Seeding the Future of Radiology

GRANTS & AWARDS

2018 RSNA R&E Foundation

GRANTS & AWARDS
As the RSNA Research & Education Foundation embarks on another year of funding radiology’s future, we would like to take a moment to express our sincerest gratitude to our donors. Thank you for your commitment to seeding the future of the specialty. Thank you for understanding that the seeds of innovation we plant today will yield improved patient care in the seasons to come.

In short, thank you for making what we do possible.

In 2018, the Foundation’s Board of Trustees approved grant funding of $4 million for over 100 projects. This level of support is only possible because of your generosity.

Your contributions ensure these talented investigators and educators can begin their research journeys with a strong funding partner and the support of the entire radiologic community.

But remember, the money we give is an investment in the future or radiology.

A survey of past R&E grant recipients shows that for every $1 granted by the Foundation, recipients receive an additional $50 in funding as principal investigator or co-investigator from sources such as the NIH. Now, that’s a tremendous return on your investment.

We are delighted you’ve made a commitment to be part of that future by helping plant the seeds for radiology’s tomorrow.

We hope you continue to be a part of this journey to find out what the future holds for radiology.

Sincerely,
N. Reed Dunnick, MD
Chair, R&E Foundation
Board of Trustees
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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 to $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.

RSNA/AUR/APDR/SCARD RADIOLOGY EDUCATION RESEARCH DEVELOPMENT GRANT
This grant helps to build a critical mass of radiology education researchers and promotes the careers of those with passion to advance the science of radiology education around the world. One year grant of up to $10,000.

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

Administration 2%
Fundraising 4%

Grant Programs 94%

How Are Grant Dollars Distributed?
Percent of grant dollars awarded by grant type in 2018

Education 13%

Resident and Fellow Trainees 35%

Junior Faculty and Career Development 34%

Seed and Pilot Studies 16%

Medical Students 2%

Administration 2%
Fundraising 4%

Grant Programs 94%
Through the generosity of our donors, the RSNA R&E Foundation is able to continue its investment in R&D for radiology.

The Foundation acknowledges 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
Richard L. Baron, MD
RSNA Presidents Circle
Silver Anniversary Campaign Pacesetters
Strategic Radiology

The Foundation is grateful for the major contributions from corporate donors through the Vanguard program.
The RSNA Research Scholar Grant is an extraordinary opportunity for me to develop Zero Echo Time (ZTE) MRI for radiation-free cortical bone imaging. This novel technology will drastically decrease pediatric radiation exposure and help improve care for children across the world. Through this research, I have found so many opportunities to form uniquely positive collaborations among radiologists, physicists, and clinicians — which makes a visionary goal like this possible.

— Mai-Lan Ho, MD
Timothy J. Amrhein, MD  
*Duke University*

A Randomized Trial of CT Fluoroscopy-guided Targeted Autologous Blood and Fibrin Glue Patching for Treatment of Cerebrospinal Fluid Leaks in Spontaneous Intracranial Hypotension  
GE Healthcare/RSNA Research Scholar Grant

Manisha Bahl, MD, MPH  
*Massachusetts General Hospital*

Machine Learning to Predict Risk of Upgrade and Recurrence of Ductal Carcinoma In Situ  
Agfa HealthCare/RSNA Research Scholar Grant

Nicholas Scott Burris, MD  
*University of Michigan*

Hemodynamic Biomarkers of Aneurysmal Degeneration in Type B Aortic Dissection  
RSNA Research Scholar Grant

Jamal J. Derakhshan, MD, PhD  
*Washington University in St. Louis*

Improved Non-contrast Brain Perfusion Imaging Using Integrated Tagging in bSSFP  
ASNR/RSNA Research Scholar Grant

