May 2005 ▪ Volume 15, Number 5

RSNA News

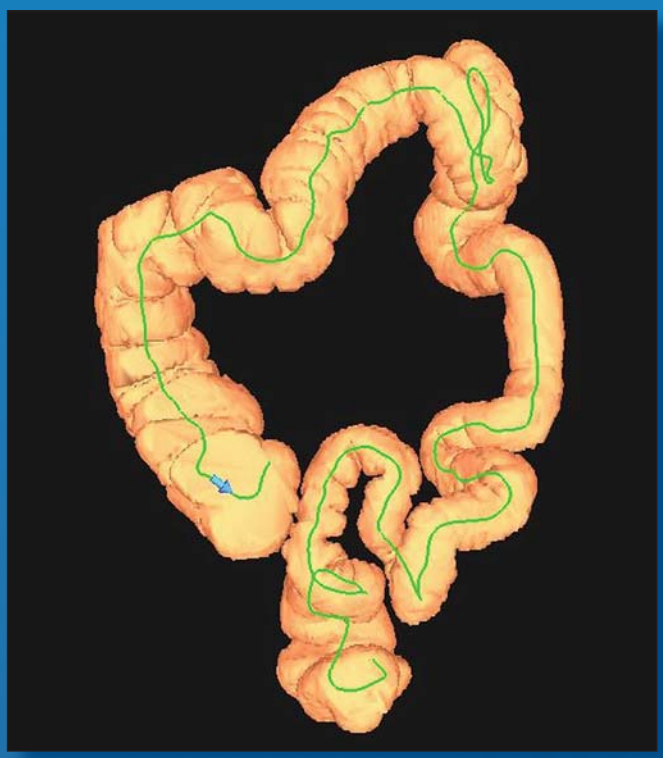

Image courtesy of Perry J. Pickhardt, M.D.

CTC Trial Adds More Fuel to Ongoing Debate

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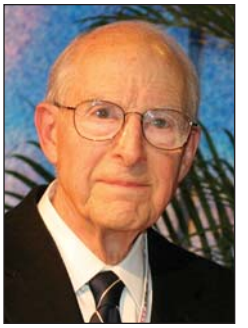
Editorial Fellowship Dedicated in Honor of Eyler


William R. Eyler, M.D.

THE RSNA Editorial Fellowship has been renamed in honor of William R. Eyler, M.D., *Radiology* editor emeritus.

Dr. Eyler has provided RSNA with more than 40 years of dedicated service—as assistant editor of *Radiology* (1962–1966), as editor of *Radiology* (1966–1985) and as editor of the *RSNA Index to Imaging Literature*, which included nearly 40 journals. Dr. Eyler has been RSNA historian since 1974.

The first Eyler Editorial Fellowship will be awarded in 2006.

Hricak, RSNA Honored At ECR

During the European Congress of Radiology (ECR) in Vienna in March, RSNA was presented with a certificate and china plate commemorating 15 years of friendship and cooperation with European radiologists. In addition, ECR presented a certificate to RSNA Board Liaison for Publications and Communications **Hedvig Hricak, M.D., Ph.D.,** "in recognition of her support for establishing molecular imaging training for radiologists in Europe."

Scarpa New CSR Director

Antonio Scarpa, M.D., Ph.D., will become director of the Center For Scientific Review (CSR) on July 1.

CSR organizes the peer-review groups that evaluate the majority of grant applications submitted to the National Institutes of Health (NIH). CSR also receives all NIH and many Public Health Service (PHS) grant applications and assigns them to the appropriate NIH institutes and centers and PHS agencies.

Dr. Scarpa is currently the David and Inez Myers professor and chair of the Department of Physiology and Biophysics at Case Western Reserve University in Cleveland.


Antonio Scarpa, M.D., Ph.D.

"Dr. Scarpa brings an expansive intellect, distinguished research career, and extensive administrative experience to the critical task of leading CSR in managing the receipt and referral of NIH grant applications and coordinating their review in CSR peer review groups," said NIH Director Elias Zerhouni, M.D.


Robert G. Parker, M.D.

IN MEMORIAM:

Robert G. Parker, M.D.

1992 RSNA President **Robert G. Parker, M.D.,** died in March at the age of 80.

Until his retirement this past January, Dr. Parker worked in the Radiation Oncology Department at the University of California, Los Angeles Medical Center, where he had been a longtime professor and chairman. He also spent more than two decades as a professor, then later director of the Division of Radiation Oncology at the University of Washington School of Medicine.

In a 1998 interview with RSNA, Dr. Parker said, "I'd like to be remembered as a good, conscientious doctor who tried to be a good teacher."

He received many awards, including the gold medal from RSNA, ASTRO and ACR.

He was a dedicated RSNA volunteer, serving on the Refresher Course Committee, the Board of Directors, and the RSNA Research & Education Foundation Board of Trustees.

IN MEMORIAM:

Katherine Lathrop, M.S.

A pioneering researcher in nuclear medicine has died at the age of 89.

Katherine A. Lathrop, M.S., participated in the Manhattan Project as a junior chemist and was a member of the Chicago team that experimented with the isotope technetium 99m to locate and diagnose cancer.

Lathrop held positions at Argonne National Laboratory and at the University of Chicago, where she was a professor of radiology.

She was a long-time member of the Society of Nuclear Medicine and served on its Medical Internal Radiation Dose Committee.

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.

ASTRO Chair Theodore Lawrence, M.D., Ph.D., responds to a question about the society's legislative priorities for the 109th Congress.

ASTRO Members Go to Capitol Hill

FIFTY-FOUR members of the American Society for Therapeutic Radiology and Oncology (ASTRO) met with lawmakers in March to promote the society's legislative priorities.

"Radiation oncology is an extremely important, cost-effective, but often overlooked specialty that is used to help more than one half of all cancer patients," said ASTRO Chair Theodore S. Lawrence, M.D., Ph.D.

The topics discussed included increased funding for cancer research, physician self-referral and medical imaging utilization, and correcting the Medicare Physician Fee Schedule.

CARE Bill Back on Congressional Agenda

Congressman Chip Pickering (R-Miss.) has re-introduced a bill designed to ensure that health professionals who perform radiologic procedures are properly qualified.

The Consumer Assurance of Radiologic Excellence (CARE) bill, H.R. 1426, directs the Department of Health and Human Services to establish educational and credentialing standards for personnel who plan and deliver radiation therapy and perform all types of diagnostic imaging procedures except medical ultrasound. States would be required to meet the federal minimum standards or risk losing federal reimbursement for radiologic procedures.

"The CARE bill will benefit patients by ensuring their examinations and treatments are conducted by trained, experienced and licensed technologists," said Rep. Pickering. "The result will be a better diagnosis and treatment for the patient, with fewer repeat procedures due to human error, and less exposure of patients to radiation."

The CARE bill was previously introduced in the House in 2000, 2001 and 2003. Members of the American Society of Radiologic Technologists participated in their annual "R.T. in D.C." event in April to encourage Congress to pass the CARE bill.

Medicare Expands Coverage of Carotid Artery Stenting

The Centers for Medicare & Medicaid Services (CMS) has expanded coverage of percutaneous transluminal angioplasty of the carotid artery concurrent with stent placement in patients who are at high risk for carotid endarterectomy. CMS said the coverage expansion reflects the latest evidence on the effective use of stenting, and includes support for development of better evidence in additional uses.

"CMS is committed to providing broader access to appropriate and innovative care to our beneficiaries in the management of their carotid artery disease," said CMS Administrator Mark B. McClellan, M.D., Ph.D. "We are working with health professionals and product developers to reduce the occurrence of stroke in our population, and getting the maximum health improvements possible by soliciting and responding to public comments on the most effective way to provide improved coverage."

For more information, go to *www.cms.hhs.gov/media/press/release.asp?Counter=1391*.

IRQN Competition

The International Radiology Quality Network (IRQN) has announced a worldwide competition for original manuscripts dealing with the topics of quality improvement in radiology and medical imaging practices.

The winning manuscripts will be published in the *Journal of the American College of Radiology (JACR)*. Instructions for authors are available in *JACR* and will be available from the IRQN Secretariat after July 1, 2005.

For more information, contact *irqn@ranzcr.edu.au.*

Medical Imaging Company News:

■ **Siemens Medical Solutions** has announced the acquisition of all business of **CTI Molecular Imaging, Inc.**, including CTI PET Systems, PETNET Solutions, CTI Mirada Solutions, CTI Molecular Technologies and CTI Concorde Microsystems.

"This step is a natural progression in our long-time association with CTI, and reflects Siemens' overall strategy to transform the delivery of healthcare by developing trendsetting innovations that improve patient care while reducing costs," said Erich Reinhardt, Ph.D., president and chief executive officer of Siemens Medical Solutions.

RSNA Board of Directors Report

THE RSNA Board of Directors met in mid-March in Chicago, approving the 2005-2008 RSNA Strategic Plan and several proposals that will expand the use of new technology and improve the educational experience at the 91st Scientific Assembly and Annual Meeting, as well as throughout the year.

In January the Board held its annual retreat during which discussions began on identifying a series of long-range goals to define a vision for the Society for 2010. Discussions and planning will continue.

In undertaking these short and long-range planning efforts, the Board intends to ensure that RSNA maintains its commitment to providing excellence in education and resources for our members' professional development; to anticipate and respond to the dramatic changes in medical imaging technology that will affect the practice of radiology; and to ensure the strength and continued growth of the organization into the next decade and beyond.

RSNA 2005

RSNA committees and the Board have reviewed survey results and comments from exhibit authors and attendees of RSNA 2004 and have responded with a series of changes for RSNA 2005.

A greater number of **education exhibits** will be in digital format this year. Education exhibits in five subspecialties—cardiac radiology, chest radiology, genitourinary radiology, neuroradiology and vascular/interventional radiology—will be electronic, while authors of other subspecialty exhibits will have a choice to present electronically or in the traditional backboard display. By 2007, all education exhibits will be electronic.

Plans are also under way to develop special standing kiosks and possibly large plasma screens to accommodate group review.

All **scientific posters** will be in digital format this year. Dedicated computers will be available for individuals and groups to review the materials.

The presentation system will be modified, making it more effective and efficient for the attendee and the presenter. In the past, authors of education exhibits who chose to participate in oral presentations were asked to be available each lunch hour Monday through Thursday. Beginning this year, participating education exhibit authors will be assigned a specific date and time. Authors of scientific posters will have the option of whether to make an oral presentation or simply be available for questions and discussion. The schedule will be available in the online *Meeting Program,* posted in the fall on *rsna2005.rsna.org.*

Additionally, RSNA will test combined presentations for education and science. Combined presentations of education exhibits and scientific posters will take place in topic-focused sessions during the lunch hour. The schedule of presentations will be available in the online *Meeting Program.*

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

Category 1 CME credit will be awarded to interested registrants attending author presentations. Registrants may self-claim category 2 CME credit while viewing education exhibits and scientific posters.

