



2013 Grant Funding Passes \$3 Million Mark



EARLIER THIS SPRING, the RSNA R&E Foundation Board of Trustees, chaired by **James P. Borgstede, M.D.**, approved an all-time high funding level for its 2013 research and education grant awards.

"This year we are providing more than \$3 million in grant funding for 83 research and education projects, both records for the Foundation. As the chair of the R&E Foundation Board of Trustees, I thank all of our generous donors for funding these bold and inspiring investigators and educators and their projects," said Dr. Borgstede.

This year's recipients hail from 40 institutions and are performing research in a number of different subspecialty areas using a variety of modalities and techniques. Their promising projects have clinical and translational implications that will most certainly move our specialty forward. See RSNA.org/Foundation for a complete listing of the projects funded by R&E donors.

★ 2013 GRANT RECIPIENT

Transfusion-Related Iron Overload in Patients with Transfusion-Dependent Anemias

"Detection of myocardial fibrosis in patients with iron overload would allow for improved prognostication and risk stratification. Elucidation of the relationship between myocardial fibrosis and myocardial iron deposition as well as cardiac functional parameters would provide valuable mechanistic insights and improved pathophysiological understanding of the disease. The results of the proposed study have the potential to significantly impact patient management including recommendations for earlier or more aggressive chelation therapy based on changes in ECV values."

Kate Hanneman, M.D.

(Shown here with advisor Bernd J. Wintersperger, M.D., E.B.C.R.)
Toronto General Hospital/
University of Toronto

★ RESEARCH RESIDENT GRANT

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Meet some of the 2013 Grant Recipients



CT Myocardial Tissue Characterization: Utility in Coronary CT Angiography Bypass Graft Assessment

"If we are successful, future clinical trials could incorporate pre- and post-operative CT myocardial tissue characterization, first for observing the natural evolution of these parameters, and later for selecting appropriate coronary artery bypass grafting candidates. This project will provide mechanistic insight into the process of graft failure and may ultimately improve patient selection, intervention and outcomes."

Anna Elizabeth Helen Zavodni, M.D., M.H.Sc.
Sunnybrook Health Services Centre, University of Toronto
★ **AGFA HEALTHCARE RESEARCH SCHOLAR GRANT**

Translational Optical Molecular Imaging for Percutaneous Biopsy of Focal Hepatic Lesions

"With features such as high spatial resolution, high target to background ratios and real-time image display, optical molecular imaging (OMI) has the potential to significantly advance image guidance for Interventional Radiology. The goal of this research is to demonstrate the clinical utility of a hand-held interventional OMI system we have designed and constructed, utilized in conjunction with the clinically approved fluorescent agent indocyanine green, during focal liver biopsy in cirrhotic patients with suspected hepatocellular carcinoma with the goal of decreasing overall procedure time and sampling error."

Rahul Anil Sheth, M.D.
Massachusetts General Hospital/Harvard Medical School
★ **COOK MEDICAL/CESARE GIANTURCO RESEARCH RESIDENT GRANT**



Prostate Cancer—Changing Disease Progression and Clinical Management

"We hypothesize that the combination of 11C-Choline PET/CT and image-guided stereotactic ablative radiotherapy (SABR) will lead to an improvement in the selection of oligometastatic prostate cancer patients, alter their clinical management and impact the natural disease progression."

Sean Sunghun Park, M.D., Ph.D.
Mayo Clinic, Rochester
★ **RESEARCH SCHOLAR GRANT**



R&E Grant Aids in Charting Brain Mapping Career

Twenty-five years ago, researchers knew relatively little about how the brain is organized and how brain disorders manifest themselves. At that time, **Mark A. Mintun, M.D.**, was one of the few investigators in the country exploring functional brain mapping.

In 1988, Dr. Mintun was awarded an RSNA Research Scholar Grant for his project, “Functional Brain Mapping with PET.” Today, Dr. Mintun is widely known as an expert in the field.

In a recent interview, Dr. Mintun, formerly professor and Vice Chair of Radiology at Washington University, who now serves as Chief Medical Officer at Avid Radiopharmaceuticals, recalled how important that RSNA grant was in the beginning of his career:

“The RSNA award was my first grant and was extremely helpful in establishing protected time for research, obtaining matching resources, and in being taken more seriously with potential academic collaborators outside radiology. The fact that I could bring my own grant-supported resources to discussions of future projects with experts in the field of neuroscience, neurology and psychiatry helped establish new funding and new collaborators.”

