GRANTS & AWARDS

2019 RSNA R&E Foundation
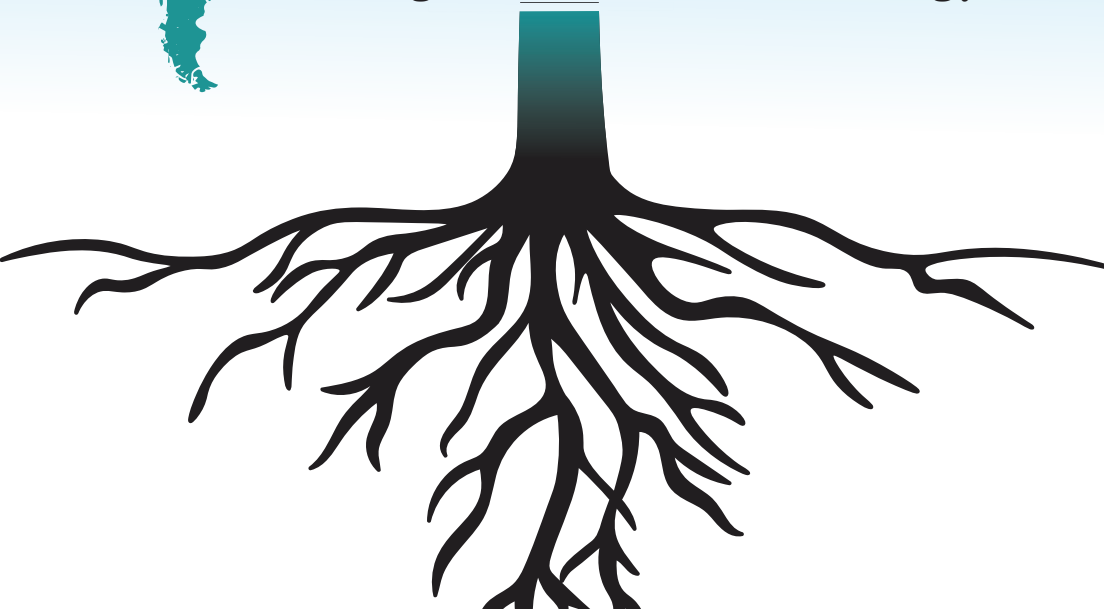
RSNA R&E FOUNDATION

Seeding the Future of Radiology

2019

Each year the RSNA Research & Education Foundation strives to successfully meet the needs of our ever-evolving field. It's because of generous donors like you that we can confidently rise to meet these challenges as medical science and technology continue to advance at an accelerated pace.

The growth of our specialty depends on generous donors like you. And for your continued commitment to seeding the future of radiology, we want to sincerely thank you.

In 2019, the Foundation's Board of Trustees approved grant funding of more than $5 million to provide research and education for individuals at 48 institutions. This support will help equip the next generation of radiologists to engage in critical research. For every $1 awarded by the Foundation, our grant recipients yield $50 in subsequent grant resources from other funding sources like the NIH — a return on investment totaling nearly $3 billion.

Funds awarded this year represent a 30% funding rate of grant applications received by the Foundation's Board of Trustees. The approved funding includes two new multi-year Education Innovation Grants, and three new multi-year Education Development Grants. In fact, a record number of medical students will also receive funding this year because of these critical investments.

To ensure that future investigators, researchers and radiologists can continue making groundbreaking discoveries, we need your continued support.

None of this success would be possible without your incredible generosity. Please join us in this exciting time as we work together to not just meet our goals, but to exceed them.

We deeply appreciate your commitment to planting the seeds today for radiology's tomorrow.

Thank you for supporting the Foundation.

Sincerely,
Thomas M. Grist, MD
Chair, R&E Foundation
Board of Trustees

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

The Foundation's premier career development grant is designed to transition junior faculty to independent investigators. Funding protects research time to conduct complex projects under the guidance of a mentor and scientific advisor.

RESEARCH RESIDENT/FELLOW GRANT

This grant provides investigators a chance to explore powerful ideas and gain insight into specific investigations and practice research methods and techniques.

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.

RESEARCH SEED GRANT

Every great discovery starts with a spark. This grant provides seed money to test hypotheses and conduct pilot studies to prepare major grant applications to corporations, foundations and government agencies.

RESEARCH MEDICAL STUDENT GRANT

Exposure to radiology in medical schools ignites a passion and encourages students to consider academic radiology as an option for their future. A summer project can turn into a career-long pursuit of research and discovery.

