

Deborah  
Heart and Lung  
Center

Browns Mills, NJ 08015-1799  
601 893 6611

NMSB1

US Nuclear Regulatory Commission  
Medical Licensing Section  
Region I  
474 Allendale Road  
King of Prussia, PA 19406

03014634

July 16, 2007

RE: License Number 29-18190-01

Dear Sir/Madam:

This letter is sent to request the following amendments to our radioactive materials license, number noted 29-18190-01.

- I have enclosed the paperwork for you to add John P. McNamara, DO, Saugato Sanyal, MD, MBA, Sarkis Baghdasarian, MD and Pirouz Parang, MD, to the Radioactive Materials License for the Section of Nuclear Medicine here at Deborah. Their status should be amended to read as follows:

John P. McNamara, DO	35.200
Saugato Sanyal, MD, MBA	35.200
Sarkis Baghdasarian, MD	35.200
Pirouz Parang, MD	35.200

- Please reinstate Fatima Hakkak, DO 35.200

- Please delete Robert Altin, MD from our license.

- Please add the following three isotopes needed to do PET/CT:

Strontium-82 (Sr-82)	200mCi
Rubidium-82 (Rb-82)	200mCi
Strontium-85 (Sr-85)	1000mCi

The chemical and physical form should be listed as a Strontium-82 to Rubidium-82 generator (Sr-82/Rb-82 generator), this is for Human use. Also 50mCi of F-18 and 300mCi of FDG-18.

2007 JUL 19 PM 12:35  
RECEIVED  
REGION 1

If you have any questions please contact our Radiation Safety Officer at 609-735-2921. Thank you for your prompt attention to this matter.

Sincerely,

Rita M. Lauderman, CNMT  
Technical Director, Nuclear Medicine  
Radiation Safety Officer

  
John Ernst  
President and CEO

140832

THIS DOCUMENT IS PRINTED ON WATERMARKED PAPER WITH MULTICOLORED BACKGROUND AND MULTIPLE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

State Of New Jersey  
New Jersey Office of the Attorney General  
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners

HAS REGISTERED

John P. McNamara  
Deborah Heart & Lung Center  
200 Trenton Road  
Browns Mills NJ 08015

FOR PRACTICE IN NEW JERSEY AS A(N): Doctor of Osteopathy

New Jersey Office of the Attorney General  
Division of Consumer Affairs  
THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners  
HAS REGISTERED  
John P. McNamara  
Doctor of Osteopathy

05/24/2007 TO 06/30/2009  
VALID

SIGNATURE

25MB07073800

ACTING DIRECTOR

05/24/2007 TO 06/30/2009  
VALID

25MB07073800

LICENSE/REGISTRATION/CERTIFICATION #

ACTING DIRECTOR

Signature of Licensee/Registrant/Certificate Holder

PLEASE DETACH HERE  
IF YOUR LICENSE/REGISTRATION/  
CERTIFICATE ID CARD IS LOST  
PLEASE NOTIFY:

Board of Medical Examiners  
P.O. Box 183  
Trenton, NJ 08625

PLEASE DETACH HERE

John P. McNamara

EXPIRATION DATE 2009

YOUR LICENSE/REGISTRATION/CERTIFICATE NUMBER IS 25MB 07073800 . PLEASE USE IT IN ALL  
CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS. USE THIS SECTION TO REPORT ADDRESS  
CHANGES. YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED  
BELOW.

Board of Medical Examiners  
P.O. Box 183  
Trenton, NJ 08625

PRINT YOUR NEW ADDRESS OF RECORD BELOW.  
YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON  
YOUR LICENSE/REGISTRATION/CERTIFICATE AND IT MAY BE MADE  
AVAILABLE TO THE PUBLIC.

HOME   
BUSINESS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TELEPHONE  
INCLUDE AREA CODE

PRINT YOUR NEW MAILING ADDRESS BELOW.  
YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY THE  
DIVISION OF CONSUMER AFFAIRS TO SEND YOU ALL CORRESPONDENCE

HOME   
BUSINESS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TELEPHONE  
INCLUDE AREA CODE

If the law governing your profession requires the current license/registration/certificate to be displayed, it should be  
within reasonable proximity of your original license/registration/certificate at your principal office or place of  
business.



