

June, 2007

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On June 2-3, Emory Crawford Long partnered with the Living Heart Foundation (LHF)

Foundation (LHF) to offer screening to retired members of the NFL Players

Association (NFLPA) to detect health conditions that are common when slowing down from an active life-style.

The LHF hosts this screening and others around the country, to improve the early identification of health risk in theses



Retired NFL player Tim Broady receiving an echocardiogram.

former elete athletes and educate and empower them to lead healthier lives.

This was the first year Emory participated in this event, contributing to the education of the players and implementing the screenings. Screenings included echocardiograms and calcium CT scoring to identify the risk of heart disease as well as cholesterol,

Pro Care

blood pressure testing and assessments for sleep apnea. Dr.Arthur Stillman, the Director of Cardiothoracic Imaging, contributed by reading the calcium scorings for the players.

The screening also offered educational presentations (CV risk, weight management, sleep apnea and other selected topics) and concluded with an individual meeting with a physician who reviewed the immediately available results of the screening and answered any questions about the preliminary results.

Each retired NFL player will receive final test results in the mail in 4-6 weeks and he may

also choose to obtain his own electronic health record which will contain his health history and test results located securely in the LHF website and accessed only by the player and his doctor via the internet 24/7.

This screening and others held around the country will also contribute to research conducted by the LHF exploring the relationship between professional football players and cardiovascular disease. Emory Healthcare physicians, Dr. Paolo Raggi and Dr. Arthur Stillman, are assisting with this research and will co-author the study. Data collected from about 1,200 former players screened during the three-year

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study will be analyzed by the Mayo Clinic.

To learn more about the screening events, visit: http://www.livingheartfoundation.org/

An Emory Addition

Emory Johns Ćreek Hospital is in the new and growing city of Johns Creek in North Fulton County. The Radiology department has opened with a new state-of-the-art facility led by medical director, Dr. Brannon Hatfield.

Emory Johns Creek offers a full line of tertiary radiology services including advanced Interventional Radiology procedures such as uterine artery embolization, vertebroplasty, and radiofrequency ablation. They have the capabilities to provide the full spectrum of Women's Imaging including Breast MRI, full digital mammography, and mammotome biopsies. There is a new 8-channel MRI with a full line of coils and advanced imaging packages. The CT is a GE 64-slice scanner with the ability to do advanced CTA, including Cardiac CTA. The radiology facilities are available 7 a.m. - 6 p.m. for outpatient services and 24h/7day for emergent services. Currently, we have plenty of same day availability.



Stop by for a tour or call (678)474-7050 for more information.

Letter from the Chair

Dear Colleagues,

On Wednesday, May 30, Dr. Michael Johns, CEO of the Woodruff Health Sciences Center, gave an inspiring update on the Emory Vision 2012 Strategic Plan for Transforming Health and Healing. Since our Department is an integral part of this Vision, I would like to take a moment to reflect on progress to date and future plans.

Vision 2012 is guided by the values of pursuing integrated, patient-centered care; discovery and innovation; interdisciplinary education and training; the highest quality of clinical services; technology platforms supporting shared databases and informationon-demand; and quantifiable

outcomes for measuring impact on the populations we serve. Investments in patient-focused centers of excellence have been made in cancer, transplantation and regenerative medicine, neuroscience, heart and vascular disease, and lung disease, with the goal of positioning Emory to be a leader in each of these areas by 2012. Radiology involvement is prominent in all of these Centers. Of course, Emory is already gaining widespread recognition for its establishment of two new institutes, one for Predictive Health (led by Ken Brigham, PhD) and one for Global Health (led by Jeff Koplan, MD, MPH our 2007 Weens' lecturer). An integrated quality and safety initiative provides a strong

foundation for enhancing all our clinical programs. Key among several research focus areas that will take Emory into the top-10 NIH-funded institutions is Molecular Imaging.

Where will we find the room to continue to grow? The Master Facility Plan for the Clifton Corridor and Midtown Campus is starting to take shape for optimizing the design of clinic, hospital, and research buildings. I have been joined by several departmental colleagues on institutional committees where the ideal design of these facilities for imaging is discussed.

At the conclusion of his talk, Dr. Johns reminded the audience that each of us holds the key to



Emory's future and that the reality of this vision depends on the contributions we all make.