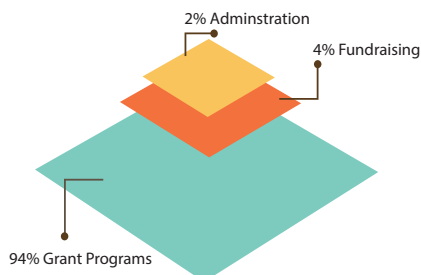### RSNA/AUR/APDR/SCARD RADIOLOGY EDUCATION RESEARCH DEVELOPMENT GRANT

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 around the world.

EDUCATION INNOVATION GRANT AND EDUCATION DEVELOPMENT GRANT

These grant opportunities fund projects with original and fresh approaches to educational content and products. The goal is to improve upon tools and methodologies currently used in radiology education in order to prepare the next generation of radiologists. Topics for these grants are announced annually in March.

Where Do Your Donations Go?

Low overhead puts more of your donations toward grant funding

2% Administration
4% Fundraising
94% Grant Programs

How Are Grant Dollars Distributed?

Percent of grant dollars awarded by grant type in 2019

3% Medical Students
24% Junior Faculty and Career Development
11% Seed and Pilot Studies
21% Education
42% Resident and Fellow Trainees
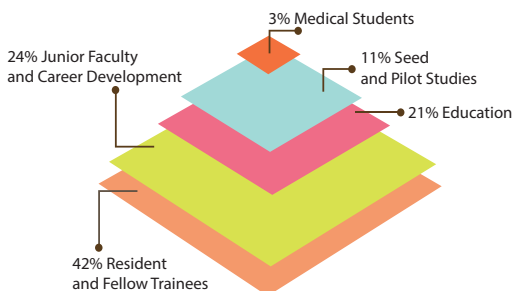
RECOGNITION AND THANKS

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
RSNA Presidents Circle
Scott A. Walter, MS
Silver Anniversary Campaign Pacesetters
Strategic Radiology

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

RESEARCH SCHOLAR GRANT

"The RSNA Research Scholar award will provide me with much needed protected research time to study immunologic effects evoked by therapeutic ultrasound during treatment of patients with prostate cancer. Given the ability of therapeutic ultrasound to evoke an immune response with minimal invasiveness and toxicity, it is an attractive option to apply in combination with immunotherapeutic drugs in patients suffering from immunologically 'cold' cancers, like prostate cancer, which do not respond well to immunotherapeutic drugs given in isolation."

— SANDEEP SINGH ARORA, MBBS

Sandeep Singh Arora, MBBS

Vanderbilt University

Analyzing Immune Responses Generated by Transrectal and Transurethral Sono-ablation of Prostate Cancer Using Advanced Quantification Methods.
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

Peter Chang, MD

University of California, Irvine

Leveraging Deep Learning for Stroke Imaging Triage
GE Healthcare/RSNA Research Scholar Grant

GE Healthcare

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

Carestream

Sandeep Subhash Hedgire, MD
Massachusetts General Hospital

Vascular Inflammation in Patients with HIV as Measured by Macrophage Specific Ultrasmall Superparamagnetic Iron Oxide (USPIO) Nanoparticle-enhanced MRI
RSNA Research Scholar Grant

Mai–Lan Ho, MD
Nationwide Children's Hospital

Zero Echo Time MRI for Radiation-free Pediatric Bone Imaging
Siemens Healthineers/RSNA Research Scholar Grant

SIEMENS Healthineers

Nima Kokabi, MD
Emory University

Theranostic Approach Towards Personalized Medicine Using Low-dose Y90 Microspheres for Radioembolization Therapeutic Planning
GE Healthcare/RSNA Research Scholar Grant

GE Healthcare

Yi Li, MD
University of California, San Francisco

MRI and Short-term Outcomes from the Neonatal Seizure Registry (NSR-MRI)
Agfa HealthCare/RSNA Research Scholar Grant

AGFA HealthCare

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

BRACCO
LIFE FROM INSIDE

Avner Meoded, MD

Texas Children's Hospital, Baylor College of Medicine

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

Guerbet

Sohil H. Patel, MD

University of Virginia

Radiogenomics of Diffuse Cerebral Gliomas
RSNA Research Scholar Grant

Miriam Peckham, MD

University of Utah

Treatment for Sacroiliac Joint Pain Using Platelet-rich Plasma (PRP) Regenerative Therapy: A Randomized Controlled Trial in Comparison with Steroid/Anesthetic Injection with Advanced MR Analysis
RSNA Research Scholar Grant

Cyrus A. Raji, MD, PhD

Mallinckrodt Institute of Radiology
Washington University in St. Louis

Diffusion Basis Spectrum Imaging for Quantifying Neuroinflammation in Metabolically Abnormal Overweight and Obese Persons at Risk for Alzheimer's Disease
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