Ryne Didier, MD  
*Children’s Hospital of Philadelphia*

Contrast-enhanced Brain Ultrasound in Extreme Premature Fetal Lambs Maintained by the Extracranial Environment for Neonatal Support (EXTEND): Visibility Studies, Evaluation of Perfusion Parameters, and Assessment of Intracranial Pressure  
RSNA Research Scholar Grant
Christine E. Edmonds, MD
Massachusetts General Hospital
Precision Imaging for Improved Therapeutic Guidance in Breast Cancer
Carestream Health/RSNA Research Scholar Grant

Mai-Lan Ho, MD
Mayo Clinic
Zero Echo Time MRI for Radiation-free Pediatric Bone Imaging
Siemens Healthineers/RSNA Research Scholar Grant

Misun Hwang, MD
Children’s Hospital of Philadelphia
Improved Diagnosis and Prognostication of Neonatal Hypoxic Ischemic Injury with Combined Contrast Enhanced Ultrasound and Elastography
RSNA Research Scholar Grant

Laura Jimenez-Juan, MD
Sunnybrook Research Institute
Towards an Early Detection of Coronary Artery Bypass Graft Failure: A Computational Fluid Dynamics Approach Based on CT and 4D-flow MRI
Agfa HealthCare/RSNA Research Scholar Grant

Anusha Kalbasi, MD
University of California, Los Angeles
Uncoupling the Tumor Promoting and Wound Healing Properties of Macrophages in the Irradiated Microenvironment
RSNA Research Scholar Grant
Joseph George Mammarappallil, MD, PhD  
*Duke University*

Utilization of Hyperpolarized 129Xe MRI for Diagnosis of Idiopathic Pulmonary Fibrosis  
Bracco Diagnostics Inc./RSNA Research Scholar Grant

Robert J. McDonald, MD, PhD  
*Mayo Clinic*

Assessment of the Clinical Effects of Intracranial Gadolinium Tissue Deposition Following Intravenous Administration of Gadolinium Based Contrast Agents Using a Preclinical Rat Model  
Bayer HealthCare/RSNA Research Scholar Grant

Avner Meoded, MD  
*Johns Hopkins University*

Comprehensive Omics Approach in the Study of Brain Neuroplasticity in Pediatric Arterial Ischemic Stroke  
Guerbet/RSNA Research Scholar Grant

Sohil H. Patel, MD  
*University of Virginia*

Radiogenomics of Diffuse Cerebral Gliomas  
RSNA Research Scholar Grant

Ronnie Alex Sebro, MD, PhD  
*University of Pennsylvania*

Integrated Biomarker PET/CT Imaging Trial for Assessing Hypoxia in Soft Tissue Sarcomas Using a Novel PET/CT Tracer  
RSNA Research Scholar Grant
Rahul Anil Sheth, MD  
*The University of Texas MD Anderson Cancer Center*

Antitumor Immune Activation by Molecularly Targeted Photothermal Ablation for the Treatment of Hepatocellular Carcinoma  
RSNA Research Scholar Grant

Salil Soman, MD, MS  
*Beth Israel Deaconess Medical Center*

Improving Intracranial Hemorrhage Risk Stratification with Advanced Cerebral Microhemorrhage (CMH) Imaging Using Preconditioned Quantitative Susceptibility Mapping (PQSM) MRI  
RSNA Research Scholar Grant

Man Zhang, MD, PhD  
*University of Michigan*

Assessment of Predictive Value of Cervical Stiffness in Preterm Labor and Outcome of Labor Induction Using Transvaginal Shear Wave Elastography  
RSNA Research Scholar Grant
Laura Heacock, MD, MS, will investigate the use of a fast temporal resolution compressed sensing MRI sequence in an abbreviated breast MRI (AB-MRI) screening protocol.

“Incorporating fast temporal resolution imaging may improve the specificity of AB-MRI examination by providing quantitative information on the wash-in of gadolinium. Use of this imaging technique in AB-MRI could therefore increase breast MRI screening accessibility, particularly for intermediate-risk women.”

