Infinia Opportunities at ECLH

The addition of the GE Infinia, state-of-the-art gamma camera will amplify the presence of Nuclear Medicine at the Emory Midtown campus.

The Infinia is a dual-headed gamma camera that communicates with the Xeleris processing computer to speed-up the entire imaging process, and increase the types of scans available at the Emory Crawford Long Hospital (ECLH) location.

Many of the Infinia features contribute to efficient turn-around times. One such feature is the open design with a very flexible gantry, which will allow versatile scanning modes including the option to scan patients on their stretchers. The unit is equipped with a gantry that rotates continuously in either direction, has a large field of view (21.25 in x 15.75 in) and a 440-pound weight limit. The Automatic Body Contouring feature will reduce set-up time for whole-body acquisitions. Accuracy, quality and performance will be maximized through the use of the all-digital Elite detector technology that uses 95 photomultiplier tubes to create high resolution images. With the combined effort of all the available features and precise training of the technologists, the patients of ECLH will experience increased comfort due to the decreased scanning time.

All of the features of the Infinia are enhanced by the large clinical applications package provided by the Xeleris processing computer station. The availability of the applications will streamline the processing of images for the technologist and enable them to perform scans that were not previously available at the Emory Midtown campus.

Kathryn Witkowski, Supervisor of Nuclear Medicine at ECLH, is overseeing the implementation of the new applications and is preparing her team to take advantage of the features that will expedite the scanning processes. Kathryn expressed her anticipation when she said, “This marks a new beginning for Nuclear Medicine at ECLH. With the advanced options this camera offers, our technologists will be able to deliver a service that will be recognized and help our division to grow.”

Applications will be loaded into the Infinia on May 12th and be fully operational at the beginning of June. Patients will visit the Radiology area located on the ground floor of the D & T building at ECLH.

- Monica Salama
Communications Specialist
Letter from the Chair

Dear Colleagues,

There is a flurry of springtime activity in the department. Our continuous cycle of replacing outdated imaging equipment with state-of-the-art devices is currently accompanied by a phased remodeling of the Emory University Hospital radiology area as described in detail on page 5. Physical upgrades are also planned at Emory Crawford Long Hospital (ECLH). Faculty leaders in the department are spearheading efforts to acquire and evaluate several advanced prototype or early version imaging instruments such as a unique SPECT system recently installed in the Cardiac Imaging Center, a prototype combined MR/PET scanner, and a dedicated breast CT device.

Spring is also a time of many academic and scientific conferences. Our department had solid representation at both the Association of University Radiologists (AUR) meeting in Seattle and the annual American Roentgen Ray Society (ARRS), which was held in Washington, D.C. The AUR focuses on further strengthening our educational programs and faculty, residents and our education staff participated. The planned changes to the American Board of Radiology (ABR) examination process are generating much discussion at Radiology conferences lately. In the future scheme, the current physics and diagnostic radiology written examinations will be replaced with a computer-based “radiology core examination” and the current general oral examination will be replaced with a more specialty-specific computer-based examination 15 months following completion of residency training.

As our department continues to grow, faculty recruitment activity is brisk in many areas. Over the next few months, more than ten new faculty members will be joining our team. A multidisciplinary search committee has resulted in the successful recruitment of Dr. Kevin Kim of Johns Hopkins, who will take the reins as Director of the Division of Interventional Radiology and Image-Guided Medicine on July 1. Search committees for the Vice Chair for Research and for a Chief Quality Officer also have recently been formed.

Best to all,

Carolyn C. Meltzer, MD, FACR
Chair of Radiology

AWARDS & RECOGNITION

Arthur Stillman, MD, PhD
Director, Division of Cardiothoracic Imaging

ESCR - Honorary Membership
Honorary Membership of the European Society of Cardiac Radiology (ESCR) is bestowed on individuals with a very substantial record of contributions to cardiac radiology. Dr. Stillman’s outstanding achievements in this field and his leadership in radiology and in medicine as a whole, which are recognized internationally, make him a most worthy candidate for this honor.