Jae W. Song, MD, MS

University of Pennsylvania

Sex-differences in Intracranial Arterial Wall Changes Using 3T and 7T Multicontrast Vessel Wall Imaging
Bayer HealthCare/RSNA Research Scholar Grant

Tony T. Wong, MD
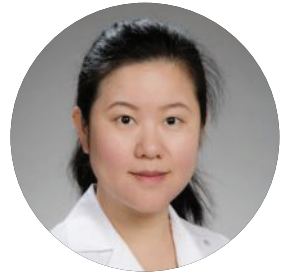
Columbia University

Enabling Personalized Precision Treatment for Femoroacetabular Impingement
Agfa HealthCare/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

"The Philips/RSNA Research Seed Grant will help us acquire essential pilot data on the application of magnetic resonance-guided focused ultrasound to precisely target spinal dorsal root ganglion in a swine model. Our long-term goal is to develop this innovative modality as a completely noninvasive technique to target multiple spinal pain generators in back pain patients, potentially transforming the current practices."

— LUBDHA M. SHAH, MD

Paco E. Bravo, MD

University of Pennsylvania

Somatostatin Receptor-targeted Imaging for Monitoring Disease Activity in Cardiac Sarcoidosis
Philips/RSNA Research Seed Grant

PHILIPS

Eric James Hohenwalter, MD

Medical College of Wisconsin

Evaluation of Hemodynamic Parameters Following Transjugular Intrahepatic Portosystemic Shunt (TIPS)
Canon Medical Systems USA, Inc./RSNA Research Seed Grant

Canon
CANON MEDICAL

Matthew Donald Fernand McInnes, MD, PhD

University of Ottawa

Understanding the Basis for Reporting of Imaging Diagnostic Accuracy Studies: The "UnBIAS" Study Series
Philips/RSNA Research Seed Grant

PHILIPS

Jie C. Nguyen, MD, MS

Children's Hospital of Philadelphia

Osteosarcoma Imaging with UTE MRI: Validation and Optimization with CT and Histopathology Correlation
Hitachi Healthcare Americas/RSNA Research Seed Grant

HITACHI
Inspire the Next

Sam Payabvash, MD

Yale University School of Medicine

Automated Detection of Acute Ischemic Infarct On "Code Stroke" Head CT Using Deep Neural Networks
Bayer HealthCare/RSNA Research Seed Grant

Lubdha M. Shah, MD

University of Utah

Focused Ultrasound Neuromodulation of Dorsal Root Ganglion for Noninvasive Mitigation of Back Pain in Swine Model
Philips/RSNA Research Seed Grant

PHILIPS

Nelly Tan, MD

Loma Linda University

Impact of Provider and Patient Ratings of Radiologists' Reports to Drive Improvements to Radiology Reports
RSNA Research Seed Grant

Elizabeth Tong, MD

Stanford University

Design and Validate an Imaging-based Clinical Assessment Tool for Acute Ischemic Stroke — Functional-MRI Stroke Scale (FMRISS)
Hitachi Healthcare Americas/RSNA Research Seed Grant

HITACHI
Inspire the Next

RESEARCH RESIDENT/FELLOW GRANT

Siemens/RSNA Research Fellow Grant Recipient Brian Park, MD (right) and Research Resident Grant Recipient Jamaal Benjamin, MD, PhD (middle) with Scientific Advisor Terence Gade, MD, PhD

"The Dr. Alexander Margulis Siemens Healthineers/RSNA Research Fellow Grant allows me to continue my passion for research at the interface of medicine and engineering. The successful completion of our project will allow procedures to be performed more safely and efficiently with less radiation. This research epitomizes multidisciplinary collaboration, bringing together radiologists, surgeons, computer scientists and engineers, to achieve the common goal of improving patient care."

— BRIAN PARK, MD

"The RSNA Research Resident Grant will provide me funding and time to investigate the mechanisms via which cancer cells survive the ischemic tumor microenvironment that occur following transarterial chemoembolization (TACE). Our rat model allows us to evaluate pharmacologic inhibitors of core HCC survival pathways allowing our findings to be quickly translated to clinical practice."

— JAMAAL BENJAMIN, MD, PHD

Alexander Augustyn, MD, PhD

MD Anderson Cancer Center

Multiparametric Response Assessment of Intratumoral Hypoxia and Acidosis to IACS-010759 As a Marker of Radiation Sensitization
Prince Research Resident Grant

### Jamaal Benjamin, MD, PhD

University of Pennsylvania

Leveraging Epigenetic Alterations to the Tumor Microenvironment to Potentiate the Endogenous Immune Response in HCC
RSNA Research Resident Grant

