

EMORY

RadReport

It's what's on the inside that counts!

September, 2007

Mark Goodman, PhD: Endowed Chair in Imaging Science

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how much is still to be done. Our department and institution are rich in talented individuals with deep knowledge and expertise in imaging technology and how to apply these methods to improving patient care. Here, we pause to recognize the accomplishments of one of these individuals.

On August 28, in the lobby of the wonderful new SOM Building, colleagues from our department and throughout Emory gathered to honor one of our most distinguished faculty members, Dr. Mark Goodman, as he received the Endowed Chair in Imaging Science. Dean Lawley presided over the festivities and others from the SOM leadership attended. We congratulate Dr. Goodman on this highest achievement.

Mark Goodman received his Ph.D. in organic chemistry in 1976. After further training at the Roswell Park Cancer Institute in Buffalo, Yale University, and Harvard University, he joined the Oak Ridge National Laboratory as a staff scientist. There, Dr. Goodman's research led to the development of [¹²³I] BMIPP, which has

The growth of research and advances in imaging science in our lifetime has been nothing short of remarkable. Sometimes it seems we are too close to our work to take a step back and ponder how much has been accomplished; and for that matter

been commercially introduced in Japan as Cardiodine. In 1987, Dr. Goodman moved to the University Tennessee Medical Center at Knoxville to become Director of Radiopharmaceutical Chemistry. There, he worked on the development of carbon-11 amino acids, and oxygen-15 flow and radiohalogenated radiopharmaceuticals, and rose through the ranks to the position of Professor of Radiology.

In 1993, Dr. Goodman moved to Emory to establish the PET radiopharmaceutical research program (now known as the Radiopharmaceutical Discovery Lab), where he holds the position of Professor of Radiology, Psychiatry and Hematology and Oncology with tenure and also serves as Director of the Emory PET Center. Dr. Goodman is one of a handful of chemists who has developed numerous novel imaging biomarkers and taken several from the bench to human trials. A substantial development is that of FACBC, the first fluorine-18 labeled amino acid to image, brain, prostate cancer and prostate cancer metastasis. FACBC has been licensed to Nihon Mediphysics Japan and GE Healthcare for commercialization.

The field of nuclear and molecular imaging, of which Dr. Goodman is a

visionary member, is one in which selective imaging biomarkers hold promise for diagnostic, prognostic and therapeutic use for diseases like Alzheimer's disease, depression, and cancer.

As we prepare to enter into a new healthcare paradigm of predictive and personalized medicine, such novel and specific biomarkers will be increasingly important and valued.

Mark's successes

are also, in part, attributable to his ability to build a strong team of scientists and establish long-standing relationships with collaborators and colleagues from many disciplines. His dedication to mentoring students, post-doctoral fellows, and junior faculty is inspiring. Indeed, the "chemistry" of Mark Goodman and Emory has been just right and has led to the creation of the Endowed Chair in Imaging Science in recognition of his many achievements. Yet, there is much more to do. Later this year, Dr. Goodman will be assuming the co-directorship of the new Emory Center for Systems Imaging along with John Votaw, PhD and director Xiaoping Hu, PhD. We look forward to many more years of shared scholarship and friendship with this fine colleague.

- Carolyn C. Meltzer, MD, FACP
Chair of Radiology



Highlights of Dr. Goodman's career were shared by: John Votaw, PhD, Mark Goodman, PhD, Carolyn Meltzer, MD, FACP and Thomas Lawley, MD.



The School of Medicine lobby served as the venue to honor Dr. Goodman.

Letter from the Chair

Dear Colleagues,

A new academic year has begun. And, we are moving forward with giving EUH Radiology a fresh face as the renovation project continues. The next renovation stage will bring the new resource of a multi-media facility overseen by Eric Jablonowski, our new Director of Media Services. This facility will offer medical illustration, digital photography, presentation materials and other services to support research and educational activities.

Later this month, we will honor Department of Radiology residency program alumni with a weekend event and the Weens Memorial Lecture, coinciding with the official

opening and dedication of the new School of Medicine Building.

A significant yet little noted recent event was the ceremonial ground-breaking of the new outpatient clinic building on the Clifton campus on August 27. This planned 400,000-square-foot state-of-the-art facility will support expanded and realigned clinical services and adjacent clinical research resources, paving the way for a more idealized patient experience. Radiology representatives are actively involved in the planning and design process.

