INSPIRE · INNOVATE · INVEST

RSNA®
R&E
FOUNDATION

2016 RSNA R&E Foundation

GRANTS & AWARDS

Funding Radiology's Future®

Growth is always exciting to witness, and it has been prevalent this year for the RSNA Research & Education Foundation. In 2016, the Foundation is supporting a record breaking 101 research and education grant projects totaling $4 million. The 2016 recipients across 54 institutions throughout North America and abroad, demonstrate a true commitment to the research and education endeavors of so many inspiring individuals impacting our collective futures.

Equally exciting is an increase in the percentage of applications that the R&E Foundation was able to fund. This year, the R&E Foundation funded 30% of the grants it received, up from 25% in recent years.

In total, the R&E Foundation has awarded more than $50 million to fund 1,300 projects, improving patient care by supporting research and education in radiology and related scientific disciplines. Making all this possible is the continuing momentum of Inspire-Innovate-Invest: The Campaign for Funding Radiology's Future®. Through this initiative, the R&E Foundation seeks to raise $17.5 million to meet the growing demand for grants, bridging the gap in funding for promising investigators and educators.

While the Campaign has already accrued two-thirds of its goal, there remains vast opportunity to support the R&E Foundation in the Campaign's final chapter. This grant funding to individuals and institutions is the single most important way to directly support the future of our specialty. We are proud that you are a part of that legacy.

Thank you for supporting the Foundation.

Sincerely,
Burton P. Drayer, MD
Chairman, R&E Foundation
Board of Trustees

2016

Read full grant abstracts and see how R&E Foundation grant recipients are making a difference at
RSNA.org/Grant_Search

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GRANT AND AWARD DESCRIPTIONS

RESEARCH SCHOLAR GRANT

Our premier career development grant transitions junior faculty to independent investigators. Funding protects research time to conduct complex projects under the guidance of a mentor and scientific advisor in preparation for NIH funding. Two-year grant of $150,000.

RESEARCH RESIDENT/FELLOW GRANT

This grant provides investigators a chance to explore powerful ideas. Working alongside an experienced advisor, trainees gain insight into specific investigation and practice research methods and techniques; it is a catalyst to pursue research at a critical point in a radiologist's career. One-year grant of $30,000/$50,000.

EDUCATION SCHOLAR GRANT

Innovation in education can transform the way radiologists learn, understand and care for patients. This grant encourages development of new methods of teaching and evaluation and enables effective delivery for lifelong learning. One-year grant of up to $75,000.

RESEARCH SEED GRANT

Every great discovery starts with a spark. This grant provides seed money to test hypotheses and conduct pilot studies in preparation for major grant applications to corporations, foundations and government agencies. One-year grant of up to $40,000.

RESEARCH MEDICAL STUDENT GRANT

Exposure to radiology research in medical schools ignites a passion for the specialty. With support of the community and a network of mentors, a summer project can turn into a career-long pursuit of research and discovery. Grant of $3,000, matched by the sponsoring department.

ROENTGEN RESIDENT/FELLOW RESEARCH AWARD

The Foundation recognizes and encourages trainees who have made significant contributions to radiologic research as evidenced by presentations at regional or national meetings, publication of scientific papers, receipt of research grants and other research activities.

Where Do Your Donations Go?
Low overhead puts more of your donations toward grant funding

- Administration **3%**
- Fundraising **4%**
- **93%** Grant Programs

How Are Grant Dollars Distributed?
Percent of grant dollars awarded by grant type in 2016

- Education **13%**
- Resident and Fellow Trainees **28%**
- Junior Faculty and Career Development **42%**
- Seed and Pilot Studies **15%**
- Medical Students **2%**

RECOGNITION AND THANKS

Through the generosity of our donors, the RSNA R&E Foundation is able to continue its investment in R&D for radiology.

The Foundation wants to provide special acknowledgment for the distinguished individuals and the Visionaries in Practice (VIP) program donors who have established endowments and awards in their names or in the names of those honored.

Austin Radiological Association
Derek Harwood-Nash, MD
Martin R. Prince, MD, PhD
Ralph Schlaeger Charitable Foundation
RSNA Presidents Circle
Silver Anniversary Campaign Pacesetters
Strategic Radiology

The Foundation is grateful for the major contributions from corporate donors through the Vanguard program.
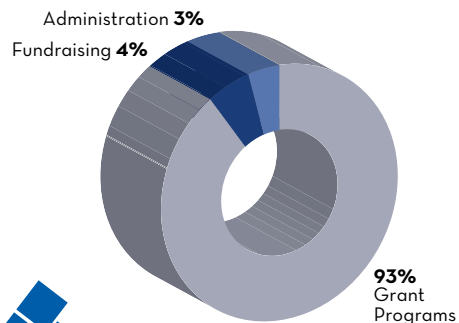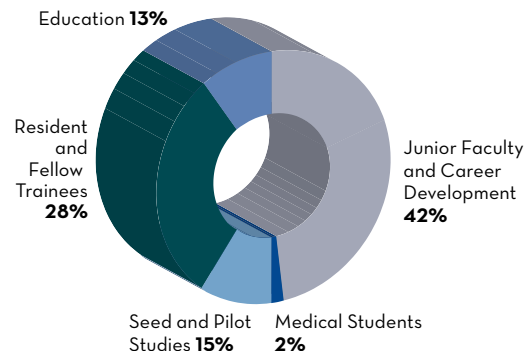
AGFA HealthCare

