2009 SIR Foundation Grant Recipients

The SIR Foundation's Grant Review Study Section assembled at the 2009 Annual Scientific Meeting in San Diego, CA, to review the grant applications submitted for the current cycle. The group reviewed a total of 22 grant applications and awarded 13 grants; one Dr. Ernest J. Ring Academic Development Grant, three Pilot Research Grants and 9 Student Research Grants. The SIR Foundation has awarded over $2 million in grant funding over the past 15 years. Foundation grant recipients have subsequently received over $50 million in all source grant funding, with nearly $40 million being awarded by the National Institutes of Health. The SIR Foundation grant programs provide an excellent return on investment.

Dr. Ernest J. Ring Academic Development Grant

Clifford R. Weiss, MD
(Johns Hopkins University School of Medicine)

MR-guided Transplantation of Magnetoencapsulated Human Pancreatic Islet Cells in a Diabetic Swine Model

Pilot Research Grant

Rajoo Dhangana, MD
(Rhode Island Hospital)

The LEAD Interventions Study (Lower-extremity Peripheral Arterial Disease Interventions: Percutaneous-first Approach vs. Surgical-first Approach and Their Impact on Amputation Volumes Among Medicare Beneficiaries)

Joseph Erinjeri, MD
(New York School of Medicine)

Mediators Underlying Local Inflammation and Treatment Response Following Thermal Ablation of Tumors

Weibin Shi
(University of Virginia School of Medicine)

Identification of Yin Yang-1 As a Major Gene Contributing to Neointimal Formation

Student Research Grant

Brad Barnett
(Johns Hopkins School of Medicine)

Evaluation of MR-visible ThermaSphere® Microspheres for Simultaneous Chemoembolization and Thermal Therapy for Liver Cancer

Eugene Duke
(Northwestern University)

Correlation of Quantitative MR Perfusion Parameters With Pathology Following Chemoembolization of Hepatocellular Carcinoma (HCC)

Lydia Kuo
(Georgetown University)

Biochemical Markers of Recurrence of Fibroids

Waleed Brinjikji
(Mayo Clinic)

Analysis of Crossover and Blinding in the Investigational Vertebroplasty Efficacy and Safety Trial

Brian Jin
(Northwestern University)

The Correlation of Angiographic Endpoints With Perfusion and Clinical Outcomes During Chemoembolization of Hepatocellular Carcinoma

Valentin Lance
(UCLA Medical Center)

Radiologic and Microarray (Radiogenomic) Analysis of Gastric Adenocarcinoma: A Novel Classification of Tumor Subtypes and Prognosis

Shantanu Gaur (Brigham & Women's Hospital)

Hepatic Arterial Chemoembolization (HACE), Yttrium-90 Radioembolization and Drug-eluting Bead-HACE in Carcinoid Metastases to the Liver

Natanel Jourabchi
(UCLA Medical Center)

Microarray Analysis of Outcome of RFA and TACE in HCC Patients

Christina Ma
(UCLA Medical Center)

Evaluation of ^{18}F-FDG PET/CT in Monitoring Tumor Ablation Efficacy of Irreversible Electroporation (IRE) on Rabbit VX2 Liver Tumor

SIR FOUNDATION
Advancing interventional radiology through research and education.

Apply Now!

SIR Foundation 2010 Research Award Deadlines Approaching

SIR FOUNDATION
Advancing interventional radiology through research and education.

Application Deadline: November 13, 2009

Dr. Gary J. Becker Young Investigator Award
Resident/Fellow Research Award
Dr. Constantin Cope Medical Student Research Award

In order to be considered for the resident/fellow or medical student research awards, your scientific abstract must be submitted by **Tuesday, October 6, 2009, at 5:00 p.m. ET.**

Nominations Deadline: October 9, 2009

Leaders in Innovation Award

Please visit **www.SIRFoundation.org** to submit your application.

