

☐ ■ **SAINT BARNABAS**
■ ☐ **MEDICAL CENTER**

An affiliate of the Saint Barnabas Health Care System

RONALD J. DEL MAURO
Chairman
Board of Trustees

Br 1

May 4, 2009

United States Nuclear Regulatory Commission
Medical Licensing Section
475 Allendale Road
King of Prussia, PA 19406

03002438

RE: License number 29-01608-03

RECEIVED
REGION 1
2009 MAY 15 PM 12: 26

Gentlemen:

Please amend our radioactive materials license to add Gerard Perera as an authorized medical physicist for Iridium-192 in High Dose Rate remote afterloading units. Mr. Perera has six years experience as a medical physicist, including one year at our facility. While at our facility he has participated, under direct supervision, in over 50 HDR cases, including calibrations and treatment planning. Enclosed are supporting documents, including:

- A preceptor form for his clinical HDR experience at our facility.
- A preceptor form for his experience in external beam medical physics.
- A copy of his certificate from Columbia University's program in Medical Physics.
- Copies of CV and New York State Medical Physics licenses.

Should you have any questions concerning this amendment request, please contact our Radiation Safety Officer, Ira Garelick, at (973) 322-5256. Thank you for your cooperation in this matter.

Sincerely,

Patricia Carroll

Patricia Carroll
Senior Vice President of Operations

143736

NMSS/RGN1 MATERIALS-002

OLD SHORT HILLS ROAD ■ LIVINGSTON, NEW JERSEY 07039 ■ (973) 322-5000

Saint Barnabas Medical Center is a major teaching affiliate of Mount Sinai School of Medicine, New York



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

APPROVED BY OMB: NO. 3150-0120
EXPIRES: 3/31/2012

Name of Proposed Authorized Medical Physicist

GERARD MARK PERERA, M.S., M.S.

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 <i>M.S.</i>	Major Field <i>MEDICAL PHYSICS</i>
College or University <i>COLUMBIA UNIVERSITY NY, NY</i>	

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 *MARK KAO, PH.D.* 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 *MARK KAO, PH.D.* who meets the requirements for an Authorized Medical Physicist.

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	ST. BARWABAS MEDICAL CENTER LIVINGSTON NJ.		APRIL-08 — APRIL-09
Performing sealed source leak tests and inventories			APRIL 08 — APRIL-09
Performing decay corrections			APRIL 08 — APRIL-09
Performing full calibration and periodic spot checks of external beam treatment unit(s)			APRIL-08 — APRIL-09
Performing full calibration and periodic spot checks of stereotactic radiosurgery unit(s)			N.A.
Performing full calibration and periodic spot checks of remote afterloading unit(s)			APRIL-08 — APRIL-09
Conducting radiation surveys around external beam treatment unit(s), stereotactic radiosurgery unit(s), remote after loading unit(s)			APRIL-08 — APRIL-09

Supervising Individual**

MARK KAO PH.D.

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

NRC LFL#: 29-01608-03

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.

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	APRIL-08 / APRIL 09 MORE THAN 50 CASES.		
Safety procedures for the device use	APRIL 08 / APRIL 09 DAILY QA, AND PATIENT QA. MORE THAN 50 CASES		
Clinical use of the device	APRIL 08 / APRIL 09 MORE THAN 50 CASES		
Treatment planning system operation	APRIL 08 / APRIL 09 MORE THAN 50 CASES.		

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

MARK KMO PHD.

NRC#: 29-01608-03

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.

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 10 CFR 35.51(a)(1) and (a)(2).
Name of Proposed Authorized Medical Physicist

OR

2. Education, Training, and Experience

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

AND

Second Section

Complete the following:

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

AND

Third Section

Complete the following:

I attest that GERARD PERERA M.S., M.S. has achieved a level of competency sufficient to 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 <u>Mark KAO</u>	Signature 	Telephone Number <u>903 322 5698</u>	Date <u>5/1/09</u>
License/Permit Number/Facility Name <u>St. Barnabas Medical Ctr, Livingston, NJ</u>		NRC # <u>29-01608-03</u>	

**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

GERARD M. PERERA

- 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
<i>M.S.</i>	<i>MEDICAL PHYSICS</i>
College or University	
<i>COLUMBIA UNIVERSITY NY, NY</i>	

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 *DR. ELLEN D. TORKE* 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 *DR. ELLEN D. TORKE* who meets the requirements for an Authorized Medical Physicist.