The Board has authorized the continuation of the policy permitting technical exhibit companies to conduct small drawings, raffles and lotteries and post the winning names at their exhibit areas. The Board has also approved allowing technical exhibitors to conduct non-CME satellite symposia in conjunction with the annual meeting.

RSNA 2006

Beginning with the 2006 annual meeting, RSNA will offer an educational track for radiologist assistants (R.A.s).

Continued on next page

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RSNA will develop the program with the American Society of Radiologic Technologists. For more information about R.A.s, see the article on page 11.

MOC and SAMs

RSNA has been working with the American Board of Radiology and other organizations to ensure that members have the resources they need to meet maintenance of certification (MOC) requirements and to monitor their progress in meeting the requirements. Self-assessment modules (SAMs) in many different specialty areas will be available on *RSNA.org* beginning July 1. Completion of SAMs will be free to RSNA members and will be available to nonmembers for a modest fee. For more information on MOC and SAMs, see the article on page 9.

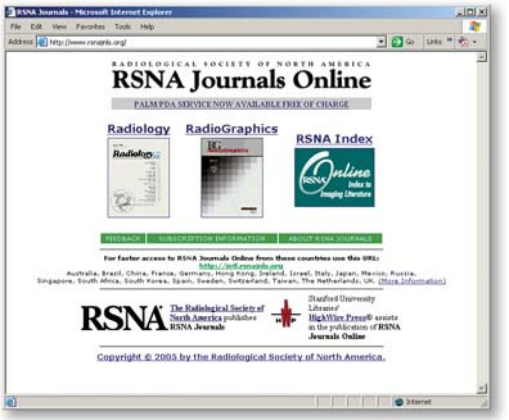
Publication Policy

Earlier this year, the National Institutes of Health (NIH) announced a policy requesting that authors of scientific manuscripts based on research funded in whole or in part by NIH release their manuscripts to the public within 12 months of final publication in a journal. The manuscripts will be posted on the NIH's PubMed Central Web site *(www.pubmedcentral.nih.gov).*

In response to the NIH policy, RSNA has decided to encourage, but not require, authors of articles in *Radiology* to wait the full 12 months. Pending an NIH policy decision, RSNA may establish a service for authors through which RSNA will send manuscripts to PubMed Central on behalf of the author if the author specifies the 12-month release date. In addition, the RSNA Board affirmed its January decision to provide free access to its journals after 12 months, rather than the current 24 months.

FUNDING RADIOLOGY'S FUTURE

For more information, see the article on page 13.



RSNA Journals

Two new features are available for authors and subscribers to *Radiology* and *RadioGraphics.*

The online journals will provide an option to download medical images in PowerPoint format rather than in jpg or tif format. The journal citation and copyright will be embedded on the downloaded slides.

Corresponding authors of articles will now be notified by e-mail when their article has been published online, and will have the option to receive notification each time their article is cited by any of the 847 journals offered through HighWire Press.

In addition, the Board will continue the RSNA Visiting Editors Program for another three years. *Radiology* Editor Anthony V. Proto, M.D., and *RadioGraphics* Editor William W. Olmsted, M.D., have been visiting medical schools and other institutions in the United States to explain the peer-review process, how to submit a manuscript, reasons for manuscript rejection, types of appropriate submissions and problems seen in submitted manuscripts.

RSNA Research & Education Foundation

RSNA will add $200,000 to the RSNA Research & Education Foundation for use in funding additional meritorious grants this year. The Foundation funds grants through the annual earnings on the corpus. The additional money will give the Foundation a greater opportunity to fund many of the worthy grant applications submitted each year.

Other Board Action

- RSNA is considering development of an image reference collection that will be included in the RSNA Medical Imaging Resource Center (MIRC), *rsna.org/mirc*
- The RSNA/ACR public information Web site, *RadiologyInfo.org*, will be translated into Spanish
- The host societies for the 2006 RSNA International Visiting Professor program will be the Lithuanian Association of Radiology, Chilean Society of Radiology, Malaysian College of Radiology, and Indian Radiological and Imaging Association
- A visiting professor will also be sent to Mexico each year to visit the annual meetings of Sociedad Mexicana de Radiología e Imagen and the Mexican Federation of Radiological Societies on an alternating basis
- RSNA will co-sponsor the World Congress on Interventional Oncology beginning in 2006. The Congress will be held in locations including Europe, North America and Asia.

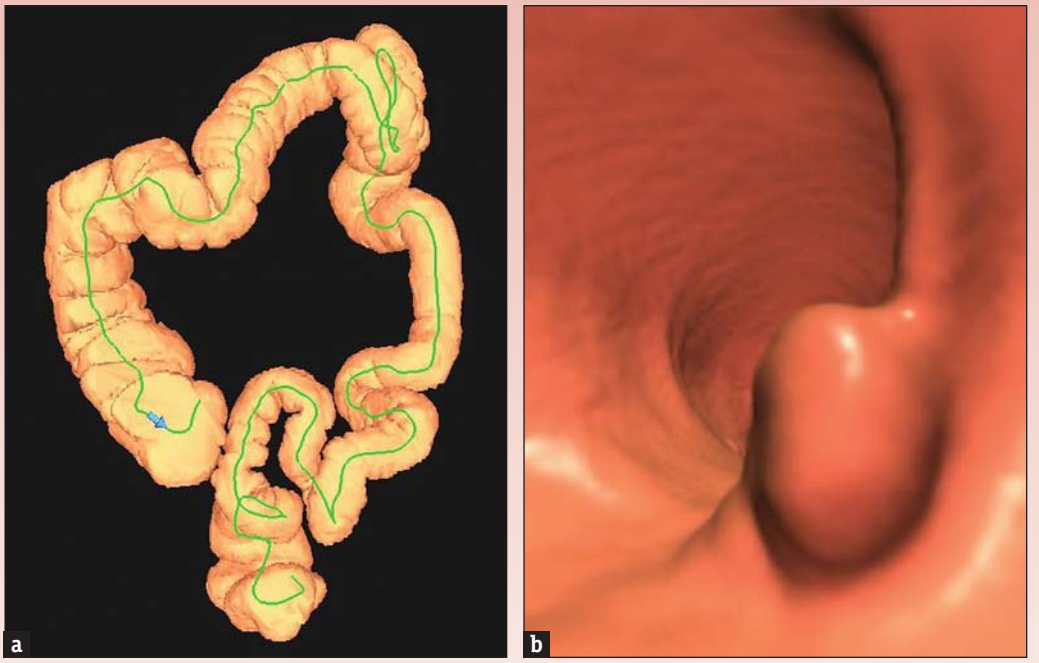
R. GILBERT JOST, M.D.
CHAIRMAN, 2005 RSNA BOARD OF DIRECTORS

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 in June.*

CTC Trial Adds More Fuel to Ongoing Debate

CT COLONOGRAPHY (CTC) has come a long way in the 10 years since radiologist David Vining, M.D., from Wake Forest University, unveiled his invention in Wagnerian style at a meeting of the Society of Gastrointestinal Radiologists. To the accompaniment of "Ride of the Valkyries" from "Die Walküre," Dr. Vining used a computer mouse to navigate a "fly-through" of a volunteer's colon.

The following years have brought a number of clinical trials, a consensus statement published this past March, and now, a 15-institution trial that will examine CTC's value as a frontline screening tool in a head-to-head comparison with the current gold standard, colonoscopy. During the one-year trial, coordinated by the American College of Radiology Imaging Network (ACRIN), participants aged 50 or older will undergo CTC followed by a traditional colonoscopy on the same day.



CT colonography (virtual colonoscopy) with 9-mm tubular adenoma in sigmoid colon in an asymptomatic 61-year-old woman undergoing colorectal screening. The study was interpreted using the Viatronix V3D Colon software system.

Case courtesy of Perry J. Pickhardt, M.D.

(a) Colon map with centerline for navigation (green line) that is automatically generated for the radiologist. This map also allows for communication of precise polyp localization to the gastroenterologist prior to optical colonoscopy.

(b) 3D endoluminal view from CT colonography shows the sessile polyp on a colonic fold. Most significant polyps are readily detectable on this view.

"The primary aim of our study is to determine the performance of CTC for the detection of polyps one centimeter or larger," said principal investigator C. Daniel Johnson, M.D., of the Mayo Clinic in Rochester, Minn. "All polyps five millimeters or larger will be reported and removed. We're most concerned about polyps 10 millimeters or larger. Smaller polyps will be removed at the discretion of the gastroenterologist doing the endoscopy."

Dr. Johnson said the secondary aims are to:

- Evaluate patient acceptance of CTC and willingness to have a repeat examination in comparison to optical colonoscopy
- Describe various morphologic features, distribution and frequency of flat colonic lesions
- Estimate the accuracy of CTC in detecting flat lesions in the colon
- Describe prevalence and clinical significance of extracolonic abnormalities detected in the course of a CTC examination
- Describe various methods of CTC evaluation
- Assess differences in software platforms
- Analyze the effect of electronic subtraction on the sensitivity to polyps and aspects of reading

In addition, the researchers will develop a well-annotated database of CTC case materials for future study, and will be able to assess the cost-effectiveness of CTC compared to other colorectal cancer screening tests.

"This trial is important because there are conflicting data on the performance of CTC," explained Dr. Johnson. "There have been two multicenter trials showing CTC's performance to

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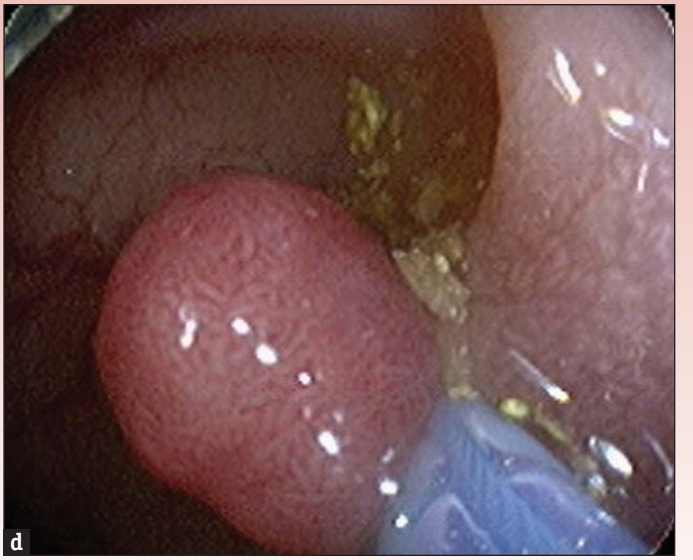
(c) 2D axial CT image confirms soft tissue polyp in sigmoid colon (arrows).



