



RSNA Research & Education Foundation 2015 New Grants and Awards

EDUCATION SCHOLAR GRANT (7)

Emmanuel J. Botzolakis, MD, PhD

Hospital of the University of Pennsylvania
Development of a Novel Radiology Teaching Interface Using Bayesian Networks: Application to Neuroradiology as Proof of Concept

Christopher E. Comstock, MD

Memorial Sloan Kettering Cancer Center
Interactive Screening Mammography Teaching Set: An Effective Tool to Improve Performance?

David B. Larson, MD, MBA

Stanford University
Evaluating, Refining, and Disseminating the Radiology Improvement Team Education Program

Shaunagh McDermott, FFR(RCSI)

Massachusetts General Hospital
Online Educational Tool for Implementation and Interpretation of Low-dose CT for Lung Cancer Screening (Ed-LSC)

Bhavya Rehani, MD

University of California, San Francisco
Developing Web-based Virtual Classroom Teaching RISE (Radiology International Student Virtual Education) Platform: A Pilot International Outreach Educational Program

Lonie R. Salkowski, MD

University of Wisconsin - Madison, SMPH
Investigation of a Radiology-based Three-dimensional Simulation to Explore Attributes of Novice and Expert Learners in their Process of Correlating and Sense-making of Medical Images with the Human Body

Jie Zhang, PhD

University of Kentucky
Curriculum Development for Hands-on Physics Education of Residents in Diagnostic Radiology

RSNA/AUR/APDR/SCARD RADIOLOGY EDUCATION RESEARCH DEVELOPMENT GRANT (3)

Justin Cramer, MD

University of Utah
3D Modeling and Printing of Spine Interventions: New Educational Tools for Teaching Complex Anatomy

Osamu Fernando Kaneko, MD

Stanford University Hospital and Clinics
Imaging Top 10: An Engaging and Interactive Radiology Simulation App for the Medical Student

Melissa McCutcheon Picard, MD

Medical University of South Carolina
Long-term Evaluation of a Comprehensive Curriculum Involving Didactic and Simulation Based Methods of Teaching Residents the Identification and Management of Adverse Contrast Reactions

RESEARCH SCHOLAR GRANT (13)

Rivka Rachel Colen, MD

The University of Texas MD Anderson Cancer Center
Radiome Sequencing of Glioblastoma: Decoding the Imaging Genomic Landscape and Heterogeneity

Michael David Farwell, MD, MA

Hospital of the University of Pennsylvania
Development of a Reporter Gene for In Vivo PET imaging of Chimeric Antigen Receptor (CAR) T cells Directed at Solid Tumors

Gregory Gan, MD, PhD

University of New Mexico
Mechanism of Hedgehog Pathway-mediated Radiation-induced Tumor Repopulation

Manu Shri Goyal, MD, MSc

Washington University School of Medicine (WUSM), St. Louis, Missouri
Integrating Brain Imaging and Metabolomics in Malnourished Children

Kathy Han, MD

Princess Margaret Hospital, University of Toronto
The Potential for Metformin to Improve Tumor Oxygenation in Locally Advanced Cervix Cancer: A Phase II Randomized Trial

Michael Iv, MD

Stanford University Medical Center
Using Ferumoxytol-enhanced MRI to Assess Tumor-associated Macrophages in Human Glioblastoma Multiforme

Kevin S. King, MD

University of Southern California, Keck School of Medicine of the Association of Cerebrovascular Reactivity on BOLD fMRI with Structural Brain Insults and Cognitive Decline in a Community Based Cohort

Pejman Jabehdar Maralani, MD, FRCPC

Sunnybrook Research Institute
Quantitative Blood Oxygenation Level Dependent (qBOLD) MRI for Assessment of Tumor Hypoxia in Glioblastoma Multiforme: Validation with Intra-Operative and Histological Correlation

Daniele Marin, MD

Duke University Medical Center
Decreased Variability for Robust Imaging-based Quantification of Tumor Heterogeneity