NRC FORM 313A (AMP)
(10-2007)

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	MEMORIAL SLOAN KETTERING CANCER CENTER NY, NY		NOVEMBER 2002 TO — APRIL 2008
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

→ Ellen D. Yorke

NY State 000044-1

for the following types of use:

High energy external beam

- 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.

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 Physician
10 CFR 35.51(a)(1) and (a)(2).

OR

2. Education, Training, and Experience

I attest that Gerard Perera has satisfactorily completed the 1-year of full-time
Name of Proposed Authorized Medical Physician
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 Gerard Perera has training for the types of use for which authorization
Name of Proposed Authorized Medical Physician
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 _____ has achieved a level of competency sufficient to
Name of Proposed Authorized Medical Physician
function independently as an Authorized Medical Physician 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 Physician 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 <u>Ellen D Yorke</u>	Signature <u>Ellen D Yorke</u>	Telephone Number <u>212-639-8637</u>	Date <u>11/18/2008</u>
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License/Permit Number/Facility Name MEMORIAL SLOAN KETTERING CANCER CENTER



Columbia University

Department of Applied Physics and Applied Mathematics

CONGRATULATES

Gerard M. Perera

ON THE COMPLETION OF THE

Program in Medical Physics

FOR THE

Master of Science Degree

10/15/1997

Date

10/15/1997

Date

Gerald A. Navratil, Chairman

Thomas C. Marshall, Program Coordinator

THE TRUSTEES OF COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME GREETING
BE IT KNOWN THAT

GERARD MARK PERERA

HAVING COMPLETED THE STUDIES AND SATISFIED THE REQUIREMENTS
FOR THE DEGREE OF

MASTER OF SCIENCE

HAS ACCORDINGLY BEEN ADMITTED TO THAT DEGREE WITH ALL THE
RIGHTS PRIVILEGES AND IMMUNITIES THEREUNTO APPERTAINING IN
WITNESS WHEREOF WE HAVE CAUSED OUR CORPORATE SEAL TO BE HERE
AFFIXED IN THE CITY OF NEW YORK ON THE FIFTEENTH DAY OF OCTOBER
IN THE YEAR ONE THOUSAND NINE HUNDRED AND NINETY-SEVEN



Z. Galie
DEAN OF THE FACULTY OF ENGINEERING
AND APPLIED SCIENCE

A. R. ...
PRESIDENT

THE UNIVERSITY OF THE STATE OF NEW YORK
EDUCATION DEPARTMENT



BE IT KNOWN THAT

GERARD MARK PERERA

HAVING GIVEN SATISFACTORY EVIDENCE OF THE COMPLETION OF PROFESSIONAL
AND OTHER REQUIREMENTS PRESCRIBED BY LAW IS QUALIFIED TO PRACTICE AS A

MEDICAL PHYSICIST-THERAPEUTIC RADIOLOGICAL

IN THE STATE OF NEW YORK

IN WITNESS WHEREOF THE EDUCATION DEPARTMENT GRANTS THIS LICENSE
UNDER ITS SEAL AT ALBANY, NEW YORK
THIS EIGHTH DAY OF JUNE, 2004.

