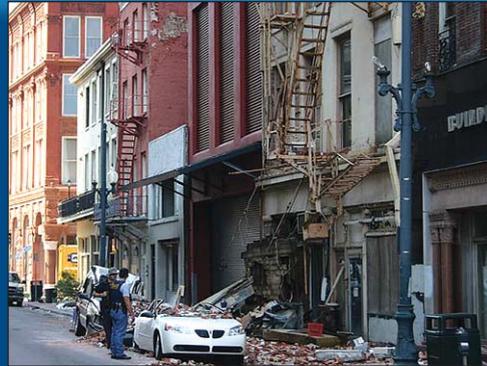


RSNA *News*



Ochsner Radiologists Battle Back After Hurricane Katrina

Also Inside:

- Radiologists Revise Breast Screening Strategies Following DMIST
- Hyperthermia Regains Attention as Cancer Treatment Strategy
- More Empirical Evidence Needed on Fatigue and Resident Duty Restrictions
- RSNA Research Scholar Brings CT Images to Life with 3D Reformatting

RSNA 2005
November 27–December 2

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RSNA News

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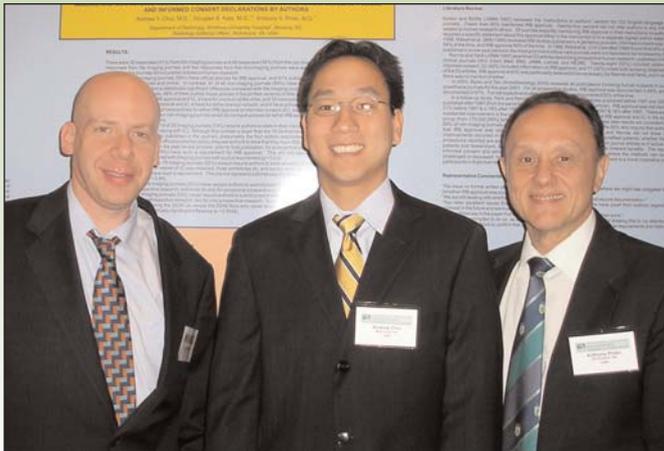
2006 RSNA member dues notices have been mailed. Because online access to *Radiology* and *RadioGraphics* is tied to membership status, payment not received by December 31, 2005, will trigger an automatic inactivation of online subscriptions.

Members can quickly and easily renew their membership online. Go to RSNA.org/renew. Enter your user name and password.

For more information or to renew by phone, contact the RSNA Membership and Subscriptions Department toll free at (1-877) RSNA-MEM or at (1-630) 571-7873, or send an e-mail to membership@rsna.org.

2006 Membership Dues

	NORTH AMERICA	OUTSIDE NORTH AMERICA
Membership Dues (print and online journals)	\$340	\$430
Membership Dues (online journals only)	N/A	\$340
Retired Members (online journals only) (Print journals available at a reduced subscription rate)	Free	Free
Members-in-Training & Medical Students (online journals) (reduced subscription rate for print journals)	Free	Free
	\$80	\$190



Peer Review Congress

The 5th International Congress on Peer Review and Biomedical Publication was held in Chicago in September.

Radiology Editor Anthony V. Proto, M.D. (right), attended along with Deputy Editor Douglas S. Katz, M.D. (left), and third-year radiology resident Andrew Y. Choi, M.D. (center), from Winthrop-University Hospital in Mineola, N.Y.

Drs. Choi, Katz and Proto were co-authors of a poster, "Imaging and Non-imaging Journal Policies Regarding Institutional Review Board Approval and Informed Consent Declarations by Authors."

The meeting is held once every four years. Fewer than half of the 230 abstracts submitted for the meeting, all of which underwent blinded peer review by the meeting committee, were accepted for presentation.

IHE Integral in Government-Awarded Contract

The framework of standards and testing process developed by the Integrating the Healthcare Enterprise (IHE®) initiative will support work under a newly awarded U.S. government contract to harmonize standards for healthcare information technology.

The contract (\$3.3 million over three years) is one of three totaling \$17.5 million awarded to public-private groups that will help accelerate widespread adoption of electronic health records and secure the portability of healthcare information. Some of the funds will go to support the work IHE does in test-



ing the interoperability of healthcare information systems.

RSNA and the Healthcare Information and Management Systems Society launched IHE in 1997. Additional sponsors now include the American College of Cardiology. Under the contract, they will work with other medical associations, government bodies, providers and consumer groups on the newly formed Health Information Technology Standards Panel, which will be overseen by the American National Standards Institute.

For more information, go to www.hhs.gov/news/press/2005pres/20051006a.html.

One User Name, One Password

Your online access to RSNA and your many member benefits has just been made easier.

Instead of different user names and passwords for your membership account, educational activities and your online journal subscriptions, members can now use one user name and one password for all of their RSNA resources.

User names and passwords have been sent to all members and subscribers who have activated their *Radiology* and *RadioGraphics* accounts. If you did not receive an e-mail, you can log in with your previously set RSNA user name and password. If you have not set a user name, then use your member number with your last name as the password.

Members requiring additional assistance should contact the Membership and Subscriptions Department at (1-877) RSNA-MEM or at (1-630) 571-7873, or send an e-mail to membership@rsna.org.

FDA to Eliminate Certain CE Requirements for Mammography

THE Food and Drug Administration (FDA) plans to eliminate the requirement for six continuing education (CE) credits in each modality used in mammography.

The requirements were added in 1997 as part of the Mammography Quality Standards Act (MQSA). The National Mammography Quality Assurance Advisory Committee and the Institute of Medicine recommended that these requirements be deleted from the regulations because the



general requirement of obtaining 15 hours of CE in mammography every three years provides adequate assurance that personnel receive appropriate updated information about all mammographic modalities in a timely fashion.

“We believe we should consider the least burdensome approach in all areas of medical device regulation,” the FDA said in a statement.

For more information, go to www.fda.gov/cdrh/mammography/1569.html.

FDA Proposes Rule for PET Drugs

The FDA is seeking comments on a proposed current good manufacturing practices regulation for the production of positron emission tomography (PET) drugs. Concurrently the FDA is publishing a draft guidance titled, “PET Drug Products - Current Good Manufacturing

Practice (CGMP),” which describes acceptable approaches that would enable the PET drug producers to meet the requirements in the proposed regulation.

For more information, go to www.fda.gov/cder/regulatory/pet/default.htm.

MEDICAL IMAGING COMPANY NEWS:

GE Healthcare to Acquire IDX Systems

GE Healthcare and IDX Systems Corporation have announced a merger agreement.

Under the plan, GE will acquire the healthcare information technology provider for about \$1.2 billion.

“GE and IDX have a shared vision on how to accelerate the adoption of electronic health records across the globe,” said Joe Hogan, president and CEO of GE Healthcare. “We are extremely excited about joining with IDX and believe that our combined offerings are in line with where healthcare is headed and match the needs of our customers.”

PEOPLE IN THE NEWS

Heetderks Awarded Alfred Mann Foundation Honor

William Heetderks, Ph.D., associate director for science programs at the National Institute of Biomedical Imaging and Bioengineering (NIBIB), has received the The Alfred Mann Foundation’s Award for Scientific Achievement.

The annual award recognizes a leader in the field of biomedicine whose work is groundbreaking and relevant to work done by the Mann Foundation.

Dr. Heetderks was selected for his work in functional neuromuscular systems. His research in radiofrequency powered control over neural prosthetic implants provided the motivation for development of a microstimulator/sensor system by the Mann Foundation.



William Heetderks, Ph.D.

Katzen Part of VP Surgical Team

Barry T. Katzen, M.D., founder and medical director of the Baptist Cardiac & Vascular Institute in Miami, was one of the five physicians on the surgical team that repaired popliteal aneurysms in both knees of Vice President Dick Cheney. The surgery was in September at the George Washington University Hospital in Washington, D.C.

“It was an honor to be asked to consult and participate in his care,” Dr. Katzen said.

Davis New NEMA Division Chair

James E. Davis, a vice-president at GE Healthcare, is the new board chairman of the Diagnostic Imaging & Therapy Systems Division for the National Electrical Manufacturers Association (NEMA).

Also at NEMA, the organization's president, **Malcolm O'Hagan**, has received the 2005 Howard Cooney Medal from the American National Standards Institute (ANSI). The award



recognizes an "executive that has rendered great service to the national economy through standardization as a management tool."

IN MEMORIAM:

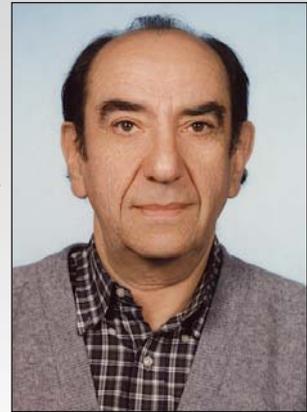
Yahya M. Berkmen, M.D.

Yahya M. Berkmen, M.D., a professor of clinical radiology at the College of Physicians and Surgeons at Columbia University in New York, died suddenly in September while on a trip to Turkey.

"He was a major contributor to thoracic radiology, internationally and at this medical center," said John H.M. Austin, M.D., director of the Division of Thoracic Imaging. "He loved radiology and every day expressed the wish to see the good cases of the day, often

making observations that the rest of us had missed. His enthusiasm for his work was infectious—his love of chest radiology specifically made the day happier for each of us who were privileged to be his day-to-day colleagues. His joy in anatomic detail and his skill at radiologic detective work were an inspiration to us all."

Dr. Berkmen was also associate editor for the thoracic radiology section of *Radiology*.



Yahya M. Berkmen, M.D.

IN MEMORIAM:

Henry I. Goldberg, M.D.

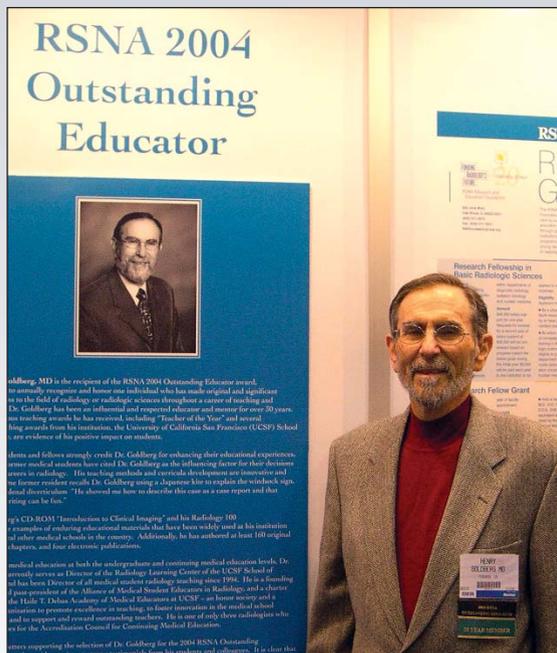
2004 RSNA Outstanding Educator **Henry I. Goldberg, M.D.**, died in September after a long illness. He was 67.

Dr. Goldberg was an internationally recognized authority in abdominal and gastrointestinal radiology. He was an influential and respected educator and mentor who earned numerous teaching awards from the University of California, San Francisco (UCSF) School of Medicine, including "Teacher of the Year."

"Dr. Goldberg, Hank, to many of us, has been an icon in radiology for many years," said Ronald Arenson, M.D., chairman of the UCSF Department

of Radiology. "His early work in gastrointestinal radiology and later his emphasis on teaching, especially medical students, earned him a reputation of excellence in everything he has touched. His charming personality and smiling face, his almost always upbeat attitude, and his strong desire to contribute in meaningful ways to others around him garnered him friends everywhere."

Dr. Goldberg's CD-ROM, "Introduction to Clinical Imaging," and his *Radiology 100* syllabus are examples of some of his enduring educational materials.



Henry I. Goldberg, M.D.



Send your submissions for People in the News to rsnanews@rsna.org or *RSNA News*, 820 Jorie Blvd., Oak Brook, IL 60523. Please include your full name and telephone number. You may also include a non-returnable color photo or a high-resolution electronic photo (300 dpi at 3x5") in JPEG or TIFF format. RSNA News maintains the right to accept information for print based on membership status, newsworthiness and available print space.

RSNA Board of Directors Report

New RSNA Educational Conference

Helping RSNA members in their journey of lifelong learning has always been a top priority for the Society.

To serve as many of our constituents as possible, the RSNA Board of Directors has decided to begin offering a late-winter educational conference. Beginning in 2007, this educational conference will offer selected refresher courses and all of the electronic scientific posters and education exhibits from RSNA 2006.

Additional details will be announced in *RSNA News*.

MOC

At its September meeting, the RSNA Board also included discussion of ways RSNA can increase its value to members as they fulfill the American Board of Radiology's maintenance of certification (MOC) requirements.

One way to do that is to refine the list of subspecialty content codes that RSNA uses to identify the content of each of its educational activities. These include in-person courses, online courses and journal articles in *RadioGraphics*.

The subspecialty content codes help each member create educational plans to meet their personal needs.

The list of expanded codes will be implemented after RSNA 2005.

International MOC

Robert R. Hattery, M.D., who will be the RSNA president in 2006, and Theresa C. McLoud, M.D., who will be the Board chairman in 2006, will travel to Cape Town, South Africa next year to present a 90-minute program on

MOC at the International Congress of Radiology.