(d) Digital photograph from optical colonoscopy performed on the same day shows the polyp immediately prior to removal.

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be intermediate to mediocre, and one trial showing CTC's performance to be as good or slightly better than colonoscopy in a screening population. We need to really understand if CTC is going to be a suitable technique for screening and how it compares with colonoscopy."

Perry J. Pickhardt, M.D., the lead author of the study showing CTC's performance to be as good or slightly better than colonoscopy, said the ACRIN trial will be expensive and redundant.

"I think the intentions of the ACRIN investigators are very noble, and that this trial would have been timely several years ago, but we have already validated CTC for screening. Our CTC methods are readily generalizable and could be implemented immediately to address this important public health issue," said Dr. Pickhardt, from the University of Wisconsin Medical School. "What made our trial so successful was the use of primary 3D evaluation and stool and fluid tagging. I am concerned that the ACRIN trial may report the use of both 2D and 3D polyp detection, but will mainly utilize CTC systems that are not truly capable of primary 3D evaluation; disappointing results will then be blamed on both techniques."

He added that using 2D in a screening study is like looking for needles in a haystack. To underscore his belief that CTC needs no further validation, he points out that his Madison-based CTC program already receives third-party reimbursement for screening, with four HMOs that have covered screening CTC since April 2004.

> *We need to really understand if CTC is going to be a suitable technique for screening and how it compares with colonoscopy.*
>
> C. Daniel Johnson, M.D.

"We've performed over 1,000 screening CTCs over the past year and have improved our methods to the point where they are much better than when we published in the *New England Journal of Medicine*," Dr. Pickhardt said. "I fear there may be too much riding on the ACRIN trial since we already have a proven method. By stepping backward and possibly using lesser methods, we could kill the whole movement."

Dr. Johnson countered that there's too much at stake not to undertake the ACRIN trial. "The medical community at large is not convinced that Dr. Pickhardt's findings are reproducible," he explained. "Our best outcome would be to show that we really didn't need to do this trial; however, that's not where we are today. If it were, CTC would be widely reimbursed and everybody would be doing it. Also, the National Institutes of Health would not have provided a $7 million grant if the trial wasn't needed."

Dr. Johnson credits Dr. Pickhardt's research for making the ACRIN trial possible. He added that in the ACRIN trial, every exam will be read twice—in 2D and 3D. "Perry read in 3D and came up with fabulous results, but that doesn't mean 2D can't be just as good," he said.

Consensus Statement on CTC

A "Consensus on Current Clinical Practice of Virtual Colonoscopy," published in the March issue of the *American Journal of Roentgenology (AJR)*, casts additional light on the debate. Matthew A. Barish, M.D., from Brigham and Women's Hospital in Boston, and colleagues surveyed 31 CTC experts.

Continued on page 16

Arthroplasty Imaging Sheds Light on Particle Disease Process

USING MR imaging, physicians can detect complications related to joint replacement earlier and more accurately than when using standard radiography, according to Hollis G. Potter, M.D., chief of MR imaging at the Hospital for Special Surgery and a professor of radiology at Cornell University Medical College in New York City.

This has important implications for a growing number of patients with hip and knee replacements.

"Arthroplasty imaging is something radiologists can do right now to benefit a tremendous number of people," she said. "It can explain knee pain when the x-ray image and the clinical examination by the orthopedist do not detect a problem. MR imaging offers a noninvasive means to look at the source of that pain," adding that radiologists should not fear using MR to image arthroplasties.

During arthroplasty, all or part of the joint may be replaced with an artificial device. The National Center for Health Statistics reports that 381,000 total knee replacements and 193,000 total hip replacements were performed in the United States in 2002.

Hollis G. Potter, M.D.
Cornell University Medical College

Timothy J. Mosher, M.D.
Pennsylvania State University

Particle Disease

Particle disease is the main limiting factor of the longevity of arthroplasties. While clinically asymptomatic, particle disease erodes the bone around the arthroplasty, loosening it and causing failure. "Arthroplasty imaging is changing our concept of the natural history of particle disease," said Dr. Potter. "Everything we know about particle disease is based on x-ray or retrieval patterns. With MR imaging, we've learned that it starts much earlier than originally thought."

Dr. Potter and her research colleagues found that MR can also quantify the magnitude of disease. "When we studied our patients, we were able to detect and measure the intracapsular burden of particle disease before it eroded the bone," she said. "This is exciting because it is the first time we have been able to noninvasively monitor these patients to get a sense of the magnitude of disease burden, which can be helpful when applying suitable pharmaceutical intervention."

> *Everything we know about particle disease is based on x-ray or retrieval patterns. With MR imaging, we've learned that it starts much earlier than originally thought.*
>
> Hollis G. Potter, M.D.

Timothy J. Mosher, M.D., an associate professor of radiology and orthopedic surgery at Pennsylvania State University in Hershey, agreed that the technique offers a substantial amount of valuable diagnostic information. "As more arthroplasties are placed, it will be necessary for radiologists to know how to diagnose arthroplastic complications, including particle deposition disease. I think MR imaging can offer a solution to this vexing problem faced by orthopedic surgeons."

Monitoring particle disease is also of interest to pharmaceutical companies that are developing therapies to delay the degree of bone resorption. A noninvasive method of quantifying the burden of particle disease will be helpful to studying bisphosphonates, disease modifying agents that delay bone resorption by inactivating osteoclasts.

To validate their success with MR imaging, Dr. Potter and her colleagues used a non-clinical, cadaveric model

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and created known defects. They compared MR to optimized radiographs—the clinical standard—and optimized CT. They found that MR imaging was the most sensitive means by which to detect osteolysis.

Dr. Potter said that MR arthroscopic imaging was done with a 1.5 Tesla magnet, modified commercially available software and pulse sequence parameters modified to reduce the artifact. She said that ultimately, the technique may require proprietary software to reduce the artifact even more.

Dr. Potter and colleagues are launching a prospective study that will correlate with the osteolysis lab, which will look at breakdown products and synovial fluids. This will help correlate imaging with other markers to provide parameters by which the magnitude of the process can be assessed.

T2 Cartilage Mapping Comes of Age

T2 mapping offers a noninvasive method of studying cartilage osteoarthritis. In the spectrum of osteoarthritis, arthroplasty imaging looks at the last stage of osteoarthritis after everything has failed. In some cases, it is important for physicians to evaluate the status of cartilage health at an earlier time point.

There is some controversy surrounding the application of T2 mapping. Some researchers believe it has a role in basic science while others, including Dr. Potter, think it has important clinical applications. Imaging allows a direct view of the biologic process of disease. T2 mapping detects early changes in cartilage ultrastructure. Clinically this is useful in timing procedures and surgeries.

Dr. Potter offered an example of a 14-year-old girl whose torn meniscus was surgically removed, putting her at risk for developing osteoarthritis. "Eventually a cadaveric meniscus will need to be transplanted, but the optimal timing for that procedure is largely guess work, aided by x-ray and morphologic cartilage imaging on MR. Her physicians really need to know when the cartilage starts to go bad but still retains some thickness," she explained. "T2 mapping shows tremendous promise for increasing our ability to detect very early cartilage breakdown. With this information, we will know how to better time meniscal transplantation."

52-year-old patient with knee arthroplasty and MR imaging evidence of early intracapsular particle disease (arrow). Note also the bone resorption adjacent to the femur (arrowhead).

Image courtesy of Hollis G. Potter, M.D.

Dr. Mosher said that he sees T2 mapping as a research tool with a wide variety of research applications.

"It can be used to further the understanding of normal cartilage physiology, cartilage damage and how it relates to early osteoarthritis. It is also a useful tool for building a translational bridge between basic science and clinical research," he said. "On the clinical side, I think T2 mapping is a way of retrieving objective data from subjective interpretations that clinical radiologists have been doing routinely. That's necessary as a research tool, but maybe not as crucial for radiologists in the day to day practice."

"Although T2 mapping is a technique that is available at only a few research centers, my sense is that it will become more widely available in the near future," stated Dr. Potter. "Imaging is going to change condition outcome. Until now, our perception has been based on how the patient feels and functions. Subjective clinical outcome measurements are very important, but they do not tell us much about the biology of the disease process. Imaging will provide much more information and objective assessment of outcome." □

> *Imaging is going to change condition outcome. Until now, our perception has been based on how the patient feels and functions.*
>
> **Hollis G. Potter, M.D.**

RSNA Develops New Resources to Help with MOC Requirements

BASED ON THE agreement that board-certified radiologists should demonstrate continued learning and up-to-date clinical capabilities in their field of practice, the American Board of Radiology's (ABR) maintenance of certification (MOC) program aims to help radiologists with time-limited primary or subspecialty certificates that document their knowledge and expertise. The process will include a self-assessment of competency and an exam every 10 years.

For its part, RSNA has been working to ensure that members have the resources they need to meet MOC requirements and to monitor their progress in meeting the requirements.

In February, RSNA launched an online CME Gateway *(www.CMEgateway.org)* with the American College of Radiology, Society of Nuclear Medicine and American Roentgen Ray Society (ARRS), that allows members to view, print and generate reports of the continuing medical education (CME) credits they have earned from each of the organizations.

RSNA is working with ARRS to develop a template for creating and updating an individualized education plan for members. RSNA is also developing self-assessment modules (SAMs) to help members assess their knowledge of radiology, and will offer enhanced CME courses at the annual meeting that include a self-assessment component.

Theresa C. McLoud, M.D.
RSNA Board Liaison for Education

Linda Bresolin, Ph.D., M.B.A., C.A.E.
RSNA Assistant Executive Director for Research and Education

MOC Requirements

There are four major components to the MOC requirements. To maintain certification, radiologists must present to ABR evidence of:

- Professional standing, particularly unrestricted license(s) to practice medicine.
- A commitment to lifelong learning, including CME activities and involvement in a periodic self-assessment process to guide continuing learning.
- Cognitive expertise based on performance on an examination containing questions on fundamental knowledge, up-to-date practice-related knowledge and knowledge related to other issues, such as ethics and professionalism.
- An evaluation of the radiologist's performance in practice, including the quality of medical care he or she provides, professionalism and communication skills.

"RSNA is concentrating on the second component of the MOC requirements—self-assessment and lifelong learning," said RSNA Board Liaison for Education Theresa C. McLoud, M.D., professor of radiology at Harvard Medical School and associate radiologist-in-chief and director of education at the Massachusetts General Hospital in Boston.