BAYER

BRACCO
LIFE FROM INSIDE

Canon
SEE IMPOSSIBLE

Carestream

COOK MEDICAL

FUJIFILM
Value from Innovation

GE Healthcare

Guerbet

HITACHI
Inspire the Next

HOLOGIC
The Science of Sure

PHILIPS

SIEMENS
Healthineers

TOSHIBA MEDICAL

VARIAN
medical systems

RESEARCH SCHOLAR GRANT

"My research team will challenge the current clinical practice that all women who undergo neoadjuvant chemotherapy (NAC) for operable breast cancer must still undergo surgery. This first-in-human clinical trial has the potential to be a major paradigm shift in the treatment of breast cancer, ultimately offering a cost-effective, minimally invasive alternative that preserves the breast—to many, the hallmark and essence of femininity."

— Elizabeth J. Sutton, MD

2016 – 2018 Guerbet/RSNA Research Scholar Grant Recipient

Jalal B. Andre, MD

University of Washington

RSNA Research Scholar Grant
Evaluating the Prevalence, Temporal Etiology, and Cost of Patient Motion During Clinical MR Examinations

Rivka Rachel Colen, MD

The University of Texas MD Anderson Cancer Center

Agfa HealthCare/RSNA Research Scholar Grant
Radiome Sequencing of Glioblastoma: Decoding the Imaging Genomic Landscape and Heterogeneity

David Dreizin, MD

University of Maryland School of Medicine and R Adams Cowley Shock Trauma Center

RSNA Research Scholar Grant
Development and Validation of an MDCT-based Decision Support and Outcome Prediction Tool for Bleeding Pelvic Fractures Using Semi-automated Volumetric Hematoma Analysis and Probabilistic Modeling
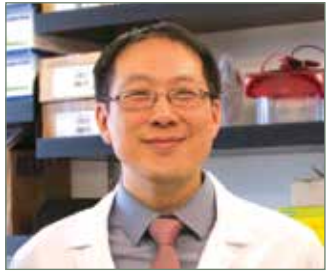
Michael David Farwell, MD, MA

Hospital of the University of Pennsylvania

RSNA Research Scholar Grant
Development of a Reporter Gene for In Vivo PET Imaging of Chimeric Antigen Receptor (CAR) T Cells Directed at Solid Tumors

Gregory N. Gan, MD, PhD

University of New Mexico Cancer Center

RSNA Research Scholar Grant

Mechanism of Hedgehog Pathway-mediated Radiation-induced Tumor Repopulation

Manu Shri Goyal, MD, MSc

Washington University School of Medicine

ASNR/RSNA Research Scholar Grant

Integrating Brain Imaging and Metabolomics in Malnourished Children

Richard S. Ha, MD

Columbia University

RSNA Research Scholar Grant

The Effect of Ulipristal Acetate (UPA) on Breast Cell Proliferation Measured by Ki-67 and Breast MRI BPE and its Potential as a Chemoprevention Agent

Kathy Han, MD, MSc

Princess Margaret Cancer Center
University of Toronto

RSNA Research Scholar Grant

The Potential for Metformin to Improve Tumor Oxygenation in Locally Advanced Cervix Cancer: A Phase II Randomized Trial

Kate Hanneman, MD

University of Toronto

GE Healthcare/RSNA Research Scholar Grant

Exploring the Relationship Between Left Ventricular Outflow Tract Obstruction, Exercise-induced Troponin Release and Myocardial Fibrosis in Hypertrophic Cardiomyopathy Using Molecular and Imaging Biomarkers

GE Healthcare

Jeremy Josef Heit, MD, PhD

Stanford University

Bracco Diagnostics Inc./RSNA Research Scholar Grant

Resting State Spontaneous Fluctuations of the BOLD Signal for Penumbra Assessment in Endovascular Stroke Candidates
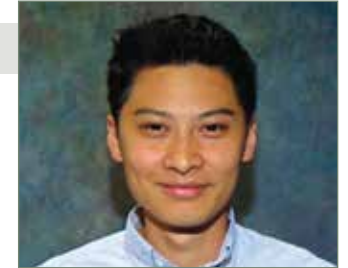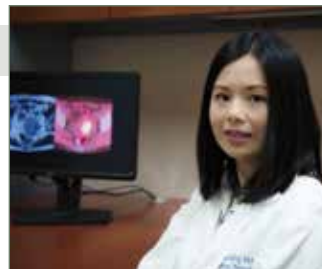
BRACCO
LIFE FROM INSIDE