## ARIZONA RADIATION REGULATORY AGENCY

RADIOACTIVE MATERIAL LICENSE  
SUPPLEMENTARY SHEETLicense Number 7-472  
Amendment No. 6

2. Decay correction, based on the radioactivity or radioactivity concentration determined by a properly licensed:
  - a. Manufacturer, or
  - b. Nuclear pharmacy.
3. A licensee shall make decay corrections by correcting a dosage for decay if it is apparent that, if administered, the dosage will vary from the prescribed dosage by plus or minus 10%, or the licensee shall use a decay range that has been determined by an authorized user on the licensee's license.
- C. For other than unit dosages, the licensee shall make the determination by:
  1. Direct measurement of the radioactivity in a dose calibrator;
  2. A combination of Part 1 and applicable mathematical calculation; or
  3. A combination of volumetric measurement and applicable mathematical calculation, based on a radioactivity measurement determined by the supplier.
- D. A licensee shall:
  1. Check each dose calibrator for constancy with a dedicated check source at the beginning of each day of use;
  2. Test each dose calibrator for accuracy upon installation and at least annually thereafter by assaying at least two sealed sources containing different radionuclides whose activity the manufacturer has determined within 5 percent of its stated activity, whose activity is at least 10 microcuries for radium-226 and 50 microcuries for any other photon-emitting radionuclide, and at least one of which has a principal photon energy between 100 keV and 500 keV;
  3. Test each dose calibrator for linearity upon installation and at least quarterly thereafter over a range from the highest dosage that will be administered to a patient or human research subject to 1.1 megabecquerels (30 microcuries);
  4. Test each dose calibrator for geometry dependence upon installation over the range of volumes and volume configurations for which it will be used. The licensee shall keep a record of this test for the duration of the use of the dose calibrator.
  5. Perform appropriate checks and tests required by this section following adjustment or repair of the dose calibrator; and
  6. Mathematically correct dosage readings for any geometry or linearity error that exceeds 10 percent if the dosage is greater than 10 microcuries and shall repair or replace the dose calibrator if the accuracy or constancy error exceeds 10 percent.
- E. A licensee using a dose calibrator to "verify" a dose prepared by a supplier listed in Part B shall maintain the dose calibrator according to Part D.
14. Technical personnel using radioactive material under the supervision of the authorized user on this license shall be a registered nuclear medicine technologist.
15. For purposes of ending the principal activities authorized under this radioactive material license:
  - A. The license stays in effect beyond the expiration date, until the Agency notifies the licensee in writing that the license is terminated.
  - B. The licensee shall ensure the timeliness of decommissioning of facilities where principal activities are conducted under this license in accordance with Agency requirements.
  - C. The licensee shall continue to control public access into restricted areas and pay the annual licensing fee

**ARRA-3** (Cont.)  
March 2005

**ARIZONA RADIATION REGULATORY AGENCY**

**RADIOACTIVE MATERIAL LICENSE**  
SUPPLEMENTARY SHEET

License Number 7-472  
Amendment No. 6

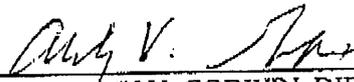
until the license is terminated.

- 16. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material described in Items 6, 7 and 8 of this license in accordance with the statements, representations and procedures contained in:
  - 1. Application dated February 20, 2005, signed by J. Michael Morgan, M.D.  
The most recent statements, representations, and procedures shall govern if they conflict with previously submitted documents, unless otherwise specified by a license condition; and the Agency's rules shall govern the licensee's statements in applications or letters.

DATE ISSUED:

APR 1 2005

DHK:AVG:bk



\_\_\_\_\_  
AUBREY V. GODWIN, DIRECTOR

**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

Saugato Sanyal M.D., MBA

NJ ~~MD~~

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)

NRC FORM 313A (AUD)  
(3-2007)

U.S. NUCLEAR REGULATORY COMMISSION

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

and experience, including a minimum of 60 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

B. CHANDRAMOULY MD

B. Chandramouly

718-780-1167

6/24/07

License/Permit Number/Facility Name

N.Y.

91-2843-01 LONG ISLAND COLLEGE HOSPITAL BROOKLYN

# Saugato Sanyal, M.D., MBA

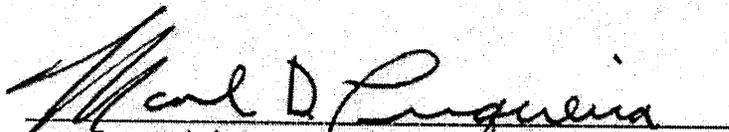
HAVING MET THE REQUIREMENTS PRESCRIBED BY THIS BOARD FOR PHYSICIANS RESIDING  
IN THE UNITED STATES AND HAVING SATISFACTORILY PASSED THE REQUIRED EXAMINATION,