The credibility of an RSNA grant opened doors, making it possible for Dr. Mintun to conduct several key research projects that established his reputation for new techniques in brain imaging and functional brain mapping. This led to another award from the United States Navy for mapping how the human brain maintains the spatial position of objects in memory. Subsequently, Dr. Mintun teamed up with a group of academic investigators in psychiatry to obtain a grant from the National Institute of Mental Health to establish a Center for Functional Brain Imaging. With the establishment of this Center, many subsequent National Institutes of Health and foundation grants followed.

Dr. Mintun is noted for his work in describing a new mathematical concept, “Binding Potential”, which is a way to communicate about radioligand brain imaging results in a biologically relevant fashion. In addition, his research in amyloid plaque imaging has helped create a better understanding of the biology of Alzheimer’s disease. Dr. Mintun’s research has also assisted in laying the groundwork for functional MRI, which is now in common use in neuroradiology.

“It is obvious to many that radiology is continuing to grow, but what is surprising is that radiology continues to find new ways to grow in its ability to benefit patients. I believe basic and applied research in radiology departments is a central reason for that growth and I hope we continue, as a field, to invest in our young faculty.”



Mark A. Mintun, M.D.

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Mark A. Mintun, M.D.

First R&E Funded Grant in China Yields Significant Results & Resources

The aim of **Jie Li, M.D.**'s 2010-12 RSNA R&E Foundation Derek Harwood-Nash Education Scholar Grant was to develop an education program on breast imaging for the Chinese Society of Radiology with international cooperation. The success of her project highlights what can be achieved by global collaboration.

While training in the United States from the Beijing Cancer Center Hospital & Beijing Institute for Cancer Research, Dr. Li and her exciting project were supported by a unique partnership with **Elizabeth Morris, M.D.**, and the Department of Radiology at Memorial Sloan-Kettering Cancer Center (MSKCC). Together, these partners in education were able to provide training and resources on breast imaging and advance the Chinese radiologist's usage of the American College of Radiology (ACR) BI-RADS Atlas to improve clinical practice and research in breast imaging.

"My colleagues and I at MSKCC are delighted to have had a chance to work with Dr. Li and witness what she has been able to accomplish with the help of the R&E Foundation. It is fascinating to see what can be achieved with the dedication of a few enthusiastic collaborators living thousands of miles apart."

Hedvig Hricak, M.D., Ph.D., Dr (hc)
Chair, Department of Radiology;
Carroll and Milton Petrie Chair,
Memorial Sloan-Kettering Cancer Center

Dr. Li recognized the dramatic growth in breast imaging knowledge in the past decade, but was keenly aware that imaging had not experienced similar growth in her home country of China. With her grant, she provided the education and resources to close this gap and train Chinese investigators to strengthen their skills and improve clinical breast cancer care in China.



Elizabeth Morris, M.D. & Jie Li, M.D. worked together to improve clinical breast cancer care in China.

Working in tandem with Dr. Morris and guided by MSKCC's **David Dershaw, M.D.**, and Beijing Cancer Hospital's **Xiaopeng Zhang, M.D.**, Dr. Li developed a breast imaging curriculum with theoretical and skill-enhancing components that has been taught throughout China. Teaching files and electronic learning resources and cases, along with FAQs on breast imaging have been made available through a free website www.breastimagingonline.org.

Since 2011, five radiologists from across China have completed a six-month clinical fellowship training program using these resources. In November 2011, the Breast Imaging Forum was held in Beijing. In an effort to enhance communication and information dissemination among Chinese and US radiologists, the Forum, hosted by leading Chinese breast imaging societies and in collaboration with MSKCC, was attended by 75 Chinese radiologists and featured the curriculum

developed by Dr. Li and her dedicated team of international collaborators.