RSNA provided a \$10,000 grant for educational sessions at the meeting.

In addition to the wide variety of continuing medical education (CME) offerings for U.S.-based radiologists, the RSNA Education Center (RSNA.org/education) also offers resources for international CME.

Molecular Imaging

Recognizing that molecular imaging is vital to the future of medical imaging and to personalized medicine, RSNA formed a Molecular Imaging Committee in 2004 to recommend programs to integrate molecular and functional imaging science and scientists into appropriate RSNA programs.

The Board has approved the committee's recommendations, including:

- Development of a resource list of background materials on molecular imaging
- Creation of a molecular imaging "zone" on the technical exhibits floor at RSNA 2006 that will feature companies that produce molecular imaging equipment, and other information of interest to molecular imaging scientists.
- Creation of a molecular imaging category for annual meeting abstract submissions
- Development of a media briefing on molecular imaging

RSNA Research & Education Foundation

As the RSNA Research & Education Foundation prepares to launch its Silver Anniversary Campaign, the Board has authorized the transfer of \$1 million to the



R. Gilbert Jost, M.D.
Chairman, 2005 RSNA Board of Directors

Foundation to increase its reserves. The amount of money available each year to award grants is dependent on earnings accrued in the past three years on Foundation reserves.

All RSNA members are encouraged to "Look Forward ... Give Back!" and donate to the Foundation to help fund radiology's future. More details about the Silver Anniversary Campaign will be included in future editions of *RSNA News*.

Visiting Professors

The RSNA Committee on International Relations and Education is sponsoring a team of visiting professors to the Sociedad Mexicana de Radiología e Imagen in Mexico City in September 2006.

The Board has approved the nominations of Faye Laing, M.D., and J. Anthony Bouffard, M.D., as the visiting professors for that trip.

The Board has also appointed Marilyn Roubidoux, M.D., to the Interna-

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Radiologists Revise Breast Screening Strategies Following Landmark Trial

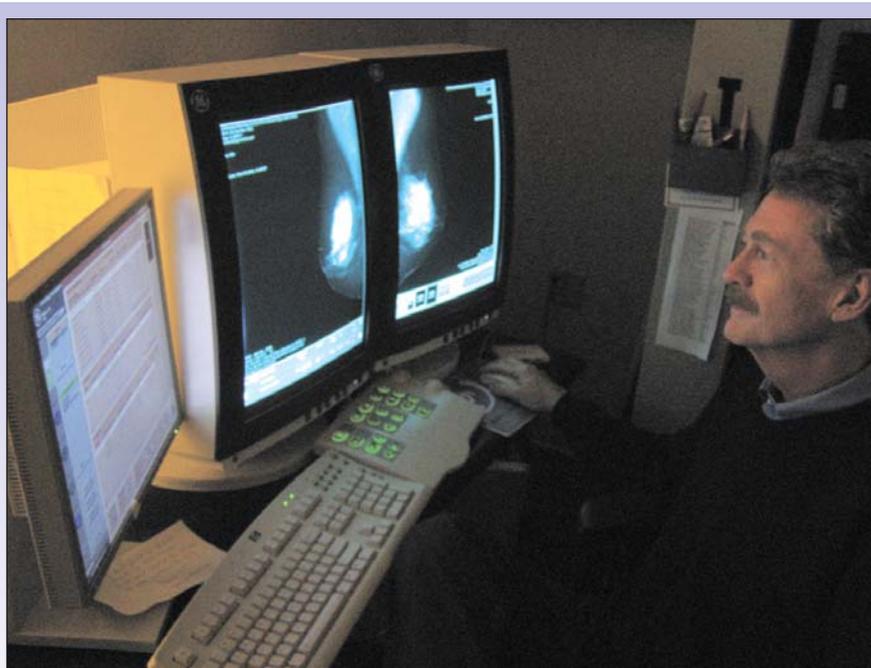
WITH THE announcement that digital mammography had a higher diagnostic accuracy than film mammography for some women, radiologists took note and began developing new triage strategies.

This landmark Digital Mammographic Imaging Screening Trial (DMIST) found that digital mammography is more sensitive in women younger than 50 years of age, women with dense breasts and women in the peri-menopausal and pre-menopausal age groups. Nearly 43,000 women were screened with both digital and film mammography at 33 sites across the country.

The trial, which compared sensitivity of film mammography to digital mammography for breast cancer screening, is the largest study of modern digital breast imaging technology to date. The results were published online on September 16 and appeared in the October 27 issue of the *New England Journal of Medicine*.

In the entire population of patients, the diagnostic accuracy of digital and film mammography was similar.

“We found that digital mammography is the same as film for women older than 50 and those without dense breasts,” said Etta D. Pisano, M.D., professor of radiology at the University of North Carolina (UNC) in Chapel Hill and principle investigator for DMIST. “Digital mammography was 14 percent to 27 percent more sensitive than film in the three subsets of women for whom it was better, without a change in specificity. Digital mammograms detected more cancers in



Of the women accrued for DMIST, 3,168 were enrolled at Northwestern University in Chicago. Co-principal investigator and study co-author R. Edward Hendrick, Ph.D., views some of the digital mammograms acquired during the study.

Image courtesy of R. Edward Hendrick, Ph.D.

women younger than 50 and those with dense breasts with no increase in the false-positive rate.”

Both technologies detected 122 malignancies; 52 were found exclusively on film, 63 were found only on digital mammography. Digital detected three additional invasive cancers and eight cases of carcinoma in situ. The women younger than 50 years had 22 malignancies that were identified only by digital technology while six cancers were found using film.

DMIST was sponsored by the National Cancer Institute and was conducted by researchers in the American College of Radiology Imaging Network.

Devising Screening Strategies

Dr. Pisano suggests that women with dense breasts be the first group recommended for digital mammography.

“Dense breast tissue is the common factor that all these groups have,” she explained. “Most likely the density of the breasts is causing the difference in the new technology’s ability to highlight cancer, but we don’t really know that yet. If I was going to prioritize, and we are prioritizing at UNC, I would provide digital mammograms to women with dense breasts.”

DMIST included data from about 3,300 women screened at the Mallinckrodt Institute of Radiology at the

Continued on next page

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Washington University Medical Center in St. Louis. “Based on the results of DMIST, we are devising a new screening strategy,” said Barbara Monsees, M.D., the Ronald and Hanna Evens Professor of Women’s Health at Mallinckrodt. “I don’t have the final answer yet, but we are planning to review the reports and films in advance to help identify those who have dense breasts. We cannot wait until the women arrive, because then we could have a waiting room full of women who all should be screened digitally. We may actually have to ration our digital resources.”

Digital mammography equipment is not yet widely available. The digital workshop team that is assisting RSNA with the Digital Mammography Training and Self-Assessment Workshop at RSNA 2005 said that only about seven percent of all U.S. facilities have digital breast imaging units. (For information on this workshop, see the October issue of *RSNA News* available at rsnanews.org.)

“We have always had an imaging challenge in dense-breasted women,” said Dr. Pisano. “The DMIST results allow us to say that digital mammography is better in a defined subset of our population—60 percent of women under 50 years of age and 40 percent of women older than 50.

We should probably start using digital mammography first in these groups as we acquire it in our practices.”

Technology Issues

Dr. Pisano speculates that radiologists will now become increasingly interested in acquiring digital technology for breast imaging. In the past, there was no real evidence that digital was better than film. Now that digital has proved to have a higher diagnostic accuracy in significant groups of women, there will

be strong motivation to convince health-care providers to purchase digital systems.

“The newer digital technology that is available today is even more sensitive than the technology that was used in the DMIST trial,” said Lawrence Bassett, M.D., the Iris Cantor Professor of Breast Imaging at the University of California Los Angeles. “The very high-resolution units are excellent and digital workstations are much more user-friendly.”

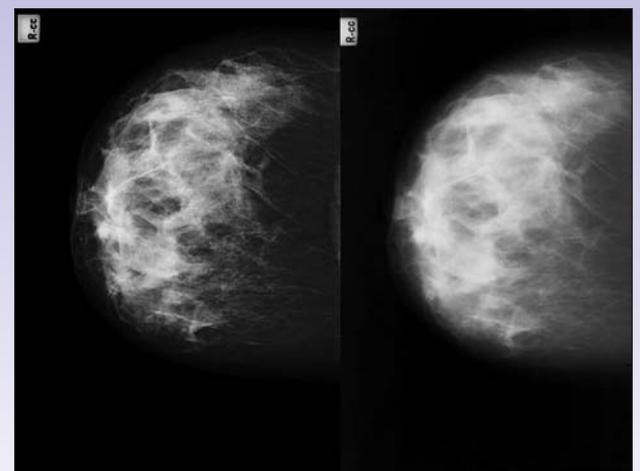
Although digital images may provide more accurate information in women with dense breasts, some radiologists find the technology difficult to use and more time consuming. “Every single one of us at Mallinckrodt was surprised by how much longer it takes to interpret digital images than film screen images,” said Dr. Monsees. “I

If I was going to prioritize, and we are prioritizing at UNC, I would provide digital mammograms to women with dense breasts.

Etta D. Pisano, M.D.

think time needs to be factored into any cost-effectiveness analysis. This could become a workforce issue.”

The UCLA breast-imaging center is now completely digital and Dr. Bassett noted that there was a learning curve involved. “We were surprised by how much longer it took to read the digital images and how difficult it was to compare digital images to film mammograms,” he said. “Some radiologists are still more comfortable with film but I think over time, all of these difficulties ironed themselves out.”



Comparison of a digital mammogram (left) and a film mammogram (right). The questionable area, just below the nipple, is more easily visible in the digital image.

Image courtesy of UNC-Chapel Hill School of Medicine Department of Radiology, Breast Imaging

While being all digital may be working at UCLA, Dr. Monsees said it may be more difficult for the rest of the country because of time, training and cost.

Dr. Pisano expects to publish the DMIST cost-efficiency study in the next five months. DMIST investigators are also analyzing the cancers that were missed with respect to machine type and she is analyzing the reader study data—soft- vs. hard-copy display.

Communicating with Women

Dr. Monsees is urging radiologists and other physicians to make it clear to women that even if breast-imaging centers do not offer digital mammography, breast cancer screening saves lives and should not be delayed.

“We are contacting primary care physicians in our community to explain what the trial found and our plans are for addressing these results,” Dr. Monsees said. “We will ask them to communicate the overall importance of mammography and to not delay screening.” □

■ To view the abstract for the article, “Diagnostic Performance of Digital versus Film Mammography for Breast-Cancer Screening,” go to content.nejm.org/cgi/content/abstract/NEJMoa052911.

Hyperthermia Regains Attention as Cancer Treatment Strategy

RADIATION ONCOLOGISTS have been exploring heat therapy as an adjunct to radiation for at least 40 years. Hyperthermia, however, seems to have retained its novelty—a perpetual newcomer in a world where surgery, radiotherapy and chemotherapy are the much more established players.

Hyperthermia, as a radiosensitizer, is used in treating a few cancers in some radiation oncology departments. It is not often considered a standard adjunct, like chemotherapy, and, up until now, national guidelines for treating specific tumors have not included hyperthermia.

A randomized trial published last May in the *Journal of Clinical Oncology* demonstrated that hyperthermia combined with radiation significantly improved response rates in breast cancer patients who had recurring tumors on the chest wall. In August, researchers reported in the journal *Cancer* that hyperthermia produced impressive response rates when combined with radiation and chemotherapy in advanced cervical cancer.

These gains, plus improvements in equipment, are spurring new interest in radiation oncology departments and optimism among hyperthermia researchers that heat may, at last, be living up to its early promise.

In the first trial, conducted at Duke University Medical Center, hyperthermia given before radiation therapy eradicated tumors in 66 percent of the patients, most of whom had post-mastectomy chest wall recurrences of breast cancer. By comparison, radiation therapy alone destroyed tumors in just

42 percent of patients.

These results could change the standard of care nationally for patients with chest wall tumors. Duke is already using hyperthermia as standard therapy, said principal investigator Ellen L. Jones, M.D., and it has been approved for Medicare and Medicaid patients.

In addition, the National Comprehensive Cancer Network is considering a recommendation that hyperthermia be used for chest wall recurrences in the next edition of its breast cancer guidelines.

The cervical cancer trial combined data from three separate but very similar trials in the United States, Norway and The Netherlands. The trial, led by Anneke M. Westermann, M.D., Ph.D., from the Academic Medical Center in Amsterdam, involved radiotherapy, chemotherapy and hyperthermia in the treatment of 68 patients with cancer, spread beyond the cervix. Patients

These results could change the standard of care nationally for patients with chest wall tumors.

received external radiotherapy and brachytherapy, plus four courses of chemotherapy, which included the drug Cisplatin, plus four sessions of hyperthermia using focused microwave energy.

The researchers found that 61 patients (90 percent) achieved complete remission. After two years of follow up, 71.6 percent were still in remission. The two-year overall survival rate was 78.5 percent.