> *I think we should all be involved in the lifelong learning process. It's the right thing to do, even if we don't have to renew our certificate with an examination. We need to make sure our knowledge is up to date.*
>
> Theresa C. McLoud, M.D.

CME Organizer and Template

"We are in the process of developing an MOC registry and an education plan template," she said. "This will not only allow individuals to keep a record of their CME credits and self-assessment modules but also help them develop a practice profile. Under the MOC program, one needs to identify one's type of practice, such as

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academic or private practice, the types of cases one evaluates, and what areas of knowledge are needed to keep oneself up to date in a radiologic practice."

The registry will allow members to identify their educational needs and alert them to upcoming CME activities related to the areas of knowledge in which they need to accumulate CME credits based on their practice profile.

Dr. McLoud gave an example of a vascular radiologist needing to learn a new technique. "The registry would alert the radiologist to upcoming CME opportunities in vascular radiology and, in particular, opportunities to learn that new technique," she explained.

According to Linda Bresolin, Ph.D., M.B.A., C.A.E., assistant executive director for research and education at RSNA, "Members who register with RSNA will get practice-specific communications about where they should be in their MOC process and what they should be thinking about doing in the upcoming year. The communications will inform them about CME, self-assessment and practice-assessment opportunities relevant to their areas of emphasis."

Self-Assessment Modules

Beginning July 1, 2005, RSNA will provide a broad range of self-assessment modules on the education portal section of *RSNA.org.* SAMs will be free to RSNA members, while nonmembers will be charged $50 for each SAM.

"Under the MOC requirements, an individual will have to annually complete two SAMs consisting of learning material with at least five questions," Dr. McLoud explained.

"We are currently looking at the learning materials we have at hand, such as articles from *RadioGraphics* with CME questions attached, to develop them into SAMs," she said. "Then, as new articles are submitted to *RadioGraphics*, we will ask the authors to help develop SAMs from that material. We will try to bundle SAMs into content areas within subspecialties."

Maintenance of Certification

Four Components	… in Six Competencies
❶ Professional Standing	❶ Medical Knowledge
❷ Lifelong Learning & Self-assessment	❷ Patient Care
❸ Cognitive Expertise	❸ Interpersonal & Communication Skills
❹ Assessment of Performance in Practice	❹ Professionalism
	❺ Practice-based Learning & Improvement
	❻ Systems-based Practice

Source: American Board of Radiology

CME at the RSNA Annual Meeting

- Available CME credits at RSNA 2005 83
- CME credits awarded by RSNA at RSNA 2004 105,783
- Individuals who earned CME certificates 10,600
- Average credits earned per person at RSNA 2004 10

Source: RSNA

CME at RSNA 2005

"At RSNA 2005, there will be an opportunity to complete several in-person SAMs in conjunction with courses utilizing audience response system technology," Dr. Bresolin said.

The entire RSNA annual meeting is an opportunity for radiologists to acquire CME credits—as many as 83 credits can be earned.

"The popular case-based courses will be offered again this year," Dr. Bresolin noted. "In addition to case-based courses in neuroradiology, vascular/interventional radiology and pediatric radiology, a case-based course in radiation oncology is being developed for the meeting with assistance from the American Society for Therapeutic Radiology and Oncology."

These courses are timely because ABR began offering 10-year primary certificates in radiation oncology in 1995, time-limited subspecialty certificates in neuroradiology the same year, and subspecialty certificates in vascular/interventional radiology and pediatric radiology in 1994.

An MOC kiosk at RSNA 2005 will provide attendees a dedicated location where they can ask questions about the MOC process, see demonstrations of RSNA products related to the MOC, and get information about other MOC resources.

"RSNA will continue to develop the highest quality in-person, online and print CME opportunities possible to help members meet the CME requirements of MOC in the general and specific content areas members will need," Dr. Bresolin said. "The Board of Directors will continue to plan for the MOC process and add other MOC programs and products as the MOC process becomes clearer and member needs are identified."

Dr. McLoud said RSNA's MOC efforts should be of interest to all physicians. "I think we should all be involved in the lifelong learning process. It's the right thing to do, even if we don't have to renew our certificate with an examination. We need to make sure our knowledge is up to date. This is the obvious benefit of the MOC process," she said. □

Radiologist Assistants Prepare to Enter the Workforce

THE FIRST GRADUATES of radiologist assistant (R.A.) education programs are expected to enter the U.S. workforce this year. Fifty pioneering students are enrolled in a handful of R.A. bachelor and master's degree programs.

Edward Bluth, M.D., chairman of the Radiology Department at Ochsner Clinic Foundation in New Orleans, said he expects R.A.s to ultimately help improve the efficiency of the radiology workforce.

Charles D. Williams, M.D., of Radiology Associates of Tallahassee, Fla., agrees. "The introduction of the radiologist assistant represents an innovative and cost-effective way to improve efficiency and productivity of radiology care," he said. "As R.A.s become more commonplace in the workforce, radiologists and their practices will adjust their current patterns to more efficiently deliver care to the patient. In the long run, we believe that R.A.s will have a positive impact on the workload situation."

Dr. Bluth, a trustee and immediate past-president of the American Registry of Radiologic Technologists (ARRT), said ARRT recently finalized the role delineation for R.A.s (see sidebar). It includes 42 clinical activities, broken down into specific radiologic procedures.

For years, ARRT has been working closely with the American College of Radiology (ACR) and the American Society for Radiologic Technologists (ASRT) to create this new role for radiologic technologists (R.T.). Dr. Williams said the groups are working to address concerns about patient safety and to make sure all 50 states have similar practice laws. Dr. Bluth said ARRT, ACR and ASRT are working with the Centers for Medicare and Medicaid Services (CMS) on insurance, payer and other reimbursement issues.

Interest from R.T.s

Dr. Williams, the immediate past-chairman of the ACR Commission for Human Resources, said the college has received dozens of calls and he has personally received hundreds of e-mails from R.T.s interested in becoming R.A.s.

Loma Linda University instructor Allan Bedashi *(left)* **assists second and third-year R.A. students. They are practicing suturing on a pig's foot.**

A 2001 survey by the American Hospital Association found a 15.3 percent vacancy rate among R.T.s—higher than the 13 percent vacancy rate among registered nurses. "However, with the introduction of the R.A. education program, there has been a marked improvement in the number of people entering the field. That vacancy rate is now easing," Dr. Williams said.

In the long run, we believe that R.A.s will have a positive impact on the workload situation.

Charles D. Williams, M.D.

In addition to being another step in the career ladder, Dr. Williams said improved compensation and a team environment are additional attractions to the R.A. field. "I'm pleased and honored to have been a part of developing this program. It has created a nice alliance between ACR, ARRT and ASRT," he added.

Ten full-time R.A. students will graduate in June from Loma Linda University in California. Laura Alipoon, Ed.D., R.T.(R), said it has been a learning process for all involved. "When we began the program in September of 2003, it was so new that it was difficult to see where we were going and how we were going to get there. The students were a bit fearful because we started the program before everything was finalized. The next classes of students will have it a bit easier in that respect," she said.

The R.A. class beginning this September at Loma Linda will enroll 10 to 15 students. "That will be the limit for a while," Dr. Alipoon said. "We don't have enough faculty to support any more students. We want to stay small to be able to handle all the clinical communications. Despite the shortage of

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R.T.s and the need for R.A.s, we don't want to oversaturate the market."

Interest from Radiologists

The R.A. program at the University of Medicine and Dentistry of New Jersey (UMDNJ) has been receiving phone calls from radiologists in surrounding states. The radiologists have expressed interest in R.A. students performing clinical rotations at their hospitals, according to Gladys Montane, M.A., R.T., an assistant professor and program director of diagnostic imaging technologies, and the director of the Masters of Science Radiologist Assistant Program at UMDNJ.

"Some of our students come into the program with a radiologist as a mentor. However, we want to get our R.A. students to learn from other radiologists at other institutions too. Ideally, we would like for them to rotate through three clinical facilities, so we welcome the interest of radiologists and hospitals," she said.

The R.A. program at UMDNJ was launched in September 2004, so the first graduation will be in 2006. All R.A.s who successfully complete their educational programs will have to pass the national registry certification examination from ARRT before they can begin work.

Five students are currently enrolled in the UMDNJ program. Ten new students are expected this September.

"We're starting off small in order to make it manageable for our students and faculty," she said. "Our students are quite flexible, and extremely interested in learning. This has enabled us to add to the curriculum when the need arises. We want to make sure our student's education is complete before they go out into the workforce. My goal is to also get them involved in writing research papers."

Finding the best textbooks is another challenge. "There are currently no textbooks written for R.A. students, so we have been using medical text geared toward radiologists, nurses and others. Someday, someone will write textbooks for R.A. students, perhaps even one of the students in this founding class," she said.

Education at the RSNA Annual Meeting

Dr. Bluth encourages all R.A.s to attend courses at the RSNA annual meeting. "They will need continuing medical education, and one of the best places to get this is at the RSNA annual meeting," he said.

Beginning in 2006, RSNA will offer an educational track designed for R.A.s. The Society has been working with ASRT to develop the track.

At the official business session at RSNA 2005, RSNA members will be asked to vote to amend the bylaws to create a new membership category for R.A.s. Information on the proposed bylaws change will be included in the October issue of *Radiology*. □

Ruchi Wadhwa, a second-year student in the R.A. program at Loma Linda University, receives guidance in the suturing lab from faculty member Allan Bedashi.

For more information on R.A.s, go to:

- American Registry of Radiologic Technologists *(www.arrt.org)*
- American College of Radiology *(www.acr.org)*
- American Society for Radiologic Technologists *(www.asrt.org)*
- Loma Linda University *(www.llu.edu)*
- University of Medicine and Dentistry of New Jersey *(shrp.umdnj.edu)*

Role Delineation for Radiologist Assistants

Personal Supervision (highest level of supervision): Radiologist must be in the room with the R.A. during the performance of the procedure. Examples are lumbar puncture; non-tunneled venous central line placement; venous catheter placement for dialysis and breast needle localization.

Direct Supervision (mid-level supervision): Radiologist must be in office suite and immediately available, but is not required to be in the room during a procedure. Examples include administering contrast agents and radiopharmaceuticals as prescribed by a radiologist; joint injection and aspiration; performing most fluoroscopic exams, except hysterosalpingogram.

General Supervision (lowest level of supervision): Radiologist provides overall direction to R.A., but his/her presence is not required during the procedure. Examples include getting a patient's medical history; assessing a patient's vital signs; providing physician-prescribed post care instructions to patients.

