

MIDDLESEX CARDIOLOGY ASSOCIATES, P.C.



Keshava H. Aithal, MD, FACC, FACP
Joseph J. Corning, MD, FACC, FACP
Stephen M. Franklin, MD, FACC, FACP
David S. Gallo, MD, FACC
Joseph P. Longhitano, MD
Mojca Lorbar, MD
Arthur V. McDowell, III, MD, FACC, FACP
Kiran Pandey, MD
John E. Rogan, MD, FACC, FACP
Gita Roy, MD, FACC, FACP
Eran I. Shani, MD

February 13, 2007

U.S. Nuclear Regulatory Commission
Nuclear Material Safety Branch 1
Division of Nuclear Material Safety
Region 1
King of Prussia, PA 19406

f-7

Michele Colwell, PA-C
Michael A. Dow, PA-C
Laurel A. Gay, PA-C
Michelle Glidden, F.N.P.-C
Simone Howe, PA-C
Kimberly Hudson, APRN
Jean-Anne McCracken, PA-C

06-23559-01
03028939

To Whom It May Concern:

As a follow up to our letter dated January 9, 2007, we were contacted by Thomas Thompson of the NRC requesting submission of further documentation of training for three of our physicians.

Enclosed please find completed NRC form 313A (AUD) for Mojca Lorbar and Eran Shani verifying their training with attachments from their preceptors. Also enclosed is NRC form 313A (RSO), for myself, Joseph Corning verifying my training and qualifications for RSO status.

Thank-you for your attention to this matter and please do not hesitate to contact me with any questions pertaining to this matter.

Sincerely;

Joseph J. Corning, MD, RSO

LF/jjc

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NMSS/ROIN MATERIALS-002

NRC FORM 313A (AUD) (10-2006)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2008
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]		

Name of Proposed Authorized User MOJCA LORBAR	State or Territory Where Licensed Massachusetts
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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)
 (10-2006)

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	Clinton St. Elizabeth's Med. CTR Boston, MA	80	Jan-March 2005
Radiation protection	-12	40	-11-
Mathematics pertaining to the use and measurement of radioactivity	-11-	20	-11-
Chemistry of byproduct material for medical use (not required for 35.590)	-11-	30	-11-
Radiation biology	-11-	30	-11-
Total Hours of Training:			

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

Description of Experience	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys			
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters			
Calculating, measuring, and safely preparing patient or human research subject dosages			

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	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material			
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures			
Administering dosages of radioactive drugs to patients or human research subjects			
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 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 _____ 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>Please see attached</i>	Signature	Telephone Number	Date
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License/Permit Number/Facility Name

TRAINING AND EXPERIENCE AND PRECEPTOR STATEMENT

PART I -- TRAINING AND EXPERIENCE

Note: Descriptions of training and experience must contain sufficient detail to match the training and experience criteria in the applicable regulations.

1. Name of Individual, Proposed Authorization (e.g., Radiation Safety Officer), and Applicable Training Requirements (e.g., 10 CFR 35.50)
 Mojca Lorbar, M.D.
 Authorized User
 10 CFR 35.290 and 10 CFR 35.920

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

3. CERTIFICATION

Specialty Board	Category	Month and Year Certified

Stop here when using Board Certification to meet 10 CFR Part 35 training and experience requirements.

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

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

TRAINING AND EXPERIENCE AND PRECEPTOR STATEMENT (continued)

5a. WORK EXPERIENCE WITH RADIATION

Description of Experience	Name of Supervising Individual(s)	Location and Corresponding Materials License Number	Dates and Clock Hours of Experience
Clinical use	Alan B. Ashare, M.D.	US NRC 20-00634-03 Comm of Mass 44-0075	500 hours

5b. SUPERVISED CLINICAL CASE EXPERIENCE

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

TRAINING AND EXPERIENCE AND PRECEPTOR STATEMENT (continued)

6. FORMAL TRAINING (applies to Medical Physicists and Therapy Physicians)

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

7. RADIATION SAFETY OFFICER -- ONE-YEAR FULL-TIME WORK EXPERIENCE

- YES Completed 1-year of full-time radiation safety experience (in areas identified in item 5a) under supervision
- N/A of _____ the RSO for License No. _____

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

- YES Completed 1-year of full-time training in therapeutic radiological physics under the supervision of
- N/A _____ who meets requirements for Authorized Medical Physicists; and
- YES Completed 1-year of full-time work experience (for areas identified in item 5a) for _____
- N/A modality(ies) under the supervision of _____ who meets requirements of Authorized Medical Physicists for _____ modality(ies).