These rates compare favorably with those achieved using chemoradiation—chemotherapy and radiation combined—which is now the standard therapy for advanced cervical cancer, said Dr. Jones, who was also involved in this trial at Duke. In fact, the combined



Image courtesy of Duke University Medical Center

Ellen L. Jones, M.D.
Duke University Medical Center

results of the three countries' trials were encouraging enough to justify a larger, randomized study that will compare chemoradiation to chemoradiation plus hyperthermia in advanced cervical cancer.

This phase III trial, launched in May by Duke and the other participants, has already attracted four additional hospitals including Northwestern University Medical Center in Chicago, hospitals in Holland, Amsterdam, Bergen and three large hospitals in Germany. At least two other U.S. institutions are discussing participation, Dr. Jones said.

Hyperthermia Treatment of Yesterday

Why has it taken so long for hyperthermia to get to this point? In a comprehensive review in the *Annals of Oncology* in October 2002, one of hyperthermia's major researchers, Jacoba van der Zee, M.D., Ph.D., of the Erasmus Medical Center in The Netherlands, noted that there was a good deal of enthusi-

Continued on next page

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asm for hyperthermia in the 1970s and 1980s. It withered in the aftermath of several large randomized trials in which hyperthermia plus radiation did no better than radiation alone. Dr. van der Zee, who was also involved in the Westermann study, traced the failure of these trials to hyperthermia techniques that were inadequate for the patients being treated.

Then in the 1990s, smaller trials with improved equipment began to produce more favorable results, and some radiation oncologists saw good reasons to continue using the technique. William Small Jr., M.D., said that hyperthermia for chest wall recurrences and other tumors close to the surface has always made a lot of sense to him.

“There is a very good risk/benefit ratio with superficial tumors—they are easy to heat and the treatment is tolerated well,” said Dr. Small, who is an associate professor of radiation oncology at Northwestern University and a principal investigator for the Radiation Therapy Oncology Group. He uses hyperthermia in almost everyone with

chest wall recurrences and in some pelvic and other superficial tumors. Hyperthermia makes cancer cells more vulnerable to radiation therapy and to many chemotherapy drugs.

Drawbacks to Hyperthermia Treatments

Despite the positive results, hyperthermia is performed mainly by a small group of dedicated institutes. Dr. van der Zee suggested that this may be because many of the trials with positive results have been small and they took place in Russia and Asia.

In addition, hyperthermia faces some logistical and economic hurdles. The specialized equipment, though not expensive compared to radiation therapy equipment, requires additional training for staff and specialized technical support. Heat can be applied in various ways, using microwaves, radiofrequency or ultrasound, and it can be applied locally, regionally or over the entire body. It may involve external or interstitial applicators. Perfusion techniques, in which a patient’s blood is removed, heated and then returned to a limb or organ, are also under study. All

of these approaches require variations in equipment and special expertise.

Hyperthermia treatments also tend to be time-consuming. Treatments may take more than an hour compared to only about 15 minutes for a typical radiation therapy session, Dr. Jones said. Hyperthermia treatments are also labor intensive; staff must continually monitor the temperature of the tumor during the session, since reaching and maintaining the optimal temperature—between 40 and 44 degrees centigrade—is crucial to the effectiveness of hyperthermia and to prevent burns.

Hyperthermia equipment continues to evolve. Duke, for example, has an Investigative Device Exemption from the Food and Drug Administration to use MR imaging for non-invasive hyperthermia monitoring. Dr. Jones said her department is now testing the technique in the hyperthermia treatment of extremity sarcomas.

Such improvements, added to good results from phase III trial results, could make hyperthermia a much more practical and widespread adjunct to radiotherapy, she said. □

■ To read the abstract of the Jones article, “Randomized Trial of Hyperthermia and Radiation for Superficial Tumors,” go to www.jco.org/cgi/content/abstract/23/13/3079. To view the abstract for the Westermann article, “First Results of Triple-modality Treatment Combining Radiotherapy, Chemotherapy, and Hyperthermia for the Treatment of Patients with Stage IIB, III, and IVA Cervical Carcinoma,” go to www3.interscience.wiley.com/cgi-bin/abstract/110542336/ABSTRACT. To view the full-text of the van der Zee review article, “Heating the Patient: A Promising Approach?” go to annonc.oxfordjournals.org/cgi/content/full/13/8/1173.

RSNA Board of Directors Report

Continued from page 4

tional Visiting Professor (IVP) team scheduled to go to Lithuania in October. The other IVP team members and destinations were announced in the September issue of *RSNA News*.

Publisher Partners

The list of offerings from RSNA Publisher Partners will appear online only beginning in 2006. To view the list of publishers offering discounts to RSNA members on medical textbooks and other educational materials, go to RSNA.org and click on Membership.

Other Board Action:

- The Board has approved dozens of committee appointments. Letters have been sent to each of the appointees for formal acceptance.
- RSNA will fund two grants through the American Association of Physicians in Medicine in its July 1, 2006 – June 30, 2008 grant cycle. These grants will be used to support clinical residencies in diagnostic medical physics.
- RSNA will join the Peripheral Arterial Disease (PAD) Coalition at the partner level. PAD is a national coalition

comprising 16 health-related organizations and vascular professional societies that have united to raise public awareness of PAD.

R. GILBERT JOST, M.D.

CHAIRMAN, 2005 RSNA BOARD OF DIRECTORS

Note: In our continuing efforts to keep RSNA members informed, the chair of the RSNA Board of Directors will provide a brief report in RSNA News following each board meeting. The next RSNA Board Meeting is at RSNA 2005.

Ochsner Radiologists Battle Back After Hurricane Katrina

“USED TO think the things I did in life prepared me to be a radiologist and a mother. I now realize many of the things I have done in my life prepared me for this,” said Dana Smetherman, M.D., section head of breast imaging at the Ochsner Clinic in New Orleans, reflecting on the catastrophic hurricane that tore through the Gulf region in late August.

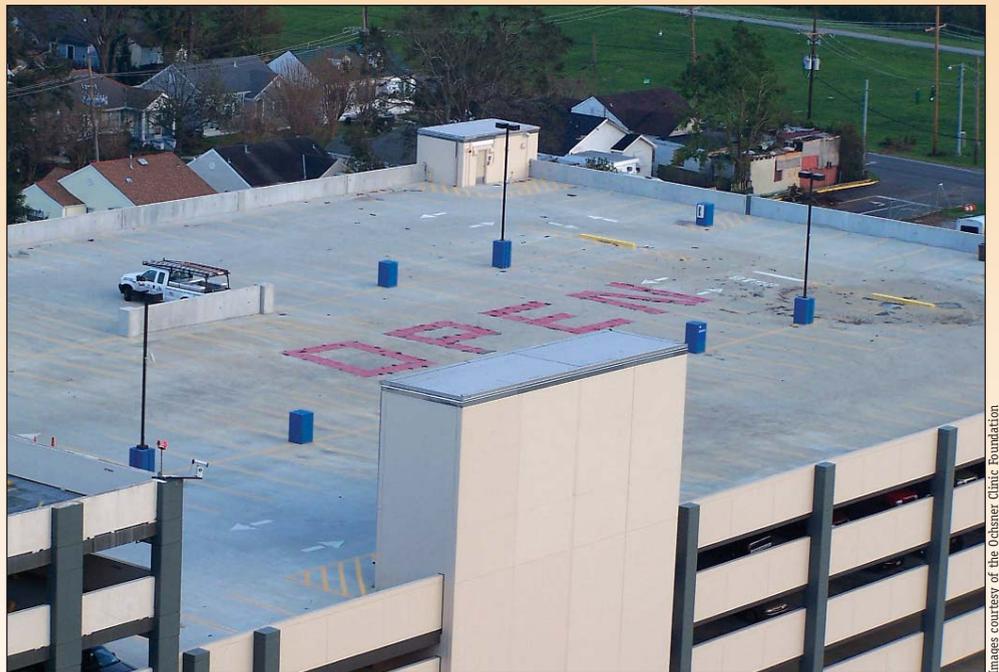
Dr. Smetherman and two other radiologists, Daniel DeVun, M.D., and John Eick, M.D., spent six straight days at Ochsner Clinic, a non-profit 478-bed hospital, as Hurricane Katrina wreaked destruction.

While several other hospitals in the area were destroyed by the winds, rain and floods, Ochsner Clinic survived. Radiologists credit Ochsner’s location, hospital builders who had the good sense to include a water well, and a properly planned and executed disaster plan.

Dr. Smetherman said that when Ochsner was built, it was constructed on higher ground near a bend in the Mississippi River and far enough away from Lake Pontchartrain. No levees in the area broke. Dr. Smetherman said a well built with the hospital gave patients and staff the ability to wash their hands and flush toilets. The well water could not be used for drinking.

Storm Preparations

As part of Ochsner’s disaster plan, Drs. Smetherman, DeVun and Eick were the A Team at the hospital. That meant they stayed at Ochsner while other



Shortly after Hurricane Katrina carved a path of destruction in the Gulf region, workers at the Ochsner Clinic in New Orleans had to find a way to signal that the hospital was open and accepting patients. They constructed a red Open sign on the top floor of the parking deck so that the message could be visible from the air.

radiologists, radiation oncologists and their families evacuated. Medical teams B and later C returned to the hospital once it was safe to do so. One of the those temporarily sent away was Dennis Kay, M.D., an interventional radiologist and associate chairman of the Radiology Department at Ochsner. He credits the hospital’s administrators with fine-tuning the disaster plan after each previous hurricane.

“As a result, we had essential personnel there only—not other staff and their families,” he said. “That meant we had ample food and water for the

patients and staff.”

As Katrina headed toward New Orleans, personnel moved portable x-ray machines onto each floor of the hospital. There was one CT scanner in the Emergency Department. A portable ultrasound machine also was available. Dr. Smetherman said portable Spectra Link wireless telephones worked throughout the disaster, even when the landlines and cell phones died.

The Storm Arrives

Dr. Smetherman, Ochsner’s section head of breast imaging, arrived at the hospital at 7:00 a.m. on Sunday, August 28, 2005. Exactly 24 hours later, the hospital lost electric power and three emergency generators went

Continued on next page

We had a choice between maintaining life-support systems for patients and keeping the MR units properly cooled—the MR units were shut down

Dana Smetherman, M.D.

Images courtesy of the Ochsner Clinic Foundation

Sights from around New Orleans and Jefferson Parish in the aftermath of Hurricane Katrina.



Continued from previous page

to work. At one point, Dr. Smetherman said only one of the emergency generators was working. Without electricity, the hospital had no PACS and no dictation systems for radiology reports.

As the storm blew in, parts of Ochsner's roof blew off.

Dr. Smetherman said doctors, nurses and other employees mopped floors and covered up essential equipment to protect it from dripping water. "The radiology department and the whole hospital worked well together," she added.

Unfortunately, the hospital did lose its three MR imaging units during the storm due to increasing temperatures inside the facility. "We had a choice between maintaining life-support systems for patients and keeping the MR units properly cooled—the MR units were

shut down," said Dr. Smetherman. (Two of the three MR units were eventually restored.)

As part of Ochsner's well-honed disaster plan, in-house security, along with hired security teams, protected the patients, staff and building. Dr. Kay

said National Guard troops also protected the hospital. "We were safe and we were operational," he added.

Three times a day, the hospital leadership would meet with a representative from each department. Dr.

Smetherman said after each meeting, a radiology representative would return to the department to relay updated information to the staff. "There was so much misinformation during the storm and so many horrible rumors—some of

them turned out to be true. At these meetings the hospital leaders would clarify the situation inside and outside of the hospital to get the facts out to the staff to help stop the rumors," she said.

Dr. Smetherman credits Ochsner radiology administrators Suzanne Young and Mary Kay Long for keeping level heads and staying at Ochsner throughout the storm and its aftermath. "We have 17 radiologists on staff and only two administrators. They stayed here before the storm, during it and well after it to keep our department running," she said.

Ochsner's Future

As a result of the storm, Dr. Smetherman said the Ochsner staff has even greater loyalty to the hospital. But loyalty alone will not keep the hospital doors open. "We have few patients right now because of the post-storm evacuation," she said.

For those who have lost family members, homes and treasured personal belongings, such as family photographs, the emotional impact is immeasurable.

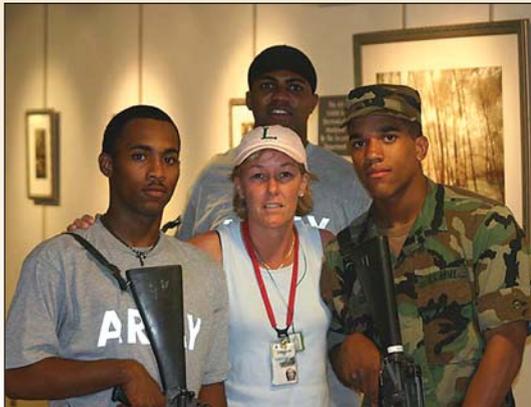
Dennis Kay, M.D.



Although Ochsner was constructed on higher ground than the city of New Orleans, signs of the devastating hurricane were clearly visible from immediately outside the Ochsner main campus.

(Bottom right) National Guard troops helped protect the hospital after Hurricane Katrina stuck.

