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EDUCATION

06/26/81	Bachelor of Science (Physics), Purdue University-Fort Wayne, IN
05/18/86	Master of Science (Medical Physics), University of Wisconsin-Madison, WI
05/21/89	Doctor of Philosophy (Medical Physics), University of Wisconsin-Madison, WI

ACADEMIC APPOINTMENTS

01/01/92-06/30/97	Assistant Professor, Nuclear Medicine Section Department of Diagnostic Radiology Yale University School of Medicine New Haven, CT
07/01/97-07/30/02	Associate Research Scientist, Nuclear Medicine Section Department of Diagnostic Radiology Yale University School of Medicine New Haven, CT
08/19/02-09/30/02	Bridge Lecturer Appointment Department of Radiology University of Louisville Louisville, KY
10/01/02-6/30/2019	Associate Professor Department of Radiology University of Louisville Louisville, KY
01/01/07-6/30/2019	Associate Professor (Joint Appointment [2007-2013], Associate Appointment [2013-present]) Department of Pharmacology & Toxicology University of Louisville Louisville, KY
01/01/13-6/30/2019	Associate Professor (Associate Appointment) Department of Bioengineering University of Louisville Louisville, KY
06/1/15-6/30/2019	Associate Professor (Associate Appointment) Department of Microbiology & Immunology University of Louisville Louisville, KY
07/1/19-Present	Professor Department of Radiology University of Louisville Louisville, KY
07/1/19-Present	Professor (Associate Appointment) Departments of Pharmacology & Toxicology, Bioengineering, and Microbiology & Immunology University of Louisville

Louisville, KY

OTHER POSITIONS AND EMPLOYMENT

09/01/81-08/31/82	Teaching Assistant, Department of Physics Purdue University West Lafayette, IN
09/01/82-03/31/89	Research Assistant, Department of Medical Physics University of Wisconsin Madison, WI
04/01/89-10/31/91	Postdoctoral Scholar Division of Nuclear Medicine & Biophysics UCLA School of Medicine Los Angeles, CA
11/01/91-10/31/93	Assistant Physicist Yale University VA PET Center West Haven, CT
11/01/93-07/31/02	Chief Physicist Yale University VA PET Center West Haven, CT
08/19/02-Present	Director, In Vivo Molecular Imaging Program Department of Radiology University of Louisville Louisville, KY
10/01/08-Present	Vice-Chair for Translational Research Department of Radiology University of Louisville Louisville, KY

CERTIFICATION AND LICENSURE (N/A)

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

PROFESSIONAL MEMBERSHIPS:

Society of Nuclear Medicine and Molecular Imaging (SNMMI)
American Association of Physicists in Medicine (AAPM)
World Molecular Imaging Society (WMIS)
International Society of Magnetic Resonance in Medicine (ISMRM)
Chinese American Society of Nuclear Medicine and Molecular Imaging (CASNMMI)

PROFESSIONAL ACTIVITIES:

06/2008	Co-moderator, Data Management/Data Analysis: Cardiac/Small Animal Oral Session Society of Nuclear Medicine annual meeting, New Orleans, LA
01/2011-01/2013	Curriculum Task Force Society of Nuclear Medicine and Molecular Imaging (SNMMI)
10/2011-Present	Radiology Vice-Chairs National Working Group Radiological Society of North America (RSNA)
01/2013-Present	Working Group on Model Quality Assurance Programs in Radiation Oncology and Radiology American Association of Physicists in Medicine (AAPM)

09/2016	Co-moderator, Session 3: Non-Infectious Inflammation and Organ Fibrosis Co-moderator, Session 21: Multimodal Imaging of the Tumor Microenvironment World Molecular Imaging Society (WMIS) annual meeting, New York City, NY
06/2017-Present	Planning Committee Midwest Preclinical Imaging Consortium
07/2017-06/2018	Educational Committee Society of Nuclear Medicine and Molecular Imaging (SNMMI)
06/2019-06/2021	Educational Committee Society of Nuclear Medicine and Molecular Imaging (SNMMI)

HONORS AND AWARDS

1984	Second in Departmental Graduate Student Presentation Contest
1988	University of Wisconsin-Madison Graduate School Travel Award
1991	SNM Cardiovascular Young Investigator Award