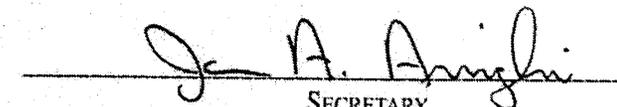
IS HEREBY DESIGNATED

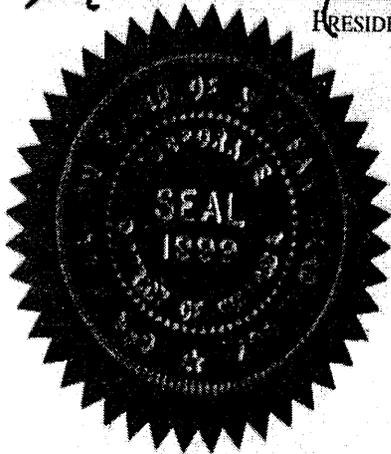
A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

## NUCLEAR CARDIOLOGY

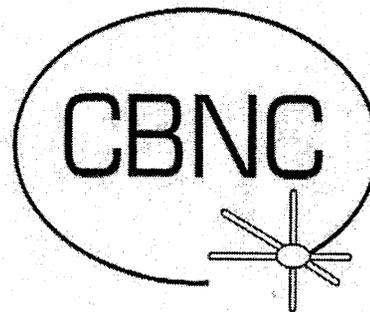
FOR THE PERIOD 2005 THROUGH 2015

  
PRESIDENT

  
SECRETARY



CERTIFICATE #4208



OCTOBER 23, 2005

# NUCLEAR MEDICAL EDUCATION PROGRAM

## Affidavit of Academic Completion & Competency

*This document is to attest that*

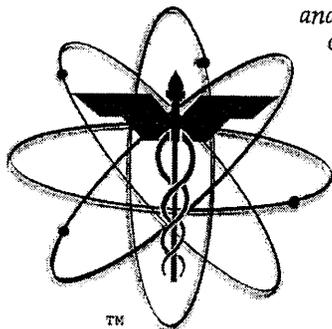
Saugato Sanyal, MD, MBA

*has successfully completed the didactic program*

## MEDICAL RADIATION INSTRUMENTATION

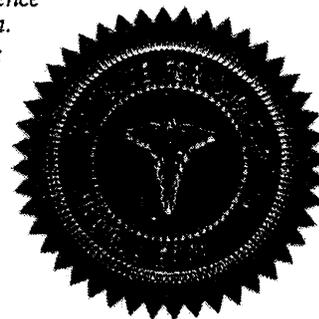
*and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination.*

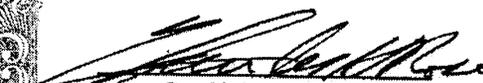
*This program provides the following levels of accomplishment:*



TM

- 5.0 Continuing Education Units (CEU)
- 50 Didactic Instructional Hours (DIH)  
In compliance with 10CFR35/AEA 73-689
- 50 Board Accepted Hours NUSPEX, NMTCB III b,  
ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on  
Education (ACE), American Association for  
Collegiate Registrars



  
Certifying Official

17 October 2004

Date Completed

202742

Certification

## Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class II-Compl&Comp 1/00

# NUCLEAR MEDICAL EDUCATION PROGRAM

## Affidavit of Academic Completion & Competency

*This document is to attest that*

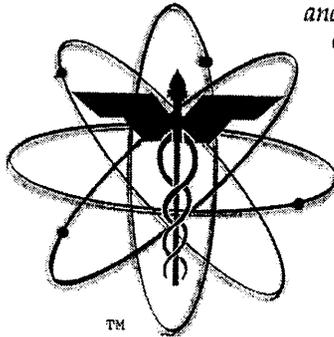
Saugato Sanyal, MD, MBA

*has successfully completed the didactic program*

## PRINCIPLES OF RADIATION PHYSICS

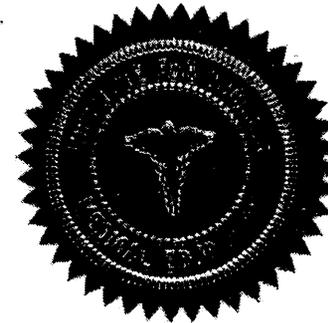
*and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination.*

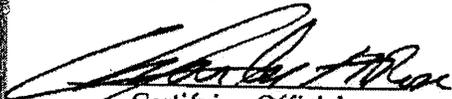
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- 50 Didactic Instructional Hours (DIH)  
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- 50 Board Accepted Hours NUSPEX, NMTCB III b,  
ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on  
Education (ACE), American Association for  
Collegiate Registrars