From the American Registry of Radiologic Technologists®

■ For more information on the R.A. role delineation, go to *www.arrt.org/web/radasst/finalraroledelineation.pdf*.

RSNA Responds to NIH Publication Policy

RSNA IS TRYING to make it as easy as possible for authors of articles in *Radiology* to comply with the new National Institutes of Health (NIH) policy regarding publications based on NIH-funded research.

The policy, which takes effect this month, requests that authors submit an electronic version of the final manuscript upon acceptance for publication. The author's final manuscript is defined as the version accepted for journal publication.

When authors submit their manuscripts to NIH, they must specify a time frame for public release ranging from immediate public access after print publication to 12 months after print publication.

The manuscripts will be published on PubMed Central, part of NIH's National Library of Medicine (NLM).

RSNA Journal Articles

In response to the NIH policy, the RSNA Publications Council recommended, and the RSNA Board of Directors approved, that:

1. Authors of articles in *Radiology* will be encouraged but not required to specify a release date 12 months from the month of print publication.
2. RSNA may, pending NIH's decision, establish a service for authors through which RSNA will send manuscripts to PubMed Central on behalf of the author if the author specifies the 12-month release date.

"Some publishers have required authors to specify the 12-month release date because an earlier release jeopardizes subscriptions and thus the funding for a journal," explained RSNA Board Liaison for Publications and Communications Hedvig Hricak, M.D., Ph.D. "We understand that the NIH policy puts authors in a difficult position. Should they abide by the copyright statement they sign when submitting their manuscripts or should they agree to the NIH request that they provide a copy of their manuscript to PubMed Central immediately following acceptance? The RSNA Publications Council and the RSNA Board of Directors recognize that authors cannot treat a request from a granting agency lightly. That's why we've decided to make it as easy as possible for authors to comply."

A new statement has been developed for the copyright transfer form that authors sign when submitting a manuscript to *Radiology:*

> Radiology *grants the authors permission to provide a copy of the accepted manuscript to NIH on acceptance for publication, and encourages authors to specify public release in PubMed Central twelve months after publication in the print issue of the Journal.*

RSNA is willing to provide an electronic copy of accepted manuscripts to PubMed Central, if the authors specify the 12-month release date; however, NIH has not yet decided if it will allow "third-party submissions."

RSNA will continue to monitor the operational details of the NIH policy as they develop in order to assist journal authors.

Multiple Versions of an Article

A key problem with the PubMed Central repository is the creation of multiple versions of an article—one more accurate than another—and attendant citation difficulties.

"For most journals, and certainly for *Radiology*, the accepted manuscript differs from the revised, copyedited final version. The differences are often substantive and, thus, the manuscript on PubMed Central may contain errors," said Roberta E. Arnold, M.A., M.H.P.E., assistant executive director for RSNA publications and communications.

RSNA is working with other publishers to develop a uniform statement that would appear on manuscripts deposited with PubMed Central. The statement would indicate the journal name and provide a Web link to the final published version.

"It is hoped that NIH will agree to link to the final published version so that readers have access to the definitive article and that the definitive article will be the one selected for citation," Arnold explained.

Earlier Online Access to *Radiology* and *RadioGraphics*

All RSNA members and journal subscribers automatically receive online access to articles from *Radiology* and *RadioGraphics.*

In a move that is less of a response to the NIH policy than a decision to enhance the availability of information for clinicians and researchers, the RSNA Board decided in January 2005 to alter the policy for nonmember journal access. Since 2000, free access has been provided to all issues two or more years old, resulting in 3,521 articles from *Radiology* and 783 articles from *RadioGraphics* free as of this writing.

As a result of the Board's January decision, free access will be provided to all issues one or more years old. □

For more information on the new NIH policy and related documents, including a "Questions and Answers" fact sheet, go to *www.nih.gov/about/publicaccess/index.htm.*

Journal Highlights

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

Cost-Effectiveness Analysis in the Assessment of Diagnostic Imaging Technologies

WHEN COMPARED to evaluating the cost-effectiveness of therapeutic medical technologies, evaluating the cost-effectiveness of diagnostic imaging technologies is difficult because diagnostic technologies generally influence the care of the patient rather than directly affecting long-term patient outcomes.

Radiology

In this review article in the May issue of *Radiology (rsna.org/radiologyjnl),* G. Scott Gazelle, M.D., M.P.H., Ph.D., from Massachusetts General Hospital and Harvard Medical School, and colleagues:

- Trace the history of technology assessment in medicine
- Address the role of cost-effectiveness and decision analysis in health technology assessment
- Describe unique features and approaches to assessing diagnostic technologies
- Consider the limits of medical technology assessment

The article also includes "Essentials" or highlighted points to help busy readers recognize important information at a glance.

Imaging of Small Bowel Disease: Comparison of Capsule Endoscopy, Standard Endoscopy, Barium Examination, and CT

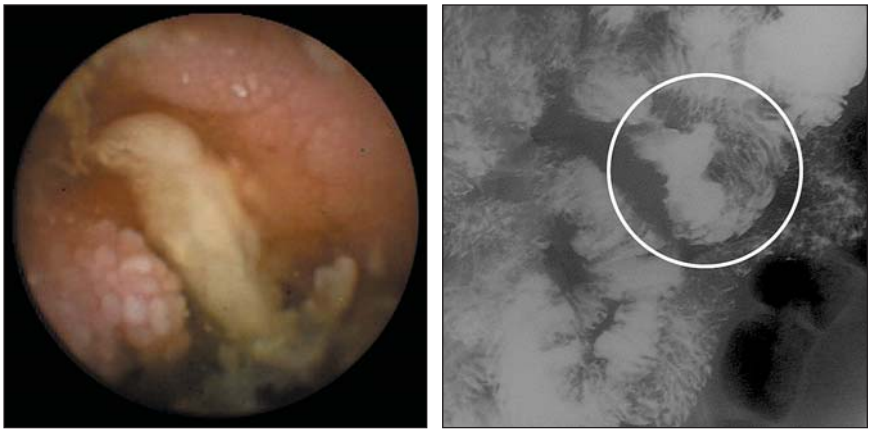
CAPSULE ENDOSCOPY is a revolutionary new diagnostic tool for the detection of small bowel disease that makes use of a swallowable video capsule. Capsule endoscopy is easy to perform, is well tolerated by patients and, for the first time, allows noninvasive endoscopic evaluation of the entire small bowel.

RadioGraphics

In a review article in the May-June issue of *RadioGraphics (rsna.org/radiographics),* Amy K. Hara, M.D., and colleagues from the Mayo Clinic in Scottsdale, Ariz., discuss:

- Capsule endoscopic technique
- Advantages and disadvantages of capsule endoscopy
- Indications and contraindications for capsule endoscopy
- Lesions detected at capsule endoscopy
- False-negative and false-positive findings
- Complications

A commentary by Dean D. Maglinte, M.D., is also available.



Lymphoma.

(left) **Capsule endoscopic image shows small nodules in the jejunum.** *(right)* **Image from a small bowel follow-through study demonstrates an abnormal jejunal small bowel loop (circled). The examination was initially thought to be negative.**

Radiology in Public Focus

Press releases have been sent to the medical news media for the following articles appearing in the May issue of *Radiology (rsna.org/radiologyjnl):*

Pulsed-HIFU Facilitated Local Gene Delivery with Systemically Injected Naked DNA in a Mouse Squamous Cell Carcinoma Model: Initial Experience

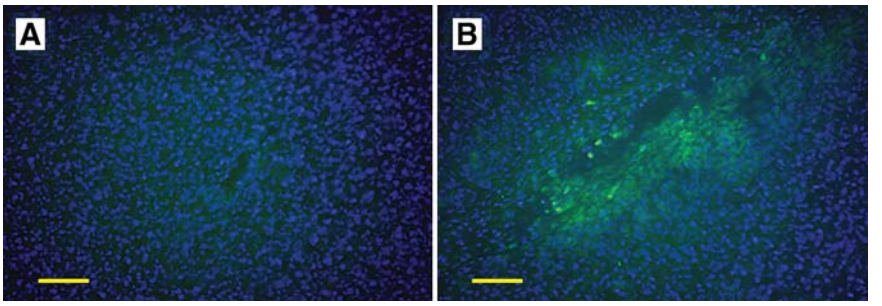
PULSED-HIGH intensity focused ultrasound (HIFU) can enhance the local delivery and expression of systemically injected naked DNA in mouse tumors.

Kristin Dittmar, M.D., and colleagues from the Warren Grant Magnuson Clinical Center at the National Institutes of Health in Bethesda, Md., studied three mice with squamous cell carcinoma.

Immediately following the HIFU exposures, a cytomegalovirus-green fluorescent protein (CMV-GFP) reporter gene construct was injected intravenously via the tail vein.

The researchers found that green fluorescent protein expression was observed in all sections of tumors that received pulsed-HIFU exposures, but not in control tumors.

"Although direct evidence is not presently available on how enhanced transfection may occur as a result of applying pulsed-HIFU exposures, the feasibility of this process occurring cannot be discounted out of hand," the researchers write. "Plans to increase the study's scope are already under way to further evaluate this procedure using different genes and tumor types, as well as optimizing the pulsed-HIFU exposures for gene delivery."



Representative histologic sections from, A, control tumor and, B, tumor treated with pulsed high-intensity focused ultrasound, viewed at fluorescence microscopy. Expression of GFP reporter gene (green) is visible in tumor that underwent ultrasound exposure but not in control. DAPI staining (blue) indicates nuclei of tumor cells. Bar = 50 µm. (Original magnification, x100.)

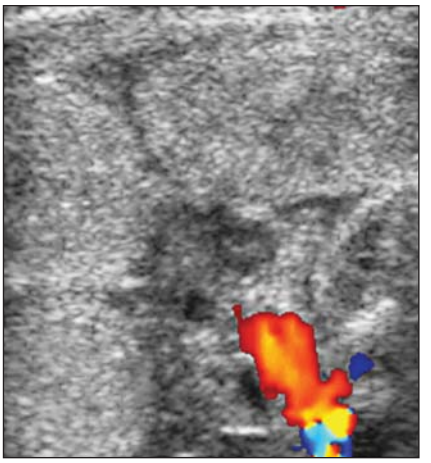
RSNA press releases are available at *www.rsna.org/media.*

Bowel Viability Assessment by Color Doppler Sonography in Necrotizing Enterocolitis

COLOR DOPPLER SONOGRAPHY (CDS) is more accurate than abdominal radiography (AR) in depicting bowel necrosis in infants with necrotizing enterocolitis (NEC). NEC is an inflammatory gastrointestinal disease of unknown etiology that primarily affects preterm infants and carries a high mortality rate.

