

Cassata, James

From: McKenney, Sarah <SMCKENNEY@childrensnational.org>
Sent: Wednesday, August 09, 2017 5:41 PM
To: Cassata, James
Cc: Forbes, Jacqueline; Fricke, Stanley; Hogan, Laurie; VEZINA, GILBERT; SHALABY-RANA, EGLAL
Subject: [External_Sender] : Request to change Radiation Safety Officer for Children's National Hospital
Attachments: Temp_RSO_Acceptance.pdf; Temp_RSO_CV.pdf; Temp_RSO_Delegation.pdf; Temp_RSO_Request.pdf

U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

Br. 1
600460
03001323
08-03309-01

Br. 2
600461
03012851
08-03309-04

Dear Dr. Cassata,

We are requesting an amendment to licenses No. 08-03309-01 and No. 08-03309-04 for the Children's National Hospital license (Docket No. 03001323). This amendment request is being made to
(1) Remove Sarah E. McKenney, Ph.D. as the Radiation Safety Officer (RSO), effective August 11, 2017.
(2) Add Stanley Fricke, Ph.D. as the temporary RSO effective August 12 until the RSO position has been refilled. We will provide a request to the NRC for an extension if the recruitment process requires more than 60 days, per 10 CFR 35.24(c).

Attached are four documents:

- (1) A letter requesting the license amendment
- (2) A letter delegating authority to Dr. Fricke
- (3) A letter of acceptance by Dr. Fricke
- (4) A CV of Dr. Fricke as supporting documentation of his suitability to perform RSO functions

Please let me know if you any questions or require further information. I will be available at this email until the end of the week.

All future correspondence can be directed to a general RSO email address:
RSOCNMC@childrensnational.org

Thank you,
Sarah

Sarah E. McKenney, Ph.D.
Diagnostic Medical Physicist & Radiation Safety Officer
Children's National Medical Center
Office: 202-476-5075
Fax: 202-476-3644
smckenney@childrensnational.org

600460
600461
NMSS/RGN1 MATERIALS-002

REC'D IN LAT 8-14-17



Children's National™

111 Michigan Avenue, N.W.
Washington, D.C. 20010-2970

My training August 2, 2017

U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

To Whom It May Concern:

Re: Request to change Radiation Safety Officer for Children's National Hospital

We are requesting an amendment to licenses No. 08-03309-01 and No. 08-03309-04 for the Children's National Hospital license (Docket No. 03001323). This amendment request is being made to

- (1) Remove Sarah E. McKenney, Ph.D. as the Radiation Safety Officer (RSO), effective August 11, 2017.
- (2) Add Stanley Fricke, Ph.D. as the temporary RSO effective August 12 until the RSO position has been refilled. We will provide a request to the NRC for an extension if the recruitment process requires more than 60 days, per 10 CFR 35.24(c).

Relevant Experience for the Temporary RSO

Dr. Fricke previously served as the temporary RSO in 2015. An attestation letter from the late Dr. Fearon is attached.

My training started in 1986 at Oral Roberts City of Faith Hospital under the direction of David W. Anderson, Diagnostic Imaging, Therapy, Nuclear Medicine Physicist and RSO. My time spent there was as a summer intern. In the fall of 1987 I was a doctoral candidate at the Massachusetts Institute of Technology's Nuclear Engineering Department's Radiological Sciences program that was a part of the joint Harvard Medical School/MIT Health Science and Technology Program. This entire program was CAMPEP accredited. In the program specific courses that I had included the entire preparation for radiological health physics for diagnostic imaging and nuclear medicine as well as special topics in nuclear reactor radiation protection for a total of 209 course hours of training per 10CFR35.50.parts (d), (e), and (b)(1) where the code specifically states:

(d) [Intended RSO] Has obtained written attestation, signed by a preceptor Radiation Safety Officer, that the individual has satisfactorily completed the requirements in paragraph (e) and in paragraphs (b)(1) of this section, and has achieved a level of radiation safety knowledge sufficient to function independently as a Radiation Safety Officer for a medical use licensee; and

(e) Has training in the radiation safety, regulatory issues, and emergency procedures for the types of use for which a licensee seeks approval. This training requirement may be satisfied by completing training that is supervised by a Radiation Safety Officer, authorized medical physicist, authorized nuclear pharmacist, or authorized user, as appropriate, who is authorized for the type(s) of use for which the licensee is seeking approval.

- (b)(1) Has completed a structured educational program consisting of both:
- (i) 200 hours of classroom and laboratory training in the following areas—
 - (A) Radiation physics and instrumentation;
 - (B) Radiation protection;
 - (C) Mathematics pertaining to the use and measurement of radioactivity;
 - (D) Radiation biology; and
 - (E) Radiation dosimetry; and
 - (ii) One year of full-time radiation safety experience under the supervision of the individual identified as the Radiation Safety Officer on a Commission or Agreement State license or permit issued by a Commission master material licensee that authorizes similar type(s) of use(s) of byproduct material involving the following—
 - (A) Shipping, receiving, and performing related radiation surveys;
 - (B) Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides;
 - (C) Securing and controlling byproduct material;
 - (D) Using administrative controls to avoid mistakes in the administration of byproduct material;
 - (E) Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures;
 - (F) Using emergency procedures to control byproduct material; and
 - (G) Disposing of byproduct material; or
- (2) [Reserved]

Course work relevant to these requirement are listed below and a letter from the RSO Thomas Fearon is attached.

Specific courses include:

North Park University

Official transcript is on file with Human Resources

Physics 101	Physics Practicum
Physics 121	Mechanics
Physics 122	Motion and Sound
Physics 123	Optics and Heat
Physics 131	Mathematical Methods in Physics
Physics 132	Mathematical Methods in Physics
Physics 133	Mathematical Methods in Physics
Physics 211	Modern Physics
Physics 251	Circuit Theory

Physics 271	Thermodynamics/Statistical Physics
Physics 301	Intermediate Laboratory
Physics 331	Dynamics
Physics 361	Optics
Physics 401	Physics Seminar
Physics 491	Computer programming FORTRAN
Physics 491	Summer Internship MRI

Math 113	1 st year Mathematics III
Math 122	Trigonometry
Math 120	College Algebra
Math 151	Calculus I
Math 152	Calculus II
Math 203	Differential Equations
Math 306	Advanced Analysis
Math 308	Statistical Theory
Math 309	Statistical Theory
Math 311	Modern Algebraic Theory
Math 312	Modern Algebraic Theory II
Math 321	History of Math

CMPT 121 Computer Programming PASCAL

Isotope Experience in Summer internship at Oral Roberts City of Faith)
 137Cs (needle), 60Co (gamma Beam Therapy), 125I.

Massachusetts Institute of Technology

Official transcript is on file with Human Resources

Course 22.57	Radiation Biology and Biophysics
Course HST051	Principals of Physiology
Course 22.111	Nuclear Physics
Course 22.55	Biological and Medical Applications of Radiation
Course HST530JG	Biomedical Instrumentation Electronics
Course 22.51A	Radiation Interactions and applications
Course HST530JA	Ultrasound Physics
Course 22.113A	Nuclear and Atomic Collisions
Course 22561JA	Magnetic Resonance
Course 22.562A	Advanced Biomedical Magnetic Resonance
Course 22.902A	Special Problems in Nuclear Engineering

Isotope Experience at MIT Uranium 235, 137Cs

Children's National Medical Center

Temporary RSO 2015

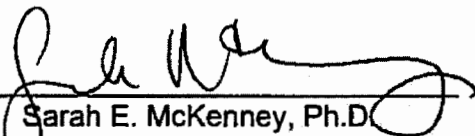
Isotope experience: 125 I, 129 I, 133 Ba, 137 Cs, 14C, 3 H, 57 Co, 58 Co, 60 Co.