Leo Lee Tsai, MD, PhD

Beth Israel Deaconess Medical Center
Regional Variations in Tumor Metabolism and Proliferation Reflecting a Non-uniform Tumor Micro-environment: In Vivo Assessment with Hyperpolarized ¹³C MRI

Shandong Wu, PhD, MSc

University of Pittsburgh
Breast DCE-MRI Contrast Enhancement Heterogeneity and Breast Cancer Risk

Hooman Yarmohammadi, MD

Memorial Sloan-Kettering Cancer Center
Combined Blocking of Aerobic and Anaerobic Glycolytic Metabolism Pathways in Improving Treatment Response Following Transarterial Embolization of Hepatocellular carcinoma

Stefan L. Zimmerman, MD

Johns Hopkins University School of Medicine
Dual Energy Extracellular Volume Mapping for Optimized Detection of Focal Myocardial Fibrosis with Cardiac Computed Tomography

RESEARCH SEED GRANT (11)

Kelly Lynn Cox, DO

Emory University
MRI Liver Surface Nodularity Score as a New Noninvasive Biomarker for Chronic Viral Hepatitis

Matthew Scott Davenport, MD

University of Michigan
A Phase IV Randomized Double-blinded Placebo-controlled Noninferiority Study of the Effect of Intravenous Low-osmolality Iodinated Contrast Material on Renal Function in Postoperative Adults with Stage IIIb or Stage IV Chronic Kidney Disease

Nasrin V. Ghesani, MBBS

Rutgers New Jersey Medical School
Novel Gallium Imaging in Hepatocellular Carcinoma

Daniel Thomas Ginat, MD

University of Chicago
MRI-guided Minimally Invasive Laser Ablation of Recurrent Head and Neck Squamous Cell Carcinoma with Clinicoradiological Correlation for Treatment Response

Thomas A. Hope, MD

University of California, San Francisco
Interim Response to Y-90 Therapy of Neuroendocrine Tumor Using DOTA-TOC PET/MRI

Stephen J. Hunt, MD, PhD

University of Pennsylvania
Combining Antivascular Ultrasound and Immune Modulation for Systemic Control in Hepatocellular Carcinoma

Naveen Kalra, MBBS, MD

Postgraduate Institute of Medical Education and Research
Comparison of Virtual CT Enteroscopy with Small Bowel Enteroclysis in Patients with Suspected Small Bowel Tuberculosis

Viviane Khoury, MD

University of Pennsylvania
Ultrasound-guided Dry Needling Therapy for Tendinopathic Rat Supraspinatus Tendon: Histological and Mechanical Effects

Bruce E. Lehnert, MD

University of Washington
Automatic Image Quality Evaluation for CT Protocol Guidance

Yingbing Wang, MD

Massachusetts General Hospital
Multiparametric Imaging for Therapy Monitoring in Multiple Myeloma

Kristina Young, MD, PhD

Providence Portland Medical Center
Targeting Cancer Associated Fibroblasts to Enhance Radiation Efficacy

RESEARCH RESIDENT/FELLOW GRANT (23)

Waleed Brinjikji, MD

Mayo Clinic

Comparison of Efficacy of Standard Neurovascular Coil to Dedicated Carotid Surface Coil in Evaluation of Vulnerable Carotid Plaque

Nicholas Scott Burris, MD

University of California, San Francisco

Combined Evaluation of Hemodynamic and Inflammatory Markers in Chronic Type B Aortic Dissection Using PET/MRI

George A. Carberry, MD

University of Wisconsin

Treatment Algorithms to Ensure Safe, Effective Microwave Ablation of Lung Tumors Near the Heart

Aadel Chaudhuri, MD, PhD

Stanford University

Analysis of Circulating Tumor DNA for Early Detection of Tumor Recurrence After Definitive Radiotherapy for Non-Small Cell Lung Cancer

Robert Richard Flavell, MD, PhD

University of California, San Francisco

Study of Acidic Interstitial pH in Aggressive Prostate Cancer Using Novel PET and Hyperpolarized ¹³C Imaging Probes

Rahi Jiten Kumar, MD

University of California, San Francisco

In Vitro and In Vivo Differentiation and Quantification of Novel Contrast Materials at Dual-energy CT