9. SUPERVISING INDIVIDUAL -- IDENTIFICATION AND QUALIFICATIONS

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

A. Name of Supervisor

Alan B. Ashare, M.D.

B. Supervisor is:

- Authorized User Authorized Medical Physicist
- Radiation Safety Officer Authorized Nuclear Pharmacist

C. Supervisor meets requirements of Part 35, Section(s) 35.57(a) and 35.57(b)

for medical uses in Part 35, Section(s) 35.100, 35.200, 35.300, 35.392, 35.394

D. Address

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

E. Materials License Number

US NRC 20-00634-03

Comm of Mass 44-0075

TRAINING AND EXPERIENCE AND PRECEPTOR STATEMENT (continued)

PART II -- PRECEPTOR STATEMENT

Note: This part must be completed by the individual's preceptor. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each. This part is not required to meet the training requirements in 10 CFR 35.590.

Item 10 must be completed for Nuclear Pharmacists meeting the requirements of 10 CFR Part 35, Subpart J. Preceptors do not have to complete items 11a, 11b, or the certifying statements for other individuals meeting the requirements of 10 CFR Part 35, Subpart J.

YES 10. The individual named in item 1 has satisfactorily completed the training requirements in
 N/A 10 CFR 35.980 and is competent to independently operate a nuclear pharmacy.

YES 11a. The individual named in Item 1 has satisfactorily completed the requirements in Part 35, Section(s)
 N/A and Paragraph(s) 35.59 and 35.290(a)

YES 11b. The individual named in Item 1. is competent to independently function as an authorized
 N/A user for 35.200 uses (or units).

12. PRECEPTOR APPROVAL AND CERTIFICATION

I certify the approval of item 10 and certify I am an Authorized Nuclear Pharmacist;

OR

I certify the approval of items 11a and 11b, and certify I am an Authorized Nuclear Pharmacist;

OR

I certify the approval of Items 11a and 11b, and I certify that I meet the requirements of 35.57(a)
or equivalent Agreement State requirements to be a preceptor authorized _____
for the following uses (or units) of byproduct material: 35.100, 35.200, 35.300, 35.392, 35.394

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

B. Materials License Number
US NRC 20-00634-03
Comm of Mass 44-00756

C. NAME OF PRECEPTOR (print clearly)
Alan B. Ashare, M.D.

D. SIGNATURE -- PRECEPTOR
Alan B. Ashare MD

E. DATE
03-15-2005

Caritas St. Elizabeth's Medical Center of Boston

This is to certify that

Mojca Lorbar, M.D.

has successfully completed the course for physicians entitled

Radiation Physics and Biology

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

SUBJECTS COVERED INCLUDE:

Radiation Physics and Instrumentation

Radiation Biology

Radiopharmaceutical Chemistry

Radiation Safety and Protection

Mathematics Pertaining to the Use and Measurement of Radioactivity

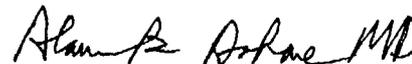
as specified by the USNRC, CFR 10, Chapter 1, Part 35.920

Sponsored by the Division of Nuclear Medicine

Caritas St. Elizabeth's Medical Center of Boston, Massachusetts

Dates:

January through March 2005



Alan B. Ashare, M.D., Program Director

March 17, 2005

THE CERTIFICATION BOARD OF NUCLEAR CARDIOLOGY

Incorporated 1996

CERTIFIES THAT

Mojca Lorbar, M.D.

