February 2004 ▪ Volume 14, Number 2

# RSNA News

## Radiologist Assistants will Share the Workload in Diagnostic Imaging

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- Whole Body MR Screening Found Feasible
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**Abstract Deadline for RSNA 2004**
**April 15, 2004**

February 2004

# RSNA News




***RSNA News***
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# Seto Named NIBIB Deputy Director

**Belinda Seto, Ph.D.**, is the new deputy director of the National Institute of Biomedical Imaging and Bioengineering (NIBIB). She will work directly with NIBIB Director Roderic I. Pettigrew, M.D., Ph.D., to oversee all aspects of the Institute's operations.

Dr. Seto, who received her Ph.D. in biochemistry from Purdue University, has worked at the National Institutes of Health (NIH) since 1974. During the past year, she was acting deputy director for extramural research at NIH. She previously served as deputy director of the Office of Extramural Research (OER) and as director of the Office of Reports and Analysis in OER.

"Dr. Seto's more than nine years of experience in the NIH's Office of Extramural Research have given her unique perspectives on institute operations, organizational management, extramural research and training programs, and trans-institute and inter-agency coordination and collaboration. This experience will be extremely valuable to the NIBIB as the Institute grows and our programs continue to develop," says Dr. Pettigrew.

**Belinda Seto, Ph.D.**

## Shiels Participates in Medical Forum in Iraq

**William E. Shiels II, D.O.**, a clinical associate professor of radiology at Children's Hospital in Columbus, Ohio, will travel to Baghdad this month to participate in an international medical forum. The Radiology Facilitator for Reconstitution of Iraqi Medicine is part of a larger Iraqi Medical Specialty Forum.

**William E. Shiels II, D.O.**

RSNA*News* Send your submissions for *People in the News* to *rsnanews@rsna.org*, (630) 571-7837 fax, 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, 3x5 or larger, or electronic photo in high-resolution (300 dpi or higher) TIFF or JPEG format (not embedded in a document). *RSNA News* maintains the right to accept information for print based on membership status, newsworthiness and available print space.



## Radiology Executive Directors Summit

RSNA Executive Director Dave Fellers, C.A.E., hosted an international radiology association executives breakfast at RSNA 2003. The 24 executive directors discussed issues impacting each society, as well as radiology on a global scale. *(from left)* **Fellers; Otha Linton, M.S.J.,** from the International Society of Radiology; **Harvey L. Neiman, M.D.,** from the American College of Radiology; **Catherine Prop,** from the French Radiological Society; **Peter Baierl,** from the European Congress of Radiology; and **Don Swinbourne,** from the Royal Australian and New Zealand College of Radiologists.

## RSNA Wins Two Media Awards

RSNA is the recipient of two awards from the *Association Trends* 2003 All-Media Contest.

*RadiologyInfo*™ (*www.RadiologyInfo.org*) won a gold medal in the category of Special Association Project Sites. *RadiologyInfo* is the patient education Web site sponsored by RSNA and the American College of Radiology.

The RSNA 2002 press kit earned a bronze award.

# 2004 R&E Board of Trustees

The 2004 trustees of the RSNA Research & Education Foundation are: *(front row, from left)* **Beverly Huckman; R. Nick Bryan, M.D., Ph.D.,** *Secretary;* **David H. Hussey, M.D.,** *Treasurer;* **Jerry P. Petasnick, M.D.,** *Chairman;* **Peggy J. Fritzsche, M.D.; Robert R. Hattery, M.D.** *(back row, from left)* **C. Leon Partain, M.D., Ph.D.; James H. Thrall, M.D.; Brian C. Lentle, M.D.; Stephen R. Thomas, Ph.D.; Jack E. Price; Anne G. Osborn, M.D.**

## 2003 Malcolm Baldrige National Quality Awards Announced

Two hospitals and a manufacturer of medical devices that enhance medical imaging procedures are among the seven 2003 recipients of the Malcolm Baldrige National Quality Award.

Baptist Hospital, Inc., in Pensacola, Fla., and Saint Luke's Hospital of Kansas City, Mo., were recognized for quality and performance excellence in healthcare. Medrad, Inc., of Indianola, Pa., was recognized for quality and performance excellence in manufacturing.

"These organizations embody the values of excellence, principled leadership and a commitment to employees, partners and community," President George W. Bush said in a written statement. "They join an ever growing and diverse family of Baldrige Award recipients that are leading the way to a future filled with progress and prosperity for all Americans."

The awards will be presented early this year in Washington, D.C.

## NIBIB Biomedical Entrepreneurial Science Work Group

The executive summary from the National Institute of Biomedical Imaging and Bioengineering (NIBIB) Biomedical Entrepreneurial Science Working Group is available online at *www.nibib.nih.gov/events/BESWG/BESWG_ExecSumm.pdf.*

The goal of the working group was to attain specific recommendations regarding NIBIB's role in facilitating the translation of fundamental discoveries and innovative research into biomedical applications for the benefit of public health.

It was recommended that NIBIB empower students and investigators with entrepreneurial training opportunities and incentives; offer opportunities for researchers to establish viable industrial partnerships; and improve the review of technology-driven grant applications.

RSNA 2003

## By the Numbers…

| | | 2003 | 2002 |
|---|---|---|---|
| Total exhibitors | NEW RECORD! | 668 ↑ | 657 |
| *info*RAD exhibitors | | 168 ↑ | 157 |
| First-time exhibitors | | 125 ↓ | 147 |
| Total onsite membership applications | | 302 ↑ | 185 |
| Resident applications | | 172 ↑ | 110 |
| Online journal activations | | 273 | n/a |
| Virtual Presentations | | 87 ↑ | 9 |
| Data downloads from *RSNA Link Onsite* | | 2,007 | n/a |
| Donations at the R&E Pavilion | | $33,533 ↑ | $18,940 |

Note: Final attendance figures will be released in a later edition of *RSNA News*.

RSNA'03
COMMUNICATION FOR BETTER PATIENT CARE

RSNA 2003

## Most Heartwarming Story…

During his trip to Chicago for RSNA 2003, Brian Turnbull, the vice-president of services for Toshiba America Medical Systems, accidentally left his wallet in a taxi cab.

The wallet contained credit cards, identification cards and $800 in cash.

Turnbull didn't take note of the name of the driver or the number of the taxi cab. He only knew the name of the taxi cab company.

Luck was on his side. The Yellow Cab company sent out a text message to all of its drivers. Driver Abraham Otenaike was just leaving his cab for the night when he received the text message, found the wallet on the floor of the cab and drove it back downtown—intact.

"Trust, honesty and integrity go a long way with me," Turnbull says. He gave Otenaike a $400 reward.

## Changes Proposed to Regulations for Medical Use of Byproduct Material

The Nuclear Regulatory Commission (NRC) may amend its requirements for recognition of specialty boards when it comes to the medical use of byproduct material.

The proposed rule change would involve specialty boards whose certifications may be used to demonstrate the adequacy of the training and experience of individuals to serve as radiation safety officers, authorized medical physicists, authorized nuclear pharmacists or authorized users.

The proposed change would also revise the requirements for demonstrating the adequacy of training and experience for pathways other than the board certification pathway.

The NRC says this rulemaking is necessary to address the training and experience issue for recognition of specialty board certifications.

The NRC is accepting comments until February 23.

To see the full text of the proposal and how to submit comments, go to *a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/2003/pdf/03-30358.pdf.*

## Reports on Quality and Disparities in Use of Healthcare Services

The U.S. Department of Health and Human Services has released two reports that represent the first national comprehensive effort to measure the quality of healthcare in America and differences in access to healthcare services for priority populations.

The reports, National Healthcare Quality Report and the National Healthcare Disparities Report, provide baseline views of the quality of healthcare and differences in use of the services.

To view the reports, go to *www.qualitytools.ahrq.gov.*

# RSNA Board of Directors Report

On Friday, December 5, 2003, the 2004 RSNA Board of Directors convened for the first time and welcomed the newest Board member, Burton P. Drayer, M.D., as its Liaison-designate for Annual Meeting and Technology.

During the meeting, held at the conclusion of RSNA 2003 in Chicago, the Board reviewed the 2003 annual meeting, continued to plan for the 2004 annual meeting and prepared for its January retreat.

### RSNA Scientific Assembly & Annual Meeting

The Board is quite pleased with the outcome of RSNA 2003. The scientific program was superb; professional attendance was higher than in the previous year; and the logistical improvements truly enhanced the experience for our attendees. Many of these logistical improvements will continue for the 2004 annual meeting, while others will be further tailored for added benefit.

The new case-based review courses were extremely popular. More than 1,200 attendees participated in each of the three single-day, interactive courses. For 2004, the courses will include new cases in vascular and interventional radiology, neuroradiology and pediatric radiology.

A thirteenth category, OB/GYN, will be added to the Cases of the Day exhibits in 2004.

The 2004 Opening Session will focus on globalization of radiology. The 2004 Annual Oration in Diagnostic Radiology will be presented by Harry K. Genant, M.D., on "Osteoporosis: Beyond Bone Densitometry." The Eugene P. Pendergrass New Horizons Lecture will be presented by Michael E. Phelps, M.D., on PET and molecular biology. The 2004 Annual Oration in Radiation Oncology will be announced at a later date.

The 2004 Categorical Course in Diagnostic Radiology will be on emergency radiology. The course director is Frederick A. Mann, M.D. The 2004 Categorical Course in Physics will be on advances in breast imaging. The course director is Andrew Karellas, Ph.D.

