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 of 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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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 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.

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

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<th>Category</th>
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<td>Administration</td>
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<td>Grant Programs</td>
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<td>Resident and Fellow</td>
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**How Are Grant Dollars Distributed?**
Percent of grant dollars awarded by grant type in 2018

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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 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 Extra-uterine 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, 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.”
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

PHILIPS

FUJIFILM
Value from Innovation
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.”
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
Genevieve Cross, BSc will investigate the quantification of blood spinal cord barrier openings after the application of magnetic resonance guided focused ultrasound.

“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.”

— 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

RSNA Education Scholar Grant recipient, shown here visiting a Ugandan traditional healer to study remedies women receive for breast problems.
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*  
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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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