Images courtesy of the Ochsner Clinic Foundation



Dr. Kay added that when the patients do return, many of them who have lost their jobs and homes will not be able to afford medical care. “The government, particularly the Federal Emergency Management Agency (FEMA), will need to help provide medical insurance for the people of New Orleans. And the hospital itself will need FEMA’s financial help in order to be there for the city of New Orleans as it comes back to life,” he said.

Michael Sullivan, M.D., RSNA’s 1997 president and Ochsner’s program director emeritus, said Ochsner isn’t the only facility in need of financial help. “The State of Louisiana and the federal government are working to create medical insurance plans for patients and hospitals. Some hospitals may never be able to reopen,” he said.

The homes of Drs. Kay, Smetherman and Sullivan sustained some wind damage, but fortunately no flooding.

Dr. Kay said he’s one of the lucky ones. “I feel very blessed through this ordeal. My family is safe in Houston. We’ve been able to enroll our children in Houston schools. I still have a job. Things may change financially, but I am fine now,” he said.

For hospital employees who lost their homes to Katrina, Dr. Kay said Ochsner is working to arrange housing for them. “There will be a great financial impact on all of our staff radiologists, radiologic technologists, nurses and other healthcare professionals,” he said. “For those who have lost family members, homes and treasured personal belongings, such as family photographs, the emotional impact is immeasurable.”

RSNA 2005

Mail and delivery systems were forced to stop transporting mail and packages to the Gulf Coast region as a result of Katrina. That means information about RSNA, the upcoming RSNA 2005 and medical journals may not be getting delivered in a timely manner or at all.

Dr. Kay, who is the chairman of the RSNA Technical Exhibits Committee, said he is still able to do his committee work thanks to the Internet. “My committee colleagues have been scanning materials they receive and e-mailing the information to me so I can stay on top of things for my patients and for my colleagues at RSNA,” he said. □

■ RSNA, along with many other healthcare organizations, worked together to provide information to their members about Hurricane Katrina relief efforts. In addition, RSNA hosted a Jean’s Day for Hurricane Relief. Employees donated \$4,365 and RSNA added another \$5,635 for a total of \$10,000 for the American Red Cross.

More Empirical Evidence Needed on Fatigue and Resident Duty Restrictions

ALTHOUGH initial signs indicate that hourly restrictions on resident duty may lead to an improved quality of life and educational experience, more empirical data are needed to determine the long-term effects on resident well-being and patient care.

In a systematic review published in the September 7 medical education theme issue of the *Journal of the American Medical Association (JAMA)*, investigators analyzed 54 articles on the mandatory work-hour restrictions imposed by the Accreditation Council for Graduate Medical Education (ACGME) in July 2003.

“Our most striking finding was that some programs demonstrated significantly fewer procedures for their residents after hours were reduced,” said Kathlyn E. Fletcher, M.D., M.A., lead author of the study.

“This was not true for all programs, however. We should track these sorts of outcomes and make sure that residents are still getting the experience they need to become independent physicians.”

One of the arguments against duty restrictions for residents has been the fear that reduced work hours may necessitate more years of training.

Alleviating sleep deprivation among overworked residents was the primary aim of the ACGME when it implemented the hourly restrictions. It was believed that fatigue induced by the prolonged work schedule could be

Posttest Self-assessed Performance and Effort Ratings on the Performance Measures in the 4 Experimental Conditions*

Performance Task	Light Call	Light Call With Alcohol	Heavy Call	Heavy Call With Placebo	P Value†
Psychomotor Vigilance Task (n = 26)					
Performance	3.0 (0.1)	3.6 (0.2)	4.1 (0.2)	4.1 (0.2)	.73
Effort	1.8 (0.2)	2.4 (0.1)	2.5 (0.1)	2.5 (0.1)	>.99
Continuous Performance Test (n = 31)					
Performance	3.5 (0.2)	4.1 (0.2)	4.4 (0.3)	4.6 (0.2)	.21
Effort	2.2 (0.1)	2.2 (0.1)	2.8 (0.1)	2.9 (0.2)	.01
Simulated driving task (n = 34)					
Performance	2.8 (0.2)	3.4 (0.2)	4.7 (0.3)	4.3 (0.2)	.007
Effort	1.8 (0.1)	2.1 (0.1)	2.8 (0.2)	2.8 (0.1)	<.001

*Performance anchors: 1 = extremely good, 2 = very good, 3 = good, 4 = fair, 5 = poor, 6 = very poor, 7 = extremely poor. Effort anchors: 1 = very little, 2 = a moderate amount; 3 = quite a lot, 4 = an extreme amount.
†Light call with alcohol vs heavy call with placebo based on pairwise McNemar tests.

compromising residents’ abilities to care for patients and fulfill their educational capacities, in addition to affecting mood and stress levels and fueling other safety issues, such as increased risk for automobile accidents.

The researchers scoured the literature

Our most striking finding was that some programs demonstrated significantly fewer procedures for their residents after hours were reduced.

Kathlyn E. Fletcher, M.D., M.A.

for articles appearing between 1996 and April 2005 to glean any insights reported about the effects of the hourly restrictions. By specifically targeting such issues as resident health, educational endeavors, patient care and burnout, the researchers wanted to

know whether resident quality of life and/or educational capacity has improved with the cap.

Duty Restrictions and Radiology Residents

Two of the articles selected by the researchers focused on outcomes for radiology residents. In the first study, a multi-institutional survey of radiology chief residents, 85 percent reported

improved call experience and 90 percent reported a better educational experience after the ACGME work-hour rules were implemented.

The second study was conducted at an institution in which a night float program was implemented. With night float, one or more residents work night shifts and assume such responsibilities as taking calls about existing patients and admitting patients to the hospital. Forty-five percent of residents reported that their clinical judgment was better during night float than on a 24-hour call shift. However, they also said that it took two days to acclimate to beginning night float and two days to return to a normal schedule afterward.

The findings seem to indicate that the new hourly restrictions necessitate a balance between hours worked during residency training and the allocation of time during those hours, if the length of training is to stay the same.

“There should be no debate in radiology about the restrictions on resident duty hours. Radiology residents usually only work 50–60 hours,” said Stephen

R. Baker, M.D., vice-chair of the ACGME Diagnostic Radiology Committee, associate dean of graduate medical education and chair of the Radiology Department at the University of Medicine and Dentistry of New Jersey (UMDNJ).

Schedules had to be juggled a bit at UMDNJ when the duty hour limits went into effect and the academic program had to be tweaked, but Dr. Baker said the changes have not impacted resident education or patient care. “Since we now have an attending on duty for the emergency room through the night, we don’t have a loss in the quality of patient care. That attending happens to be in Israel, but that’s how we do it,” he said.

Jannette Collins, M.D., M.Ed., agrees that resident duty hour limits have not had a big impact on radiology. “The residency program at the University of Wisconsin changed its ‘short call’ duty hours. The junior resident is now on call from 4:30–9:30 p.m. instead of 4:30–10:00 p.m. Monday through Thursday. Our program was otherwise already in compliance with the new duty hours restrictions,” she said.

Dr. Collins, who is also a vice-chair of the ACGME Diagnostic Radiology Committee, added, “the ACGME Common Program Requirements state, ‘Faculty and residents must be educated to recognize the signs of fatigue and adopt and apply policies to prevent and counteract its potential negative effects.’”

Heavy Call Effects Mirror Intoxication

In a related study featured in the same issue of *JAMA*, J. Todd Arnedt, Ph.D., and colleagues compared the neurobehavioral performance of residents after heavy call (80–90 hours per week) with the performance of residents after light call (44 hours per week) combined with alcohol ingestion.

The residents ingested enough alcohol to achieve a blood-alcohol level of 0.04–0.05 g% (per 100 mL of blood). They performed a series of tests,

Summary of Study Designs, Interventions, and Outcomes of Family Medicine, Psychiatry, and Radiology Programs

Source	Design and Participants	Original and Interventions Systems	Quality of Education Assessment and Outcomes of Intervention	Quality of Life Assessment and Outcomes of Intervention	Study Quality*
Family Medicine					
Yu, ⁷³ 1994	Cross-sectional survey of 295 program directors	Original: variable Intervention: night float	Education, reading improved or were unchanged; improved resident satisfaction	Alertness, personal life improved	Moderate
Psychiatry					
Druss et al, ⁷⁴ 1996	Serial surveys (with pre-post) of 21 PGY-3 residents, 52 faculty at an AMC	Original: every 11th night call Intervention: night float	More satisfied with new system		Moderate
Radiology					
Peterson et al, ⁷⁵ 2005	Annual survey of 193 chief residents	Original: variable Intervention: ACGME work hour rules	Improved call experience, enhanced educational experience	Slightly increased No. of in-hospital call and home call sessions during residency	Fair
Reader et al, ⁷⁶ 2002	Cross-sectional survey of 20 residents at an AMC	Original: 24 h in a row on duty Intervention: night float Sunday-Friday, some home call	Many said clinical judgment was better (others did not think their judgment was affected by night float)	Took 2 d to get acclimated to night float and another 2 d to return to normal after	Moderate

Abbreviations: ACGME, Accreditation Council for Graduate Medical Education; AMC, academic medical center; PGY, postgraduate year.
*Study quality based on criteria in online eTables. For survey studies, good = all applicable criteria met; moderate = 1 or 2 applicable criteria not met; fair = 3 applicable criteria not met; poor = 4 or more applicable criteria not met. For nonsurvey studies, good = 6 or 7 randomized controlled trial (RCT) criteria met; moderate = 6 or 7 non-RCT criteria met; fair = 3 to 5 non-RCT criteria met; poor = 1 or 2 non-RCT criteria met.

including a sustained-attention test, a continuous performance test and a simulated driving task.

The residents performed the same tests after a heavy call rotation and ingestion of a placebo beverage. The researchers found that the performance of the residents after four weeks of heavy call was equivalent to or worse than the impairment observed after four weeks of light call combined with alcohol ingestion.

During the driving task, for example, residents were less able to maintain a consistent lane position and a constant speed; speed variability was 30 percent higher after heavy call than after alcohol ingestion.

Although tending to patients arguably requires a different skill set than driving a car, the implication is that the impairment a resident experiences after heavy call is equivalent to that of an intoxicated physician.

Additionally, investigators also learned that the residents only had a limited ability to self-assess their test performance when they were sleep deprived. “This suggests that residents only have limited insight into their level of impairment,” said Dr. Arnedt. “Administrators need to take this into account when designing work schedules and/or strategies for mitigating the

effects of sleep loss on performance.”

Reduced Hours May Not Correlate With Patient Safety

Drew Dawson, Ph.D., and Phyllis Zee, Ph.D., composed a *JAMA* editorial on fatigue-related risk for residents.

They issued a call for evidence-based data to more clearly delineate the relationship between work patterns, sleep duration and patient safety or practitioner well-being. They maintain that anecdote and economics have driven much of the public debate on the necessity of prolonged work hours.

“While long working hours are associated with a significant increase in the likelihood of fatigue-related error and potentially adverse patient safety, the corollary—that is, reducing hours—is not necessarily going to improve patient safety,” said Dr. Dawson. “Many people have driven drunk without having an accident. That doesn’t mean that alcohol does not increase the risk of having an accident. Reducing fatigue-related risk is a complex issue that requires a many-faceted response if we are to reduce the overall risk to the community.” □

■ Abstracts from the entire medical education theme issue of *JAMA* can be accessed online at jama.ama-assn.org/content/vol294/issue9/index.dtl.

Journal Highlights

The following are highlights from the current issues of RSNA's two peer-reviewed journals.

Whole-Body CT Screening: Spectrum of Findings and Recommendations in 1192 Patients

ONE THIRD of patients who undergo whole-body CT screening will likely have findings requiring further examination.

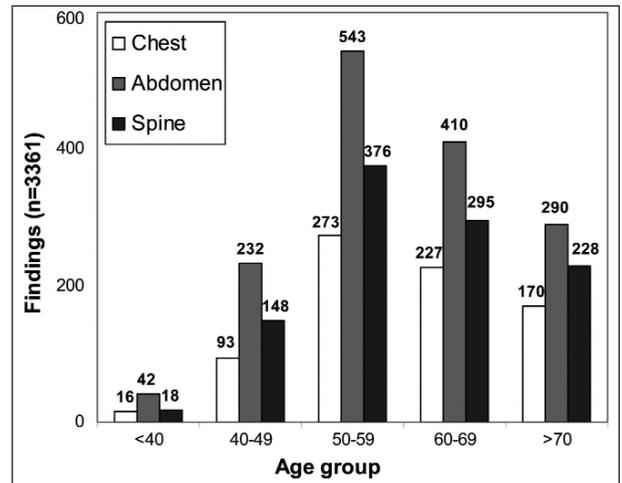
Radiology

In a special report in the November issue of *Radiology* (RSNA.org/radiologyjnl), Claudia D. Furtado, M.D., and colleagues at the University of California, San Diego, describe their findings after whole-body screening of 1,192 patients—most them self-referred.

A high prevalence of patients (86 percent) had findings, a majority of them benign

by description, however, 37 percent received recommendations for follow-up examination. The most frequent findings were in the lungs and kidneys.

“We recommend that patients who undergo whole-body CT screening should be informed prior to the procedure that additional tests may be necessary in up to 37 percent of cases, since this possibility can increase interval anxiety rather than provide the reassurance they are seeking,” the authors wrote.