Member of Radiation Safety Committee.

Also I have lectured to various Staff and Faculty giving the annual refresher course in Radiation protection. This course discusses the concept of ALARA and personal radiation protection concepts, namely Time, Distance, Shielding.

If you have any questions regarding this request, please feel free to contact Dr. Sarah McKenney at (Office: 202-476-5075; [REDACTED]) or Dr. Stanley Fricke (Office: 202-476-6153; [REDACTED])

Sincerely,

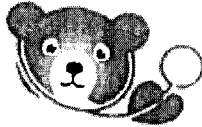


Sarah E. McKenney, Ph.D.
Radiation Safety Officer & Medical
Physicist
Office: (202)-476-5075
Email:
smckenney@childrensnational.org



Stanley T. Fricke, Nucl. Eng., Ph.D.
MR-Physicist, Professor of Radiology,
of Pediatrics and of Integrative Systems
Biology
Office: (202)-476-6153
Email: sfricke@cnmc.org

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Children's National

TO: Whom it may concern.

FROM: Thomas C. Fearon, Ph.D.
Radiation Safety Officer, Diagnostic Imaging Physicist

RE: Documentation of Dr. Fricke's work experience in surveying and inspection of Diagnostic Radiological Equipment.

DATE: January 29, 2015

I affirm that Dr. Fricke has been working with me surveying and inspecting Radiological Equipment since 2007. As a team we survey and inspect MRIs, CTs, Ultrasound Equipment, PET, SPECT, X-Ray, Dental x-ray, and Fluoroscopic equipment. He has performed extensive work in New Construction and Renovations.

I attest that Dr. Stanley Thomas Fricke has satisfactorily completed the requirements in paragraph (e) of CFR 35.50) that are specifically that Dr. Fricke:

Has training in the radiation safety, regulatory issues, and emergency procedures for the types of use for which a licensee seeks approval (specifically Children's National's Broad License type A). This training requirement has been satisfied by completing training that is supervised by me and that I am Children's National's Radiation Safety Officer, and that I am an authorized medical physicist, and that I am authorized for the type(s) of use for which the licensee is seeking approval.

Furthermore that Dr. Fricke's transcripts indicate that he has completed the requirements in paragraph (b)(1) of CFR 35.50 which are specifically:

He has completed a structured educational program consisting of both:

(i) 200 hours of classroom and laboratory training in the following areas—

- (A) Radiation physics and instrumentation;
- (B) Radiation protection;
- (C) Mathematics pertaining to the use and measurement of radioactivity;
- (D) Radiation biology; and
- (E) Radiation dosimetry; and

(ii) One year of full-time radiation safety experience under the supervision of the individual identified as the Radiation Safety Officer on a Commission or Agreement State license or permit issued by a Commission master material licensee that authorizes similar type(s) of use(s) of byproduct material involving the following—

- (A) Shipping, receiving, and performing related radiation surveys;
- (B) Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides;
- (C) Securing and controlling byproduct material;
- (D) Using administrative controls to avoid mistakes in the administration of byproduct material;
- (E) Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures;



Children's National

- (F) Using emergency procedures to control byproduct material; and
- (G) Disposing of byproduct material; or

Dr. Fricke is a Radiological Scientist, with degrees of Nuclear Engineer in Radiological Science and Masters of Science in Nuclear engineering, a background that includes Radiation Biology, Magnetic Resonance Imaging, and he understands the nuts and bolts of radiological equipment. Recently Dr. Fricke has added to his education by fulfilled the OSHA 29 CFR 1910.120(e) which certifies him in Hazardous Waste Operations and Emergency Response via a 40-hour course for site worker training. He has also published several scientific abstracts and papers and he is the recipient of several government grants indicated for research, development and production of radiological equipment. Dr. Fricke sits on Children's National's "Safety Coach" committee, Safety and Emergency Management committee, the District of Columbia's Radiation Safety Officer's Committee. Finally Dr. Fricke gives several dozen radiological safety lectures every year.

He has also assisted during these past seven years in the duties of a Radiation Safety Officer by helping to perform swipe tests, maintenance of survey equipment (NIST traceable calibrations) by ensuring that our survey meters are sent for inspection and calibration. He has assisted in the preparation of documentation for Nuclear Regulatory Committee inspections, Department of Health Inspections, Joint Commission, Fire Department, American College of Radiology and other inspecting agencies. Since I have known Dr. Fricke we have always passed these inspections with a spotless record.

I am writing this broad letter of support for Dr. Fricke as I will be retiring in June of 2015. Until then I am available at Phone Number 202-476-5075 to answer any questions that you may have about Dr. Fricke's work performance at Children's National Medical Center now newly named Children's National Health Systems. After that time I may be available through the Department of Diagnostic Imaging and Radiology and Children's National Health System.

Children's National Health System
Department of Diagnostic Imaging and Radiology
ATTN: Thomas Fearon
111 Michigan Avenue, North West
Washington, DC, 20010

Dr. Fricke's work is imbedded in the fabric of Children's National; he is engaged, passionate about the details and drives outcomes to excellence. He is constantly concerned with worker and patient health and he constantly seeks to improve response, reliability function toward that end. I look forward to passing on the responsibilities of my office to this very able individual and I wish him all the success both on and off the job now and for the years to come.

Kind Regards,

Thomas Fearon, PhD
Preceptor Radiation Safety Officer



August 9, 2017

U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

To Whom It May Concern:

Re: Delegation of Radiation Safety Authority for Children's National Hospital

The Temporary Radiation Safety Office is granted the authority, organizational freedom, and management prerogative to carry out the responsibilities described below for licenses No. 08-03309-01 and No. 08-03309-04.

Dr. Stanley Fricke, Ph.D. has been appointed the Temporary Radiation Safety Officer and is responsible for ensuring the safe use of radiation at Children's National Hospital until the position has been permanently filled. The Radiation Safety Officer is responsible for managing the radiation safety program, which includes:

- Identifying radiation safety problems
- Initiating, recommending, or providing corrective actions
- Verifying implementation of corrective actions
- Ensuring compliance with regulations

The Radiation Safety Officer is hereby delegated the authority necessary to meet those responsibilities including the authority to immediately stop any operations involving the use of ionizing radiation in which either health and safety may be compromised or which may result in non-compliance with regulatory or other legal requirements. The Radiation Safety Officer is empowered to contact regulatory agencies without any pre-approval.

Sincerely,

Kurt Newman, M.D.

Chief Executive Officer



Children's National™

111 Michigan Avenue, N.W.
Washington, D.C. 20004-2970

July 25, 2017

U.S. Nuclear Regulatory Commission, Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

To Whom It May Concern:

Re: Acceptance of delegation of Radiation Safety Authority for Children's National Hospital

In accordance with 10 CFR 35.24 (b) I agree to be the Temporary Radiation Safety Officer of Children's National Hospital (License No. 08-03309-01 and No. 08-03309-04, Docket No. 03001323).

Sincerely,

Anthony Thomas Finck

CURRICULUM VITAE

Stanley Thomas Fricke, Nucl. Eng., Ph.D.

