

Passionate About CT Dose Reduction



Mannudeep Kalra, M.D.

When **Mannudeep Kalra, M.D.**, came to Massachusetts General Hospital (MGH) as a research fellow, he intended to study abdominal imaging with MR. Instead, he was asked to work on CT radiation dose reduction and has never regretted the change in direction.

"I love making CT a safer modality and being part of a group of people trying to make a difference," said Dr. Kalra, an assistant professor of radiology at Harvard Medical School and an assistant radiologist in cardiac and thoracic imaging at MGH.

Over the last 10 years, Dr. Kalra has written, taught and conducted research on CT radiation dosage, including designing protocols and assessing new technologies such as noise reduction

filters. His award-winning efforts have yielded significant CT dose reductions for both adult and pediatric patients at MGH.

Now, with the support of the R&E Foundation, Dr. Kalra is teaching radiologists to interpret low radiation dose CT

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images. He received a 2010-2012 **GE Healthcare/RSNA Education Scholar Grant** for his project, "CT Virtual Autopsy for Radiation Dose Reduction and Radiological-Pathological Correlation Training Programs."

"GE's commitment to patient care means equipping our customers with revolutionary tools that help them provide the highest level of care and diagnostic accuracy while striving for the lowest possible dose," said Tom Gentile, president and C.E.O. of Healthcare Systems at GE Healthcare.



The two-year, \$150,000 grant has enabled Dr. Kalra and his team at MGH to perform extensive imaging on 100 cadavers scheduled for autopsy, producing both low-dose and high-dose CT images that can be compared with pathologically proven abnormalities.

"Our first objective with this project is to learn how low you can go with radiation dose and still maintain image resolution," Dr. Kalra said.

Secondly, Dr. Kalra and his group are using the virtual autopsy images

correlated with histological findings to train radiologists on how pathologically proven abnormalities are depicted at different levels of radiation.

"A typical CT study produces 2,000 images but we will have between 100,000 and 400,000 images for each cadaver, producing a huge repository of data correlated with histological diagnoses," he said. "Our goal is to use these data to help increase radiologists' comfort level in diagnosing at lower resolutions."

Appreciating that this work cannot be done alone, Dr. Kalra would like to acknowledge and thank Sarabjeet Singh, M.D., Shima Aran, M.D., Saravenaz Pourjabber, M.D., Eugene J. Mark, M.D., James R. Stone, M.D., Ph.D., Ander Persson, M.D., Ph.D., and James H. Thrall, M.D.

LOOK INSIDE FOR

- Highlights of RSNA 2011
- Visionaries in Practice

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RSNA 2011 R&E Happenings

DISTINGUISHED DONOR RECEPTION



Drs. Kathe L. and Charles F. Mueller and Dr. Bonnie K. White



William T. Thorwarth Jr., M.D., C. Leon Partain, M.D., Ph.D., Robert R. Hattery, M.D., and Robert E. Campbell, M.D.



Alan C. Hartford, M.D., Ph.D., Theresa C. McCloud, M.D., Chair, R&E Foundation Board of Trustees, and Anton N. Hasso, M.D.



Robert L. Kagan, M.D., (left) and Dr. and Mrs. Stephen C. Dalton



Dr. and Mrs. Michael A. Sullivan with Ingrid Thomas (Center)

Highlights

- Over **1.1 billion people** were reached through press conferences that featured research from three past grant recipients:
 - *Eating Fish Reduces Risk of Alzheimer's Disease* – **Cyrus Raji, M.D., Ph.D.**
 - *Violent Video Games Alter Brain Function in Young Men* – **Vincent P. Mathews, M.D.**
 - *Self-Referral Leads to More Negative Exams for Patients* – **Ben Paxton, M.D.**
- **\$50,000** was donated at the R&E Donor Lounge – a new meeting record!
- The “Casino Night” fundraiser by Brigham and Women’s Hospital Applied Imaging Science Laboratory (AISL) raised \$1,750 to support grants. Hosted by AISL director **Frank Rybicki, M.D., Ph.D.**, approximately 80 radiologists and trainees gathered for a night of fun to benefit the R&E Foundation.

R&E FOUNDATION BOOTH



Gill M. Taylor-Tyree Sr., M.D., admiring the wall of grant recipients in the R&E Foundation Booth

BENEFITS OF BEING A DONOR



Presidents Circle donors using their “Express Boarding Pass” for taxis and shuttle buses

Research Scholars Inspire Residents and Fellows



Hersh Chandarana, M.D., answers a question about his R&E Research Scholar work while R&E Grant Program Committee Chair and session moderator Jannette Collins, M.D., M.Ed., looks on

Second-year Research Scholar Grant recipients presented their findings to residents and fellows during a special session of the Introduction to Academic Radiology course. The session was an ideal venue for attendees to hear first-hand about the research experiences of young academic faculty—positions the attendees plan to hold a few years down the road.

