



The  
Cardiovascular  
Group, P.C.

Fritz H. Andersen, M.D., F.A.C.C.  
Anthony Chang, M.D., F.A.C.C., F.A.C.P.  
Nicholas Cossa, M.D., F.A.C.C.  
Stephen M. Day, M.D.  
Richard F. Dietz, M.D., F.A.C.C.  
Robert F. Herron, D.O., F.A.C.C., F.A.C.P.  
Sara Kulangara, M.D.  
Warren S. Levy, M.D., F.A.C.C.  
Carey M. Marder, M.D., F.A.C.C.  
J. Kenneth Marshall, M.D., F.A.C.C.  
Francis J. McGrath, M.D., F.A.C.C.  
Lawrence A. Miller, M.D., F.A.C.C.  
Diane Mukherjee, M.D., F.A.C.C.  
Pradeep R. Nayak, M.D., F.A.C.C.  
Antonio R. Parente, M.D., F.A.C.C.  
Dean M. Pollock, M.D., F.A.C.C.  
Stephen P. Rosenfeld, M.D., F.A.C.C.  
Anne M. Safko, M.D., F.A.C.C.  
Harry Schwartz, M.D., F.A.C.C.  
Stuart E. Sheifer, M.D.  
Robert A. Shor, M.D., F.A.C.C.  
Joseph M. Smith, M.D., Ph.D., F.A.C.C.  
Mark P. Tanenbaum, M.D., F.A.C.C.

4660 Kenmore Ave., Suite 1200  
Alexandria VA 22304  
703-751-8111 ♥ Fax 703-751-1105

1635 N. George Mason Dr., Suite 190  
Arlington VA 22205  
703-524-7202 ♥ Fax 703-516-4501

611 S. Carlin Springs Rd., Suite 203  
Arlington VA 22204  
703-671-8200 ♥ Fax 703-379-9767

3700 Joseph Siewick Dr., Suite 102  
Fairfax VA 22033  
703-648-3266 ♥ Fax 703-648-3264

44055 Riverside Pkwy., Suite 200  
Leesburg VA 20176  
703-858-3050 ♥ Fax 703-858-3051

1830 Town Center Dr., Suite 201  
Reston VA 22090  
703-437-5977 ♥ Fax 703-478-2475

130 Park St. SE, Suite 100  
Vienna VA 22180  
703-281-1265 ♥ Fax 703-255-0571

3289 Woodburn Rd., Suite 375  
Annandale VA 22003  
703-573-3494 ♥ Fax 573-5353

NMSB2

May 15, 2008

Nuclear Regulatory Commission  
Commercial and R&D Branch  
Division of Nuclear Materials Safety  
Region I  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

RE: The Cardiovascular Group  
License Amendment  
45-25533-01

03035466

2008 MAY 16 AM 10:18

RECEIVED  
REGION I

To Whom It May Concern:

Please amend the above referenced license to add Jeffrey S. Luy, M.D., Ketan K. Trivedi, M.D., Gautam Ramakrishna, M.D. and Subash Bazaz, M.D. as authorized users to the above referenced license. Documentation in support of these physician's credentials is enclosed.

Any questions regarding this request may be directed to me at (703) 641-0500.

Sincerely,

Neil C. Smarte, C.N.M.T.  
Radiation Safety Officer.

142397

NMSS/RGN1 MATERIALS-002

**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: 10/31/2008

Name of Proposed Authorized User

State or Territory Where Licensed

Jeffrey S. Luy, M.D.

Virginia

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 <i>(not required for 35.590)</i>			
Radiation biology			
<b>Total Hours of Training:</b>			

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		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters		<input type="checkbox"/> Yes <input type="checkbox"/> 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		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Administering dosages of radioactive drugs to patients or human research subjects		<input type="checkbox"/> Yes <input type="checkbox"/> 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		<input type="checkbox"/> Yes <input type="checkbox"/> 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)

**First Section**

Check one of the following for each use requested:

For 35.190

Board Certification

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 60 hours of training and  
Name of Proposed Authorized User

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 Jeffrey S. Luy, M.D. has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 700 hours of training  
Name of Proposed Authorized User

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  
Pradeep R. Nayak, M.D.