At this time of readying ourselves to see another class of residents and fellows off to their next career step, it is worth reflecting on the exciting steps forward we are taking together.

Carolyn Cidis Meltzer, MD Chair of Radiology

Awards & Recognition

Carolyn C. Meltzer, MD, FACR Curtis Lewis, MD, FACR

American College of Radiology Fellowship

On May 20, Dr. Meltzer and Dr. Lewis received one of the highest honors awarded by the American College of Radiology (ACR), the ACR Fellowship. The selection process for this fellowship is based on service to organized medicine, significant accomplishments in scientific or clinical research in the fields of radiology, radiation oncology or medical physics, exemplary performance as teachers and outstanding reputation among colleagues and the local community. Congratulations!

Nuclear Medicine Technology Certification Board

Three years ago the Nuclear Medicine Technology Certification Board (NMTCB) began offering a specialty exam in Positron Emission Tomography(PET). Presently there are 9 technologists in the state of Georgia who have passed the exam. Emory Healthcare's PET department has 4 of these technologists on staff. Margie Jones passed the exam the first year and was the first in the state of Georgia. The next year Fenton Ingram joined her. This year Seraphinah Lawal and Daniel Landers passed the test. We are proud of their accomplishments.

John Carew, PhD Assistant Professor of Biostatistics and Radiology

Emory University Faculty Distinction Award

Johns Carew is the first assistant professor to receive the Emory University Faculty Distinction Award from the office of the provost. This honor is dedicated to the celebration, retention and recruitment of outstanding scholars. The Faculty Distinction Fund, supplemented with \$10 million for equipment related to research, will also serve to enhance faculty diversity.

Patricia Harper

Breast Imaging Ultrasonographer

Patricia Harper recently passed the registry exam for the American Registry of Diagnostic Medical Sonography. Patricia had her formal training at Grady and came to Breast Imaging right out of ultrasound school. Patricia has proved to be an important asset to Breast Imaging.

Nytavia Wallace

MRI Technologist

Advanced MRI Registry

Nytavia has earned her advanced MRI Registration from the American Registry of Radiologic Technologists (ARRT).



In Memory

Remembering Lisa Floch

On April 29, 2007 Lisa Floch, TEC US Supervisor, unexpectedly passed away.

Lisa was born in Greenfield Park, Quebec and moved with her family to Georgia when she was a child. She was a graduate of DeKalb Medical Center X-Ray and Grady Memorial Hospital Ultrasound Schools.

Lisa was working at Gwinnett

Medical Center when she decided she needed a change and started with TEC in March 2001. Lisa started as a staff sonographer and became US Supervisor in 2003. In January 2006 she was instrumental in the TEC US section acquiring GE Healthcare's Volume Imaging Protocol (VIP) service, which significantly reduces patient wait times, while providing more detailed imaging for Radiology specialists.

Lisa always treated patients with dignity and respect. She was known for making people laugh even in a bad situation. Lisa loved spending time with her family and friends both inside and outside of work. She was diligent at getting up at 4:00 a.m. and starting each day by walking. She was adept at making pottery and many people have been the recipient of that talent. She loved her family, hockey and her dog, Daisy.

Her parents, Klaus and Arlene Floch and brother and sister-in-law, Paul and Laura Floch, survive Lisa.

A memorial service was held May 5, 2007 at the Peachtree Corners Christian Church. Many colleagues and friends attended from TEC, CLH, Gwinnett Medical Center and GE Healthcare.

> - Jane Vitali, BS, RT(R)(CV) Manager, Radiology Services

NEW GRANTS

A Novel Nanoscale Contrast Agent for Early Breast Cancer Detection

Principal Investigators: Dr. Ravi V. Bellamonda; Dr. Andrew Karellas

The Wallace Coulter Translational/ Clinical Research Seed Grant Program has funded this research for 1 year.

Early detection of breast cancer has therapeutic benefits and dramatically decreases mortality rates. However, mammography's accuracy is limited in dense breasts because glandular tissue may mask cancerous lesions. Therefore, improved strategies such as contrast-enhanced mammography using iodine-based x-ray contrast agents are currently being investigated. We have discovered that bismuth can provide much higher contrast than iodine in the current clinical mammography energy range and that iodine is not very effective for mammography applications. Therefore, in this work we propose a novel x-ray contrast agent based on bismuth.