CORPORATE DONOR RECEPTION



R&E grant recipients and representatives from Canon Medical Systems proudly display the Vanguard Donor plaque



Representatives from the Vanguard Donor Program. Corporations have donated more than \$18 million to support research and education grants



William W. Olmsted, M.D.

Best of luck in your retirement!

RadioGraphics editor since 1990, **William W. Olmsted, M.D.**, retired at the end of 2011. During his tenure, Dr. Olmsted oversaw tremendous growth in RSNA's education journal and directed implementation of myriad new features. Still finding time to support the Foundation, Dr. Olmsted held a steadfast presence on the R&E Grant Program Committee and became a Bronze Visionary Donor.

On behalf of the R&E Foundation, we thank you, Dr. Olmsted, for your service to RSNA.

Promoting Research For A Cure

New Endowment Honors Sisters Lost to Cancer

After his two sisters succumbed to cancer (Tandra to breast cancer and Tamasa to adenocarcinoma of unknown origin), **Tapan K. Chaudhuri, M.D., FACNM**, became an activist for a cure. To encourage and recognize innovation in breast imaging research, he has endowed an RSNA Trainee Research Prize award for the best paper in the specialty presented at the RSNA Annual Meeting each year. "I wanted to create this award to promote research in breast cancer," said Dr. Chaudhuri, who, with his wife Chhanda, has four children who are strong proponents of funding for breast cancer research.



*Tapan K. Chaudhuri, M.D., (left) endowed a prize for breast imaging research in memory of his sisters **Tandra R. Chaudhuri, Ph.D.,** (center) and **Tamasa R. Mallik, B.A.** (right)*

"I wanted to create this award to promote research in breast cancer"

Graduated from Calcutta University, Dr. Chaudhuri and his sisters emigrated to the U.S. where they pursued careers dedicated to service, teaching and research. Dr. Chaudhuri, a professor of radiology at Eastern Virginia Medical School and Chief of Nuclear Medicine at Veterans Affairs Medical Center in Hampton, Virginia, is known for his dedication and devotion to teaching, research and clinical practice in the field of nuclear medicine.

His sister Tandra R. Chaudhuri, Ph.D., followed the lead of her older brother and became a professor of radiology and codirector of the Multi-Modality Imaging Laboratory at the University of Alabama at Birmingham. Her research was focused on advancing novel imaging methods for early

diagnosis of cancer, and before her death in 2006, she and her husband had published more than 155 articles and presented 138 scientific papers.

Eldest sister Tamasa R. Mallik, B.A., selflessly served her community through positions in the Baltimore and Washington, D.C. public school systems, as well as prominent positions in Indian organizations. Mrs. Mallik passed away at age 39, and is survived by her husband and three children who carry on her legacy of service.

Min Sun Bae, M.D., received the first Tapan K. Chaudhuri Trainee Research Prize for her paper *Clinicopathologic Characteristics of Breast Cancers Detected by Screening Ultrasound*. "I had a wonderful experience at the RSNA meeting and couldn't forget the moment I received the Research Prize at Arie Crown Theatre," said Dr. Bae. "It has inspired me to focus my academic and research activities. Thank you."



Dr. Min Sun Bae (right) received the first Chaudhuri Trainee Research Prize from Scientific Program Committee Chair, Matthew A. Mauro, M.D. at RSNA 2011

For more information on creating a named endowment, please contact Karena Galvin, Director, R&E Foundation at 630-590-7742 or kgalvin@rsna.org.

Get Funded with the Advanced Course in Grant Writing

Seven R&E Foundation Research Scholar Grant recipients attended the first session of the 2011-12 Advanced Course in Grant Writing at RSNA headquarters in October. The course consists of four multi-day sessions spanning a 9-month period and is designed to assist participants, generally junior faculty members, to prepare and submit a grant application to the NIH, NSF, or other equivalent institution.

The course focuses on key elements of a high-quality grant proposal:

- Study design
- Getting help
- Producing and justifying a realistic project budget
- Clear expository writing
- Revisions and resubmissions
- Understanding the peer review process



2011-12 RSNA Advanced Course in Grant Writing participants at RSNA headquarters in Oak Brook, IL

R&E Scholars are encouraged to take the course during their second year of funding—an ideal time for them to realize the ultimate goal of the grant, “to help establish the recipient as an independent investigator, and to collect preliminary data that could lead to

further funding through established mechanisms such as the NIH.”

Over the years, many Scholars have credited the combination of the R&E grant and the RSNA Advanced Course in Grant Writing for making their first NIH grant possible.