Signature  


Telephone Number  
(703) 281-1265

Date  
4/28/08

License/Permit Number/Facility Name  
NRC # 45-25533-01 The Cardiovascular Group

THE CERTIFICATION BOARD OF NUCLEAR CARDIOLOGY

Incorporated 1996

CERTIFIES THAT

*Jeffrey Steven Luy, MD*

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

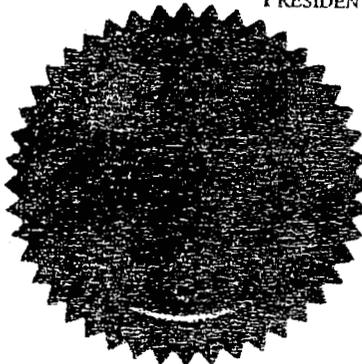
A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

**NUCLEAR CARDIOLOGY**

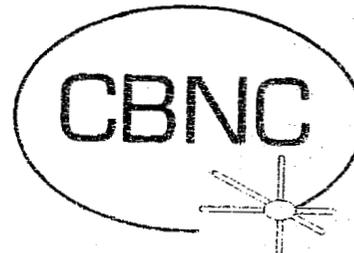
FOR THE PERIOD 2003 THROUGH 2013

*Wm D. Coughlin*  
PRESIDENT

*[Signature]*  
SECRETARY

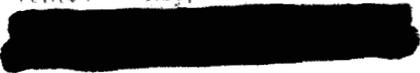


CERTIFICATE # 2933



OCTOBER 26, 2003

Jeffrey S. Loy, MD



Married, Single, Divorced, Widowed  
No registration in any other state or  
Marriage License or Other Code

For Name\* Address Changes, Mail to:  
Department of Health Professions  
c/o Board of Medicine  
9960 Maryland Drive, Suite 501  
Richmond, VA 23233-4461

My New Name\* is

My New Address is

City, State Zip Code

Signature (0101234176)

# COMMONWEALTH OF VIRGINIA

## DEPARTMENT OF HEALTH PROFESSIONS

*Sandra Whitley Reed, Director*

William L. Harp, MD  
Executive Director  
(804) 367-4600

### BOARD OF MEDICINE

9960 Maryland Drive, Suite 501  
Richmond, VA 23233-4461  
[www.dhs.virginia.gov/medicine](http://www.dhs.virginia.gov/medicine)

**License to Practice  
Medicine & Surgery**

**Jeffrey S. Loy, MD**

**Issued  
01/23/2003**

**Expires  
01/31/2010**

**Number  
0101234176**

To Provide Information or File a  
Complaint About a Licensee, Call: 1-800-533-1560

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



January 4, 2008

Manuel D. Cerqueira, M.D.  
Chairman, Nuclear Medicine  
Professor of Radiology, Cleveland Clinic Learner  
College of Medicine of Case Western Reserve

Regarding: Ketan Trivedi, MD

To Whom it May Concern,

Ketan Trivedi, MD, completed level II training in nuclear cardiology during his cardiology fellowship from July 1998 to June 2001 at Georgetown University Hospital under my Preceptorship for 6 months. I was listed as an authorized user at Georgetown University Hospital broad scope license under Nuclear Regulatory Commission license number #46-00990-01. As a result of this training he meets the requirements for the use of radioisotopes under CFR 35-100, 35-200.

Dr. Trivedi is competent to independently function as an authorized user under CFR 35-100, 35-200.  
uses.

A handwritten signature in cursive script that reads "Manuel D. Cerqueira, MD".

Manuel D. Cerqueira, MD

**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: 10/31/2008

Name of Proposed Authorized User

*Ketan Trivedi, MD*

State or Territory Where Licensed

*Virginia*

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			
<b>Total Hours of Training:</b>			

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: > 1000	
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	Georgetown Medical Center WA, DC NRCLic # 083057701	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7-98 to June-01
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters	''	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	Georgetown Medical Center WADC NRC Lic# 083057701	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7-98 to 6-01
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material	''	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	''
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures	''	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	''
Administering dosages of radioactive drugs to patients or human research subjects	''	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	''	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	''

Supervising Individual: Manuel D. Cerqueira  
*Manuel D. Cerqueira*

License/Permit Number listing supervising individual as an authorized user: NRC# 083057701

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)

**First Section**

Check one of the following for each use requested:

For 35.190

Board Certification

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 60 hours of training and  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 Retan Trivedi, MD has satisfactorily completed the 700 hours of training  
Name of Proposed Authorized User

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
Manuel D. Cerqueira	<i>Manuel D. Cerqueira</i>	216-444-2665	9/5/07
License/Permit Number/Facility Name			
NRC Lic# 08305 7701			