Registration Open for 2009 Legs For Life®

SIR Foundation's **Legs For Life®** is a national education and screening program dedicated to the cardiovascular health of the community. The program focuses on diagnosing peripheral arterial disease (PAD), abdominal aortic aneurysm (AAA), venous disease and carotid disease. Legs For Life strives to educate the public, primary care physicians and the medical community to identify at-risk patients and to strengthen collaborative relationships among health care professionals who treat these conditions.

Ready-to-Use Education Materials—To help you educate both patients and referring physicians, Legs For Life provides you with:

- Patient brochures
- Media factsheets
- Updated statistics about PAD, AAA, carotid stenosis and venous disease

Exposure to Potential Patients—Legs For Life enables you to:

- Offer free screenings to potential patients and demonstrate your clinical expertise
- Conduct screenings solely for specialty groups such as local police, firefighters and paramedics

Promotion of Your Practice—Legs For Life creates opportunity for you to:

- Use this well-known program to inform your local community about the benefits of interventional radiology and the services you provide
- Use SIR Foundation's national Legs For Life press release to reach local reporters or run an article in your hospital newsletter
- Increase public awareness about vascular disease

Over 80 sites nationwide participated in Legs For Life in 2008—register now to reserve your spot. For more information and to register as a 2009 Legs For Life site, visit **www.LegsForLife.org**.

An Interview With Stephen B. Solomon, MD, FSIR

Joseph P. Erinjeri, MD, PhD

Stephen B. Solomon, MD, FSIR, is chief of the interventional radiology service at Memorial Sloan–Kettering Cancer Center (MSKCC), New York, and the director of its Center for Image Guided Intervention. I had the opportunity to speak with Dr. Solomon recently at his office on the Upper East Side of Manhattan.

How did you get started in research?

To me, research has been an outlet for answering questions. I'm the kind of person who looks at a clinical situation and tries to figure out "How can we do it better?" or "Why does this happen this way?" I distinctly remember that one of the first devices that I helped develop came from a situation just like that. Once, when I was a resident doing a TIPS procedure, the attending explained to me that we were trying to go from the hepatic vein to the portal vein. I saw the TIPS needle that was being maneuvered into the liver via a tiny incision from the patient's neck but, on the fluoroscopic images, you didn't see much structure at all. I only saw a faint outline of the liver and the needle going in multiple times. After a few passes, I started to feel a little squeamish, and I started thinking, "What do we have to do to make this procedure better?" I looked around and saw the patient's CT scan on the wall, where I could clearly see the portal vein and hepatic vein. Then I said, "Gosh, if I only knew where the needle was, and I could see the CT superimposed, I could maneuver the needle right to it." From there, we started to develop a navigation position sensor for the TIPS needle, the position of which could be superimposed on a CT scan. This experience was tremendously exciting. I think the secret here is to keep your mind open about how to do a procedure better, and you will always come up with new devices and new ways to do things.

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—Stephen B. Solomon, MD, FSIR

How do you balance your clinical practice and research endeavors?

For all of us in these economic times, the clinical practice is usually the source of revenue and, since research doesn't bring in as much revenue, there's difficulty in getting time to do research. It's important to strive to get grants that can support your research endeavors, so you can get the money to offset the time that you spend on research. I've been very fortunate because I have the support of our chair, Hedi Hricak, MD, PhD, who really believes in research. She's able to make sure that we have the time to get projects going. You also need the support of your partners to do research. It's a financial decision that has to be made. Keep in mind that research is a little like a car—you can't get to 60 miles per hour without starting slow. There's always a startup period, which enables you to generate grants that will support your research time. Probably the most important factor that helps with the balance of clinical practice and research is having an institution that thinks research is important.

Can you tell us about the Center for Image Guided Intervention at MSKCC? How do you think this new kind of academic IR environment can affect research in IR?

