently operate a nuclear pharmacy (for 35.980); **OR**☒has achieved a level of competency sufficient to function independently as an authorized _____ user for 35.200 uses (or units); **OR**☒has achieved a level of radiation safety knowledge sufficient to function independently as a Radiation Safety Officer for a medical use licensee; **OR**☐ N/A

11d.

☐I am an Authorized Nuclear Pharmacist; **OR** ☒ I am a Radiation Safety Officer; **OR**☒I meet the requirements of 35.57(a) and 35.57(b) section(s) of 10 CFR Part 35or equivalent Agreement State requirements to be a preceptor ☒ AU or ☐ AMPfor the following byproduct material uses (or units): 35.100, 35.200, 35.300, 35.392, 35.394

A. Address

Caritas St. Elizabeth's Medical Center
736 Cambridge Street
Boston, MA 02135-2997

B. Materials License Number

Comm of Mass 44-0075

C. NAME OF PRECEPTOR (print clearly)

Alan B. Ashare, M.D.

D. SIGNATURE -- PRECEPTOR

Alan B. Ashare MD

E. DATE

January 5, 2006

Caritas St. Elizabeth's Medical Center of Boston

This is to certify that

Avinash Kothavale, M.D.

has successfully completed the course for physicians entitled

Radiation Physics and Biology

for a total of 200 hours of lectures, demonstrations and related assignments

SUBJECTS COVERED INCLUDE:

Radiation Physics and Instrumentation

Radiation Biology

Radiopharmaceutical Chemistry

Radiation Safety and Protection

Mathematics Pertaining to the Use and Measurement of Radioactivity

as specified by the USNRC, CFR 10, Chapter 1, Part 35.920

**Sponsored by the Division of Nuclear Medicine
Caritas St. Elizabeth's Medical Center of Boston, Massachusetts**

Dates:

September through November 2005



**Alan B. Ashare, M.D., Program Director
November 25, 2005**

Official Use Only - Security-Related Information

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 1 OF 1
Amendment

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), all of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer, source, and special nuclear material 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 of the applicable Part; and to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions below.

Licensee		In accordance with the letter dated August 17, 2007,	
1. Atlantic Health System Overlook Hospital		3. License number 29-03308-01 is amended its entirety to read as follows:	
2. 99 Beauvoir Avenue P.O. Box 220 Summit, New Jersey 07902-0220		4. Expiration date January 31, 2012	
		5. Docket No. 030-02471 Reference No.	
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time	
A. Any byproduct material permitted by 10 CFR 35.100	A. Any	A. As needed	
B. Any byproduct material permitted by 10 CFR 35.200	B. Any	B. As needed	
C. Any byproduct material permitted by 10 CFR 35.300	C. Any	C. 1000 millicuries	
D. Any byproduct material permitted by 10 CFR 35.400	D. Sealed Sources (Amersham Health, Model No 6711)	D. 1000 millicuries	
E. Cesium 137	E. Sealed Sources (Isomedix Model Nos. RAMCO-50 or ISO-1000; Nordion Model Nos. C-1000, C-1001, C-3000, or C-3001)	E. 400 curies	
F. Cesium 137	F. Sealed Source (3M Model No. 6B6G)	F. 15 millicuries	

Official Use Only - Security-Related Information

NRC FORM 374A

U.S. NUCLEAR REGULATORY COMMISSION

PAGE 2

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
29-03308-01

Docket or Reference Number
030-02471

Amendment No. 78

9. Authorized use:

- A. Any uptake, dilution and excretion study permitted by 10 CFR 35.100.
- B. Any imaging and localization study permitted by 10 CFR 35.200.
- C. Any diagnostic study or therapy procedure permitted by 10 CFR 35.300.
- D. Any manual brachytherapy procedure permitted by 10 CFR 35.400.
- E. For irradiation of materials in an MDS Nordion model Gammacell-1000 self-shielded irradiator.
- F. For instrument calibration in a 3M Model No. 6H6E Applicator.

CONDITIONS

- 10. Licensed material may be used or stored only at the Overlook Hospital, 99 Beauvoir Avenue at Overlook Road, Summit, New Jersey.
- 11. The Radiation Safety Officer for this license is Michael Mink, M.S.
- 12. Licensed material is only authorized for use by, or under the supervision of:
 - A. Individuals permitted to work as an authorized user, authorized nuclear pharmacist, and/or medical physicist in accordance with 10 CFR 35.13 and 35.14.
 - B. The following individuals are authorized users for the materials and uses indicated:

Authorized Users

Material and Use

Laura Weisse, M.D.

