

## Imaging Team Scores "Firsts" at 2010 Olympics

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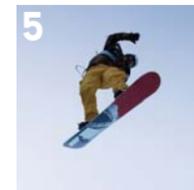
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## McCloud Awarded STR Gold Medal

2008 RSNA President and renowned thoracic radiologist **Theresa C. McCloud, M.D.**, has been awarded the Society of Thoracic Radiology's (STR) 2010 gold medal. Dr. McCloud, a professor of radiology at the Harvard School of Medicine and associate radiologist-in-chief in the Division of Thoracic Imaging at Massachusetts General Hospital in Boston, was awarded the gold medal of the American Roentgen Ray Society (ARRS) in 2004 and received the Marie Curie Award from the American Association for Women Radiologists in 2003. She is past-president of the Fleischner Society, STR and ARRS.



## Image Gently Expands to Digital Radiography

The Alliance for Radiation Safety in Pediatric Imaging has expanded its Image Gently initiative to digital radiography exams.

RSNA is a member of the alliance, which comprises 54 organizations representing more than 600,000 healthcare professionals.

"Standard X-rays utilize far less radiation than advanced imaging procedures such as CT, but because they are so commonly performed, they present a significant opportunity to lower the radiation dose that children receive each year from medical imaging," said Steven Don, M.D.,

associate professor of radiology at St. Louis Children's Hospital and head of the Image Gently computed radiography/digital radiography initiative.

A digital radiography summit at the Mallinckrodt Institute of Radiology at Washington University in St. Louis in February brought together nearly 70 representatives from medical facilities, educational institutions, the U.S. Food and Drug Administration, professional associations and equipment manufacturers organized through the Medical Imaging Technology Alliance. Among the outcomes of



the summit were an agreement by the American Association of Physicists in Medicine and the International Electrotechnical Commission to work together to create a unified standard for computed radiography and digital radiography exposure indexes. Educators and equipment manufacturers also plan to collaborate on enhanced digital radiography education for radiologic technologists.

More information is available at [imagegently.org](http://imagegently.org).

## Virtual RSNA 2009 Available Online

Many RSNA 2009 educational offerings are now available online to RSNA members and non-member RSNA 2009 registrants.

- Digital scientific sessions
- Online education exhibits and posters (Lakeside Learning Center Online)
- Award-winning education exhibits as well as education exhibits selected for possible publication in *RadioGraphics*
- Refresher course handouts

RSNA members can use their member login to view the materials. Non-member meeting registrants will be asked for a badge number to log in.



## Osborn Honored by Mexican Society of Radiology

Renowned neuroradiologist **Anne G. Osborn, M.D.**, was nominated as an honorary member of the Mexican Society of Radiology at the society's annual meeting in January. A distinguished professor of radiology at the University of Utah School of Medicine in Salt Lake City, Dr. Osborn holds the William H. and Patricia W. Child Presidential Endowed Chair in Radiology. The first female president of the American Society of Neuroradiology, Dr. Osborn served as first vice-president of RSNA in 2000 and was awarded the RSNA Gold Medal in 2006.



## May 1 Deadline for RSNA Outstanding Educator, Researcher Awards

RSNA seeks nominations for its Outstanding Researcher and Outstanding Educator awards, which annually honor one senior physician or scientist in each award category who has made a career of significant contributions to the field of radiology or radiologic sciences through research or teaching/education.

For more information on nominating a colleague, go to: [RSNA.org/Education/Outstanding\\_Educator\\_Award.cfm](http://RSNA.org/Education/Outstanding_Educator_Award.cfm)  
[RSNA.org/Research/Outstanding\\_Researcher\\_Award.cfm](http://RSNA.org/Research/Outstanding_Researcher_Award.cfm)

## From the Editor

### YOU TOLD US. WE LISTENED.

WHEN I ASKED for feedback on the newly redesigned *RSNA News* unveiled in March, it wasn't to fish for compliments, although the many kudos we received for the new look were very gratifying. Our recent facelift was intended to give the pages some breathing room and a fresh new look, which included changing typefaces and

varying font sizes. For some readers, however, the smaller typeface proved a challenge. One commenter described the changes as grievous, but others went a little easier on us and admitted that their over-45-year-old eyes might be partly responsible.

