

Presidents Circle Donor Turns Opportunities, Work Ethic into Rewarding Career



Eric M. Wilner, M.D.

Eric M. Wilner, M.D., describes himself as the prototypical “outlier,” a term coined by best-selling author Malcolm Gladwell, who asserts in his book *Outliers: The Story of Success* that highly successful people have talent and ambition but are also the beneficiaries of opportunities to intensely cultivate a particular skill. Gladwell posits that 10,000 hours is the magic number that changes good to great.

Being the son of a prominent Oklahoma radiologist presented Dr. Wilner with his first opportunity—he remembers counting the ribs on chest X-rays as a 5 year old.

“Radiology is in my genes,” said the radiologist who has been in private practice in the Boston area for 30 years. “I was exposed to it in infancy.”

As an undergraduate at Northwestern University, Dr. Wilner majored in math, a subject in which he had always excelled. But his thirst for knowledge drove him to explore a variety of philosophy and other college courses, as well Chicago’s music scene.

“It was a tumultuous time in the late ‘60s and Chicago was a great place to

be,” said Dr. Wilner, who played piano in high school. “I became hooked on the blues there.”

Once he decided on medical school at the Medical College of Wisconsin, choosing the field of radiology was an easy decision. For a visual learner like Dr. Wilner, studying images was akin to going to the movies.

“I love imaging and radiology,” said Dr. Wilner. “If someone is fortunate to

find something they are interested in doing, they need to try their best to be good at it. I’ve put in my 10,000 hours developing a comfort level in my profession.”

Today, he still logs as many as 70 hours per week reading images and interacting with patients—which he called the most satisfying part of his day.

“[NBA superstar] Larry Bird is one of my heroes, not because he was the fastest or jumped the highest but because he

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Dr. Wilner recently participated as a member of a radiology delegation to South Africa to exchange ideas regarding the current and future status of radiology healthcare delivery in South Africa and the United States.

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worked his tail off. I have a work ethic like that and that's why I am good at what I do... it has nothing to do with my IQ," he said.

Several years ago, Dr. Wilner stumbled upon a few other interesting life stories—those of the RSNA R&E Foundation grant recipients.

"After I read the testimonials of the R&E Foundation scholars, I decided to contribute to the Foundation," he said. In 2009, Dr. Wilner became a Presidents Circle member, donating \$1,500 per year.

"We have a definite need for continued research and education to explore areas

like functional imaging and new agents for PET," said Dr. Wilner. "R&E Foundation funding is crucial for attracting new professionals to the field and provides the opportunity to explore new ideas."

Dr. Wilner cautioned today's physicians to use imaging judiciously, not only to avoid being overwhelmed by piles of test results and incidental findings, but

also to stay focused on the basics—the clinical exam and listening to the patient.

"I grew up in a family where you had to shout to be heard," said Dr. Wilner.

"But I have become much more of a listener than talker. I make an empathic connection with patients, because that's what they want. Patients just want to be heard."



YOU CAN BE PART OF THE PRESIDENTS CIRCLE

Make a lasting impact on the future of radiology. The Presidents Circle recognizes individuals who make annual gifts at two levels: \$1,500 and \$2,500. For more information on individual giving opportunities, visit RSNA.org/Foundation or contact Robert Leigh, manager of fund development at rleigh@rsna.org or 1-630-590-7760.

Foundation News

Corporate Partner Organizes Booth Fundraiser at RSNA 2009

A longtime supporter of the Foundation as a Vanguard company, Hitachi Medical Systems gave attendees the opportunity to give back at RSNA 2009. Attendees who visited the Hitachi booth completed a survey, and in return, Hitachi donated to one of five research and disease foundations of the attendee's choice—making this a truly "feel good" giveaway. The Foundation thanks Hitachi Medical Systems, who collected \$1,500 for RSNA R&E grant programs.

Volunteer Opportunities Deadline Approaching

Apply to serve on an R&E Foundation Committee. We depend on the expertise and support of our volunteers to serve in various capacities. The deadline to apply for the next volunteer term is August 10. Committee appointments are determined at the Fall Board of Trustees meeting. To learn more contact Susan Thomas, assistant director of R&E governance and administration, at stthomas@rsna.org or 1-630-571-7810.