The overall goal is to develop a novel nanoscale contrast agent containing bismuth and demonstrate early breast cancer detection in vivo. To accomplish this goal, we will fabricate liposomal nanocarriers encapsulating high amounts of bismuth and demonstrate their superior contrast and in vivo safety using rat breast tumor models. We believe the nanoconstructs generated from these studies can readily serve as leads for commercial diagnostic products.

Tumor Targeting Multi-Functional Magnetic Nanoparticles

Primary Investigators: Dr. Hui Mao; Dr. Lilly Yang

Emtech Bio seed grant program will fully fund this research for I year.

Dr. Mao's lab will collaborate with Dr. Lily Yang's lab at WCI and the Department of Surgery to develop multi-functional magnetic nanoparticles for biomarker targeted MRI contrast agent for molecular imaging of cancer, other potential applications of this magnetic

nanoparticle platform include magnetic cell labeling,

- cell purification and drug delivery. Dr. Shuming Nie's
- lab at Department of BME and Ocean NanoTech,
- LLC are also participating this research.





RESEARCH OPPORTUNITIES

Emory Joins Ranks of Supercomputing Schools

Emory scientists will soon enjoy access to one of the national more computational muscle thanks to the University's acquisition of a new highperformance computational cluster. The 1,024 CPU-core cluster will significantly enhance Emory's existing computational resources, accelerating the pace of scientific discovery in a variety of fields including chemistry, biology, neurology, genetics, library science, pharmacology and medicine.

Anticipated to be up and running by June, the new cluster will likely place Emory on the list of the world's 500 most powerful supercomputing sites.

Because scientists are generating and analyzing increasingly large quantities of data, powerful computational tools are crucial for those researchers and institutions wanting to stay on the cutting edge of research.

'This high-performance computer cluster will enable researchers to accomplish a variety of experiments — using computer simulations — which would prove impractical, impossible or too costly to do using conventional laboratory methods," said Vice President for Information Technology Richard Mendola.

Researchers previously have had the options of investing in small-scale computer hardware and creating and managing their own computational clusters, using one of Emory's smaller, general-purpose clusters, or writing grant proposals to obtain financial support and

supercomputer centers.

"We see our new cluster as targeting the gap between the existing options at Emory and the very high-end national supercomputer centers," Mendola said."We feel there is real value added to the University by having a computational resource, particularly for junior faculty who may not have a track record in obtaining extramural funding for computational support. These researchers will now be able to access a well-subsidized resource —right here at Emory through their own start-up funds."

For Andrew Karellas, director of medical physics at Emory's Winship Cancer Institute and one of the world's leading experts in the development of new digital imaging detectors, the new computational cluster will allow him unprecedented research opportunities into early detection of breast cancer through the use of new imaging techniques.

Using the new cluster, Karellas, a Georgia Cancer Coalition Distinguished Scholar, and radiology faculty loannis Sechopoulos, will explore the level of radiation that patients receive from two new types of breast imaging techniques, known as digital tomosynthesis and computed tomography. Although not yet commercially available, these techniques may someday provide clinicians with more detailed views of breast

tissue than ever before. In addition, several aspects of these techniques including improvements in image quality and three-dimensional visualization also need to be investigated. Karellas and his collaborators plan to explore these issues using the new cluster.

"With the former cluster, some of the simulations we had wished to undertake would have taken several months and even years of computation time, making this type of research impossible. Computation that would have taken us months will now take no more than a few days. The new cluster will vastly widen our horizon in terms of new knowledge in this field," Karellas said.

Like Karellas, researcher Andrew Jenkins said he will use the new computational cluster to improve patient safety and treatment. Jenkins, an assistant professor of anesthesiology in Emory's School of Medicine, explores precisely how general anesthetics affect the central nervous system. Through rigorous computer simulations, lenkins hopes to create safer and more effective general anesthetics.

"We do not yet really understand how anesthetics work at the molecular level. But an important part in better understanding these substances involves simulating how the structure and function of neurotransmitter receptors are affected by specific anesthetics — alone and in combination,"

Jenkins said."The only way we can efficiently simulate the anesthetics' effect on the central nervous system is by using brute force computational methods, which the new cluster will allow us to do."

