



EMORY
UNIVERSITY
SCHOOL OF
MEDICINE



Emory Radiology and
Imaging Sciences
Adopt-a-Resident Program



Message from the Chair

Dear Friends and Colleagues,

I am exceedingly proud of what we have done together to shape the future of radiology by supporting our best and brightest future leaders. The Adopt-a-Resident Program, implemented in 2008, has had a major impact on Emory and our field in a short period of time. By offering highly motivated and talented radiology residents the support, mentorship, and resources to pursue their dream projects, we have developed and sustained innovative programs in global radiology, electronic education, and health policy and advocacy. Our “adoptees” have exceedingly bright career paths; they also are well on their way to enhancing the value of radiology for us all.

Please join me in continuing to support our future through the Emory Radiology and Imaging Sciences Adopt-a-Resident Program.

Best wishes,

CAROLYN CIDIS MELTZER, MD, FACR
*William P. Timmie Professor and Chair
Department of Radiology and Imaging Sciences*



Emory Radiology and Imaging Sciences Adopt-a-Resident Program

EMORY RADIOLOGY AND IMAGING SCIENCES is improving health care worldwide by developing new imaging biomarkers of health and disease — uncovering the hidden meanings of physical structures — and overcoming clinical challenges using cutting-edge technology. Please partner with us to support the education of a promising resident and advance the science of imaging. Your generosity will enable a resident to undertake and complete a specialized project, share the results of the project with other residents and faculty, and likely present those findings at a national radiology conference. Ultimately, this funding will better shape the next generation of radiologists.

To apply for the Adopt-a-Resident Program, first- or second-year residents must submit a proposal, which includes a project plan, a budget for how s/he will use the funds in each of the remaining years as a resident at Emory, and a discussion of how this project will enhance his/her future career. Once selected, each resident is paired with a faculty mentor. As outlined in this brochure, the Adopt-a-Resident Program has supported innovative work by Emory residents with the help of their mentors. Though the selected residents themselves are the direct beneficiaries of this program, the positive effects of the program will ripple through both the entire department and the greater radiology community by cultivating motivated and innovative residents who will inspire other radiologists.

2015

PROJECT AWARDED

Radiology START: Stratified Training in Academic Research and Teaching

MENTORS

Mark Mullins, MD, PhD and Bruno Soares, MD



Dexter Mendoza, MD

Dr. Mendoza proposed the “Radiology START: Stratified Training in Academic Research and Teaching” program. The project is a 2- to 3-year longitudinal program with the goal of preparing radiology residents as they become educators of the future. As part of the program, Dr. Mendoza will recruit experts in education, both in and out of the Emory University system, to provide seminars and facilitate group discussions in education-centered topics including: learning theories, learning and teaching styles, providing feedback, developing curricula, mentorship, and research.

After providing the participants a foundation, they will be given a chance to put theory into practice by working directly with medical students and more junior residents. Each participant will also be paired with a mentor to complete a capstone project, such as a lecture series, an online learning module, or an education-centered research project.

Dr. Mendoza hopes that the Radiology START program will just be the beginning of a lifelong pursuit of academic radiology for many residents. He also sees the program growing in the future and eventually expanding it and offering it to residents from other specialties.

2014

PROJECT AWARDED

Investigating the Effect of Multitasking and Interruptions on the Quality and Practice Environment in Radiology

MENTORS

Drs. Michael Osipow and Aarti Sekhar



Drew Streicher, MD

Dr. Streicher realized that interruptions such as clinical consults, phone calls, and protocoling exams are inevitable and in fact, these experiences are often valuable interactions. However, depending on the timing, these interactions likely have an impact on the quality and efficiency of the radiologist’s ability to perform the primary task of image interpretation, as well as increase levels of stress/fatigue. Through a mutual interest in the topic with his mentors, Drs. Michael Osipow and Aarti Sekhar, a project idea was developed.

Dr. Streicher aims to identify the types and number of interruptions a radiologist experiences, how these interruptions affect stress levels, and how thoughtful reading room design can impact the number of interruptions and decrease the need for multitasking. Additionally, through a unique partnership with the SimTigrate design lab at Georgia Tech, Streicher will perform a case-control simulation that will involve image interpretation in two different environments, an interruption heavy and interruption free environment, to determine the effect of multitasking and interruptions on efficiency, report quality, and error rate.