PRESIDENT OF THE UNIVERSITY
AND COMMISSIONER OF EDUCATION

LICENSE NUMBER
000249



DEPUTY COMMISSIONER
OFFICE OF THE PROFESSIONS

EXECUTIVE SECRETARY
STATE BOARD FOR
MEDICINE

Gerard Mark Perera, M.S., M.S.
RADIOTHERAPY PHYSICIST

THERAPEUTIC RADIOLOGICAL NY LICENCE:000249
DIAGNOSTIC RADIOLOGICAL NY LICENCE:000114

Saint Barnabas Medical Center
94 Old Short Hills Road,
Livingston NJ 07039

Tel: (973) 322 5639
email: pererag@sbhcs.com
gp68@columbia.edu

M.S. - Applied Physics (Medical Physics)
M.S. - Applied Physics (Optics)

EDUCATION:

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Columbia University, New York, NY	M.S.	1997	Applied Physics (Medical Physics)
Alabama A&M University, Huntsville AL	M.S.	1990	Applied Physics (Optics)
Alabama A&M University, Huntsville AL	B.S.	1987	Electrical Engineering Technology

RESEARCH AND PROFESSIONAL EXPERIENCE:

April 14 2008- present: Radiotherapy Physicist at Saint Barnabas Medical Center
Saint Barnabas Medical Center 94 Old Short Hills Road,
Livingston NJ 07039

Brachy therapy treatment planning, QA and treatment delivery
using HDR Iridium 192 source.

Seed calibration of Pd-103 sources

Monthly and Annual calibrations on Siemens Primas 23/P6 Linac,

External Beam Radiotherapy IMRT treatment planning,

Tomotherapy treatment planning and Quality assurance.

Plan checking, and weekly QA for charts

Nov, 2002-March 2008 : Radiotherapy Physicist, External Beam Treatment
Planning section, Dept. of Medical Physics, Memorial Sloan
Kettering Cancer Center NY, NY 10021

External Beam Radiotherapy Treatment planning. IMRT and 3D conformal planning for
The following sites: Brain, Head and Neck, Pelvis, Stomach, Breasts, Esophagus, Pancreas
TBI, Prostate, Electron Chest Wall etc..

Used VARIS record and verification system. Familiar with IGRT for 2D and 3D.

Monthly QA for Varian Machine.

Was involved with a project using MRSI data for treatment planning of Gliomas (see publications)

July 01 - Oct.11,02: Associate Research Scientist Dept. of Radiology/
Neuro-Radiology at Columbia Presbyterian Medical Center. NY,NY

Aug. 96 - July 01: Staff Associate Neuro-Radiology CPMC NY,NY

Was responsible for quality control, acquisition of data for fMRI analysis, design of paradigms for functional fMRI work. Also acquired and analyzed Diffusion Tensor and Perfusion imaging data.

Was responsible for the automation of fMRI Analysis using IDL data language and Tck-Tk language in the MEDx 3.2 Environment. I was involved in the following fMRI studies of the Human Brain:

- a.) The Evolution of fMRI activation following pure motor stroke. (see Publications)
 - b.) Differential regional dysfunction of the hippocampal formation among elderly with memory decline and Alzheimer's disease. (see publications)
 - c.) Seizure Localization. d.) Memory studies (see publications)
- BANGEL PROJECT : 3D dose distributions by MRI-based polymer gel dosimetry (see pub.)*

Oct.95 - August 96: Senior Researcher in the Dept. of Radiology/Nuclear Medicine at Columbia Presbyterian Medical Center. NY, NY.

Sep.94 - Sep.-95: Full time student at Columbia University, NY, NY.

Jan.93 - August 94: Graduate research assistant in the Dept. of Physics at Alabama A&M University

Jan. 91 - June 92: Mathematics specialist, Dept. of Education Alabama A&M University

88 Jan. - Dec. 90 Graduate research assistant in the Dept. of Physics at Alabama A&M University.(Optics)

Selected Refereed Journal Papers: (refer online; www/pubmed.org , search "perera gm" and perera g)

Narayana A, Chang J, Thakur S, Huang W, Karimi S, Hou B, Kowalski A, Perera G, Holodny A, Gutin PH. Use of MR spectroscopy and functional imaging in the treatment planning of gliomas. Br J Radiol. 2007 May;80(953):347-54. Epub 2006 Oct 26.