Demand for R&E Grants Soars!

60% Increase in Grant Applications

A total of 160 research and education grant applications were submitted this year, a 60% increase from 2009. Medical student grant applications remained high, setting a new record at 36.

Study Sections Meet at RSNA Headquarters

The Education Study Section, Radiology Study Section and the newly instituted Radiation Oncology Study Section met in March at RSNA headquarters in Oak Brook, Illinois, to review and score the grant applications. Grant funding decisions will be made by the Board of Trustees in late April.



The Radiation Oncology Study Section met at RSNA Headquarters on March 12 to review and score grant applications.

Visionaries in Practice Profile

Central Indiana Group Supports the Specialty

Since 2008, Northwest Radiology Network of central Indiana has been part of a “visionary” group of private practices and academic institutions.

“Northwest Radiology Network is proud to participate in the RSNA R&E Foundation Visionaries in Practice (VIP) program, which gives us the opportunity to support those individuals who will be leading the development of our specialty,” said Vincent P. Mathews, M.D., president and CEO of Northwest Radiology Network. “This greatly benefits both academic and private radiology practices.”



More than 40 board-certified radiologists, who offer comprehensive inpatient and outpatient imaging services specializing in diagnostic imaging, neuroradiology, musculoskeletal, pediatric, nuclear medicine, mammography, vascular and interventional radiology services, make up Northwest Radiology Network.

The VIP program was designed for practice groups and academic institutions who understand the value of investing in their specialty. The Foundation gives recognition to these groups at the RSNA annual meeting and through-

out the year in various RSNA publications. The R&E Foundation would like to thank Northwest Radiology Network and all 22 VIP practices for their support.



I'D LIKE MY PRACTICE
TO BE A VIP

For more information on becoming a VIP practice, and for a complete listing of VIP benefits by giving level, please contact Robert Leigh, manager of fund development at leigh@rsna.org or 1-630-590-7760.

Thank You to our VIP Groups



PLATINUM \$75,000

Austin Radiological Association
Austin, Texas

SILVER \$25,000

Catawba Radiological Associates
Hickory, N.C.
Radiological Associates of Sacramento
Medical Group, Inc.
Sacramento, Calif.

BRONZE \$10,000

Asheville Radiology Associates
Asheville, N.C.
Eastern Radiologists
Greenville, N.C.
Greensboro Radiology
Greensboro, N.C.
Jefferson Radiology
East Hartford, Conn.
Johns Hopkins Medicine
Baltimore, Md.
McHenry Radiologists & Imaging Associates
McHenry, Ill.
Mecklenburg Radiology Associates
Charlotte, N.C.

Medical Center Radiologists, Inc.
Norfolk, Va.

Northwest Radiology Network
Indianapolis, Ind.

Radia

Everett, Wash.

Radiology Associates of Canton, Inc.
Canton, Ohio

Radiology Associates, P.A.
Little Rock, Ark.

Radiology Imaging Associates
Denver, Colo.

Raleigh Radiology
Raleigh, N.C.

Southeast Radiology, Ltd.
Upland, Pa.

St. Paul Radiology
St. Paul, Minn.

University of Pennsylvania Health System
Philadelphia, Pa.

West Reading Radiology
West Reading, Pa.

VIP UP TO \$10,000

Hazard Radiology Associates
Hazard, Ky.

Vanguard Company Profile

FUJIFILM Medical Systems USA

FUJIFILM Medical Systems USA, a founding Vanguard company since 1989, continues its long-term commitment to the RSNA R&E Foundation by supporting two research grants.

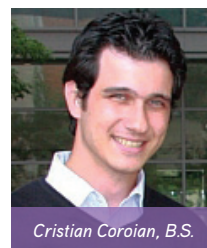
“For more than two decades Fujifilm has been proud to support the RSNA Research & Education Foundation,” said Paul Genovese, Fujifilm senior vice-president, in reference to the 29 research grants that Fujifilm has funded over the years. “The initiatives that the R&E Foundation funds are vital to advancing the field of radiology and will ultimately help to improve healthcare for generations to come.”