[REDACTED]
stanmit@alum.mit.edu

1. PERSONAL INFORMATION

A. Education:

Undergraduate: North Park College (University), Chicago, IL, [REDACTED]
B.S., Physics & Math

Graduate Education: Massachusetts Institute of Technology, Cambridge, MA, [REDACTED]
MS, Nuclear Engineering

Massachusetts Institute of Technology, Cambridge, MA, [REDACTED]
Nucl. Eng., Radiological Sciences

University of Torino, Turin, Italy, [REDACTED]
Ph.D., Physics

B. Professional Experience:

CEO HyperMC2, Medical Physics Consulting and constructions 2017-Present

RSO Children's National Health Systems, Temporary RSO for 3 months June - August 2015

Professor, George Washington University, Departments of Radiology, Pediatrics and, Integrative Systems Biology, Washington, DC, 2014-Present

Associate Professor, George Washington University, Departments of Radiology, Pediatrics and, Integrative Systems Biology, Washington, DC, 2010-2014

Adjunct Associate Professor, Georgetown University School of Medicine, Lombardi Comprehensive Cancer Center, Department of Oncology, Washington, DC, 2008-2010

Magnetic Resonance Physicist, Children's National Medical Center, Department of Diagnostic Imaging and Radiology, Washington, DC, 2007-Present

Associate Professor, Georgetown University School of Medicine, Department of Neuroscience, Washington, DC, 2006-2007

Adjunct Assistant Professor, George Mason University, Krasnow Institute, Fairfax, Virginia, 2006-2008

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Consultant, Stanley Thomas Fricke, Bethesda, Maryland,	2004-2017
Consultant, IAMS Pet Imaging Center, Vienna, Virginia,	2004-2009
Assistant Professor, Georgetown University School of Medicine, Department of Neuroscience, Washington, DC,	2002-2006
Assistant Professor, Wayne State University School of Medicine, Psychiatry and Behavioral Neurosciences, Detroit MI,	1999-2002
Research Scientist, Italian National Research Counsel, Institute of Clinical Physiology Pisa, Italy	1993-1995
Consultant, Istituto Prosperius, Florence, Italy,	1992
Lecturer, University of Florence Radiotherapy, Clinical Physiopathology, Florence, Italy,	1992-1993
President, IMG (International Magnet Group), Florence, Italy,	1991-2002
Research Assistant, Francis Bitter National Magnet Laboratory, Cambridge, MA,	1987-1991
Summer Research Student, Oral Roberts University City of Faith Hospital, Tulsa Oklahoma,	1986

C. Licensure:

State Licensed Inspector of Radiation Machines and Radiological Equipment:

State: District of Columbia

License No: RP1400005

Initial Date: 07/07/2014

Renewal/Expiration Date: 09/30/2017

State: Maryland

License No: 900

Initial Date: 06/01/2015

Renewal/Expiration Date: 06/30/2018

State: Commonwealth of Virginia

License No: BH-15-15-446

Initial Date: 03/30/2015

Renewal/Expiration Date: 04/01/2018

D. Certification: None.

E. Languages Spoken: *(Instructions: Indicate if fluently or with some limitations)*

English – fluent

German – with some limitations

Italian – fluent

2. RESEARCH AND SCHOLARLY ACTIVITIES

A. Publications:

i. Original Papers in Refereed Journals

Whitehead MT, Lee B, McCarron A, **Fricke ST**, Vezina G.: Reduced subarachnoid fluid diffusion in enlarged subarachnoid spaces of infancy. *Neuroradiol J.* 2017 Jan 1;1971400916689803. doi: 10.1177/1971400916689803. [Epub ahead of print], PMID: 28195509

Rodriguez O, Schaefer ML, Wester B, Lee YC, Boggs N, Conner HA, Merkle AC, **Fricke ST**, Albanese C, Koliatsos VE.: Manganese-Enhanced Magnetic Resonance Imaging as a Diagnostic and Dispositional Tool after Mild-Moderate Blast Traumatic Brain Injury. *J Neurotrauma.* 2016 Apr 1;33(7):662-71. doi: 10.1089/neu.2015.4002. PMID: 26414591

Nacev A, Weinberg IN, Stepanov PY, Kupfer S, Mair LO, Urdaneta MG, Shimoji M, **Fricke ST**, Shapiro B.: Dynamic inversion enables external magnets to concentrate ferromagnetic rods to a central target. *Nano Lett.* 2015 Jan 14;15(1):359-64

Albanese C, Rodriguez OC, VanMeter J, **Fricke ST**, Rood BR, Lee Y, Wang SS, Madhavan S, Gusev Y, Petricoin EF 3rd, Wang Y. Preclinical magnetic resonance imaging and systems biology in cancer research: current applications and challenges. *Am J Pathol.* 2013 Feb;182(2):312-8.

Sirajuddin P, Das S, Ringer L, Rodriguez OC, Sivakumar A, Lee YC, Üren A, **Fricke ST**, Rood B, Ozcan A, Wang SS, Karam S, Yenugonda V, Salinas P, Petricoin E 3rd, Pishvaian M, Lisanti MP, Wang Y, Schlegel R, Moasser B, Albanese C. Quantifying the CDK inhibitor VMY-1-103's activity and tissue levels in an in vivo tumor model by LC-MS/MS and by MRI. *Cell Cycle.* 2012 Oct 15;11(20):3801-9.

Weinberg IN, Stepanov PY, **Fricke ST**, Probst R, Urdaneta M, Warnow D, Sanders H, Glidden SC, McMillan A, Starewicz PM, Reilly JP: Increasing the oscillation frequency of strong magnetic fields above 101-kHz significantly raises peripheral nerve excitation thresholds. *Med Phys.* 2012 May;39(5):2578-83.

Byrnes KR, **Fricke ST**, Faden AI.: Neuropathological differences between rats and mice after spinal cord injury. *J Magn Reson Imaging.* 2010 Oct;32(4):836-46.

Holdsworth DW, Detombe SA, Chris C, **Fricke ST**, and Drangova M.; Implementation and assessment of an animal management system for small-animal micro-CT / micro-SPECT imaging, SPIE 2011 Feb. 13;

Vissapragada S., Ghosh A., Ringer L., Salinas P., Brophy A., Peaceman D., Kallakury B., Banerjee PP., **Fricke S.T.**, Helfrich W., Lee Y.C., Pestell R., Scherer P., Tanowitz H.B., Avantaggiati M.L., Hilakivi-Clarke L., Lisanti M.P., Rodriguez O.C., Albanese C.. Dietary n-3 polyunsaturated fatty acids fail to reduce prostate tumorigenesis in the PB-ErbB-2 x Pten(+/-) preclinical mouse model. *Cell Cycle.* 2010 May;9(9):1824-9. Epub 2010 May 15.

Gropman AL, **Fricke ST**, Seltzer RR, Hailu A, Adeyemo A, Sawyer A, van Meter J, Gaillard WD, McCarter R, Tuchman M, Batshaw M; the Urea Cycle Disorders Consortium: (1)H MRS identifies symptomatic and asymptomatic subjects with partial ornithine transcarbamylase deficiency. *Mol Genet Metab.* 2008 Jul 26. [Epub ahead of print]

Gropman AL, Seltzer RR, Yudkoff M, Sawyer A, Vanmeter J, **Fricke ST.**: (1)H MRS allows brain phenotype differentiation in sisters with late onset ornithine transcarbamylase deficiency (OTCD) and discordant clinical presentations. 1: *Mol Genet Metab.* 2008 May; 94(1): 52-60.