The University initially will be offering researchers complimentary computer time to help them familiarize themselves with the new cluster, Mendola said."After that, we're pricing the subscriptions so that the cost to faculty members will be cheaper than buying their own hardware or leasing it."

'The day we flip the switch, faculty will begin using the new cluster — and they'll be solving real problems with this new capacity. For them, the set-up of the cluster can't happen fast enough," Mendola said.

Emory's High Performance Computing Group will be overseeing the installation and maintenance of the new cluster. Its computers were purchased from Sun Microsystems and its networking switches from Foundry Networks. The cluster will run the Linux operating system with a scheduler that will allow researchers to simultaneously submit thousands of processes. Researchers will be able to use various software applications depending on the type of research they are conducting.

- Robin Tricoles, Emory Report Science Writer

Research Up-dates

The new monthly "Research Administration at Emory" Newsletter has been designed to keep those involved in research administration at Emory aware of the important issues impacting the administration of their awards. It is strongly recommended that those involved in research at Emory take a few moments to review the monthly newsletter. Comments and suggestions for future issues are very welcome and

can be forwarded directly to Kerry L. Peluso, the Associate Vice President for Research Administration.

To receive monthly notifications when the newsletter is available, you must be subscribed to the Research Administration listserv. To subscribe, please visit: http://www.ogca.emory.edu/listserv_sub.cfm.

EMORY HEALTHCARE

Current Research

Comparison of acute and delayed adverse reactions between Visipaque and Isovue: A prospective study in 1000 patients.	Reader performance for detection and characterization of liver lesions using near isotropic coronal MPR reformats with 16 and 64-slice MDCT.
PI:William Small MD, PhD	
Co-Contributors: Sunit Sebastian, MD, William Torres, MD, FACR, Alberto Spinazzi, MD	PI: William Small MD, PhD Co-Contributors: Sunit Sebastian, MD, Alex Lewis, MD,
Compare the incidence of acute and delayed reactions for Visipaque and Isovue.	David Kooby, MD, William Torres, MD, FACR
Significance: This study will help identify which of the two intravenous contrast agents have higher incidence of acute and delayed reactions.	What is the level of reader performance for liver lesion detection and characterisation using independent coronal MPR's for primary interpretation?
of acute and delayed reactions.	Preliminary findings: Coronal MPR images are as
Determination of appropriate slice thickness of coronal reformats for accurate detection and characterization of liver lesions using 16 slice MDCT.	good as axial images for liver lesion detection and characterisation.
	<i>Significance:</i> Better delineation of anatomy, fewer images to review using coronal MPR images.
PI:William Small MD, PhD	Dual energy MDCT to differentiate between
Co-Contributors: Sunit Sebastian, MD,	polyps and fecal matter in a colon phantom
Alex Lewis, MD, David Kooby, MD, William Torres, MD, FACR	PI:William Small MD, PhD Co-Contributors: Sunit Sebastian, MD,
What is the appropriate slice thickness of coronal reformats for accurate detection and characterization of liver lesions using 16 slice MDCT?	Tim Fox, PhD, William Torres, MD, FACR
C C	Can dual energy MDCT differentiate between polyps and fecal matter in a colon phantom?
Preliminary findings: 5mm coronal MPR images suffice for accurate detection and characterization of liver lesions using 16 slice MDCT.	<i>Preliminary findings:</i> Lower kVp settings (80) may allow differentiation between polyps and fecal matter
Significance: Protocol optimization.	Significance: Dual energy CT Colonography may obviate cumbersome colonic preparation, further
CHECK IT OUT	enhancing patient compliance of CT Colonography.

Recently Released Publications

Alazraki NP, Shumate MJ, Kooby DA. A Clinician's Guide to Nuclear Oncology: Practical Molecular Imaging and Radionuclide Therapies, Reston, VA, Society of Nuclear Medicine, 2007, 205.

The above is publication of a book written for clinicians who take care of patients with cancer. It is written as a collaboration of three Emory faculty members at the VA from three disciplines: nuclear medicine, medical oncology and surgical oncology.