Graph shows the distribution of findings according to major anatomic location and age group. The distribution was similar for each age group; abdominal findings were the most common findings, and thoracic findings were the least common findings according to age group.

(*Radiology* 2005;237:385-394) © RSNA, 2005. All rights reserved. Printed with permission.

Intraductal Papillary Mucinous Neoplasm of the Pancreas: Can Benign Lesions Be Differentiated from Malignant Lesions with Multidetector CT?

INTRADUCTAL papillary mucinous neoplasm (IPMN) of the pancreas is a distinct clinicopathologic entity that is being recognized with increasing frequency.

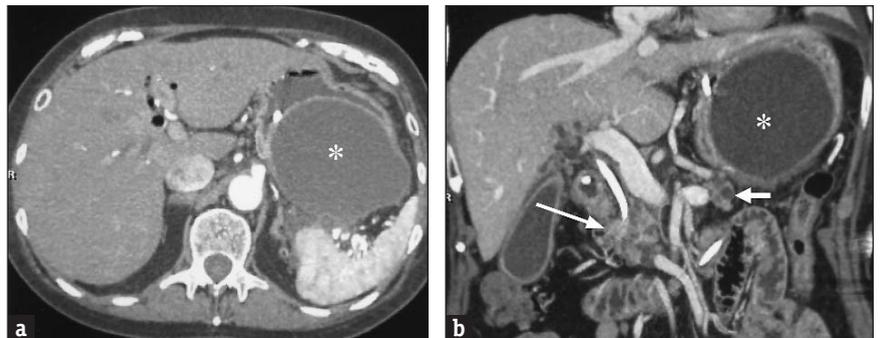
RadioGraphics

Surgical resection is the treatment of choice for most IPMNs; however, associated invasive carcinoma is subsequently found in 25 percent to 44 percent of such cases.

In an article in the November–December issue of *RadioGraphics* (RSNA.org/radiographics), Satomi Kawamoto, M.D., and colleagues from Johns Hopkins Hospital in Baltimore, Md., provide information that can help make preoperative determination of the presence or absence of associated invasive carcinoma.

The authors:

- Describe the clinical and pathologic features of IPMN of the pancreas
- Identify the spectrum of appearances of



Invasive carcinoma associated with IPMN. Axial (a) and coronal (b) venous phase images show an apparent solid mass in the pancreatic head (large arrow in b) that involves the distal common bile duct. A biliary stent is in place. There is diffuse dilatation of the main pancreatic duct (small arrow in b) and a large pseudocyst in the lesser sac (*), which is secondary to pancreatitis and compresses the stomach. Pathologic analysis demonstrated an infiltrating moderately differentiated ductal adenocarcinoma arising in IPMN. The carcinoma infiltrated into the wall of the distal common bile duct. Metastatic carcinoma was found in six of 14 lymph nodes.

(*RadioGraphics* 2005;25:1451-1470) © RSNA, 2005. All rights reserved. Printed with permission.

IPMN at CT

- Discuss the CT and other imaging features that suggest the presence of associated malignancy in IPMN

This article meets the criteria for 1.0 CME credit.

Media Coverage of Radiology

In September, 119 media outlets carried news stories generated from articles appearing in *Radiology*. These stories reached an estimated 62 million people.

Information from an article on cerebral blood flow and dementia (*Radiology* 2005;236:990-995) was carried by *Newsday*, *The New York Times* national and large-

type editions, *Seattle Post-Intelligencer*, *Columbus Dispatch*, *Detroit News*, *International Herald*

Tribune, *Las Vegas Sun*,

Dayton Daily News and three NBC television affiliates.

Information from an article on incidental findings at virtual colonoscopy (*Radiology* 2005;236:519-526) was

covered by *Internal Medicine News* and *Physician's Weekly*.

Prominent online place-

ments included *nytimes.com*, *forbes.com*,

newsday.com, *washington-times.com*, *medscape.com*, *discoveryhealth.com*, *ajc.com*, *iWon.com*, Yahoo! News, Healthday and HealthCentral, among others.



RSNA press releases are available at RSNA.org/media.



Working For You

Special Member Recognition

Last month, RSNA mailed special member recognition ribbons to about 5,900 people who have been RSNA members for at least 25 years.

The teal and gold ribbons can be attached to the RSNA annual meeting badge so that long-time members are easily recognizable at RSNA 2005.



YEARS OF MEMBERSHIP	NUMBER OF MEMBERS
25-29 years	1,803 people
30-39 years	2,727 people
40-49 years	971 people
50+ years	389 people

Retired Member Status

RSNA members can request retired status if they are retired from the practice of medicine or other active involvement in radiology or related fields. To qualify, a member must also have been in good standing with the Society for at least 10 years.

Retired members do not pay dues or assessments. They can still attend the RSNA annual meeting for free with advance registration. They

will also continue to receive a printed copy of *RSNA News* and have free online access to *Radiology* and *RadioGraphics*. Print subscriptions to the journals are offered at a subsidized rate to retired members.

Requests for retired status may be made online at RSNA.org/retired, or may be made in writing to the RSNA Secretary-Treasurer at 820 Jorie Blvd., Oak Brook, IL 60523.

Bienvenidos a RadiologyInfo™

A SPANISH LANGUAGE version is now available for *RadiologyInfo.org*, the patient information Web site developed by RSNA and the American College of Radiology (ACR).

Users can instantly toggle back and forth between Spanish and English using the En Español/English tab available at the top of most pages. *RadiologyInfo™* presents easy-to-understand information for patients to learn about radiology procedures and treatments, includes a visual dictionary and addresses safety issues.



“Fulfilling the information needs of our Spanish-speaking patients has been a very high priority for us,” said David M. Hovsepian, M.D., co-chair of the RSNA-ACR committee that oversees the site’s management. “We hope that the Spanish version will pave the way for other language versions in the future. *RadiologyInfo* is fast becoming an invaluable resource for both patients and physicians.”

As with the English language version, descriptions about procedures in Spanish are available in printer-friendly PDF format for physicians to provide handouts for patients who may not have Internet access.

Continued on next page

Working For You

Continued from
previous page



RSNA Education Center

(from left)
Mellie Pouwels, M.A.,
Managing Director
Sandra Darland
Becky Daly
Mary Grantner, M.S.
Ed Pietrzak
Amy Gelbman, M.A.

THE RSNA Education Center provides members with access to quality educational programs outside of the RSNA annual meeting. The staff, Education Editor William W. Olmsted, M.D., and RSNA member volunteers work together to develop and monitor the more than 300 programs available via the Internet as part of the RSNA Education Portal's (RSNA.org/education) CME component—InteractED.

These Internet-based programs are a benefit of membership and include selected refresher courses, education exhibits, and cases of the day from the RSNA annual meetings. Upon viewing and completing InteractED programs, physicians may earn AMA PRA category 1 credit.

In addition to these established

online resources, the Education Center staff recently began to implement programs and services related to the American Board of Radiology's maintenance

of certification (MOC) program. In July 2005, the RSNA offered its initial set of online self-assessment modules (SAMs). These SAMs consist of previously published materials, as well as an assessment component and peer comparison component. Other supplemental MOC services will debut within the next six months.

Working under the guidance of Society members who serve as volunteer course directors, the Education Center also coordinates several courses, one to three days in length, on a variety of topics. These courses are usually offered during the summer and fall at

the RSNA Headquarters in Oak Brook or in the Chicago area.

As a complement to RSNA-sponsored education activities, the Education Center also oversees the RSNA CME Credit Repository (RSNA.org/cme) for members and maintains the online Education Center Store, which offers a comprehensive listing of syllabi and other education resources. Both of these resources may

be accessed via the Education Center Portal.

The RSNA Education Center staff reports to RSNA Assistant Executive Director Linda B. Bresolin, Ph.D., M.B.A., C.A.E.

Working for you
DEPARTMENT PROFILE

RSNA Education

If you have a colleague who would like to become an RSNA member, you can download an application at RSNA.org/mbrapp or contact the RSNA Membership and Subscription Department at (1-877) RSNA-MEM [776-2636] (U.S. and Canada), (1-630) 571-7873 or membership@rsna.org.

Program and Grant Announcements

Personal Financial Management Strategies Seminars

November 26, 2005 • McCormick Place, Chicago

RSNA is offering two personal financial management seminars prior to the RSNA annual meeting. **There is absolutely no sales pitch.**

Protecting Assets From Creditor Claims, Including Malpractice Claims

10:00 a.m. – 12:00 p.m.

Presented by Barry Rubenstein, B.S., J.D., L.L.M.

IN TODAY'S tort claim environment, a practitioner's exposure to potential malpractice and creditor claims in excess of insurance coverage has dramatically increased. This course addresses, in essential detail, how to minimize and even avoid that exposure and protect hard-earned assets from creditor attack. Includes a textbook written specifically for the course.

Effective Real Estate Investment Strategies

1:00 p.m. – 5:00 p.m.

Presented by J. Michael Moody, M.B.A.

ASTUTE investors know that investment real estate pays steadier and higher cash returns than stocks do and that no other investment offers the combined advantages of cash flow, appreciation and tax shelter. This course will provide attendees with a strong foundation and working knowledge of investment real estate.

Includes a textbook written specifically for the course.

For seminar questions, contact the RSNA Education Center at (1-800) 381-6660 x3747 or at ed-ctr@rsna.org. To register, go to RSNA.org/register.

Revitalizing the Radiology Research Enterprise

caption



NEW!

Registration Open for BIROW 4

February 24–25, 2006

Bethesda North Marriott Hotel & Conference Center, North Bethesda, Md.

POSTER ABSTRACTS are being accepted until December 12, 2005, for the fourth Biomedical Imaging Research Opportunities Workshop (BIROW 4). The goal of the workshop is to identify and explore new opportunities for basic science research and engineering development in biomedical imaging, as well as related diagnosis and therapy.

This year's topics include:

- Instrumentation for Rodent Research
- Role of Imaging in Drug Development
- Imaging of Chronic Metabolic Disease: Diabetes
- Image-Guided Therapy in the 4th Dimension—Time



Biomedical Imaging Research Opportunities WORKSHOP 4

AMA PRA category 1 continuing medical education (CME) credits and medical physics continuing education credits (MPCEC) are available. For program information or to register, go to www.birrow.org.

BIROW 4 is sponsored by RSNA, Academy of Radiology Research, American Association of Physicists in Medicine, American Institute for Medical and Biological Engineering, and Biomedical Engineering Society.

REMINDER:

RSNA Research & Education Grant Deadlines

- Education Grants: January 10
- Research Grants: January 15

For more information, go to RSNA.org/foundation or contact Scott Walter at (1-630) 571-7816 or swalter@rsna.org.

RSNA Research Scholar Brings CT Images to Life with 3D Reformatting

IT'S NO SECRET that imaging technology is one of the fastest growing areas of medicine. Case in point, the evolution in multi-detector CT scans that has, seemingly overnight, propelled radiologists from the age of single-slice CT scanners into an age of 16-slice and 64-slice scanners.

These machines are able to provide hundreds of axial images for each examination. While this new abundance of data may help increase diagnostic accuracy, some wonder if it's creating an information overload and complicating the picture for surgical teams.

Corinne Winston, M.D., a specialist in hepatobiliary and pancreatic imaging and an assistant attending radiologist at Memorial Sloan-Kettering Cancer Center (MSKCC), feels that this huge increase in axial data demands a more concise way to display information for radiologists and surgeons.

"My research interest is in creating 3D lifelike images of patients' internal anatomies in order to help surgeons better visualize tumors prior to surgery," said Dr. Winston. "This allows them to conceptualize preoperatively what they will encounter in the operating room."

From 2001 to 2003, Dr. Winston conducted research with her RSNA Research Scholar Grant to determine whether computer post-processing with 3D reformatting of CT axial data would

improve accuracy of interpretation by radiologists in evaluating liver tumors for hepatic resection.

"It can be disorienting to extrapolate what you see on the preoperative routine axial images to real-life complex anatomy encountered in surgery, especially when the liver is mobilized," said Dr. Winston. "3D post-processing provides a much more concise depiction of the patient's anatomy.

For example, I can combine a series of 150 axial images from a CT angiogram and display all of the relevant information in terms of the arterial anatomy in as few as seven 3D images," she explained.

Dr. Winston and her team had some difficulty quantifying the added value of the post-processing 3D technique because her target population of MSKCC radiologists and hepato-

biliary surgeons were experts with years of experience reading axial data. However, in practice, her work successfully put 3D post-processing technology on the map at MSKCC.

In fact, surgeons so embraced her use of CT angiography (CTA) and 3D reformatting in preoperative planning



Corinne Winston, M.D.
RSNA Research Scholar Grant

that 3D reformatting is now a routine part of every CTA. Dr. Winston said she firmly believes that such 3D imaging is the wave of the future.

"The RSNA Research Scholar Grant helped Dr. Winston organize her research and gave her time to learn the methodology for prospective study design. I believe this is knowledge that is invaluable for launching an academic career in radiology in the 21st century," said Hedvig Hricak, M.D., Ph.D., chair of MSKCC's Department of Radiology. "Originally limited to anecdotal reporting, research in radiology has evolved over the years. Today, investigators need to develop skills in designing sophisticated prospective studies as well as retrospective studies based on large patient databases."

