RSNA R&E Foundation Announces 2015 Grant Recipients

The RSNA Research & Education (R&E) Foundation funded 92 grants totaling $3.6 million. The Foundation’s Board of Trustees thanks the Vanguard companies, individuals and private practices whose generous contributions have made the following grants possible.

RESEARCH SCHOLAR GRANT

Stephen R. Bowen, Ph.D.
University of Washington
Multimodality Quantitative Molecular Imaging for Personalized Radiation Therapy of Lung Cancer Through Differential Tumor Dose Escalation and Functional Lung Avoidance

Rivka Rachel Colen, M.D.
The University of Texas M.D. Anderson Cancer Center
Radiome Sequencing of Glioblastoma: Decoding the Imaging Genomic Landscape and Heterogeneity

Michael David Farwell, M.D., M.A.
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 N. Gan, M.D., Ph.D.
University of New Mexico Cancer Center
Mechanism of Hedgehog Pathway-mediated Radiation-induced Tumor Repopulation

Manu Shri Goyal, M.D., M.Sc.
Washington University School of Medicine
ASNR/RSNA Research Scholar Grant Integrating Brain Imaging and Metabolomics in Malnourished Children

Kathy Han, M.D., M.Sc.
Princess Margaret Cancer Center
University of Toronto
The Potential for Metformin to Improve Tumor Oxygenation in Locally Advanced Cervix Cancer: A Phase II Randomized Trial

Michael Iv, M.D.
Stanford University Medical Center
Using Ferumoxytol-enhanced MRI to Assess Tumor-associated Macrophages in Human Glioblastoma Multiforme

Kevin S. King, M.D.
University of Southern California
Keck School of Medicine
Association of Cerebrovascular Reactivity on BOLD fMRI with Structural Brain Insults and Cognitive Decline in a Community-based Cohort

Pejman Jabeher Maralani, M.D., F.R.C.P.C.
Sunnybrook Research Institute
University of Toronto
Quantitative Blood Oxygenation Level Dependent (qBOLD) MRI for Assessment of Tumor Hypoxia in Glioblastoma Multiforme: Validation with Intra-operative and Histological Correlation

Daniele Marin, M.D.
Duke University Medical Center
Role of the Angiotensin Pathway and Redox State in Carotid Plaque Permeability

Michael A. Ohliger, M.D., Ph.D.
University of California, San Francisco
Non-invasive Monitoring of Liver Inflammation and Fibrosis Using Hyperpolarized Carbon-13 MRI

Habib Rahbar, M.D.
University of Washington
Improving Treatment Outcomes of Ductal Carcinoma in Situ with Breast MRI

Haris Iqbal Sair, M.D.
The Johns Hopkins University

Sarah Beth White, M.D.
Medical College of Wisconsin
Magnetically Triggered Oxaliplatin Release for the Treatment of Colorectal Liver Metastasis

Atul Bhanudas Shinagare, M.D.
Brigham and Women’s Hospital
High Spatio-temporal Resolution Breast MRI: Improving the Characterization of Breast Cancer

Robert A. Page, M.D., M.S.
University of Wisconsin - Madison
The Potential for Metformin to Improve Tumor Oxygenation in Locally Advanced Cervix Cancer: A Phase II Randomized Trial

Janice S. Sung, M.D.
Memorial Sloan Kettering Cancer Center
Clinical Utility of Whole Breast Screening Ultrasound in Patients Undergoing Digital Breast Tomosynthesis

Leo L. Tsai, M.D., Ph.D., M.Sc.
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, Ph.D., M.Sc.
University of Pittsburgh
Breast DCE-MRI Contrast Enhancement Heterogeneity and Breast Cancer Risk
Hooman Yarmohammadi, M.D.
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, M.D.
The Johns Hopkins University School of Medicine
The Dual Energy Extracellular Volume Mapping for Optimized Detection of Focal Myocardial Fibrosis with Cardiac Computed Tomography

RESEARCH SEED GRANT
Kelly L. Cox, D.O.
Emory University
MRI Liver Surface Nodularity Score as a New Noninvasive Biomarker for Chronic Viral Hepatitis

Matthew Scott Davenport, M.D.
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, M.B.B.S.
Rutgers New Jersey Medical School
Novel Gallium Imaging in Hepatocellular Carcinoma

Daniel Thomas Ginat, M.D.
University of Chicago
MRI-guided Minimally Invasive Laser Ablation of Recurrent Head and Neck Squamous Cell Carcinoma with Clinicoradiological Correlation for Treatment Response