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

A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

NUCLEAR CARDIOLOGY

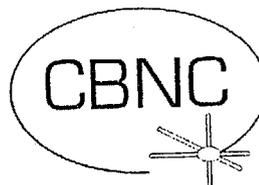
FOR THE PERIOD 2005 THROUGH 2015

Mario Perazuela
PRESIDENT

Jan A. Anghel
SECRETARY



CERTIFICATE # 4043



OCTOBER 23, 2005

Enclosure 6
 RIS 2006-27
 Page 1 of 4

NRC FORM 313A (AUD) <small>(10-2006)</small>	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2008	
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]			
Name of Proposed Authorized User <i>Eran Shari</i>		State or Territory Where Licensed <i>CT</i>	
Requested Authorization(s) (check all that apply)			
<input type="checkbox"/> 35.100 Uptake, dilution, and excretion studies <input checked="" type="checkbox"/> 35.200 Imaging and localization studies <input type="checkbox"/> 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.			
<input checked="" type="checkbox"/> 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.			
<input type="checkbox"/> 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).			
<input type="checkbox"/> 35.290 <input type="checkbox"/> 35.390 + generator experience in 32.290(c)(1)(ii)(G)			

Enclosure 6
 RIS 2006-27
 Page 2 of 4

NRC FORM 313A (AUD) (10-2006) 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	New Jersey INAE course	50	attached cert.
Radiation protection	New Jersey INAE course	50	attached cert.
Mathematics pertaining to the use and measurement of radioactivity	New Jersey INAE course	50	attached cert.
Chemistry of byproduct material for medical use (not required for 35.590)			
Radiation biology	New Jersey INAE course	50	attached cert.
Total Hours of Training:			

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

Description of Experience	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys	inst. license #: 91-2844-01	attached letter	2002-2005
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters	inst. license #: 91-2844-01	attached letter	2002-2005
Calculating, measuring, and safely preparing patient or human research subject dosages	inst. license #: 91-2844-01	attached letter	2002-2005

Enclosure 6
 RIS 2006-27
 Page 3 of 4

NRC FORM 313A (ADD) U.S. NUCLEAR REGULATORY COMMISSION
(10-2005) 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	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material	license #: 91-2844-01	attended left	2002- 2005
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures	license #: 91-2844-01	attended left	2002- 2005
Administering dosages of radioactive drugs to patients or human research subjects	license #: 91-2844-01	attended left	2002- 2005
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 one).

- 35.190 35.290 35.590 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.

Enclosure 6
RIS 2006-27
Page 4 of 4

NRC FORM 313A (AUD) (10-2006) 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 Eran Shan 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 Eran Shan 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 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: Please see attached. Signature: _____ Telephone Number: _____ Date: _____

License/Permit Number/Facility Name: _____

May 25, 2005

Re: Dr. Eran Shani

To Whom It May Concern:

This letter is to affirm that Dr. Eran Shani gained clinical experience during his cardiology fellowship at our institution in Nuclear Cardiology. The preceptorship period includes the following dates: July 1 2001 to June 2005 during which was assigned to the nuclear stress test lab. Dr. Shani actively participated in the following number of procedures sufficiently fulfilling level II training

1. Interpretation over 500 cases of myocardial perfusion imaging using Technetium and Thallium radionuclide agents for rest and stress (exercise or pharmacologic) protocols.
2. 20 PYP/RBC multi-gated acquisition stress procedures
3. 20 Ejection fraction calculation procedures
4. 70 Wall motion evaluation studies
5. 50 myocardial viability assessment studies interpretation.
6. 50 cases of correlating catheterization/angiographic data with radionuclide derived data.

Our Institutional license number is: 91-2844-01.

Dr. Shani's formal fellowship training program in nuclear cardiology meets the requirements as outlined in the American College of Cardiology/American Society of Nuclear Cardiology COCATS Guidelines for training in Nuclear Cardiology 2000 revision.

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

The hours of nuclear cardiology clinical and work experience accrued during this period totaled over 1000 hours.