Chang J, Thakur S, Perera G, Kowalski A, Huang W, Karimi S, Hunt M, Koutcher J, Fuks Z, Amols H, Narayana A. Image-fusion of MR spectroscopic images for treatment planning of gliomas. Med Phys. 2006 Jan;33(1):32-40.

Watanabe Y, Akimitsu T, Hirokawa Y, Mooij RB, Perera GM. Heterogeneity phantoms for visualization of 3D dose distributions by MRI-based polymer gel dosimetry. Med Phys. 2004 May;31(5):975-84.

Watanabe Y, Mooij R, Perera GM, Maryanski MJ. Heterogeneity phantoms for visualization of 3D dose distributions by MRI-based polymer gel dosimetry. Med Phys. 2004 May;31(5):975-84.

Mathew SJ, Shungu DC, Mao X, Smith EL, Perera GM, Kegeles LS, Perera T, Lisanby SH, Rosenblum LA, Gorman JM, Copland JD
A magnetic resonance spectroscopic imaging study of adult nonhuman primates exposed to early-life stressors. Biol Psychiatry. 2003 Oct 1;54(7):727-35.

Yoichi Watanabe(a), Gerard M. Perera(b), Robertus B.Mooij
Image distortion in MRI-based polymer gel dosimetry of Gamma Knife stereotactic radiosurgery systems. Medical Physics
Medical Physics Med.Phys.29(5), May 2002

Small SA, Nava AS, Perera GM, DeLaPaz R, Mayeux R, Stern Y
Circuit mechanisms underlying memory encoding and retrieval in the long axis of
the hippocampal formation. *Nature Neuroscience*. 2001 Apr;4(4):442-9.

Scott A. Small, Ed X. Wu, Dushan Bartsch, Gerard M. Perera, Clay O. Lacefield
Robert DeLaPaz, Richard Mayeux, Yaakov Stern, ERIC KANDEL. Imaging the Function
of Hippocampal Subregions in Humans and in Genetically modified Mice using a High Resolution MRI
Method. *NEURON* 2000; 28 (3)

R. Mekle, A. F. Laine, G. M. Perera, R. DeLaPaz, "Activation Detection in
fMRI Data via Multi-Scale Singularity Detection", in *Wavelet Applications
in Signal and Image Processing VIII*, A. Aldroubi, A. F. Laine, M. A.
Unser, Eds., *Proceedings of the SPIE Vol. 4119*, San Diego, pp. 615-625 (2000).

Karen Anderson, Gerard Perera, Naomi Zubin, Alex DiMauro, Aileen Park,
Robert DeLaPaz, Yaakov Stern. An fMRI Study of Normal Elders on a Serial Word
Recognition Task. Submitted to *Progress in Neuropharmacology and Biological
Psychiatry* (in press)

H. Tang, E.X. Wu, Q.Y. Ma, D. Gallagher, G.M. Perera, T. Zhuang,
MRI brain image segmentation by multi-resolution edge detection
and region selection, *Computerized Medical Imaging and Graphics* 24 (6) (2000) pp. 349-357

Randolph S. Marshall, Gerard M. Perera, Ronald M. Lazar, John W.
Krackauer, Robert C. Constantine, Robert L. Delapaz: The evolution of
cortical activation during recovery from corticospinal tract
infarction. *Stroke* 2000, Vol 31: 656-661

R.M. Lazar, R.S. Marshall, J. Pile Spellman, H.C. Duong, Mohr, J. P.,
W. L. Young, R. L. Solomon, G. M. Perera, R.L. Delapaz:
Interhemispheric Transfer of Language in Patients with Left Frontal
Cerebral Arteriovenous Malformation. *Neuropsychologia*, 38 (2000) 1325-1332

Scott A. Small, Gerard M. Perera, Robert DeLaPaz, Richard Mayeux,
Yaakov Stern: Differential regional dysfunction of the hippocampal
formation among elderly with memory decline and Alzheimer's disease.:
Ann Neurol 1999;45:466-472