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES

04/01/03-Present	Member, Graduate School Faculty University of Louisville
11/01/02-Present	Member, Radiation Safety Committee University of Louisville
07/01/06-06/30/12	Member, Faculty Forum University of Louisville School of Medicine
03/01/07-2009	Research Committee Department of Radiology University of Louisville School of Medicine
01/01/07-2009	Mentoring Program University of Louisville School of Medicine
04/01/07-2009	Steering Committee for RDRC (Radioactive Drug Research Committee) and CRRC (Clinical Radiation Research Committee) University of Louisville School of Medicine
10/01/08-09/30/10	Resident Education Committee Department of Radiology University of Louisville School of Medicine
07/2012-06/2015	Performance Criteria and Economic Welfare Committee University of Louisville School of Medicine
07/2012-Present	Member, Faculty Senate Academic Program Committee (APC) University of Louisville
08/2014-Present	Member, Faculty Senate University of Louisville
02/2015-05/2015	Member, SACS Full Faculty Subcommittee University of Louisville
10/2015-9/2018	APC Liaison to Faculty Senate Executive Committee University of Louisville
08/2016-06/2017	Orthopaedic Surgery Chair 5 yr Review Committee University of Louisville School of Medicine
03/2017-05/2019	Member, University Wide Academic Program Committee University of Louisville

03/2018	Ad hoc reviewer for CEG proposal University of Louisville
09/2018-08/2020	Chair, Faculty Senate Academic Program Committee (APC) University of Louisville
02/2020-Present	Member, Invest Strategy I3 Subcommittee University of Louisville
07/2020-Present	Member, Promotion, Appointment, & Tenure Committee (PAT) University of Louisville School of Medicine
09/2020-Present	APC Liaison to Faculty Senate Executive Committee University of Louisville
09/2020-Present	Member of Executive Committee, Faculty Senate University of Louisville
11/2020-Present	Member, Core Facilities Review Committee University of Louisville

BOARD MEMBERSHIPS

07/2006-06/2007	Board of Advisors Chinese American Society of Nuclear Medicine (CASNM)
07/2007-06/2009	Chairman/President-Elect of the Board of Directors Chinese American Society of Nuclear Medicine (CASNM)
07/2009-06/2011	President Chinese American Society of Nuclear Medicine (CASNM)
07/2011-06/2013	Immediate Past President Chinese American Society of Nuclear Medicine (CASNM)
08/2011-10/2012	Associate Editor Quantitative Imaging in Medicine and Surgery
11/2012-Present	Editorial Board Quantitative Imaging in Medicine and Surgery
04/2019-Present	Editorial Board Annals of Nuclear Medicine and Molecular Imaging

EDUCATIONAL ACTIVITIES

August 2002 – Present

- September 2003-Present: Didactic diagnostic physics lecture series for radiology residents, about 60 hours per year. Re-designed the entire Radiology resident teaching curriculum based on the new changes implemented by the American Board of Radiology (October 2011- Present).
  Note: In 2006, University of Louisville diagnostic radiology M.D. residents achieved first ranking on the American Board of Radiology written physics examination among 203 residency programs in the United States and Canada.
- July 2007- June 2008: Organized a molecular imaging lecture series for the Radiology Noon Conference.
- August 2003 to August 2004: Mentored a graduate student from Department of Physiology and Biophysics, University of Louisville School of Medicine (Abe Ibrahim, - Effect of glucose level on FDG kinetics in non-small lung cancer cells).
- Mentored medical students in research (Jan ’05: John Hoffmann, Scott M. Duncan- Design of a phantom suitable for microPET imaging; Summer ’05, Nicholas J. Larsen- Investigation of attenuation correction in microPET imaging).
- Mentored high school students in research (Summer ’05: Nicholas Johnson; Summer ’06: Ashwin Raghavan).
- 2008: Mentored summer college student (Kristen N. Lee, Physics major, Rhodes College, Memphis , TN- Detectability of Molecular Imaging Techniques)
- 1/6/2003-5/30/2003: Supervised Maitrayee Pariya, B.S., lab technician.
- Supervised postdoctoral research associates (Huaiyu Zheng, M.B.[5/2004-5/2007]; Junling Li, Ph.D. [1/2005-11/2008]).