We have taken all the com-

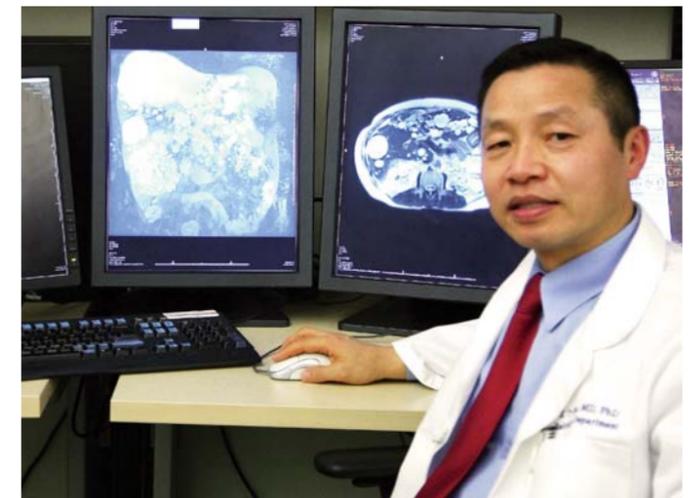


ments to heart and worked to make this edition even better. It's a work-in-progress. Please continue to let us know how we're doing at [tellus@rsna.org](mailto:tellus@rsna.org).

**David M. Hovsepian, M.D.**  
Editor, *RSNA News*

## Bae Named Pitt Radiology Chair

**Kyongtae (Ty) Bae, M.D., Ph.D.**, a professor of radiology and bioengineering at the University of Pittsburgh, has been named chair of radiology. An abdominal imaging specialist, Dr. Bae has authored or co-authored more than 140 peer-reviewed research reports and is an associate editor of *Radiology*, the *International Journal of Biomedical Imaging* and a member of the *Korean Journal of Radiology* editorial board. Dr. Bae holds nine patents and is responsible for securing more than \$12 million in National Institutes of Health grants. A 1996 RSNA Research & Education (R&E) Foundation Research Resident, Dr. Bae has received numerous awards for outstanding scientific posters at RSNA annual meetings. He joined the Pitt faculty in 2006.



## Comment Sought on Joint Commission Medication Guidelines

The Joint Commission is accepting comments through early May on proposed changes to National Patient Safety Goal (NPSG) requirements for maintenance of patient medication information, including whether the requirements should apply to diagnostic/imaging centers. Read about the proposed changes and submit comments at [www.jointcommission.org/Standards/FieldReviews](http://www.jointcommission.org/Standards/FieldReviews).

The NPSG, part of the commission's Ambulatory Health Care Accreditation Program, was formerly referred to as medication reconciliation. It emphasizes that providers, at each patient encounter, should obtain and/or update information on medications the patient is currently taking, provide the patient updated medication

and organization contact information and explain the importance of managing medication information.

The NPSG was revised after a survey found that it was difficult to implement because it was too prescriptive and detailed. The new NPSG addresses the objectives of maintaining patient medica-

tion information, rather than the implementation, spotlights specific risk points in the process that can affect safety and seeks to help patients understand why this information is important to their care.

In February, the Professional and Technical Advisory Committee (PTAC), of which RSNA is a member, reviewed revisions to the NPSG and also discussed whether there are settings in the ambulatory field—such as primary care, office-based surgery and diagnostic/imaging centers—where the NPSG is not applicable. The Joint Commission wants feedback from radiologists working in those settings, as

well as radiologists practicing in the hospital environment and hospital-based imaging centers—even off-campus ones—where the NPSG would remain in force.

The Joint Commission began gathering public comment on the NPSG at the end of March and will continue taking comments through the first part of May. The new NPSG is scheduled to become effective in January 2011.

## My Turn

### Innovation: Radiology's Life Force

I've been fortunate to have been part of radiology during the specialty's "golden age." Over the past 40 years, radiologists have transitioned from wizened recluses hunched over glaring viewboxes to perhaps the most successful knowledge workers of the digital age. Radiologists have benefited greatly from a remarkable succession of new technologies which have improved health. Despite the onslaught of overweening regulation and financially motivated self-referral, radiologists have prospered intellectually and financially because creative individuals and companies constantly "moved the cheese" to a new and higher level.

The ever-increasing pace of knowledge generation has pushed medical imaging to the precipice of yet another remarkable spurt of new technology development. The "new imaging" now in development and evaluation is characterized by several shifts in emphasis: from gross to cellular and subcellular anatomic depiction; from anatomic to functional evaluation; from global to targeted elucidation of function; and from qualitative description to quantitative measurement.