Grace C. Blitzer, MD

University of Wisconsin

Salivary Gland Autotransplantation of Marrow Mesenchymal Stromal Cells for Treatment of Radiation-induced Xerostomia – FDA IND Enabling Studies
RSNA Research Resident Grant
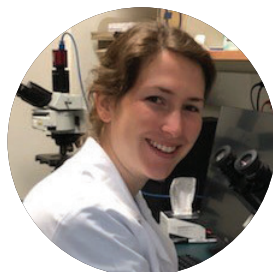
Brian Joseph Burkett, MD

Mayo Clinic

7-Tesla Magnetic Resonance Imaging for Epilepsy: Volumetric Software in Clinical Practice
RSNA Presidents Circle Research Resident Grant

Cameron Callaghan, MD, MPH, MS

University of Iowa Hospitals and Clinics

Pharmacologic Ascorbate Combined with DNA Repair Inhibitors Enhances the Therapeutic Index of Radiation Therapy
RSNA Research Resident Grant

Joshua Choi, MD
Hospital of the University of Pennsylvania

The Effects of Increased Intracranial Pressure on Brain Perfusion Using Contrast-enhanced Ultrasound in a Pediatric-aged Porcine Model of Post-hemorrhagic Hydrocephalus
Philips/RSNA Research Resident Grant

PHILIPS

Charlotte Yuk–Yan Chung, MD, PhD
Emory University

Prediction of CT Perfusion Arterial and Venous Time-attenuation Curve Parameters Using Deep Learning Systems: Proof-of-concept for Developing a Personalized CT Perfusion Protocol for Acute Stroke Workup
Austin Radiological Association/RSNA Research Resident Grant

ARA

Pippa Cosper, MD, PhD
University of Wisconsin

Chromosomal Instability as a Potential Mechanism and Marker of Radiation Sensitivity in Head and Neck and Cervical Cancers
RSNA Research Fellow Grant

Sarah Eskreis–Winkler, MD
Memorial Sloan Kettering Cancer Center

Multi-site Deep Learning Initiative with Decision Support to Improve Diagnostic Accuracy of Breast MRI and Reduce Unnecessary Biopsies
Silver Anniversary Campaign Pacesetters Research Fellow Grant

Shadi Abdar Esfahani, MD, MPH
Massachusetts General Hospital

Imaging HER3-driven Resistance to Anti-receptor Tyrosine Kinase Therapy in Gastric Cancer
RSNA Research Resident Grant

David Konieczkowski, MD, PhD
Massachusetts General Hospital

Impact of Androgen Receptor Splice Variant Expression on Outcomes of Post-prostatectomy Therapy
RSNA Research Resident Grant

Michael Craig Larson, MD, PhD
Banner-University Medical Center
University of Arizona

Furthering the Foundation of Clinical Optical Biopsies
Cook Medical Cesare Gianturco/RSNA Research Resident Grant

Sangjune Laurence Lee, MD, MENG
University of Wisconsin - Madison

Serial 0.35 and 1.5 Tesla MRIs of Esophageal Carcinoma Patients Undergoing Concurrent Chemoradiation to Assess Early Tumor Response and Acute Cardiac Toxicity
Ralph Schlaeger Charitable Foundation Research Fellow Grant

Kirti Magudia, MD, PhD
University of California, San Francisco

Prediction of Clinically Significant Prostate Cancer from Only T2 Weighted Imaging Using Machine Learning
RSNA Research Fellow Grant

Tyler Clark Mandt, MD
University of California, San Diego

Stimulating the Abscopal Effect in Hepatocellular Carcinoma with Cryoablation and Combinatorial Immunoadjuvants
RSNA Research Resident Grant

Adam Christopher Mueller, MD, PhD

University of Colorado

Investigating the Role of Crosstalk Between ADAM10 and EphrinB2/EPHB4 in Mediating Radiation Induced Fibrosis, Invasion and Metastasis in Pancreatic Cancer
RSNA Research Resident Grant

Arash Nazeri, MD

Washington University in St. Louis

MR-guided Focused Ultrasound-enabled Liquid Biopsy (FUSe-Lx) for Frontotemporal Lobar Degeneration Proteinopathies
Canon Medical Systems USA, Inc./RSNA Research Resident Grant

Anatoly Nikolaev, MD, PhD

University of Alabama at Birmingham

Mutant p53 Reactivation as a Targeted Approach for Radiosensitization of Malignancies Harboring Disruptive Mutations in TP53 Gene.
RSNA Research Resident Grant

Michael O'Reilly, MBBCh

University of Washington

Rates and Outcomes of Vertebral Augmentation for the Treatment of Osteoporotic Vertebral Compression Fractures Among the Commercially Insured
RSNA Research Fellow Grant

Brian Park, MD

University of Pennsylvania

Development of Intraoperative 3D Holographic Augmented Reality-assisted Navigation System for CT-guided Percutaneous Ablations
Dr. Alexander Margulis Siemens Healthineers/RSNA Research Fellow Grant