Fujifilm has nearly 40 years of expertise in the industry. Just as the R&E Foundation’s research endeavors continue to change and advance the industry, so too must Fujifilm continue to advance and innovate its product line to meet the demands

of today’s radiology department. The inventor of computed radiography and still the market leader in digital x-ray, Fujifilm also is advancing its medical informatics line and growing its women’s healthcare business.

“While we extend our reach into PACS, RIS, cardiovascular imaging and advanced women’s imaging products, Fujifilm remains true to our core expertise in image processing,” explained Genovese. “Our goal is to provide the tools that will ultimately deliver high quality imaging results for confident diagnosis.”

Fujifilm is currently supporting two R&E research grants. A. Paiman



Cristian Coroian, B.S.



A. Paiman Ghafoori, M.D.

dent Grant for his project, *Using Micro-CT to Define the Role of Endothelial Cells in the Response of Primary Lung Cancers to Radiation Therapy*. Cristian Coroian, B.S., from UCLA David Geffen School of Medicine, received a Fujifilm Medical Systems/RSNA Research Medical Student Grant for his project, *Retrospective Review of Extra Hippocampal White Matter Abnormality in Patients with*

“The initiatives that the R&E Foundation funds are vital to advancing the field of radiology.” Paul Genovese, Fujifilm senior vice-president

Hippocampal Sclerosis, Using Diffusion Tensor Imaging: Three Automated Post Processing Methods.



William M. Angus, M.D., Ph.D.

In Memoriam

The Foundation bids farewell to a devoted friend. William M. Angus, M.D., Ph.D., passed away December 14, 2009, at the age of 81. During his distinguished career with Philips, Dr. Angus worked to develop more advanced and comprehensive radiology equipment. Dr. Angus was involved with the Foundation as a volunteer and Ruby Visionary donor. He served on the Board of Trustees from 1997 to 2003 and lent his expertise to numerous Foundation committees over the years. He will be remembered fondly by all friends and colleagues.

**DONATE.
VOLUNTEER.
GET FUNDED.**



RSNA Research & Education Foundation
RSNA.ORG/FOUNDATION

Grant Report Highlights

A glimpse at just one of the projects made possible by your donations. A complete list of grant projects can be found at RSNA.org/Foundation.



Takeshi Yokoo, M.D., Ph.D.

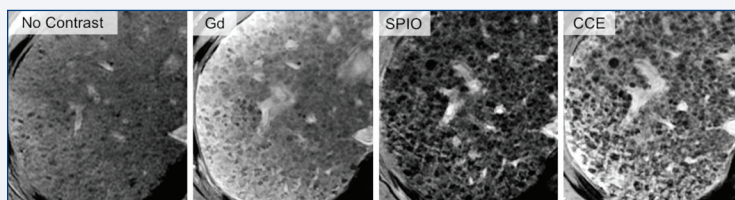
Department of Radiology
University of California San Diego
2007 RSNA Research Resident Grant

Project Title: Diagnosis and Staging of Liver Fibrosis by Quantitative Texture Analysis of Contrast-Enhanced Magnetic Resonance Images

Abstract Highlights: Hepatitis C virus (HCV) infection is a major cause of liver-related death. Appropriate management of HCV-infected patients requires accurate assessment of liver fibrosis. Because biopsy, the current gold standard for diagnosis and staging of liver fibrosis, has risks and limitations, there is a need for noninvasive alternatives. Combined contrast-enhanced (CCE) MR imaging with superparamagnetic iron oxides (SPIO) and low-molecular-weight gadolinium (Gd) chelates has been shown to visualize liver fibrosis as high-signal reticulations against low-signal liver background.

In this prospective cross-sectional clinical study, we will develop a quantitative texture-analysis method to objectively evaluate liver fibrosis in HCV-infected patients.