A final critical piece of this project was the translation of the ACR BI-RADS Atlas in Mandarin. Guided by **Hedvig Hricak, M.D., Ph.D., Dr (hc)**, and supported by an additional grant from the Breast Cancer Research Foundation, the ACR BI-RADS Atlas was translated, published and disseminated throughout China through the Chinese Society of Radiology. This marks the first time that the complete concepts of BI-RADS were introduced in China; and since this introduction, the use of ACR BI-RADS in published scientific papers in China has increased dramatically.

This project serves as an inspiring example of the R&E Foundation's mission to advance radiologic education and practice.

The Derek Harwood-Nash Education Scholar Grant was established in memory of **Derek Harwood-Nash, M.B., Ch.B., D.Sc.**, who founded the subspecialty of pediatric neuroradiology and spent his life sharing his passion and expertise with radiologists around the world. In honor of his influence on the international radiologic community, the Derek Harwood-Nash Education Scholar Grant focuses on opportunities for international educators and investigators.

Society Collaborations Result in New Grant Awards

Through collaborative efforts between the RSNA R&E Foundation and the Foundations of the American Society of Neuroradiology (ASNR) and the Association of University Radiologists (AUR), two new grant awards were named in 2013.

The goal of the ASNR/RSNA Research Scholar Grant is to fund additional research in neuroradiology and to help prepare the next generation of neuroradiology researchers to become fully funded physician-scientists with their own research programs.

Howard A. Rowley, M.D., Chair of The Foundation of the ASNR said, "I am happy to announce **Michael M. Zeineh**,

M.D., Ph.D., of Stanford University is the first recipient of the ASNR/RSNA Research Scholar Grant for his project 'Multimodal MRI to Detect Brain Injury in Athletes'—a great start to what we hope will be a long and successful partnership with RSNA."

The AUR/RSNA Education Scholar Grant will help build the careers of those interested in advancing the science of



Michael M. Zeineh, M.D., Ph.D.



Chun-Der L. Li, M.D. and Tessa Cook, M.D., Ph.D.

radiology education, and provide the means for development of new educational incentives.

Kimberly A. Applegate, M.D., Chair of the AUR R&E Foundation said, "The AUR R&E Foundation is thrilled to participate in this venture to leverage funds for the benefit of radiology. We look forward to providing valuable mentorship to **Dr. Chun-Der L. Li** and **Dr. Tessa Cook**

as they venture forward on their exciting project, 'High-Fidelity Simulated Environment for Assessment of Radiology Residents Prior to Independent Call'."

R&E Foundation Welcomes New Corporate Donor

Primordial has become the R&E Foundation's newest Platinum level (\$10,000) donor in the Exhibitors Circle corporate giving program. Primordial develops solutions that enable radiology departments to provide timely, quality service to their customers—safely, securely, and cost-effectively.

Primordial provides solutions in the following areas:

- Workflow management and visualization
- Communication, findings, and results
- Quality and compliance
- Analytics, business intelligence, and search
- Radiation dose monitoring
- Media management for scanning, import/export, publishing
- Custom integrations and solutions

PRIMORDIAL



"Primordial recognizes the importance of research and education in improving the quality of healthcare and we are proud to support the RSNA R&E Foundation."

Rob Terheggen, Partner

Largest Private Radiology Practice Group in U.S. Becomes “Visionary”

A growing number of private radiology practices are making contributions through the Visionaries in Practice (VIP) Giving Program because they understand that the R&E Foundation upholds the same principle that they do: To promote the highest standard of patient care.

With this shared mission in mind, the Radiology Associates of North Texas, P.A. of Fort Worth became the newest ‘Visionary’ practice with a \$10,000 group donation through the VIP Giving Program.

“Our practice believes in the importance of ensuring future advances in radiology by supporting the RSNA R&E Foundation,” said President **David R. Phelps, M.D.** “We strongly believe that supporting radiology research is in the long-term, best interest of the patients we serve.”

A leader in imaging for over 75 years, the

Radiology Associates of North Texas, P.A. is currently the largest private radiology practice in the United States with 123 board-certified radiologists providing professional radiology services to over 130 hospitals, imaging centers and “in-office” imaging locations throughout north Texas.



**RADIOLOGY
ASSOCIATES**
OF NORTH TEXAS, P.A.

By joining the VIP ranks, this practice will provide critical grant funding that leads to innovation and scientific advances that ultimately benefit private practice and improve patient care.