There are, however, potent threats to the realization of these innovations in clinical practice. The current recession has chased a number of companies out of the imaging business and impoverished others. That imaging has become a target for insurers' cost cutting has had much the same effect on their customers, further weakening the capacity of imaging companies to develop new products. The U.S. Food and Drug Administration has grown tougher in its scrutiny

of new imaging drugs, tracers and devices. Finally, the very notion of personalized molecular diagnosis and treatment segments the big imaging market into much smaller numbers of patients who can benefit from a technology.

This combination of influences means that future innovations may take longer and cost more to develop and that prospects for a reasonable financial return may be less. Radiologists and corporations involved in medical imaging will have to



**Bruce J. Hillman, M.D.**, is the Theodore E. Keats Professor of Radiology at the University of Virginia, editor-in-chief of the *Journal of the American College of Radiology* and chief scientific officer for the American College of Radiology Image Matrix. Dr. Hillman was named RSNA Outstanding Researcher in 2007.

develop new business models that successfully promote continuing innovation if there is to be further progression of radiology's golden age.

## RSNA AWARDS CAMCORDER AT ECR

The winner of the RSNA-at-European Congress of Radiology (ECR) Flip MinoHD camcorder drawing was Anmol Malhotra, M.B.B.S., of London. RSNA sponsored an informational booth at ECR, which was held in March in Vienna, Austria.



### Tip of the Month

For fluoroscopic procedures, radiation exposure to the operator and patient is minimized by bringing the image receptor as close as possible to the patient.

 American Association of Physicists in Medicine

### Doubilet Named SRU President

**Peter M. Doubilet, M.D., Ph.D.**, is president of the Society of Radiologists in Ultrasound (SRU). The term will conclude in October 2011.

Dr. Doubilet is a professor of radiology at Harvard Medical School and has served as director of ultrasound and co-director of high-risk obstetrical ultrasound at Brigham and Women's Hospital, where he is currently senior vice-chair of radiology.

A member of the SRU Executive Board since 2003, Dr. Doubilet has also served on the American Institute of Ultrasound in Medicine (AIUM) Board of Governors and as chair of AIUM's Education Committee. Dr. Doubilet is an editorial board member of the *Journal of Ultrasound* and serves on the RSNA Scientific Program Committee.



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### R&E Foundation Sees Sharp Increase in Grant Applications

The 160 grant applications received by the RSNA Research & Education (R&E) Foundation by the January deadline mark a 60 percent increase over last year and the highest number in the Foundation's 25-year history. The Foundation also received a record-setting 36 medical student grant applications.

The growing number of applications is peer-reviewed by National Institutes of Health-style study sections in radiology, radiation oncology and education, chaired respectively by William S. Ball Jr., M.D., of the University of Cincinnati, Gayle E. Woloschak, Ph.D., of Northwestern University Medical School in Chicago, and Richard B. Gunderman, M.D., Ph.D., of Indiana University in Bloomington.

More than 60 volunteer experts in diagnostic and interventional radiology, radiation oncology/biology, nuclear medicine, medical physics and molecular imaging serve on the study sections and aid the Foundation's Board of Trustees in selecting the best science and education projects for funding.



Study sections met at RSNA Headquarters in March to discuss and score the Foundation's 2010 grant applications.

### Bradley Named RTOG Chair

**Jeffrey D. Bradley, M.D.**, of Washington University School of Medicine in St. Louis, has been appointed the Lung Cancer Committee Chair for the Radiation Therapy Oncology Group (RTOG). Dr. Bradley is the S. Lee Kling Associate



Professor of Radiation Oncology, chief of thoracic service and director of the S. Lee Kling Center for Proton Therapy at the university. RTOG is a National Cancer Institute-funded national clinical trials group administered by the American College of Radiology.

### In Memoriam

#### Peter B. Lauer

The executive director of the Society of Interventional Radiology for more than seven years, **Peter B. Lauer** died on Feb. 24 due to complications from surgery.

"The 45,000 members and staff of the Society of Interventional Radiology and individuals in numerous other professional organizations have lost a dear friend, a leader, an affable mentor and trusted colleague," said SIR President Brian F. Stainken, M.D.

Mr. Lauer began his career as an association executive in 1977 with the American Medical Association (AMA), where he played a vital role in building relationships for AMA within organized medicine. As SIR executive director, Mr. Lauer focused on developing the society infrastructure to support the explosive growth of the interventional radiology specialty. Over the years, Mr. Lauer contributed to advancing the science, clinical practice, public awareness, patient care and the business aspects of interventional radiology.