Sincerely,



Alvin Greengart, MD
Director of Non-Invasive Cardiology

Joshua Kerstein, MD
Associate Director of Clinical Cardiology

Certification Board of Nuclear Cardiology

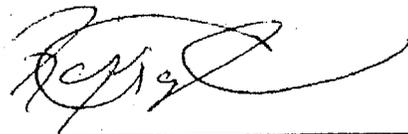
Incorporated 1996

Certifies That

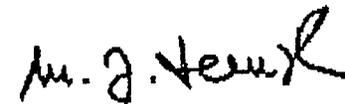
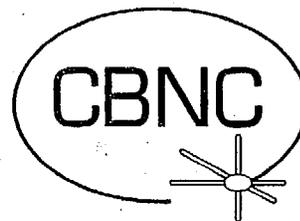
Eran Israel Shani, MD

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: 4643

NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

This document is to attest that

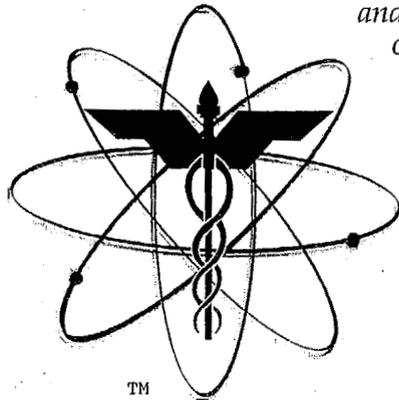
Eran Shani, MD

has successfully completed the didactic program

MEDICAL RADIATION INSTRUMENTATION

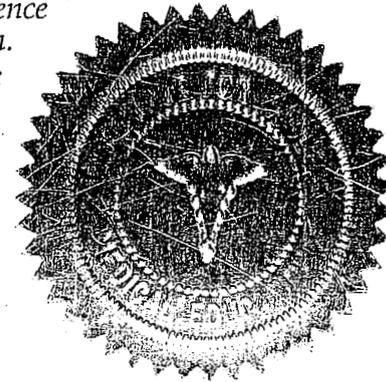
and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination.

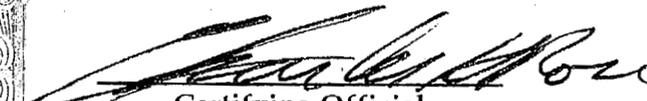
This program provides the following levels of accomplishment:



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

202746

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

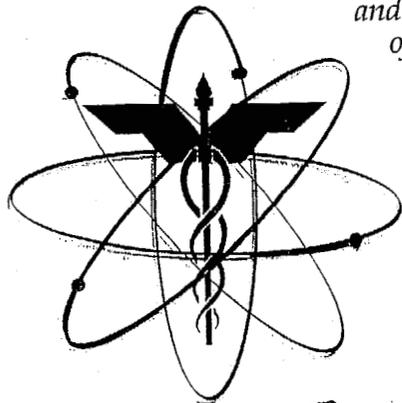
This document is to attest that

Eran Shani, MD

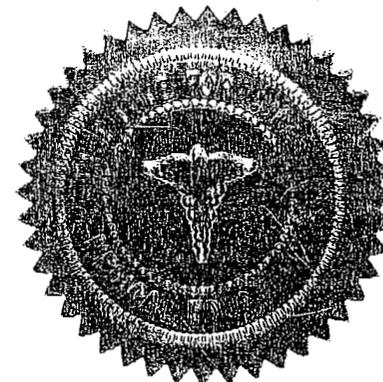
has successfully completed the didactic program