At MSKCC, the hospital itself has recognized the importance of image-guided interventions in cancer care and has allocated a great deal of resources towards this. We have converted the old operating rooms into a platform that contains all kinds of image guidance tools, be they endoluminal (like bronchoscopy, colonoscopy or cystoscopy), extraluminal (laparoscopy or thoracoscopy) or traditional IR rooms (fluoroscopy, CT, MR, PET-CT or multimodality fusion). What's unique about this platform is that it also brings together doctors with different backgrounds and training, who can work together and support each other. We are very fortunate that the environment at MSKCC is a very collaborative one, where we can work together with our colleagues in other specialties to push the field of image-guided therapy forward. We also have a laboratory for the development of devices and research, where we can translate discovery to the clinical areas. The hospital expects that the center conducts research and, in planning it, we incorporated significant research time into the business model, which will allow us to have the time to do research in the facility.

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You've worked closely with industry in your research endeavors. How has that shaped your approach to the research projects you pursue?

Collaboration with industry has been very fruitful to me and interventional radiology as a whole. In interventional radiology, many of the devices we develop require engineering expertise, and seldom will a hospital have the engineering expertise that is necessary to develop a new device. Also, hospitals often don't have the regulatory support to deal with the FDA to develop a device. IR's relationship with industry is a partnership, with the goal of bringing new devices to our patients. We are entering a time when there is great concern about conflicts of interest, and this will continue to be a challenge for how industry and academics will work together. Hopefully we can continue our system of disclosure to minimize conflicts of interest to maintain this partnership. It would be a shame to lose the partnership between industry and IR that has been behind so many of the advances in interventional radiology.

Can you tell us a little about your latest projects?

We are a cancer hospital, and most of the projects I am working on are cancer-related. Thermal ablation of tumors is considered a local therapy and only treats a solitary lesion at any given time. The question I'm investigating is whether thermal ablation can provide a stimulus to the immune system. The hope is that stimulated immune cells can then go out and attack distant metastases because they've learned the tumor's antigens during the ablation. In this way, thermal ablation may be able to have a systemic effect rather than just being a local therapy. When you surgically resect a tumor, you're removing all of the tumor antigens. Our research shows that with ablation, we're stimulating the immune system to recognize tumor antigens, which can subsequently attack those same antigens both locally and systemically. We're working with drugs that stimulate the immune system as an adjuvant to thermal ablation, to help foster this immune memory.

Do you have any advice for inteventional radiologists who are new to writing grants?

Grant writing is a skill that you have to learn. The first time you do it, you're going to need some help. You need the assistance of others who have gone through the process, which can be a very daunting one. You want to link up with someone who can shepherd you through the process. Don't be discouraged by the results of your first grants; learning to write grants takes time.

What interventional radiologists have shaped you in research and practice, and how?

Anthony C. Venbrux, MD, FSIR, and I worked together when I was at Johns Hopkins. He's now at George Washington University in Washington, DC. He was a great mentor for me when I was a resident at Hopkins. Tony encouraged me and helped me to get the grants necessary to perform the pig experiments that validated the TIPS navigation system. He also helped me through the intricacies of developing an animal protocol. Martin Pomper, MD, PhD, at Hopkins was also a great mentor, who helped me to learn grant writing. Here at Memorial Sloan–Kettering, Dr. Hricak is tremendously supportive, with advice, resources and grant writing.

If there is one thing you'd like to share with residents and fellows considering an academic career, what would it be?

I think it's important that, during residency, you to try to find people who are doing research and, even if you don't know to what extent you might be interested in research, you take some time to see what research is all about. It's a lot of fun and it's interesting. For me, it's tremendously satisfying to do clinical care and to investigate the questions that we have in interventional radiology. The take-home message is to get involved, because it's a lot of fun.

What do you like to do when you're done with a busy week?

One of the exciting things about being in New York is that there are so many activities that you can do. Whether it's going to a Broadway show or listening to live music, the opportunities are endless. You just have to have the energy to do it! I try to have the energy to do it at the end of the week. You only live once, and you need to take time to do the fun things in life. ❖