- 9/5/2006-11/10/2006: Trained and supervised Erik Buggeland, M.S., Lab Technician.
- 6/2007-Present: Supervising Huaiyu Zheng, M.B., Research Associate.
- 12/2008-11/2011: Supervised Junling Li, PhD, Research Scientist.
- 3/2011-10/15/2012: Trained and supervised Raymond Chang, M.S., Lab Manager in the Preclinical Imaging Facility.
- Mentored visiting scientists (Yili Zhang, M.B. [1/7/2007-4/2008]; Ruixue Cui, M.B. [2009-2010], Xindao Yin, M.D. [2/2012-8/2012]; Ji Yang Kim, M.D. [1/2012-12/2013]).
- Mentoring junior faculty in Department of Radiology (Junling Li, Ph.D., Instructor [12/1/2011-Present]; Haixun Guo, Ph.D., Assistant Professor [8/1/2011-Present]; Xiao-Feng Li, Ph.D., Assistant Professor [4/13/2009-2014].
- April-October 2011: Mentored non-UofL student (Eric Gruenthal, B.S., Physics Major, Washington University - St. Louis. The use of MRI-DCE for quantifying perfusion in tissue).
- October 2010-April 2012: Melih Aslan, PhD Candidate, Department of Electrical Engineering (member of a Ph.D. Committee, 3D spine bone segmentation and analysis).
- 11/2010: MBIO 690 (Microbiology Dept)- Research Methods: lectured on the use of molecular imaging for research.
- 2/7/2012: Combined Journal Club (Dept of Immunology and Microbiology), 12 noon, Baxter II B-038- In Vivo Molecular Imaging @ UofL.
- 4/9/2012: MBIO 667 Graduate Cell Biology Spring, Molecular Imaging in biomedical research (with exam questions, 15 points out of 100).
- 11/9/2012: MBIO 690- 6 students from Microbiology, "Molecular Imaging in Biomedical Research", including a tour in the CTR imaging suite.
- 1/2013-6/2013: Supervised and mentored Ziqi Sun, Ph.D., Instructor, Department of Radiology.
- 8/2013- Present: Supervising and mentoring Mingming Zhu, PhD, Instructor, Department of Radiology.
- 5/2013- 5/2015: Mentored James Baker, 1st medical student.
- 7/2013: PhD dissertation committee (Ahmed Magdy, a student from the laboratory of Aly Farag, Ph.D., UofL Speed School of Engineering,).
- 2/2014-2/2015: Organized and moderated the monthly series of Frontier of Medical Imaging, Department of Radiology.
- 8/2015-Present: Supervising Sean Kuntz, MS, Research Coordinator, Department of Radiology.
- 1/2016-Present: Organizing and moderating a monthly research noon conference, Department of Radiology.
- Jan-June 2016: Co-mentored Timothy Chea, a bioengineering MS student.
- 9/2016-Present: Supervising and mentoring Mohammadjavad Negahdar, PhD, MRI Scientist, Department of Radiology.
- 4/2018: PhD dissertation committee (Zhicao Lu, a student from the laboratory of Gerald Hammond, PhD in the chemistry department).
- 5/2018-Present: Mentoring Ahmed Salem, a UofL medical student (research distinction track).
- 11/2018: PhD dissertation committee (Rene E. Ebule, a student from the laboratory of Gerald Hammond, PhD in the chemistry department).
- 2/2020-Present: Mentoring Shae D. Morgan, Assistant Professor, Department of Otolaryngology and Communicative Disorders, University of Louisville.
- 2/2020-Present: Mentoring Brian Crenshaw on an undergraduate research project, University of Louisville.

January 1992 - August 2002

- Provided hands-on training for nuclear medicine technologists to perform clinical and research PET studies. Coordinated a positron coincidence imaging workshop.
- PET physics (includes comparisons between PET and SPECT) and tracer kinetics lectures to radiology residents, nuclear medicine residents, and nuclear cardiology fellows.
- Occasional lectures to nuclear medicine technologists.
- Instrumentation and FDG kinetics lectures to "Coincidence Imaging Workshop" participants.
- PET physics (includes comparisons between PET and SPECT) and tracer kinetics lectures to radiology residents, nuclear medicine residents, and nuclear cardiology fellows.