Michael Iv, MD

Stanford University Medical Center

RSNA Research Scholar Grant

Using Ferumoxytol-enhanced MRI to Assess Tumor-associated Macrophages in Human Glioblastoma Multiforme

Austin Kirschner, MD, PhD

Vanderbilt University

RSNA Research Scholar Grant

Mechanism of PIM1 Kinase-mediated Radiosensitization for Prostate Cancer Treatment

Pejman Jabehdar Maralani, MD, FRCPC

Sunnybrook Research Institute, University of Toronto

RSNA Research Scholar Grant

Quantitative Blood Oxygenation Level Dependent (qBOLD) MRI for Assessment of Tumor Hypoxia in Glioblastoma Multiforme: Validation with Intra-operative and Histological Correlation
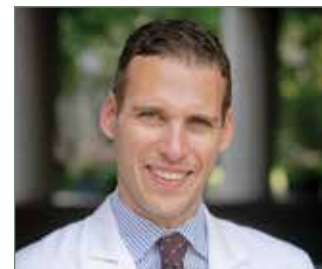
Daniele Marin, MD

Duke University Medical Center

RSNA Research Scholar Grant

Decreased Variability for Robust Imaging-based Quantification of Tumor Heterogeneity

Rajni Natesan, MD, MBA

The University of Texas MD Anderson Cancer Center

Carestream Health/RSNA Research Scholar Grant

Impact of the Updated 2015 American Cancer Society and 2016 United States Preventive Services Task Force Breast Cancer Screening Guidelines on Screening Mammography Utilization Rates and Screen-detected Breast Cancer Across Demographic Groups in the Greater Houston Area
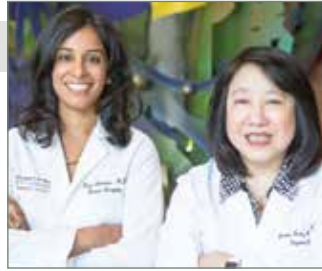
Rajni Natesan, MD, MBA, (left) with scientific advisor Jessica Leung, MD

Matthew J. Nyflot, PhD

University of Washington

RSNA Research Scholar Grant

Quantitative Sulfur Colloid SPECT/CT Radiomics to Guide Precision Radiotherapy for Patients with Hepatocellular Carcinoma

Elizabeth J. Sutton, MD

Memorial Sloan Kettering Cancer Center

Guerbet/RSNA Research Scholar Grant

Percutaneous Breast MRI Biopsy as an Alternative to Surgery in Diagnosing a Complete Pathologic Response Post Neoadjuvant Chemotherapy
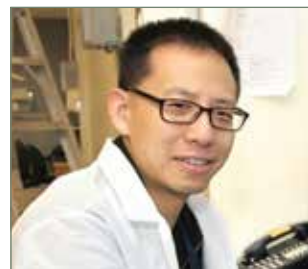
Leo L. Tsai, MD, PhD, MSc

Beth Israel Deaconess Medical Center

Agfa HealthCare/RSNA Research Scholar Grant

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

GE Healthcare/RSNA Research Scholar Grant

Breast DCE-MRI Contrast Enhancement Heterogeneity and Breast Cancer Risk

Hooman Yarmohammadi, MD

Memorial Sloan Kettering Cancer Center

RSNA Research Scholar Grant

Combined Blocking of Aerobic and Anaerobic Glycolytic Metabolism Pathways in Improving Treatment Response Following Transarterial Embolization of Hepatocellular Carcinoma

Takeshi Yokoo, MD, PhD

UT Southwestern Medical Center

Siemens Healthineers/RSNA Research Scholar Grant

Validation of Optimized Dixon-based MRI Techniques for Noninvasive Evaluation of Renal Steatosis

Stefan L. Zimmerman, MD

Johns Hopkins University School of Medicine

RSNA Research Scholar Grant

Dual Energy Extracellular Volume Mapping for Optimized Detection of Focal Myocardial Fibrosis with Cardiac Computed Tomography

RESEARCH SEED GRANT

Anil Chauhan, MD

University of Pennsylvania

RSNA Research Seed Grant

Acoustic Radiation Forced Impulse Shear Wave Velocity of Abdominal Wall Musculature for Clinical Hernia Risk Prediction

Derik L. Davis, MD

University of Maryland School of Medicine

Hitachi Medical Systems/RSNA Research Seed Grant

Quantitative MRI of the Shoulder in Older Adults: A Pilot Study to Evaluate the Association of Intramuscular Fatty Infiltration, Functional Outcome and Re-tear Rate Following Surgical Repair of Rotator Cuff Tears

HITACHI
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Priyanka Jha, MBBS

University of California, San Francisco

RSNA Research Seed Grant

Noninvasive In Vivo Hyperpolarized [1-13C] Pyruvate Magnetic Resonance Imaging to Detect Alterations in Placental Metabolism in Gestational Hypertensive Disorders in a Small Animal Model