Because it is increasingly important for busy radiology professionals to be able to quickly find their specific topics of interest, the Board will consider new ways to provide easy access to subspecialty science and educational materials offered at the meeting. One way will be through newly approved codes for continuing medical education (CME).

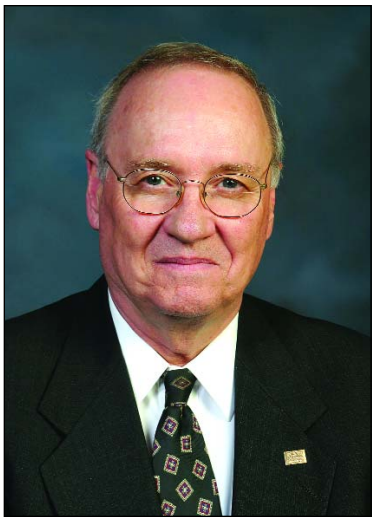
### Subspecialty Content Codes for CME

Subspecialty content codes were developed to assist RSNA members with their CME needs. These codes will appear with all CME activities, including the Education Center Catalog, InteractED, *RSNA Program* and *RadioGraphics.* Additional details on the use of these codes will be available in an upcoming edition of *RSNA News.*

RSNA will also further develop its CME Credit Repository. Currently, the repository provides members with access to all of their CME credits earned through RSNA. It is hoped that a single gateway can be developed to provide access to CME repositories in multiple radiology organizations.

### Volunteerism and Leadership

2004 RSNA President-elect David H. Hussey, M.D., has prepared a Special Communication (see page 12) to explain the vital role volunteers play within the Society. The Special Communication also explains how members can become more involved with the Society and how members can be recommended for nomination to the RSNA Board of Directors.



**Robert R. Hattery**
*Chairman,* 2004 RSNA Board of Directors

### Radiology Education in Mexico

The Board has approved a plan for an offshoot of the International Visiting Professor program for Mexico. In September, Beatrice L. Madrazo, M.D., from the University of Miami School of Medicine, and Edward G. Grant, M.D., from the University of Southern California Keck School of Medicine in Los Angeles, will travel to Mexico City for one week to assist with continuing medical education.

### Other Board Action

- The Board is moving forward with plans for a conference on adult learning.
- The Board approved the addition of a monthly Product News column (see

*Continued on page 6*

# Radiologist Assistants will Share the Workload in Diagnostic Imaging

Facing increased patient needs and a shortage of radiologists and radiologic technologists, diagnostic imaging is at a critical point. Part of the solution may turn out to be the advent of a new professional position—the radiologist assistant (RA).

The American College of Radiology (ACR) and American Society of Radiologic Technologists (ASRT) worked together to develop the concept of the RA as one trained to perform numerous functions under a radiologist's supervision to promote increased patient access to radiology services and to give radiologists the opportunity to be more productive.

A special focus session at the 2003 RSNA Scientific Assembly and Annual Meeting described just how an RA is expected to fit in with a modern radiology practice. The session was moderated by Edward Bluth, M.D., chairman of the Radiology Department at the Ochsner Clinic Foundation in New Orleans, and included a panel representing ACR, ASRT and the American Registry of Radiologic Technologists (ARRT).

Formally, an RA is defined as an advanced-level radiologic technologist (RT) who works under the supervision of a radiologist in the diagnostic environment.

While the number of radiologists is growing by two percent each year, the workload is increasing by six percent, according to ACR. In 1998, there was one job listing per applicant; two years later, there were nearly four listings per applicant. Shortages are projected to continue through 2030. Fellowships go unused and residency programs could close if the programs are unable to retain the 1:1 faculty-resident ratio.

**Participants in the RSNA 2003 special focus session, "The Radiologist's Assistant: A New Paradigm," included (*from left*): Jerry Reid, Ph.D., Lynn May, Charles D. Williams, M.D., and Edward Bluth, M.D. (*moderator*).**

RTs are also in short supply. Their numbers have been on the decline since 1998. "The radiology workplace has become ripe for the introduction of a new type of radiologic technologist—a person of advanced clinical skills who can extend the role of the radiologist," says Charles D. Williams, M.D., from Radiology Associates of Tallahassee and chairman of the ACR Commission on Human Resources. He adds that the problem and its solution extend beyond imaging technologists to others including radiation oncologists and medical physicists.

Legislators in several states will be considering laws that allow for an extended scope of practice after additional training. "Hopefully, we will not wind up with 50 separate practice laws based on political expediency rather than quality patient care," Dr. Williams notes.

Academic centers are planning programs to initiate advanced status for RTs. ACR and ASRT have agreed on the critical need for RAs to be properly trained and appropriately supervised in order to maintain a high level of patient safety. "ACR believes it to be in the best interest of its members and the profession to be at the table when developing respective roles and/or their responsibilities," Dr. Williams points out. He says organizations have a clear choice: take the lead in defining the roles and responsibilities of the RA, or by avoiding involvement letting market and political pressures prevail.

### What the RA Can Do

- Access the clinical history from patient records (HIPAA approved)
- Perform selected examinations, including fluoroscopy, under a radiologist's direct supervision
- Obtain informed consent
- Inject contrast agents
- Facilitate the diagnostic imaging process
- Evaluate the condition of patients before and after procedures
- Monitor and "tailor" selected exams under direct supervision

*Continued on next page*

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- Communicate the radiologist's findings to the referring physician

**What the RA Cannot Do**

- Substitute for the radiologist
- Act independently, as some nurse practitioners are able to do
- Provide preliminary, official or other interpretations of the imaging findings
- Prepare a final written report

"The RA is a partial solution to the continuing chronic shortage of personnel in the field of radiology," says Lynn May, ASRT chief executive officer. "This new clinical role establishes a career path by which radiologic technologists will be able to continue growing and evolving. Hopefully, in time, technologists will accept the challenge of advancing their training, knowledge and abilities, and by so doing making their work more demanding but also more satisfying."

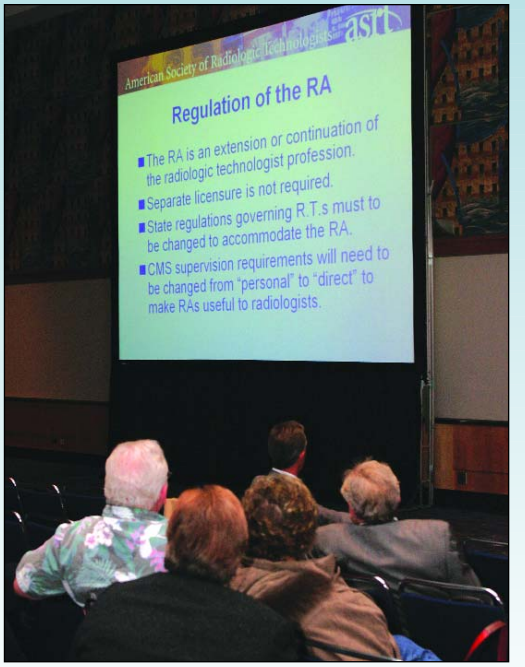
*The radiology workplace has become ripe for the introduction of a new type of radiologic technologist—a person of advanced clinical skills who can extend the role of the radiologist.*

—Charles D. Williams, M.D.

Like the physician assistant (PA) and nurse practitioner (NP), the RA is a "physician extender." Both PAs and RAs will work under a physician's supervision, while NPs may or may not be supervised. Both PAs and NPs are able to prescribe certain types of drugs.

"The real difference between RAs and other physician extenders such as PAs and NPs, will be their expertise in medical imaging," May explains.

The RA is also distinct from the radiology practitioner assistant (RPA), who is a graduate from a single program at Weber State University in Utah. Neither ACR nor ASRT played a role in the development of the RPA program. ACR and ASRT collaborated in the development of the RA position and recognize only that designation to describe an advanced clinical radiologic technologist.




**ACR and ASRT collaborated in the development of the RA position and recognize only that designation to describe an advanced clinical radiologic technologist.**

**Education, Training, Certification**

The RA will be an ARRT-certified radiographer who has successfully completed an advanced academic program based on a nationally recognized curriculum, and who in addition has completed a clinical preceptorship with a supervising radiologist, explains Jerry Reid, Ph.D., ARRT executive director. ARRT is an independent organization that sets high standards of patient care in education, ethics and examination. All aspects of training are compatible with state licensing laws.

A typical curriculum for RA training will include instruction in:

- Patient assessment
- Patient management
- Patient education
- Radiation safety
- Radiobiology
- Radiation physics
- Pathophysiology
- Specific radiologic procedures and appropriate indications

Continuing education of RAs is envisioned as meeting a set of specific requirements at two-year intervals.

"Based on their experience and education," concludes May, "RAs will bring an in-depth understanding of the radiology environment in terms of technology and procedures directly to the patient." □

# RSNA Board of Directors Report

*Continued from previous page*

page 19) for *RSNA News.*

- Information from the printed *Buyer's Guide* will be incorporated into the Facility Guide section of the *Daily Bulletin* beginning with RSNA 2004. The online version of the *Buyer's Guide* will continue.
- R. Nick Bryan, M.D., Ph.D., will serve as RSNA's representative to the ACR Task Force on Tort Reform.

ROBERT R. HATTERY, M.D.
*CHAIRMAN,*
2004 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 in April.*

# Experts Confirm Importance of Minimizing CT Dose

In a perfect world, scientists would be able to tell us precisely how much diagnostic radiation it takes to induce cancer in a given individual. In the real world, answers remain elusive, and there is no scientific consensus on the effects of low doses of radiation, especially that result from CT.