Moussa C.E-H., Rusnak M., Hailu A., Sidhu A., **Fricke S.T.**: Alterations of striatal glutamate transmission in rotenone-treated mice: MRI/MRS *in vivo* studies.: *Exp. Neurol.* 2008; Jan; 209(1):224-33.

Lai, E.W., Rodriguez, O.C., Aventian, M., Cromelin, C., **Fricke, S.T.**, Martiniova, L., Lubensky, I.A., Lisanti, M.P., Picard, K.L., Powers, J.F., Tischler, A.S., Pacak, K., Albanese, C.: ErbB-2 induces bilateral adrenal pheochromocytoma formation in mice.: *Cell Cycle* Aug. 2007; 69(15).

Byrnes K.R., Stoica B.A., **Fricke S.T.**, Di Giovanni S., Faden A.I.: Cell cycle activation contributes to post-mitotic cell death and secondary damage after spinal cord injury.: *Brain.* 2007 Nov; 130(Pt 11):2977-92. Epub 2007 Aug 9.

Kuo L.E., Tilan J.U., Kitlinska J.B., Lee E.W., Baker S.B., Johnson M.D., **Fricke S.T.**, Tiwari S., Hu X., Li L., Ecelbarger C.A., Burnett M.S., Zukowska Z.: Novel stress-activated NPY pathway in adipose tissue promotes abdominal obesity: It's not just in your mind.: *Nature Medicine* July 1, 2007; 13(7).

Calin, O., Chang, D.C., **Fricke, S.T.**: Fundamental solutions for a family of sub-elliptic PDEs.: *Pure and Applied Math Quarterly* 2007 April; 3(2): 393-415.

Casimiro, M., Rodriguez, O., Pootrakul, L., Aventian, M., Lushina N., Cromelin, C. Ferzli, G., Johnson, K., **Fricke, S.**, Diba, F., Kallakury, B., Ohanyerenwa, C., Chen, M., Ostrowski, M., Hung, M.-C., Rabbani, S.A., Datar, R., Cote, R., Pestell, R., Albanese, C.: 1 ErbB-2 Induces the Cyclin D1 Gene in Prostate Epithelial Cells in vitro and in vivo.: *Cancer Research (CR)* 2007 May 1; 67(9).

Sakamaki, T.; Casimiro, M.; Ju, X.; Quong, A.; Katiyar, S.; Liu, M.; Jiao, X.; Li, A.; Zhang, X.; Lu, Y.; Wang, C.; Nicholson, R.; Link, T.; Shemluck, M.; Yang, J.; **Fricke, S.T.**; Novikoff, P.M.; Papanikolaou, A.; Arnold, A.; Albanese, C.; Pestell, R.: Cyclin D1 determines Mitochondrial Function In Vivo.: *Molecular and Cellular Biology (MCB)* 2006 July;26(14):5449-69.

Fricke, S.T.; Rodriguez, O.C.; VanMeter, J.W.; Dettin, L.E.; Casimiro, M.C.; Chien, C.D.; Ojeifo, J.O.; Johnson, M.D.; Albanese, C.: In Vivo Magnetic Resonance Volumetric and Spectroscopic Analysis of Mouse Prostate Cancer Models.: *The Prostate* 2006 May;66(7):708-17.

Pirollo K.F., **Fricke S.T.**, Ileva L., Chang E.H.: A Tumor-Targeted Nanodelivery System to Improve Early MRI Detection of Cancer.: *Molecular Imaging* 2006 Jan.; 5(1):41-52.

Rodriguez, O., **Fricke, S.**, Chien, C., Dettin, L., Vanmeter, J., Shapiro, E., Dai, H., Casimiro, M., Ileva, I., Dagata, J., Johnson, M., Lisanti, M., Koretsky, A., Albanese, C.; Contrast-Enhanced In Vivo Imaging of Breast and Prostate Cancer Cells by MRI.: *Cell Cycle* 2006 Jan; 5(1):113-119.

Albanese C., Rodriguez O.C., Johnson M.D., **Fricke S.T.**: Modeling of prostate cancer: basic research and preclinical applications.: *Drug Discovery Today: Disease Models*, 2005, 2(1):7-13.

Cernak, I., Vink R., Zapple D., Cruz M.I., Ahmed F., Chang T. **Fricke S.T.**, Faden A.I.: The Pathobiology of Moderate Diffuse Traumatic Brain Injury as Identified Using a New Experimental Model of Injury in Rats.: *Neurobiology of Disease* 2004 Oct; 17(1):29-43

Cernak, I., Vink R., Natale J., Stoica B., Lea P.M., Movsesyan V., Ahmed F., Knoblach S.M., **Fricke S.T.**, Faden A.I.: The "dark side" of Endocannabinoids: A neurotoxic role for Anandamide.: *JCBFM* 2004 24(5):564-578.

Fricke, S.T., Vink, R., Chiodo, C., Cernak, I., Ileva, L. and Faden, A.I.: Consistent and reproducible slice selection in rodent brain using a novel stereotaxic device for MRI.: *J Neuroscience Methods* 2004 Jun;136(1):99-102.

Faden AI, Knobloch SM, Cernak I, Fan L, Vink R, Araldi GL, **Fricke ST**, Roth BL, Kozikowski AP.: Novel diketopiperazine enhances motor and cognitive recovery after traumatic brain injury in rats and shows neuroprotection in vitro and in vivo.: J Cereb Blood Flow Metab. 2003 Mar;23(3):342-54.

ii. Reviews or Editorials in Refereed Journals

Whitehead MT, **Fricke ST**, Gropman AL.: Structural Brain Defects. Clin Perinatol. 2015 Jun;42(2):337-361

Albanese C, Rodriguez OC, VanMeter J, **Fricke ST**, Rood BR, Lee Y, Wang SS, Madhavan S, Gusev Y, Petricoin EF 3rd, Wang Y.: Preclinical magnetic resonance imaging and systems biology in cancer research: current applications and challenges. Am J Pathol. 2013 Feb;182(2):312-8.

Pirko, I., **Fricke, S.T.**, Johnson, A.J., Rodriguez, M., Macura, S.I.: Magnetic Resonance Imaging, Microscopy, and Spectroscopy of the Central Nervous System in Experimental Animals.: NeuroRx 2005 Apr.; 2(2):250-264.

iii. Books or Chapters in Books (indicate if refereed): None

vi. Other Publications

(See Patents)

v. Abstracts for Conference papers and posters (Instructions: These are optional.)

Fricke ST, Weinberg IN, Stepanov PY, Glidden SC, Starewicz PM, Mcmillan A, Gullapalli RP, Lo K, Warnow DW, Sanders HD: Control and Production of Ultrafast MRI Gradient Pulses. RSNA November 30 2011

Urdaneta MG, Probst R, Stepanov, PY, Weinberg IN, **Fricke ST**: Goodbye wires and formers: 3-D additive manufacturing and fractal cooling applied to construction of MRI gradient coils: Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC), 2011 IEEE 2479 – 2482, Oct. 23-29. 2011

Sanders HD, Glidden SC, Warnow DM, Weinberg IN, Stepanov P, Probst R, McMillan A, Gullapalli R., Starewicz PM, Punched WFB, Lo KM, **Fricke ST**: Magnet driver for producing ultra-high gradient magnetic fields for magnetic resonance imaging: Pulsed Power Conference (PPC), 2011 IEEE, 1179 – 1181, Jun. 19-23, 2011

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Anderson, D.W., Yamanshi W.S., **Fricke, S.M(T).**, Lester, P.D.: Frequency Characteristics of **Fricke S.T.**, Rodriguez O., Chiodo C., Cleary K., Albanese C.: Novel Pre-Clinical Imaging Methodologies: Co-Registering In-Vivo Imaging with Ex-Vivo Histology: <http://wcb.mit.edu/ki/> , June 10, 2010.