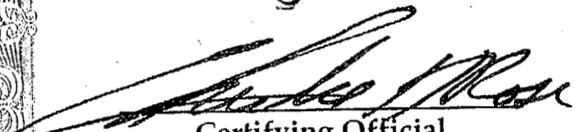
MEDICAL RADIATION PROTECTION

*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

21 March 2004

Date Completed

202236

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 III-Comp&Comp 1/00

NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

This document is to attest that

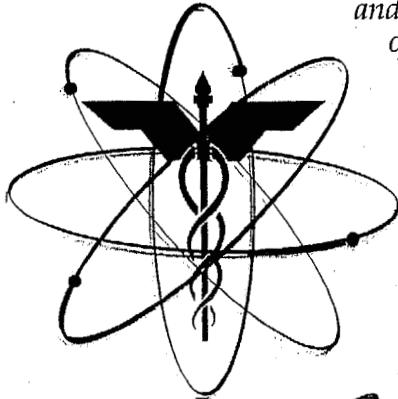
Eran Shani, MD

has successfully completed the didactic program

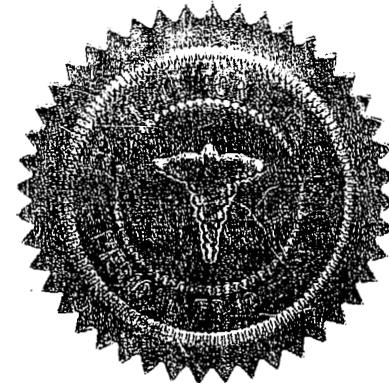
RADIOPHARMACEUTICALS AND CHEMISTRY

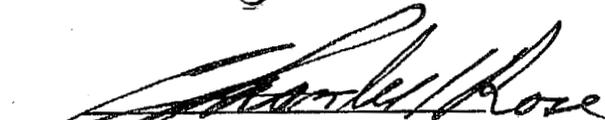
and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination.

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

21 Mar 2004

Date Completed

202154

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-Compl&Comp 1/00

NUCLEAR MEDICAL EDUCATION PROGRAM

Affidavit of Academic Completion & Competency

This document is to attest that

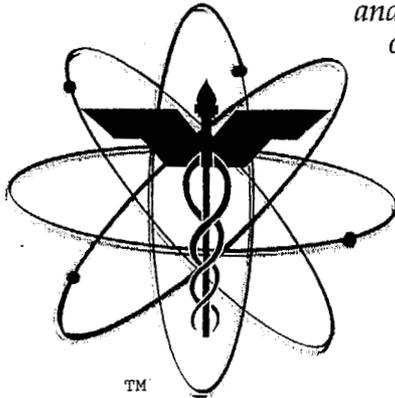
Eran Shani, MD

has successfully completed the didactic program

PRINCIPLES OF RADIATION PHYSICS

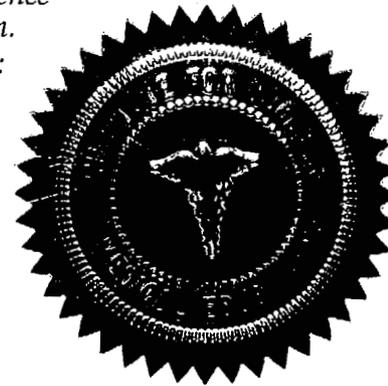
and has provided evidence of attendance in this program and evidence of achieving the objectives of this program through examination.

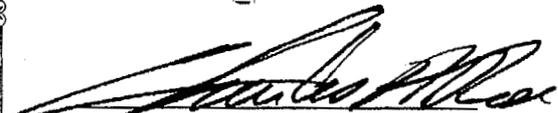
This program provides the following levels of accomplishment:



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

13 October 2004

Date Completed

202694

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

NRC FORM 313A (R50) (10-2006)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 10/31/2008
RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.50]		

Name of Proposed Radiation Safety Officer
JOSEPH J. CORNING, MA

Requested Authorization(s) *The license authorizes the following medical uses (check all that apply):*

35.100
 35.200
 35.300
 35.400
 35.500
 35.600 (remote afterloader)
 35.600 (teletherapy)
 35.600 (gamma stereotactic radiosurgery)
 35.1000 (_____)

PART I - TRAINING AND EXPERIENCE
(Select one of the four 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. Use Table 3.c. to describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.

c. Skip to and complete Part II Preceptor Attestation.