Dr. Winston agrees that the RSNA grant helped her build strong research experience. "The RSNA grant gave me

The RSNA grant gave me the opportunity to conduct the clinical prospective study from start to finish. I was integrally involved in every step of the process.

Corinne Winston, M.D.



Research & Education Foundation Donors

THE BOARD OF TRUSTEES of the RSNA Research & Education Foundation and its recipients of research and educational grant support gratefully acknowledge the contributions made to the Foundation **August 31 – September 29, 2005.**

VISIONARIES IN PRACTICE

Catawba Radiological Associates



\$25,000

Silver level

Newport Harbor Radiology Associates



\$5,000

PLATINUM (\$1,000 - \$4,999)

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Online donations can be made at RSNA.org/donate.

the opportunity to conduct the clinical prospective study from start to finish. I was integrally involved in every step of the process from the research design, internal review board approval, HIPAA compliance, data accrual and management," she said.

Dr. Winston points out that, in addition to teaching the A to Zs of research design and implementation, her RSNA grant experience emphasized for her the critical importance of clear communication in fostering successful collaboration and teamwork among the members of the surgical team.

"It underscored the importance of understanding our target audience—in

this case the hepatobiliary surgeons," said Dr. Winston. "It made me focus on what questions they want and need answered, and heightened my sensitivity to the clinical significance and ramifications of the words I select when communicating with them. It made me realize how integral in the process radiologists really are."

"Much of the value of Dr. Winston's research lay in the investigative process itself, which involved collaboration between Dr. Winston and the surgical team," said Dr. Hricak. "As a result of her research, they have established a strong working relationship and will continue to work together to

advance the role of imaging in preoperative planning."

Dr. Winston plans to continue her work to improve diagnostic quality using the latest technology and techniques in CT imaging.

"I am eager to bring radiology, surgery and research together to continually foster state-of-the-art care for patients," she said.

Dr. Winston earned her medical degree from Northwestern University School of Medicine in Chicago and completed her radiology residency and fellowship at Thomas Jefferson University Hospital in Philadelphia. □

Private Practices Rally Behind R&E Foundation

FOUR private practice radiology groups are taking advantage of a new giving opportunity for the RSNA Research & Education Foundation.

The Foundation has launched the Visionaries in Practice (VIP) program, which allows group practices to donate to the Foundation on an annual basis.

"Not a day goes by that the radiologists in our practice are not using imaging techniques and new technologies that have been developed through supported research," said William T. Thorwarth Jr., M.D., chairman of the Foundation's VIP program subcommittee and a radiologist at Catawba Radiological Associates in Hickory, N.C. "My colleagues and I at Catawba recognize that supporting research and education is critical, not only to the future of our profession, but also to the prosperity of our practice. That's why we've pledged \$25,000 annually to the Foundation."

The very first contribution to the VIP program came from Austin Radiological Association with 14 imaging centers in the Austin, Texas area. The group gave \$75,000 to the Foundation with a pledge to contribute the same amount for the next four years.

"Austin Radiological Association has a commitment to innovative new technology for imaging and intervention," explained Gregory C. Karnaze, M.D., president of the 63-person group. "A contribution to the RSNA R&E Foundation supports research to develop further enhancements in our field. It is extremely important that research in

imaging be performed by radiologists; otherwise, other medical specialties will perform more imaging research in their localized areas of interest resulting in potential fragmentation of imaging research and loss of our professional interpretations."

To further show their support for RSNA and for the R&E Foundation, Austin Radiological Association has posted the VIP logo on their Web site, along with a link to *RadiologyInfo.org*, the patient-information Web site created by RSNA and the American College of Radiology.

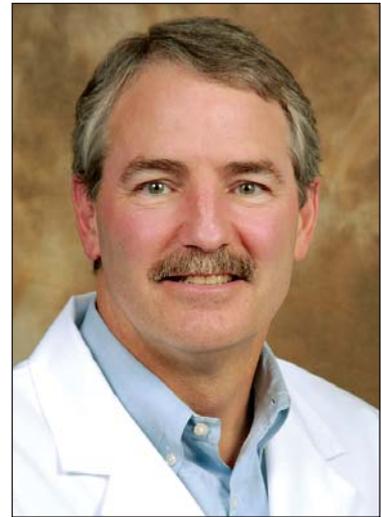
Dr. Karnaze said he and his colleagues realize that their investment in the Foundation is an investment in their practice.

"Development of newer imaging modalities and expansion of their indications and uses has been the driving force behind radiology's growth into one of the most dynamic and important specialties in all of medicine. Since

December our group has been offering CT coronary angiography in an outpatient imaging center with a 64-slice CT," he explained. "Radiologists need to continue to develop diagnostic studies and procedures such as this. It requires research funding to keep the process moving forward for the benefit of

our patients, our medical colleagues and our own radiology practices."

Geoffrey G. Smith, M.D., from Casper Medical Imaging, P.C. in Casper, Wyoming, echoed these same sentiments. Dr. Smith and his colleagues gave \$25,000 to the Foundation.



William T. Thorwarth Jr., M.D.
Chairman, VIP Program Subcommittee

"Medical imaging as we know it would not exist if not for the pioneers who discover and develop new technology, and the educators who guide us in its proper application," Dr. Smith said. "The active support of the private practice community is paramount in ensuring our own future and ongoing success. We are happy that the leadership of the Foundation provided a simple pathway for our group to begin participating."

Michael N. Brant-Zawadzki, M.D., brings a unique perspective to this situation. After spending time in academia, Dr. Brant-Zawadzki joined Hoag Memorial Hospital and Newport Harbor Radiology Associates in Newport Beach, Calif.

"When I first joined my private practice partners, I was able to actually see the research and educational components of what I used to do being applied in the practice setting by my new partners. The tools that my former colleagues developed in the clinical and basic research

Continued on page 26

Not a day goes by that the radiologists in our practice are not using imaging techniques and new technologies that have been developed through supported research.

William T. Thorwarth Jr., M.D.

Product News

FDA APPROVAL

PICC Lines For Pressure Injection

Cook Incorporated (www.cookmedical.com) has received FDA approval for its polyurethane Turbo-Flo® peripherally inserted central venous catheters (PICC) to be marketed for use with power injectors for delivery of contrast media in CT studies.

Flow rates of up to 7.8 cc/sec may be achieved with a 5F single lumen line.

The new indication means hospitals

can save money and reduce inventory by eliminating the need to stock two kinds of PICC lines, according to D.J. Sirota, senior product manager for Cook's global Diagnostic and Interventional Products Division, adding that clinicians will no longer have to decide in advance whether a patient might need a power injection-rated catheter.



NEW PRODUCT

New Infusion Port Systems

RITA Medical Systems, Inc. (www.rita-medical.com) has introduced the Vortex® EZ™ and Vortex EZ MAX™ infusion ports designed for maximum patient comfort and clinical ease-of-use for interventional radiologists, nurses, surgeons and oncologists.

The new plastic ports have convenient depth markings on the entire catheter length for more accurate placement. The EZ MAX port



uses the FluoroMax high-radiopacity catheter and tip for better imaging during port placement.

Both products are MR compatible with a "suture anywhere" silicone construction designed to make implantation easier, and incorporate a low profile shape for improved patient comfort.

NEW PRODUCT

Next-Generation SpeechMike

Royal Philips Electronics (www.medical.philips.com) has launched the next generation of its SpeechMike dictation devices.

The new, lightweight devices are easier to use and have an improved ergonomic design with larger buttons. They include intuitive navigation tools, such as an optical trackball and a scroll wheel. Clearly visible LEDs indicate record, insert and overwrite modes, making operation simple.



PATENTS ISSUED

Three Patents for MRI Safety and Visualization

Biophan Technologies, Inc. (www.biophan.com) has received three new U.S. patents.

The first involves the conversion of electrical information into optical signals when used with MR imaging. "As optical fiber

systems are now being used for intraluminal imaging, we expect our invention to become an important component in imaging vulnerable plaque using MR," said Michael Weiner, CEO of Biophan. "The technology also has potential applica-

tions for oncology, diabetes and other diseases."

The second patent covers communication signals between cardiac-assist devices and MR scanners.

The third patent covers virtually any medical conductor that includes nano-

magnetic coatings, such as a pacemaker, defibrillator or neurostimulator lead, and is designed to be flexible. The patent was issued to Nanoset, LLC, a technology collaborator that has granted Biophan exclusive worldwide medical rights.

RSNA 2005 Lecture/Oration Preview

Three respected medical leaders will deliver honored lectures at RSNA 2005. They are Lawrence H. Schwartz, M.D., from New York City; William R. Brody, M.D., Ph.D., from Baltimore; and K.S. Clifford Chao, M.D., from Houston.

RSNA 2005
Connecting for Lifelong Learning



Eugene P. Pendergrass New Horizons Lecture

Imaging has become more important than ever in determining the effectiveness of various therapeutic interventions. Imaging also plays a vital role in therapeutic drug development, leading to speedier drug discovery and, in some instances, ensuring a drug's safety.

"Imaging can be used throughout the entire process of drug discovery," explained

Lawrence H. Schwartz, M.D., an associate professor of radiology at Weill Medical College at Cornell University. "This includes monitoring pharmaceutical intervention on specific targets in early-phase drug discovery, selecting an optimal drug dose to maximize therapeutic effect, and determining whether the drug under evaluation is actually impacting the desired biochemical pathway."

Dr. Schwartz will deliver the New Horizons Lecture on Monday, November 28, on "Imaging in Drug Discovery: Emerging Roles and Challenges."

He said the expanded use of imaging in the drug development process necessitates cooperation among multidisciplinary teams to solve increasingly complex issues.

"Radiologists and other imaging scientists must play a key role in these teams," he said. "Active involvement by the entire radiology community in all phases of drug discovery—from the earliest proof of concept of a drug study,

to the validation of imaging techniques used as the biomarker, to actual clinical patient studies—is crucial."

In addition to his teaching responsibilities, Dr. Schwartz is



an attending radiologist and director of the Laboratory for Computational Image Analysis at Memorial Sloan-Kettering Cancer Center in New York City. He is also the director of MR imaging and

medical director of informatics and picture archiving and communication systems (PACS).

Dr. Schwartz may be best known for advancing the use of MR imaging to visualize tumors of the abdomen and pelvis, including preoperative imaging of complex liver, gallbladder, pancreatic, gynecologic and prostate cancers.

He has been an investigator or principal investigator in more than 130 research projects, including some funded by the National Institutes of Health.

He is the author or co-authors of more than 100 articles, book chapters and other publications.

He is a reviewer for about a half-dozen medical journals, including the *American Journal of Roentgenology*, *Journal of Magnetic Resonance Imaging*, *Journal of the American Medical Association* and the *Lancet*.

Annual Oration in Diagnostic Radiology

No one can predict the future of medical imaging, but 20 years from now, it will likely be a very different field than it is today.

"Two decades ago, few would have predicted the revolutionary advances that stem cells are poised to make today. Conversely, the predictions that were made back then about the promise of gene therapy have largely not yet been achieved," explained William R. Brody, M.D., Ph.D., president of The Johns Hopkins University in Baltimore.

On Tuesday, November 29, Dr. Brody will deliver the Annual Oration in Diagnostic Radiology on "Radiology—Back to the Future."

"People love innovation, but they dislike change," he said. "In our rapidly evolving medical field, will radiologists be able to adapt to the pace of change required to survive?"

During his lecture, he will discuss how radiology has changed over the past 100 years and what

should be done now to assure radiology's future success.

Prior to accepting his current role as president of Johns Hopkins, Dr. Brody was a professor of radiology and provost of the Academic Health Center at the University of Minnesota. Before that, he served for seven years at Johns Hopkins as the Martin Donner





Using a baseball diamond as a backdrop, Michael E. Phelps, Ph.D., co-inventor of the PET scanner, delivered the RSNA 2004 Eugene P. Pendergrass New Horizons Lecture before a packed crowd in the Arie Crown Theater. He told the audience that molecular medicine is responsible for a bigger scientific playing field, and that, "Radiology has a great opportunity to engage in the biological sciences and physical sciences, and a great opportunity to be a force into the future of molecular imaging and molecular medicine."

Professor and director of the Department of Radiology, a professor of electrical and computer engineering, professor of biomedical engineering and radiologist-in-chief.

Dr. Brody earned his medical degree and his doctorate in electrical engineering at Stanford University. He is the author or co-author of more than 120 articles, books, book chapters and proceedings. He holds a patent on a multiple-energy x-ray subtraction imaging system and has made contributions in medical acoustics, CT, digital radiography and MR imaging. He is the co-founder and former chief executive officer of Resonex, Inc.

Annual Oration in Radiation Oncology

The paradigm in radiation oncology practice is beginning to shift.

Advances in biochemistry, molecular biology and technology have made functional imaging of physiological processes in tumors more feasible and practical.

"Before a new era of functional imaging-guided therapy becomes

a clinical reality, there are obstacles that we must overcome," said K.S. Clifford Chao, M.D., an associate professor of radiation oncology at The University of Texas M.D. Anderson Cancer Center. "These obstacles include imaging-pathological validation, spatial and temporal evolution of regions with biological interest within tumors, and a lack of clinical outcome studies."