- Occasional lectures to nuclear medicine technologists.
- Instrumentation and FDG kinetics lectures to "Coincidence Imaging Workshop" participants.

September 1981 - August 1982

- Elementary physics labs designed for technology and engineering students.

PEER REVIEWER OF MANUSCRIPTS

08/2003-Present	Reviewer for Journal of Nuclear Medicine
2009	Reviewer for Journal of Ovarian Research
2012	Reviewer for Medical Physics Journal
2012	Reviewer for Current Molecular Medicine
2012	Reviewer for Journal of Visualized Experiments
2013	Reviewer for NMR in Biomedicine
05/2014- Present	Reviewer for Biomed Research International
2017-Present	Reviewer for Molecular Pharmaceutics
2017-Present	Reviewer for PLOS ONE
2017-Present	Reviewer for Quantitative Imaging in Medicine and Surgery
2018	Reviewer for Bioconjugate Chemistry
2018	Reviewer for Stem Cells Translational Medicine
2018	Reviewer for Journal of Nuclear Medicine Technology
2019	Reviewer for Scientific Reports, Journal of Applied Radiation & Isotopes
2020	Reviewer for Journal of Clinical Medicine

PEER REVIEWER OF CONFERENCE ABSTRACTS

06/2008	Annual Meeting of Society of Nuclear Medicine, New Orleans, LA
09/2009	Annual Meeting of World Molecular Imaging Congress, Montreal, Quebec, Canada
09/2011	Annual Meeting of World Molecular Imaging Congress, San Diego, CA
06/2014	Annual Meeting of Society of Nuclear Medicine and Molecular Imaging, St. Louis, MO
09/2018	Annual Meeting of World Molecular Imaging Congress, Seattle, WA
09/2019	Annual Meeting of World Molecular Imaging Congress, Montreal, QC (neuroscience)
07/2020	Annual Meeting of Society of Nuclear Medicine and Molecular Imaging (Virtual)
10/2020	Annual Meeting of World Molecular Imaging Congress (Virtual)

RESEARCH GRANTS

Society of Nuclear Medicine Pilot Research Grant
Total Cost: $10,000
Role: Principal Investigator
1992 - 1993

American Heart Association-Connecticut Affiliate
Total Cost: $70,000
Role: Principal Investigator
1993 – 1995

Amersham- HL91 tracer evaluation
Total Cost: $5,000
Role: Principal Investigator
1994

Yale University Departmental Seed Grant
Total Cost: $5,000
Role: Principal Investigator
1997

University of Louisville Competitive Enhancement Grant
Total Cost: $15,000
Role: Principal Investigator
November 1, 2003 – October 31, 2004

Kentucky Lung Cancer Fund Fellowship Grant for Junling Li, Ph.D.
Total Cost: $35,000
Role: Advisor
August 1, 2005 – July 31, 2006

National Institutes of Health (NIH/NCI) R21 Grant Tumor
FDG Kinetics in a 3-D Tissue Culture System
Total Cost: $330,750
Role: Principal Investigator
2004-2006: 25% Effort; 2006-2007: 20% Effort July 1, 2004 – June 30, 2007

National Institutes of Health (NIH RO1): PI: Kenneth Palmer
Biodistribution of Cu-64 labeled griffithsin protein via route of IV, IP, and intravaginal in animal models.
Role: Co-Investigator (5%)
July 1, 2010 - June 30, 2011

Kentucky Lung Cancer Program: PI: Xiao-Feng Li
Visualization of hypoxia and angiogenesis in lung cancer metastases
Role: Co-Investigator (5%)
November 1, 2009- October 2013

Health Resources and Services Administration (HRSA- equipment grant for MRI and Optical imaging devices)
In vivo molecular imaging of disease detection and monitoring
Total cost: $2,475,000
Role: Principal Investigator
August 1, 2010- July 31, 2013

Regulation Directive Medical Physics
Testing vascular access ports using standard known processes
Role: Principal Investigator
Total cost: $6,471.18
July 1, 2013-February 28, 2014

Coulter Foundation
A shape adaptive therapy to treat tumor
Role: Co-PI
Total cost: $125,179
July 1, 2013-June 30, 2014