Kathryn Lowry, MD

Massachusetts General Hospital

Optimizing Breast Cancer Surveillance in Women with a Personal History of Breast Cancer

Atul Mallik, MD, PhD

University of Utah

Structural and Functional Imaging Driven Biomarkers for Visual Hallucinations and Dementia with Lewy Bodies

Colin David McKnight, MD

University of Michigan

MR Imaging of Oxidative Stress in Amyotrophic Lateral Sclerosis

Matthew M. Miller, MD, PhD

Beth Israel Deaconess Medical Center

Quantifying Intracellular and Extracellular pH Changes in Breast Tumors during Administration of pH Modulating Agents Using Chemical Exchange Saturation Transfer (CEST) Magnetic Resonance Imaging

Yvonne Mowery, MD, PhD

Duke University Medical Center

Dissecting the Impact of Tumor Mutational Load and the CTLA-4 Immune Checkpoint in Mediating Response of Primary Sarcomas to Radiation Therapy

Philmo Oh, MD, PhD

New York University School of Medicine

Enhanced Systemic Anti-tumor Immunity through Combined Radiotherapy and Modification of the Tumor Micro-environment

Anthony Joseph Paravati, MD, MBA

University of California, San Diego

Phase I Trial of Adaptive Stereotactic Body Radiotherapy (SBRT) Dose Escalation in Pancreatic Cancer

Rebecca Rakow-Penner, MD, PhD

University of California, San Diego

Improved Quantitative Diffusion Magnetic Resonance Imaging of Breast Cancer Using Restriction Spectrum Imaging

Gelareh Sadigh, MD

Emory University School of Medicine

Breast Cancer Screening in Patients with Newly Diagnosed Cancer: a SEER-Medicare Population Study of Utilization and Potential Appropriateness

Julie Sanders, MD

Overton Brooks Veterans Affairs Medical Center

Multiparametric MRI Combining MR Elastography, Quantitative Magnetization Transfer and 4D Flow MRI in the Diagnosis and Staging of Portal Hypertension and Liver Fibrosis

Tyler Seibert, MD, PhD

University of California, San Diego

Mapping Cortical Vulnerability Associated with Brain Radiotherapy

Navneet Singh, MD

University of Toronto

Prospective Multicenter Imaging Clinical Trial: Quantitative Evaluation of 3D Carotid MR-depicted Intraplaque Hemorrhage and Its Relationship with Cerebral Small Vessel Disease, Stroke and Cognitive Impairment

Jessica Kelly Stewart, MD

Duke University Hospital

Creation of an Extraluminal Subcutaneous Arterial Bypass Graft Using Percutaneous Methods: Feasibility Study in a Porcine Model

Chad Tang, MD, MS

MD Anderson Cancer Center

Investigation of the Immunologic Basis of CT Imaging Features in Non-small Cell Lung Cancer

Elizabeth Tong, MD

University of Virginia

Design and Validate a Model that Uses Collaterals as Imaging Biomarkers to Predict Clinical Outcomes in Acute Ischemic Stroke

Joseph Connell Wildenberg, MD, PhD

University of Pennsylvania, Hospital of the

Magnetic Resonance Guidance and Monitoring of Percutaneous Electrochemical Ablation Using a Novel Coaxial Probe Device

Fang Yu, MD

University of Texas Health Science Center in San Antonio

Evaluation of Multiple Sclerosis with Myelin-specific MRI

RESEARCH MEDICAL STUDENT GRANT (25)

Sunjay Barton, BA

Columbia University College of Physicians and Surgeons
Characterizing the Effects of High Dose Radiation on the Neuroblastoma Tumor Micro-environment

Akshaar N. Brahmhatt, BA

New Jersey Medical School
The Expression of IEX-1 in Peripheral Artery Disease and its Role in Protective Revascularization

Randall Brennehan, PhD

University of Miami Miller School of Medicine
Radiotherapy-induced Tumor Targeting of Oligonucleotide Aptamer-conjugated Immunostimulatory Monoclonal Antibodies