On Wednesday, November 30, Dr. Chao will deliver the Annual Oration in Radiation Oncology. His lecture, "Integration of Functional Images into Future Radiation Oncology Research and Practice," will provide an overview of the role of current imaging strategies in radiation oncology, with a focus on functional imaging modalities as they relate to staging and molecular profiling of tumors, assessing therapeutic responses and defining radiation target volumes. He will also provide insights on improving operational efficiency of image-guided radiotherapy.

Prior to moving to M.D. Anderson in Houston, Dr. Chao was an associate professor at the Washington University School of Medicine in St. Louis. He has been an investigator or principal investigator for more than a dozen research projects over the past five years, many of them funded by the

National Institutes of Health (NIH) and the Department of Defense. He has several patents and patents pending.

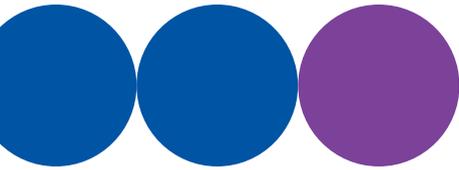
Dr. Chao sits on the editorial boards of several journals, including the *International Journal of Radiation Oncology Biology and Physics* and the *American Journal of Clinical Oncology*, in addition to reviewing for journals, including *Cancer*, *Clinical Cancer Research*, *Radiology*, *Lancet* and *Lancet Oncology*. He also serves on multiple grant reviewing sessions for NIH and international funding agencies. He is the senior editor of two textbooks

and the author of nearly 100 articles and book chapters.

The Annual Oration in Radiation Oncology is dedicated Rupert K.A. Schmidt-Ullrich, M.D., who died last December at the age of 61.

Dr. Schmidt-Ullrich founded the Radiation Oncology Department at Virginia Commonwealth University (VCU) in 1988. He was the department's chair until his death. He was also the associate director of the VCU Massey Cancer Center, and was administrative chief of the Division of Radiation Oncology at McGuire Veterans Affairs Hospital in Richmond.

Dr. Schmidt-Ullrich made enormous contributions to the field of radiation oncology that brought him international recognition. Most significantly, he was a co-author and editor of *Principles and Practice of Radiation Oncology*, the most comprehensive radiation oncology textbook available. He was also the founder of the journal *Radiation Oncology Investigations*.



More What's New at RSNA 2005

Throughout the year, *RSNA News* has kept you informed about the new courses, events and other activities at the RSNA annual meeting.

The October issue of *RSNA News* included an extensive listing of highlights and other important information,



as well as a Chicago restaurant guide. The October issue

is available online at rsnanews.org.

This month, *RSNA News* will provide additional information about what's new at the annual meeting.

New!

iPOD nano Drawings in *infoRAD*/IHE Area

A drawing will be held in the *infoRAD*/IHE area each day, Sunday–Friday, for an iPOD nano. Attendees have two ways to enter the drawings:

- *infoRAD* scavenger hunt—Visit the exhibits, answer five questions about the exhibits and drop off a completed entry form in a designated area.

- IHE PDI demonstration—Visit participating vendors, have three of them validate a special entry form and drop off the completed form at the IHE Kiosk.

More details will be available in the *infoRAD* area.



New!



Radiology Unveils Its New Look

RSNA's peer-reviewed science journal will use RSNA 2005 as the backdrop to reveal its new look and feel.

The redesign of *Radiology* includes a new cover and redesigned interior spreads that provide a high-quality look and easy-to-

read typography that complements the superb research and reviews upon which the medical imaging community has relied since 1923.

RSNA will mark the occasion by giving out special commemorative coasters at the publications booth at RSNA Services in the Lakeside Center Ballroom and in booth 1100.

New!

Secure Airline Check-in at McCormick Place

The U.S. Transportation Security Administration (TSA) will be at RSNA 2005 to help attendees get a boarding pass and check-in their luggage and for select domestic airlines at O'Hare and Midway Airports.

The Baggage Airline Guest Services (BAGS™) program is

the first secure, off-site multi-airline check-in service. It has been used at conventions in Orlando and at Chicago's McCormick Place.

For more information, including fees, go to rsna2005.rsna.org.

New!

R&E Launches Silver Anniversary Campaign

In preparation for its 25th anniversary, the RSNA R&E Research & Education Foundation will kick off its Silver Anniversary Campaign with a dynamic presentation Sunday afternoon in the Arie Crown Theater.

In the Lakeside Center Ballroom at the Foundation Pavilion, the R&E staff will distribute special blue wristbands that tout the "Look Forward ... Give Back!" theme. A \$5 donation is suggested.



Webcast of Image Interpretation Session

RSNA members who cannot attend RSNA 2005 can still participate in one of the most popular sessions at the annual meeting—the Image Interpretation Session.

Registration is now open to view the Webcast on Sunday, November 27 at 4:10 p.m. (Central Time).

To register, go RSNA.org/Sunday and click on the registration area.

The live Webcast offers 1.75 continuing medical education (CME) credits toward the AMA Physician's Recognition Award. Although the Webcast will be archived for later viewing, CME will not be offered.

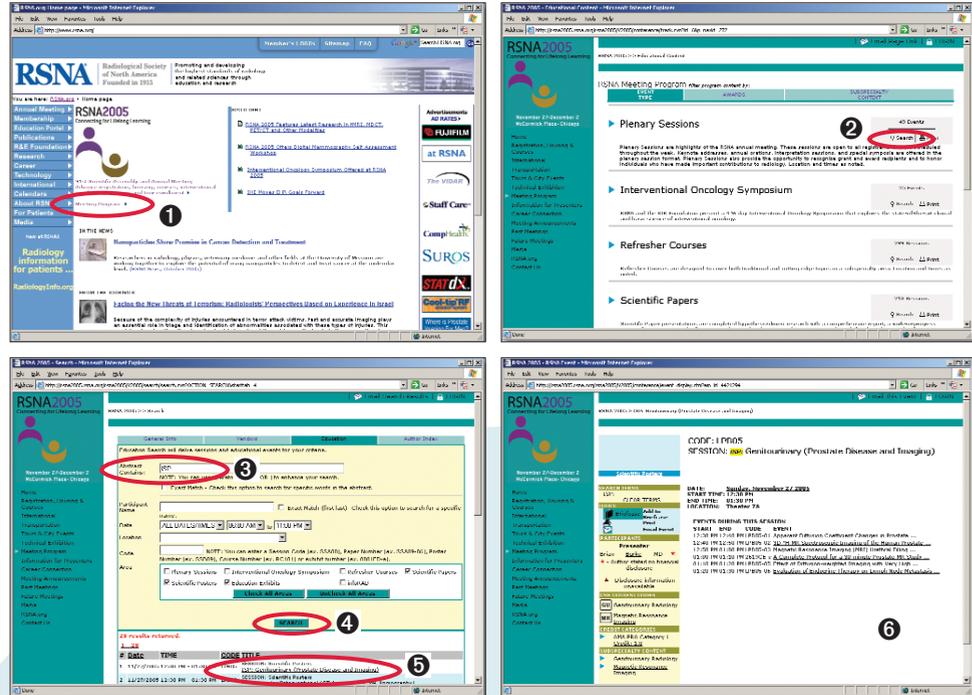
This year's moderator is Geoffrey D. Rubin, M.D. The panelists are William G. Bradley Jr., M.D., W. Dennis Foley, M.D., Christian H. Herold, M.D., Diego Jaramillo, M.D., M.P.H., and Leanne L. Seeger, M.D.

New!
Integrated Science and Practice Sessions

Integrated science and practice (ISP) sessions combine presentation of scientific abstracts and education exhibits on a given topic. Most of the ISP sessions start with an invited lecturer, followed by proffered abstracts, and some conclude with a panel discussion of the subject.

To find these sessions online, go to *RSNA.org* and click on Meeting Program 1. Click on search 2, enter ISP: (use a colon for targeted results) 3, and click on search 4.

To look at the components of the session, click on the session title 5. You'll be able to see more detailed information about the session keynote speaker, the included abstracts and the panel discussion. 6



ISP Paper Sessions

(INCLUDE A KEYNOTE SPEAKER AND MAY INCLUDE A PANEL DISCUSSION)

Sunday • 10:45 a.m. – 12:15 p.m.

- ISP: Breast (MR) Arie Crown
- ISP: Radiation Oncology and Radiobiology (Genitourinary Cancer I) S403B
- ISP: Nuclear Medicine (Staging Cancer with Hybrid Imaging) S502AB

Monday 10:30 a.m. – 12:00 p.m.

- ISP: Radiology Informatics (Working with Images More Efficiently) S404CD
- ISP: Gastrointestinal (CT Colonography: Bowel Preparation) E450A
- ISP: Pediatric (Cardiovascular) N229
- ISP: Vascular/Interventional (Women's Intervention) E253CD

Tuesday 10:30 a.m. – 12:00 p.m.

- ISP: Breast (Digital Mammography) Arie Crown
- ISP: Cardiac (The Return of Cardiac Imaging: Training and Capabilities for a New Era) E353C
- ISP: Nuclear Medicine (PET and Hybrid Imaging of Lymphoma and Head and Neck Cancer) S502AB

Wednesday 10:30 a.m. – 12:00 p.m.

- ISP: Chest (Interventional Techniques) E351
- ISP: Genitourinary (MR of Prostate Disorders) E353B
- ISP: Health Services, Policy, and Research (Quality, Guidelines) S402AB
- ISP: Musculoskeletal (Pelvis and Hip Disorders) S405AB
- ISP: Neuroradiology/Head and Neck (Functional MR) N227
- ISP: Physics (New Imaging Methods and Systems) S401AB
- ISP: Ultrasound (Liver: Contrast) E353A

ISP Poster Sessions

(INCLUDE EDUCATION EXHIBITS)

Sunday 12:30–1:30 p.m.

- ISP: Genitourinary (Prostate Disease and Imaging) Theater 7A
- ISP: Vascular/Interventional (CT Angiography, MR Angiography) Theater 4A

Monday 12:15 – 1:15 p.m.

- ISP: Cardiac (CT: Coronary Arteriography) Theater 1A
- ISP: Vascular/Interventional (Radiation and Complications) Theater 4A
- ISP: Genitourinary (Upper Tract CT and MR Imaging) Theater 7A

Tuesday 12:15–1:15 p.m.

- ISP: Cardiac (MR Imaging: Diagnostic Cardiac Techniques) Theater 1A

Wednesday 12:15–1:15 p.m.

- ISP: Vascular/Interventional (Miscellaneous) Theater 4A
- ISP: Genitourinary (General Topics) Theater 7A

Thursday 12:15–1:15 p.m.

- ISP: Cardiac (MR Imaging, CT: Congenital Heart Disease) Theater 1A
- ISP: Vascular/Interventional (Stents, Stent-Grafts) Theater 4A
- ISP: Genitourinary (Gynecology and Gynecologic Oncology) Theater 7A

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More What's New at RSNA 2005

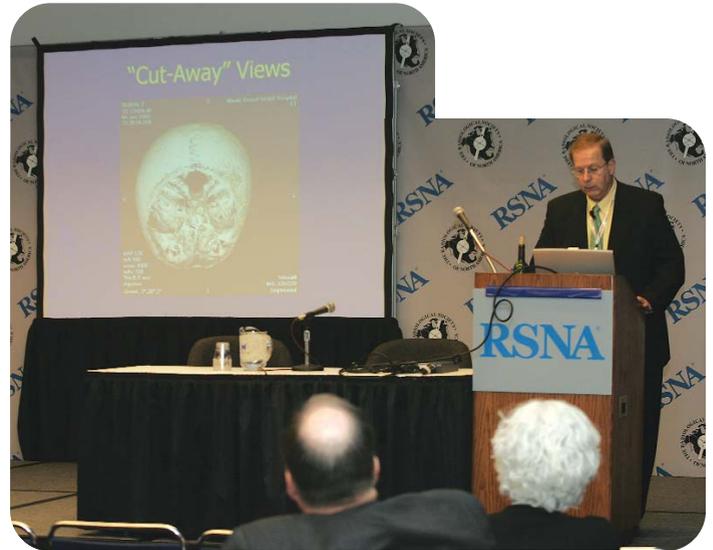
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Press Conferences at RSNA 2005

More than 150 members of the medical news media are expected to attend the RSNA annual meeting. Fifteen press conferences will highlight scientific papers and posters. Some of the scientific paper titles that will be included are:

- Influence of Caffeine Excess on Activation Patterns in Verbal Working Memory
- Impact of Recurrent Exposure to Cannabis on Brain Development in Adolescents with Schizophrenia and Healthy Volunteers
- Metabolic Pattern of Uptake and Distribution of F-18 FDG in Normal Control Brains versus Patients Who Were Users of Drugs (DU) Who Met DSM-IV Diagnostic Criteria for Substance Dependence Who Have Completely Withdrawn For A Prolonged Period Of Time
- CT Virtual Colonoscopy Computer-Aided Polyp Detection in a Screening Population
- Posterior Malleolar Periosteal Injuries in Football Players with High Ankle Sprains, Distribution of Meniscal Tears at MRI in Elite Football Players
- Cognitive Changes After Carotid Artery Stenting
- Successful Long Distance Transmission and Validation of Digital Screening Mammograms Utilizing Broadband Internet
- Intramuscular Injections Into the Buttocks: Are They Truly Intramuscular?