In this month's letter I bring to your attention a growing

priority of the department and the institution: that of always improving the quality of our health care delivery. Emory Healthcare has announced the ambitious goal of attaining top-10 status in quality measures among academic medical centers by 2012. Our department is doing its part through staff and physician-driven initiatives including our Practice Quality Improvement committee and implementation of the American College of Radiology RADPeer program.

Although there is much good news in this issue of Rad Report, it is difficult to open an Atlanta newspaper lately without seeing mention of the financial precariousness of Grady. While Emory leadership



works closely with community representatives to establish stability, we continue to serve the patients as best we can. Please also take a moment to let your local and congressional representatives know of the magnitude of Grady's importance to our patients and our training programs and the fact that it must be supported.

Best to all,

Carolyn C. Meltzer, MD, FACP
Chair of Radiology

AWARDS & RECOGNITION

Adina Alazraki, MD

Fellow, Pediatric Imaging

Caffey Award

Dr. Alazraki contributed to the success of the paper entitled "Evaluation of single functioning kidneys using MR urography," which earned the Caffey Award for Best Clinical Science Paper at the Society for Pediatric Radiology.

Diana Pless, RT (R)(M)

Manager, Breast Imaging Center and EUH Ultrasound

Institute of Allied Medical Professional School

Diana has been appointed to the advisory board for The Institute of Allied Medical Professional School. Breast Imaging and EUH ultrasound are instrumental in providing clinical training for the ultrasound students from this school.

Susan Clay

Ultrasound Technologist

Susan has earned her certification in breast ultrasound from the American Registry for Diagnostic Medical Sonography (ARDMS).

Wanda Hogan

Patient Service Associate
Radiology Central Scheduling

Employee of the Month - The Emory Clinic

Wanda Hogan has displayed an outgoing attitude and is always willing to help a co-worker or hospital visitor. These qualities, among others, have earned Wanda the distinction of September's Employee of the Month at the Emory Clinic.

Each month, the supervisors of the Emory Clinic will select one team member who has displayed exemplary performance. The criteria for consideration include:

- Team player
- Outstanding customer service
- Display a positive attitude
- Influence increased productivity
- Shows initiative
- Flexibility to react to changing situations
- Maintains professional atmosphere
- Motivates others
- Good work ethic

To become an Employee of the Month practice these attributes daily.

RADIOLOGY RENOVATION UPDATE

Radiology Growth Continues

The Radiology Renovation has begun the next stage, which will create a domino effect of relocations and construction throughout the Emory University Hospital Radiology Department.

The most evident progress taking place is at the ground level in the former film library where construction will be completed in 6-9 weeks. This space will be the new home to the MRI Research Faculty and staff, as well as Multi-Media resources and IVR Inventory. Other areas that will begin to see progress include:

Abdominal Offices:
moving to area that was previously occupied by Dr. Meltzer's Suite

CT Procedural Room:
access to be altered

MRI - 3T:
to be installed in the area currently occupied by IVR 16 (C-Arm Room) and IVR inventory

Ultrasound:
reorganized in similar area

MRI Clinical:
move to 1st floor near the former location of the Abdominal Offices

Faculty Offices:
moving to ground level

Body Reading Room:
relocating to existing file room

In addition to the previously established renovations, the State of Georgia has recently approved the Certificate of Need (CON) to include a relocation of the Pre/post Procedure Care Area (PPCA) and an additional IVR suite. The relocation and reorganization of the PPCA is an opportunity

to organize the space in a way that will streamline the patients' experience while visiting Radiology and optimize the work flow for faculty and staff. This area will occupy the remaining space of the former Chairman's Office adjacent to the Neuro Reading Room.



The former film library will become the new home of MRI Research.



The new Executive Suite is located in D112.

person should be prepared to relocate, possibly more than once. In an effort to keep everyone informed, up-dates will continue to circulate through the newsletter and schematics will be posted near the Neuro

Reading Room for viewing. The transformation of the Radiology Department is scheduled to be complete in 18-24 months.

For further information regarding this project, please contact Dale Walker or Jane Goldberg.