## Numbers in the News

# 5

Resident days off per month recommended by the Institute of Medicine, one more per month than currently required by the Accreditation Council for Graduate Medical Education.

(Read "Resident Duty Hour Proposal Could Impact Night Shifts," beginning on Page 9.)

# 11.6

Estimated value, in billions of dollars, of the U.S. market for medical imaging equipment by 2012, according to iData Research Inc.

# 77.9

American life expectancy in years in 2007, up 3.5 years for men and 1.6 years for women since 1990, according to a recent report from the National Center for Health Statistics of the Centers for Disease Control and Prevention. The increases are attributed in part to technological advances including CT and MR imaging.

# 940

Approximate number of diagnostic imaging studies performed during the Vancouver 2010 Winter Olympic Games, a 70 percent increase over the 2006 games in Torino.

(Read "Imaging Team Scores 'First' at 2010 Olympics," beginning on Page 5.)

# Imaging Team Scores “Firsts” at 2010 Olympics

*Along with offering instant ultrasound diagnoses to help determine whether athletes were fit to return to play, radiology scored a number of other “firsts” at the 2010 Vancouver Winter Olympic and Paralympic Games and enjoyed its own moment in the spotlight.*

“THE GAMES WERE perfect opportunities to help the public understand what radiologists do,” said Bruce Forster, M.D., of the University of British Columbia in Vancouver and manager for the 2010 Imaging Team. “Radiology played a huge role at the Olympics.”

In fact, the radiology team made up the largest medical force at the Vancouver games—the first Winter Olympics to offer CT, MR, digital radiography and ultrasound within the athletes’ village.

Dr. Forster’s team—comprising 19 radiologists and 51 technologists, including assistant supervisors Mark Cresswell, M.D., Luck Louis, M.D., Karen Smith, R.T.M.R., R.T.R., and Sue Murray, R.D.M.S.—set technologic and logistic precedents including offering “on-venue ultrasound” (OVUS), which was critical in helping medical staff, coaches and athletes make immediate decisions about whether injured athletes could return to play.

“When we first discussed what role ultrasound would play at the venues, I imagined some tech or radiologist running to the downhill course with, you know, a big black cape, and [sports commentator] Bob Costas would say, ‘Oh, there goes the radiologist!’” Dr. Forster said. “Quite frankly that’s highly dangerous and not going to help the athlete very much.”

OVUS was implemented at the cross-country Nordic, speed skating, freestyle skiing, snowboarding and ice hockey venues. Ultrasound videos obtained near the playing field were sent instantly to imaging centers through a local area network line.

Though OVUS wasn’t available at every event, imaging team members said they were pleased to see it was in high demand. “Many of the coaches and team doctors came to me and asked why we were not covering their athletes at different venues,” said Dr. Cresswell, who oversees the OVUS program. “They see it as a very valuable resource.”

“It doesn’t take many cases for the value of OVUS to become obvious,” Dr. Forster added. “Even if it’s just a handful, the stakes are so high and the impact and outcome so significant for these athletes who may train 10 or 15 years for this one chance to compete.”

## Polyclinics Serve “Olympic Family”

In addition to OVUS, the team provided full imaging services at two “polyclinics”—an Alpine site at Whistler, home to Olympic events including cross-country, downhill skiing and sports such as bobsleigh, and a city site hosting sports like hockey, curling and freestyle skiing and snowboarding.

“The polyclinic at Whistler is not a permanent structure—it’s a very large tent,” Dr. Forster said in an interview during the Olympic games. “Behind it lies what we call the mobile medical unit, which is a state-of-the-art operating room and recovery ward housed in a trailer with extendable wings.”

In order for an Alpine venue to be chosen by the International Olympic Committee (IOC), the facility must have the ability to perform life- and limb-sparing surgery, and Whistler has no operating room, Dr. Forster explained. “This was an essential piece

“The real privilege of working at these games has been to work as a whole team—with patients, emergency doctors, referring physicians, team doctors, physiotherapists.”