Folks RD, Garcia EV, Taylor AT: Development and Prospective Evaluation of an Automated Software System for Quality Control of Quantitative Tc-99m MAG3 Renal Studies. J Nucl Med Technol 2007; 35:27-33



Senior Radiology Residents & Fellows

The following residents will be completing their residency program in June and either continuing their training in a fellowship program or beginning practice. This has been an excellent group of residents and we wish them well in their new endeavors. We are fortunate that many of them will remain in the Department for at least another year.

Adina Alazraki, MD Continuing at Egleston in Pediatric Imaging

David Altman, MD Continuing at Emory in Neuroradiology

Eric Berenson, MD Continuing at Emory in Body Imaging

Samir Chande, MD Continuing at Emory in Abdominal Imaging

Matthew Hartman, MD Continuing at Emory in Body Imaging Bobby Kalb, MD Continuing at Emory in Body MR

Christine Marsch, MD Joining private practice, Radiology Inc. in South Bend, Indiana

David Monoky, MD Continuing at New York University in Neuroradiology

Saad Naseer, MD Continuing at the University of Chicago in Musculoskeletal Imaging

David Ng, MD Practicing with Kaiser Permanente in Northern California Heather Pearlman, MD Continuing at Emory in Breast Imaging

Anthony Powell, MD Continuing at Stanford in Body Imaging

Mark Rheaume, MD Continuing at Emory in Interventional Radiology

Rui Song, MD Continuing at Emory in Breast Imaging

Paul Swartz, MD Continuing at the Mayo Clinic in Scottsdale Arizona in Body MR

The following fellows will be completing their program in June. We have included their future plans and wish them great success in their Radiology careers.

James Bramlette, MD Reading for RSI Specializing in Neuroradiology

Sarah Bushore, MD Practicing at the VA Medical Center in North Carolina Specializing in Neuroradiology

Christopher Cornille, MD Practicing at Rocky Mountain Radiology Specializing in Neuroradiology

John (Trey) Gillbert III, MD Practicing at Rocky Mountain Radiologists Specializing in Abdominal Imaging

Elaine Khatod, MD Practicing in Colorado Specializing in Neuroradiology

Charles Knight, MD Practicing at Corvallis Radiology Specializing in Neuroradiology

Jeff Leitko, MD Practicing with consultants in Radiology in Pennsylvania with a fellowship in Abdominal Imaging Kevin MCluskey, MD

Practicing at University of Pittsburgh Medical Center, Specializing in Interventional Vascular Radiology

Brian Moore, MD Practicing in Baltimore, Specializing in Interventional Vascular Radiology

Michael Osipow, MD Reading for RSI Specializing in Abdominal Imaging

Tatyana Sklyarevskaya, MD Practicing in Macon, GA, Specializing in Abdominal Imaging

Michael D. Starsiak, MD Practicing at Morton Plant Hospital (Clear Water, FL) Specializing in Nuclear Medicine

Matthew Webber, MD Practicing with the Virginia Radiology Association, Specializing in Abdominal Imaging

EMORY HEALTHCARE

DIVISIONAL UP-DATE

Musculoskeletal



Since joining Emory in January I have spent much of my time becoming familiar with the institutional complexities common in any large radiology department. Within the division of musculoskeletal imaging, I have found accomplished colleagues in Walt Carpenter and Terry Hudson. These physicians comprise the clinical backbone of the division and it is my pleasure and honor to work along side them.

At Executive Park, the old 1.5 Tesla scanner has been replaced by a state-of-the-art 1.5 Tesla Signa HDx scanner manufactured by GE Healthcare. On May 12, a 3 Tesla magnet was delivered, installation is complete and the

GET INVOLVED

scanner will be online soon. The new scanner will offer new opportunities for research as well as clinical imaging.

Several resident research studies are in their early stages and will exploit some of the capabilities of the 3T scanner. Several studies with our orthopedic colleagues are in the planning stages or have already generated preliminary data.

The fellowship program will have a few changes beginning next year. While we encourage application from Emory residents, we are endeavoring to broaden our appeal. So far three promising fellows have been recruited from the outside. The fellowship program will have a research requirement beginning in July 2007.