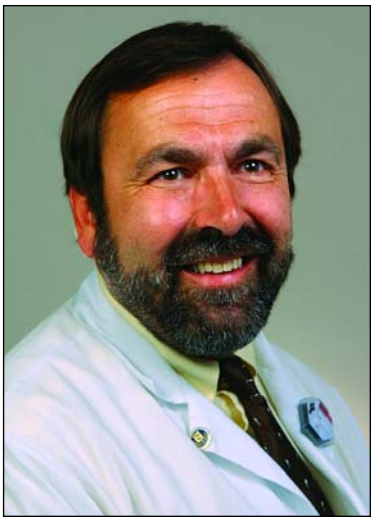
The issue of CT and radiation dose was the topic of a special focus session at RSNA 2003. Session moderator Donald P. Frush, M.D., chief of pediatric radiology at Duke University Medical Center, says the session was held to stimulate discussion and attempt to get to the bottom line—Is there or is there not a cancer risk from CT?

"All I wanted was a consensus," says Dr. Frush. "In the absence of that, I chose to take the stand that since there's a possibility of cancer risk, and since you don't need as much radiation as people are currently using, it makes sense to try to make exposures as low as reasonably achievable (ALARA)."

Dr. Frush says it's important to push the discussion in the forefront, "There are still people who are either unaware of the issue or haven't had the time or the interest to examine the issue as it relates to their own practice."

Panel member Walter Huda, Ph.D., professor of radiology at the State University of New York Upstate Medical Center in Syracuse, outlined the connection between basic CT image quality and radiation dose.

"When you scan a patient, you must choose the x-ray technique you're going to use—the kVp and the mAs. When you make these choices, it will affect not only how much radiation the patient gets but also what image quality there will be," says Dr. Huda, adding that CT studies constitute about 10 percent of in-hospital imaging exams, yet contribute about two-thirds of patient radiation exposure.



**Walter Huda, Ph.D.**
State University of New York Upstate Medical Center

**Donald P. Frush, M.D.**
Duke University Medical Center

He says ALARA guidelines are particularly important when scanning pediatric patients. "When you're scanning children, they are so much smaller than adult patients and it's much easier for the radiation to penetrate. Radiologists need to give serious consideration to lowering the amount of radiation they are using to get the diagnostic information they need," Dr. Huda says.

*Radiologists need to give serious consideration to lowering the amount of radiation they are using to get the diagnostic information they need.*

—Walter Huda, Ph.D.

Dr. Huda estimates that the typical head CT scan exposes the patient to about one mSv (100 millirem). For a typical body scan, it is five mSv (500 millirem).

Eric J. Hall, D.Phil., D.Sc., director of the Center for Radiological Research at the College of Physicians and Surgeons of Columbia University in New York City, agrees that body mass is extremely important but worries that in some healthcare facilities, pediatric radiology is not being performed by pediatric radiologists. "Radiologists know that the dose varies with the size of the body. They have been told that children are 10 to 15 times more sensitive to carcinogenesis than middle-age adults."

Dr. Hall says that enthusiasm for helical multidetector CT in children is a result of the fact that the procedure is so fast that it can be performed in children without sedation. "My interest in this topic arose when my colleague, eminent pediatric radiologist Walter Berdon, pointed out that in the United States, an increasing number of children who go

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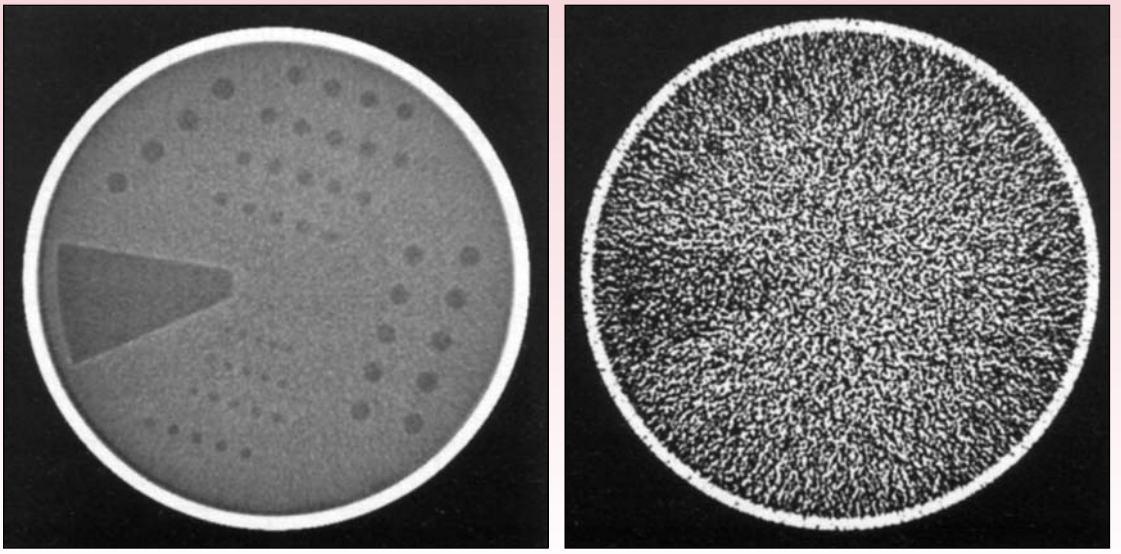
**High dose scan** **Low dose scan**



**A low contrast lesion phantom acquired using a high x-ray dose (left) and a low x-ray dose (right). The high dose scan results in a much lower level of noise with markedly improved low contrast lesion visibility.**

*Continued from previous page*

to hospital with abdominal pain, receive CT to rule out appendicitis," Dr. Hall explains. "This increase in the use of pediatric CT is largely a U.S. problem and a product of our healthcare system. In the United Kingdom or Canada, similar children would receive ultrasound or be admitted overnight for observation. But in the United States, a hospital admission is too expensive while a CT scan gives an immediate answer. As a consequence, 2.6 million children are being scanned each year! It may take 50 years before any radiation effects are apparent."

On the positive side, Dr. Hall says CT doses to children have been reduced significantly over the past few years and radiologists are becoming acutely aware of the issue.

Bernard Cohen, Ph.D., emeritus professor at the University of Pittsburgh, argues that there are difficulties in trying to connect low-level radiation and cancer. He points out studies that suggest that low-level radiation may have a beneficial effect. These include fortification of various components of the immune system and epidemiologic studies that demonstrate a lower than expected occurrence of cancer from low-level exposure. He also points out data that suggest there is a threshold below which there is no increased risk of cancer (as opposed to the linear, no threshold model emphasized by Dr. Hall).

But despite these data, Dr. Cohen

*Continued on page 14*

## Swedish Study Finds Link Between Radiation Dose and Reduced Intellectual Capacity

A study in the January 3 issue of the *British Medical Journal* shows a negative correlation between relatively low radiation exposure to the brain in infancy and cognitive abilities in adulthood.

Per Hall, M.D., Ph.D., from the Karolinska Institute in Stockholm, Sweden, and colleagues reviewed the military records of 2,211 teenaged boys, ages 18 to 19 years, who had received radiotherapy for cutaneous hemangioma at the Karolinska University Hospital prior to age 18 months. The treatments occurred between 1930 and 1959. The average estimated absorbed dose to the brain was 52 mGy, with a range of 0 to 2,800 mGy.

The researchers found that the teenagers who received higher doses (greater than 100 mGy) of radiation to both the frontal and posterior parts of the brain were less likely to have completed high school than those receiving lower doses of radiation. They also found a negative dose-response on cognitive tests for learning ability and logical reasoning.

What this study adds to the body of evidence, according to the researchers is:

- Intellectual development is adversely affected when the infant brain is exposed to ionizing radiation at doses equivalent to those from CT of the skull.
- Diagnostic evaluation of children with minor head injuries needs to be re-evaluated.

"This study is important because it motivates essential discussion about the potential biologic effects of CT scanning," says Donald P. Frush, M.D., chief of pediatric radiology at Duke University Medical Center. "While I think there were some methodological flaws with the study, the information further demonstrates that we need to pay attention to radiation exposure, especially in children."

For the full text of the *BMJ* article, go to *bmj.bmjjournals.com/cgi/content/full/bmj;328/7430/19.*

# Doctor, Heal Thyself

You can't optimize the care of your patients if you don't take good care of your own health. That's the advice of Bruce B. Forster, M.D., M.Sc., who led a panel at RSNA 2003 on health issues for the radiologist in the workplace.

Dr. Forster, an associate professor of radiology and director of MR imaging at Vancouver Hospital and Health Sciences Centre at the University of British Columbia says, "If we're going to be productive, we have to remain healthy."


*(top, from left)* **M. Victoria Marx, M.D., Lindsay S. Machan, M.D., and Bruce B. Forster, M.D., M.Sc., emphasized the need for healthcare professionals to remain healthy themselves.** *(bottom)* **Dr. Marx discussed the danger of Hepatitis C exposure.**

### Eyestrain: Prevalent and Preventable

Dr. Forster says symptoms of eyestrain include visual fatigue or tired eyes, irritation and a burning sensation and blurred vision. Fortunately, the effects are usually temporary.

"When you look at a computer screen, more of your cornea is exposed and tears evaporate more quickly. Your blink rate decreases when you're looking at a screen. This is like a cocktail for dry eyes," he says.

The raised position of video display terminals (VDT) is awkward for wearers of bi- or tri-focals. "All of this is important to radiologists because the performance of a task and the perception of an object are very much affected by eyestrain," Dr. Forster says.