Regulation Directive Medical Physics
Compatibility of Artificial Heat Pumps and PET Contrast

Role: Principal Investigator
Total cost: $2,450
August 1, 2014-Februray 28, 2015

UofL School of Medicine Matching Grant
Validation of shape adaptable laser for cancer treatment
Role: Principal Investigator
Total cost: $75,057
January 1, 2015-December 31, 2015

Regulation Directive Medical Physics
Testing vascular access ports using standard known processes
Role: Principal Investigator
Total cost: $5,288
September 1, 2015-December 31, 2015

Regulation Directive Medical Physics
PET Contrast of Imaging of Vascular Access Devices
Role: Principal Investigator
Total cost: $9,020
October 1, 2016-December 31, 2016

Blue Earth Diagnostics Clinical Trial (LOCATE)
Role: Initiator and Facilitator
A total of 9 patients successfully enrolled
August 2016-April 2018

Regulation Directive Medical Physics Contrast
Injection Capability via PET and MRI
Role: Principal Investigator
Total cost: $17,319
May 1, 2017-October 31, 2017

Regulation Directive Medical Physics
PET Contrast Imaging Of Iron Oxide Solution Vials Role:
Principal Investigator
Total cost: $3,929
November 1, 2017-January 31, 2018

NIH P01 5P01HL078825-12
Program Project Grant: Core B (Surgery and Physiology Core)- Roberto Bolli, M.D. (PI)
Protection of Ischemic Myocardium
Role: consultant
Total cost: $2,746,786
September 1, 2018 – August 31, 2022

Regulation Directive Medical Physics
Contrast Injection Capability via Positron Emission Tomography
Role: Principal Investigator
Total cost: $11,307
October 1, 2018-March 31, 2019

UofL EVPRI RII Grant Program
Longitudinal Evaluation of Taurine on Aging Brain by Proton Magnetic Resonance Spectroscopy
Role: Co-Investigator
Total cost: $10,000
January 1, 2019-December 31, 2019

UofL School of Medicine Basic Grant Program
Monitoring tumor necrosis in lung cancer using F-18 fluoroglucaric acid
Role: Co-Investigator
Total cost: $25,000
March 1, 2020-February 28, 2021

RESEARCH EXPERIENCE

August 2002 – Present

- Effect of insulin on FDG kinetics in non-small cell lung cancer cell lines.
- Development of a three-dimensional tissue culture system for the evaluation of radiopharmaceuticals.
- Development and validation of F-18 labeled and Cu-64 labeled oligonucleotides for tumor detection using multimodality imaging.
- Development of F-18 labeled FLT and FMISO.
- Development and validation of Cu-64 labeled proteins and peptides.
- Investigation of the possibility of using Gd chelated oligonucleotides for MR imaging.
- Investigation of the possibility of using nanoparticles for CT and MR imaging.
- The use of imaging for drug development and evaluation, animal model development and validation, study of disease mechanism, and technology development and evaluation (e.g. drug carrier, nanoparticles).
- Imaging glucose metabolism in ferrets and mice infected with influenza virus.
- Development and evaluation of F-18 DPA derivatives and imaging apoptosis in tissue infected with influenza virus.
- Imaging apoptosis by targeting PE using F-18 labeled duramycin in colorectal cancer cells with bioluminescence, fluorescence, and PET/CT imaging.
- Investigation of imaging biomarkers (e.g. glucose metabolism, inflammation, apoptosis, neuronal damage, and diffusion tensor imaging (DTI)) in rats with spinal cord injury using PET/CT and MR imaging.
- Development and validation of F-18 fluorodeoxysorbitol for Kp bacterial infection in a mouse lung model using a multi-modal molecular approach.
- Development and evaluation of a laser probe for tissue ablation in cancer.
- Investigation of taurine as a potential biomarker for aging in mice using magnetic resonance spectroscopy.
- Implementation of arterial spin label (ASL) and 4D flow for the measurement of myocardial perfusion and contractility in mice using MRI phase contrast imaging.
- Implementation of using N-13 NH3 for the measurement of myocardial perfusion in mice using PET imaging and the subsequent analysis for polar map representation using the PMOD software.