— Laura Heacock, MD, MS
Edson Amaro Jr., MD, PhD  
Hospital Israelita Albert Einstein, Brazil  
Multi-centric Standard Practices in Quantitative Diffusion Weighted Imaging: Implementation and Evaluation in Clinical Practice in Brazil  
RSNA Research Seed Grant

Sandeep Singh Arora, MBBS  
Vanderbilt University Medical Center  
Improving Breast Cancer Response to Immunotherapy Using Micro-bubble Enhanced Therapeutic Ultrasound in a Highly Aggressive 4T1 Murine Breast Cancer Model  
RSNA Research Seed Grant

Ji Young Buethe, MD  
Johns Hopkins University  
Cryoablation-immune Checkpoint Combination Therapy to Improve Anti-tumor Responses in Triple Negative Metastatic Breast Cancer  
RSNA Research Seed Grant

Amy Robin Deipolyi, MD, PhD  
Memorial Sloan Kettering Cancer Center  
Role of Anti-tumor Immunity in Modulating the Impact of PI3K Pathway Mutations on Response to Radioembolization in Metastatic Breast Cancer  
Philips/RSNA Research Seed Grant

Laura Heacock, MD, MS  
New York University  
Abbreviated Breast MRI (AB-MRI) with Golden-angle Radial Compressed-sensing and Parallel Imaging (GRASP): A Short, Comprehensive Breast MRI Exam Ready for Clinical Prime Time  
Fujifilm Medical Systems/RSNA Research Seed Grant
Pedram Heidari, MD
Massachusetts General Hospital
Immune PET Imaging of Cytotoxic Lymphocyte Function in Inflammatory Bowel Disease
Canon Medical Systems, USA/RSNA Research Seed Grant

Amar Upadhyaya Kishan, MD
University of California, Los Angeles
Genomics of Gleason Score 9-10 Prostate Cancer
Philips/RSNA Research Seed Grant

Gregory Jon Nadolski, MD
University of Pennsylvania
Clinically Relevant Point of Care Testing to Improve Quality of Solid Tumor Biopsies
RSNA Research Seed Grant

Prashant Nagpal, MD
University of Iowa
Comparison of Free-breathing Self-gated 3D Cardiac MRI with Manifold Reconstruction Algorithms and Standard Breath-hold Sequence in Patients with and without COPD
Canon Medical Systems, USA/RSNA Research Seed Grant

Rupa Radhakrishnan, MBBS, MS
Indiana University
Effect of Prenatal Exposure to Opioids on Neonatal Brain Structure and Function
Philips/RSNA Research Seed Grant
Gelareh Sadigh, MD
Emory University
Patient-reported Financial Toxicity in Multiple Sclerosis: Predictors and Association with Neuroimaging and Medication Non-adherence
RSNA Research Seed Grant

Stuart E. Samuels, MD, PhD
University of Miami
Symptomatic and Functional Impact of Radiation-induced Fibrosis of the Neck in Patients Treated for Head and Neck Cancer
Philips/RSNA Research Seed Grant

David Shultz, MD, PhD
Princess Margaret Cancer Centre
Measuring and Molecularly Defining Intra-tumoral Hypoxia Using FAZAPET/MRI and Pimonidazole in High-risk Sarcoma
Hitachi Medical Systems/RSNA Research Seed Grant

Adam D. Singer, MD
Emory University
Performance of a Standardized Scanning and Reporting Method for Sonographic Soft Tissue Sarcoma Surgical Resection Bed Surveillance
Canon Medical Systems, USA/RSNA Research Seed Grant

Ramya Srinivasan, MD
University of California, San Francisco
The Use of Dual and Multi Energy CT for the Detection of Bone Marrow Metastases — A Phantom Study with Preliminary Patient Validation
RSNA Research Seed Grant

Sina Tavakoli, MD, PhD
University of Pittsburgh
Quantitative Imaging of 18F-fluoroglutamine and 18F-FDG Uptake in Atherosclerosis: A Metabolic Approach to Immuno-metabolic Characterization of Macrophages in the Vessel Wall
Strategic Radiology Research Seed Grant
“Although we know that coronary calcium is strongly correlated with coronary artery disease morbidity and mortality, current imaging techniques in characterizing coronary calcium are rudimentary. We aim to evaluate a novel spectral CT technique called ‘spectral CT fingerprinting’ in coronary calcium characterization. We hope that this technique will complement the current armamentarium in coronary artery disease diagnostics and prognostics.”