Figure Shown: MR images of liver cirrhosis due to HCV. Noncontrast, Gd-only, SPIO-only, and CCE 2D breath-hold T1-weighted gradient-echo images of cirrhotic liver due to HCV. Abnormal reticular pattern of the liver parenchyma is better visualized on contrast-enhanced (Gd or SPIO) images, and best visualized on CCE images.



The purpose of this study: To prospectively evaluate the feasibility of noninvasive, objective fibrosis detection in the HCV population using CCE MR imaging and texture analysis. We hypothesized that certain features of the image texture are potential imaging biomarkers for liver fibrosis. Multivariate texture-based fibrosis prediction model was constructed using liver biopsy and histology as the reference standard, and its diagnostic performance was assessed. As far as we are aware, this represents the first prospective human study to test MR image texture as a biomarker in a specific liver disease.

In this prospective clinical study, feasibility of CCE MR imaging and texture analysis for noninvasive and objective liver fibrosis detection was assessed in HCV-infected subjects. Biopsy reports with Batts-Ludwig histological fibrosis score (F0-4) were used as the reference standard. This is the first prospective study assessing the MR image texture as a biomarker for liver fibrosis in the HCV population. The study design closely simulates a typical clinical situation, in which a newly diagnosed HCV-positive patient is recommended for a diagnostic liver biopsy for disease staging purpose.

In Summary: Noninvasive, objective liver fibrosis detection by CCE MR imaging and quantitative texture analysis is feasible. MR image texture is a potential noninvasive biomarker of liver fibrosis and may provide a new tool in the clinical management of HCV-infected patients.

Interested in learning about grant opportunities?

Contact Scott Walter, M.S., assistant director of grant administration at swalter@rsna.org or 1-630-571-7816.

Exhibitors Circle Profile

Bringing New Light to Disease Diagnosis

Lantheus Medical Imaging, Inc., Donates \$10,000 to Support the R&E Foundation



Lantheus and R&E staff at RSNA 2009

Evolving over the past 50 years to become a worldwide leader in the field, Lantheus Medical Imaging brings a tradition of innovation and leadership to the medical imaging industry. Headquartered in North Billerica, Massachusetts, and with offices in Canada, Puerto Rico and Australia, Lantheus employs more than 600 people worldwide. The company continues to expand its product port-

folio, continually seeking new ways to “bring light” to the diagnosis of disease.

“Lantheus has a strong, ongoing commitment to progressing the field of radiology,” said Don Kiepert, President and CEO of Lantheus. “Last year we purchased ABLAVAR™, a first-in-class MR angiography agent for the evaluation of aortoiliac occlusive disease in adults with suspected peripheral vascular disease, and we are proud to announce that it is now available in the United States for physicians and the patients they serve. In addition to ABLAVAR™, Lantheus is developing a pipeline of novel radiology products to address unmet patient

needs.”

In 2009, Lantheus joined the RSNA Exhibitors Circle at the Platinum Level. The company’s donation of \$10,000 directly supports the Foundation. “Lantheus recognizes the importance of fostering innovation through research, and we are pleased to support the development of future leaders through RSNA,” continued Don Kiepert. “These researchers are

fundamental to driving innovations in the industry and improving patient care.” The

RSNA R&E Foun-

dation would like to thank Lantheus Medical Imaging and all 31 companies who supported the 2009 Exhibitors Circle program.



Grant Recipient Profile

Georgia Tech’s Eminent Scholar Uses MR to Better See, Understand the Brain

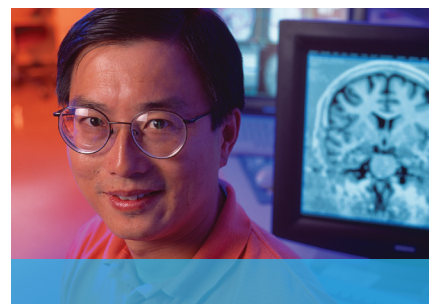
Xiaoping Hu, Ph.D., a 1991 E.I. DuPont de Nemours, Inc./RSNA Research Scholar Grant recipient, is working with molecular imaging biomarkers that may one day help clinicians visualize cancer earlier and more accurately.