RESEARCH RESIDENT/FELLOW GRANT
Waleed Brinjikji, M.D.
Mayo Clinic
Comparison of Efficacy of Standard Neurovascular Coil to Dedicated Carotid Surface Coil in Evaluation of Vulnerable Carotid Plaque

PHILIPS
Stephen J. Hunt, M.D., Ph.D.
University of Pennsylvania
Combining Antivascular Ultrasound and Immune Modulation for Systemic Control in Hepatocellular Carcinoma

FUJIFILM
Value from Innovation
Naveen Kalra, M.B.B.S., M.D.
Postgraduate Institute of Medical Education and Research, Chandigarh, India
Comparison of Virtual CT Enteroscopy with Small Bowel Enteroscopy in Patients with Suspected Small Bowel Tuberculosis

Viviane Khoury, M.D.
University of Pennsylvania
Ultrasonography-guided Dry Needling Therapy for Tendinopathic Rat Supraspinatus Tendon: Histological and Mechanical Effects

PHILIPS
Bruce E. Lehnert, M.D.
University of Washington
Automatic Image Quality Evaluation for CT Protocol Guidance

Yingbing Wang, M.D.
Massachusetts General Hospital
Multiparametric Imaging for Therapy Monitoring in Multiple Myeloma

Kristina Young, M.D., Ph.D.
Providence Portland Medical Center
Targeting Cancer Associated Fibroblasts to Enhance Radiation Efficacy

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Atul Mallik, M.D., Ph.D.
University of Utah
Structural and Functional Imaging Driven Biomarkers for Visual Hallucinations and Dementia with Lewy Bodies

PHILIPS

Colin D. McKnight, M.D.
University of Michigan
Silver Anniversary Campaign Pacesetters Research Fellow Grant
MR Imaging of Oxidative Stress in Amyotrophic Lateral Sclerosis

Matthew M. Miller, M.D., Ph.D.
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 M. Mowery, M.D., Ph.D.
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

Philimo Oh, M.D., Ph.D.
New York University School of Medicine
Enhanced Systemic Anti-tumor Immunity through Combined Radiotherapy and Modification of the Tumor Micro-environment

Anthony Joseph Paravati, M.D., M.B.A.
University of California, San Diego
Phase I Trial of Adaptive Stereotactic Body Radiotherapy (SBRT) Dose Escalation in Pancreatic Cancer

Siemens

Rebecca Rakow-Penner, M.D., Ph.D.
University of California, San Diego
Improved Quantitative Diffusion Magnetic Resonance Imaging of Breast Cancer Using Restriction Spectrum Imaging

Gelareh Sadigh, M.D.
Emory University School of Medicine

Julie Sanders, M.D.
Northwestern University
Feinberg School of Medicine
Ralph Schaefger Charitable Foundation Research Fellow Grant
Multiparametric MRI Combining MR Elastography and 4D Flow MRI in the Diagnosis and Staging of Portal Hypertension and Liver Fibrosis

Tyler M. Seibert, M.D., Ph.D.
University of California, San Diego
Mapping Cortical Vulnerability Associated with Brain Radiotherapy

Navneet Singh, M.D.
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

TOSHIBA

Leading Innovation

Jessica Kelly Stewart, M.D.
Duke University Hospital
Creation of an Extraluminal Subcutaneous Arterial Bypass Graft Using Percutaneous Methods: Feasibility Study in a Porcine Model

Chad Tang, M.D., M.S.
The University of Texas MD Anderson Cancer Center
Investigation of the Immunologic Basis of CT Imaging Features in Non-small Cell Lung Cancer

Elizabeth Tong, M.D.
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, M.D., Ph.D.
Hospital of the University of Pennsylvania
Magnetic Resonance Guidance and Monitoring of Percutaneous Electrochemical Ablation Using a Novel Coaxial Probe Device

Fang Yu, M.D.
The University of Texas Health Science Center in San Antonio
RSNA Presidents Circle Research Resident Grant
Evaluation of Multiple Sclerosis with Myelin-specific MRI

RESEARCH MEDICAL STUDENT GRANT

Sunjay M. Barton, B.A.
Columbia University
College of Physicians and Surgeons
Characterizing the Effects of High Dose Radiation on the Neuroblastoma Tumor Micro-environment

Akshaar N. Brahmbhatt, B.A.
New Jersey Medical School
The Expression of IEX-1 in Peripheral Artery Disease and its Role in Protective Revascularization

Randall Brenneman, Ph.D.
University of Miami Miller School of Medicine
Radiotherapy-induced Tumor Targeting of Oligonucleotide Aptamer-conjugated Immunostimulatory Monoclonal Antibodies