- Monica Salama
Communications Specialist

Radiology Department Beginnings



The history of Dr. Heinz Weens marks the conception of the Emory Radiology Department and will be commemorated with the 24th Annual Weens Lecture that appropriately coincides with the University Homecoming, Alumni Weekend and the grand opening of the School of Medicine Building.

In 1941, Dr. Weens was the first radiology resident at Grady Memorial Hospital and in the City of Atlanta. During the final year of his residency, WWII recruited radiologists for duty overseas. This left Dr. Weens to support not only Grady, but also Piedmont Hospital as well. Upon finishing his residency in 1944, he continued his training in Boston. When Dr. Weens returned to Emory, he initiated the residency training program that first involved both Grady and Emory University Hospitals. With an enrollment of two residents, the Emory Radiology Residency Program was a reality. By 1947, Dr. Weens had earned the title of Associate in Radiology. This appointment punctuates the time that Radiology was separated from Surgery. Within a year, Dr. Weens was made a full Professor and Chairman of the Department.

Dr. Weens was an innovative researcher, an inspiring mentor and an engaged physician accentuating the three pillars of Emory that continue to support the Emory organization today.

NEW GRANTS

Investigation of the Environmental and Genetic Basis of Non-Alcoholic Fatty Liver Disease (NAFLD) through the Emory NAFLD Research Group: a multidisciplinary project uniting liver experts

Principal Investigators: *Co-Investigators:*

Diego Martin, MD
Miriam Vos, MD

Xiaoping Hu, PhD
Rene Romero, MD
Jennifer Buechner, RD, CSP
Enrique Martinez, MD

James Spivey, MD
Frank Anania, MD
Andy Muir, MD
Mark Bouzyk, PhD

Veda Johnson, MD
Thomas Heffron, MD
Bahig Shehata, MD

This is a cross-departmental collaborative project funded by the Woodruff Fund for one year to support the initiatives of Visions 2012. The departmental contributors include members from Radiology, Pediatrics, Medicine, Center for Medical Genomics, General Pediatrics, Transplant Surgery and Pathology.

Obesity and liver disease related to NAFLD is highly prevalent and represents a major and growing

disease burden in the U.S., including children. The etiology of disease, the factors leading to individual risk and therapy are not yet well understood. This project objective includes the formulation of a comprehensive liver expert multi-disciplinary program to address these problems. Successful implementation and validation of imaging diagnostic technology in pediatric and adult NAFLD patients will allow us to pursue predictive modeling, evaluate the genetic basis

of the disease, investigate its cellular-biochemical composition, therapeutic strategies, and facilitate therapy monitoring. Current technology is not suitable for these endeavors.

This study will use MRI/MR spectroscopy to replace the need to biopsy liver for diagnosis and monitoring of NAFLD with a more sensitive and specific chemical evaluation of liver lipids.

Leucine Type Amino Acid Transport(LAT) In Gliomas

Principal Investigator:

Mark M. Goodman, PhD

Co-Investigators:

John Votaw, PhD
Hyunsuk Shim, PhD
Hui Mao, PhD
Daniel Brat, MD, PhD

Jeffrey Olson, MD
David Schuster, MD
Chad Holder, MD

With this grant we will investigate anti- ^{18}F -amino-3-[^{18}F]fluorocyclobutane- I -carboxylic acid (anti-[^{18}F]FACBC) to image gliomas based upon amino acid transport with PET. Our choice of anti-[^{18}F]FACBC as a suitable radiotracer for imaging tumors stems from our in vitro studies in human U87 glioma cells demonstrating that anti-[^{18}F]FACBC shows high and selective uptake by the LAT and our in vivo studies with anti-[^{18}F]FACBC in humans with primary gliomas ($n=11$) and metastatic brain tumors ($n=15$).

These studies displayed high 6:1 tumor to brain ratios in support of our proposed studies to evaluate anti-[^{18}F]FACBC in humans in order to determine its potential as an imaging agent for gliomas.