January 1992 - August 2002

- Investigation of flow using O-15 labeled water and metabolism using 18FDG in a variety of tumors in a clinical trial.
- Investigation of 18FDG kinetics in rats with breast tumors.
- Induction of breast tumors in rats.
- Assessment of dedicated PET and camera based PET imaging protocols using 18FDG in rats with breast tumors.
- Investigation of performance characteristics of dual-headed and triple-headed SPECT cameras with positron coincidence detection capability (thick and thin crystals) and triple-headed SPECT cameras with ultra-high energy collimators.
- Kinetic studies of 18FDG in humans with drug-induced mental stress and tryptophan depletion.
- Investigation of optimal scan parameters for cardiac PET studies in humans.

- Scintillating fiber optic detection of positron-emitting radioisotopes in canine myocardium.
- Kinetic studies of Tc-99m labeled nitroimidazole (BMS-181321) and Tc-99m labeled HL-91 in hypoxic myocardium using the isolated perfused heart preparation.
- Investigation of fatty acid metabolism in the new born rabbit myocardium.
- Validation of using I-123 IPPA as a fatty acid tracer in canine myocardium with dynamic SPECT.
- Investigation of the effect of insulin on myocardial 18FDG and glucose kinetics in humans.
- Investigation of myocardial C-11 acetate kinetics in diabetic rats.
- Biodistribution studies of F-18 labeled para-fluorobenzylguanidine (PFBG) in control, diabetic, and adriamycin induced cardiomyopathic rats. Biodistribution studies of F-18 labeled meta-fluorobenzylguanidine (MFBG) in control rats.
- Investigation of flow and glucose metabolism relationship in a reperfused rat model and skeletal muscle using 18FDG and 13NH3.

April 1989 - November 1991

- HPLC analysis of TCA intermediates and amino acids in tissue and effluent. Tissue radioassay of metabolites.
- Compartmental modeling and biochemical validation of [1-11C]acetate kinetics in isolated perfused rat hearts.
- Tracer kinetic modeling of [1-11C]acetate in canine myocardium with PET using a CTI animal PET scanner.
- Kinetic studies of alpha-1 adrenergic receptors in perfused hearts using I-125 HEAT.
- Set up and maintained the radiation detection system for the isolated perfused rat heart preparation.

September 1982 - March 1989

- Development and characterization of a perfused working rat heart system for studying compounds labeled with positron-emitting radionuclides.
- HPLC, TLC, and ion-exchange analysis of metabolites in hearts perfused with compounds labeled with positron- or beta-emitting radionuclides.
- Scintillation counting of ß-labeled compounds and detection of gamma rays.
- Investigation of glucose uptake and metabolism under perfusion conditions of normoglycemia, hypoglycemia, hyperglycemia, hormone intervention, and variable workload in normal and drug-pretreated myocardium.
- Computer analysis of compartmental models for 18F-labeled sugar analogs.

SERVICE

August 2002 – Present

- Developed quality assurance programs (ACR accreditation, routine QA) for diagnostic imaging equipment (MRI, PET, SPECT and CT). The university hospital has received ACR accreditation on ultrasound, MRI, PET, SPECT, and CT.
- Medical physics support for both University Hospital and the Department of Radiology at the University of Louisville School of Medicine.
- Developed a core facility with a microPET animal scanner and a radiochemistry laboratory from ground zero.
- Developed a molecular imaging program for small animal research for the University of Louisville from ground zero with core service capabilities in microPET, microCT, and in vivo fluorescence imaging.
- Expanded the current molecular imaging program to include more core imaging service capabilities (microPET/SPECT/CT and fluorescence/bioluminescence) in the Bio-Safety Level 3 Building on the Shelby Campus of the University of Louisville (Summer ’08).
- Elevated the current molecular imaging program to another level in the new Clinical Translational Research (CTR) Building on the Health Sciences Campus of the University of Louisville to include an Agilent 9.4T/31cm MRI scanner, deep tissue fluorescence imaging and bioluminescence imaging.
- Run the day-to-day operation of the Preclinical Imaging Facility, including strategic planning and financial planning.
- Provide consultation service to investigators using the Preclinical Imaging Facility in terms of study design, imaging protocol development, image analysis, data review, and publication.