OR

2. Current Radiation Safety Officer Seeking Authorization to Be Recognized as a Radiation Safety Officer for the Additional Medical Uses Checked Above

a. Use the table in section 3.c. to describe training in radiation safety, regulatory issues, and emergency procedures for the additional types of medical use for which recognition as RSO is sought.

b. Skip to and complete Part II Preceptor Attestation.

OR

3. Structured Educational Program for Proposed Radiation Safety Officer

a. Classroom and Laboratory Training

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation	Brown Fellowship 1990 Refresher 10/99 ASNC	100	1/90-6/90
Radiation protection	Brown Fellowship 1990 Refresher 10/99 ASNC	30	u
Mathematics pertaining to the use and measurement of radioactivity	Brown Fellowship 1990 Refresher 10/99 ASNC	20	u
Chemistry of byproduct material for medical use	Brown Fellowship 10/99 ASNC	30	u
Radiation biology	Brown Fellowship 10/99 ASNC	20	u

Total Hours of Training:

NRC FORM 313A (RSO) (10-2005) U.S. NUCLEAR REGULATORY COMMISSION
RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Structured Educational Program for Proposed Radiation Safety Officer (continued)

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

Total of 600 hrs

Description of Experience	Location of Training/ License or Permit Number of Facility	Dates of Training*
Shipping, receiving, and performing related radiation surveys	Brown Cardiology Fellowship - Dr Heller	1991
Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides	u	u
Securing and controlling byproduct material	u	u
Using administrative controls to avoid mistakes in administration of byproduct material	u	u
Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures	u	u
Using emergency procedures to control byproduct material	u	u
Disposing of byproduct material	u	u
Licensed Material Used (e.g., 35.100, 35.200, etc.)+ _____ _____ _____	u	u

* Choose all applicable sections of 10 CFR Part 35 to describe radionuclides and quantities used: 35.100, 35.200, 35.300, 35.400, 35.500, 35.600 remote afterloader units, 35.800 teletherapy units, 35.600 gamma stereotactic radiosurgery units, emerging technologies (provide list of devices).

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Structured Educational Program for Proposed Radiation Safety Officer (continued)

b. Supervised Radiation Safety Experience (continued)

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

Supervising Individual X	License/Permit Number listing supervising individual as a Radiation Safety Officer
This license authorizes the following medical uses: <input type="checkbox"/> 35.100 <input type="checkbox"/> 35.200 <input type="checkbox"/> 35.300 <input type="checkbox"/> 35.400 <input type="checkbox"/> 35.500 <input type="checkbox"/> 35.600 (remote afterloader) <input type="checkbox"/> 35.600 (teletherapy) <input type="checkbox"/> 35.600 (gamma stereotactic radiosurgery) <input type="checkbox"/> 35.1000 (_____)	

c. Describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.

Description of Training	Training Provided By	Dates of Training*
Radiation safety, regulatory issues, and emergency procedures for 35.100, 35.200, and 35.500 uses	Brown Fellowship PROGRAM - Dr Cary Keller	1988 - 1991
Radiation safety, regulatory issues, and emergency procedures for 35.300 uses		
Radiation safety, regulatory issues, and emergency procedures for 35.400 uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - teletherapy uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - remote afterloader uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - gamma stereotactic radiosurgery uses		
Radiation safety, regulatory issues, and emergency procedures for 35.1000, specify use(s):		

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. Structured Educational Program for Proposed Radiation Safety Officer (continued)

c. Training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license (continued)

Supervising Individual <i>If training was provided by supervising RSO, AU, AMP, or ANP. (If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.)</i>	License/Permit Number listing supervising individual
License/Permit lists supervising individual as:	
<input type="checkbox"/> Radiation Safety Officer <input type="checkbox"/> Authorized User <input type="checkbox"/> Authorized Nuclear Pharmacist <input type="checkbox"/> Authorized Medical Physicist	
Authorized as RSO, AU, ANP, or AMP for the following medical uses:	
<input type="checkbox"/> 35.100 <input checked="" type="checkbox"/> 35.200 <input type="checkbox"/> 35.300 <input type="checkbox"/> 35.400 <input type="checkbox"/> 35.500 <input type="checkbox"/> 35.600 (remote afterloader) <input type="checkbox"/> 35.600 (teletherapy) <input type="checkbox"/> 35.600 (gamma stereotactic radiosurgery) <input type="checkbox"/> 35.1000 (_____)	

d. Skip to and complete Part II Preceptor Attestation.