Neil Pfister, MD, PhD

Winship Cancer Institute of Emory University

Defining a Novel Role for Respiratory Complex I Subunits in the Radiation Response: Basic Discovery of Therapeutic Targets and Functional Imaging Tracers
RSNA Research Resident Grant

Jason Barzel Ross, MD, PhD

Stanford University

Enhancing the Therapeutic Index of Radiation Therapy with Macrophage Checkpoint Blockade
RSNA Research Resident Grant

Michelle Roytman, MD

Joan & Sanford I. Weill Medical College of Cornell University

Dynamic 68-Gallium-DOTATATE PET and DCE Perfusion MRI in Meningioma: Correlation with Molecular Pathology and Clinical Outcomes
RSNA Research Resident Grant

Ali Salavati, MD, MPH

University of Minnesota

The Optimal Timing to Perform 18F-FACBC PET/CT in Patients with Biochemical Recurrence of Prostate Cancer: Multivariate Modeling of Prostatic Specific Antigen Kinetics and Clinical/Pathological Features
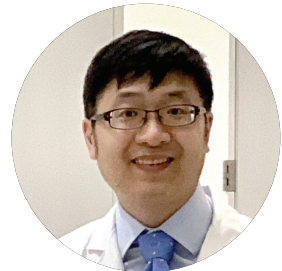GE Healthcare/RSNA Research Resident Grant

GE Healthcare

Kai–Yin See, MD

University of Southern California

7 Tesla MRI Neuroimaging Biomarkers of Prostate Cancer-related Cognitive Impairment
RSNA Research Resident Grant

Chintan Shah, MD, MS
University of Pennsylvania

Impact of Intensive Systolic Blood Pressure Control on Brain Functional Network Integrity
RSNA Research Fellow Grant

Amirali Modir Shanechi, MD
Johns Hopkins University

Development of a Deep Learning System to Identify Human Papilloma Virus-positivity of Oropharyngeal Squamous Cell Carcinoma
RSNA Research Fellow Grant

Aaron Benjamin Simon, MD, PhD
University of California, San Diego

4D Flow MRI for Physiologically-guided Radiosurgery and Quantification of Treatment Response for Cerebral Arteriovenous Malformations
Canon Medical Systems USA, Inc./RSNA Research Resident Grant
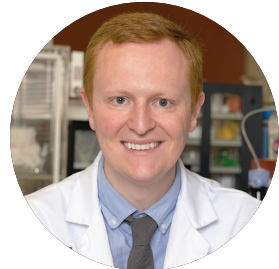
Canon
CANON MEDICAL

Tyler Andrew Smith, MD
University of Utah

Identification and Development of Radioprotective Agents to Reduce DNA Damage Caused by Ionizing Radiation
Scott A. Walter, MS Research Resident Grant

Andrew B. Thompson, MD
Beaumont Health

A Deep Learning Framework for Deformable Image Registration to Improve Radiotherapy Planning and Delivery
RSNA Research Resident Grant

Garth William Tormoen, MD, PhD
Oregon Health & Science University

Characterization of the Effect of Warfarin on the Tumor Immune Microenvironment Following Stereotactic Ablative Radiotherapy
RSNA Research Resident Grant

Justin Tse, MD
Stanford University

CT Angiography for Acute Gastrointestinal Bleeding: Quantitative Imaging Biomarkers to Predict Clinical Outcomes
GE Healthcare/RSNA Research Resident Grant

GE Healthcare

Lucas Vitzthum, MD
University of California, San Diego

Quantitative Assessment of Swallowing After Radiation (QUASAR): Longitudinal Comparison of Swallowing Function by Systemic Therapy in Head and Neck Cancer Patients
RSNA Research Resident Grant

Andrew Louis Wentland, MD, PhD
Stanford University

An Artificial Intelligence Approach to Improve the Differentiation of Surgical from Non-surgical Cystic Renal Lesions
FUJIFILM Medical Systems USA, Inc./RSNA Research Resident Grant

FUJIFILM
Value from Innovation

Adam R. Wolfe, MD, PhD
The Ohio State University

Elucidating and Targeting BRAFV600E Mediated Radioresistance in Anaplastic Thyroid Cancer to Increase Tumor-selective Radiosensitization
RSNA Research Resident Grant

Dylan Wolman, MD
Stanford University

Prospective Utilization of Dual-energy CT for the Detection and Aging of Vertebral Compression Fractures in Trauma
Bracco Diagnostics Inc./RSNA Research Resident Grant