“The RSNA R&E Foundation grant got my career started,” he said. “It provided me with the funding I needed to obtain pilot data for additional funding.” Since then, Dr. Hu has been awarded millions of dollars in grants from a variety of sources including the NIH, NCI and private foundations.

In 2002, he was recruited to be a pro-

fessor and eminent scholar in imaging in the Coulter Department of Biomedical Engineering at Georgia Tech and Emory University. Dr. Hu is also director of the Biomedical Imaging Technology Center, which he helped establish in 2002.

Under Dr. Hu’s guidance, the center’s 20 researchers are studying the brain, neuropsychiatric problems and better ways to diagnose and monitor the treatment of cancer. A major direction of their research involves Granger causality analysis to study brain connectivity—how different parts of the brain talk to each other.



Xiaoping Hu, Ph.D.’s research career was launched by his 1991 R&E grant.

With the help of the center’s recently acquired 9.4 T MR imaging/MR spectroscopy system, Dr. Hu and his team have unprecedented imaging sensitivity and resolution with which to tackle depression, fetal alcohol syndrome and other neurologic problems.

Your Donations are Making a Difference

These Bright Minds Thank You!

Because of generous donors like you who support the Foundation, the following grant projects are under way.

See the entire list at RSNA.org/Foundation.

**Ashok Srinivasan, M.D.**

Carestream Health/RSNA Research Scholar Grant, Radiology, University of Michigan Health System, *Creation of a Model for Predicting Response to Chemoradiation in Head and Neck Squamous Cell Carcinoma*

Anand Singh, M.D.

Siemens Healthcare/RSNA Research Fellow Grant, Radiology (3-D Imaging), Massachusetts General Hospital, *A Novel CT-based Biomarker for Predicting Therapy Response in Hepatocellular Carcinoma by Selective Quantification of Non-necrotic and Tumor Components*

A. Paiman Ghafoori, M.D.

Fujifilm Medical Systems/RSNA Research Resident Grant, Radiation Oncology, Duke University Medical Center, *Using Micro-CT to Define the Role of Endothelial Cells in the Response of Primary Lung Cancers to Radiation Therapy*

Jerry Jaboin, M.D., Ph.D.

Philips Healthcare/RSNA Research Resident Grant, Radiation Oncology, Vanderbilt University Medical Center, *Targeted Radioiodinated Nanoparticles for the Treatment of High Grade Glioma*

Kristina Hoot, Ph.D.

Canon U.S.A./RSNA Research Medical Student Grant, Radiation Oncology, Oregon Health & Science University, *Efficacy of Targeted Molecular Therapies Combined with Irradiation on Skin Squamous Cell Carcinomas*

Brian Jin, B.A.

RSNA Research Medical Student Grant, Radiology, Northwestern University and Albert Einstein College of Medicine, *The Correlation of Tumor Perfusion with Clinical Outcomes During Chemoembolization of Hepatocellular Carcinoma*

Cristian Coroian, B.S.

Fujifilm Medical Systems/RSNA Research Medical Student Grant, Radiology, University of California Los Angeles David Geffen School of Medicine, *Retrospective Review of Extra Hippocampal White Matter Abnormality in the Patients with Hippocampal Sclerosis, Using Diffusion Tensor Imaging: Three Automated Post Processing Methods*

Hsiang-Hua Hung, B.A.Sc., M.A.Sc.

RSNA Research Medical Student Grant, Radiology, Northwestern University Feinberg School of Medicine, *Development of Magnetic Resonance Imaging-Visible Embolic Agents*

Marcus Jansen, B.Sc.

Philips Healthcare/RSNA Research Medical Student Grant, Radiology, University of Ottawa, *Comparison of CT Perfusion and MR Perfusion Derived Cortical Grey Matter CBF in Cognitively Impaired and Unimpaired Multiple Sclerosis Patients*

Ted Ling, M.S., B.S.