Amy Comeau
Senior Marketing Manager
Treasurer, President’s Commission for the Status of Women

Amy Comeau was elected as Treasurer of the President’s Commission for the Status of Women, of which she has been a member since 2006. The President’s Commission on the Status of Women (PCSW) was established in 1976 as an advisory body to the President on issues related to Emory University women. The PCSW’s mission is to: identify and research issues that pertain to gender equity at the University; convey to the Emory community information about resources, policies, and programs relating to women’s issues; develop and support education and awareness programs on gender issues related to women in general and specifically at Emory University; and advocate recommendations to improve the quality of life for all women in the Emory Community.

Patricia Hudgins, MD
Director of Head and Neck Radiology

Alumnus of the Year
Dr. Hudgins has been selected as the University of California San Francisco (UCSF) Alumnus of the year for her accomplishments and continuous dedication to education. On June 13, Dr. Hudgins will be honored at the UCSF Resident Graduation Dinner.
Factors of Change

Successfully instituting and adapting to change is a necessary component of striving for excellence. As part of our department’s pursuit of excellence in the academic, clinical and research arenas, it is vital that we individually play our roles as change agents, so we can collectively succeed in our endeavors.

Let us take a step back and briefly explore some of the key concepts related to change.

What is change?

Merriam-Webster Online Dictionary (http://www.m-w.com) defines change as “to undergo transformation, transition…” The power of this concept is exemplified through its effective use as a single-word presidential campaign slogan. On the other hand, I would caution that in business, change is often touted as a panacea, or cure-all. I would argue that change is not intrinsically good. It is merely a vehicle through which excellence may be achieved. Ultimately, the outcome of change determines whether it is good or not.

What are some key success factors for change?

• Having a clear vision of the end goal
• Communicating the vision
• Encouraging participation
• Gathering and acting upon feedback
• Building consensus

How do you play a positive role in change?

It is often said that humans are creatures of habit. As such, we are inherently averse to change. Therefore, a conscientious effort to acknowledge the aversion must be made. Through the understanding that change can be evolutionary or revolutionary; it can be approached with a open mind.

Each person must take it upon themselves to embrace the change, and perhaps even evolve with the change. The acceptance of the change may create an environment that fosters a positive outcome. To yield the best results, an open mind will facilitate the ability to be adaptable, prepare you to take measured risks, and step outside your comfort zones. We can each contribute to the achievement of excellence by being engaged, energized and becoming an agent of change.

What are some changes that are happening in the Emory Radiology Department in which I can play a role?

• Implementation of a new RIS
• Upcoming implementation of a new PACS
• Department architectural renovations
• Modality upgrades
• New research
• Expanding grants
• Faculty and staff recruitment

Successful implementation and adaptation to change can only happen through the concerted efforts and use of the myriad of talents possessed by each member of our department. We each have an important role to play in order to ensure success in our endeavors and achieve excellence.

- Mo Salama
Assistant Director of Imaging Informatics

Reimbursement Initiative

Radiology Reimbursement Services, in collaboration with Radiology Senior Management, has recently jump-started a new initiative to open up dialogue with radiologists. This initiative has been created to educate and engage physicians concerning their individual business revenues and how changes in dictation and coding impact reimbursement.

Working with a team consisting of physicians and administration, a list of top-line coding items have been identified for each division. The team dissected each subspecialty of radiology and highlighted coding trends that could positively impact the reimbursement of a particular department’s revenue. The increase of reimbursement through properly dictated and coded reports will be directly reflected in each division’s revenue.

A couple areas of focus are reimbursement by collection rate, CPT code, payor and physician. Dictation opportunities include attestation, missing dictation, CPT changes and write-offs. It is the team’s feelings that with the divisions and reimbursement services collaborating on these issues there will be a marked improvement in our department’s standings.

To facilitate the education process, Reimbursement Coordinator, Cory Ivins, and Finance Sr. Manager of the Revenue Cycle, Marcus Foster, have met with division directors to outline best practices of coding and demonstrate the nuances of a reimbursed versus a non-reimbursable submission. They have also begun to rotate through the Noon Conference curriculum to ensure that our future radiologists are trained properly. The next step is to meet with each division to create awareness of specific areas of improvement.