Over the next five years, we expect the following improvements:

1) LAT expression is upregulated in brain tumors in proportion to the growth rate, transport rate and tumor grade

2) anti-[^{18}F]FACBC transport rate in tumor measured prior to and following therapy will correlate to survival

3) anti-[^{18}F]FACBC tumor uptake will provide a more accurate correlation of the extent of the viable tumor distribution compared to MRI

4) anti-[^{18}F]FACBC tumor uptake will provide a more accurate distinction between radiation necrosis and viable tumor than MRI

NIH Grants.Gov and SF424 Training Session

September 17, 2007
1:00 - 5:00 p.m.

Winship Cancer Institute, Rm C5012

If you are submitting via Grants.Gov for any NIH programs in the next few months, especially R01S in October and November, you need to know about Grants.Gov electronic submission processes and the SF424 forms.

RSVP to Matthew Fowler (mwfole@emory.edu), no later than **September 12**. In your message, list any upcoming submissions along with their deadlines.

For complete information visit
<http://radiology.emory.edu/today.cfm#other>

CHECK IT OUT

A Promising Future in Radiology



Alex Lewis, a 4th year medical student pursuing a joint MD/MBA, has displayed great initiative and investment in his future. During his 3rd year of medical school, Alex sought the guidance of Dr. Mark Mullins in order to become more involved in Radiology. Dr. Mullins then directed him to Dr. Carolyn Meltzer, with whom he generated a proposal for the RSNA Medical Student Departmental Grant in an area of Abdominal Imaging working with Drs. William Small and Sunnit Sebastian.

The development of the study and proposal consumed nearly 9 months, which included creating a firm rationale for the study, a generous amount of assistance from Grants Administrator, Mariana Teodorescu and the sign-off from Dean Lawley at the School of Medicine. The hard work paid off when the project was awarded the grant in November, 2006.

The research study evaluated the accuracy of reading a traditional axial CT scan versus a reformatted coronal scan. Experienced radiologists read each set of anonymous scans reporting the number and size of lesions visible in each scan. Alex's participation included cross referencing the data as the doctors reported the lesion count and preparing the final results for analysis. The study found that the coronal Multi-Planar Reformatting (MPR) images are comparable to axial images for detection and characterization of lesions, with the advantage of better delineation of anatomy and fewer images to review.

Upon completion of the study, in April 2007, an abstract was composed and submitted for presentation at RSNA. In July, the research team was notified that their abstract will be a feature presentation at the 93rd Annual Meeting of RSNA this November. The results of the study titled "Reader Performance for Detection and Characterization of Liver Lesions Using Near Isotropic Coronal MPR Reformats with 16 and 64-slice MDCT" are currently pending submission for publication in *Radiology*.

AJ would advise other students who would like to get involved to, "First, have an idea of what you are interested in; then meet with someone in that department to find out how you can become involved and, above all, be patient."

AJ will be spending the next academic year meeting the requirements of the MBA program and then will pursue a residency in radiology.

- Monica Salama
Communications Specialist



At some point through the Emory Radiology Residency, the dedication and time invested in completing a research project is realized. Ashok Jayashankar, MD, Chief Resident, has recently experienced the immense satisfaction of having his work accepted for publication in *Emergency Radiology*.

When asked about the most rewarding aspect of his research experience, Dr. Jayashankar points to the deep respect and admiration he has for the amazing research team that he has worked with over the 20-month process.

The process began in January, 2006 when Dr. William Small took the lead as an instrumental part in the research design. Dr. Small assisted Dr. Jayashankar in obtaining approval from the Institutional Review Board (IRB) and brought him on board as a member of the research team that included: UK Udayasankar, MD; S Sebastian, MD; Mannudeep Kalara, MD and E Lee, MD. Upon IRB approval, the research team began collecting about 110 Grady ER cases. This first portion of the study was completed in March and results were submitted as an abstract to the Radiological Society of North America (RSNA) and American Society of Emergency Radiology (ASER) in May 2006. This submission resulted in an oral presentation at the annual conferences of each society (ASER in October 2006 and RSNA in November 2006).

The abstract was a successful milestone; however, the research project was not complete. The team continued to analyze incoming data through January, 2007. The results were synthesized and incorporated into a manuscript entitled "MDCT of Thoraco-Abdominal Trauma: An Evaluation of the Success and Limitations of Primary Interpretation Using Multiplanar Reformatted Images versus Axial Images". The manuscript was submitted for publication in July 2007. In August, the article received approval for publication in an up coming issue of *Emergency Radiology*.