Avinash Ramesh Kambadakone, MD

Massachusetts General Hospital

Toshiba America Medical Systems/RSNA Research Seed Grant

Multi-parametric DECT Assessment of Therapeutic Response to Neo-adjuvant Chemo Radiation in Pancreatic Cancer Patients to Determine Surgical Resectability

TOSHIBA MEDICAL

Alexander Lerner, MD

University of Southern California

Philips/RSNA Research Seed Grant

Utility of Contrast Enhanced Ultrasound and 4DCT for Preoperative Detection and Localization of Parathyroid Adenomas

PHILIPS

Using his 2016 Hitachi Medical Systems/RSNA Research Seed Grant, Derik L. Davis, MD, will evaluate the association of intramuscular fatty infiltration, functional outcomes and re-tear rate following surgical repair of rotator cuff tears.

"Successful completion of this research may provide clinical radiologists, orthopaedic surgeons and rehabilitation specialists with a new paradigm to improve treatment of rotator cuff tears over the current standard of care."

— **Derik L. Davis, MD**

2016 Hitachi Medical Systems/RSNA Research Seed Grant Recipient

Sara Lewis, MD

Mount Sinai Medical Center

RSNA Research Seed Grant
MRI-based Surrogate Imaging Markers of Transcriptome Subclasses and Signatures in Hepatocellular Carcinoma

Timur Mitin, MD, PhD

Oregon Health & Science University

Toshiba America Medical Systems/RSNA Research Seed Grant
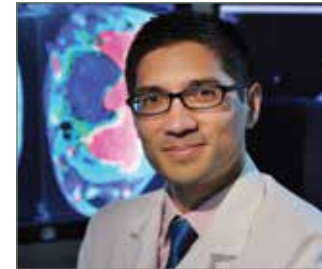Novel Imaging of Lymph Nodes in Patients with Rectal Cancer Using Ferumoxytol-enhanced MRI

Nima Nabavizadeh, MD

Oregon Health & Science University

RSNA Research Seed Grant
Circulating Tumor DNA in Plasma of Patients Undergoing Trimodality Therapy for Esophageal Cancer: A Potential Tool for Neoadjuvant Treatment Response Assessment

Thanh Binh Nguyen, MD

The Ottawa Hospital, University of Ottawa

Bayer HealthCare/RSNA Research Seed Grant
Preoperative Identification of Isocitrate Dehydrogenase Mutation in Gliomas using MR Spectroscopy, Diffusion-weighted and Perfusion-weighted Imaging

O. Kenechi Nwawka, MD

Hospital for Special Surgery, New York

RSNA Research Seed Grant
Use of Elastography to Quantify Change in Upper Extremity Muscle Spasticity Following Botox Injection in Children with Spastic Cerebral Palsy

Prashant Raghavan, MD

University of Maryland

RSNA Research Seed Grant
Neural Network Disruption in Perinatal Hypoxic Ischemic Injury as a Predictor of Neurodevelopmental Outcome

Ty Kanyn Subhawong, MD

University of Miami

Toshiba America Medical Systems/RSNA Research Seed Grant
Semi-automated qMRI to Assess Desmoid Tumor Volumetric and Stromal Changes Induced by Systemic Therapy

Mubin Isaac Syed, MD

Dayton Interventional Radiology

Cook Medical Cesare Gianturco/RSNA Research Seed Grant
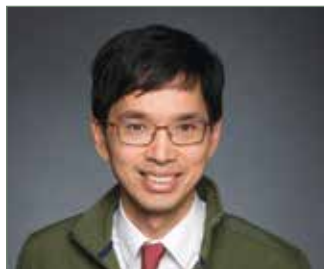Gastric Artery Embolization Trial for LEssening Appetite Nonsurgically Part 2 (GET LEAN II)

Aradhana Mukherjea Venkatesan, MD

The University of Texas
MD Anderson Cancer Center

Toshiba America Medical Systems/RSNA Research Seed Grant
Functional and Metabolic Imaging Biomarkers of Radiation Response in High Risk HPV+ Tumors

Etay Ziv, MD, PhD

Memorial Sloan Kettering Cancer Center

RSNA Research Seed Grant
Signaling Pathways Predictive of Response to Radioembolization of Colorectal Liver Metastases

RESEARCH RESIDENT/FELLOW GRANT

Despite ongoing advances in neurocritical care, there continues to be no readily available clinical tool for objective measurement of brain activity in comatose patients.