Randy Chang, BS

University of California, Los Angeles
MRI Surveillance of Induced Pluripotent Stem Cells for Stroke Using Gadolinium Nanoparticles

Re-I Chin, BA

Saint Louis University School of Medicine
Correlation and Prognostic Significance of Pre-treatment PET and MRI Parameters on 18F-FDG-PET/MR in Cervical Cancer

Alex Chung

Emory University School of Medicine
An Analysis of Wrong-patient errors in Radiology and Distraction effects of adding Photographs to Radiographs

Daniel Cook

Wake Forest School of Medicine
Associations Between Whole Brain Network Connectivity and Cognitive Function in African Americans with Type-2 Diabetes Mellitus: A Resting-state Functional MRI Graph Theoretical Analysis

John Tuje Ikkena, BA, MPH

Duke University School of Medicine
Prognostic Performance in Mild Cognitive Impairment (MCI) of Two Commercially-available Hippocampal Volumetry Tools

Eric J. Keller

Northwestern University Feinberg School of Medicine
Finding a Common Ethical Language for Healthcare: the Case of Symptomatic Uterine Fibroids

Allison Khoo, BS

MD Anderson Cancer Center
The Biological Mechanism of Tumor Radiosensitization by Conjugated Gold Nanoparticles

Yoon-Jin Kim

Emory University
Comparison of Three View 2D Digital Mammography to Digital Breast Tomosynthesis

James R. Knitter, BS

The University of Arizona College of Medicine
Response Assessment of Cerebral Metastases After High-dose Stereotactic Radiation: Using Combined Diffusion and Perfusion MR Imaging

Michelle Irmgard Knopp

The Ohio State University
PET Imaging Using Low and Ultra-low Dose Techniques in Clinical Care and Research

Andrew Kuei

University of California, Los Angeles
Inpatient Cost and Mortality Assessment of Transjugular Intrahepatic Portosystemic Shunt (TIPS) in the United States from 1997 to 2012

Janesh Lakhoo, BS

University of Illinois in Chicago
Ablative Liver Partition and Portal Vein Embolization (ALP-PVE): Proof of Concept Testing in a Rabbit Model

Daniel Lam

University of Chicago
MRI Microscopy of the Intraparotid Facial Nerve for Preoperative Planning

Eli Lechtman, PhD, MSc

University of Toronto
A Cost-Effectiveness Analysis of Carotid Imaging

Lawrence Lin, BA

Medical College of Wisconsin
Morbidity and Mortality of Inferior Vena Cava Filter Placement: Validation of Data Capture in Clinical Data Warehouse

Alexander Guan-Jey Liu, BS

UT Southwestern Medical Center at Dallas
Principal Component Analysis on DWI and IVIM of the Prostate

Jose Lopez, BS

Duke University School of Medicine
Image-rich Radiology Reports: A Value-Based Model to Improve Clinical Workflow

Milan Manchandia, BS

MGH/HST Martinos Centers for Biomedical Imaging
Dynamic Perfusion and Diffusion-weighted MRI to Quantitatively Differentiate Between Treatment-related Changes and Tumor Recurrence in Patients with High-grade Gliomas

Tamari Andre Miller, BA

University of Chicago
Using MRI to Predict Clinical Outcomes in Patients with Locoregionally Advanced Human Papilloma Positive (HPV+) Oropharyngeal Squamous Cell Carcinoma Treated with Nab-paclitaxel

Paul Russell Roberts, BS

University of Mississippi Medical Center
The Bumpy Road Ahead: Predicting Risk of Development of HCC and Liver Decompensation Using Liver Surface Nodularity Scores

Vidhi Vrajesh Shah

University of Missouri-Kansas City School of Medicine
Visualizing the Difference Between Life and Death: A Comparison of Liver Ultrasound Findings in Children with Sinusoidal Obstruction Syndrome After Bone Marrow Transplantation

Andrew Valenzuela, BS, BA

University of Texas Health Science Center at Houston
Use of Magnetic Resonance Spectroscopy in the Radiogenomic Evaluation of Childhood Neuroblastoma