  
Certifying Official

13 October 2004  
Date Completed

202690  
Certification

## Institute for Nuclear Medical Education

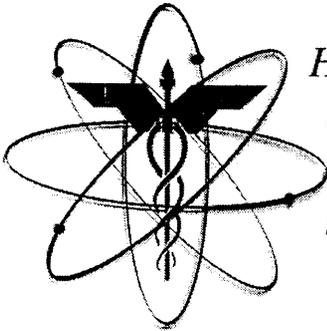
Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class I-Compl&Comp 1/00

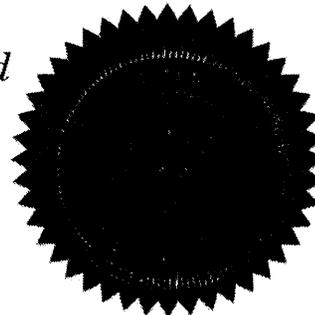
**CERTIFICATE OF COMPLETION**  
**HAZMAT TRAINING - RADIOACTIVE MATERIALS**

*This document is to certify that*

Saugato Sanyal, M.D.



*Has received training and has been tested  
as required by 49CFR 172.704(d). This  
training was limited to diagnostic  
radioactive materials received or offered  
for shipment in approved Type A  
Packages, Class 7, UN2915, Yellow II.*



  
Certifying Official

19 May 2005  
Date Completed

203280  
Certification

Training Materials and Records are located at

INME - Institute for Nuclear Medical Education • 5660 Airport Boulevard, Suite 101 • Boulder, Colorado 80301  
(303) 541-0044 • (303) 541-0066 FAX • (800) 548-4024 • [inme@nuclearcardiology.com](mailto:inme@nuclearcardiology.com) • <http://www.nuclearcardiology.com/ncs>

# NUCLEAR MEDICAL EDUCATION PROGRAM

## Affidavit of Academic Completion & Competency

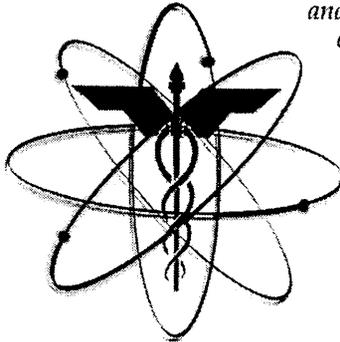
*This document is to attest that*

Saugato Sanyal, M.D.

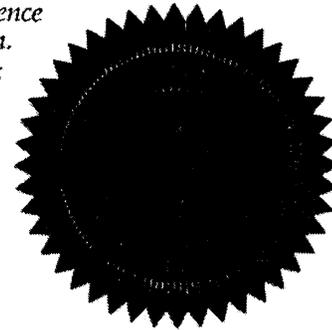
*has successfully completed the didactic program*

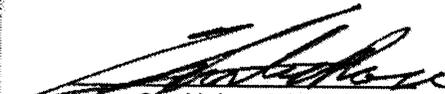
## RADIOPHARMACEUTICALS AND CHEMISTRY

*and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination. This program provides the following levels of accomplishment:*



- 5.0 Continuing Education Units (CEU)
- 50 Didactic Instructional Hours (DIH)  
In compliance with 10CFR35/AEA 73-689
- 50 Board Accepted Hours NUSPEX, NMTCB III b,  
ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on  
Education (ACE), American Association for  
Collegiate Registrars



  
Certifying Official

22 May 2005  
Date Completed

203210  
Certification

## Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.  
INME1132-Class IV-Comp1&Comp 1/00

# NUCLEAR MEDICAL EDUCATION PROGRAM

## Affidavit of Academic Completion & Competency

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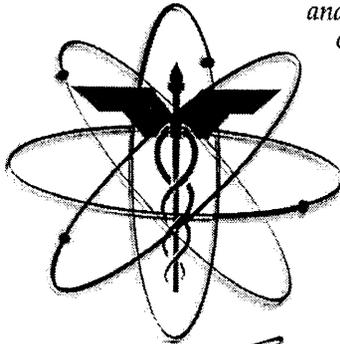
Saugato Sanyal, M.D.