Fricke S.T., Albanese C.A., Guerron A.D., Chiodo C., Holdsworth D.W., Wong K., Cleary K., Nagaraju K.: Novel Pre-Clinical Imaging Methodologies: Physically Co-Registered Imaging and Histology: <http://www.childrensnational.org/ASAP> , Apr. 22, 2010

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J.W. VanMeter, **S. Fricke**, K.S. Shattuck, R. Renton, A. Breeden, J. Brar, Adeyemo, A., J. Kuch, M. Riesenhuber, X. Jiang Comparison of Functional SNR Using a 12-channel versus Circular Polarized RF Coil, Agency Organization for Human Brain Mapping: June 6-10, 2010

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Farkis, N., Aryal, R., Evans, E.A., Ramsier, R.D., Ileva, I., **Fricke, S.T.**, Dagata, J.A.: Structured Metal Nitride Films for Biomedical Applications: Society for Biomaterials, Apr. 26 2006.

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Fricke, S.T., Finn, T.P., Dai, H., Ileva, L., Slotkin, J., Bregman, B.S.: Detection of gadolinium-enhanced lesions by MRI at 17 months post injury in a rat hemisection spinal cord injury model: a longitudinal study. Program Number 784.13. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, Online, 2005.

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Tilan, J.U., Karlson, J., Abe, K., Kuo, L.E., Lee, E.W., Everhart, L., Li, L.J., Kitlinska, J.B., **Fricke, S.**, Thornell, L.E., Zukowska, Z.: Title: Rapid activation of the neuropeptide (NPY) receptor system during ischemic angiogenesis in rat and human limb muscles.: *FASEB JOURNAL* 19 (5): A1663-A1663 Part 2 Suppl. S, MAR 7 2005

Kuo, L.E., Lee, E.W., Kitlinska, J.B., **Fricke, S.T.**, Zukowska. Z.: Stress amplifies diet-induced obesity: Neuropeptide Y as a peripheral angiogenic and adipogenic growth factor.: *CIRCULATION* 110 (17): 209-209 999 Suppl. S, OCT 26 2004

Wong KH, VanMeter JW, **Fricke ST**, Maurer CR, Cleary K.: MRI for modeling of liver and skin respiratory motion.: 18th International Congress and Exhibition on Computer Assisted Radiology and

Surgery (CARS 2004), JUN 23-26, 2004 CARS 2004: Computer Assisted Radiology and Surgery, Proceedings: 747-752, 2004

Slotkin, J.R., Finn, T.P., Dai, H., McAtee, M.M., Ileva, L., **Fricke S.T.**, Bregman, B.S.: The Use of Magnetic Resonance Imaging for In Vivo Longitudinal Tracking of Transplanted Embryonic Neural Stem Cells After Spinal Cord Injury. Program No. 933.10. 2004 Abstract Viewer/Itinerary Planner. Washington, DC: Society for Neuroscience, Online, 2004.

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Fricke, S.T., Garbern J.Y., Galloway, M.P., Seraji-Bozorgzad, N., Mitchell, T., Posse, S., More, G.J.: *Ex Vivo* Neurochemical Kinetics in Mouse Brain and Spinal Cord.: Proc. Soc. Neurosci. 135.11, Nov. 6, 2002

Mitchell, T., Galloway, M.P., **Fricke, S.T.**, Seraji-Bozorgzad, N., Zajac-Benitez, C., More, G.J.: HR – MAS 1H Magnetic Resonance Spectroscopy Characterization of Striatal Oxidative Metabolic Failure.: Proc. Soc. Neurosci. 135.11, Nov. 3, 2002

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Galloway, M.P., **Fricke, S.T.**, Mitchell, T., Seraji-Bozorgzad, N., More, G.J.: MDMA ("Ecstasy") Increases Striatal but not Prefrontal GABA in rat brain: Studies with high-resolution magic angle spinning Proton magnetic resonance spectroscopy (HR-MAS 1H-MRS):. Proc. Intl. Soc. Mag. Reson. Med. pp. 104 May 21, 2002.

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Fricke, S.T., Mitchell T.R., Chen G, Manji H.K., More, G.J.: Quantitative In Vivo MRS of the Mouse Brain: Monitoring of Lithium Valproate Induced Neurochemical Changes. Biological Psychiatry. 49 (8): 399 Suppl. S Feb. 15, 2001.

Mitchell, T., **Fricke, S.T.**, Posse, S., More, G.J.: Microscopic Parametric Mapping of the Normal Mouse Brain.: Proc. Intl. Soc. Mag. Reson. Med. pp. 1471, May 9, 2001.

Fricke, S.T., Landini, L., Veracini, C.A., Benassi, A.: Optimization of Data Acquisition for Diffusion Experiments, Associazione Italiana di Fisica Biomedica (Italian Association of Biophysics), Convegno Nazionale (National Convention), <<TECNICHE PET E RM IN ONCOLOGIA>> (Techniques in Oncological Studies Using PET and MRI), pp. 71-2, 1993.

Nori, J., **Fricke, S.**, Massi, S., Gangemi, P. F., Mascitelli, L., Serino, D., Zaccara G.: Correlazioni Tra Lesioni Focali Cerebrali e Movimenti Oculari Con Massima Possibilità di Visualizzazione RM. (Correlation of focal Cerebral Lesions and "Smooth - Pursuit" Ocular Movement With Maximized

Possible Visualization Using MRI), X Congresso Associazione Italiana di Neuroradiologia (Tenth annual Conference of the Association of Italian Neuroradiologists), pp. 223-9, 1992.

Fricke, S.T., Landini, L., Veracini, C.A., Benassi, A., Nori, J.: Optimal Gradient Strength for Diffusion Experiments (Stejskal - Tanner Pulse Gradient Spin Echo Revisited), International Conference on Magnetic Resonance Microscopy (The Heidelberg Conference), pp. 203, 1993.

Anderson, D.W., Yamanshi W.S., **Fricke, S.M(T).**, Lester, P.D.: Frequency-Dependence of Relaxation-Times for MnCl₂ and NiCl₂ Solutions, Medical Physics 14 (4): 709-709, Jul.-Aug., 1987.

Anderson, D.W., Yamanshi W.S., **Fricke, S.M(T).**, Lester, P.D.: Frequency-Dependence of Relaxation Properties of Aqueous MnCl₂ and NiCl₂ Used for Acceptance Testing and Quality-Control of MR-Imagers 10.7 to 270 MHz, Investigative Radiology 22 (9): S9:36 Sep., 1987.

Paramagnetic Solutions MnCl₂ and NiCl₂ From 0.15 to 6.3 T, Society of Magnetic Resonance in Medicine Sixth Annual Meeting and Exhibition, New York, NY, Volume 1987, Issue Supplement 2 page 921, Aug. 16-21, 1987.