OR

4. Authorized User, Authorized Medical Physicist, or Authorized Nuclear Pharmacist identified on the licensee's license

- a. Provide license number.
- b. Use the table in section 3.c. to describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.
- c. Skip to and complete Part II Preceptor Attestation.

PART II - PRECEPTOR ATTESTATION

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

First Section

Check one of the following:

1. Board Certification

I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Radiation Safety Officer
 10 CFR 35.50(a)(1)(i) and (a)(1)(ii); or 35.50 (a)(2)(i) and (a)(2)(ii); or 35.50(c)(1).

OR

2. Structured Educational Program for Proposed Radiation Safety Officers

I attest that _____ has satisfactorily completed a structural educational
Name of Proposed Radiation Safety Officer
 program consisting of both 200 hours of classroom and laboratory training and one year of full-time radiation safety experience as required by 10 CFR 35.50(b)(1).

OR

RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Preceptor Attestation (continued)

First Section (continued)

Check one of the following:

3. Additional Authorization as Radiation Safety Officer

I attest that _____ is an
Name of Proposed Radiation Safety Officer

Authorized User

Authorized Nuclear Pharmacist

Authorized Medical Physicist

identified on the Licensee's license and has experience with the radiation safety aspects of similar type of use of byproduct material for which the individual has Radiation Safety Officer responsibilities

AND

Second Section

Complete for all (check all that apply):

I attest that _____ has training in the radiation safety, regulatory issues, and
Name of Proposed Radiation Safety Officer

emergency procedures for the following types of use:

35.100

35.200

35.300 oral administration of less than or equal to 33 millicuries of sodium iodide I-131, for which a written directive is required

35.300 oral administration of greater than 33 millicuries of sodium iodide I-131

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

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

35.400

35.500

35.600 remote afterloader units

35.600 teletherapy units

35.600 gamma stereotactic radiosurgery units

35.1000 emerging technologies, including:

Enclosure 3
RIS 2007-27
Page 6 of 6

U.S. NUCLEAR REGULATORY COMMISSION			
NRC FORM 313A (RSO) (10-2005)			
RADIATION SAFETY OFFICER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)			
AND			
Third Section Complete for ALL			
<input type="checkbox"/>	I attest that	<u>Dr. Joseph Conly</u> <small>Name of Proposed Radiation Safety Officer</small>	has achieved a level of radiation safety knowledge sufficient to function independently as a Radiation Safety Officer for a medical use licensee.

Fourth Section Complete the following for Preceptor Attestation and signature			
I am the Radiation Safety Officer for _____ <small>Name of Facility</small>			
License/Permit Number: _____			
<u>Joe [Signature]</u> <small>Name of Preceptor</small>	<u>Greg Vellel</u> <small>Signature</small>	860.545.8820 <small>Telephone Number</small>	01/30/02 <small>Date</small>



MEMORIAL HOSPITAL
of Rhode Island

DIVISION OF CARDIOLOGY



May 17, 1991

To Whom it May Concern:

RE: JOSEPH CORNING, M.D. - NUCLEAR CARDIOLOGY TRAINING

This is to certify that Dr. Joseph Corning has successfully completed training in nuclear cardiology to qualify him for licensure by the Nuclear Regulatory Commission in nuclear cardiology procedures. Dr. Corning has successfully completed concurrent training in nuclear cardiology in the following areas:

- A. Training in basic radioisotope handling techniques. (200 hours)
 - 1. Radiation physics and instrumentation (100 hours)
 - 2. Radiation protection (30 hours)
 - 3. Mathematics pertaining to the use and measurement of radioactivity (20 hours)
 - 4. Radiation biology (20 hours)
 - 5. Radiopharmaceutical chemistry (30 hours)