*has successfully completed the didactic program*

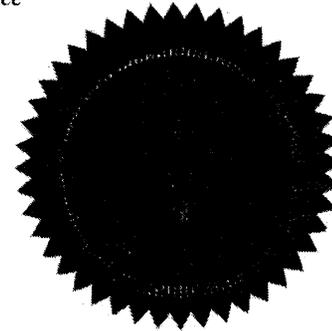
## MEDICAL RADIATION PROTECTION

*and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination.*

*This program provides the following levels of accomplishment:*



- 5.0 Continuing Education Units (CEU)
- 50 Didactic Instructional Hours (DIH)  
In compliance with 10CFR35/AEA 73-689
- 50 Board Accepted Hours NUSPEX, NMTCB III b,  
ABMRSO, CBNC, MRLB
- 3.0 Semester Hours American Council on  
Education (ACE), American Association for  
Collegiate Registrars



  
Certifying Official

18 May 2005  
Date Completed

203143  
Certification

## Institute for Nuclear Medical Education

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the Accrediting Commission of the Accrediting Council for Continuing Education Training, a national accrediting agency listed by the US Secretary of Education. Validated by the American Council on Education, recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.  
INME1132-Class IV-Comp&Comp 1/00

THIS DOCUMENT IS PRINTED ON WATERMARKED PAPER WITH A MULTI-COLORED BACKGROUND AND MULTIPLE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

State Of New Jersey  
New Jersey Office of the Attorney General  
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners

HAS REGISTERED

Saugato Sanyal

FOR PRACTICE IN NEW JERSEY AS A(N): Medical Doctor

New Jersey Office of the Attorney General  
Division of Consumer Affairs  
THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners  
HAS REGISTERED  
Saugato Sanyal  
Medical Doctor



05/22/2007 TO 06/30/2009

VALID

25MA08082400

License/Registration/Certificate #

SIGNATURE

ACTING DIRECTOR

05/22/2007 TO 06/30/2009  
VALID

25MA08082400

LICENSE/REGISTRATION/CERTIFICATION #

ACTING DIRECTOR

Signature of Licensee/Registrant/Certificate Holder

PLEASE DETACH HERE  
IF YOUR LICENSE/REGISTRATION/  
CERTIFICATE ID CARD IS LOST  
PLEASE NOTIFY:

Board of Medical Examiners  
P.O. Box 183  
Trenton, NJ 08625

PLEASE DETACH HERE

Saugato Sanyal

EXPIRATION DATE 2009

YOUR LICENSE/REGISTRATION/CERTIFICATE NUMBER IS 25MA 08082400 . PLEASE USE IT IN ALL  
CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS. USE THIS SECTION TO REPORT ADDRESS  
CHANGES. YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED  
BELOW.

Board of Medical Examiners  
P.O. Box 183  
Trenton, NJ 08625

PRINT YOUR NEW ADDRESS OF RECORD BELOW  
YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON

PRINT YOUR NEW MAILING ADDRESS BELOW  
YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY THE

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

NRC FORM 313A (AUD)  
(3-2007)

U.S. NUCLEAR REGULATORY COMMISSION

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

APPROVED BY OMB: NO. 3150-0120  
EXPIRES: 10/31/2008

Name of Proposed Authorized User

Sarkis Baghdasarian, MD

State or Territory Where Licensed

New Jersey

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 \_\_\_\_\_)

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(Select one of the three methods below)

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(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	Hartford Hospital 80 Seymour Street Hartford, CT 06102	25	2004-2007

**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)

NRC FORM 313A (AUD)  
(3-2007)

U.S. NUCLEAR REGULATORY COMMISSION

## 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	Hartford Hospital, Hartford, CT 06-00253-04	100	2004 - 2007
Radiation protection	Hartford Hospital, Hartford, CT 06-00253-04	35	2004 - 2007
Mathematics pertaining to the use and measurement of radioactivity	Hartford Hospital, Hartford, CT 06-00253-04	25	2004 - 2007
Chemistry of byproduct material for medical use ( <i>not required for 35.590</i> )	Hartford Hospital, Hartford, CT 06-00253-04	35	2004 - 2007
Radiation biology	Hartford Hospital, Hartford, CT 06-00253-04	25	2004 - 2007
<b>Total Hours of Training:</b>		<b>220</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 25 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	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007

NRC FORM 313A (AUD)  
(3-2007)

U.S. NUCLEAR REGULATORY COMMISSION

**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	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007
Administering dosages of radioactive drugs to patients or human research subjects	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007
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	Hartford Hospital, Hartford, CT 06-00253-04	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2004 - 2007

Supervising Individual: Gary V. Heller  
License/Permit Number listing supervising individual as an authorized user: 06-00253-04

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.**

NRC FORM 313A (AUD)  
(3-2007)

U.S. NUCLEAR REGULATORY COMMISSION

**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 Sarkis Baghdasarian has satisfactorily completed the 700 hours of training  
Name of Proposed Authorized User

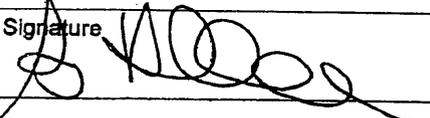
and experience, including a minimum of 80 hours of classroom and laboratory training, required by 10 CFR 35.290(c)(1), and has achieved a level of competency sufficient to function independently as an authorized user for the medical uses authorized under 10 CFR 35.100 and 35.200.