Press releases from the annual meeting will be available beginning November 28 in the Media section of rsna2005.rsna.org.



Private Practices Rally Behind R&E Foundation

Continued from page 20

areas of radiology were actually being used before my very eyes in routine clinical practice," he said.

After the VIP program was launched, Dr. Brant-Zawadzki convinced his colleagues to become members. "Research validates radiology as a complete medical specialty," he said. "It provides the basis for new developments in the field, fosters the crucial concept of continuous learning among all radiologists, and promotes the field of radiology to the public as a dynamic, innovative and unique medical specialty."

The R&E Foundation Board of Trustees and members of the VIP subcommittee are hoping that more private practice radiologists will "step up to the

plate" and invest in their future practice by investing in research.

"The groups doing research are the 'R&D' department for our specialty and the educational programs are the 'farm

Dr. Karnaze recommends that all private practice radiology groups become VIP members. "Medical imaging is an essential part of the diagnosis and treatment of medical conditions. In many

cases, it sets the whole process into motion," he said. "Each new advancement in this specialty provides an opportunity to address conditions more expediently and effectively. The future of healthcare will be significantly affected by the future of medical imaging."

Dr. Smith agreed, "Participating in the RSNA Research & Education Foundation today is an excellent way that private practitioners can help their patients and prepare themselves for tomorrow." □

RSNA Visionaries in Practice

- Platinum Level – \$75,000 annually
- Gold Level – \$50,000 annually
- Silver Level – \$25,000 annually
- Bronze Level – \$10,000 annually

For more information about the VIP program and its member benefits, go to RSNA.org/Foundation/donation/vip.cfm

or contact Susan Thomas, M.A., director of the RSNA R&E Foundation at (1-630) 571-7810 or stthomas@rsna.org.



teams' that develop our future partners," Dr. Thorwarth said. "Becoming a member of the VIP program is for the benefit of the patients we serve and these physicians who care for them."

News about RSNA 2005



Registration Materials

Badge wallets, containing registration materials, course tickets and other items, will be mailed to North American attendees who registered by **November 11** and to international attendees whose registration forms were received by **October 28**. Those who register in advance can wear their badge at McCormick Place and proceed into the exhibit halls and classrooms.

International attendees who registered after October 28, are required to pick up their registration materials at McCormick Place at Professional Registration in the Lakeside Center, Level 2, Hall E, Desk A.



Name Badge

You must wear your name badge at McCormick Place to attend RSNA courses or events, or to enter the exhibit halls. The bar code on the name badge will be scanned upon entry and exit of the exhibit halls. Data accumulated from the scanning process will be used only by RSNA to determine exhibit hall activity.

One-Day Registration to View the Technical Exhibits

A one-day badge is available to view the technical exhibits area only. The badge can be purchased onsite on the day of use for \$300 at Exhibitor Registration. Attendance for more than one day requires a full conference purchase at Professional Registration, Lakeside Center, Hall E, Level 2.

Registration at McCormick Place

Those who need to register onsite should proceed to Professional Registration in the Lakeside Center, Level 2, Hall E.

Hours of Operation

Saturday (November 26) 12:00 p.m. – 6:00 p.m.
 Sunday – Monday (November 27–28) 7:00 a.m. – 6:00 p.m.
 Tuesday – Thursday (November 29–December 1) 7:00 a.m. – 5:00 p.m.
 Friday (December 2) 7:30 a.m. – 12:00 p.m.*

* located in the Lakeside Center – Level 3, Ballroom, Help Center

Registration fees are \$100 higher onsite for most registration categories.

Registration Fees

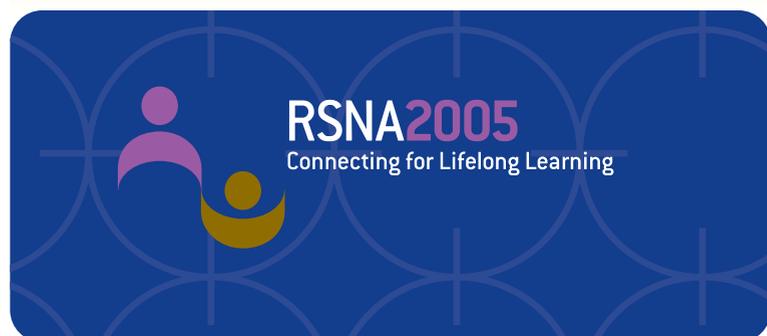
BY 11/11	ONSITE	
\$0	\$100	RSNA Member, AAPM Member
\$0	\$0	Member Presenter
\$0	\$0	RSNA Member-in-Training, RSNA Student Member and Technical Student
\$0	\$0	Non-Member Presenter
\$120	\$220	Non-Member Resident/Trainee
\$120	\$220	Radiology Support Personnel
\$570	\$670	Non-Member Radiologist, Physicist or Physician
\$570	\$670	Hospital or Facility Executive, Commercial Research and Development Personnel, Healthcare Consultant, Industry Personnel
\$300	\$300	One-day registration to view only the Technical Exhibits area

For more information about registration at RSNA 2005, visit RSNA.org, e-mail reginfo@rsna.org, or call (800) 381-6660 x7862.

Earn up to 83 AMA PRA category 1 CME credits at RSNA 2005

Important Dates for RSNA 2005

November 7 Final housing reservation deadline
November 11 Advance registration deadline
November 27–December 2 RSNA 91st Scientific Assembly and Annual Meeting



RSNA 2005 Exhibitor News

Meeting Guide Lists RSNA 2005 Exhibitors

NEW this year, the *Meeting Guide* section of the RSNA *Daily Bulletin* will be available separately in bins adjacent to the *Daily* and at Help Centers located throughout McCormick Place.

This new method of distribution will make the section more visible. The *Meeting Guide* includes detailed floor plans of McCormick Place, a layout of the technical exhibit areas and a listing of the exhibitors, their contact information and booth number.

The most up-to-date list of RSNA 2005 technical exhibitors is available online at rsna2005.rsna.org. Click on 2005 Exhibitor List/Floor Plan in the lower right-hand area.

Online company listings include contact information, booth number, company profile and products areas.



Important Exhibitor Dates for RSNA 2005

- Nov. 4** Housing changes and cancellations deadline
Exhibitor individual housing deadline
Function space requests deadline
- Nov. 11** Technical exhibit space assignments close
- Nov. 21** Technical Exhibit Target move-in begins at 5:00 a.m.*
- Nov. 25** Hands-on Computer Workshop move-in begin at 8:00 a.m.*
- Nov. 25** General Technical Exhibit move-in begins at 8:00 a.m.*
- Nov. 27– Dec. 2** RSNA 91st Scientific Assembly and Annual Meeting

* For specific move-in dates and times, see the Already an Exhibitor section on rsna2005.rsna.org.

■ For more information, contact RSNA Technical Exhibits at (800) 381-6660 x7851 or e-mail: exhibits@rsna.org.

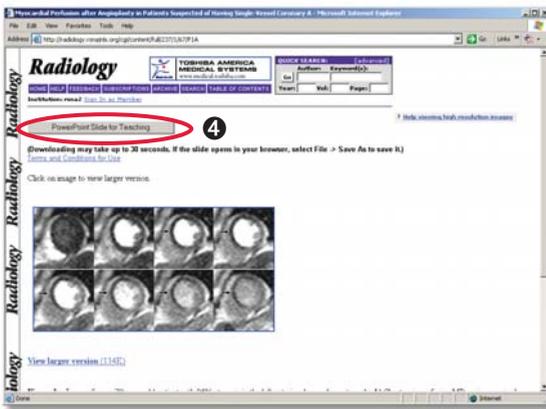
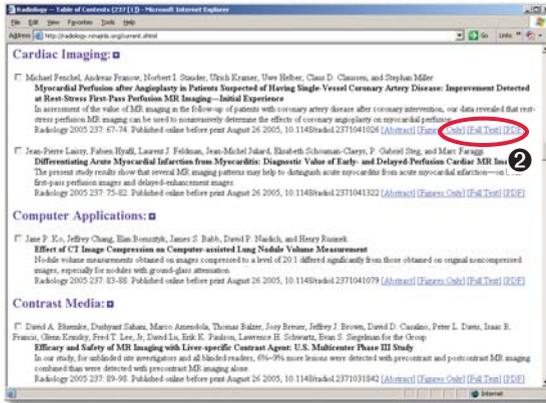


RSNA2005

Connecting for Lifelong Learning

91st Scientific Assembly and Annual Meeting
November 27 – December 2, 2005
McCormick Place, Chicago

RSNA.org



Using Radiology to Create PowerPoint® Teaching Files

IN SEPTEMBER, *Radiology* launched a new feature that allows RSNA members and journal subscribers to download images in PowerPoint® format. To use this new tool, go to RSNA.org/radiologyjnl and click

on the current issue. ① Choose an article and click on Full Text. ② Click on an image in the article ③ and then click on the gray box, PowerPoint Slide for Teaching. ④ You can save the file to your

computer for use in a teaching file or for other non-commercial purposes. The journal citation and copyright, which are incorporated in the download, must be included.

OTHER WEB NEWS

FDA Offers Patient Information Carotid Stent System

The Food and Drug Administration's Center for Devices and Radiological Health offers online consumer information on recently approved medical devices. Among them is the Xact® Carotid Stent System.

The Web site shows a photo of the stent and explains what it is, how it works and when it is used. For more information, go to www.fda.gov/cdrh/mda/docs/p040038.html.



connections Your online links to RSNA

- RSNA.org**
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RSNA.org/directory
- RSNA 2005**
rsna2005.rsna.org

Medical Meetings

December – April 2006

NOVEMBER 26

Protecting Assets From Creditor Claims, Including Malpractice Claims, RSNA Education Center, McCormick Place, Chicago • RSNA.org/education

NOVEMBER 26

Effective Real Estate Investment Strategies, RSNA Education Center, McCormick Place, Chicago • RSNA.org/education

NOVEMBER 27–DECEMBER 2

RSNA 2005, 91st Scientific Assembly and Annual Meeting, McCormick Place, Chicago • rsna2005.rsna.org

DECEMBER 7–9

French Society of Radiation Oncology (SFRO), 16th Congress, Palais des Congrès, Paris • www.sfro.org/english/index.htm

JANUARY 7–13

RSNA Clinical Trials Methodology Workshop, J.W. Marriott Desert Ridge Resort, Scottsdale, Ariz. • RSNA.org/research/educational_courses.cfm

JANUARY 19–21

Radiation Therapy Oncology Group (RTOG), Annual Meeting, Fontainebleau Hilton Resort, Miami Beach, Fla. • www.rtog.org

JANUARY 30–FEBRUARY 1

European Society of Gastrointestinal and Abdominal Radiology (ESGAR), 4th Hands-on Workshop on CT-Colonography, Roxburghe Hotel, Edinburgh, United Kingdom • www.esgar.org

FEBRUARY 1–5

Sociedad Mexicana de Radiología e Imagen (SMRI), 40th Annual Course of Radiology and Imaging, Sheraton Centro Histórico Hotel, Mexico City • www.smri.org.mx

FEBRUARY 24–25

4th Biomedical Imaging Research Opportunities Workshop (BIROW 4), Bethesda North Marriott, Bethesda North, Md. • www.birrow.org

MARCH 3–7

European Congress of Radiology (ECR), ECR 2006, Austria Center Vienna • www.myeocr.org

MARCH 12–15

3rd International Conference on Translational Research (ICTR Congress) and Pre-Clinical Strategies in Radio-Oncology, Conference Center - Palazzo Congressi, Lugano, Switzerland • www.iosi.ch/ictr2006.html

MARCH 19–24

World Federation of Neuroradiological Societies (WFNRS), XVIII Symposium Neuroradiologicum, Adelaide Convention Centre, Adelaide, South Australia • www.snr2006.sa.gov.au

MARCH 23–25 American Institute of Ultrasound in Medicine (AIUM), 2006 Annual Convention, Marriott Wardman Park, Washington, D.C. • www.aium.org

MARCH 25–29

Academy of Molecular Imaging (AMI), 2006 Annual Conference, Graylord Palms Resort & Convention Center, Orlando • www.ami-imaging.org

MARCH 30–APRIL 4

Society of Interventional Radiology (SIR), 31st Annual Scientific Meeting, Metro Toronto Convention Center, Ontario, Canada • www.sirweb.com

APRIL 5–8

Association of University Radiologists (AUR), 54th Annual Meeting, Hilton Austin, Texas • www.aur.org

APRIL 7–9

Japan Radiological Society (JRS), 65th Annual Meeting, Yokohama, Japan • www.radiology.or.jp/english/index.html

APRIL 10–12

International Electronic Portal Imaging Workshop, EPI2K6, Carlton Crest Hotel and Conference Centre, Melbourne, Australia • www.epi2k6.org.au

APRIL 27–30

Society for Computer Applications in Radiology (SCAR), Annual Meeting, Hilton Austin Hotel & Austin Convention Center, Texas • www.scarnet.org

RSNANews

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