Dr. Jayashankar believes that there are numerous research opportunities available at Emory for all interested residents. He recommends that each resident identify an area of interest early in their residency and talk to attendings in that field to find out about specific projects.

Next year, Dr. Jayashankar will begin his fellowship in Body Imaging at Stanford University. When asked what his plans are after his fellowship, he simply stated, "I will go where life takes me."

- Monica Salama
Communications Specialist

STRIVING FOR EXCELLENCE

Engaging Each Other

A Southwest Airlines frequent flyer was on a Birmingham-bound early morning flight connecting through New Orleans. As usual, the attendant passing through the aisle asked him what snack he would like with his coffee. Knowing that Southwest is a no-frills airline, the passenger said with a long sigh: "I'll have waffles and crispy bacon." The attendant said in response: "How about some beignets at New Orleans?" The passenger, playing along, said: "Sure, extra sugar on top please!"

At New Orleans, while the plane was reloading, in comes the attendant with a dozen hot, fresh beignets. The passenger was simply overwhelmed with the care that the attendant had given him. He said: "I am going to write your manager to get

you promoted. She replies, "Thanks, but I don't want a promotion. I just love my job."

This is a true story about an actively engaged employee who loves her job so much that customer service becomes second nature.

Many among us look to our bosses to pat us on the back for a job well done, and they frequently do. But we must also take the time to recognize one another to make sure that each of us feels appreciated at least once a day. Best of all, if we take pride in every action we make, our fulfillment comes from within. And that is how we achieve the highest level of engagement.

- Habib Tannir, M.S.
Administrative Director
of Imaging Services

Positive Feedback

TEC Comment Card

Kelley Hughley Medical Assistant

On August 17, Kelley Hughley used her expertise to administer an IV to a patient that was apprehensive due to previous experiences. Kelley exceeded the expectations of the patient with her skill and calm manner, which allowed her to successfully insert the needle on the first attempt. She was so successful that the patient plans to request Kelley for her future IV needs.

After her procedure the patient wrote the following comments:

- ✓ Greeted in a friendly and courteous manner.
- ✓ Effectively met identified needs
- ✓ Took action and resolved concerns and /or complaints
- ✓ Improved overall experience
- ✓ Other - She made a bad experience better for me. Please give her a raise for her hard work.

Congratulations on the positive feedback!

HIPAA Question of the Month

Does a patient have a right to request amendments to his/her medical information? If so, is Emory Healthcare (EHC) or Emory Medical Care Foundation (EMCF) obligated to agree to amendments requested by the patient?

A patient has the right to request that EHC/EMCF amend his/her medical information. However, the HIPAA privacy rule allows EHC/EMCF to deny a patient's request for amendment if it is determined that the information:

- was not created by an Emory provider, unless the individual provides a reasonable basis to believe that the originator of information is no longer available to act on the request

- is not part of the designated record set (i.e., medical record)
- would not be available for inspection under the rules allowing a patient access to his/her information
- is accurate and complete

To see Emory's right to amend policy and procedure, go to: <http://euhnnotes.eushc.org/ehc%5Ccompolic.nsf>

--Office of Compliance Programs Newsletter, July 2007

GET INVOLVED

Weens Lecture

The **24th Annual Weens Lecture** and Resident Alumni Reunion will take place on Friday, September 28 at 7:30 p.m. at the Michael C. Carlos Museum. The evening will feature a presentation by Peter Lacovara, PhD, Director of Egyptian, Nubian and Near Eastern Art. He will share his experiences and expertise on the topic of "Radiologic Examination of Egyptian Mummies".

In 1999, Lacovara spearheaded the acquisition of a collection of ancient Egyptian materials from a small museum in Niagara Falls, Canada and oversaw the reinstallation of the Carlos Museum's galleries to display those objects side by side with the museum's prior holdings, along with numerous recent additions to the collections.



Lacovara formerly served as assistant curator in the Department of Ancient Egyptian, Nubian and Near Eastern Art at the Museum of Fine Arts, Boston, and was appointed curator of ancient art at the Michael C. Carlos Museum in 1998. His fieldwork has included site supervision at

locations such as the Valley of the Kings at Thebes, Abydos, at the Giza Plateau, Deir el Ballas, and the Sphinx/Isis Temple in expeditions spanning the last 25 years. He is currently co-directing a field project along with the Metropolitan Museum of Art at the

palace-city of Amenhotep III at Malkata in Western Thebes.