- B. Experience handling unsealed radioactive materials under the supervision of a qualified instructor (600 hours). This experience has included:
 - 1. Handling of radioactive materials safely including related radiation surveys.
 - 2. Calibration of dose calibrators and diagnostic information.
 - 3. Calculation preparation and calibration of patient doses including radiation safety consideration.
 - 4. Administration of doses to patients.
 - 5. Appropriate internal control procedures.
 - 6. Emergency procedures.
 - 7. Elution of Tc-99m from generator systems.

RE: Joseph Corning, M.D.
May 17, 1991
Page 2

- C. Supervised clinical training in an institution of nuclear medicine or nuclear cardiology program — (600 hours). This training has included:
1. Supervised examination of patients.
 2. Selection of the proper radiopharmaceutical and dosage.
 3. Follow-up of patientw when required.
 4. Discussion with preceptor of case histories.

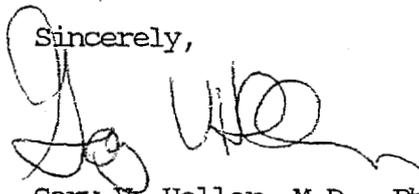
In addition to the above outlined training, Dr. Corning also qualifies according to the American College of Cardiology Level 2 in nuclear cardiology. This is by virtue of the avove described program. Included in this was intensive experience in over fifty patients in which indications for the nuclear study, drawing up and calibration of the dosage of radiopharmaceutical, injection of radiopharmaceutical and, finally, interpretation of the nuclear image was performed.

The didactic portion of Dr. Corning's training was provided by Douglas R. Shearer from the Department of Diagnostic Imaging, Rhode Island Hospital.

Dr. Corning gained experience in many areas of nuclear cardiology not routinely available. This included the use of Tc-99m Sestamibi imaging, IV dipyridamole, IV adenosine, pharmacologic stress, exercise radionuclide ventriculography and gaited sestamibi imaging.

If I can be of any further assistance, please contact me at 401-722-6000, extension 2791.

Sincerely,



Gary V. Heller, M.D., Ph.D.
Associate Professor of Medicine
Brown University
Director, Nuclear Cardiology
Memorial Hospital of RI

GVH:mpn

Certificate of Participation

THIS IS TO CERTIFY THAT

Joseph J. Corning, M.D.

successfully completed the course for physicians entitled

Radioisotope Handling Techniques for Nuclear Medicine Procedures

for a total of two hundred hours of lectures,
demonstrations, and related assignments

SUBJECTS COVERED INCLUDE

Radiation Physics & Instrumentation
Radiation Protection
Mathematics Pertaining to the Use and
Measurement of Radioactivity

Instrumentation for Radionuclide Imaging
Radiation Biology
Radiopharmaceutical Chemistry

as specified in NRC Part 35

Sponsored by
Medical Physics, Department of Diagnostic Imaging
Rhode Island Hospital

Dates:

January - June 1990



Douglas R. Shearer
Douglas R. Shearer, Ph.D., Course Director

THE CERTIFICATION BOARD OF NUCLEAR CARDIOLOGY

Incorporated 1996

CERTIFIES THAT

Joseph J. Corning, M.D.

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

A DIPLOMATE CERTIFIED IN THE SUBSPECIALTY OF

NUCLEAR CARDIOLOGY

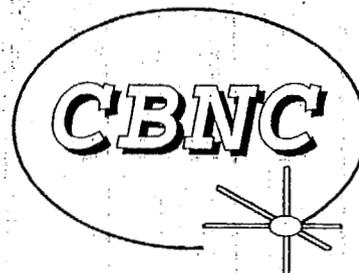
FOR THE PERIOD 2000 THROUGH 2010

Manuel D. Cunqueira, M.D.
PRESIDENT

John A. ...
SECRETARY



CERTIFICATE # 1651



OCTOBER 29, 2000