35.100; 35.200; Oral administration of sodium iodine-131 for imaging and localization studies

Neil Horner, M.D.

35.100; 35.200; Oral administration of sodium iodine-131 for imaging and localization studies

Louis E. Schwartz, M.D.

35.300; 35.400

Sue Jane Grosso, M.D.

35.100; 35.200; Oral administration of sodium iodine-131 for imaging and localization studies

John S. McCormick, M.D.

35.100; 35.200; Oral administration of sodium iodine-131 for imaging and localization studies

Official Use Only - Security-Related Information

NRC FORM 374A

U.S. NUCLEAR REGULATORY COMMISSION

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- C. The following individuals are authorized users for non-medical uses as indicated:

UsersMaterial and Use

Michael Mink, M.S.

Cesium-137 for calibration of instruments.

- D. Licensed material in Subitem 6.E. may only be used for non-medical uses by, or under the supervision of, individuals who have received the training described in the application dated October 30, 1992 and the letters dated June 4, 1993 and March 7, 2003 and have been in writing, by the Radiation Safety Officer.
13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
14. For sealed sources not associated with 10 CFR Part 35 use, the following conditions apply:
- A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
 - B. In the absence of a certificate from a transferor indicating that a leak test has been made at intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the sealed source received from another person shall not be put into use until tested and the results received.
 - C. Sealed sources need not be tested if they are in storage and are not being used; however, if they are removed from storage for use or transferred to another person and have not been tested at the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
 - D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.

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- E. Tests for leakage and/or contamination, including leak test sample collection and analysis performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Commission or an Agreement State to perform such services.
- F. Records of leak tests shall be kept in units of microcuries and shall be maintained for 5 years.
15. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the inventory.
16. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
17. Except for the repair or maintenance operations described in the letters dated October 11, 1995, 2003, the licensee shall not repair, remove, replace, or alter any of the following: electrical systems that control source or shielding movement, the irradiator's shielding or safety interlocks, or any component that may affect safe operation of the irradiator. These activities shall be performed by a person specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

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18. The licensee will comply with the requirements for "Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern" (IC) (accession No. ML053130218) published in the Federal Register (FR) on December 1, 2005 (70 FR 72128) as Attachment E-090, "Order Imposing Increased Controls," (accession No. ML053130218). The licensee will implement the IC requirements by the first day that radionuclides specified in Table 1 of the IC are possessed at or above the specified levels. Notwithstanding any provisions of the Commission regulations to the contrary, measures implemented or actions taken in response to the IC requirements shall be maintained until the Commission explicitly modifies its regulations to reflect increased controls, and states in modifying its regulations that the revisions are to supercede E-090. The licensee shall notify the Director, Office of Federal and State Materials and Environmental Management Programs, USNRC, Washington, DC, 20555, in writing, within 25 days after it has completed the requirements of this condition. In addition, licensee responses applicable to this condition shall be marked as "Withhold From Public Disclosure Under 10 CFR 2.390."
19. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR 20.171, "Packaging and Transportation of Radioactive Material."

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20. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents and any enclosures, listed below. This license condition applies only to those procedures that are submitted in accordance with the regulations. Additionally, this license condition does not limit the licensee's ability to make changes to the radiation protection program as provided for in 10 CFR 29.10. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more stringent than the regulations.

- A. Application dated May 31, 1990
- B. Letter dated October 26, 1991
- C. Letter dated October 30, 1992 with attached application
- D. Letter dated April 7, 1993
- E. Letter dated June 4, 1993
- F. Letter dated October 11, 1993
- G. Letter dated November 4, 1993
- H. Letter dated February 23, 1994
- I. Letter dated April 12, 1995
- J. Letter dated October 8, 1996
- K. Letter dated October 19, 2001 (ML013060413)
- L. Letter dated January 9, 2002 (ML020220029)
- M. Letter dated March 7, 2003 (ML031060238)
- N. Letter dated July 25, 2003 (ML032170192)
- O. Letter dated March 17, 2004 (ML040960121)
- P. Letter dated December 27, 2005 (ML060180531)
- Q. Letter dated February 8, 2006 (ML060550413)
- R. Letter dated November 8, 2006 (ML063250336)

For the U.S. Nuclear Regulatory Commission

Date September 25, 2007

By

Original signed by Richard McKinley

Richard McKinley
Medical Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

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

7/6/08, and to inform you that the initial processing which includes an administrative review has been performed.

☒ Amendment (29-15739-01) 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** 142629.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.