His recommendations are:

- Get your vision checked. Tell your eye doctor that you are a PACS user.
- Set up your monitor viewing distance to 60 cm—about arm's length. The optimum reading distance is about 40 cm.
- Don't forget to blink or use artificial tears.
- Follow the 20-20-20 rule. For every 20 minutes spent at the computer terminal, look away from the monitor at a distance of about 20 feet for a minimum of 20 seconds before returning to your work.
- Get help with the ergonomic design of your workstation.
- Try to limit the length of your workday.
- Take a quality break every hour.
- Try to limit readout of large data set studies, such as CT screening.
- Reduce screen flicker.

### Managing Exposure to Blood-Borne Pathogens

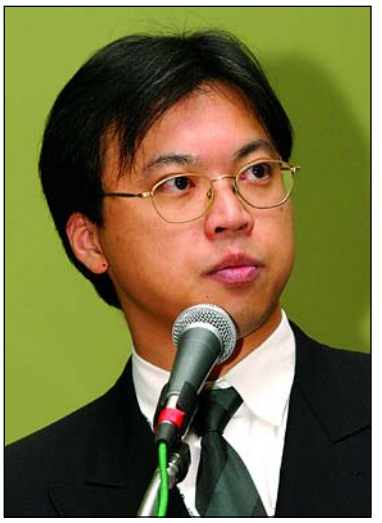
Despite universal precautions and vaccines, radiologists remain in danger of exposure to HIV, Hepatitis B (HBV) and Hepatitis C (HCV).

"The risks for healthcare workers are real and the stakes are very high," says M. Victoria Marx, M.D., a professor of radiology and an interventional

*Continued on page 14*

# Whole Body MR Screening Found Feasible

Whole-body MR imaging is a feasible tool for screening healthy patients for occult neoplasms and asymptomatic vascular lesions, according to a study presented at RSNA 2003. Meanwhile, a separate study casts more doubt on the utility of whole-body CT screening.



**James S. Ko, M.D.**
Taipei Veterans General Hospital, Taiwan.

**Giovanna Casola, M.D.**
University of California, San Diego

### Whole Body MR Screening

"Whole body MRI is an ideal modality for the purposes of healthcare screening that has both high sensitivity and specificity without radiation hazard," says James S. Ko, M.D., from the Taipei Veterans General Hospital in Taiwan. "Finding a lesion in an asymptomatic patient provides more treatment options, offers a better prognosis and cuts down on expenses compared to when lesions are found in later stages. Furthermore, patients suffer less."

Recent advances, such as ultrafast gradient MR imaging, rapid sequencing and integrated panoramic array coils, have made it feasible to use MR imaging for whole body scanning with a high signal-to-noise ratio and within acceptable scanning times, he says.

Dr. Ko and colleagues used whole-body MR scans on 3,274 healthy, self-referred individuals over an 18-month period using a 1.5 T clinical scanner equipped with an integrated panoramic array coil. They also performed adjuvant ultrasound in each case to provide information about possible calcifications and as a complementary examination of superficial body parts.

"A complete medical record is essential before mass screening. Ultrasound was required in our protocol because of its ability to find superficial lesions and provide additional vascular information," explains Dr. Ko.

The individuals were offered four screening programs:

- A tumor program designed to scan individuals from the head to the pelvis, including the entire spine. The gastrointestinal tract and extremities were not included in this form of whole body MR imaging.
- A stroke program designed to scan the head and neck using brain MR angiography and contrast-enhanced carotid MR angiography.
- A cardiac program designed to assess left-ventricular and valvular function and myocardial perfusion and viability.
- A breast cancer program using dynamic breast MR imaging.

Of the 3,274 individuals who received a whole body exam, 1,985 also chose to have brain and carotid MR angiography, 445 had breast MR imaging and 352 had cardiac MR imaging.

The researchers found neoplastic disease in 132 people; 61 of those with neoplastic disease had malignant neoplasms. In addition, the investigators found vascular lesions requiring treatment in 224 individuals and marked vascular stenoses in 181 individuals.

The researchers concluded that whole body MR imaging has a role in screening healthy or asymptomatic individuals for neoplasms and vascular lesions. It is a non-invasive imaging exam with higher sensitivity and specificity than iodine contrast-enhanced CT and it avoids the risk of adverse reactions to contrast.

> *The true benefit of whole-body MR imaging is in the variety of disease found. Its value is in its reliability and accuracy.*
>
> —James S. Ko, M.D.

Dr. Ko says that he is frequently asked about the cost-effectiveness of whole-body MR screening of healthy individuals: "The true benefit of whole-body MR imaging is in the variety of

disease found. Its value is in its reliability and accuracy."

### Whole-body CT Screening

One of the most hotly debated topics in radiology today is whole-body CT screening (WBCTS).

Patients frequently refer themselves for the procedure and some do so at regular intervals. Many radiologists have questioned the yield of WBCTS versus the radiation dose to the patient. And there is persistent concern over the possibility that large numbers of questionable findings will lead to additional procedures, including surgery, creating additional risks to the patients.

In a hot topics presentation at RSNA 2003, Giovanna Casola, M.D., from the University of California in San Diego, released the results of a follow-up study of 1,192 individuals who had undergone WBCTS—most of them on a self-referral basis. Dr. Casola and her colleagues found a low incidence of malignancy or life-threatening disease.

"Even in patients with findings classified as high risk, questions of utility arise for the general population," she says.

The Modified Breast Imaging Reporting and Data Systems (BIRADS) criteria was used in this study. BIRADS 4 is classified as indeterminate or suspicious for malignancy with follow-up imaging usually recommended. BIRADS 5 is classified as highly suggestive of malignancy or life-threatening disease with prompt work-up or intervention recommended.

Three years after WBCTS at a stand-alone, for-profit center, patients with findings classified as BIRADS 4 or 5 were interviewed by telephone. No contrast medium had been administered during WBCTS.

The patients interviewed were asked about follow-up exams, treatment and current health status.

Ten patients had BIRADS 5 findings and 285 others had BIRADS 4 findings. Of the 176 BIRADS 4/5 patients who were contacted, nearly half (45 percent) say they were unaware of their screening results and recalled no recommendations for follow-up.

*Even in patients with findings classified as high risk, questions of utility arise for the general population.*

**—Giovanna Casola, M.D.**

Follow-up imaging studies had been performed in 40 percent of those contacted. The most common imaging studies were chest CT for indeterminate lung nodules and abdominal CT with intravenous contrast for renal lesions. On average, three imaging studies were done for every two patients.

Three of the BIRADS 4 patients had malignant disease. A renal-cell cancer and low-grade lymphoma were detected by screening, and a pancreatic cancer was diagnosed two years after screening. Four patients underwent abdominal surgery—one of them for malignant renal-cell carcinoma, the others for benign disease. Other procedures included two thyroid biopsies and two lung biopsies for benign disease, and placement of an aortic stent graft for a 1.5 cm saccular aneurysm.

Fifty-seven randomly chosen persons with totally normal findings (BIRADS 1) were also contacted. All were in good health an average of 43 months after screening, and two-thirds say they would be willing to be screened again.

There was a significant difference in mean ages between the BIRADS 1 group (39 years) and the BIRADS 4/5 group (58 years and 70 years respectively).

Dr. Casola says that since nearly half of at-risk patients were unaware of their findings and of recommended follow-up measures, she questions whether effective communication of findings is possible in a largely self-referred population that requires methods of verification such as those used in mammography.

She also notes that a system must be developed to check whether patients actually see and understand their screening findings. □

*Note: This article was adapted from two stories in the RSNA 2003* Daily Bulletin.

## Enthusiasm for Cancer Screening in the United States

Most adults (87 percent) believe routine cancer screening is almost always a good idea and that finding cancer early saves lives, according to a study in the January 7, 2004, issue of *The Journal of the American Medical Association.*

Lisa M. Schwarz, M.D., M.S., from the VA Outcomes Group in White River Junction, Vt., and colleagues conducted a telephone survey of 500 middle-aged Americans without a history of cancer.

In addition to asking about the value of four screening tests—Papanicolaou test, mammography, prostate-specific antigen test, and sigmoidoscopy or colonoscopy—the researchers also asked about general screening exams, such as whole-body CT scans.

Survey participants were told that a whole-body CT scan was a "3-D look inside your body using a CT scanner. A CT scan gives a very detailed picture of your lungs, liver, heart, and other internal organs, as well as bones and arteries. A total body scan can find many diseases like cancer before they can be found by routine check-ups. The body scan is quick and painless."

After hearing the description, 86 percent said they wanted to have a free whole-body CT. When offered either $1,000 or a free whole-body CT scan, 85 percent said they would choose the whole-body CT scan.

"The public is enthusiastic about cancer screening," the researchers write. "This commitment is not dampened by false-positive test results or the possibility that testing could lead to unnecessary treatment. This enthusiasm creates an environment ripe for the premature diffusion of technologies such as total-body computed tomographic scanning, placing the public at risk of overtesting and overtreatment."

To read the abstract for this study, go to *jama.ama-assn.org/cgi/content/abstract/291/1/71.*

# Volunteerism and Leadership: Making RSNA Work for You

**Committees: The *Sine Qua Non* of the Society**

For nearly a century, RSNA has been a leading force in the advancement of radiology education and research. RSNA has been able to fulfill its mission and goals because of the high level of professionalism of its members and other colleagues who generously share their scientific knowledge and administrative abilities. RSNA volunteers are the backbone of the Society. These dedicated professionals help RSNA carry out its mission to "promote and develop the highest standards of radiology and related sciences through education and research."