B. Research Funding:

i. Current Active

Department of Defense (USAMRAA), W81XWH-11-2-0198, *Advanced Pediatric Brain Imaging Research and Training Program*, 2011 – 2016, Limperopoulos, Catherine (PI), Role: Co-Investigator 5% effort, Annual Direct Costs: \$714,000

NIH Mental Retardation & Development Disabilities Research Ctr., P30-HD40677-06 - P30-HD40677-15, Neuroimaging Core, 08/01/06-07/31/15, Batshaw, Mark L. & Gallow, Vittorio (PIs), Role: Magnetic Resonance Core, 10% effort, Annual Direct Costs: \$177,629

NIH/National Institute of Biomedical Imaging and Bioengineering, 5 R21 EB020700-02, An Integrated Coil and Body-mounted MR Robot for Pediatric Arthrography, 05/01/2016-02/02/2017, Cleary, Kevin (PI), Role Investigator, 5% effort, Annual Direct Costs: \$147,024

NIH/National Cancer Institute, 5 R01 CA172244 03, Pneumatic Robot for MRI Guided Pediatrics Long Bone Biopsy, 09/01/2015-08/31/2017, Cleary, Kevin (PI), Role Investigator, 5% effort, Annual Direct Costs: \$305,525

ii. Submitted (Not yet funded): None

iii. Previous

NIH/National Institute of Biomedical Imaging and Bioengineering, 1R43EB014626-01A1, Novel MRI Gradient Coil Manufacturing Methods, 01/09/12-31/08/14, Weinberg (PI), Role: Consultant 5% effort, Annual Direct Costs: \$340,152

NIH/National Heart Lung and Blood Institute, HHSN268200900052C-03, MRI Diagnosis and Treatment of Cardiovascular and Lung Disease in Children, 09/15/09-08/31/14, Fricke, Stanley (PI), Role: Principal Investigator 20% effort, Annual Direct Costs: \$3,602,298

Armed Forces Institute of Pathology (AFIP), W74MYH 1244-9062, Equipment material transfer of Bruker 9.4 Tesla Ultra Shield Wide Bore Imaging Spectrometer, Bruker 7 Tesla 20 centimeter Bore small Magnetic Resonance Imaging System with Advance III electronics, 09/012011, Fricke, Stanley (PI), Total Award: \$1,785,003

NIH/National Institute of Neurological Disorders and Stroke, 9R42NS073289-06, Bio-Effects of Ultra-High MRI Gradient Slew Rates, 8/01/2011 - 7/31/2014, Fricke, Stanley (PI), Role: Principal Investigator 35% effort, Direct Costs: \$ 867,538

DMRDP/Johns Hopkins 3176E, Applied Physics Laboratory Contract, W81XWH-10-DMRDP-BRA, 10/01/10-12/31/13, Fricke, Stanley (PI), Role: Sub-Project Principal Investigator 10% effort, Annual Direct Costs: \$35,000

NIH/ National Institute of Child Health and Human Development, U54HD061221, Rare Diseases Clinical Research Consortia for the RDCR Network, 9/30/03-7/31/14 (Batshaw, PI), Role: MRI Physicist, investigator 10% effort, Annual Direct Costs: \$625,000

Children's National Medical Center Clinical and Translational Science Initiative, 1827 CTSI-CN, From In-Vivo Images to histology, the 'Miter Box'12/15/09-12/14/11, Fricke, Stanley (PI), Annual Direct Costs: \$35,000

NIH/National Heart Lung and Blood Institute, 1R42HL086294-05, Bio-Effects of Ultra-High MRI Gradient Slew Rates, 08/15/08-07/31/11, Fricke, Stanley (PI) Role: Principal Investigator 25% effort, Annual Direct Costs: \$ 823,267

National Institutes of Health Center for Research Resources, 3U54RR019453-05S1, Rare Diseases CRC – Urea Cycle Disorder, 09/28/03-09/31/09, Batshaw, Mark L. (PI), Role: Investigator 10% effort

NIH/National Institute of Neurological Disorders and Stroke, R41-NS050141-01, Devices for Multiplatform Imaging, 07/15/04-06/15/05, Fricke, Stanley (PI), Role: Principal Investigator 40% effort, Annual Direct Costs: 147,000

NIH National Institute on Bioimaging and Bioengineering, 1 R01 EB006536-01-A1, Small animal in-bore interventional robotic system for rodent studies in 7T MRI, 07/01/06-06/31/11, Cleary, Kevin (PI) Role: Investigator 5% effort

NIH/National Institute of Neurological Disorders and Stroke, R41-NS050141-01S1, Supplement to: Small Animal Handling Devices for Multiplatform Imaging grant, 08/15/04-06/15/05, Fricke, Stanley (PI), Role: Principal Investigator 10% effort, Total Cost: \$73,000.

NIH Mental Retardation & Development Disabilities Research Ctr., P30-HD40677-06 - P30-HD40677-15, Neuroimaging Core, 08/01/06-07/31/15, Batshaw, Mark L. & Gallow, Vittorio (PIs), Role: Magnetic Resonance Core, Effort: 10% Annual Direct Costs: 177,629

National Institute of Standards and Technology (NIST), SB1341-06-Q-0573 , Nano Particles and Nanoflow, 08/15/06-12/31/06, Fricke, Stanley (PI), Role: Principal Investigator 20%, Annual Direct Costs: est. \$24,000

NIH/National Cancer Institute/Booz-Allen-Hamilton, caBIG-IMG-99-03-31052006, Small Animal Special Interest Group, Subject Matter Expert, 07/20/06-01/31/07, Fricke, Stanley (PI) Effort: (20%), Annual Direct Costs: est \$35,000.

Department of Defense, DAMD17-03-1-0446, Breast Cancer Center of Excellence: Molecular Epidemiology & Mechanisms of Breast Cancer, 07/01/03-06/30/07, Shields, Peter (PI), Project #2 PI: Matthew Freedman, Role: Investigator 10% effort

NIH/National Cancer Institute, 5P30CA051008-15, CANCER CENTER SUPPORT GRANT, 9/30/90-4/30/07, Dritschilo, Anatoly (PI), Pilot grant PI: Christopher Albanese, Development of negative and positive MR contrast agents for cancer imaging, Role: Investigator 5%

NIH/National Cancer Institute, 5U54CA100970-04, Timing of Dietary Exposure and Breast Cancer Risk., 06/1/05 - 08/31/08, Hilakivi-Clarke, Leena (PI), Pilot grant PI: Christopher Albanese, Pilot grant title: Genetics and Diet as Prostate Cancer Risk Factors, Role: Investigator 5%

NIH/National Institute on Mental Health, 1U54MH066417-01A10003, Sensory Integration in Children With Autism, 01/07/03-30/06/08, VanMeter, John(PI), Role: Investigator 10%effort

NIH/National Center for Research Resources, 2P41RR000995-16, COMPREHENSIVE NMR CENTER FOR BIOMEDICAL RESEARCH, 01/05/1987-1991, Neuringer, Leo (PI),Role: Research Student Effort: 100%, Sub Project 2, 1987-1991.