Contact Robert Leigh, Manager, Fund Development, at 630-590-7760 or rleigh@rsna.org for more information on the VIP Giving Program.

“Our practice believes in the importance of ensuring future advances in radiology by supporting the RSNA R&E Foundation. We are keenly aware that supporting radiology research is in the long-term, best interest of the patients we serve.”

David R. Phelps, M.D.
President, Radiology
Associates of
North Texas, P.A.

5k Fun Run to Support Critical Research

Join your colleagues for the RSNA Fun Run to benefit the R&E Foundation. On Tuesday, December 3, RSNA meeting attendees will enjoy Chicago’s lakeshore while helping to fuel research for better patient care. Register as a runner or walker during RSNA 2013 course enrollment. Don’t want to run? Participate with a donation instead. Every tax-deductible \$40 registration will benefit the R&E Foundation, and participants will receive a commemorative t-shirt.





Donors taking a break in the R&E Foundation Donor Lounge



Meeting attendees admiring the Presidents Circle Donor Wall

Be Recognized For Your Contributions

The RSNA Research & Education Foundation will recognize donors at RSNA 2013. To be listed on the Donor Wall and receive other recognition and benefits, your gift must be received between October 1, 2012 – September 30, 2013. Visit RSNA.org/Donate.

Did you know? Presidents Circle has a new \$5,000 giving level!

ANNUAL GIFT AMOUNT	RECOGNITION/BENEFIT
\$250 and above	Name on the Donor Wall Access to the Donor Lounge
\$5,000, \$2,500, and \$1,500	Recognition as a Presidents Circle Donor Photo on the Donor Wall Invitation to the Distinguished Donor Reception Express boarding pass for taxis and shuttles

Plan for Your Financial Future at RSNA 2013

Take advantage of an opportunity to participate in the seminar, “Estate Planning in Our New Tax Environment,” presented by experts from TIAA-CREF.

Seminar topics include:

- The Impact of New Tax Laws on You and Your Family
- Retirement Needs Analysis
- Roth Conversions
- Estate Planning Basics
- Sophisticated Planning Strategies
- Non-Tax Related Planning
- Charitable Planning

Visit RSNA.org/register and search **SPEP21** to enroll.



A limited number of complimentary private appointments are available with our estate planning experts during RSNA 2013. All inquiries will remain confidential. Contact Liten DeNaut at ldenaut@rsna.org or 630-368-3744 to reserve your appointment time today.

Why I Support the Foundation

“My contribution to the RSNA R&E Foundation embodies my belief that the future of payment for radiology services, and hence the specialty itself, depends more on quality research than it ever has.”

“I have the privilege of serving as Chair of the ACR Reimbursement Committee so I ponder the future of radiology payment quite extensively. One thing is clear: the ability of radiology to be paid appropriately in the future will depend on our specialty proving the clinical efficacy of imaging and interventions. It is no longer enough to simply bring new technology to patient care and expect to be paid for it; payors will mandate evidence of improved clinical outcomes.”

“I support the R&E Foundation because I know my donation provides outstanding investigators with funding to do that high-quality research.”

Ezequiel Silva III, M.D.



Ezequiel Silva III, M.D. has been a long-time annual donor who recently increased his giving to become a Presidents Circle Donor.

Residents and Fellows Awarded for Significant Research Contributions

With the many contributions German Physicist Wilhelm C. Röntgen made to the science of radiology, it seems fitting to recognize and encourage outstanding residents and fellows involved in radiologic research through the R&E Foundation's **Roentgen Resident/Fellow Research Award** program.

The 2013 RSNA Roentgen Resident/Fellow Research Awards are being presented to 164 residents and fellows in departments of radiology, radiation oncology and nuclear medicine within North American institutions. These bright minds are asking the pertinent questions—and developing the methods and tools to answer those questions—necessary to drive the specialty forward and make new clinical discoveries.

Recipients of this award are selected by program directors and department chairs based on trainees' scientific presentations at regional or national meetings; publication in peer-reviewed journals; and receipt of research grants or other contributions to the success of a research program within the department.

See RSNA.org/Roentgen_Research_award.aspx for the complete list of 2013 recipients.



Three Easy Ways to Give:



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