Ricardo Faingold, M.D., and colleagues from the Hospital for Sick Children and University of Toronto in Canada prospectively studied 60 neonates—30 with clinically proven or suspected NEC, and 30 with no clinical evidence of intestinal or cardiovascular disease.

The researchers found that CDS findings were more accurate than clinical and AR findings in predicting necrosis in neonates with NEC and have the potential to alter clinical staging and management.



NEC in 26 week gestational age, 31 week corrected age female with Bell stage IIIA re-classified to IIIB by CDS. CDS transverse image shows multiple loops of bowel with absent perfusion. CD signals in the lower part of the image show some perfusion in larger distal mesenteric vessel.

The researchers write: "The findings suggest that CDS should be part of the standard evaluation in NEC, particularly in patients not responding to standard medical management. Future studies with larger groups of patients are necessary to further evaluate this technique in order to determine reproducibility and interoperator variability."

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Current Realities of Delivering Mammography in the Community: Do Challenges with Staffing and Scheduling Exist?

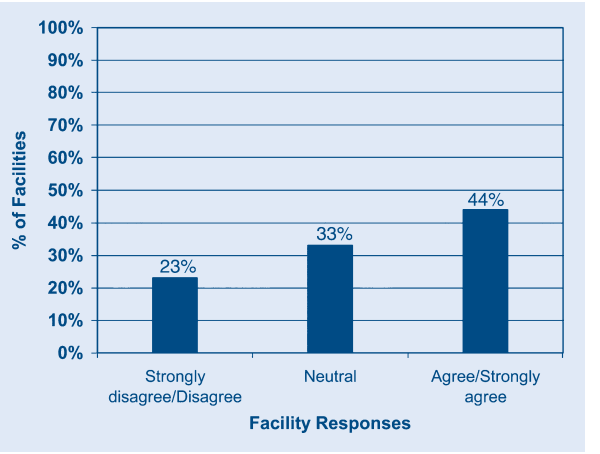
A NEW STUDY finds three key problems facing community-based mammography facilities—a shortage of radiologists and certified mammography technologists; a wait time of at least two weeks for a screening mammogram; and a possible trend toward increasing waiting times for screening and diagnostic mammograms at sites with larger volumes.

Carl D'Orsi, M.D., from Emory University in Atlanta and colleagues surveyed 53 facilities in Washington, New Hampshire and Colorado. Forty-five (85 percent) returned the survey.

The findings included a shortage of radiologists in 44 percent of mammography facilities overall, with more non-profit facilities (60 percent) than for-profit facilities (28 percent) reporting a shortage. Twenty percent of facilities reported a shortage of Mammography Quality Standards Act (MQSA) qualified technologists.

"While demand and patient expectations for mammography are increasing, the availability of radiologists and certified mammography technologists is decreasing," the researchers write.

"To ensure the continuation of quality mammography for women in the United States, in addition to recruiting and maintaining qualified technologists, mammography reimbursement, tort reform, and other disincentives for mammography practice must be addressed so facilities providing these services in the community can remain clinically and financially viable."



Graph of responses by mammography facilities to, "We are currently experiencing a shortage of radiologists" (n = 45). Almost 50% of facilities are experiencing shortages for mammography image interpretation.

(*Radiology* 2005;235:391-395)

CTC Trial Adds More Fuel to Ongoing Debate

Continued from page 6

"This was big news because many believed that the technique was still evolving, but the fact that we could reach consensus was quite important," said Dr. Barish. "Almost 90 percent of the experts surveyed said that CTC was a credible screening method. The most common response, from 51.6 percent, was that virtual colonoscopy is currently a credible alternative screening method and should be considered the test of choice when a patient is unable or unwilling to undergo conventional colonoscopy."

Most respondents to the survey said they believed that the optimal method of interpreting CTC should be primary axial review, with 3D used for problem solving. Fewer than half (44 percent) said they believed that the minimum method was still primary 2D with 3D for problem solving.

Dr. Barish agreed with Dr. Pickhardt that the debate over the use of 2D and 3D is no longer a debate. "Most people now realize that you really need a combination of the two methods," he said. "There's no way you can read virtual colonoscopy effectively today without a full combination of both techniques. I hope that the ACRIN trial doesn't stress one to the detriment of the other."

Dr. Barish said the ACRIN trial will build constructively upon his consensus survey and previous clinical trials, and that quality results will be driven by a high level of training for those performing CTC. He also said he hopes that the ACRIN trial does not set such a high level of fecal and fluid tagging that it's unlikely to be used as a routine for screening in the future. "One of the concerns would be that they end up with very good results as well, but it's difficult to follow that standard when a lower standard of tagging could have been used with the same good results," he concluded. □

■ *For more information on the ACRIN trial, go to* www.acrin.org. *The protocol is available at* www.acrin.org/6664_protocol.html.
■ *To review the abstract of the consensus statement in AJR, go to* www.ajronline.org/cgi/content/abstract/184/3/786.

Working For You

RSNA Sends Education Material to Developing Nations

Radiologists at 18 institutions in 15 developing nations will be able to enhance their professional knowledge through videotaped education programs.

The donation is part of a cooperative effort between the RSNA Committee on International Relations and Education and the Radiology Outreach Foundation.

The nations include Brazil, Bangladesh, Chile, Czech Republic, El Salvador, Ethiopia, Ghana, Hungary, Israel, Kenya, Lithuania, Mongolia, Nigeria, Romania, Taiwan and West Indies.

Public Service Announcements on Stroke

In recognition of stroke awareness month, RSNA has sent printed public services announcements to 6,700 radio stations in the United States. These announcements describe the symptoms of stroke and urge prompt medical attention. The announcements also tell listeners that they can learn more about stroke risk, diagnosis and treatment through *RadiologyInfo.org*, the public information Web site co-sponsored by RSNA and the American College of Radiology.

(from left)
Tom Shimala, *Director: Technical Exhibition*
Katherine Spadaro
John Jaworski
Pam Kaminsky, M.B.A.
Jill Collins
Georgetta Piotrowski
Kimberly Gavin
Janet Cooper, C.M.P., *Director: Convention Operations*
Kim Christianson, C.M.P.
Christina Weres, C.M.P.
Robert Hope, C.M.P., *Director: Housing, Registration & Travel Services*

RSNA Meetings Department

Working for you
DEPARTMENT PROFILE

IT TAKES a great deal of communication and careful coordination to plan and execute the RSNA annual meeting—the largest annual medical meeting in the world.

Three directors and eight staff members work year-round on the logistics of the meeting, everything from registration, hotel accommodations and transportation, to meeting room designations, audiovisual services, and the technical exhibition.

Under the leadership of Robert Hope, C.M.P., Director: Housing, Registration & Travel Services, Janet Cooper, C.M.P., Director: Convention Operations, and Tom Shimala, Director: Technical Exhibition, the Meetings Department helps to create an unforgettable experience for 60,000 people from 90 countries. The department reports to RSNA Assistant Executive Director Steven T. Drew.

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 (877) RSNA-MEM [776-2636] (U.S. and Canada), (630) 571-7873 or *membership@rsna.org*.

Program and Grant Announcements

NEW!

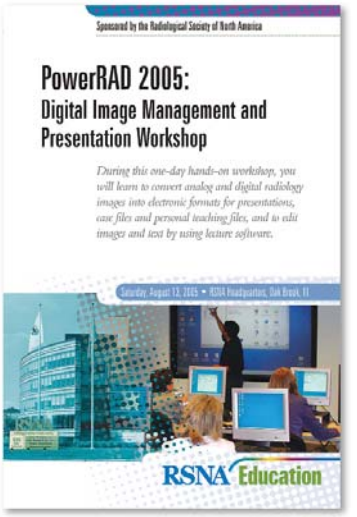
PowerRAD 2005

RSNA is sponsoring a one-day workshop designed for radiologists, radiologic technologists and support personnel. The course, directed by Paul J. Chang, M.D., will be held on Saturday, August 13, 2005, at RSNA Headquarters in Oak Brook, Ill.

During this workshop, attendees will learn to convert analog and digital radiology images into electronic formats for presentations, case files and personal teaching files, and to edit images and text using lecture software. RSNA will provide attendees with the use of a desktop computer.

This course includes:

- Practical hands-on experience and personalized instructions
- Conference material binder
- CD-ROM software



6.25 CME credits available

For more details or to register, go to *www.rsna.org/education/shortcourses*, or contact the RSNA Education Center at (800) 381-6660 x 3747 or at *ed-ctr@rsna.org*.

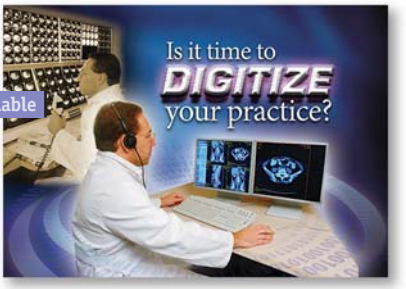
Planning for the Filmless Transition

RSNA and the Society for Computer Applications in Radiology (SCAR) are sponsoring this one-day course that will be held on June 1 at the Orlando World Center Marriott in Florida.

Topics include:

- Changing Expectations
- Workflow Analysis
- Assembling the PACS Team
- Practical Guide to Vendor Selection and PACS Purchase
- Design Considerations for the Filmless Imaging Department
- Survival Guide for Teleradiology and PACS Security
- Developing an Enterprise-wide PACS Solution

6.5 CME credits available



RSNA Education

SCAR

For more information, go to *www.scarnet.net/2005RadiologyCourse.html*.

PROGRAM DEADLINES

RSNA Outstanding Researcher, Educator Awards

THE DEADLINE is June 15, 2005, to submit an application for the **2005 Outstanding Researcher and Outstanding Educator** awards. These awards recognize and honor senior physicians or scientists who have made a career of significant contributions to the field of radiology or radiologic sciences through research and/or education. The awardees will be announced during the opening session of RSNA 2005.

To download nomination forms, go to *www.rsna.org/research/foundation/application.html*.

Introduction to Research

THE DEADLINE is July 15, 2005, to submit an application for the Introduction to Research Program. Cosponsored by RSNA, Association of University Radiologists and American Roentgen Ray Society, the program introduces second-year residents to research, demonstrates the importance of research in diagnostic radiology, illustrates the excitement of research careers, and introduces residents to successful clinical radiology researchers.

For more information or for an application, go to *www.rsna.org/research/grantwriting/index.html*.

Continued on page 20

Research & Education Foundation Donors

FUNDING RADIOLOGY'S FUTURE

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 **March 1 – 29, 2005.**

For more information on Foundation activities, a quarterly newsletter, *Foundation X-aminer*, is available online at *www.rsna.org/research/foundation/newsletters/x-aminer/x-aminer.pdf*.