2013

PROJECT AWARDED Data Visualization of Diagnostic Radiological Errors

MENTORS Walt Carpenter, MD, PhD, Travis Henry, MD and Brent Little, MD



Faramarz Edalat, MD

Dr. Edalat proposed an anonymous, HIPAA-compliant, web-based interface for the storage of residents' diagnostic errors and missed cases as a solution to appropriately share such cases across the residency program. This interface, currently in development, will display the frequency of most commonly missed diagnoses, have a built-in search engine, and have the ability to organize cases based on diagnosis, section and modality. While many different programs exist for storing and sharing cases, none has the ability to sort these cases by frequency of missed cases, diagnosis, body section or modality.

Edalat's interface will not only be useful as a direct interface with the residents, but also, based on its internal results, can suggest areas that residents would benefit from more teaching. Furthermore, given the ACGME mandate for resident quality assurance conferences and feedback, this project can be used to streamline identification of cases for use in such conferences. Future applications of this project include using missed cases for training purposes in a dynamic fashion such as teaching files, simulators and assessments.

2013

PROJECT AWARDED Radiologists as Imaging Consultants: The Challenges and Lessons Learnt from Comparing the Roles of Canadian and American Radiologists

MENTOR Kimberly Applegate, MD, MS



Nima Kokabi, MBBS

Dr. Kokabi proposed investigating the occurrence of unnecessary imaging examinations across two different healthcare systems: the US and Canada.

During two 2-week elective rotations at a tertiary referral center in Canada, Kokabi will investigate the utility of various imaging modalities for a specific clinical presentation in a targeted group of patients. The emphasis will be on clinicians conforming to available guidelines and the role of radiologists in reducing unnecessary examinations. The working dynamic of such a system will be studied by surveying both clinicians and radiologists. He has begun the same process at Emory University. The differences between the two systems will be identified.

A Resident Quality Assurance Committee has been initiated to investigate practical ways to assess use of medical imaging at Emory and our adherence to best practice guidelines. The committee participates in educating trainees in other specialties about evidence-based use of imaging for various clinical presentations.

2012

PROJECT	Portable Radiology Teaching File
MENTORS	Travis Henry, MD and Walt Carpenter, MD, PhD



Thomas Loehfelm, MD, PhD

Dr. Loehfelm was awarded a grant to develop a tablet-computer application to make it easy to share medical images for teaching purposes among faculty and residents at Emory and beyond. Radiologists often collect images from interesting cases to share with their colleagues—a remarkable spine MRI, a rare tumor or infection, or a classic radiographic finding. A typical radiologist might accumulate hundreds or thousands of such images on a USB thumb drive, a shared network folder, and/or external hard drive. Tablet computers, like the iPad, provide an ideal platform for such images: nearly every resident has one, and they are portable, internet-enabled, and have high-quality touch-screen displays. All that would be required to make the images useable on tablet-computers would be an application that could retrieve and display these interesting cases, and a platform to allow anyone sitting at a workstation to easily create them. Thus far, Loehfelm has developed a PC program to create shareable tests, cases, and teaching files, and an application for Android tablets. The Android app, RADIANT, has been downloaded more than 1500 times around the world, and he was able to use it to digitize the film library of a hospital in Ethiopia. He plans to translate these programs for the iPad and distribute them to the faculty and other residents.

2011

PROJECT AWARDED	Radiologists as Anatomists: Improving Gross Anatomy and Radiology Education
MENTORS	Stefan Tigges, MD, MSCR and Walt Carpenter, MD, PhD



Ryan Peterson, MD

Dr. Peterson received an award from the Adopt-a-Resident Program to incorporate advanced imaging into human anatomy courses. Dr. Peterson sought to provide more hands-on learning opportunities in radiology to medical students because “diagnostic and interventional radiology has become an essential part of every patient’s care.” He used cross-sectional CT imaging to scan cadavers to show the importance of radiology for medical planning and management. Peterson secured a workstation capable of rendering 3D images and worked with the directors of the human anatomy course to provide images that mesh with their curriculum. He also worked to integrate radiology into medical education and raise medical students’ involvement in radiation by offering greater access to radiology for medical students.