C. Invited Lectures:

2015 Invited Lecture: George Washington University Hospital Medical “Magnetic Resonance Spectroscopy: Information Content”, Washington DC, 10/28/2015

2013 Invited Talk: FDA Centers for Devices and Radiological Health Working Group “MRI Safety - It Takes a Village”, Silver Spring, MD 04/09/2013

2011 “Round Table” Member of FDA MRI Safety Workshop, FDA
<http://www.fda.gov/MedicalDevices/NewsEvents/WorkshopsConferences/ucm270720.htm#webcast>,
Silver Spring, MD 10/23/2011

2011 Invited Abstract (some abstracts presented at this meeting are invited to give full talk on topic) Talk: Radiological Society of North America (RSNA) annual meeting “Control and Production of Ultrafast MRI Gradient Pulses” November 30, Chicago, IL

2007 Invited Lecture: Institute of Neuroscience, Technical University Munich, “Small Animal Magnetic Resonance Imaging in Neuroscience and Oncology”, International Research Training Group 1373, Munich, Germany 05/13/2007

2007 Invited Lecture: Children’s National Medical Center, “Pie in the Sky Small Animal Imaging Laboratory: Everything and the Kitchen Sink”, Washington, DC 05/30/2007

2007 Invited Lecture: Columbia University, “Multimodal in vivo Small Animal Imaging: Integration of Imaging Platforms for Analyses of Animal Models”, New York, NY 05/31/2007

2007 Invited Lecture: International Brain Mapping & Interoperative Surgical Planning Society “Magnetic Particles for CNS Cell Tracking”, Washington, DC 09/07/2007

- 2006** Invited Lecture, Chairman's Grand Rounds: Thomas Jefferson University "Small Animal Imaging Strategies in Oncology, and Neuroscience", Philadelphia, PA 04/18/2006
- 2005** Invited Talk: Fox Chase Cancer Center, Molecular Endocrinology Section "Rodent Brain Studies: Implant to Extract", Philadelphia, PA 04/28/2005
- 2004** Invited Lecture: American Association for Laboratory Animal Science Seminar "Animal Research: Magnetic Resonance Imaging and Spectroscopy", 30th, Ellicott City, MD 09/23/2004
- 2004** Invited Talk: National Neurotrauma Society, "Rodent MRI for Traumatic Brain Research: "Advances in Outcome Measures for Animal Models of Neurotrauma", Washington, DC 11/10/2004
- 2004** Invited Lecture: Booz Allen Hamilton, "Small Animal Imaging Database Requirements" Face to Face meeting cancer bio-informatics grid (caBIG), Rockville, MD 07/21/2004
- 2004** Invited Talk: Spectrum health Systems "In-Vivo Magnetic Resonance Spectroscopy for the Clinical Investigator", Grand Rapids, MI, 10/30/2004
- 1994** Invited Lecture: XXIII Congresso Nazionale A.N.M.I.R.S. (Thirteenth National Conference of A.N.M.I.R.S.), "The Role of MRI in Muscular Dystrophy of the Cardiac Muscle", Rome, Italy 10/29/1994
- 1993** Invited Lecture: Italian Association of Medical Radiology and Nuclear Medicine, Section of Computerized Radiology "Interfaccia Tra Processi Operativi Diversi" (Interfacing between Various Computer Operating Platforms), The Hall of Neuroradiology and Center of Orthopedic Trauma. (Repeat Lecture), Florence, Italy
- 1992** Invited Lecture: Italian Association of Medical Radiology and Nuclear Medicine, Section of Computerized Radiology "Interfaccia Tra Processi Operativi Diversi" (Interfacing between Various Computer Operating Platforms), The Hall of Neuroradiology and Center of Orthopedic Trauma., Florence, Italy
- 1991** Invited Lecture: North Park College Sigma Pi Sigma, Kappa Mu Epsilon and, Beta Beta Beta, "The Role of NMR in Mathematics and Cell Biology", Magnuson, Campus Center Presidents Room, Chicago, IL

E. Editorships, Editorial Boards, and Reviewing Activities

- 2017** Ad-Hoc Medical Physics Reviewer
- 2017-Present** American Association of Physicists in Medicine, Task Group TG270 Display Quality Assurance / Radiological Modality Monitors.
- 201** NIH Study Section "Instrumentation: Instrumentation Replacement Due to Superstorm Sandy" PAR-OD13-006, 2014/01 ZRG1 BCMB-P (30) I (11-13-2013) CO-Chair.
- 2013-Present** NIH Study Section "Surgical Sciences, Biomedical Imaging, and Bioengineering IRG" 2013/10 ZRG1 -SBIB -T -(10) (06-20-2013), (10/24/2013), (06/19/2014), (10/23/2014), (06/18/2015), (06/23/2016), (11/17/2016)
- 2012-Present** VA Study Section "Cellular and Molecular Medicine" CAMM
- 2012/02/15 **Standing Member** (Term ending June 2016)
- 11/21/2016 Re-Instated as Add Hoc member and **Chair**

- 2012** NIH Study Section “Bridge Award to Accelerate the development of Commercialization” 2012/08 ZCA1 SRLB-1 (O1) B special emphasis panel
- 2011** NIH Study Section “Clinical and Translational Imaging Applications” 2012/0 ZRG1DTCS-U (81) S
- 2010** NIH Study Section "Academic-Industry Partnership in Cancer Imaging" 2010/05 ZRG1 SBIB-U (50) R (2-13-2010)
- 2008** Obama Transition Team “Health Care Community Discussion”: Invited (by John D. Podesta Co-Chair of the Obama-Biden Transition Project) Discussion Session Host
- 2008** Study Section “Assessor” for Australian “National and Health Medical Research Council” (NHMRC) Project Grant applications. “Thermal and Non-Thermal effects of THz radiation on Brain Tissue” (06-27-2008)
- 2006-2010** NIH Study Section "Electromagnetic Devices" ZRG1 SBIB-L 10 B (6-27-2006), ZRG1 SBIB-U (10) (2-6-2007), 2007/10 ZRG1 SBIB-U (92) S (6-26-2007), ZRG1 SBIB U (92) S (02-18-2008) 2010/01 ZRG1 SBIB-U (92) S (10-14-2009), 2010/05 ZRG1 SBIB-U (92) S (2-10-2010), 2010/ ZRG1 SBIB U(56) S (6-22-2010), 2011/01 ZRG1 SBIB-U (56) R (10/26/2010)
- 2006** NIH Study Section "RCMI/COBRE Review Special Emphasis Panel" ZRR1-R1-5 (01) (11-9,10-2006)
- 2006-2007** Subject Matter Expert: In-vivo Imaging Work Space, Small Animal Imaging (National Cancer Institute/ Booz-Allen-Hamilton, Rockville, MD)
- 2006** Study Section for Consiglio Nazionale delle Ricerche (National Research Counsel) Euryi applications. Rome, Italy
- 2005** Computerized Medical Imaging and Graphics, ad-hoc reviewer
- 2000-2002** Wayne State University, School of Medicine: AAUP-AFT (American Association of University Professors- American Federation of Teachers standing panel (Art. XXIV). Detroit, Michigan
- 1999** Journal of Neurological Sciences, ad-hoc reviewer
- 1986** Medical Physics, ad-hoc reviewer

3. TEACHING, MENTORING, AND ADVISING

A. Teaching Activities

i. Medical School Courses: None

ii. Medical School Clerkships: None

iii. Graduate Biomedical Education Courses

Classes Taught at Georgetown:

Name and Course Number: Medical Neuroscience, NSCI-545/556

Role: Instructor

Number of Direct Contact Hours*: Undefined

Year(s) Taught: 2007

Number of Students: Undefined

Overall Evaluation Score: Undefined

Name and Course Number: Animal Models/TBIO-560-1

Role: Instructor

Number of Direct* Contact Hours: Don't Know

Year(s) Taught: 2004-2006

Number of Students: 15

Overall Evaluation Score: Undefined

Name and Course Number: Magnetic Resonance Safety, See: <http://cfmi.georgetown.edu/training.php#>