**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 Gary V. Heller	Signature 	Telephone Number 860-545-5020	Date 07/14/07
License/Permit Number/Facility Name Hartford Hospital, Hartford, Connecticut 06-00253-04			

# Certification Board of Nuclear Cardiology

Incorporated 1996

Certifies That

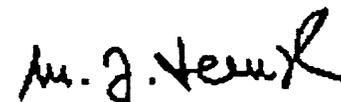
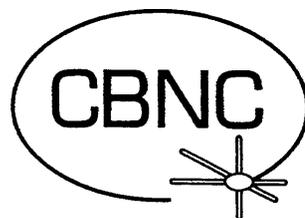
## Sarkis B. Baghdasarian, MD

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**

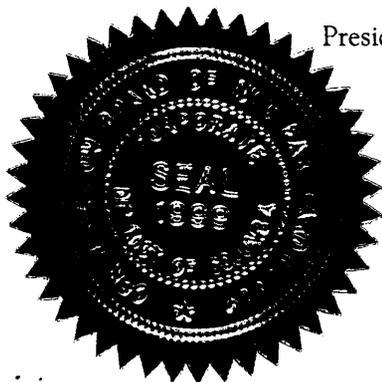
FOR THE PERIOD 2006 - 2016



President



Secretary



CERTIFICATE NUMBER: 4988

New Jersey Office of the Attorney General  
Division of Consumer Affairs  
THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners  
HAS REGISTERED  
Sarkis B. Baghdasarian  
Medical Doctor

06/18/2007 TO 06/30/2009

VALID

25MA08218300

License/Registration/Certificate #

*Sarkis Baghdasarian*  
SIGNATURE

*Joseph B. Nola*  
ACTING DIRECTOR

**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

*Pirouz Parang*

State or Territory Where Licensed

*New Jersey*

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	INME 5660 Airport Blvd, Ste 101 Boulder, CO 80301	100	9/16 - 9/24 10/14 - 10/22
Radiation protection	INME 5660 Airport Blvd, Ste 101 Boulder, CO 80301	30	9/16 - 9/24 10/14 - 10/22
Mathematics pertaining to the use and measurement of radioactivity	INME 5660 Airport Blvd, Ste 101 Boulder, CO 80301	20	9/16 - 9/24 10/14 - 10/22
Chemistry of byproduct material for medical use (not required for 35.590)	INME 5660 Airport Blvd, Ste 101 Boulder, CO 80301	30	9/16 - 9/24 10/14 - 10/22
Radiation biology	INME 5660 Airport Blvd, Ste 101 Boulder, CO 80301	20	9/16 - 9/24 10/14 - 10/22
<b>Total Hours of Training:</b>		200	

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: 800	
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	Deborah Heart and Lung Center 200 Trenton Road Browns Mills, NJ 08015	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 2004 to June 2007
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters	Deborah Heart and Lung Center 200 Trenton Road Browns Mills, NJ 08015	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 2004 to June 2007

*Dirouz Parang*

NRC FORM 313A (AUD)  
(3-2007)

**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	Deborah Heart and Lung Center 200 Trenton Road Browns Mills, NJ 08015	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 2004 to June 2007
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material	Deborah Heart and Lung Center 200 Trenton Road Browns Mills, NJ 08015	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 2004 to June 2007
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures	Deborah Heart and Lung Center 200 Trenton Road Browns Mills, NJ 08015	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 2004 to June 2007
Administering dosages of radioactive drugs to patients or human research subjects	Deborah Heart and Lung Center 200 Trenton Road Browns Mills, NJ 08015	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	July 2004 to June 2007
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	Cardinal Health 200 Rittenhouse Circle - Unit 9E Bristol Pa 19007 License # 3429200-01 MD <i>Kos</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6-27-07

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

*Harry Henry MD FACM* 29-18190-01

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 Pirouz Parang 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