— Praveen Ranganath, MD
Harrison X. Bai, MD
University of Pennsylvania
Utilization of Deep Learning to Predict Characteristics and Treatment Response in Renal Tumors
Siemens Healthineers/RSNA Research Fellow Grant

David Hilton Ballard, MD
Washington University in St. Louis
Image-guided Molecular Profiling of the Renal Cell Carcinoma Immune Microenvironment Using 3D Printing
Varex Imaging/RSNA Research Resident Grant

Michael Sargent Binkley, MD, MS
Stanford University
Inferring Gene Expression Using Cell Free DNA for Prediction of Radiation Pneumonitis After Definitive Chemoradiotherapy of Locally Advanced Non-small Cell Lung Cancer
RSNA Research Resident Grant

Zachary Buchwald, MD, PhD
Emory University
The Impact of Corticosteroids on Combined Radiation and Anti-PD-L1 in the Control of Oligo-metastatic Melanoma
RSNA Research Resident Grant

Lindsay P. Busby, MD, MPH
University of California, San Francisco
Advanced Imaging of Ovarian Cancer Using 68GA-PSMA-11 PET/MRI
RSNA Research Fellow Grant
Jessica Chan, MD
University of Utah
Detection of Obstructive and Restrictive Lung Disease on Chest Radiography Using Machine Learning and Integrated Pulmonary Function Data
RSNA Presidents Circle Research Resident Grant

Bryan Chang, MD, PhD
University of Pennsylvania
Tracking Engineered T Cell Therapies with an RNA-based Reporter Gene
RSNA Research Resident Grant

Leonid Chepelev, MD, PhD
University of Ottawa
Deep Learning for Radiological Image Quality Improvement: Impact on the Accuracy of Diagnosis and Organ Segmentation
RSNA Research Resident Grant

Florence L. Chiang, MD
The University of Texas Health Science Center at San Antonio
Imaging Biomarker Development in Multiple Sclerosis Using Multi-modality Network Modeling
RSNA Research Resident Grant

Dania Daye, MD, PhD
Massachusetts General Hospital
Machine Learning-based Virtual Metastasis Biopsy as an Early Predictor of Tumor Progression and Resistance Mutation Acquisition in Colon Cancer Patients
GE Healthcare/RSNA Research Resident Grant
Laura Burns Eisenmenger, MD  
*University of California, San Francisco*

Evaluation of Intracranial Aneurysm Wall Inflammation Using Ferumoxytol and Four Dimensional Flow Magnetic Resonance Imaging  
RSNA Research Fellow Grant

Alexander M. El-Ali, MD  
*University of Pittsburgh*

Placental MRI BOLD and Impaired Neurodevelopment in Congenital Heart Disease  
RSNA Research Resident Grant

Adnan Elhammali, MD, PhD  
*The University of Texas MD Anderson Cancer Center*

Single Cell Transcriptome Analysis of Radiation Response in Advanced Pancreatic Cancer Patients  
RSNA Research Resident Grant

Ahsan Farooqi, MD, PhD  
*The University of Texas MD Anderson Cancer Center*

Targeting the Alternative Lengthening of Telomeres Phenotype in Glioblastoma to Enhance Cellular Response to Radiotherapy  
Prince Research Resident Grant

Benjamin Freeze, MD, PhD  
*Cornell University*

Regional Brain Atrophy and Network Propagation of Pathology in Prodromal Parkinson Disease  
RSNA Research Resident Grant
Lewis Dirk Hahn, MD  
Stanford University  
Segmentation and Quantitative Assessment of Prognostic Features in Type B Aortic Dissection Using Machine Learning  
Silver Anniversary Campaign Pacesetters Research Fellow Grant