2016 RSNA Research Resident Grant recipient Allen Ardestani, MD, PhD, will investigate the use of near-infrared spectroscopy to quantify neural network connectivity in unconscious patients. Quantitative assessment of neural activity and its correlation with subsequent neurologic outcome may provide a diagnostic and prognostic methodology for the objective assessment of neural injury following an injury to the brain.
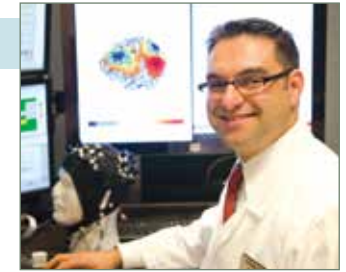
— **Allen Ardestani, MD, PhD**
2016 RSNA Research Resident Grant Recipient

Allen Ardestani, MD, PhD

Cedars-Sinai Medical Center

RSNA Research Resident Grant
Near-infrared Spectroscopy of the Resting Brain for Predicting Neurologic Outcomes in the Comatose Patient

Divya S. Bolar, MD, PhD

Massachusetts General Hospital

Bracco Diagnostics Inc./RSNA Research Resident Grant
Using Novel MRI Techniques to Identify Hemodynamic and Metabolic Parameters Predictive of Cognitive Outcome after Carotid Endarterectomy

Paco E. Bravo, MD

Brigham and Women's Hospital

RSNA Research Fellow Grant
Somatostatin Receptor-targeted Imaging in Patients with Suspected Cardiac Sarcoidosis
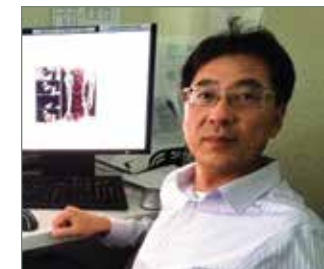
Baocheng Chu, MD, PhD

University of Washington

RSNA Research Fellow Grant
A High-resolution 3D Isotropic MR Sequence for Combined MRA and Vessel Wall Assessment of Intracranial Vascular Diseases

Neal Corson, MD, PhD

University of California, San Diego

RSNA Research Resident Grant
MRI-derived Cellularity Index as a Potential Noninvasive Imaging Biomarker for Renal Cell Carcinoma

Pippa Cosper, MD, PhD

Washington University in St. Louis

RSNA Research Resident Grant
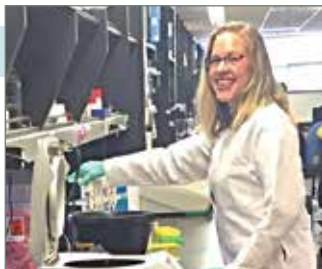Identifying Human and Viral Transcriptional Profiles in Cervical Tumors During Chemoradiation that Can Predict for Treatment Response

Jamal J. Derakhshan, MD, PhD

University of Pennsylvania

Siemens Healthineers/RSNA Research Fellow Grant
Feasibility Assessment and Technical Development of Noninvasive Globe Temperature Measurement and Mapping Using DWI-thermometry MRI

Jamal J. Derakhshan, MD, PhD, with co-investigator and past R&E grant recipient Laurie A. Loevner, MD

Rahul S. Desikan, MD, PhD

University of California, San Francisco

Ralph Schlaeger Charitable Foundation Research Fellow Grant
An Automated Atlas of the Human Brainstem and Cerebellum

Rebecca A. Dumont Walter, MD

University of California, San Francisco

RSNA Research Fellow Grant
Exploiting Bacterial Iron Metabolism for Spinal Infection Imaging with Positron Emission Tomography

Laura Burns Eisenmenger, MD

University of Utah

RSNA Research Resident Grant
Development of an MRI-compatible Vessel Wall Inflammation Animal Model

Christine Elissa Eyler, MD, PhD

Dana Farber Cancer Institute

Varian Medical Systems/RSNA Research Resident Grant
Integrated Epigenomic Analysis to Identify Determinants of Radiation Response in Mouse Lung Tumors Treated with Image-guided Conformal Radiotherapy

Erin Gillespie, MD

University of California, San Diego

RSNA Research Resident Grant
Develop and Test a Novel Interactive Contouring Atlas for Radiation Oncology

George Daniel Grass, MD, PhD

University of South Florida/H. Lee Moffitt Cancer Center & Research Institute

RSNA Research Resident Grant
Targeting Metabolic Complexes in Small Cell Lung Cancer to Augment Radiosensitivity

Aaron Joseph Grossberg, MD, PhD

The University of Texas MD Anderson Cancer Center

RSNA Research Resident Grant
The Role of Orexin Signaling in Brain Radiation-induced Fatigue

Pedram Heidari, MD

Massachusetts General Hospital

RSNA Research Resident Grant
Redifferentiation of Neuroendocrine Carcinomas for Improved Efficacy of Molecularly Targeted Radiotherapy
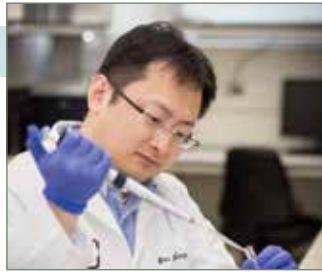
Pedram Heidari, MD, (left) with scientific advisor and past R&E grant recipient Umar Mahmood, MD, PhD