At the end of each year, RSNA refreshes its committees with new volunteers. These radiologists, radiation oncologists, medical physicists and other professionals bring the Society new ideas and help create new synergies among existing committee members. In *RSNA News* and on *RSNA Link*, members are invited to volunteer for service on their Society's committees. Recognizing the many professional demands on members, the Board has incorporated a number of ways to streamline committee functions to make the most effective use of volunteers' time. The use of phone and Web conferencing has also reduced the necessity for some committee member travel.

The Board of Directors is seeking the names of members who would like to serve on RSNA committees. In addition, the Board is also interested in nominations of Active members to serve on the RSNA Board of Directors or as an RSNA Officer.

**The Company You Keep: Structure of the Board of Directors**

The Board consists of the President, President-elect and six Active members of the Society. Among the six Active members, the most senior elected member of the Board becomes the Chairman. Other Active members of the Board hold liaison positions: Liaison for Publications and Communications, Liaison for Annual Meeting and Technology, Liaison for Education and Liaison for Science. The newest Board member takes on a Liaison-designate role.

**RSNA Officers**

RSNA Officers consist of the President, President-elect, Chairman of the Board, Historian and three Vice-Presidents—First Vice-President, Second Vice-President and Third Vice-President—who are elected for a one-year term.

**Getting There: The Process**

During the RSNA Scientific Assembly and Annual Meeting, a new member is elected to serve a six-year term on the Board of Directors. During the second business session held at the annual meeting, the Committee on Nominations will report, in writing, the nominees for each open position. Following this report, nominations will be taken from the floor and the presiding officer will announce the time that the elections will occur.

*Being an RSNA volunteer has personally been one of my most rewarding professional opportunities.*

David H. Hussey, M.D.

Only Active and Associate members present at the annual meeting are eligible to vote. Election is by a majority of the votes cast. If there is more than one nominee for a particular position, voting for that position will be done by ballot. In the event that no candidate receives a majority of the votes cast, the name of the candidate with the smallest number of votes is eliminated and the procedure will continue until one nominee receives a majority.

**David H. Hussey, M.D.**
2004 RSNA President-elect

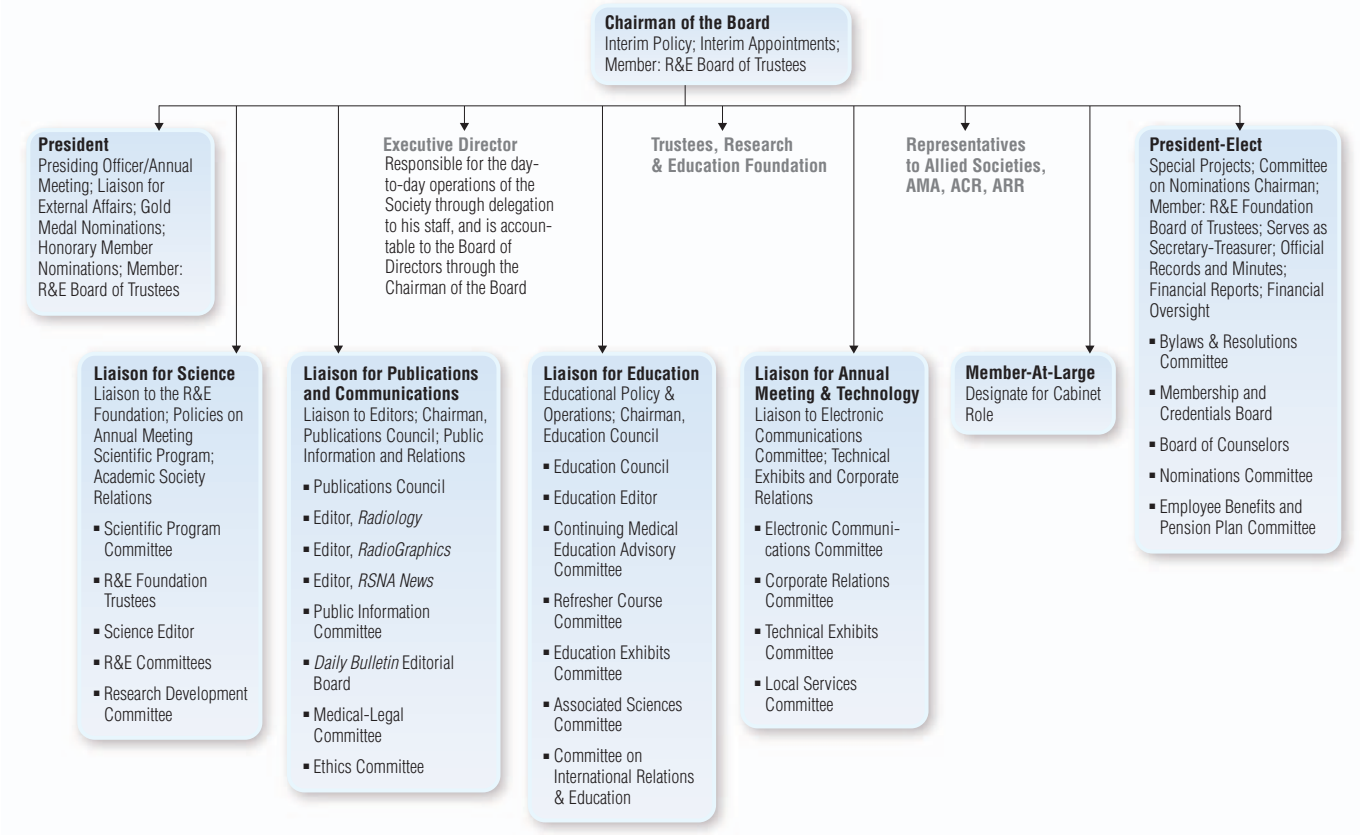
**Minimum Requirements: The "Job Description"**

While each Board member is responsible for a different portfolio, including a set of committees and goals in the Society's Strategic Plan, some responsibilities and qualifications apply to all members of the Board. These responsibilities fall in three categories—governance, individual and volunteer. A Board member's responsibilities as a volunteer are the same as those of every member volunteer. The governance and individual responsibilities are as follows:

***Governance Responsibilities***

Collective responsibilities that belong to the Board as a whole, not to any individual member:

**BOARD OF DIRECTORS CABINET STRUCTURE**




- Determine the mission and purpose of the organization
- Develop, evaluate, revise the strategic plan; oversee its implementation
- Develop, interpret, monitor, revise policy; oversee its implementation
- Determine, monitor, enhance programs, activities and services
- Ensure adequate resources (financial, intellectual, human) and manage them effectively
- Ensure the legal and ethical integrity of the organization

***Individual Responsibilities***

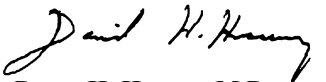
- Fulfill responsibilities of cabinet position: guide and oversee committees and other volunteers in area of responsibility, serve as liaison between them and the Board
- Implement policy when given authority to do so by the Board

***Qualifications***

- Demonstrated interest in the organization
- Experience in area of cabinet position
- Reputation as a good group decision maker (consensus builder, discrete)
- Ability to attend regular and ad hoc meetings and conference calls of the Board and appropriate committees

**Beyond the Job Description**

No "job description" can capture the complete range of activities in which I have been engaged since my election to the RSNA Board in 1998, nor can such a description convey the pride and personal gratitude I feel toward my colleagues throughout the Society who have furthered the professional development of radiologists from around the world. Being an RSNA volunteer has personally been one of my most rewarding professional opportunities. The people I have met, the ideas my colleagues and I have developed together and the results we have achieved, continue to have a positive effect on radiology education and research.



**DAVID H. HUSSEY, M.D.**
2004 RSNA PRESIDENT-ELECT

If you would like to volunteer to serve on an RSNA committee, please contact RSNA Director of Board Affairs Barbara Jarr at (800) 381-6660 x7881, by fax at (630) 571-7837 or by e-mail at *jarr@rsna.org.* Please send a copy of the CV of each proposed candidate. If you would like to nominate an Active member for consideration for the Board of Directors or as an officer, please submit your nomination to the chair of the RSNA Nominations Committee, RSNA, 820 Jorie Blvd., Oak Brook, IL 60523.

RSNA

# Experts Confirm Importance of Minimizing CT Dose

*Continued from page 8*

does not advocate complacency when it comes to medical radiation exposure. He also acknowledges that CT is a significant contributor to medical radiation exposure.

### Reducing Dose

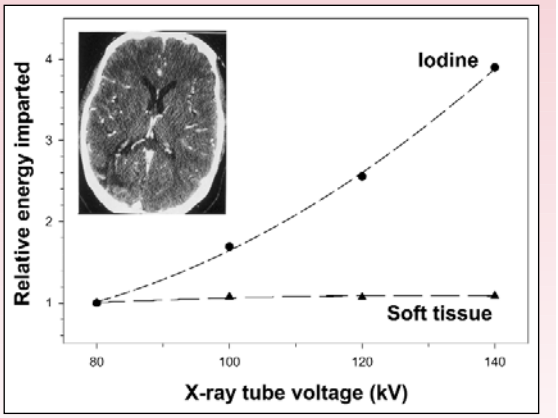
Dr. Huda has a few suggestions for reducing radiation dose without sacrificing image quality:

- Reducing kVp when using contrast media
- Increasing pitch ratio when performing helical CT scanning
- Limiting the region being scanned
- Using MR or US instead of CT when appropriate
- Keeping multiple scans to a minimum

"Everybody on the panel agrees that CT is a tool with a consequential amount of radiation—but dose remains an issue," says Dr. Frush. "It's going to be impossible to find the cutoff point below which radiation has no effect. We can't do those kinds of studies, so we'll have to rely on data being accrued through the atomic bomb survivors study and use that to better understand the risk for radiation-induced cancer."