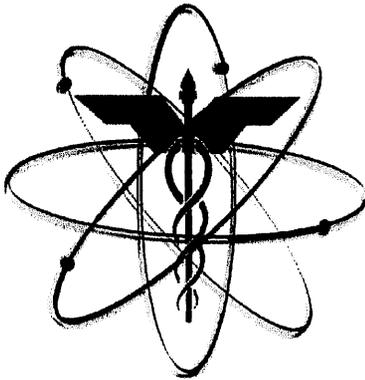
Name of Preceptor <i>HAROLD J. LESSIG MD FACNDPACAM</i>	Signature <i>Harold J. Lessig MD FACNDPACAM</i>	Telephone Number 609-893-6611 ext. 4510	Date 7/6/07
License/Permit Number/Facility Name 29-18190-01			

**EXTENDED COMPREHENSIVE**  
*Radioisotope Handling*  
**Attestation and Certification**  
**Completion and Competency**

*This document is an affidavit that*

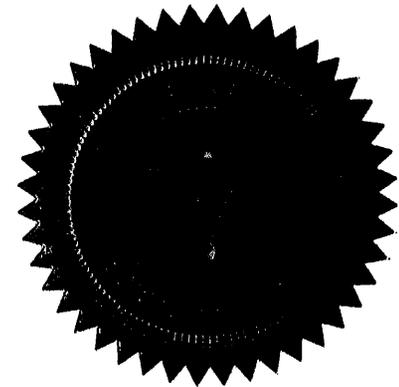
**Pirouz Parang, M.D.**

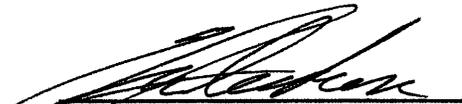
*has successfully completed the prescribed didactic program of  
education and has achieved the objectives of this program  
as evidenced by written examination*



*This Program provides the following levels of documented accomplishment*

- 10.0 Continuing Education Units (CEU)
- 100 Didactic Instructional Hours (DIH)  
In compliance with 10CFR35/ AEA 73-689
- 100 Board Accepted Hours NUSPEX, NMTCB III b,  
ABMRSO, ABR, ABNM, CBNC
- 6.0 Semester Hours American Council on  
Education (ACE), American Association for  
Collegiate Registrars



  
Certifying Official

**22 October 2006**  
Date Completed

**203964**  
Certification

**Institute for Nuclear Medical Education**

Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the American Council on Education (ACE), recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

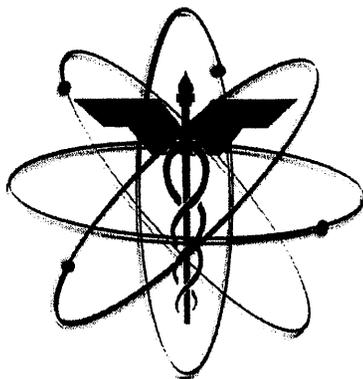
INME1132-Class I-Compl&Comp 1/00

**FUNDAMENTALS**  
*Radioisotope Handling*  
**Attestation and Certification**  
**Completion and Competency**

*This document is an affidavit that*

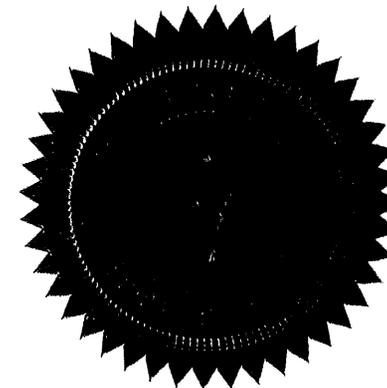
**Pirouz Parang, M.D.**

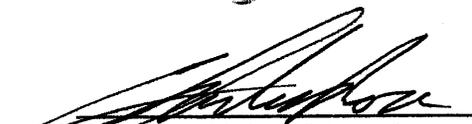
*has successfully completed the prescribed didactic program of  
education and has achieved the objectives of this program  
as evidenced by written examination*



*This Program provides the following levels of documented accomplishment*

- 10.0 Continuing Education Units (CEU)
  - 100 Didactic Instructional Hours (DIH)
- In compliance with 10CFR35/ AEA 73-689
- 100 Board Accepted Hours NUSPEX, NMTCB III b,  
ABMRSO, ABR, ABNM, CBNC



  
Certifying Official

**24 September 2006**  
Date Completed

**203928**  
Certification

**Institute for Nuclear Medical Education**

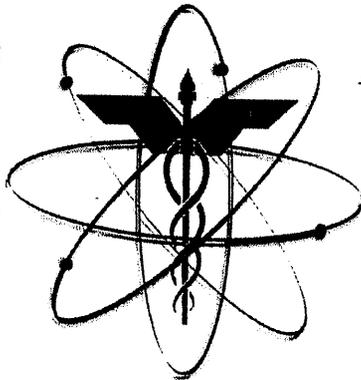
Certified, Approved and Regulated by the Division of Private Occupational Schools, Department of Higher Education in Colorado. Validated by the American Council on Education (ACE), recognized by the American Association for Collegiate Registrars, Council on Post-Secondary Education. Licensed by NRC & Agreement States.

