ENGLEWOOD
HOSPITAL AND MEDICAL CENTER

Br. 1

July 15, 2008

United States Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

03002513
License No. 29-08519-01

Dear. Sir or Madam:

This is to request the addition of Dr. Mutian Zhang, PhD, as an authorized medical physicist (AMP) to our license. Please see the attached NRC FORM 313A for the details of his training and working experiences.

If you have any questions or require additional information please call our chief physicist Dr. Tanxia Qu at 201-894-3125.

Thank you,

Dan Markham

Daniel Markham,
Vice President
Diagnostic & Therapeutic Services
and Information Technology

: Enclosures (1)

Cc: D. Dubin, MD
M. Mink
T. Qu, PhD

AN AFFILIATE OF MOUNT SINAI SCHOOL OF MEDICINE
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NMSS/RGNI MATERIALS-002

NRC FORM 313A (AMP) (10-2006) U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.51]

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

Name of Proposed Authorized Medical Physicist
Mutian Zhang

Requested Authorization(s) (check all that apply)
- ☐ 35.400 Ophthalmic use of strontium-90
- ☐ 35.600 Teletherapy unit(s)
- ☒ 35.600 Remote afterloader unit(s)
- ☐ 35.600 Gamma stereotactic radiosurgery unit(s)

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. Go to the table in 3.c. and describe training provider and dates of training for each type of use for which authorization is sought.

c. Skip to and complete Part II Preceptor Attestation.

☐ 2. **Current Authorized Medical Physicist Seeking Additional Authorization for use(s) checked above**

a. Go to the table in section 3.c. to document training for new device.

b. Skip to and complete Part II Preceptor Attestation

☒ 3. **Education, Training, and Experience for Proposed Authorized Medical Physicist**

a. Education: Document master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university.

Degree	Major Field
MS, PhD	Medical Physics/Applied Physics
College or University: Columbia University	

b. Supervised Full-Time Medical Physics Training and Work Experience in clinical radiation facilities that provide high-energy external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services.

☒ Yes. Completed 1 year of full-time training in medical physics (for areas identified below) under the supervision of Ahmad Hadami, Marco Zaider, Tanxia Qu who meets the requirements for an Authorized Medical Physicist.

AND

☒ Yes. Completed 1 year of full-time work experience in medical physics (for areas identified below) under the supervision of Ahmad Hadami, Tanxia Qu who meets the requirements for an Authorized Medical Physicist.

NRC FORM 312A (AMP)
(10-2006)

U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. **Education, Training, and Experience for Proposed Authorized Medical Physicist** (continued)

b. Supervised Full-Time Medical Physics Training and Work Experience (continued)

If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.

Description of Training/ Experience	Location of Training/License or Permit Number of Training Facility/Medical Devices Used+	Dates of Training*	Dates of Work Experience*
Medical Physics	Radiation Safety Office, Columbia University Medical Center		04/2002 – 02/2005
Performing sealed source leak tests and inventories	Same Various sources at CUMC		Same.
Performing decay corrections	Same		Same
Performing full calibration and periodic spot checks of external beam treatment unit(s)	Radiation Oncology, Columbia University Medical Center TG-21 & monthly QA (Linac & Co-60 unit) (Under C. S. Wuu)		02/2005 – 05/2005
Performing full calibration and periodic spot checks of stereotactic radiosurgery unit(s)	NA		
Performing full calibration and periodic spot checks of remote afterloading unit(s)	NA		
Conducting radiation surveys around external beam treatment unit(s), sterotactic radiosurgery unit(s), remote after loading unit(s)	Radiation Oncology, Columbia University Medical Center (Under C. S. Wuu)		02/2005 – 05/2005

Supervising Individual**	License/Permit Number listing supervising individual as an authorized Medical Physicist
Ahmad Hatami	75-2878-01, 75-2878-03

for the following types of use:

☒ Remote afterloader unit(s) ☐ Teletherapy unit(s) ☐ Gamma stereotactic radiosurgery unit(s)

\+ Training and work experience must be conducted in clinical radiation facilities that provide high-energy external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services.

* 1 year of Full-time medical physics training and 1 year of full time work experience cannot be concurrent.

** If the supervising medical physicist is not an authorized medical physicist, the licensee must submit evidence that the supervising medical physicist meets the training and experience requirements in 10 CFR 35.51 and 35.59 for the types of use for which the individual is seeking authorization.

NRC FORM 313A (AMP)
(10-2006)

U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. **Education, Training, and Experience for Proposed Authorized Medical Physicist** (continued)

b. Supervised Full-Time Medical Physics Training and Work Experience (continued)

If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.

Description of Training/ Experience	Location of Training/License or Permit Number of Training Facility/Medical Devices Used+	Dates of Training*	Dates of Work Experience*
Medical Physics	Medical Physics, Memorial-Sloan-Kettering Cancer Center (Under John. Humm)		02/2005 -03/2008
Performing sealed source leak tests and inventories	Same		Same
Performing decay corrections	Same		Same
Performing full calibration and periodic spot checks of external beam treatment unit(s)	Medical Physics, MSKCC Varian Trilogy Linac QA (Under Assen Kirov)		02/2008 -03/2008
Performing full calibration and periodic spot checks of stereotactic radiosurgery unit(s)	NA		
Performing full calibration and periodic spot checks of remote afterloading unit(s)	Medical Physics, MSKCC GammaMed Ir-192 HDR unit		06/2007 -03/2008
Conducting radiation surveys around external beam treatment unit(s), stereotactic radiosurgery unit(s), remote after loading unit(s)	Medical Physics, MSKCC Linac & HDR units		06/2007 -03/2008

Supervising Individual**: Marco Zaider, Gilad Cohen

License/Permit Number listing supervising individual as an authorized Medical Physicist: 75-2968-01

for the following types of use: 212-639-7361

☒ Remote afterloader unit(s) ☐ Teletherapy unit(s) ☐ Gamma stereotactic radiosurgery unit(s)

\+ Training and work experience must be conducted in clinical radiation facilities that provide high-energy external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services.