For decades, physicians and radiologic technologists have been asking parents to step out of the room when their child is being x-rayed. "These doses are of minimal risk to the patient, let alone somebody else in the room, yet it's something that the medical community and public have come to expect as a standard in radiology," explains Dr. Frush. "How we cannot say the same thing for a higher dose examination such as CT is inconceivable." □

**Constant CNR at each kVp**




**Patient dose at a constant image quality (contrast to noise ratio) as a function of x-ray tube voltage (kV). Reducing the voltage from 140 kV to 80 kV for iodine lesions reduces the patient dose by a factor of four, but shows little variation for soft tissue lesions.**

# Doctor, Heal Thyself

*Continued from page 9*

radiologist at the Los Angeles County/USC-Keck School of Medicine.

She says that a 1998 report by the Centers for Disease Control and Prevention estimated 600,000 percutaneous exposures to blood or other body fluid a year by healthcare workers in the United States.

Work-related injuries have caused 57 cases of HIV in healthcare workers in the United States with another 150 suspected cases. There are 800 cases of HBV a year and as many as 1,000 cases of healthcare workers diagnosed with HCV.

*If we're going to be productive, we have to remain healthy.*

**—Bruce B. Forster, M.D.**

Dr. Marx says there are ways to reduce your risk:

- Get the vaccine for HBV. "This vaccine gives 100 percent protection from HBV in almost all individuals," she says. "Amazingly, the CDC says a third of all healthcare workers have not gotten the vaccine."
- Always use barriers, such as gowns, hats, masks, gloves and goggles. You need to cover your eyes, nose, ears and mouth.
- Demand your institution maintain the strictest of engineering and housekeeping controls.
- Use the greatest of care when using or passing sharp instruments.
- Wash your hands twice—once before the procedure for your patient and once after the procedure for you.

Remember, not every patient knows if he or she has been exposed to a disease. Dr. Marx says always use universal precautions for every patient.

### Ergonomics in the Fluoroscopy Suite

Lindsay S. Machan, M.D., also of Vancouver Hospital, is an associate professor of radiology and the head of angiography and interventional radiology. He says wearing lead is necessary, but can be very painful to your back and neck.

He says radiologists should reduce injuries by wearing two-piece leads, staying fit and practicing good posture, especially while wearing lead. You can reduce neck pain by putting your monitors at a comfortable position, in front of you. If the monitors are to the side, you should try to turn your whole body, not just your neck. Dr. Machan suggested the use of video goggles during some procedures. □

*Note: This article was adapted from the RSNA 2003* Daily Bulletin.

# Working For You

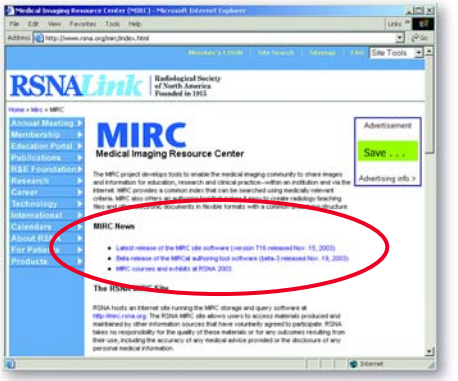
## 2003 Annual Report Available

The RSNA 2003 Annual Report was mailed with this issue of *RSNA News.* You may also access the report online as a PDF file at *www.rsna.org/about/annualreport.html.*

## MIRC Releases New Software

The RSNA Medical Imaging Resource Center (MIRC), *mirc.rsna.org,* has released two new versions of its free software. Release T16 is the site software. Release Beta-3 is the MIRCat authoring tool software and documentation. The software is available at *www.rsna.org/mirc.*

MIRC's goal is to enable the medical imaging community to share images and information for education, research and clinical practice.




WORKING FOR YOU PROFILE

**NAME:**
Mellie Villahermosa Pouwels, M.A.

**POSITION:**
Managing Director, Education Center

**WITH RSNA SINCE:**
June 4, 2001

**SERVICE TO MEMBERS:**
The Education Center provides members with access to quality educational programs outside of the RSNA Scientific Assembly to meet their ongoing continuing professional development (CPD) needs. Currently, the Education Center offers more than 300 programs via the Internet as part of its Internet-based CME component—InteractED.

Education Center products are listed in the RSNA Education Resources Catalog. The catalog is available in both print and online formats and contains descriptions of the various CD-ROMs, videotapes, slide and audiotape sets, and categorical course syllabi available to physicians. AMA PRA category 1 credit is available for most of the products listed.

In addition to these resources, the Education Center hosts several courses each year that complement the content of the Scientific Assembly. Working under the direction of RSNA members, who serve as volunteer course directors, the Education Center coordinates courses of one to three days in length on digital image management, leadership and business strategies, and faculty development.

**WORK PHILOSOPHY:**
Each of us in the Education Center strives consistently to improve the educational experiences of our members, whether via the Internet-based courses or in the short courses. When planning and coordinating projects, I seek to understand the context or big picture of all Education Center projects, while balancing the need to recognize the specific details unique to each project. I realize that the success of our projects results from the contributions made by our many dedicated volunteers, as well as the Education Center staff and other individuals and departments within the Society.

In my role as Managing Director, I am constantly reenergized, for I realize that the potential grows each day for meeting the needs of our members through additional educational programs.

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

# Program and Grant Announcements

## Register for BIROW 2

Registration is in its final weeks for the 2004 Biomedical Imaging Research Opportunities Workshop (BIROW 2) at *www.birow.org*. The workshop will identify and explore new opportunities for basic science research and engineering development in biomedical imaging, as well as related diagnosis and therapy.

It will be held February 25-26 at the Bethesda Marriott Hotel. It is the second in a series being sponsored by RSNA, American Association of Physicists in Medicine, Biomedical Engineering Society, Academy of Radiology Research and American Institute for Medical and Biological Engineering.

NEW!

## Teaching the Teachers Call for Applications

The Jefferson Ultrasound Research and Education Institute (JUREI) has issued a call for applications in its RSNA-funded "Teaching the Teachers" Initiative for Ultrasound Training in the Caribbean, Central and South America.

The initiative is an ultrasound training program available to qualified radiologists who wish to:

- Study the theory and practical applications of diagnostic ultrasound
- Participate in an intensive 12-week training program in ultrasound in 2004
- Learn teaching techniques for effective educational leadership
- Develop and sustain training programs in their native countries using educational methods and materials developed by JUREI
- Establish affiliated educational centers in the nations of Latin America

For more information, contact Barry B. Goldberg, M.D., director of the Jefferson Ultrasound Research and Education Institute at *barry.b.goldberg@jefferson.edu* or fax (215) 955-8549.

## Leadership Strategies for Radiology Practices

Future and current leaders in academia and private practice are invited to attend this 2 1/2 day RSNA course that will focus on administrative challenges including financial matters, strategic planning, billing, compliance, contracts and legal matters.

The course will be held in Chicago, July 23-25, 2004, at the Chicago Marriott Downtown.

Didactic morning lectures are followed by separate interactive breakout sessions for academic and private practice participants. At the completion of this leadership course, participants should be able to:

- Develop strategic plans for either academic or private-practice departments
- Describe the critical components for selecting and implementing PACS systems
- Discuss key points of group member, hospital and managed care contract negotiations
- Summarize methods used to analyze and respond to business opportunities
- Assess the major components of a successful radiology practice

For more information, go to *www.rsna.org/education/shortcourses* or contact the RSNA Education Center at (800) 381-6660 x3747.

NEW!

## NIH Interdisciplinary Training RFA

The National Institutes of Health (NIH) has issued a new request for applications (RFA) as part of the NIH Roadmap activities. The purpose of this RFA is to encourage and enable the development of an interdisciplinary workforce by ensuring that undergraduate, pre-doctoral and post-doctoral students receive the didactic and research experiences necessary to lead and/or engage in integrative and team approaches to solve complex biomedical and health problems.

NIH invites applications for developing and implementing novel training programs focused on new interdisciplinary science. Additional information about this program, including application criteria and guidelines, can be found at *grants.nih.gov/grants/guide/rfa-files/RFA-RM-04-015.html*.

Applications are due by March 10, 2004.

# RSNA Scholar Says Research Ideas Come from Many Sources

A lot of medical professionals will tell you to listen to your mentors.

Christopher H. Crane, M.D., agrees, but he'll also tell you to listen to your medical students and residents. "Be a generous teacher. Learn as much from your students as they learn from you," he says. "I find the best research questions come from students. They ask me the questions without answers —questions that need research."

Dr. Crane is an associate professor in the Department of Radiation Oncology at The University of Texas, M.D. Anderson Cancer Center in Houston. His major clinical laboratory interest is gastrointestinal malignancies. Dr. Crane is also the program director of the GI section in the Department of Radiation Oncology and Associate Medical Director of Multidisciplinary Gastrointestinal Center at M.D. Anderson.

He credits RSNA with helping him in many ways. Dr. Crane was a recipient of the 2000-2002 RSNA Research & Education Foundation Research Scholar Grant. He was the principal investigator of "Advancing Cancer Treatment Through the Combination of New Radiosensitizers and Biologic Agents with More Advanced Radiation Delivery: An Integrated, Prospective Clinical and Laboratory-Based Translational Research Proposal."