Although the immediate emphasis is radiologist training, there is an opportunity to verify that the requisition is properly filed as it passes through the system. If the requisitions that are submitted are complete, this will allow more time to concentrate on other reimbursement issues.

The best way for each physician to impact the revenue for his/her division is to contact the division director and familiarize themselves with the most common mistakes of that division. If you have an individual question, you may contact Cory Ivins at Cory.Ivins@emoryhealthcare.org.

By assessing the top coding errors of each division, we can isolate the areas that will have the greatest impact.

- Cory Ivins, CPC, Reimbursement Coordinator
RESEARCH RESOURCES

Utilize the Power of the 4.7T MR

Atlanta area researchers! Take advantage of state-of-the-art imaging and spectroscopy available on the Emory Campus through the use of the 4.7T MR Small Animal Imaging Facility.

The power of the 4.7T MR can be used to enhance your current research. The workhorse of the 4.7T core is a state-of-the-art Varian/INOVA 4.7T/200MHz 33 cm horizontal imaging/spectroscopy system. Two gradient sets are available with different gradient strengths 10 G/cm large bore (22.2 cm i.d.) and 25 G/cm small bore (11.7 cm id). These allow studies on in vitro samples as well as in vivo experiments for animals. Animals as small as mice and as large as small monkeys and cats can be studied.

In order to facilitate the use of the 4.7T animal MRI system for research projects, a pilot program has been put in place. The pilot program makes available time on the scanner to generate data toward submission of an externally-funded grant that will use the 4.7 T system. The pilot project program has two parts. First, 10 hours are made available to assess project feasibility. An additional 10 hours can then be made available after project review. This second 10 hours is to generate preliminary data toward the grant submission. To obtain time under the pilot program, a one-page description of the project, including where a follow-up grant will be submitted, needs to be submitted to Robert C Long, Jr. PhD of the Department of Radiology. Services provide both time on the scanner and, for extended studies, training of students, researchers or qualified users to use the scanner independently. Since imaging protocols are complex, our scanner rates are by the hour for scanner time used. Appropriate anesthesia and supply and delivery of contrast agents are the responsibility of the investigator. However, we supply the equipment needed for isoflurane anesthesia, animal temperature control and physiological monitoring. Data processing carried out by the center staff is charged at the same instrument rate. Imaging data can be provided in fdf, sdt, Analyze and other standard formats.

A workspace for animal preparation is provided in the magnet room. Several Sun and PC workstations are available for image processing.

The 4.7T MR has been used in many successful studies, including Studying the Geometry Blood Flow Patterns in the Mouse Aorta. The description of this research (seen below) is one of the ways to utilize the infinite possibilities that this resource provides to the area of research.

The 4.7T MR is located in Room B120 of the Woodruff Memorial Research building and provides access for Emory and surrounding university researchers. Training is available for selected researchers who are planning or have funding for long-term studies. The facility is managed by Dr. Long. If you would like to take advantage of the abilities of the 4.7T, contact Dr. Long: rlong@emory.edu phone:(404)727-4570 fax:(404)727-5869

- Robert Long, PhD Assistant Professor of Radiology

Studying the Geometry Blood Flow Patterns in the Mouse Aorta

Working together with Bob Taylor, MD, PhD from Cardiology and Don Giddens, PhD from Biomedical Engineering, John Oshinski, PhD and Bob Long, PhD have been using the 4.7 T MRI animal system to study blood flow in the mouse aorta. Bob Long has developed MRI sequences which can measure velocity in the mouse aorta and produce MR angiographic images of the aorta. From these images, computer models showing the flow patterns in the mouse aorta can be reconstructed (Fig. 1).

The goal of the project is to determine if vascular blood flow patterns or aortic wall tension have an effect on the formation or rupture of abdominal aortic aneurysms (AAA). Since the mouse forms AAA in a matter of weeks (as opposed to years in man), studying the mouse is a first step in understanding the relation between blood flow, blood pressure, aortic geometry and the risk of aneurysm rupture.