INME1132-Class I-Compl&Comp 1/00

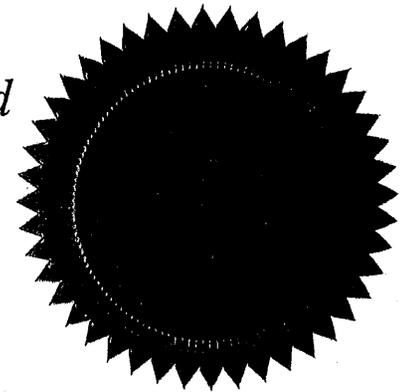
# CERTIFICATE OF COMPLETION

## HAZMAT TRAINING - RADIOACTIVE MATERIALS

*This document is to certify that*  
**Pirouz Parang, M.D.**



*Has received training and has been tested  
as required by 49CFR 172.704(d). This  
training was limited to diagnostic  
radioactive materials received or offered  
for shipment in approved Type A  
Packages, Class 7, UN2915, Yellow II.*



  
Certifying Official

**22 October 2006**  
Date Completed

**203945**  
Certification

**Training Materials and Records are located at**

INME - Institute for Nuclear Medical Education • 5660 Airport Boulevard, Suite 101 • Boulder, Colorado 80301  
(303) 541-0044 • (303) 541-0066 FAX • (800) 548-4024 • [inme@nuclearcardiology.com](mailto:inme@nuclearcardiology.com) • <http://www.nuclearcardiology.com/ncs>

THIS DOCUMENT IS PRINTED ON WATERMARKED PAPER, WITH A MULTI-COLORED BACKGROUND AND MULTIPLE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

State Of New Jersey  
New Jersey Office of the Attorney General  
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners

HAS REGISTERED

Fatima Hakkak

FOR PRACTICE IN NEW JERSEY AS A(N): Doctor of Osteopathy

New Jersey Office of the Attorney General  
Division of Consumer Affairs  
THIS IS TO CERTIFY THAT THE  
Board of Medical Examiners  
HAS REGISTERED  
Fatima Hakkak  
Doctor of Osteopathy

07/01/2007 TO 06/30/2009  
VALID

SIGNATURE

ACTING DIRECTOR

25MB06256000

License/Registration/Certificate #

07/01/2007 TO 06/30/2009  
VALID

25MB06256000

LICENSE/REGISTRATION/CERTIFICATION #

ACTING DIRECTOR

Signature of Licensee/Registrant/Certificate Holder

PLEASE DETACH HERE  
IF YOUR LICENSE/REGISTRATION/  
CERTIFICATE ID CARD IS LOST  
PLEASE NOTIFY:

Board of Medical Examiners  
P.O. Box 183  
Trenton, NJ 08625

PLEASE DETACH HERE

Fatima Hakkak

YOUR LICENSE/REGISTRATION/CERTIFICATE NUMBER IS 25MB 06256000 . PLEASE USE IT IN ALL CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS. USE THIS SECTION TO REPORT ADDRESS CHANGES. YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED BELOW.

EXPIRATION DATE 2009

Board of Medical Examiners  
P.O. Box 183  
Trenton, NJ 08625

PRINT YOUR NEW ADDRESS OF RECORD BELOW.  
YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON YOUR LICENSE/REGISTRATION/CERTIFICATE AND IT MAY BE MADE AVAILABLE TO THE PUBLIC.

HOME   
BUSINESS

PRINT YOUR NEW MAILING ADDRESS BELOW.  
YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY THE DIVISION OF CONSUMER AFFAIRS TO SEND YOU ALL CORRESPONDENCE.

HOME   
BUSINESS

TELEPHONE  
INCLUDE AREA CODE

TELEPHONE  
INCLUDE AREA CODE

If the law governing your profession requires the current license/registration/certificate to be displayed, it should be within reasonable proximity of your original license/registration/certificate at your principal office or place of business.

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

This is to acknowledge the receipt of your letter/application dated 7/16/2007, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 29-18190-C1  
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

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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** 140832.  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260.