"The RSNA Scholar Grant allowed me to fund my research proposal for pre-clinical and clinical research. It helped me gain experience in conducting clinical trials, collecting data and publishing my research," he says. "I believe it helped me to get promoted from an assistant professor to an associate professor. I am now an experienced clinical investigator. The credibility that my RSNA Research Scholar Grant-related work has given me has created exciting opportunities."

He gives back to RSNA by attending the annual meeting, presenting research and participating in educational lectures. He is a reviewer for several publications, including *Radiology*.

Dr. Crane received his bachelor's degree in biology from the University of Miami in Coral Gables, Fla., and his medical degree from the University of Virginia in Charlottesville. He had his transitional internship at Roanoke Memorial Hospital in Virginia. He was a resident and then chief resident in radiation oncology at the University of Virginia at Charlottesville.

He says he discovered his interest in research as a resident, "I found I was most stimulated by that aspect of my career."

His clinical research goals today are to create curative radiation-based therapies for pancreatic cancer and organ-preserving therapies for gastrointestinal cancers by combining new technology such as conformal radiation, respiratory gating and proton therapy with new drug development. "This is a very exciting time for the discovery of molecular targets and the development of molecules that can modulate or block them. These drugs may improve the outcome of radiotherapy without increasing side effects," he says.

*The RSNA Research Scholar Grant was a critical component in the development of my career.*

— Christopher H. Crane, M.D.

**Christopher H. Crane, M.D.**
2000-2002 RSNA Research & Education Foundation Scholar

For today's residents, Dr. Crane has some words of advice, based on his experience. "To be successful in an academic career, you need to explore as many avenues of research as possible. Realize early on that not all of your research will be successful, but the projects that do succeed are very gratifying," he says.

He suggests residents take advantage of all opportunities. "I would encourage junior investigators to submit grant proposals to RSNA. The RSNA Research Scholar Grant was a critical component in the development of my career," he adds.

Dr. Crane says it's important for young researchers to listen to their mentors. "Follow their advice. They see things you don't see and can help guide you," he says.

Dr. Crane's mentor and chairman, James D. Cox, M.D., says Dr. Crane's career is flourishing. "He is one of our

*Continued on next page*

# *Radiology* in Public Focus

A press release has been sent to the medical news media for the following scientific article appearing in the February issue of *Radiology* (*radiology.rsnajnls.org*):

**"Detection of Clinically Unexpected Malignant and Premalignant Tumors with Whole-Body FDG PET: Histopathologic Comparison"**

Whole-body fluorodeoxyglucose (FDG) PET, performed for evaluation of malignancy, may reveal the presence of tumors that are unrelated to the neoplasm for which a patient is scanned.

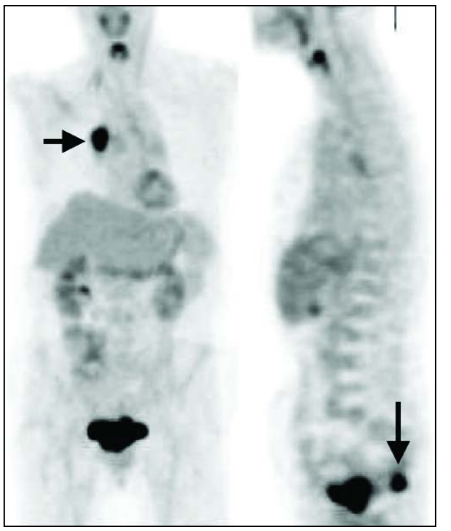

Harry Agress Jr., M.D., and Benjamin Z. Cooper, M.D., from the Hackensack University Medical Center in New Jersey, obtained 1,750 FDG PET scans to evaluate a variety of known or suspected malignancies.

On the basis of the normal spread pattern of the primary lesion, 58 abnormal unexpected foci of hypermetabolism were identified in 53 patients. Forty-five of these abnormalities were followed up with CT, MR imaging and/or mammography.

Of 42 histopathologically confirmed abnormalities, 30 (71 percent) were either malignant or premalignant tumors that differed from the cancer for which the patient was originally scanned, and three of nine nonmalignant lesions were considered clinically important because of the potential for local destruction and/or systemic effects.

The researchers write, "The reported findings demonstrate an increasing role of the radiologist and nuclear medicine physician in patient treatment and care."

RSNA press releases are available at *www2.rsna.org/pr/pr1.cfm.*



**New right lung mass in a 73-year-old woman with a history of breast cancer. Coronal (left) and sagittal (right) attenuation-corrected PET scans show positive hypermetabolic focus corresponding to the lung mass (upper arrow) and an unexpected intense rectal focus (lower arrow).**

(*Radiology* 2004; 230:417-422) 

## RSNA Scholar Says Research Ideas Come from Many Sources

*Continued from previous page*

young stars. We are very pleased with his development. Dr. Crane is coming to be recognized around the nation as one of the leading GI oncology experts. His early research was materially aided by RSNA," Dr. Cox says.

Dr. Cox is the Hubert and Olive Stringer Chair in Oncology and chairman of the Department of Radiation Oncology at The University of Texas, M.D. Anderson Cancer Center. He says Dr. Crane is taking on additional teaching and leadership responsibilities at M.D. Anderson. "There is no doubt he'll be promoted to professor. And there is no doubt that he'll be recruited as a department chair. He has no limitations," Dr. Cox adds.

Dr. Cox says he's pleased that Dr. Crane is so in-tune with medical students and residents. "There is a great advantage to having a large program with a set of curious and brilliant residents. The quality of the young people here is extraordinary. I'm glad to see Dr. Crane is fostering this atmosphere of inquiry. There is no such thing as a dumb question here at M.D. Anderson. We want our young people to seek answers to questions. Some of those questions represent opportunities for research," Dr. Cox says. □

■ For more information on RSNA Research & Education Foundation Grant programs, contact Scott Walter at (630) 571-7816 or at *swalter@rsna.org.*

# Product News

FDA UPDATE

## Risks Related to Abdominal Aneurysm Stent Updated

Emphasizing that AneuRx Stent Grafts "remain safe and effective," the Food and Drug Administration (FDA) has updated earlier information about the mortality risk associated with use of these stents, used to prevent rupture of abdominal aortic aneurysms. Based on clinical trial results, the FDA estimates a 2.7 percent aneurysm-related death rate three years after patients were implanted with the stent.

For more information, go to *www.fda.gov/cdrh/safety/aneurx.html.*

FDA CLEARANCE

## Dedicated Breast Imaging Multi-Modality Workstation

GE Medical Systems has received 510(k) FDA clearance for GE Seno Advantage™, the world's first multi-modality breast imaging review workstation.

The Seno Advantage workstation provides radiologists with a single access point to over 30 of the most advanced breast cancer detection tools and applications. The workstation can improve clinical productivity with faster connectivity speeds, making the workflow process smoother and more automatic for the user.

"We are extremely excited to introduce this latest technology advancement in breast care to our customers," said Jean Hooks, general manager of global mammography for GE Medical Systems. "Multi-modality image viewing, improved exporting capabilities and better connectivity, radiologists have the ability to optimize the value of different imaging techniques and to improve the accuracy and speed of diagnosis, which means faster results and treatment for patients."

NEW PRODUCT

## Philips Unveils 40-Slice CT Scanner

**A whole body image acquired in just 30 seconds using the new Philips Brilliance™ CT 40-slice scanner.**

Royal Philips Electronics has introduced Brilliance™, a new family of CT scanners and the industry's first 40-slice CT scanner.

The Brilliance CT 40-slice received FDA approval in October. It is the flagship product of the Brilliance CT family and provides clinicians with in-depth information nearly three times faster than any other multi-slice scanner.

With its ability to reconstruct up to 40 images per second, the Brilliance 40-slice brings significant improvement in clinical areas such as coronary artery imaging, advanced lung imaging and organ perfusion studies.

NEW PRODUCT

## Enhanced Lung Viewing

Siemens Medical Solutions has introduced syngo® LungCARE, the first FDA 510(k) cleared and commercially available enhanced lung viewing technology. syngo LungCARE is designed to support the physician in the visualization, evaluation and follow-up of pulmonary nodules and lesions, and will set the benchmark in CT imaging of the lung.

The technology features nodule enhanced viewing (NEV), a second reader tool based on highly sensitive and clinically validated algorithms. NEV represents the first product of its kind commercially available on the CT market with FDA 510(k) clearance.

"Programs such as Siemens syngo LungCARE, will make a huge impact in the visualization and tracking of lung cancer," explained Richard Hausmann, Ph.D., president of the CT Division of Siemens Medical Solutions. "Having software to assist in finding lesions may lead to more sensitive and earlier physician's diagnosis, and can positively influence patient treatment for improved outcomes."

RSNA News Information for *Product News* came from the manufacturers. Inclusion in this publication should not be construed as a product endorsement by RSNA. To submit product news, send your information and a non-returnable color photo to *RSNA News,* 820 Jorie Blvd., Oak Brook, IL 60523 or by e-mail to *rsnanews@rsna.org.* Information may be edited for purposes of clarity and space.



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# News about RSNA 2004

## Abstracts for RSNA 2004

The deadline is April 15, 2004, to submit scientific abstracts for RSNA's 90th Scientific Assembly and Annual Meeting.

All abstracts must be submitted online through RSNA Link *(www.rsna.org)*. This year, a new online abstract submission system is making the process easier for those submitting abstracts and for those reviewing the abstracts.