Mark Jeffrey Hoegger, MD, PhD  
Washington University in St. Louis  
Targeted Alpha Particle Therapy in Lymphoma with Human Anti-CD20 Antibodies  
RSNA Research Resident Grant

William L. Hwang, MD, PhD  
Massachusetts General Hospital  
Molecular Signatures of Circulating Tumor Cells to Predict Treatment Response in Muscle-invasive Bladder Cancer  
RSNA Research Resident Grant

John Kang, MD, PhD  
University of Rochester  
Combining Genomic and Clinical/Dosimetric Variables to Predict Radiation Toxicity in Localized Prostate Cancer Patients Via Computational Genomics and Machine Learning  
RSNA Research Resident Grant

Geunwon Kim, MD, PhD  
Beth Israel Deaconess Medical Center  
Development and Validation of MRI-based Quantitative Fat and Fluid Volumetrics for Lymphedema Staging and Guidance of Liposuction and Lymphatic Reconstruction in Upper and Lower Extremities  
RSNA Research Resident Grant
Joseph Leach, MD, PhD
University of California, San Francisco
Combined Magnetic Resonance Imaging and Biomechanical Analysis of Abdominal Aortic Aneurysms to Predict Disease Progression
Richard L. Baron, MD Research Fellow Grant

Kathryn Mittauer, PhD
University of Wisconsin-Madison
Evaluation of Gastroduodenal Toxicity for Pancreatic Radiotherapy Using Stereotactic MR-guided Online Adaptive Radiation Therapy (SMART) in Wisconsin Miniature Swine (WMS)
Ralph Schlaeger Charitable Foundation Research Fellow Grant

Everett James Moding, MD, PhD
Stanford University
Circulating Tumor DNA Kinetics During Radiation Therapy as a Prognostic Biomarker for Non-small Cell Lung Cancer
RSNA Research Resident Grant

Thomas S.C. Ng, MD, PhD
Brigham and Women’s Hospital
Multiscale, Translational Molecular Imaging to Guide Combination Nano- and Immunomodulatory Therapy in Anaplastic Thyroid Cancer
RSNA Research Resident Grant

Matthew Stephen Ning, MD
The University of Texas MD Anderson Cancer Center
The Utility of Intraoperative MRI-guided Interstitial Brachytherapy in Optimizing the Therapeutic Ratio for Gynecologic Malignancies
RSNA Research Resident Grant
Suchit H. Patel, MD, PhD  
Memorial Sloan Kettering Cancer Center  
Utilizing Next Generation Sequencing and Cardiac MRI to Profile the Transcriptional and Physiologic Pathogenesis of Radiation Induced Cardiac Toxicity in a Mouse Model  
GE Healthcare/RSNA Research Resident Grant

Ryan Phillips, MD, PhD  
Johns Hopkins University  
Inhibition of Centrosome Clustering to Enhance the Interplay Between Radiotherapy and Immunotherapy  
RSNA Research Resident Grant

Priya Rajagopalan, MBBS, MPH  
Indiana University  
Increased White Matter Hyperintensity in Carriers of Folate Gene Polymorphism: A Novel Gene-amyloid Interaction Pathway  
RSNA Research Resident Grant

Shushan Rana, MD  
Oregon Health & Science University  
Endothelial miR-15a Regulation of the Tumor Microenvironment Radiation Response  
RSNA Research Fellow Grant

Praveen Ranganath, MD  
UT Southwestern  
A Novel Approach to Coronary Calcium Scoring Using Spectral CT Fingerprinting with Coronary CT Angiography  
Bracco Diagnostics Inc./RSNA Research Resident Grant
Tara Retson, MD, PhD  
University of California, San Diego  
A Deep Learning Approach for Identifying Imaging Biomarkers and Outcome Modeling in Chronic Obstructive Pulmonary Disease  
Cook Medical Cesare Gianturco/RSNA Research Resident Grant