> - Micheal Terk, MD Director of Musculoskeletal Imaging

Celebrate Women, Celebrate Life, Celebrate Pink

More than 300 Emory employees attended the sold-out Women's Breast Health Forum on May 10th. The event was presented by the Emory Breast Center; spearheaded by Nommo Combs and Amy Comeau. The luncheon provided women with an overview of the signs, symptoms and risk factors for breast cancer, as well as the latest techniques in breast imaging.

Carl D'Orsi, MD, Professor Radiology/Hematology



and Oncology and Director of the Breast Imaging Center, gave the featured presentation highlighting, not only the symptoms, but also the advancement of 3-D Breast imaging available only at Emory.

100% Participation susan c.

Breast Imaging Center (BIC)

susan G. KOMEN FOR THE CURE

achieved 100% participation for the 2007 Susan of Faculty and Staff this year for the 2007 Susan Komen Race for the Cure for Breast Cancer, which was held on May 12, 2007. Each person who made a donation received a t-shirt and opportunity to participate in the race. This is the 2nd year in a row that BIC has accomplished this high level of participation. A sincere thanks to Robin Tarpley, RN, the patient care coordinator, who worked so hard in seeing that BIC achieved this goal again. A lively Q&A session followed with Dr. D'Orsi, Toncred Styblo, MD, Associate Professor Surgery/



Oncology and Christine McCarthy, MS, APRN-BC, Breast Health Coordinator. Guests enjoyed



complimentary onsite massages and left with take home essentials to pamper themselves, compliments of Spa Sydell.

The next Women's Breast Health Forum will take place in October.

Radiology Grand Rounds

June, July & August Summer Break

EMORY UNIVERSITY



STRIVING FOR EXCELLENCE New Faces & Appointments

What Type of Customer Service Do You Provide?

Go back to your worst customer service experience. It may have been getting a car repaired, eating a meal at a restaurant or seeking care for a sick pet. Possibly it involved being ignored at a check-in counter or waiting forever on the phone to talk to another human being. Nobody bothered to tell you what was going on and if they did, it was a canned response that really had nothing to do with your situation. Someone may have made a comment or acted in a way that made you feel like you were unwelcome. Then adding insult to injury, you end up with an incorrect bill and inferior or incomplete service. This lousy service impacted not only you, but also those around you. You received the distinct impression that the employees were only there because they had to be.

Now think of your best customer service experience. You received a friendly, individual greeting. The business listened to you, understanding your needs. If you had to wait, someone let you know why and provided you with an expected wait time. The cost of your service was clear and you were able to make choices. When you left, you were in a better mood than when you arrived. You felt that employees clearly *wanted* to be there.

We may have chosen our profession because of the pay, benefits, location or company reputation. Since we are in the profession of health care, hopefully we also choose to help others. Even those not involved in direct patient contact have opportunities for customer service. A manager can inspire their supervisors. Scheduling can find an opening that best meets a patient's individual needs. Patient staff can and do work to ensure last-minute exams are covered by insurance. Most importantly, we should care for our everyday customers, our co-workers.

Those who *have* to go to work each day - *have* to provide adequate customer care. Those who *want* to come to work each day - *want* to provide excellent customer care. Ask yourself which type of customer service you desire, and then ask yourself what kind of customer service do *you* provide?

- Chuck Powell Administrator, TEC Radiology



Sonja K. Robb-Belville, BS, RT(R)(MR)

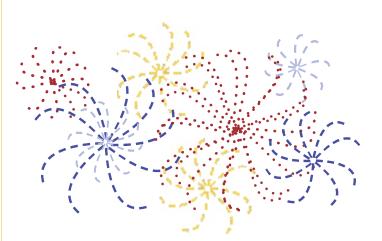
Instructor in Medical Imaging BMSc Program Sonja K. Robb-Belville has joined Emory with eleven- years of experience as a radiologic technologist and seven-years

of technologist education. She is presently pursuing her MSRS at Midwestern State University. Sonja also has been elected to the Policy Board and is Chairperson of the Education Committee of the International Society of MR in Medicine's Section for MR Technologists.



Laura Padgett Events Coordinator

Laura Padgett joined the Radiology Department as the Events Coordinator. She most recently served as a Program Manager for the WHO Collaborating Center in Reproductive Health at the Centers for Disease Control & Prevention (CDC). She will be utilizing her experience in event planning to facilitate and assist the various divisions throughout Radiology.



Have a Safe and Happy 4th of July!



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