The direct link is: *www.rsna.org/rsna/abstracts.html*

Abstracts are required for scientific papers, scientific posters, education exhibits, radiology informatics and *info*RAD exhibits.

Scientific presentations can be made in either oral or poster format. Oral presentations will be delivered at an assigned date and time and will be limited to seven minutes followed by three minutes for discussion. Attendees of oral presentations are awarded category 1 CME credit. An author of a poster will be assigned to a one-hour scientific session in which attendees will earn category 1 CME credit. Posters will be on display during the entire week for independent review by attendees who can claim self-study credit.

RSNA'04
RADIOLOGY'S GLOBAL FORUM
November 28 – December 3, 2004
McCormick Place, Chicago

For more information, contact (877) RSNA-ABS [776-2227] or *programs@rsna.org*.

**Important Dates for RSNA 2004**

| | |
|---|---|
| **April 15** | Deadline for abstract submission |
| **April 26** | RSNA and AAPM member registration and housing opens |
| **May 24** | General registration and housing opens |
| **June 21** | Refresher course enrollment opens |
| **Oct. 29** | Advance registration deadline |
| **Nov. 28–Dec. 3** | RSNA 90th Scientific Assembly and Annual Meeting |

■ For more information about RSNA 2004, call (800) 381-6660 x7862 or e-mail *reginfo@rsna.org.*



# RSNA 2004 Exhibitor News

## Exhibitor Prospectus

The RSNA 2004 Exhibitor Prospectus will be mailed in late March. To achieve the maximum available space and assignment points, your completed application must be received at RSNA Headquarters by April 12, 2004. The first-round space assignment deadline is May 7.

## RSNA 2004 Exhibitor Meeting

All RSNA 2003 exhibitors are invited to attend the RSNA 2004 Exhibitor Planning Meeting on March 3 at Rosewood Restaurants and Banquets near O'Hare International Airport. The meeting is intended to review RSNA 2003 and plan for RSNA 2004.

**Important Exhibitor Dates for RSNA 2004**

| | |
|---|---|
| **March 3** | Exhibitor Planning Meeting |
| **April 5** | Exhibitor Prospectus Mails |
| **May 7** | First-round space assignment deadline |
| **June 22** | Exhibitor Planning/Booth Assignment Meeting |
| **July 6** | Technical Exhibitor Service Kit available online |
| **Nov. 28–Dec. 3** | RSNA 90th Scientific Assembly and Annual Meeting |

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

# www.rsna.org


## Webcast Receives Good Reviews

RSNA has received positive comments from the Electronic Communications Committee and individual RSNA members in regard to the live simulcast of the Sunday Image Interpretation Session at RSNA 2003. It was the first time RSNA had broadcast an educational session beyond McCormick Place. Viewers in more than 30 countries watched the session via the Internet or the much faster Internet2.

Informal discussions with a number of RSNA members indicated that the technical quality of both transmissions was excellent, and that making the session available globally was a milestone in extending the reach of the scientific assembly and annual meeting.

RSNA members who watched the simulcast were eligible for category 1 CME credit. The on-demand version will be available for viewing by modem or broadband during most of 2004 at *www.rsna.org/sunday/*. There is no CME credit for the archived version.


**The popular Sunday Image Interpretation Session at RSNA 2003 was simulcast via the Internet to more than 30 countries.**

## Virtual Meeting

RSNA 2003 also continues, in a sense, through the resource page, Virtual Meeting 2003, which can be found at *www.rsna.org/rsna/virtual.html*.

Here you can view various components of the scientific program, including:

- Refresher course handouts
- Sunday Image Interpretation Session
- Digital scientific sessions
- *info*RAD, including the Medical Imaging Resource Center (MIRC) and Integrating the Healthcare Enterprise (IHE)
- Mobile Computing Pavilion

The refresher course handouts are accessible through links to university and other non-RSNA Web sites. Some of the PowerPoint files reside on *RSNA Link*.

## RSNA Membership

RSNA 2003 also generated much interest in membership. During the meeting, RSNA received 302 membership applications—269 at the membership and publications booth and 33 on *RSNA Link*. One hundred seventy-two residents applied for member-in-training membership and 84 medical professionals applied for full membership.

Note to potential applicants: You must submit a valid credit card number before RSNA can process your online membership application.

## eConnections Your online links to RSNA

**RSNA Link**
*www.rsna.org*

***Radiology* Online**
*radiology.rsnajnls.org*

***Radiology* Manuscript Central**
*radiology.manuscriptcentral.com*

***RadioGraphics* Online**
*radiographics.rsnajnls.org*

**RSNA Virtual Journal Club**
*vjc.rsna.org*

**Education Portal**
*www.rsna.org/education/etoc.html*

**CME Credit Repository**
*www.rsna.org/cme*

**RSNA Medical Imaging Resource Center**
*mirc.rsna.org*

**RSNA Index to Imaging Literature**
*rsnaindex.rsnajnls.org*

**RSNA Career Connections**
*careers.rsna.org*

***RadiologyInfo*™**
RSNA-ACR public information Web site
*www.radiologyinfo.org*

**RSNA Online Products and Services**
*www.rsna.org/memberservices*

**RSNA Research & Education Foundation Make a Donation**
*www.rsna.org/research/foundation/donation*

**Community of Science**
*www.rsna.org/research/cos.html*

**History of the RSNA Series**
*www.rsna.org/about/history/index.html*

**Membership Applications**
*www2.rsna.org/timssnet/mbrapp/main.cfm*

**RSNA 2004 Abstract Submission**
*www.rsna.org/rsna/abstracts.html*

# Medical Meetings March – May 2004

**MARCH 5–9**
European Congress of Radiology, ECR 2004, Vienna, Austria • *www.ecr.org*

**MARCH 7–10**
Society of Skeletal Radiology (SSR), Annual Meeting, Loews Ventana Canyon Resort, Tucson, Ariz. • *www.skeletalrad.org*

**MARCH 7–12**
Society of Gastrointestinal Radiologists (SGR) and Society of Uroradiology (SUR), Abdominal Radiology Course, Westin Kierland Resort, Scottsdale, Ariz. • *www.sgr.org*

**MARCH 22–26**
Society of Computed Body Tomography & Magnetic Resonance (SCBT/MR), 27th Annual Meeting, Lake Las Vegas Resort, Henderson, Nev. • *www.scbtmr.org*

**MARCH 25–30**
Society of Interventional Radiology (SIR), 29th Annual Scientific Meeting, Phoenix Civic Plaza, Phoenix, Ariz. • *www.sirweb.org*

**MARCH 28–31**
Academy of Molecular Imaging (AMI), Annual Conference, Gaylord Palms Resort & Convention Center, Orlando • *www.ami-imaging.org*

**MARCH 28–APRIL 1**
Society of Thoracic Radiology (STR), Annual Meeting, Westin Mission Hills Resort, Rancho Mirage, Calif. • *www.thoracicrad.org*

**APRIL 4**
World Class Ultrasound: Current Concepts in Breast Ultrasound, Loma Linda University, Treasure Island Resort Hotel, Las Vegas • *www.worldclasscme.com*

**APRIL 5–7**
World Class Ultrasound: Advances in OB/GYN Ultrasound, Loma Linda University, Treasure Island Resort Hotel, Las Vegas • *www.worldclasscme.com*

**APRIL 8–10**
Japan Radiological Society (JRS), 63rd Annual Meeting, Pacific Convention Plaza, Yokohama, Japan • *www.radiology.or.jp/english/index.htm*

**APRIL 21–24**
Association of University Radiologists (AUR)/Society of Chairmen of Academic Radiology Departments (SCARD)/Association of Program Directors in Radiology (APDR)/American Association of Academic Chief Residents in Radiology ($A^3CR^2$), 52nd Annual Meeting, San Francisco Marriott, San Francisco • *www.aur.org*

**APRIL 21–24**
Sociedade Paulista de Radiologia e Diagnóstico por Imagem (SPR), 34th Sao Paulo Radiology Meeting, ITM Expo Convention Center, Sao Paulo, Brazil • *www.spr.org.br*

**APRIL 24–25**
American Osteopathic College of Radiology (AOCR), Mid-Year Conference–Mammography, Hilton Chicago O'Hare Airport, Chicago • *www.aocr.org*

**APRIL 24–27**
Radiation Research Society (RRS), 51st Annual Meeting, Adams Mark Hotel, St. Louis • *www.radres.org*

**APRIL 27–MAY 1**
Society for Pediatric Radiology (SPR), Westin Savannah Harbor, Savannah, Ga. • *www.pedrad.org*

**APRIL 28–MAY 1**
Asian Oceanian Congress of Radiology, 10th Annual Meeting, Raffles City Convention Centre, Singapore • *lennytan@nus.edu.sg*

**MAY 2–7**
American Roentgen Ray Society (ARRS), 104th Annual Meeting, Fontainebleau Hotel Resort and Towers, Miami Beach • *www.arrs.org*

**MAY 8–13**
American College of Radiology (ACR), Annual Meeting and Chapter Leader Conference, Hilton Washington, Washington, D.C. • *www.acr.org*

**MAY 15–21**
International Society for Magnetic Resonance in Medicine (ISMRM), 12th Scientific Meeting and Exhibition, Kyoto International Conference Hall, Kyoto, Japan • *www.ismrm.org*

**NOVEMBER 28–DECEMBER 3**
**RSNA 2004, 90th Scientific Assembly and Annual Meeting, McCormick Place, Chicago • *www.rsna.org***

RSNA News

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