A cum laude history graduate of the University of Chicago, Lacovara also earned his doctoral degree in Egyptian archaeology at the Oriental Institute of the University of Chicago. Lacovara is well published, an avid researcher, well recognized as an expert in his field and an active member of the American Research Center in Egypt and the Egypt Exploration Society, among other professional commitments.

On an occasion that commemorates the history of the Emory Radiology Department, we are very privileged



to host a prestigious member of the Emory Community who will share how radiology is able to assist in preserving history.

If you would like to attend this event
RSVP by Friday, September 21, 2007 to
Laura Padgett at 404-712-5497 or
Laura.Padgett@emoryhealthcare.org



EMORY
UNIVERSITY
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MEDICINE

Department of Radiology CME Program

Saturday, September 29, 2007

9 a.m. - Noon

School of Medicine Building
3 Hours of Credit Offered
Complimentary Admission

Bruce R. Baumgartner, MD - Welcome

Carolyn C. Meltzer, MD, FACP
Predictive Imaging in the Aging Brain

Arthur Stillman, MD, PhD
Dual Source CT with a Special Focus
on Cardiac Applications

Raghuveer K. Halkar, MD
Update on Nuclear Imaging

Mark E. Mullins, MD, PhD
Imaging of Stroke

Carl J. D'Orsi, MD, FACP
New Technologies in Breast Imaging

William E. Torres, MD, FACP
Update on Radio Frequency Ablation

RSVP by Friday, September 21, 2007
Laura Padgett at 404-712-5497 or
Laura.Padgett@emoryhealthcare.org

NEW FACES & APPOINTMENTS

Meet the New Emory Health Sciences Leader - Dr. Fred Sanfilippo



Mark your calendars for a special event on Monday, October 1 at 6:00 p.m. in the Woodruff Health Sciences Center Administration Building (WHSCAB) Auditorium. President Jim Wagner will provide a formal introduction of Dr. Fred Sanfilippo, the new CEO of the Woodruff Health Sciences Center, Executive Vice President for Health Affairs of Emory University, and Chairman of the Board, Emory Healthcare.

CEO of the Woodruff Health Sciences Center, Executive Vice President for Health Affairs of Emory University, and Chairman of the Board, Emory Healthcare.



Eugene Berkowitz, MD, PhD

Cardiothoracic Imaging, Assistant Professor

Before entering medical school at Tulane, Dr. Berkowitz completed his PhD in biochemistry at WVVA University, then worked in the field of cancer cell biology research. He was in the midst of his residency at Tulane when Katrina hit in 2005 and advocated the relocation of radiology residents whose training programs were affected by the hurricane and its aftermath. Dr. Berkowitz comes to us from UT/Houston where he completed his fellowship in Thoracic Imaging.



Kiery Braithwaite, MD

Pediatric Radiology

Dr. Kiery Braithwaite, a former resident and fellow, is continuing her career as an attending in Pediatric Radiology at Egleston. Dr. Braithwaite grew up in Atlanta, then traveled to Georgetown University in Washington, DC to complete her undergraduate and medical school.



Nicole Barrett

WCI Ultra Sound Supervisor

Nicole Barrett performed as a staff sonographer at Emory Clinic since graduating from the Grady Health System School of Diagnostic Medical Sonography in 2002. Nicole is ARDMS registered in Abdomen and OB/GYN.

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

Radiology Grand Rounds

September 2007

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

9/5/07 Carolyn C. Meltzer, MD, FACR
Emory University
Predictive Imaging in the Aging Brain

9/12/07 Michael Knopp, MD
Ohio State University
Imaging for Response Assessment: Integrating Structural, Functional and Molecular Capabilities

9/19/07 Hyunsuk Shim, PhD
Emory University
Development of 18F-PET Tracer and Drug Candidates for a Chemokine Receptor CXCR4

9/26/07 Carolyn C. Meltzer, MD, FACR
Emory University
State of the Department Address

Arrive at 7 am for a
Complimentary Breakfast



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