Role: Instructor

Number of Direct* Contact Hours: Don't Know

Year(s) Taught: 2003-2005

Number of Students: Undefined

Overall Evaluation Score: Undefined

Name and Course Number: Introduction to Magnetic Resonance Imaging, See:
<http://cfmi.georgetown.edu/training.php#>

Role: Instructor

Number of Direct* Contact Hours: Don't Know

Year(s) Taught: 2003-2005

Number of Students: Undefined

Overall Evaluation Score: Undefined

Classes Taught at Children's National Medical Center:

Name and Course Number: *MRI Safety (no number)*

Role: MRI Safety Officer/cCourse Director

Number of Direct* Contact Hours: Undefined

Year(s) Taught: 2008-Present

Number of Students: Over 30,000 students

Overall Evaluation Score: Undefined

iv. Undergraduate Courses: None

v. Teaching Recognition/Awards: None

B. Mentoring:

Co-Mentor:

Children's National Medical Center :

Research Advisor

Daniel Guerron

2007-2010

Center for Genetic Medicine (Nagaraju's Group)

Currently Employed at Georgetown University Hospital

Georgetown University Medical Center:

Graduate Students

Thesis Committee Member

Jason Tilan

2002-2007

Graduate Student, Research Assistant, PhD. Program, Physiology and Biophysics

GRADUATED

See 2013 Letter of Support

Thesis Committee Member

Lydia Kuo

2002-2007

Graduate Student, Research Assistant, PhD. Program, Physiology and Biophysics

GRADUATED WITH HONORS GERTRUDE MAENGWYN-DAVIES SCHOLAR AWARD AND RESEARCH AWARD

See 2013 Letter of Support

Post. Doc. Co-Mentor

Olga Rodriguez Ph.D.

2002-2007

Graduate Student, Research Assistant. Post Doctoral Program, Lombardi Comprehensive Cancer Center

See 2013 Letter of Support

Thesis Committee Member

Kelly McVeary

2004-2007

Graduate Student, Ph.D. Program, Neurology

GRADUATED

Thesis Committee Member

Jaime Marie Guidry

2005-2007

Graduate Student, Ph.D. Program, Oncology

GRADUATED

Under Graduate Students:

Research Advisor

Kenneth Byrd

2007

Howard University Undergraduate

GRADUATED

See 2013 Letter of Support:

Research Advisor

Ayichew Hailu

2004-2007

Howard University Under Graduate

Graduate Student Stanford University, Electrical Engineering program.

GRADUATED

High School Students (Mentored at Georgetown University):

Summer MRI Laboratory Internship

Joshua Chen

2005-2006

Washington Christian High School

Graduated: Georgetown University, Washington, DC., Nursing and Mathematics

Summer MRI Laboratory Internship

John Mishoe

2006

Sidwell Friends High School

Graduated: Brown University, Providence, RI. African American Studies, Neuroscience

See 2013 Letter of Support

Wayne State University:

Ph.D. Co-Mentor

Todd Mitchell, Ph.D.

2000-2002

Research Assistant, Psychiatry and Behavioral Neurosciences, Brain Imaging Group

GRADUATED

Ph.D. Co-Mentor

Ian Wilds, Ph.D.

1999-2002

Research Assistant, Psychiatry and Behavioral Neurosciences, Brain Imaging Research Division

(MD, PhD. program Psychiatry)

GRADUATED

Ph.D. Co-Mentor

Navid Seraji-Bozorgzad

1999-2002

Graduate Student, Research Assistant, Psychiatry and

Behavioral Neurosciences, Brain Imaging Research Division (MD, PhD. program)

Psychiatry)**GRADUATED**

University of Florence:

Thesis Scientific Co-Mentor

Stefano Massi, M.D., Internship

1992

Thesis Neuroradiology: "Focal cerebral lesions correlated to smooth pursuit ocular movement"

GRADUATED

Thesis Scientific Co-Mentor

Jacopo Nori, M.D., Internship

1993

Thesis Radiology: "TeleMedicine and the (MAN) Metropolitan Area Network"

GRADUATED

4. SERVICE

A. University Service:

i. Department

Georgetown University Medical Center:

Oncology & LCCC:

Grant Writing and Imaging Consultant: PIRL, 2007-2017

Neuroscience:

Co-Director of Neuroscience Microscopy Shared Resource: 2005-2007

ii. School: Role/Function, Committee Name, Dates (Years) of Service

iii. University

Georgetown University Medical Center:

Director of Small Animal Imaging Laboratory, New Research Building, 2002-2007

Wayne State University, School of Medicine (Detroit, Michigan)

AAUP-AFT (American Association of University Professors - American Federation of Teachers standing panel), (Art. XXIV). 2000-2002

B. MedStar or Hospital Service

MedStar

Lecturer to Radiology, MRI Spectroscopy, 2007, 2010, 2011

Children's National Medical Center

Radiation Safety Officer, 2015

Safety and Emergency Management Committee 2011-Present

MRI Physicist, 2007-Present

MRI Safety Officer, 2007-Present

Safety Coach, 2009-2015

C. Professional Service:

5. HONORS AND AWARDS

Patents:

Weinberg, IN, **Fricke, ST.:** Ultra-Fast Magnetic Field for Electron Paramagnetic Resonance Imaging Used in Monitoring Dose from Proton or Hadron Therapy. US Patent 2012/0326722 A1,

12/27/2012

Stoll, S, Mertzman J, Van Kouren, E, Albanese, C, **Fricke, ST.:** Manganese-OXO clusters as contrast agents for magnetic resonance imaging. International Publication Patent Number WO 2010/48268

A2,

04/29/2010

Moore, GJ, **Fricke, ST.:** Magnetic Resonance Force Microscope for the Study of Biological Systems. US Patent 6,683,451 B1,

01/27/2004

Awards:

FORMED Research Associate; (NRSA grant equivalent) Pisa, Italy

1993-1995

Research Assistantship; MIT Department of Nuclear Engineering

C.A. Olson Academic Scholarship, Outstanding Student in Physics

6. PROFESSIONAL SOCIETY MEMBERSHIP

American Association of Physicist in Medicine (AAPM)

2008-Present

American Nuclear Society (ANS)

2008-2015

American Association for the Advancement of Science (AAAS)

2008-2010

International Society Advancing an Interdisciplinary Approach to the Science and Applications of Light (SPIE)

2008-2009

The New York Academy of Science

2007-2010

TG 270 Board Member

National Neurotrauma Society

2006

Society for Magnetic Resonance in Medicine

2002-2008

Society for Neuroscience

2000-2002

Institute of Electrical and Electronics Engineers (IEEE)

1999-2002

Association of Italian Radiology

1992-2002

I certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature:



Date: 02/24/2017

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ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

Name and Address of Applicant and/or Licensee Children's National Medical Center Attn: Kurt Newman CEO & President 111 Michigan Avenue, N.W. Washington, D.C. 20010-2970	Date 08/18/2017
	License Number(s) 08-03309-01, 08-03309-04
	Mail Control Number(s) 600460, 600461
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This is to acknowledge receipt of your: Letter and/or Application Dated: 08/09/2017

The initial processing, which included an administrative review, has been performed.
 Amendment Termination New License Renewal

There were no administrative omissions identified during our initial review.

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

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The following administrative omissions have been identified:

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

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(610) 337-5398, or (610) 337-5239