**Health & Radiological Seminars, Inc.**

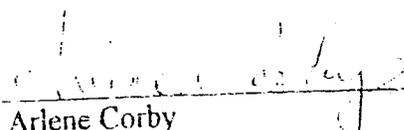
**Hereby certifies that**

***Ketan Trivedi, M.D.***

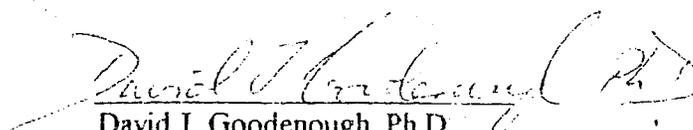
**has successfully completed the 200 Hour Physician Training  
Program in Basic Radioisotope Handling conducted  
in accordance with the requirements of the  
U.S. Nuclear Regulatory Commission (10 CFR 35).**

**COURSE OUTLINE**

**Radiation Physics and Instrumentation - 100 hours  
Mathematics pertaining to the use and measurement of radioactivity - 20 hours  
Radiopharmaceutical Chemistry - 30 hours  
Radiation Biology - 20 hours  
Radiation Protection - 30 hours**

  
Arlene Corby  
Course Coordinator

March 5, 2001

  
David J. Goodenough, Ph.D.  
Scientific Advisor

Current Active - Medicine & Surgery

Number: 0101055841

Issued: 05/30/1997

Expires: 07/31/2008

Ketan K. Trivedi, MD

Eileen Siegel

130 Park Street, S.E. - Suite #100

Vienna VA 22180

Written Notification of Change of  
Address Required Within 30 Day  
Change

\*Name Change Request Must be  
Accompanied by a Photocopy of  
Marriage License or Court Order

For Name\*/Address Changes, Mail to:

Department of Health Professions

c/o Board of Medicine

6603 West Broad Street, 5<sup>th</sup> Floor

Richmond, VA 23230-1712

My New Name\* is:

My New Address is:

City, State

Zip Code

Signature (0101055841)

FOLD, CREASE AND TEAR ALONG PERFORATION

## COMMONWEALTH OF VIRGINIA

DEPARTMENT OF HEALTH PROFESSIONS

*Robert A. Nebiker, Director*

William L. Harp, M.D.  
Executive Director  
(804) 662-9908

### BOARD OF MEDICINE

6603 West Broad Street, 5<sup>th</sup> Flo  
Richmond, VA 23230-1712  
[www.dhp.virginia.gov/medicine](http://www.dhp.virginia.gov/medicine)

**License to Practice  
Medicine & Surgery**

**Ketan K. Trivedi, MD**

**Issued**  
05/30/1997

**Expires**  
07/31/2008

**Number**  
0101055841

To Provide Information or File a  
Complaint About a Licensee, Call: 1-800-533-1560

**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: 10/31/2008

Name of Proposed Authorized User

State or Territory Where Licensed

Gautam Rama Krishna, M.D.

Virginia

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)

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  - a. Provide a copy of the board certification.
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- 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 <i>(not required for 35.590)</i>			
Radiation biology			
<b>Total Hours of Training:</b>			

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		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters		<input type="checkbox"/> Yes <input type="checkbox"/> 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		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Administering dosages of radioactive drugs to patients or human research subjects		<input type="checkbox"/> Yes <input type="checkbox"/> 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		<input type="checkbox"/> Yes <input type="checkbox"/> 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)

**First Section**

Check one of the following for each use requested:

For 35.190

Board Certification

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 60 hours of training and  
Name of Proposed Authorized User

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 Gautam Ramakrishna, M.D has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 700 hours of training  
Name of Proposed Authorized User

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 Pradeep R. Nayak, M.D.	Signature 	Telephone Number (703) 281-1265	Date 4/28/08
---	---	------------------------------------	-----------------

License/Permit Number/Facility Name  
NRC # 45-25533-01 The Cardiovascular Group

THE CERTIFICATION BOARD OF NUCLEAR CARDIOLOGY

Incorporated 1996

CERTIFIES THAT

*Gautam Ramakrishna, MD*

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

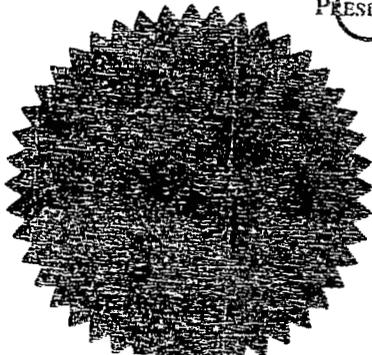
A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