Wen Jiang, MD, PhD

The University of Texas MD Anderson Cancer Center

RSNA Research Resident Grant

Combining Radiation with Phosphatidylserine Blockade Promotes Immunogenic Phagocytosis and Generates Long-lasting Anti-tumor Immunity

Sarah N. Khan, MD

University of California, Los Angeles

Philips/RSNA Research Resident Grant

Tumor MicroRNA Expression Profiles as Biomarkers for Predicting Hepatocellular Carcinoma Tumor Response to Y90 Radioembolization

PHILIPS

Sarah N. Khan, MD, with scientific advisor and past R&E grant recipient Edward Lee, MD, PhD

Benjamin H. Lok, MD

Memorial Sloan Kettering Cancer Center

Philips/RSNA Research Resident Grant

Utilizing a Novel [^{18}F]PARPi PET Radiotracer to Predict the Efficacy of PARP Inhibitor Radiosensitization in Small Cell Lung Cancer

PHILIPS

Jonathon Kirk Maffie, MD, PhD

Columbia University

Prince Research Resident Grant

Anatomical Covariance of Fetal Brain Regions as a Tool to Identify Early Developmental Pathology of Intrinsic Brain Networks

Hugh C.J. McGregor, MD

University of California, San Francisco

RSNA Research Fellow Grant

In Vivo Endothelial Cell Gene Expression Analysis of Venous Outflow Stenoses in Hemodialysis Arteriovenous Fistulas Utilizing a Novel Endovascular Sampling Technique

Amanda M. Murphy, MD, PhD

University of Toronto

RSNA Research Fellow Grant

VIPER-DCI: Vascular-Perfusion Imaging for Prediction and Early Recognition of DCI and Relationship to Clinical Outcome

Michael F. Regner, MD

University of Colorado

Hitachi Medical Systems/RSNA Research Resident Grant

Insular Inhibitory Neuromodulation to Reduce Cigarette Craving and Alter Brain fMRI Connectivity and Activity Patterns in Smokers

HITACHI
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Michael F. Regner, MD, with scientific advisor and past R&E grant recipient Jody L. Tanabe, MD

Pavel Rodriguez, MD

The University of Texas Health Science Center at San Antonio

RSNA Presidents Circle Research Resident Grant

Pilot Phase II Clinical Trial: Efficacy of Methylene Blue in Mild Cognitive Impairment

Ashley Sekhon, MD

The Ohio State University

FUJIFILM Medical Systems/RSNA Research Resident Grant

Feasibility of Creating a Cosmetic Image Analysis Objective (CIAO) Scoring Tool for Evaluation of Cosmetic Results From Breast Conserving Therapy

FUJIFILM
Value from Innovation

Mark Anthony Sellmyer, MD, PhD

University of Pennsylvania

Philips/RSNA Research Resident Grant

Multifunctional PET Radiotracers for Quantitative Reporter Gene and Bacterial Imaging

PHILIPS

Sina Tavakoli, MD

University of Washington

RSNA Research Fellow Grant

MR Spectroscopy of Carotid Artery: An NMR Metabolomics Approach to Characterize Bioenergetic Divergence of Macrophages in Vulnerable Atherosclerotic Plaques

Michael C. Veronesi, MD, PhD

The University of Chicago

Silver Anniversary Campaign Pacesetters Research Fellow Grant

Validation of PET/CT Radiolabeled Nanoparticle Imaging for Intranasal Drug Delivery to the Brain

Daniel Richard Wahl, MD, PhD

University of Michigan

RSNA Research Resident Grant

Inhibiting Isocitrate Dehydrogenase 1-mediated Reductive Biosynthesis to Augment Glioblastoma Therapy

Eric Wehrenberg-Klee, MD

Massachusetts General Hospital

RSNA Research Fellow Grant

HER3 PET Imaging for HER2+ Breast Cancer Adaptive Therapy Guidance

Kaveh Zakeri, MD, MAS

University of California, San Diego

RSNA Research Resident Grant

Restriction Spectrum Imaging as a Novel Biomarker of Treatment Response in Cervical Cancer

RESEARCH MEDICAL STUDENT GRANT

2016 RSNA Research Medical Student Grant recipient Angel Morán, BS, with scientific advisor Tokihiro Yamamoto, PhD, and Megan Daly, MD, will investigate the utility of computed tomography (CT)/18F-FDG positron emission tomography (PET) multimodality imaging-based radiomics for personalized risk stratification of locally advanced non-small cell lung cancer (LA-NSCLC).

"If validated, this approach could potentially be utilized to personalize treatment for LA-NSCLC and improve clinical outcomes."