2010

PROJECT

Diagnostic Radiology in Comprehensive Health Care Clinics and Teaching Hospitals in Nigeria

MENTOR

Yemi Ibraheem, MD



Nnenna Aguocha, MD, MPH

Dr. Aguocha embarked on a funded, month-long international rotation in March, 2012 to Nigeria to examine the role of radiology in primary, secondary, and tertiary health care institutions in Abuja and Jos. In Jos, Aguocha provided radiological interpretations for imaging studies performed at nonprofit comprehensive health care clinics, and she organized lectures for radiology residents and faculty at the Jos University Teaching Hospital. In Abuja, she conducted needs assessments and cost/benefits analyses of primary health care clinics and mobile health care units to assess the feasibility of introducing portable ultrasound machines to these clinics, which offer free antenatal care. Aguocha hopes that her project will “encourage radiology residents to think of radiology in global terms and to formulate innovative ideas to extend some of the benefits of radiological advances and resources to developing countries.”

2010

PROJECT AWARDED

Audience Response System

MENTOR

Ashley Aiken, MD



Neil Shah, MD and Bryan Yi, MD, MPH

Dr. Yi initiated a project to transform the classroom experience for residents by creating an audience response system that will render didactic lectures interactive. Using this technology, called ResponseWare, enables the lecturer to query all of his/her students at once or to obtain instant feedback. Since Dr. Yi’s graduation, Dr. Shah has taken over the project. In the past year, Dr. Shah has developed tutorials to facilitate the use of ResponseWare. It has been successfully used by many lecturers. Shah aims to create templates to make ResponseWare even more user-friendly.



2009

PROJECT AWARDED

Project: International Humanitarian Radiology Elective in Ethiopia

MENTOR

Pat Hudgins, MD, FACR



Ali Tahvildari, MD

Driven by his interest in global health, Dr. Ali Tahvildari created an educational partnership with the Addis Ababa University (AAU) Department of Radiology in Ethiopia. Tahvildari and his mentor, Dr. Pat Hudgins, traveled to Ethiopia to teach at AAU in 2011 and 2012. Together they created the Global Health Radiology Initiative curriculum. As a part of a joint effort between AAU and Emory to develop a neuroradiology fellowship for the AAU radiology program, Ethiopian faculty has also served rotations in Emory's neuroradiology division. Drs. Tahvildari and Hudgins published an article in the July 2012 JACR about their experience, which drew the attention of RAD-AID, a global health imaging nongovernmental organization (NGO) based in The Johns Hopkins University Department of Radiology. Tahvildari was invited to speak about his experiences at the RAD-AID annual meeting and collaborated on a chapter on education in RAD-AID's Global Health Imaging Textbook. He has created a sustainable resident elective rotation that continues to draw attention to medical humanitarianism in radiology.

2009

PROJECT AWARDED

Political and Business Influences that Shape Radiology Practice in the US

MENTOR

Carolyn Meltzer, MD, FACR



John Chenevey, MD

Well aware of how political and business influences shape the way radiology is practiced in the United States, Dr. John Chenevey used the award to participate in radiology organizations and learn more about critical issues in health care policy. Chenevey served as the resident member of the American College of Radiology (ACR) All Members Meeting Steering Committee and the ACR Neuroradiology Commission, as well as participating in the ACR Resident and Fellow Membership Subcommittee. He wrote web articles for the ACR Resident and Fellow Section and contributed to Emory's residency program through newsletter articles, email updates, and noon conferences. In addition to lecturing at the Georgia and South Carolina state radiology society meetings, he also spoke at the American Institute for Radiologic Pathology as the ACR introductory speaker.

2008

PROJECT AWARDED

Radiology Podcasting and iTunes U

MENTOR

Mark Mullins, MD, PhD



Jay Patel, MD

The first beneficiary of the Adopt-a-Resident Program, Dr. Jay Patel created a virtual library of radiology conferences, lectures, and case studies available as podcasts. "Podcasting presents a new conduit to quickly provide radiologists with state-of-the-art information about CT and MRI scanners, acquisition protocols, and post-processing of data sets 24 hours a day. The ease of creation and delivery enables the information to be rapidly updated," said Patel. These podcasts can be accessed anywhere, even while on the go, moving learning from the library and the computer. Over 150 lectures are now available to Emory residents; these files come in various high-quality formats compatible with desktop computers, iPods, tablets, and other smart devices. Though he has moved on to another institution, current residents continue to create podcasts and refine the application.



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Office of Development and Alumni Relations

If you would like to explore this or other giving opportunities that will benefit Emory Radiology and Imaging Sciences, contact:

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