**NUCLEAR CARDIOLOGY**

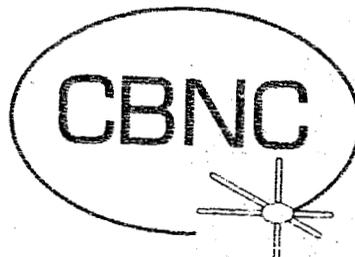
FOR THE PERIOD 2004 THROUGH 2014

*Manoj K. Prasad*  
PRESIDENT

*P. K. Singh*  
SECRETARY



CERTIFICATE # 3568



OCTOBER 24, 2004

**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF HEALTH PROFESSIONS**

*Sandra Whitley Ryals, Director*

William L. Harp, M.D.  
Executive Director  
(804) 767-4600

**BOARD OF MEDICINE**

9960 Mayland Drive, Suite 300  
Richmond, VA 23230-1463  
[www.dhp.virginia.gov/medicine](http://www.dhp.virginia.gov/medicine)

**License to Practice**  
**Medicine & Surgery**

**Gautam Ramakrishna, MD**

**Issued**  
**03/29/2005**

**Expires**  
**03/31/2010**

**Number**  
**0101237937**

**To Provide Information or File a  
Complaint About a Licensee, Call: 1-800-533-1560**

**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: 10/31/2008

Name of Proposed Authorized User

State or Territory Where Licensed

Subash BAZAZ MD. | Virginia

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	Radiological Physics Services, Inc. under Andrew G. Bukovitz, Certified Radiological Physicist	200 Hrs. total	July 1999 to May 2002
Radiation protection	-Please see letter - ↓	↓	↓
Mathematics pertaining to the use and measurement of radioactivity	" "	" "	" "
Chemistry of byproduct material for medical use (not required for 35.590)	" "	" "	" "
Radiation biology	" "	" "	" "
<b>Total Hours of Training:</b>		<b>200</b>	

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:	(leave blank)
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	University of Pittsburgh 37-00245-02	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1999 to May 2002
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters	" "	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	University of Pittsburgh 37-00245-02	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 1999 to May 2002
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material	"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	↓
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures	"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	↓
Administering dosages of radioactive drugs to patients or human research subjects	"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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	"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	↓

Supervising Individual

License/Permit Number listing supervising individual as an authorized user

*William J. Follansbee, MD*

37-00245-02

sign →

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)

First Section

Check one of the following for each use requested:

For 35.190

Board Certification

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 60 hours of training and  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 Sibash Bazaz has satisfactorily completed the 700 hours of training  
Name of Proposed Authorized User

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
<u>William P. Follanville, MS</u>	<u>[Signature]</u>	<u>412-647-3437</u>	<u>8-28-07</u>

License/Permit Number/Facility Name  
37-00245-02 University of Pittsburgh

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)

First Section

Check one of the following for each use requested:

For 35.190

Board Certification

I attest that \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the 60 hours of training and  
Name of Proposed Authorized User

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 \_\_\_\_\_ has satisfactorily completed the requirements in  
Name of Proposed Authorized User

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 Subash Bazaz has satisfactorily completed the 700 hours of training  
Name of Proposed Authorized User

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

William P. Follanville, MS

Signature

Telephone Number

412-647-3437

Date

8-28-07

License/Permit Number/Facility Name

37-00245-02 University of Pittsburgh



UPMC Cardiovascular Institute  
at UPMC Presbyterian

Part of  
University of Pittsburgh  
Medical Center

William P. Follansbee, MD, FACC  
Professor of Medicine  
Professor of Radiology  
Director of Nuclear Cardiology

December 28, 2007

UPMC Presbyterian  
Suite A-529  
200 Lothrop Street  
Pittsburgh, PA 15213  
412-647-3437  
Fax: 412-617-3873  
follansbeewp@upmc.edu  
UPP Referrals: 412-647-3437  
1-800-544-2500

Mr. Neil Smarte  
Attention: Janet Fearson  
130 Park Street Southeast, Suite 100  
Vienna, VA 22180

Re: Subash Bazaz

Dear Mr. Smarte:

As previously clearly documented in the Authorized User Training and Experience in the preceptor attestation statement for Subash Bazaz, MD, he 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.