Preliminary findings from the study indicate that increased vascular stiffness increases the oscillatory flow patterns in the mouse aorta. This increase in oscillatory flow is associated with atherosclerosis and AAA formation. This work was presented at the 2007 RSNA conference by Simbat Amirbekian, a medical student working the Bob Long and John Oshinski. The work was funded by an NIH Bioengineering Research Partnership (BRP) Grant to Bob Taylor, MD, PhD.

![Figure 1. Velocity in the mouse aorta measured by PCMR on the 4.7T magnet (left), and wall shear stress at peak systole calculated from the computer model of the mouse aorta (right).](image)

![Figure 2. Flow patterns in late systole in a mouse with a rigid aorta (left), and flow patterns in a mouse with a compliant aorta (right).](image)
New Grants

Decision Support Systems for MAG3 Renography

Principal Investigator: Andrew Taylor, MD
Co-Investigators: Ernest Garcia, PhD, Raghuveer Halkar, MD
Funding Organization: National Institutes of Health (R01)

Significance: Our goal is to improve the care of nephro-urology patients by developing new tools (Decision Support Systems) to (1) assist and educate physicians and trainees to appropriately perform and interpret MAG3 renograms and (2) to process, check quality control and actually interpret MAG3 renograms.

Construction Updates

Remodel Continued

The Emory Radiology Department has continued to progress with various construction projects since the last update in November.

Over the past few months, the MR Research and inventory areas at Emory University Hospital (EUH) have completed their relocation to the ground floor. Faculty and staff have settled into their new space. In addition, the EUH File Room and the Abdominal Reading Room have moved to their final destinations. The new location of the File Room is in room C159 on the same hallway as its previous area, but has moved down one door. The EUH Abdominal Reading Room was located in room A149 and now occupies the space vacated by the File Room in room C165. While those areas concluded their construction, many other areas in EUH should be expecting relocation within the next year.

Demolition in preparation for the MRI suite has begun on the first floor. In doing so, the former Abdominal Reading Room, the Abdominal Offices and the Interventional Radiology (IR) inventory area are being cleared to allow construction to start. During this stage the ventilation, plumbing and electrical work is now underway in the new MRI suite area. By the end of August, the new Siemens Trio 3T scanner should be installed on the first floor. After the 3T magnet is operational, the 1.5T MR scanner will move up to the first floor as well. MRI operations are scheduled to be up by October.

Simultaneous to the first floor construction, office space on the Ground Floor is about to be demolished as part of the MRI relocation. As the former MR Research area starts its construction, then the remainder of the Ground Floor occupants, primarily our Radiology Application Services (RAS) team, will be vacated. The RAS team will be temporarily relocated. The Ground Floor area will be completely rebuilt to provide a location for the office suites used for the Radiology clinical faculty, administration, and staff.

The Certificate of Need (CON) application for the fifth IR suite and the expansion of the Pre-Procedure Care Area (PPCA) at EUH has been submitted. Although the application process can be timely, the new PPCA construction is scheduled to start in September. By the beginning of next year, the IR suite should be starting its restructuring.

Emory Crawford Long Hospital (ECLH) is also receiving some changes to their Radiology areas. A new Nuclear Medicine camera has arrived and is in process of being installed. In addition to the Nuclear Medicine area, the ECLH MR area has one of its rooms undergoing renovations in preparation for the delivery of a new GE MR scanner. The magnet was delivered May 3 and should be operational by the beginning of June.

In six months, I will provide another construction update for the department. With the progress of these projects, the department can look forward to a future of development and growth.

- Dale Walker
Director of Strategic Initiatives

Education Office Remodel

The Education Office has received a face-lift. Tammi Teeters-McDade, the Residency Program Coordinator, is excited to be in the refreshed area. She commented, “I already feel more prepared for the next round of resident interviews. Having a crisp look and more functional space will help the shuffling of prospective residents go more smoothly.”

The renovation took place over two weeks during April. A wall has been knocked out and additional filing has been added to the back area. The office of Dr. Mark Mullins, Vice Chair for Education and Program Director of the Radiology Residency Program, has also undergone a transformation.