Zaid Ali Siddiqui, MD  
Beaumont Health System  
A Deep Learning Framework for Radiotherapy Delivery in Thoracic Oncology  
RSNA Research Resident Grant

Mikhail Silk, MD  
University of Pennsylvania  
Developing T ace 2.0: Targeting Hepatocellular Carcinoma Cells Through the Unfolded Protein Response, Hypoxia Inducible Factor, and Autophagy Inhibition  
RSNA Research Resident Grant

Catherine S. Spina, MD, PhD  
Columbia University  
Metronomic Delivery of Radimmunotherapy to Induce a Durable (mRAID) Anti-tumor Response in Solid Tumors  
RSNA Research Resident Grant

Karthik Meenakshi Sundaram, MD, PhD  
Vanderbilt University Medical Center  
Evaluating Microbubbles as an Immunotherapy Adjuvant for Breast Cancer  
RSNA Research Resident Grant
Anna Trofimova, MD, PhD  
*Emory University*  
Functional and Structural Brain Connectivity Alterations in Visual Vertigo Syndrome: A Prospective MRI Study of Central Vestibular Impairment in Mild Traumatic Brain Injury  
RSNA Research Resident Grant

Kang Wang, MD, PhD  
*University of California, San Diego*  
Automated Liver Biometry and Fat Quantification in Non-alcoholic Fatty Liver Disease with Convolutional Neural Networks  
RSNA Research Resident Grant

Ghiam Yamin, MD, PhD  
*University of California, San Diego*  
Virtual Reality Application for Evaluating Progression of Early Parkinson’s Disease  
RSNA Research Resident Grant

Felix Yuh-Chern Yap, MD  
*University of Southern California*  
The Shapely Renal Mass: Quantitative Contour Evaluation of Renal Cell Carcinoma  
RSNA Research Fellow Grant
As a first-year medical student, I would like to pursue interventional radiology as a potential specialty – the RNSA research project aligns with my goal as focused ultrasound is an exciting clinical application of interventional radiology techniques. We will investigate quantification methods to assess the permeability of the blood-spinal cord barrier opening after MRgFUS in rodents. This model will allow us to further optimize the potential use of MRgFUS in the treatment of spinal cord injury in humans.”

— Chloe Genevieve Cross, BSc
Peter Abraham, BA  
*University of California, San Diego*  
Cost-effectiveness of Intraoperative MRI in the Treatment of High Grade Gliomas  
RSNA Research Medical Student Grant

Norman Atagu, BSc  
*Washington University in St. Louis*  
Construction of a Predictive Model for Future Liver Remnant Hypertrophy After Portal Vein Embolization  
RSNA Research Medical Student Grant

Jake Bowling, BS  
*The University of North Carolina at Chapel Hill*  
Cranial Nerve Cisternal Segment Enhancement in Multiple Sclerosis: Prevalence on 3.0 Tesla Volumetric T1 MRI and Clinical Implications  
RSNA Research Medical Student Grant

Chloe Genevieve Cross, BSc  
*University of Utah*  
Quantification of Blood Spinal Cord Barrier Opening After Application of Magnetic Resonance Guided Focused Ultrasound  
RSNA Research Medical Student Grant

Brittany DeClouette, BA  
*University of Southern California*  
Increased Glutathione Measured by Single Voxel MR Spectroscopy After 6 Months of Ketogenic Diet in Patients with Intractable Epilepsy — Pilot Study  
RSNA Research Medical Student Grant
Weimeng Ding, BEng, MSc  
McGill University  
Automated Detection and Outcome Prediction of  
Subarachnoid Hemorrhage Using Advanced  
Convolutional Neural Networks  
Fujifilm Medical Systems/RSNA  
Research Medical Student Grant

Ammoren Edward Dohm, BS  
Wake Forest University  
Validation of an Imaging-based Mathematical Model  
for Differentiating Radiation Necrosis from Tumor  
Progression Following Stereotactic Radiosurgery  
for Brain Metastases  
RSNA Research Medical Student Grant