- Initiated the development of a research curriculum for residents in the Department of Radiology.
- Created and coordinated a molecular imaging seminar series to educate investigators about the use of medical imaging in biomedical research.
- Explored the formation of two new committees for the University of Louisville: Radioactive Drug Research Committee (RDRC), and the Clinical Radiation Research Committee (CRRC).
- Judge for Images of the Year, Siemens Preclinical Imaging, August 2012.
- Judge for Neuroscience Day at UofL Chapter (4/23/2015).
- Judge for Research!Louisville (10/27/2015 and 10/11/2016).
- Expanded my role to oversee a newly hired research coordinator who works with radiology faculty on various research related activities in August 2015.
- Restructured the 3T Skyra research facility and integrated it with the preclinical imaging facility in August 2016.
- Oversees the daily operation of preclinical imaging facilities- imaging, biology, and chemistry and a Siemens 3T Skyra facility (e.g. budget planning and execution, experimental design and implementation, strategic planning and implementation).
- April 2017- Present: initiated and submitting a written monthly research update for Department of Radiology.

November 1991 - July 2002

- Coordinated both the technical and administrative aspects of the POSICAM 6.5 PET scanner and its accessories for both clinical and research studies. Primary responsibilities included quality assurance, protocol design, camera trouble shooting, software implementation, equipment upgrade, contract negotiation, and supervision of nuclear medicine technologist and service engineer.
- Provided scientific support to all PET investigators.
- Provided inputs for clinical PET scan protocols.
- Designed and maintained a local area computer network at the PET Center (MAC, PC, Sun-Unix, VAX-VMS). Designed and implemented a computer network for nuclear medicine and radiology.
- Served as a resource for SPECT imaging between 1993 and 1999.
- Coordinated radiochemistry research activities between 1993 and 1995.
- Set up and maintained an animal research laboratory.
- Surgical performance and handling of large (dogs) and small animals (rats and newborn rabbits).

ABSTRACTS AND PRESENTATIONS ORAL

PRESENTATIONS

Basic Principles of PET Imaging
Society of Nuclear Medicine annual meeting
June 2002

Evaluation of Radiopharmaceuticals Using a 3-Dimensional Tissue Culture System
Department of Chemical Engineering, University of Louisville
April 11, 2003

Introduction of the molecular imaging (microPET) core facility
James Brown Cancer Center Third Annual Retreat, University of Louisville
September 23, 2004

How can microPET imaging enhance discovery and productivity? Molecular Target Seminar Series
University of Louisville
September 1, 2005

Molecular Imaging: Present and future at BCC
Structural Biology Group Meeting, University of Louisville
August 14, 2006

In vivo molecular imaging at UofL: Present and future
Department of Pharmacology and Toxicology, University of Louisville
September 28, 2006

In vivo molecular imaging: The advent of micro-radiology for biomedical research OSI Pharmaceuticals, Inc., Boulder, CO
May 7, 2007

In vivo molecular imaging: The advent of micro-radiology for biomedical research Department of Radiology, University of Louisville
September 20, 2007

UofL Molecular Imaging core
Molecular Imaging Seminar Series, Department of Diagnostic Radiology, Baxter II-B038
October 23, 3007

In vivo molecular imaging
UofL KBRIN External Advisory Committee Meeting
December 4, 2007

In Vivo Molecular Imaging at UofL: Present & Future Department of Pediatrics
May 6, 2008

Funding for setting up molecular imaging suites for small animal research
Chinese American Society of Nuclear Medicine (CASNM) annual dinner, New Orleans, LA
June 16, 2008

Young Investigators Testimonials
Practical Grantsmanship for the New Researchers
Society of Nuclear Medicine (SNM) Annual Meeting, New Orleans, LA
June 16, 2008

Medical Physics: Why Do You Care?
Weekly Physics Colloquium, Department of Physics, University of Louisville
September 12, 2008

Nanotechnology: A Useful Tool for Bioimaging
Nanotechnology Symposium 2008
Sullivan University College of Pharmacy, Louisville, KY
October 2-4, 2008

Translational Research
Department of Radiology resident noon conference
University of Louisville School of Medicine
October 9, 2008

Molecular Imaging: A Golden Opportunity for Medical Physicists AAPM Ohio Valley Chapter Meeting, Indianapolis, IN