VANGUARD GROUP

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R2 Technology
$1,000
Bronze level

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EDUCATION RESEARCH

Continued from page 18

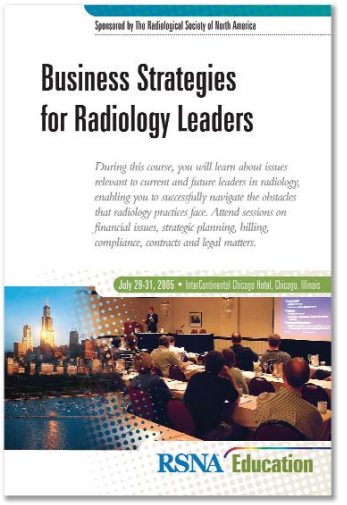
Business Strategies for Radiology Leaders

REGISTER ONLINE at *www.rsna.org/education/shortcourses* for this three-day, RSNA course designed for radiologists in leadership positions and for radiology business managers. The course will be held July 29–31 at the Hotel InterContinental Chicago.

Topics include:
- Strategic Planning
- Radiology Department Budgeting
- Business Infrastructure
- Contracting with Managed Care Entities
- Contracts Between Radiology Groups and Their Group Members and Hospitals
- Turf Battles in Radiology
- Joint Ventures Between Hospitals and Radiology Groups
- Self-Referral in Diagnostic Radiology
- Marketing a Radiology Practice

The course, directed by Lawrence R. Muroff, M.D., also explores obstacles facing today's radiology practices—financial issues, strategic planning, billing, compliance, contracts and legal matters—and ways to successfully navigate these challenges.

For more information, contact the RSNA Education Center at (800) 381-6660 x3747 or at *ed-ctr@rsna.org.*



21 CME credits available

Methods in Clinical Cancer Research

This limited-attendance workshop provides the essentials of effective clinical trial design. Sponsored by the American Society of Clinical Oncology and the American Association for Cancer Research, the workshop is designed for clinical fellows and junior faculty clinical researchers in all subspecialties including radiology and radiation and surgical oncology. The workshop will be held July 30–August 5 at the Vail Marriott Mountain Resort in Vail, Colorado.

31.5 CME credits available

For more information, go to *www.vailworkshop.org.*

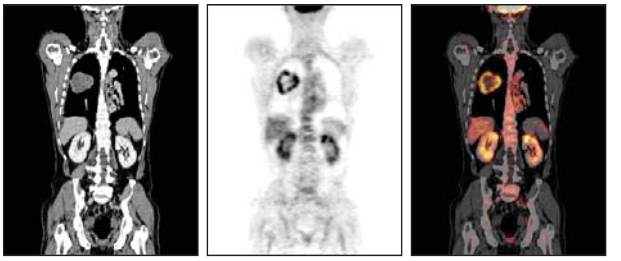
Product News

NEW PRODUCT

New PET/CT System

SIEMENS MEDICAL SOLUTIONS *(www.medical.siemens.com)* has released Biograph 64™, a new PET/CT system that enables detailed and motion-free images of the heart.

The PET system uses lutetium oxyorthosilicate detector technology, while the CT-system employs new 64-slice technology. These allow much shorter acquisition times when compared to previous PET/CT systems.



"Siemens has taken a leading role in PET/CT imaging," explained Michael Reitermann, head of the Nuclear Medicine Division at Siemens Medical Solutions. "Today, hybrid systems have taken over more than 95 percent of the PET market. Combined imaging provides physicians with considerably more information, facilitating diagnosis and subsequent therapeutic measures."

NEW PRODUCT

Speech Recognition System for Radiology

MedQuist *(www.medquist.com)* is offering SpeechQ for Radiology™, a front-end speech recognition system designed specifically for radiology medical reporting.

Radiologists use the product's front-end speech recognition capability to dictate, edit and authenticate (electronically sign) a report in one session. Flexible workflow choices also allow review and correction by medical editors and accommodate the needs of radiology residents and fellows.

"Finalized reports created with SpeechQ for Radiology are often available to the patient's physician and caregivers within minutes after a radiographic exam is completed, instead of hours or days," said Terry Cameron, senior vice-president of marketing and business development for MedQuist. "It creates very accurate text after only a few minutes of the physician enrollment process, and the recognition rate quickly improves with ongoing use to maximize the radiologist's productivity."

NEW PRODUCT

New Film Reduces Patient Radiation Exposure

Eastman Kodak Company *(www.kodak.com)* has released an innovative general-purpose medical imaging film that may reduce a patient's radiation exposure by up to 50 percent.

The KODAK Hyper Speed G Medical Film is the first high-resolution radiographic film in 20 years to offer a significant reduction in radiation dose. The film's increased speed also reduces the need for retakes when images are blurred because of patient motion. KODAK Hyper Speed G Film comes in standard sizes to be used with existing screens and cassettes.

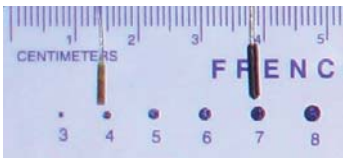
"Most healthcare providers around the world continue to use film for general radiographic procedures. Therefore our ability to reduce radiation dose, while maintaining high standards for image quality, represents a significant improvement in patient care," said Betsy Guffey, product line manager for film systems at Kodak's Health Group.

NEW PRODUCT

Smaller Sensor for Image-Guidance Device

The microBIRD™ guidance device, from Ascension Technology *(www.ascension-tech.com)*, now has a sensor that is 30 percent smaller than in previous models.

Designed primarily for medical device manufacturers, microBIRD's new sensor is just 1.3 millimeters (mm) wide, enabling exploration of smaller blood vessels and organs—from the cardiac system and fallopian tubes to bronchial passageways and soft-tissue ducts.



"This sensor size reduction is a significant milestone in our developmental roadmap for microBIRD," said Ascension Vice-President Jack Scully. "Now we can offer medical device manufacturers sensors small enough to enable 3D guidance and intrabody navigation in places once inaccessible."

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.

News about RSNA 2005

Advance Registration for RSNA 2005

RSNA and AAPM members can register now for RSNA 2005. General registration and housing opens May 23.

How to Register

There are four ways to register for RSNA 2005:

❶ Internet
Go to *RSNA.org/register*
Use your member ID# from the *RSNA News* label or meeting flyer sent to you. If you have questions, send an e-mail to *rsna@itsmeetings.com.*

❷ Fax (24 hours)
(800) 521-6017
(847) 940-2386

❸ Telephone
(Monday – Friday, 8:00 a.m.–5:00 p.m. CT)
(800) 650-7018
(847) 940-2155

❹ Mail
ITS/RSNA 2004
108 Wilmot Rd., Suite 400
Deerfield, IL 60015-0825
USA

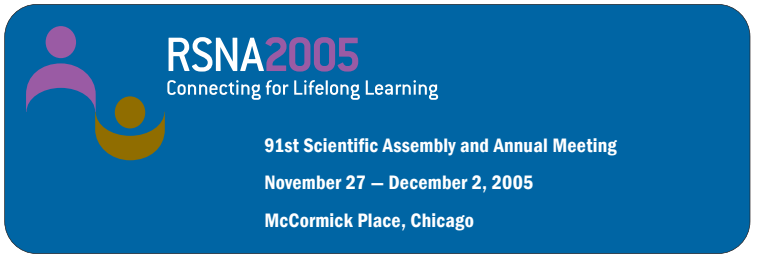
Registration Fees

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 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.

Important Dates for RSNA 2005

May 23	General registration and housing opens
June 20	Course enrollment opens
Nov. 11	Final advance registration deadline
Nov. 27–Dec. 2	RSNA 91st Scientific Assembly and Annual Meeting



Refresher Course Enrollment Begins June 20

Course enrollment information will be mailed in mid-June and will also be available online at *RSNA.org/register.*

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

International Delegates

Invitation Letters

Personalized invitation letters are available at *RSNA.org* listed under both Annual Meeting and International.

Apply Early for Your Visa!

Visa applicants are advised to apply as soon as they decide to travel to the United States and at least three to four months in advance of their travel date. That means international attendees should start the visa process by July or August.

The following Web sites have additional information on applying for a visa:

- *www.unitedstatesvisas.gov*
- *travel.state.gov/visa*
- *nationalacademies.org/visas*

RSNA 2005 Exhibitor News

Exhibitor Housing

A HOUSING LETTER will be mailed to exhibitors on May 16. It will explain Block Housing vs. Individual Housing. The housing formula (four rooms per 100 sq. ft. of purchased exhibit space) determines which one to use.

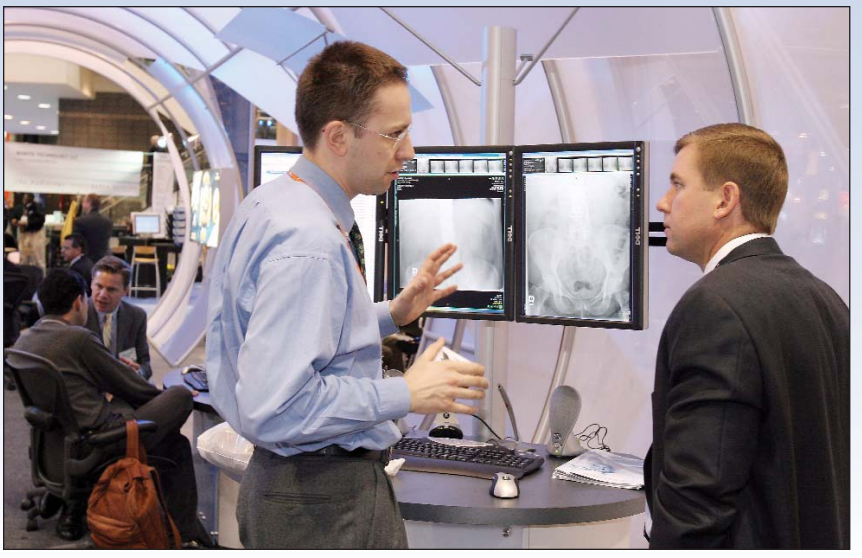
Exhibitors requiring 25 rooms or more must submit a Block Housing Form. Block Housing assignments are based on the same priority point system that is in place for exhibit space assignments. Maximum points will be awarded to Block Housing Forms submitted on or before June 6, 2005.

Exhibitors requiring fewer than 25 rooms may access the housing bureau's Web site to reserve hotel rooms beginning June 6, 2005. Please note that Individual Housing is reserved on a first-come, first-served basis.