Brandon Kenneth-Kouso Fields, BA, BM  
University of Southern California  
Quantitative Magnetic Resonance Imaging (Q-MRI) for  
the Assessment of Soft-tissue Sarcoma Necrosis, Viable  
Tumor Volume, and Treatment Response with Comparison  
to Contrast-enhanced Ultrasound (CEUS)  
Canon Medical Systems, USA/RSNA  
Research Medical Student Grant

Chengcheng Gui, BSE  
Johns Hopkins University  
Radiomic Modeling to Predict Risk of Vertebral  
Compression Fracture After Stereotactic Body  
Radiation Therapy for Spinal Metastases  
RSNA Research Medical Student Grant

Yu-hui Huang, MS  
University of Illinois College of Medicine at Chicago  
Characterizing Associations Between T-cell  
Populations in Hepatocellular Carcinoma and  
Clinicopathological Features and Outcomes  
RSNA Research Medical Student Grant
Amit Jethanandani, MPH
Enrolled at The University of Tennessee Health Science Center College of Medicine
Research conducted at The University of Texas MD Anderson Cancer Center
Predicting Radiation-attributable Changes in the Temporomandibular Joints of Nasopharyngeal Cancer Patients
RSNA Research Medical Student Grant

Kunal Baiju Karani, BA
Cincinnati Children’s Hospital Medical Center
Ultrasound-enhanced Cerebrovascular Thrombolysis in an in Vivo Porcine Model
RSNA Research Medical Student Grant

Tae Kyung Kim, BA
Johns Hopkins University
Development and Visual Assessment of a Deep Learning System for Automated Tuberculosis Screening Using Chest Radiographs
RSNA Research Medical Student Grant

Connor Jarrett Kinslow, BS
Columbia University
Targeting IDH1-mutant Gliomas with Radiation Therapy and Glutamine Blockade
RSNA Research Medical Student Grant

Christopher Lau, BS
University of Southern California
Association of CT Texture and Epigenomics in Clear Cell Renal Carcinoma
RSNA Research Medical Student Grant
John E. Miller, BA  
*University of Alabama at Birmingham*  
Comparison of Liver Surface Nodularity Score and Ultrasound Elastography for Predicting Cirrhosis Decompensation  
RSNA Research Medical Student Grant

Christian J. Park, BS  
*Enrolled at Alabama College of Osteopathic Medicine*  
Research conducted at *University of Wisconsin-Madison*  
Ultra Low Dose PET/MRI Imaging of Crohn’s Disease Using a Novel Deep Learning Reconstruction Method  
Philips/RSNA Research Medical Student Grant

Thomas Park, BA  
*The Medical College of Wisconsin*  
Does Implementation of an Effective Midline Catheter Program for Vascular Access in a Large Academic Hospital Decrease Rates of Central Line Associated Bloodstream Infections?  
RSNA Research Medical Student Grant

Cortlandt Sellers, BS  
*Yale University*  
Immune-profiling and Loco-regional Therapy for Hepatocellular Carcinoma  
RSNA Research Medical Student Grant

Junjie Shangguan, BA  
*Northwestern University*  
Development of HPF-labeled DC Vaccines for Treatment and Prognosis of Pancreatic Cancer  
RSNA Research Medical Student Grant
Katie Shpanskaya, BS  
Stanford University  
Towards Personalized Prognostics in Pediatric Medulloblastoma: Discovery of MRI-based Radiomic Signatures From a Multi-institutional Cohort  
RSNA Research Medical Student Grant

Shanmukha Srinivas, BS  
University of California, San Diego  
Quantification of Hemodynamics of Cerebral Arteriovenous Malformations After Stereotactic Radiosurgery Using 4D Flow MRI  
RSNA Research Medical Student Grant

Alex David Waldman, BS  
Emory University  
Sexually Dimorphic Multiple Sclerosis Pathogenesis and Progression  
RSNA Research Medical Student Grant