RSNA Research Medical Student Grant, Radiation Oncology, James M. Slater M.D. Proton Treatment and Research Center, Loma Linda University and St. Louis University, *Evaluation of the Effect of Spleen Irradiation on the Extent of Ischemic Stroke in a Rat Model*

Christina Ma, B.S.

RSNA Research Medical Student Grant, Radiology, USC Keck School of Medicine, *Evaluation of 18F-FDG PET/CT In Monitoring Tumor Ablation Efficacy of Irreversible Electroporation (IRE) on Rabbit VX2 Liver Tumor*

Lina Nayak, B.A.

RSNA Research Medical Student Grant, Radiology, Washington University Medical School Mallinckrodt Institute of Radiology, *Post-Thrombotic Syndrome: Outcomes of Imaging-Guided Endovascular Intervention*

Bradford Perez, B.S.

RSNA Research Medical Student Grant, Radiation Oncology, Duke University School of Medicine, *Dissecting the Role of p53 in the Response of Primary Lung Cancers to Radiation Therapy*

Chintan Shah, B.S.

Canon U.S.A./RSNA Research Medical Student Grant, Radiology, Cleveland Clinic Foundation, *Evaluation of Hippocampal Damage and Episodic Memory Loss in Multiple Sclerosis Using DTI*

Aine Kelly, M.D.

GE Healthcare/RSNA Education Scholar Grant, Radiology (Cardiothoracic), University of Michigan, *The Influence of Evidence-based Teaching Methodology on Appropriate Imaging Utilization in a Large Academic Radiology Department*

▼ New Record
Number
of Grant
Applications!

160
TOTAL
APPLICANTS

41
EDUCATION
APPLICANTS

119
RESEARCH
APPLICANTS

Details on page 2

Improving the Outlook for Patients with Alzheimer Disease

Recent Grant Recipient Research Focuses on Finding Better Diagnostic Methods for Alzheimer Disease

A 2007 Research Medical Student Grant recipient, Cyrus A. Raji, Ph.D., quickly became recognized for his research in the area of Alzheimer disease early in his career. Dr. Raji is entering his final year of combined M.D./Ph.D. training at the University of Pittsburgh School of Medicine. "In my third year of medical school, clinical electives in

tion of research, mentorship and clinical work showed me just how dynamic, exciting and rewarding a career in academic radiology can be," said Dr. Raji.

"I have a strong interest in finding better diagnostic methods for Alzheimer disease because this affliction robs us of fundamental aspects of who we are, such as memories and cognitive abilities," said Dr. Raji.

This led him to apply for the R&E grant with the purpose of using a noninva-

conferences such as the RSNA annual meeting and in peer-reviewed papers.

"This research experience also formed the springboard for a larger grant from the American Heart Association that led to additional publications in *Neurology* and *Human Brain Mapping*," added Dr. Raji, who plans to apply for additional R&E funding and NIH grants.

The future for

radiology holds many possibilities that motivate this young medical student-

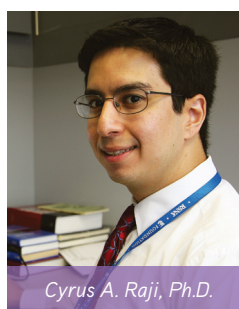
*"This research experience also formed the springboard for a larger grant from the American Heart Association that led to additional publications in *Neurology* and *Human Brain Mapping*."*

radiology showed me just how crucial radiology is to guiding patient care," said Dr. Raji.

He credits mentors as his source of inspiration for going into the field. "One influential mentor was Dr. Carolyn Cidis Meltzer at the University of Pittsburgh Medical Center. Her seamless combina-

sive method of perfusion arterial spin labeled MR imaging for the detection of Alzheimer disease early in its course.

The R&E grant which led to a publication in the *American Journal of Neuroradiology*, has enabled Dr. Raji to form new ideas, earn funding, conduct research and communicate to colleagues through



Cyrus A. Raji, Ph.D.

scientist. "Combining genomics, proteomics, and biomarkers with imaging modalities to better personalize, enhance and amplify the effectiveness of imaging in patient care is very exciting," said Dr. Raji. "I look forward to being part of this advancement as I progress through residency training and future practice."