BRACCO
LIFE FROM INSIDE

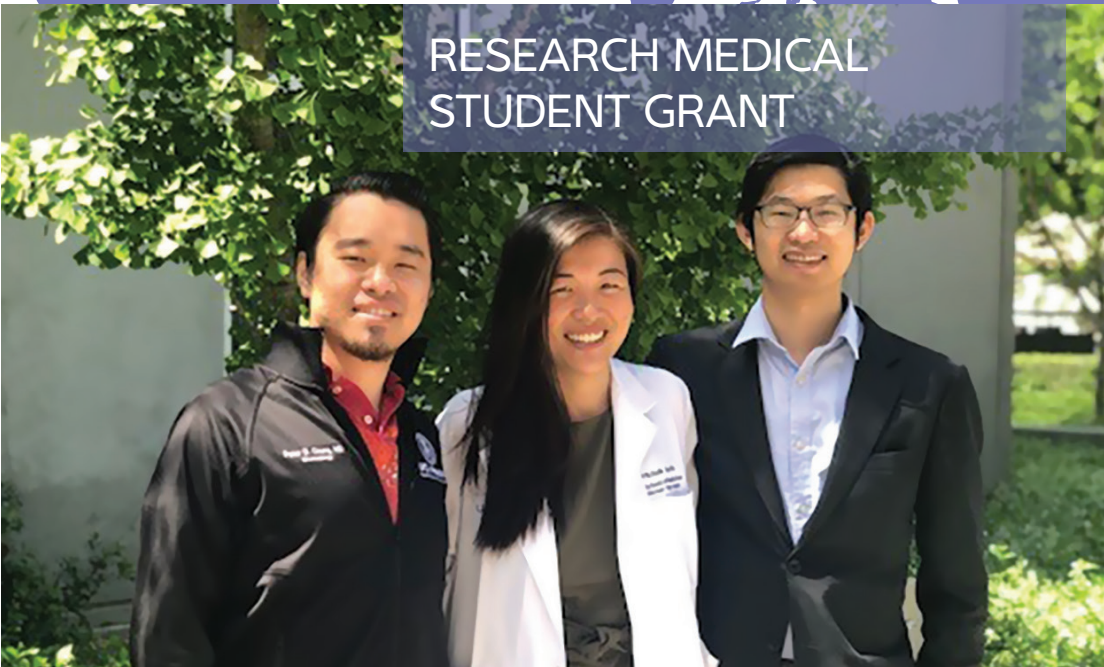### Paul Hyunsoo Yi, MD
Johns Hopkins University

Automated Detection and Localization of Large Vessel Occlusion on CTA of the Head Using Deep Learning Systems
RSNA Research Resident Grant

RESEARCH MEDICAL STUDENT GRANT

Research Medical Student Grant Recipient Michelle Bardis, MS with GE Healthcare/RSNA Research Scholar Grant Recipient Peter Chang, MD (left) and mentor, Daniel S. Chow, MD (right)

"The RSNA Research Medical Student Grant will allow me to use artificial intelligence in detecting, quantifying and characterizing prostate lesions. This project contributes to the clinical applications of machine learning in abdominal radiology."

– MICHELLE BARDIS, MS

"Through the generous support of the RSNA R&E Foundation, I am excited to develop and apply new deep learning artificial intelligence techniques towards improved stroke triage on CT imaging. The opportunity will enable me not only to build novel algorithms, but to also integrate new software tools into the ER radiology workflow at our hospital to maximize and better understand eventual impact to patient care."

– PETER CHANG, MD

Michelle Bardis, MS
University of California, Irvine

Prostate Cancer Detection, Quantification, and Characterization with Artificial Intelligence
RSNA Research Medical Student Grant

Amogh Chandupatla, BS
Joan & Sanford I. Weill Medical College of Cornell University

Texture Feature Deep Learning Analysis of Anatomic Images from Multiparametric Prostate MRI Correlated with Functional MRI Data, PSMA PET, and Histopathology Derived from PSMA PET-MRI
RSNA Research Medical Student Grant

Enoch Chang, BA
Yale University School of Medicine

Identifying Imaging Characteristics of Leptomeningeal Disease Using Deep Learning
RSNA Research Medical Student Grant

Tina Chen
University of Maryland School of Medicine

Outcome Prediction Using Semi-automated and Automated Volumetric Analysis of Liver Injury in Blunt Trauma
RSNA Research Medical Student Grant

Brendan Crabb, BS
University of Utah

Motion Correction in Digital Subtraction Angiography Using Machine Learning
RSNA Research Medical Student Grant

Eric Esslinger
University of British Columbia

Multi Factorial Comparative Study of Dual Energy CT Scanners in Acute Pulmonary Embolism
RSNA Research Medical Student Grant