Tammi Teeters-McDade and Danielle Terrell are enjoying the new use of space in the renovated Residency Education Office.
As the Radiology Department grows within the Emory Healthcare system, knowing who your team members are and what they do becomes increasingly important. Each month we highlight a person or group within the department to strengthen our understanding of how we work together and to help us to learn more about each other.

Radiology Media Services

Eric Jablonowski, Director of Media Services, provides an array of resources exclusively for the faculty, staff, fellows and residents of the Radiology Department. His talents can be utilized to meet the technical and/or graphic needs of various departmental projects.

Media Services available to the Radiology Department include:

- Medical Illustration and Animation
- Publication Preparatory Needs
- Photography
- Diagram Design
- PowerPoint and Poster Presentations
- Scanning Images, Documents or Slides
- Burning Data to Discs (CD or DVD)
- Editing AVI and MPEG movie files
- Digitizing Films

If you would like to take advantage of the resources offered by Radiology Media Services, simply send Eric an e-mail detailing your request and timeline. Many projects are unique and may require different lengths of time to complete based on complexity. Contacting Eric in a timely manner will secure the greatest possible outcome and account for any challenges that may arise. Requests are completed in the order in which they are received, with consideration of journal submission or meeting deadlines. If you would like to discuss a project idea with Eric, he is located on the ground floor of the Emory University Hospital in Room AG31 (near AG04 conference room). You may also contact him by telephone at 404-778-3743 or through e-mail at eric.jablon@emory.edu.

In addition to those tasks previously outlined, Eric provides technical support for computer problems, presentation issues and our web-conferencing system. He has trained several residents to start the web-based conferences at 7:00am and noon. He also intends to evolve the current conferences into podcasts, creating a secure lecture site and valued resource for resident education. Eventually, this format will include additional lecture series such as Grand Rounds and Research Conferences. As the department photographer, Eric also hopes to take an updated picture of each faculty, fellow and resident, creating a consistent look for various projects, including updates to the website.

Radiology Media Services became available in August 2007, when Eric joined Emory and began using his talents to facilitate the needs of the faculty, staff, fellows and residents. His previous experience consists of fifteen years at the University of Pittsburgh Medical Center Radiology Department as a multi-media coordinator and three years at Children’s Hospital of Pittsburgh as their illustrator and graphic designer. Eric received his degree in Visual Communications from the Art Institute of Pittsburgh. Outside of work, Eric enjoys spending time with family and friends, fine art painting and the outdoors.

For additional information, please feel free to contact Eric regarding the various media services available. If you have not already had your picture taken by Eric in his studio, please make an appointment with him today.

- Alaina Shapiro
Communications Coordinator

The illustrations above have been included with several others in a manuscript submitted to Radiographics. The parasagittal (Top) and coronal (Bottom) cutaway illustrations demonstrate a type I frontal cell (shaded in blue) sitting on top of the agger nasi cell anterior in the frontal recess.

Contact Eric Jablonowski for your Media Service needs at eric.jablon@emory.edu.

This poster was created in collaboration with Dr. Eugene Berkowitz to illustrate advances in the identification of Pulmonary Calcification.

- Alaina Shapiro
Communications Coordinator

Eric Jablonowski collaborated with Dr. Patricia Hudgins to create an illustration of the ear for her presentation at RSNA this past year “Work-up of Pulsatile Tinnitus.”
**Get Involved**

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**Cancer Imaging Seminar Series**

Wednesday, May 28
2:00 - 3:00 p.m.
Winship Cancer Institute
5th Floor - Room 5012

Presentation by:
**Nola Hylton, PhD**
Director, Magnetic Resonance Science Center,
Dept. of Radiology, UCSF
Breast Oncology Program,
UCSF Cancer Center

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**Radiology Research Conferences**

**May 2008**

**May 1** - **Hui Mao, PhD & Liya Wang, MD**
~ Emory University ~
White Matter and Gray Matter Changes in Patients with Mild Cognitive Impairment

**May 8** - **John N. Aarsvold, PhD**
~ Emory University ~
Single-slice Multiple-pinhole Transaxial Tomographs

**SPECIAL EVENT**

**May 15** - **Orman A. Simpson, Jr., MSEE/MS & Ernest V. Garcia, PhD**
~ Emory University ~
PART 2: Successfully Negotiating and Executing a Research Contract