VIP Practices Strongly Committed in Their Support of Research and Development

The R&E Foundation created the Visionaries in Practice (VIP) Giving Program in 2005 to recognize the generosity of radiology practice groups. Linking their support of research and education grants to strengthening their practices and improving patient care, six practice groups have given to the Foundation

consistently for the last seven years.

With close to \$1 million donated since the start of the program, donations from these loyal VIPs have made a real difference. To put this support in perspective, \$1 million could fund 13 Research Scholar grants or 20 Research Resident grants.

Moreover, for every \$1 in R&E grant support, researchers and educators go on to receive an additional \$30 in funding from other sources; which ultimately pushes the specialty forward.

VIP PRACTICES WITH 7 YEARS OF CONSECUTIVE SUPPORT

PLATINUM LEVEL (\$75,000)

Austin Radiological Association
Austin, TX

SILVER LEVEL (\$25,000)

Catawba Radiological Associates
Hickory, NC

BRONZE LEVEL (\$10,000)

Radiology Associates, P.A.
Little Rock, AR

Southeast Radiology, Ltd.
Upland, PA

St. Paul Radiology Foundation
St. Paul, MN

University of Pennsylvania
Philadelphia, PA



“What greater R&D could a private practice have but a national organization dedicated to the specialty?”

William T. Thorwarth Jr., M.D.
Catawba Radiological Associates and
member, RSNA Board of Directors



“We believe in funding the research to assist in developing advances in imaging to benefit our patients and referring physicians.”

Gregory C. Karnaze, M.D.
President, Austin Radiological
Association and member,
R&E Foundation Board of Trustees



For information contact Robert Leigh, Manager Fund Development at 630-590-7760 or leigh@rsna.org.

Grant Recipient Profile

Investing in People: A Two-Time Grantee Advances Radiology and Gives Back to the Foundation

As a young radiologist, **Suresh K. Mukherji, M.D., F.A.C.R.**'s career was very much defined by the times. Now, the highly accomplished neuroradiologist is helping to define a new era in cancer treatment—and to ensure the future of radiology.

Dr. Mukherji came of age—professionally speaking—as molecular imaging technologies were emerging in the early '90s. Embracing the cutting-edge innovations, he applied for and won a \$20,000 **Fuji Photo Film/RSNA Research Seed Grant** in 1993 to use SPECT and the radiotracer fluorodeoxyglucose (FDG) to find tumors in the head and neck.

"I know the seed grant helped me secure my first academic position," said Dr. Mukherji. "To have your ideas validated by the best radiological society in the world says a lot to the individuals recruiting you."



Suresh K. Mukherji, M.D., F.A.C.R.

As a new professor at the University of North Carolina, he continued studying head and neck cancers with

magnetic resonance imaging spectroscopy—and ended up on the ground floor of biomarker research.

"I know the seed grant helped me secure my first academic position."

"We didn't call it a biomarker back then, but that's what it was," said Dr. Mukherji of his two-

year, \$90,000 **Nycomed, Inc./RSNA Research**

Scholar Grant to study the metabolite choline as a predictor of patient response to treatment.

Serving as director of neuroradiology at the University of Michigan since 2001, Dr. Mukherji has written more than 250 peer-reviewed articles and 13 books, in addition to lecturing around the world. As principal investigator and co-investigator, he has received millions of dollars in research support from the

NIH, the NCI and ACRIN—all of which has put him in a reciprocating frame of mind.

"As you get older, you remember those individuals who have helped you," he said.

This year, Dr. Mukherji and his wife, Rita Patel, became Presidents Circle

donors to the R&E Foundation, contributing from their newly established personal charitable fund.

"RSNA as an organization has developed a culture of giving over the last 20 to 30 years, making investments in individuals like me," he said. "They have led by example and now that culture is a part of us."

"Research and education are the fundamental cornerstones of how our specialty will continue to thrive," Dr. Mukherji said. "Research and innovation sustain and advance us in a step-wise progression. And the next great innovation is dependent on a trained workforce who understands and uses this technology."

To learn more about RSNA R&E Foundation grant programs, contact Scott Walter, Assistant Director, Grant Administration at 630-571-7816 or swalter@rsna.org.



"I cannot place a price on the impact RSNA has had on my life. I have made so many incredible friends and have been inspired to think and innovate. Thanks to RSNA, I am a better radiologist and have learned about life, leadership, and technology. I donated to give something back in gratitude for all RSNA has given me."

Dr. Oshaani Abeyakoon
Resident and First-time Donor

Volunteer Profile

Getting to Know Phan T. Huynh, M.D. Member, R&E Individual Giving Subcommittee

Volunteers on the Individual Giving Subcommittee work with R&E staff on all aspects of annual and planned giving to the Foundation. Recently, we interviewed **Phan T. Huynh, M.D.**, about his volunteer service to the Foundation.