October 25, 2008

Molecular Imaging: A Technology Platform for Translational Research
Center for Predictive Medicine Imaging Forum, University of Louisville
November 13, 2008

Panelist for an Asian American Faculty workshop
University of Louisville School of Medicine
December 10, 2008

Preclinical Imaging: A bridge to translational research
Department of Radiology, University of Kentucky
Advanced Medical Imaging Series Lexington, Kentucky
March 6, 2009

Preclinical Imaging: Bridging the Gap from Concept to Realization
Molecular Targeting Weekly Seminar Series, James Graham Brown Cancer Center
University of Louisville School of Medicine
April 9, 2009

Molecular Imaging: Repackaging or Future of Radiology?
University of Kentucky Symposia on Advanced Medical Imaging Lexington, KY
November 20, 2009

Molecular Imaging: a technology platform for drug development
Department of Diagnostic Radiology and Organ Imaging
Chinese University of Hong Kong
September 17, 2010

In Vivo Molecular Imaging at UofL: Ongoing Opportunities for Cancer Research
Molecular Targeting Seminar
University of Louisville School of Medicine
September 29, 2011

Viral Infection: F-18 Labeled DPA as a Potential Imaging Agent
Molecular Targeting Technologies, Inc.
West Chester, PA
September 27, 2012

My Journey in Molecular Imaging AAPM
Regional Meeting Cincinnati, OH
March 2, 2013

Molecular Imaging: A Technology Platform for Translational Research
Regional Biocontainment Laboratory, University of Louisville Shelby campus
August 21, 2009

Molecular Imaging: Added Value to Your Discovery
Anatomical Sciences & Neurobiology Seminar Series University of Louisville
April 18, 2013
In Vivo Molecular Imaging Structural Biology
Seminar Series University of Louisville

September 10, 2013

Visualizing Biological Processes in Living Subjects
Department of Chemistry, Eastern Kentucky University
Richmond, KY
Nov 15, 2013

Visualizing Infection and Cancer in Pulmonary Models of Disease with Optical, PET and MRI
Preclinical Imaging Methods Meeting Co-hosted by Sanford Burnham and PerkinElmer, Orlando, FL
December 6, 2013

Visualizing Biological Processes in Living Subjects University of
South Florida College of Pharmacy, Tampa, FL
December 9, 2013

Neuroimaging with Positron Emission Tomography
Neuroscience Grand Rounds
University of Louisville
January 23, 2014

How to increase our competitiveness to generate research funding? What should we do next?
Creating and Optimizing the Research Enterprise (CORE) Workshop
RSNA Headquarter, Chicago, IL
October 3, 2015

Workshop in Multimodality Radionuclide Imaging and Quantification
National Cheng Kung University, Tainan, Taiwan
December 22-24, 2017
Note: I organized the workshop with Prof. Yi-Hwa Liu from Yale University and delivered 4 out of the 12 lectures (90 min per lecture) on basic physics of nuclear medicine; principles of multimodality imaging; hybrid imaging; and SPECT and PET quantification.

Imaging bacterial infection in lung using F-18 fluorodeoxysorbitol (FDS)
Department of Radiology research noon conference
University of Louisville
February 2, 2018

Development of Molecular Imaging Probes
Ohio River Valley Chapter AAPM regional meeting
Columbus, Ohio
April 21, 2018

Development of Molecular Imaging Biomarkers
Department of Radiology noon conference University of Kentucky-Lexington
April 30, 2018

Development of Molecular Imaging Biomarkers Department of
Radiology research noon conference University of Louisville
May 4, 2018
Preclinical Imaging: A value proposition
Brown Cancer Center weekly seminar series, University of Louisville
September 26, 2018

Molecular Imaging @UofL
Markey Cancer Center Monthly meeting
University of Kentucky- Lexington
November 15, 2018

ABSTRACTS

1. Halama JR, Holden JE, Gatley SJ, Bernstein DR, O'Hora KT, **Ng CK**, DeGrado TR. Validation of F-18-3- Deoxy-3-Fluoro-D-Glucose (3FDG) as an agent for measurement of glucose transport by positron emission tomography. J Nucl Med 24: 52, 1983.
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BOOK CHAPTERS

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