Re-i Chin, B.A.
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, B.A.
Emory University School of Medicine
An Analysis of Wrong-patient Errors in Radiology and Distraction Effects of Adding Photographs to Radiographs

Canon

Daniel K. Cook, B.S.
Wake Forest School of Medicine
Association 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 Ikhen, B.A., M.P.H.
Duke University School of Medicine
Prognostic Performance in Mild Cognitive Impairment (MCI) of Two Commercially-available Hippocampal Volumetry Tools

Eric J. Keller, B.A., B.S.
Northwestern University
Feinberg School of Medicine
Finding a Common Ethical Language for Healthcare: the Case of Symptomatic Uterine Fibroids

Allison Khoo, B.S.
The University of Texas
M.D. Anderson Cancer Center
The Biological Mechanism of Tumor Radiosensitization by Conjugated Gold Nanoparticles

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Comparison of Three View 2D Digital Mammmography to Digital Breast Tomosynthesis

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Comparison of Three View 2D Digital Mammmography to Digital Breast Tomosynthesis
James R. Knitter, B.S.
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, B.A.
The Ohio State University
RSNA Research Medical Student Grant
PET Imaging Using Low and Ultra-low Dose Techniques in Clinical Care and Research

Andrew Kuei, B.S.
University of California, Los Angeles
Inpatient Cost and Mortality Assessment of Transjugular Intrahepatic Portosystemic Shunt (TIPS) in the United States from 1998 to 2012

Janesh Lakhoo, B.S.
University of Illinois
College of Medicine at Chicago
Ablative Liver Partition and Portal Vein Embolization (ALP-PVE): Proof of Concept Testing in a Rabbit Model

Daniel Lam, B.A.
University of Chicago
MRI Microscopy of the Intraparotid Facial Nerve for Preoperative Planning

Eli Lechman, Ph.D., M.Sc.
University of Toronto
A Cost-effectiveness Analysis of Carotid Imaging

Lawrence Lin, B.A
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, B.S.
UT Southwestern Medical Center at Dallas
Principal Component Analysis on DWI and IVIM of the Prostate

Jose Lopez, B.S.
Duke University School of Medicine
Image-rich Radiology Reports: A Value-Based Model to Improve Clinical Workflow

Milan Manchandia, B.S.
Massachusetts General Hospital
Harvard Medical School
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, B.A.
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, B.S.
University of Mississippi Medical Center
The Bumpy Road Ahead: Predicting Risk of Development of HCC and Liver Decompensation Using Liver Surface Nodularity Scores

Bidhi Vrajesh Shah
University of Missouri - Kansas City
School of Medicine
Children’s Mercy Hospital and Clinics
Visualizing the Difference Between Life and Death: A Comparison of Liver Ultrasound Findings in Children with Sinusoidal OB.S.traction Syndrome After Bone Marrow Transplantation

Andrew Valenzuela, B.S., B.A.
The University of Texas
Health Science Center at Houston
Use of Magnetic Resonance Spectroscopy in the Radiogenomic Evaluation of Childhood Neuroblastoma

Emily J. Botzolakis, M.D., Ph.D.
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, M.D.
Memorial Sloan Kettering Cancer Center
Interactive Screening Mammography Teaching Set: An Effective Tool to Improve Performance?

David B. Larson, M.D., M.B.A.
Stanford University
The Radiology Improvement Team Education Program

Shaunagh McDermott, F.F.R. R.C.S.I.
Massachusetts General Hospital
Online Educational Tool for Implementation and Interpretation of Low-dose CT for Lung Cancer Screening (Ed-LSC)

Anders Persson, M.D., Ph.D.
Linköping University, Sweden
Derek Harwood-Nash Education Scholar Grant
RadSim: Simulation based Training Program for CT Protocol, Iterative Reconstruction and Dual Energy Applications

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

GE Healthcare

Lonie R. Salkowski, M.D.
University of Wisconsin - Madison
School of Medicine and Public Health
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, Ph.D.
University of Kentucky
Curriculum Development for Hands-on Physics Education of Residents in Diagnostic Radiology

RSNA/AUR/APDR/SCARD
RADIOLOGY EDUCATION
RESEARCH DEVELOPMENT GRANT

Justin Cramer, M.D.
University of Utah

Osamu Kaneko, M.D., Michael Muelly, M.D., and Jason Oppenheimer, M.D.
Stanford University Hospital and Clinics
Imaging Top 10: An Engaging and Interactive Radiology Simulation App for the Medical Student

Melissa McCutcheon Picard, M.D. and Jeanne G. Hill, M.D.
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

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EducaTion Scholarship Grant

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Hospital of the University of Pennsylvania
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