Brandon Kenneth-Kouso Fields, BA, BM
Keck School of Medicine of USC

Treatment Response Assessment in Soft Tissue Sarcomas Using MRI-based Texture Analysis
RSNA Research Medical Student Grant

Austin Fullenkamp, BS
Keck School of Medicine of USC

Predicting CD8+ T Cell Infiltration in Renal Cell Carcinoma Using Radiomic Signatures
RSNA Research Medical Student Grant

Aakash Gupta, BS
Northwestern University

4D Flow MRI-derived Energy Biomarkers for Grading of Mitral Regurgitation Severity
RSNA Research Medical Student Grant

Alex Hall, BS
Medical College of Wisconsin

Incidence and Risk Factors for Venous Thromboembolic Disease in Patients with Hepatic Malignancy Undergoing Liver-directed Therapy
RSNA Research Medical Student Grant

Lap-Heng Keung
Medical College of Wisconsin

Development of an Interventional Radiology Specific Algorithm for Pre-procedural Laboratory Testing
RSNA Research Medical Student Grant

Charissa Kim, PhD
McGovern Medical School at UTHealth

Applying Radiomics to a Cohort of HCC Patients from the Cancer Genome Atlas to Validate Prognostic Capabilities of Ancillary LIRADS Findings on MRI
Philips/RSNA Research Medical Student Grant

PHILIPS

Sera Kim
Emory University

Can Brain Tumor Reporting and Data System Determine Brain Tumor Prognosis?
RSNA Research Medical Student Grant

Derek Liu, BS
Keck School of Medicine of USC

Radiogenomics Analysis of TCGA Muscle Invasive Bladder Carcinoma
FUJIFILM Medical Systems USA, Inc./RSNA Research Medical Student Grant

FUJIFILM
Value from Innovation

Jack W. Luo
McGill University

Automated Surveillance of Thoracic and Abdominal Radiographs for Acute Incidental Findings: A Deep-learning Based Approach
RSNA Research Medical Student Grant
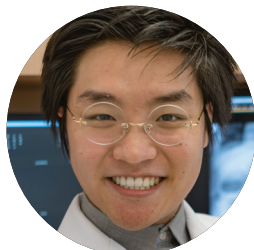
Monica Matsumoto, BA
Enrolled at University of Chicago
Research conducted at Northwestern University

Y90 Radioembolization Combined with Immune Checkpoint Blockade in an Animal Model of Hepatocellular Carcinoma
RSNA Research Medical Student Grant

Sean Nurmsoo, MSc
Dalhousie University

Development and Validation of a Deep Machine Learning Tool for Automated Hematoma Volume Segmentation Using 3D Convolutional Neural Networks
RSNA Research Medical Student Grant

Mara Rosenberg
Oregon Health & Science University

Tumor-intrinsic Markers of Cachexia in Patients with Pancreatic Ductal Adenocarcinoma
RSNA Research Medical Student Grant

John Rutland
Icahn School of Medicine at Mount Sinai

Dynamic Contrast Enhancement of Pituitary Adenoma at Ultra-high Field MRI
RSNA Research Medical Student Grant

Vignesh Selvakumaran, BSE
Duke University

Prediction of Upstaging DCIS to Invasive Disease: Performance Comparison Between Breast Radiologists and Computer Vision Algorithms
RSNA Research Medical Student Grant

Amar H. Sheth, BS
Yale University School of Medicine

Genomic and Immune Profiling for Locoregional Therapy in Intrahepatic Cholangiocarcinoma
RSNA Research Medical Student Grant

Ethan Zee Sy, BS

A.T. Still University School of Osteopathic Medicine in Arizona

Optimal Frequency Evaluation of G* Quantification in 3D Magnetic Resonance Elastography
RSNA Research Medical Student Grant

Ai Phuong S. Tong

University of Washington

Radiomic Analysis of Diffusion Tensor Imaging to Predict Unfavorable Seizure Outcome One Year After Laser Thermal Ablation for Mesial Temporal Lobe Epilepsy
RSNA Research Medical Student Grant

Robert Howard Unger, BS

Cleveland Clinic

Neuroplastic Mechanisms of Noninvasive Brain Stimulation in Stroke Rehabilitation: A Resting-state Functional MRI Study.
RSNA Research Medical Student Grant

Colin Wang, BA

University of Chicago

Baseline CT Radiomic, Genomic, and T Cell Inflammation Assessment of Head and Neck Squamous Cell Carcinoma Treated with Immunotherapy
RSNA Research Medical Student Grant

Robin Wang, BA

Perelman School of Medicine
University of Pennsylvania

Using CT Perfusion and Diffusion-weighted Imaging MRI in Deep Learning to Predict Endovascular Therapy Response in Ischemic Stroke Patients
RSNA Research Medical Student Grant