Important Exhibitor Dates for RSNA 2005

May 6	First-round space assignment deadline
May 31	Block Housing Forms available online
June 6	Exhibitor block housing point system initiated Individual exhibitor housing system opens
June 28	Exhibitor Planning/Booth Assignment Meeting
July 5	Technical Exhibitor Service Kit available online
July 6	Block Housing deadline date
July 29	Deadline for reduction/cancellation (for full refund)
August 12	Deadline for final payment Deadline for reduction/cancellation (for partial refund)
Nov. 4	Exhibitor advance badge request deadline
Nov. 27–Dec. 2	RSNA 91st Scientific Assembly and Annual Meeting

For up-to-date information about technical exhibits, go to *rsna2005.rsna.org.*



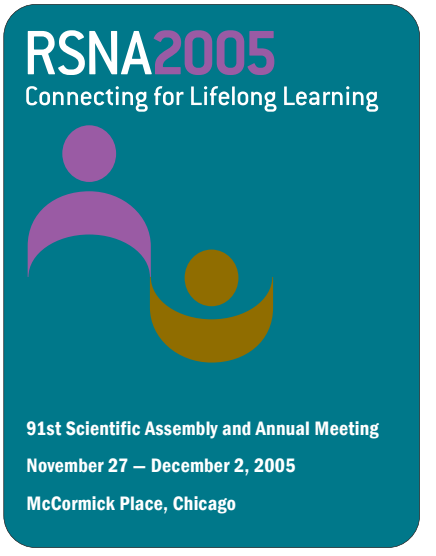
Advertising at RSNA 2005

Many opportunities exist for companies to promote their exhibit at RSNA 2005—the world's largest annual medical meeting. For more information, go to *www.rsna.org/advertising/index.html* or contact:

- **Jim Drew**
  Director of Advertising
  (630) 571-7819
  jdrew@rsna.org
- **Judy Kapicak**
  Senior Advertising Manager
  (630) 571-7818
  jkapicak@rsna.org

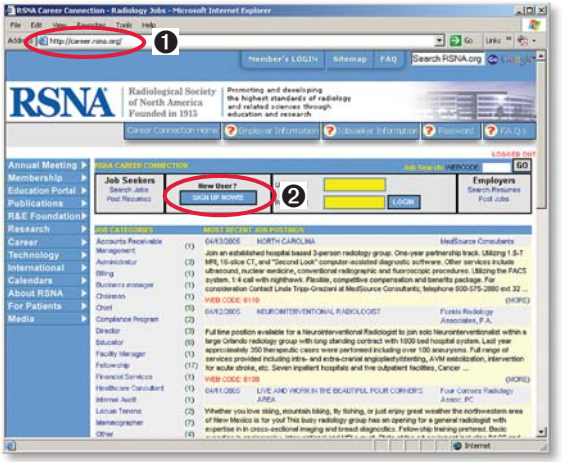
June Exhibitor Planning Meeting

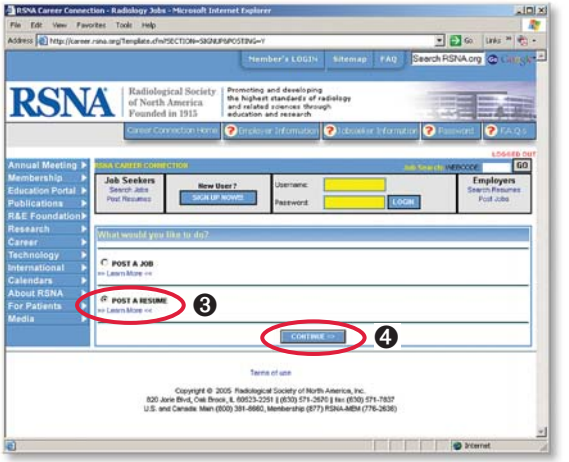
Booth assignments will be released on June 28 at the Exhibitor Planning Meeting and Luncheon. All exhibitors for RSNA 2005 are invited to attend the meeting at Rosewood Restaurant and Banquets near Chicago's O'Hare International Airport. An e-mail invitation will be sent to all confirmed 2005 exhibitors in mid-May.

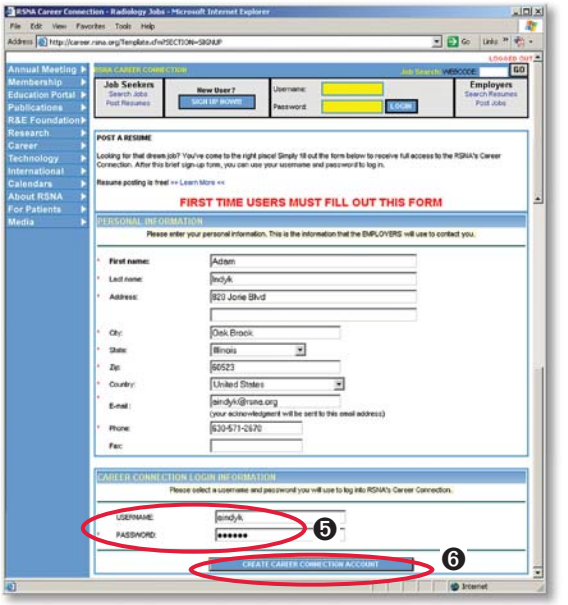


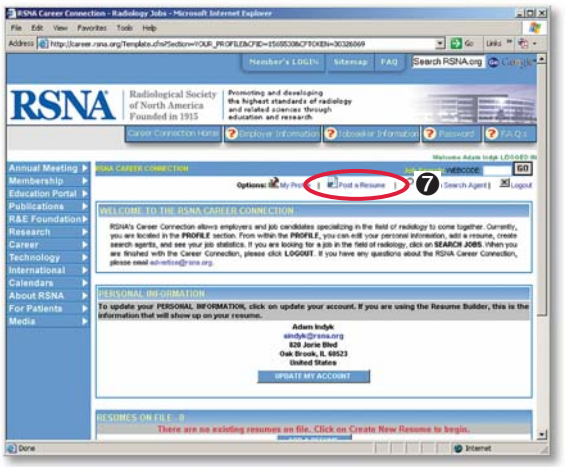
■ For more information, contact RSNA Technical Exhibits at (800) 381-6660 x7851 or e-mail: *exhibits@rsna.org.*

RSNA.org









RSNA Career Connection More User-Friendly

THE NEWLY UPDATED RSNA Career Connection makes it easy to search for job openings, post a resume or post a job opening.

If you've never used Career Connection and would like to post your resume, go to *career.rsna.org* ❶ and click on Sign Up Now!!! ❷.

Click on Post a Resume ❸ and then on Continue ❹. After entering your contact information and creating a user name and password ❺ (it doesn't have to match your RSNA user name and password), click on Create Career Connection Account ❻, then on Post a Resume ❼.

RSNA Career Connection includes information on job openings for many different types of radiology-related positions, including radiologists, locum tenens, administrators and billing managers.

Econnections *Your online links to RSNA*

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rsnanews.org

Education Portal
rsna.org/education

CME Credit Repository
rsna.org/cme

CME Gateway
CMEgateway.org

RSNA Medical Imaging Resource Center
rsna.org/mirc

RSNA Career Connections
rsna.org/careers

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NEW
Register for RSNA 2005
rsna.org/register

CALENDAR

Medical Meetings
June – September 2005

JUNE 1
Planning for the Filmless Transition, RSNA/Society for Computer Applications in Radiology (SCAR), Orlando World Center Marriott, Orlando, Fla. • *www.scarnet.org*

JUNE 1–3
American Brachytherapy Society (ABS), Annual Meeting, Hyatt Regency, San Francisco • *www.americanbrachytherapy.org*

JUNE 2–5
SCAR Annual Meeting, Orlando World Center Marriott, Orlando, Fla. • *www.scarnet.org*

JUNE 2–5
European Society of Medical Oncology (ESMO), Scientific & Educational Conference, Novotel Congress Center, Budapest, Hungary • *www.esmo.org*

JUNE 5–8
Radiology Business Management Association (RBMA), 2005 Radiology Summit, Paris Las Vegas • *www.rbma.org*

JUNE 6–8
UK Radiological Congress 2005, G-MEX Manchester International Convention Center, Manchester, United Kingdom • *www.ukrc.org.uk*

JUNE 18–22
Society of Nuclear Medicine (SNM), 52nd Annual Meeting, Metro Toronto Convention Centre, Ontario • *www.snm.org*

JUNE 19–21
American Institute of Ultrasound in Medicine (AIUM), Annual Convention and 50th Anniversary Celebration, Walt Disney World Swan and Dolphin Hotel, Orlando • *www.aium.org*

JUNE 22–25
Computer Assisted Radiology and Surgery (CARS), 19th International Congress and Exhibition, International Congress Centre, Berlin • *www.cars-int.org*

JUNE 23-24
Institute of Electrical and Electronic Engineers (IEEE), Symposium of Computer-Based Medical Systems, Dublin, Ireland • *conferences.computer.org/CBMS2005/index.html*

JUNE 23-24
Radiotherapy Service Engineers (RSEA), Fourth Annual Meeting, Washington State Convention and Trade Center, Seattle • *www.aapm.org/meetings/05AM/*

JULY 17–30
Federación Mexicana de Radiología e Imagen (FMRI), National Meeting on Breast Imaging, Acapulco, Mexico • *www.fmri.org.mx*

JULY 24–28
American Association of Physicists in Medicine (AAPM), 47th Annual Meeting, Washington State Convention and Trade Center, Seattle • *www.aapm.org*

JULY 29–31
Business Strategies for Radiology Leaders, RSNA, Hotel InterContinental Chicago
• *www.rsna.org/education/offerings/index.html*

AUGUST 1
American Society of Interventional & Therapeutic Neuroradiology (ASITN), 2nd Annual ASITN Course & Workshops, Turtle Bay Resort, Oahu, Hawaii • *www.asitn.org*

AUGUST 11–14
Clinical Magnetic Resonance Society (CMRS), 2005 Annual Society Meeting, Vail Cascade Resort & Spa, Vail, Colo. • *www.cmrs.com*

SEPTEMBER 7–10
Society for Molecular Imaging (SMI), 4th Annual Meeting, Gürzenich Congress Center, Cologne, Germany • *www.molecularimaging.org*

SEPTEMBER 10–14
Cardiovascular and Interventional Society of Europe (CIRSE), Annual Meeting and Postgraduate Course, Nice Acropolis, Nice, France • *www.cirse.org*

NOVEMBER 27–DECEMBER 2
RSNA 2005, 91st Scientific Assembly and Annual Meeting, McCormick Place, Chicago • *rsna2005.rsna.org*

RSNA News

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