R&E: How did you first become involved with the RSNA?

PH: I attended my first RSNA meeting in 1994. It was truly an eye-opening experience. In November of 2003, I had the honor and privilege to be appointed an Associate Editor of *Radiology* by **Dr. Anthony Proto** and the RSNA Board of Directors. I held that position for four years and then served as Consultant to the Editor until December 2011.

R&E: How did you first become active in the R&E Foundation?

PH: I have always believed in giving back to our specialty and began donating to the R&E Foundation as soon as I started practicing. In 2005, I became a Presidents Circle donor, and at the 2007 Annual Meeting when listening to **Dr. Anne Osborn's** remarks during the R&E Foundation address, I was motivated to become a Pacesetter donor for the Silver Anniversary Campaign.



Phan T. Huynh, M.D.

R&E: What do you enjoy the most about your role as a member of the Individual Giving Subcommittee?

PH: I love the ability to connect with individual donors and discuss ways to support and grow the Foundation. This past June, I had the pleasure to personally thank retired RSNA member, **Dr. Earl R. Brown, Jr.** Dr. Brown is 87 years old and has supported the Foundation since 1990. More recently, I had the honor to connect with **Dr. Richard Lester** who was our 1983 RSNA President and an RSNA Gold Medalist. These gentlemen led the way and it is up to all of us to continue what they have started.

R&E: What motivates you personally to donate to the R&E Foundation?

PH: I feel so much gratitude to be in our

amazing profession and I feel I owe it to my mentors who shaped my career to give back. For those of us who don't have the time and dedication to do groundbreaking research, there is no better way than to live vicariously through the talented R&E Foundation grant recipients.

R&E: What additional information would you like to share with your colleagues about the R&E Foundation?

PH: The R&E Foundation is our specialty's research and development program. Without research and development, radiology will never be at its rightful place in medicine. Fortunately, the R&E Foundation is blessed to have committed volunteers and staff members who work to fulfill its mission and support radiology investigators in advancing our specialty.

A graduate of Amherst College and the University of Virginia School of Medicine, Phan T. Huynh, M.D., is the medical director of the Women's Center, St Luke's Episcopal Hospital at the Texas Medical Center in Houston, Texas. Dr. Huynh holds appointments as a clinical associate professor of Radiology at the University of Texas Houston Health Sciences Center and at the Baylor College of Medicine.

"I feel so much gratitude to be in our amazing profession and I feel I owe it to my mentors who shaped my career to give back"

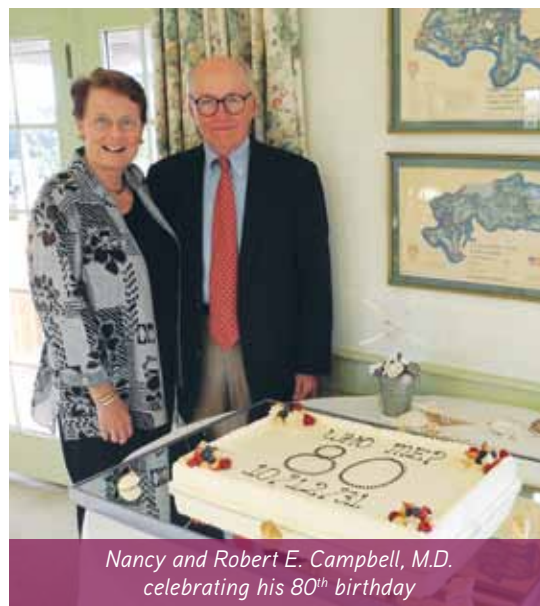
Interested in volunteering for a Foundation committee, study section, or review panel?
Contact Sena Leach, Assistant Director, Board and Committee Affairs at 630-571-7810 or sleach@rsna.org.

Commemorative Giving

The R&E Foundation receives many gifts each year in tribute to the lives and service of RSNA members and friends. Recently, the Foundation received a gift from the children of **Robert E. Campbell, M.D.**, in celebration of their father's birthday.

"As a doctor, teacher and philanthropist our father has committed himself to helping others. Through all he has done to help others, he has taught us the importance of giving back any way you can. Over the last 30 years he has been devoted to the R&E Foundation of the RSNA. For his 80th birthday, my brothers and I and our families felt that the gift he would treasure most would be a gift to the R&E Foundation in his honor." - Nan Bussey

If you would like to make a gift "in honor of" or "in memory of" a friend, mentor, colleague, or loved one, you can donate online at RSNA.org/donate or contact R&E staff at 630-368-7885.



Nancy and Robert E. Campbell, M.D.
celebrating his 80th birthday



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- ▶ Help launch the careers of young investigators.
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