— Angel Morán, BS

2016 RSNA Research Medical Student Grant Recipient

Thomas Battey, BS

University of Maryland

RSNA Research Medical Student Grant
Prediction of Post-traumatic Abdominal Compartment Syndrome Using Computed Tomography and Semi-automated Segmentation of Intra-abdominal Fluid Volumes

Mark Alexander Forsberg, BS

Thomas Jefferson University

Canon U.S.A./RSNA Research Medical Student Grant
Evaluation of Fluoroscopic Image Quality Using Quantitative Metrics Derived From Clinical Images

Mansur Ghani, BS

Yale University

RSNA Research Medical Student Grant
Early Survival Prediction After Radioembolization for HCC: A 3D Quantitative MRI Assessment of Tumor Response

Christopher Thomas Hensley, PhD

UT Southwestern Medical Center

RSNA Research Medical Student Grant
Understanding the Cellular Origins of Tumor Tracer Data in Non-small Cell Lung Cancer Tumors

Xiaojing Huang, PhD

Washington University in St. Louis

RSNA Research Medical Student Grant
Effect of Glucose Metabolism on Sensitivity to Chemoradiation in Cervical Cancer Cells

Manoj Jagani, BS

Mayo Clinic, Minnesota

RSNA Research Medical Student Grant
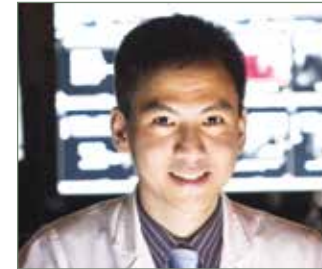RNA Sequencing Analysis and Quantification of Intracranial Gadolinium Deposition in a Rat Model

Brian Gabriel Jiang, BS

Duke University

RSNA Research Medical Student Grant
Optimization of a Frequency-based Fusion Technique for Improving the Image Quality on Low Energy Virtual Monochromatic Images From Dual Energy CT

Aasheesh Kanwar, BS

The University of Texas MD Anderson Cancer Center

RSNA Research Medical Student Grant
Radiomic Assessment of Oropharyngeal Cancers Treated with Radiation Therapy: Predictive and Prognostic Quantitative Imaging Biomarkers From CT Texture Analysis

Mike Kwon, MSBME

University of Southern California

RSNA Research Medical Student Grant
Lacunar Viewpoint of Renal Masses: A Quantitative Technique

Howard Jinsoo Lee, BA

Enrolled at Duke University Medical School Research conducted at University of Washington

RSNA Research Medical Student Grant
Correlation of Functional Imaging Heterogeneity in Lung Cancer Radiation Treatment to Clinical Outcomes of Toxicity and Efficacy with SPECT/CT Ventilation/ Perfusion Scans and FDG PET/CT Scans

Shruti Mishra, BS

Washington University in St. Louis

RSNA Research Medical Student Grant
Quantitative Assessment of In Vivo Tau Pathology in Preclinical Alzheimer Disease and Early Dementia

Angel Morán, BS

University of California, Davis

RSNA Research Medical Student Grant
Combined PET/CT-based Radiomics Modeling for Locally Advanced Non-small Cell Lung Cancer: Toward Personalized Radiotherapy

Michael Nguyentat, BA

University of California, Irvine

RSNA Research Medical Student Grant
Risk Assessment of Prostate Lesions by Utilizing Multiparametric MRI PIRADSv2 and MRI/Transrectal Ultrasound (TRUS) Fusion Biopsy

Jean-Pierre Obeid, BS

University of Miami

Philips/RSNA Research Medical Student Grant
Multiparametric Evaluation of Preoperative MRI in Early Stage Breast Cancer: Prognostic Impact of Peri-tumoral Fat

PHILIPS

Jeremy Paluch, BS

University of Southern California

RSNA Research Medical Student Grant
Utility of Shear Wave Elastography to Assess Liver Fibrosis in Liver Transplant Patients with Chronic Liver Disease

Neil Panjwani, BSE

University of California, San Diego

RSNA Research Medical Student Grant
Develop and Test a Novel Interactive Contouring Atlas for Radiation Oncology

Neil Panjwani, BSE, (center) with collaborator Erin Gillespie, MD, and scientific advisor James Murphy, MD, MS

Sherveen Nick Parivash, MS

Enrolled at Duke University Medical School Research conducted at Stanford University

RSNA Research Medical Student Grant
Characterizing the Radiologic Abnormalities Observed in Chronic Fatigue Syndrome and Assessing the Potential Use of Advanced MRI in Clinical Diagnosis

Benjamin Vincent Park, PhD

University of Illinois at Chicago

RSNA Research Medical Student Grant
Histological Evaluation of Radiologic Diagnosis in HCC Patients After Y90 Radioembolization

Charles Puza, BA

Duke University

RSNA Research Medical Student Grant
Investigation of Mechanisms of Thermal Ablation Zone Enlargement When Combined with Transarterial Embolization for Treatment of Liver Tumors

Omid Shearkhani, HBSc

University of Toronto

RSNA Research Medical Student Grant
Developing and Evaluating the Accuracy of a Jacobian Operator-based Vector Displacement Field Technique to Detect Volume Changes of Metastatic Brain Tumors in Serial MR Imaging of the Brain

