



UPMC | University of Pittsburgh
Medical Center

*University of Pittsburgh Physicians
Department of Neurological Surgery*

P-6

October 1, 2010

Center for Image
Guided Neurosurgery

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RE: John Frich, M.D.
Thomas Kirby, Ph.D.
Nasser Razmianfar, Ed.D.

47-23066-03
03036074

To Whom It May Concern:

This letter is to inform you the above named physician, medical physicist and Safety Officer participated in the training course entitled Principles and Practice of Gamma Knife Radiosurgery (4C and Perfexion Training) presented September 27-October 1, 2010 at the University of Pittsburgh Medical Center. This course was conducted at a licensed Gamma Knife Facility (NCF License 3370024509) under the supervision of authorized users, L. Dade Lunsford, M.D., Douglas Kondziolka, M.D., John C. Flickinger, M.D., Jagdish Bhatnagar, Sc.D., and Josef Novotny, Ph.D.

During this time the above named participants obtained the knowledge and experience in observation of 17 procedures, (4 avm, 2 meningioma, 9 mets, 1 TGN and 1 astrocytoma) dose planning, installation and acceptance testing.

Sincerely,

Douglas Kondziolka, M.D., FRCS
Professor of Neurological Surgery
And Radiation Oncology

/cb

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NMSS/RGN1 MATERIALS-002

University of Pittsburgh

Center for Image-Guided Neurosurgery

This is to Certify That

Thomas Kirby, Ph.D.

Attended

Principles and Practice of Gamma
Knife® Radiosurgery

Special Emphasis on Perfexion Training

From September 27 – October 1, 2010



L. Dade Lunsford, M.D., FACS

Josef Novotny, Ph.D.

Douglas Kondziolka M.D., M.Sc., FRCS(C)

Jagdish Bhatnagar, ScD

John C. Flickinger, M.D.

University of Pittsburgh

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This is to Certify That

John Frich, M.D.

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Nasser Razmianfar, Ed.D.

Attended

**Principles and Practice of Gamma
Knife® Radiosurgery**

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From September 27 – October 1, 2010



L. Dade Lunsford, M.D., FACS



Josef Novotny, Ph.D.

Douglas Kondziolka M.D., M.Sc., FRCS(C)

Jagdish Bhatnagar, ScD

John C. Flickinger, M.D.

10/05/2010 11:28 3042934529 RADIATION SAFETY

NRC FORM 313A (AMP) (3-2008)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB: NO. 3150-0120 EXPIRES: 3/31/2012
AUTHORIZED MEDICAL PHYSICIST TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.51]		

Name of Proposed Authorized Medical Physicist
 Thomas Kirby, Ph.D.

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
College or 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 _____ 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 _____ who meets the requirements for an Authorized Medical Physicist.

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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			
Performing sealed source leak tests and inventories			
Performing decay corrections			
Performing full calibration and periodic spot checks of external beam treatment unit(s)			
Performing full calibration and periodic spot checks of stereotactic radiosurgery unit(s)			
Performing full calibration and periodic spot checks of remote afterloading unit(s)			
Conducting radiation surveys around external beam treatment unit(s), stereotactic radiosurgery unit(s), remote after loading unit(s)			

Supervising Individual**

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

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.

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(3-2009)

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			
Performing sealed source leak tests and inventories			
Performing decay corrections			
Performing full calibration and periodic spot checks of external beam treatment unit(s)			
Performing full calibration and periodic spot checks of stereotactic radiosurgery unit(s)			
Performing full calibration and periodic spot checks of remote afterloading unit(s)			
Conducting radiation surveys around external beam treatment unit(s), stereotactic radiosurgery unit(s), remote after loading unit(s)			

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

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.

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(3-2009)

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			Jagdish P. Bhatnagar SEP 27 - OCT 1, 2010
Safety procedures for the device use			Jagdish P. Bhatnagar SEP 27 - OCT 1, 2010
Clinical use of the device			Jagdish P. Bhatnagar SEP 27 - OCT 1, 2010
Treatment planning system operation			Jagdish P. Bhatnagar SEP 27 - OCT 1, 2010

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

PA-0190A

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.

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(3-2009)

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 Thomas Kirby, Ph.D. 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 _____ 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 Thomas Kirby, Ph.D. 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 Thomas Kirby, Ph.D. 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
JAGDISH P. BHATNAGAR	<i>Jagdish Bhatnagar</i>	412-802-6718	10-5-2010
License/Permit Number/Facility Name			
PA-DEP License NO. PA-0190A, University of Pittsburgh			