Dolores Malaspina, Gerard M. Perera, Angela Lignelli, Randolph
Marshall, Perter D. Esser, Stephen Storer, Vitaly Furman, etc..al.
:SPECT imaging of odor identification in schizophrenia *Psychiatry
Research: Neuroimaging Section* 82 (1998) 53-61

Marshall RS, Lazar RM, Van Heertum RL, Esser PD, Perera Gerard, Mohr
JP: Changes in Regional Cerebral Blood Flow related to Line Bisection
Discrimination and Visual attention using HMPAO-SPECT. *NeuroImage*
1997, 6:139-144

Marshall RS, Hacin-Bay L, Young WL, Pile-Spelman J, Das S, Perera
Gerard, G, Mohr JP: Functional reorganization Induced by Endovascular
Embolization of a Cerebral AVM. *Human Brain Mapping* 1996, 4:168-173

J Choi, Gerard M. Perera, M. D. Aggawal, R. P. Shukla, M. V. Mantravadi: Wedged Plate Shearing Interferometers for Collimation Testing : use of a moir technique Applied Optics 34, 3628 (1995)

R. P Shukla, Gerard M. Perera, M.C. George, P. Venkateswarlu: Interferometric techniques for the correction of sample tilt in the sommergren Profilometer for roughness studies. Optics and Laser Technology 23, 98 (1991)

R. P Shukla, Gerard M. Perera, M.C. George, P. Venkateswarlu: Determination of the refractive index of a simple negative, positive or zero power lens using a wedged plate interferometer. Applied Optics 29, 4541 (1990)

R. P Shukla, Gerard M. Perera, M.C. George, P. Venkateswarlu: Measurement of Birefringence of optical materials using a wedged plate interferometer. Optics Communications 78,7,(1990)

Abstracts:

DeLaPaz RL, Yavagal DR, Perera GM, Lignelli A, Fitzsimmons BF, Mayer SA MRI Perfusion and Diffusion Abnormalities with Symptomatic Cerebral Vasospasm after Aneurysmal Subarachnoid Hemorrhage Accepted for ISMRM 10th Scientific Meeting in Honolulu May 2002.

Yoichi Watanabe(a), Gerard M. Perera(b), Robertus B.Mooij
Three-dimensional dose distributions in a heterogeneous phantom measured by polymer gel dosimeter.Submitted for 2002 July AAPM meeting

Wright CB, Scarneas N, Perera GM, Lazar RM, Fitzsimmons Bm, Labovitz D, Stapf C, Benson R, Robinson JV, Marshall RS. Cognitive function measures added to the NIH Stroke Scale improves correlation with acute stroke volume. Neurology 2001;56: (in press).

Small SA, Gerard M. Perera, Arun Nava, Robert DeLaPaz, Richard Mayeux, Yaakov Stern. Network mechanisms used by the human hippocampus during encoding and retrieval as detected with fMRI.30th annual meeting of the Society of Neuroscience. New Orlands, 2000.

Scott A. Small,Edward X Wu, Arun Nava, Gerard M. Perera, Robert DeLaPaz, Yaakov Stern: Evaluating The Function of Hippocampal Subregions with High Resolution MRI in Mice and Humans.

Scott A. Small, Gerard M. Perera, Arun Nava, Robert DeLaPaz, Richard Mayeux, Yaakov Stern Regionally Selective Hippocampal Dysfunction Associated with APOE-4 Genotype Detected by fmri. AAN meeting 2000.

Y Watanabe, G Perera, R Mooij,: Verification of Beam Placement Accuracy in Gamma Knife Radiosurgery by a BANG3 Polymer Gel Dosimeter. American Association of Medical Physicist Annual meeting, Chicago, July 23-28, 2000.

Ralf Mekle, Andrew F Laine, Mark Perera, Robert DeLaPaz: Activation Detection in FMRI Data via Analysis of Wavelet Singularities. MICCAI 2000

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

5/4/2009, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 29-01608-03 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 143736.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.