Sincerely,

William P. Follansbee, M.D., FACC, FACP, FASNC, FAHA  
Professor of Medicine  
Director, Nuclear Cardiology

WPF/lcm  
Bazaz S-ltr



# UPMC Cardiovascular Institute

*at UPMC Presbyterian*

*Part of  
University of Pittsburgh  
Medical Center*

William P. Follansbee, MD, FACC  
*Professor of Medicine  
Professor of Radiology  
Director of Nuclear Cardiology*

August 27, 2007

UPMC Presbyterian  
Suite A-429  
200 Lothrop Street  
Pittsburgh, PA 15213  
412-647-3437  
Fax: 412-647-3873  
follansbeewp@upmc.edu  
UPP Referrals: 412-647-3437  
1-800-544-2500

Re: Subash Bazaz, M.D.

To Whom It May Concern:

Subash Bazaz, M.D., is a graduate of the cardiology fellowship program at the University of Pittsburgh Medical Center/Cardiovascular Institute. During the course of his fellowship training, he received 6 months of training in Nuclear Cardiology. He completed his cardiology fellowship training in May, 2002.

During his training, Dr. Bazaz had extensive experience in the performance and interpretation of all types of nuclear cardiology studies. He had training in the performance of treadmill as well as pharmacologic stress tests, including decisions as to the appropriate use of specific procedures, as well as any administration of radioisotopes. He had extensive experience in independent and collaborative interpretation of nuclear cardiology images, including SPECT myocardial perfusion images, planar myocardial perfusion images, and ventricular function images. During the course of his fellowship training, he participated in the performance and interpretation of 1000 SPECT studies, 200 planar perfusion studies, and 100 cardiac rest ventriculograms.

In addition, Dr. Bazaz completed all requirements for training and demonstrating competency in skills including, but not limited to, camera quality control, nuclear cardiology study acquisitions, tomographic reconstructions and quantitative processing of image data. He also received experience in radiopharmacy, including performance of radiation surveys and dosimetry.

Dr. Bazaz has successfully completed a 200-hour course in radiation training. A letter of certification from the course director is attached with this application.

Dr. Bazaz's formal fellowship training in Nuclear Cardiology meets with the requirements for Level 2 training as outlined in the ACC/ASNC COCATS Guidelines

August 27, 2007

Page 2

(revised 2006). Dr. Bazaz is competent to independently function as an authorized user under 10 CFR 35.290 uses.

Dr. Bazaz has achieved a level of competence sufficient to function independently as an authorized user for the medical uses authorized under NRC subpart E-imaging and localization.

If I can be of any help in providing you with additional documentation of his training, please do not hesitate to contact me.

Sincerely yours,



William P. Follansbee, M.D., FACC, FASNC  
Professor of Medicine  
Director of Nuclear Cardiology/Exercise Physiology  
NRC# 37-00245-02

WPF/lcm

Bazaz S-ltr

Cc: James Shaver, M.D., 5<sup>th</sup> Floor Scaife Hall, UPMC

Current Active - Medicine & Surgery  
Number 0101232467  
Date 02/25/2002  
Expires 01/31/2010

Subash B. Bazaz, MD



Written Notice of Change of Address Required within 30 Days of Change

Change of Address Request Must be Accompanied by a Photocopy of Marriage License or Court Order

Name: Address: Changes: Mail to:  
Department of Health Professions  
Board of Medicine  
9900 Mayland Drive, Suite 300  
Richmond, VA 23233-1463

New Name: is  
New Address is

City, State Zip Code

Number 0101232467

PERSONAL INFORMATION WAS REMOVED  
BY NRC. NO COPY OF THIS INFORMATION  
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# COMMONWEALTH OF VIRGINIA

## DEPARTMENT OF HEALTH PROFESSIONS

*Sandra Whitley Ryals, Director*

DATE L. Harp, M.D.  
acting Director  
367-4200

### BOARD OF MEDICINE

9900 Mayland Drive, Suite 300  
Richmond, VA 23233-1463  
www.dhp.virginia.gov/medic

License to Practice  
Medicine & Surgery

Subash B. Bazaz, MD

Issued  
02/25/2002

Expires  
01/31/2010

Number  
0101232467

To Provide Information or File a  
Complaint About a Licensee, Call: 1-800-533-1560

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

5/15/2008, and to inform you that the initial processing which includes an administrative review has been performed.

Amend. 45-25533-01  
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** 142397.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.