Amy E. Wilson, BA  
Medical College of Wisconsin  
Transnasal Sphenopalatine Ganglion Block: An Under Utilized Treatment for Migraines  
RSNA Research Medical Student Grant

Anthony D. Yao, BS  
Rhode Island Hospital  
Utilization of Deep Learning on CT Angiogram to Aid in the Diagnosis of Emergent Large Vessel Occlusion (ELVO)  
Canon Medical Systems, USA/RSNA Research Medical Student Grant
Despite strides in cancer-control planning by the Ugandan government, including access to free treatment, outcomes for breast cancer patients remain poor. This is in part attributable to delays in diagnosis, ranging from women’s lack of knowledge to suboptimal referral systems — factors that lead to late-stage diagnoses, when treatment is less effective.

“The RSNA-funded study will allow me to identify health system delays in breast cancer diagnosis in Uganda and use a 4-level educational strategy with stakeholders to develop a plan to reduce late-stage diagnosis. This project contributes to the long-term effort in Uganda to reduce breast cancer mortality.”

— John R. Scheel, MD, PhD, MPH
Eric Steven Bartlett, MD, MPH  
*University of Toronto*

North American Assessment of Early Emergency Radiology Competence Via an Online Simulator with PGY2 Diagnostic Radiology Residents

RSNA Education Scholar Grant

Aritrick Chatterjee, PhD  
*University of Chicago*

An Interactive App with Multi-parametric MRI — Whole Mount Histology Correlation for Enhanced Prostate MRI Training of Radiologists

RSNA Education Scholar Grant

Kathryn Darras, MD  
*University of British Columbia*

Technology-Enhanced Undergraduate Anatomy Education: Development of a Blended Curriculum for Digital Dissection

RSNA Education Scholar Grant

Richard Duszak, MD  
*Emory University*

Radiology Economics and Policy Learning Electronic Toolkit (REPLeT)

GE Healthcare/RSNA Education Scholar Grant

Jillian Rebecca Gunther, MD, PhD  
*The University of Texas MD Anderson Cancer Center*

Development of a Contour Evaluation Platform to Improve Radiation Oncology Education

Philips/RSNA Education Scholar Grant
Michael James Potchen, MD
University of Rochester
PRACTERRA — A Portable Radiology Curriculum for Training, Evaluating and Retaining Radiologists for Africa
Derek Harwood-Nash Education Scholar Grant

John R. Scheel, MD, PhD, MPH
University of Washington
Reducing Patient and Health System Delays Contributing to Late Stage Breast Cancer Diagnosis in Uganda
RSNA Education Scholar Grant

Monica Majmundar Sheth, MD
Zucker School of Medicine at Hofstra/Northwell
Bridging the Gap Between Residency Training and Clinical Practice: The Development of Entrustable Professional Activities for Breast Imaging (EPA-BR), EPA-BR Based Curriculum and Self-assessment Modules
RSNA Education Scholar Grant

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

Megan Mills, MD
University of Utah
Eye of the Beholder: Quantitative and Qualitative Measures of Radiology Residents’ Perceptual Skills
RSNA/AUR/APDR/SCARD Radiology Education Research Development Grant

Kawan S. Rakhra, MD
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The Radiology E-score: Developing a Dedicated Metric for the Evaluation of Educational Scholarly Activity of Academic Radiologists
RSNA/AUR/APDR/SCARD Radiology Education Research Development Grant
One of the greatest lessons I have learned from my research experience has been the importance of collaboration. When I first started doing research, my impression of a researcher was someone who worked alone. After all, my undergraduate course in research was called an ‘independent study.’ As I started doing more research, however, I realized that nearly every project requires a team of people. In fact, all of my research projects during residency have involved colleagues outside radiology including surgery, biostatistics, computer science, and engineering. I would encourage others thinking about doing research to keep an open mind and communication with other fields in medicine and science.”

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