Yuehyi Gloria Wu, PhD

Joan & Sanford I. Weill Medical College of Cornell University

PET Imaging of Parenchymal Tau- and Beta-amyloid Deposition in Alzheimer Disease: Correlation with Cerebrospinal Fluid Matrix Metalloproteinase-9
RSNA Research Medical Student Grant

EDUCATION INNOVATION/ DEVELOPMENT GRANT

"The RSNA Education Innovation Grant will enable me to develop and evaluate a point-of-care educational tool showing study specific infographics displaying the location and types of recurring real-world errors and associated example cases. This will be based on analysis of resident preliminary interpretation/attending final report discrepancy and attending peer review data collected from two large academic radiology departments over 10 years. Knowledge of these past errors may reduce the likelihood of making similar mistakes in the future."

— RICHARD JOSEPH THOMAS GORNIAK, MD

RSNA EDUCATION INNOVATION GRANT

Erin Gillespie, MD
Memorial Sloan Kettering Cancer Center

Improving Radiation Contour Quality at the Point of Care by Integrating 3D Image-based Contouring Guidelines, Radiographic Anatomy, and Feedback into the Clinical Workflow
RSNA Education Innovation Grant

Richard Joseph Thomas Gorniak, MD
Thomas Jefferson University

MissMap: A Point-of-Care Tool to Show Study Specific Infographics Displaying the Location, Frequency and Types of Commonly Missed Findings Based on 10 Years of Discrepancy Data and Associated Example Cases and Educational Content
RSNA Education Innovation Grant

RSNA EDUCATION DEVELOPMENT GRANT

Tessa S. Cook, MD, PhD and Hanna M. Zafar, MD, MHS
Perelman School of Medicine
University of Pennsylvania

Improving Patients' Understanding of Common Actionable Imaging Findings in the Abdomen and Pelvis
RSNA Education Development Grant

Mark A. Kliewer, MD
University of Wisconsin - Madison

How Informed Consent Affects Patients' Trust and Assessment of Risk: Effects of Message Framing, Denominator Neglect, Anchoring and Rhetoric
RSNA Education Development Grant

Randy C. Miles, MD, MPH
Massachusetts General Hospital

Development and Assessment of an Interactive Electronic Breast Cancer Imaging Educational System
RSNA Education Development Grant

EDUCATION SCHOLAR GRANT & EDUCATION RESEARCH DEVELOPMENT GRANT

"The RSNA Education Research Development Grant will allow us to implement simulated team training to improve communication and care coordination during crisis events that occur in procedure suites in the radiology department. Overall, the goal is to improve patient care during these rare events that can occur while patients are under our care."

— GRETCHEN MARIE FOLTZ, MD

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

PHILIPS

Jon A. Jacobson, MD
University of Michigan

Establishing a Shoulder Ultrasound Program in Rural Uganda to Diagnose and Guide Treatment for Shoulder Disease
Derek Harwood-Nash Education Scholar Grant

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Roentgen Resident/Fellow Research Award recipient Mark D. Sugi, MD (right) with Program Director of Radiology, Maitray D. Patel, MD of Mayo Clinic Arizona.

"It's an honor to receive this award in the company of so many talented young investigators. Each of our contributions to research, as small as they may be, can ultimately improve the outcomes and quality of life for our patients. I'd like to thank my research mentors, especially Dr. Cooky Menias and Dr. Michael Gotway, for stimulating my interest in saving interesting cases and encouraging curiosity in the reading room." -

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Roentgen Resident/Fellow Research award recipient Anthony Paul Trace, MD, PhD (left) with Program Director, Lester S. Johnson, MD, PhD, FACR of Eastern Virginia Medical School

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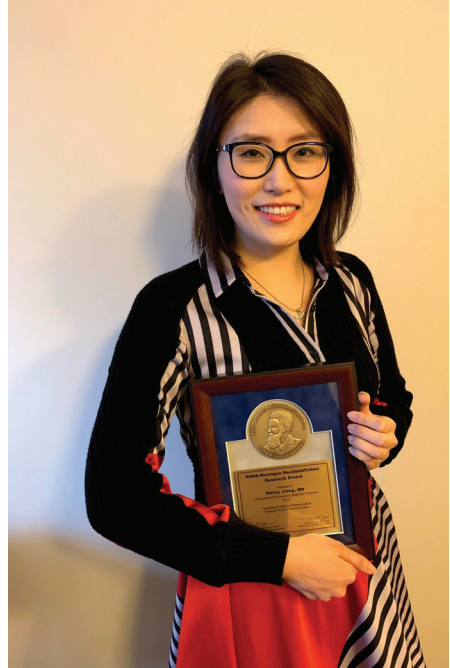Virginia Commonwealth University
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