**May 22** - **Habib Samady, MD, FACC, FSCAI**
~ Andreas Gruentzig Cardiovascular Center
Emory University Hospital ~
In Vivo Assessment of Coronary Wall Shear Stress

**May 29** - **TBA**

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**Radiology Grand Rounds**

May 2008

Wednesdays 7:30 - 8:15 a.m.
Emory University Hospital Auditorium

- **May 7, 2008**: David Kooby, MD
  Emory Surgery
  The Polycystic Pancreas

- **May 14, 2008**: Etta Pisano, MD
  University of North Carolina
  DMIST: What did we learn?

- **May 21, 2008**: Beryl Benacerraf, MD
  Brigham and Women’s Hospital and Harvard Medical School
  The Use of 3D Ultrasound in the Fetus

- **May 28, 2008**: Mukesh Harisinghani, MD
  Massachusetts General Hospital and Harvard Medical School
  Topic: TBA

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**Uterine Fibroid Embolization (UFE) Seminar**

June 5
6:30 - 8:00 p.m.
Emory Crawford Long Hospital
- Glenn Building Auditorium -

Join Emory Interventional Radiologists for a presentation on a minimally invasive, non-surgical procedure that helps to relieve the pain, symptoms and stress caused by uterine fibroids. A question and answer session will follow the presentation.

If you are interested in attending the presentation or would like more information, please call HealthConnections at 404.778.2000.

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Visit [www.radiology.emory.edu/events-and-lectures](http://www.radiology.emory.edu/events-and-lectures) for up-to-date event information.
Jim Fitz
Nuclear Medicine Supervisor
After retiring from the Air Force, Jim Fitz joined the Emory Radiology Department as a Nuclear Medicine Supervisor. Jim has over twenty years of service from the United States Air Force. Over fourteen of those years were spent in the Nuclear Medicine division. He retired from the military as a supervisor for the second largest Air Force Nuclear Medicine Division.

Latoya Moses, RT
Radiology Technologist
Latoya Dawson relocated to EUH from Executive Park, where she was a Front Desk Associate. She changed her area of focus and is now a Radiology Technologist in the MR division. Latoya is a member of the ARRT association. She is currently working towards her goal to become a Registered Nurse at Georgia Perimeter College.

Maurice Fernandes
Transport Attendant
Maurice Fernandes is new to Emory, working as a transporter in the Emory University Hospital. His previous experience includes four years as a military medic for the Navy Reserves. While in the Military, Maurice served two tours in Iraq.

Amit Patel
Business Analyst II
Amit Patel joins the Radiology Department with seven years of experience in the Emory Clinic Finance. His current area of focus is on the decision support aspects, including financial reporting, budgeting, etc. for the Radiology Department. Amit earned his MBA from Georgia State University.

Van Phan
Nuclear Medicine Technologist I (RN PPCA)
Van Phan joins the Radiology Department as a Nuclear Medicine Technologist. Before earning her BS from the Medical College of Georgia, she spent twelve years as a clerk in the banking business. Van completed her degree with honors and has been recently inducted to National Honor society of Alpha Eta.

Jeffery Hill, RN II
IVR RN
Jeffery Hill was previously employed by Emory as a Registered Nurse in the Cardiovascular Operating Room. He then took on a position at LifeLink of Georgia as a Transplant Coordinator. Jeffery has returned to Emory and currently works in the Interventional Radiology division as a Registered Nurse.

Vlasta Thurow, RN II
PPCA RN
After nine years in the Emory Emergency Department, Vlasta Thurow has shifted her focus to radiology. She is using her seasoned skill set in the pre-procedure care area. Vlasta was born in Prague, Czech Republic and has lived in Germany and Italy for several years. She speaks six different languages.

Lamar Laney
Transportation Attendant
Lamar Laney has joined the Emory Radiology Department as a transporter, after gaining seven years of work experience at Atlanta Medical Center. Outside of work, Lamar enjoys being a little league coach for several age groups in the Decatur area.

Look for a new issue of the Rad Report the first full week of June.