Jacob Scott Thurston, BS

Medical College of Wisconsin

FUJIFILM Medical Systems/RSNA Research Medical Student Grant

Cost-effective Analysis of Percutaneous Femoral Artery Access in Endovascular Aortic Repair

FUJIFILM
Value from Innovation

Chidubem Godwin Ugwueze, MS

University of Southern California

RSNA Research Medical Student Grant

Three Dimensional Texture Analysis of Perirenal Fat as an Image Based Predictor of Intra-operative Adherent Perinephric Fat

Janis Yee, BA

University of Southern California

RSNA Research Medical Student Grant

Time Intensity Curve Analysis of Contrast Enhanced Ultrasound in Renal Masses

Jason Yoon, BA

Washington University in St. Louis

RSNA Research Medical Student Grant

Next-generation Radioimmunotherapy: Characterizing Fully Human Monoclonal Anti-CD20 Antibodies Labeled with Zirconium-89

Andrew Zureick, AB

*Enrolled at University of Michigan Medical School
Research conducted at Massachusetts General Hospital*

RSNA Research Medical Student Grant

Quantitative MRI Analysis of Radiotherapy-induced Structural, Functional and Developmental Changes in the Brain: Potential Predictors of Adverse Neurocognitive Effects in Pediatric Brain Tumor Survivors

EDUCATION SCHOLAR GRANT

With her 2015 GE Healthcare/RSNA Education Scholar Grant, Bhavya Rehani, MD, launched RISE: Radiology International Student Education, a web-based educational program which provides virtual classroom remote access with interactive hands-on training to international radiology residents and faculty during real time radiology lectures in the U.S. Neuroradiology lectures at San Francisco General Hospital were presented to radiology residents at Kenyatta National Hospital in Nairobi, Kenya. The progam is currently being expanded to other sites.

— **Bhavya Rehani, MD**
2015-2017 GE Healthcare/RSNA Education Scholar Grant Recipient

Andres R. Ayoob, MD

University of Kentucky

Philips/RSNA Education Scholar Grant
Development of a Web-based Curriculum to Prepare Diagnostic Radiology Residents During their Post-graduate Year 1 by Promoting Learning via Retrieval Practice and Spaced Repetition

PHILIPS

Indranil Mallick, MD, DNB

Tata Medical Center, Kolkata, India

GE Healthcare/RSNA Education Scholar Grant
AVARO - Applied Virtual Anatomy for Radiation Oncology: Teaching Radiological Anatomy for Target Delineation and Image Guidance Using Interactive Online Tools for Large Audiences

GE Healthcare

Andrew B. Rosenkrantz, MD

NYU Langone Medical Center

AUR/RSNA Education Scholar Grant
Design of an Interactive, Case-Based Online Tutorial for Prostate MRI Interpretation Using PI-RADS

Lonie R. Salkowski, MD

University of Wisconsin - Madison School of Medicine and Public Health
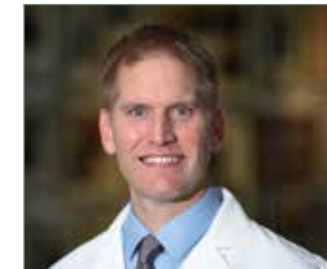
RSNA Education Scholar Grant
Investigation of a Radiology-based Three-dimensional Simulation to Explore Attributes of Novice and Expert Learners in their Process of Correlating and Sense-making of Medical Images with the Human Body

Kofoworola O. Soyebi, MBChB

University of Lagos, Idi-Araba, Lagos, Nigeria

Derek Harwood-Nash Education Scholar Grant
Capacity Building in Nigeria for Sickle Cell Disorder Related Stroke Prevention

Marc H. Willis, DO

Baylor College of Medicine

GE Healthcare/RSNA Education Scholar Grant
Technology Enhanced Learning: Medical Student Education Simulation Utilizing Clinical Decision Support (Teaching Medical Students to Select the 'Right Test' at the 'Right Time' for the 'Right Reason')
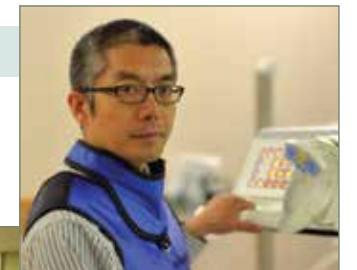
GE Healthcare

Jie Zhang, PhD

University of Kentucky

RSNA Education Scholar Grant
Curriculum Development for Hands-on Physics Education of Residents in Diagnostic Radiology

ROENTGEN RESIDENT/ FELLOW RESEARCH AWARD

"I would like to express my sincerest thanks to the Radiological Society of North America for establishing the RSNA Roentgen Resident/Fellow Research Award. I am humbled, honored and grateful to be one of the recipients of the award this year. Receiving this prestigious award encourages me to continue pursuing my dream of becoming an academic radiology-scientist with unyielding perseverance. Thank you very much indeed."

— Elizabeth Tong, MD, MS

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Medical School

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University of Miami Sylvester
Comprehensive Cancer Center

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