* 1 year of Full-time medical physics training and 1 year of full time work experience cannot be concurrent.

** If the supervising medical physicist is not an authorized medical physicist, the licensee must submit evidence that the supervising medical physicist meets the training and experience requirements in 10 CFR 35.51 and 35.59 for the types of use for which the individual is seeking authorization.

NRC FORM 313A (AMP)
(10-2006)

U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. **Education, Training, and Experience for Proposed Authorized Medical Physicist** (continued)

c. Describe training provider and dates of training for each type of use for which authorization is sought.

Description of Training	Training Provider and Dates		
	Remote Afterloader	Teletherapy	Gamma Stereotactic Radiosurgery
Hands-on device operation	Medical Physics, MSKCC Varian GammaMed Ir-192 HDR unit 06/2007 – 03/2008	NA	NA
Safety procedures for the device use	(Same) Emergency procedures Area monitoring & survey	"	"
Clinical use of the device	~~Shared~~ Prostate, GYN IORT, Cervix, Soft tissue	"	"
Treatment planning system operation	(Same) For CT based prostate (IMRT), In-house planning system	"	"

Supervising Individual
If training is provided by Supervising Medical Physicist, (If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.)

Marco Zaider
Gilad Cohen
for the following types of use: 212-639-7361

License/Permit Number listing supervising individual as an authorized Medical Physicist

75-2968-01

☒ Remote afterloader unit(s) ☐ Teletherapy unit(s) ☐ Gamma stereotactic radiosurgery unit(s)

If Applicable:

Authorization Sought	Device	Training Provided By	Dates of Training
35.400 Ophthalmic Use of strontium-90			

d. Skip to and complete Part II Preceptor Attestation.

NRC FORM 313A (AMP)
(10-2006)

U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

3. **Education, Training, and Experience for Proposed Authorized Medical Physicist** (continued)

c. Describe training provider and dates of training for each type of use for which authorization is sought.

Description of Training	Training Provider and Dates		
	Remote Afterloader	Teletherapy	Gamma Stereotactic Radiosurgery
Hands-on device operation	Radiation Oncology, EHMC Nucletron Ir-192 HDR 03/2008 – now	Siemens linacs, T&S/cal, annual and monthly QA, Pinnacle3 Treatment planning	NA
Safety procedures for the device use	Nucletron teaches emergency (Same) procedures, Interlock check on Treatment day and Full calibration. Key storage and access.	"	"
Clinical use of the device	(Same) Prostate, GYN cylinder. Mammosite, Tandem and ovoid.	IMRT. "	"
Treatment planning system operation	(~~Same~~) prostate, GYN etc. all case are CT based. prostate case use IMRT	"	"

Supervising Individual *If training is provided by Supervising Medical Physicist, (If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.)*	License/Permit Number listing supervising individual as an authorized Medical Physicist
Tanxia Qu	29-08519-01

for the following types of use:

☒ Remote afterloader unit(s) ☐ Teletherapy unit(s) ☐ Gamma stereotactic radiosurgery unit(s)

If Applicable:

Authorization Sought	Device	Training Provided By	Dates of Training
35.400 Ophthalmic Use of strontium-90			

d. Skip to and complete Part II Preceptor Attestation.

NRC FORM 313A (AMP)
(10-2008)

U.S. NUCLEAR REGULATORY COMMISSION

AUTHORIZED MEDICAL PHYSICIST 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.

First Section
Check one of the following:

1. **Board Certification**

☐ I attest that _____ has satisfactorily completed the requirements in
Name of Proposed Authorized Medical Physicist
10 CFR 35.51(a)(1) and (a)(2).

OR

2. **Education, Training, and Experience**

☒ I attest that Mutian Zhang has satisfactorily completed the 1-year of full-time
Name of Proposed Authorized Medical Physicist
training in medical physics and an additional year of full-time work experience as required by 10 CFR 35.51(b)(1).

AND

Second Section
Complete the following:

☒ I attest that Mutian Zhang has training for the types of use for which authorization
Name of Proposed Authorized Medical Physicist
is sought that include hands-on device operation, safety procedures, clinical use, and the operation of a treatment planning system.

AND

Third Section
Complete the following:

☒ I attest that Mutian Zhang has achieved a level of competency sufficient to
Name of Proposed Authorized Medical Physicist
function independently as an Authorized Medical Physicist for the following:

☐ 35.400 Ophthalmic use of strontium-90 ☐ 35.600 Teletherapy unit(s)
☒ 35.600 Remote afterloader unit(s) ☐ 35.600 Gamma stereotactic radiosurgery unit(s)

AND

Fourth Section
Complete the following for preceptor attestation and signature:

☐ I meet the requirements in 10 CFR 35.51, or equivalent Agreement State requirements for Authorized Medical Physicist for the following:

☐ 35.400 Ophthalmic use of strontium-90 ☐ 35.600 Teletherapy unit(s)
☒ 35.600 Remote afterloader unit(s) ☐ 35.600 Gamma stereotactic radiosurgery unit(s)

Name of Preceptor	Signature	Telephone Number	Date
Tanxia Qu	[signature]	201-894-3125	July 11, 2008

License/Permit Number/Facility Name