**Mark Cresswell, M.D.**



Athletes at the 2010 Winter Olympics were the first to benefit from on-venue ultrasound at venues including (clockwise, from left), Cypress Mountain, Whistler Olympic Park/Whistler Paralympic Park and Richmond Olympic Oval; center: Imaging Team members, from left: Beverley Johnston, R.D.M.S.; Luck Louis, M.D., assistant imaging manager; Karen Smith, R.T.M.R., A.C.R., R.T.R., lead technologist; Mary Pullin, GE applications specialist, and Savvas Nicolaou, M.D.; right: Imaging Manager Bruce Forster, M.D., and his wife Kelly Mayson, M.D., a volunteer anesthesiologist, outside the Whistler Polyclinic.

of the puzzle which GE provided, now a legacy for the province of British Columbia,” he said. “It’s the same unit that was used to save many people after Hurricane Katrina.”

Polyclinics provided services for the entire “Olympic family,” including athletes, the workforce, members of the National Olympic Committee (NOC) and IOC, family members and others.

Orchestrating the imaging centers took more than three years of intensive planning. “After doing this for a couple of years and then finally having your team arrive, working so hard together—seeing it go live—has been amazing,” said Smith, the team’s lead technologist and assistant supervisor.

## Model Created for Future Olympics

Using all four imaging modalities—CT, MR, digital radiography and ultrasound—was also a noteworthy “first,” Dr. Forster said.

“In Torino, MR was only available at a local hospital and one CT unit at one of the venues was

quite a distance away,” Dr. Forster said. “In Beijing, CTs were all sent to all the hospitals. This is a very important step for the care of the athletes—to have CT present at our immediate disposal when the modality was indicated.”

Though the Winter Games have only a third as many athletes as the Summer Games, winter sports have a considerably higher incidence of trauma, Dr. Forster explained. “CT is the gold standard, particularly for injuries of the head, spine, abdomen and pelvis, and we need to have it available for these athletes,” he said.

The experience also provided a successful all-electronic healthcare record model. “We had full PACS and radiology information system [RIS] and we no longer issued paper reports,” Dr. Cresswell said. “Every patient received a digital CD-ROM of their imaging study, which included their report. What happens in most modern radiology departments now happens at the Olympics, and I think that’s fantastic.”



*Continued on next page*

## ON THE COVER

The Imaging Team, including Sue Murray, R.D.M.S., enjoyed its own moment in the spotlight—as well as the spectacular scenery—at the 2010 Vancouver Winter Olympics.



## Imaging Team Scores “Firsts” at 2010 Olympics

Continued from previous page

The electronic system also allowed transmission of images between sites and to Vancouver General Hospital. Transmissions from OVUS venues enabled radiologists to watch ultrasound video loops in real time and speak live to technologists at the venues.

“This will hold the upcoming Summer Olympics in London in 2012 in good stead,” Dr. Cresswell said. “The technology will be tried and tested and the kinks have been essentially erased, making it easy to implement in the future and accepted by the IOC.”

### Patient Confidentiality a Priority

With so much media attention and so much at stake for athletes, maintaining patient confidentiality was challenging—especially when the media reports news and rumors even before the medical team could issue a comment. That was the case in the death of Georgian luger Nodar Kumaritashvili, Dr. Forster said.

“It was obviously a great tragedy and a very tough way for everyone to start the games,” Dr. Forster said. “We were not, of course, able to provide any specific commentary on that medical encounter or any other.”

As with any patient population, the team worked carefully to maintain confidentiality Dr. Forster said. “The reports and CDs we distribute were kept to a minimum and given to the right people, and kept out of view of the public. We’re not suggesting that people were necessarily trying to look, it was just best practice to use this process.”

The team was also careful to keep athletes—who are often easily recognizable and may not wish to divulge that they could be injured—out of view of the public and fellow athletes; often patients were accommodated under cover of night.

### Radiologists “Part of the Team”

The Olympics imaging framework thrust a spotlight on radiology’s central role on the medical team, according to imaging team members.

“The real privilege of working at these games was to work as a whole team—with patients, emergency doctors, referring physicians, team doctors, physiotherapists,” Dr. Cresswell said. “They explained their concerns and what they were trying to achieve and we learned about specific injuries associated with the different sports and maneuvers and changed our protocols to accommodate them.”

While some team members worked a few weeks before and during the Olympic and Paralympic Games, others were on call for the duration. As new staff members arrived, they were trained to deal with patients almost immediately. The positive energy surrounding the games eased the transition, team members said.

“Unlike our normal hospital environment where people may be a bit jaded and worn out, everyone was happy to be here,” Dr. Cresswell said. “The positive energy in the clinic was amazing.”

“When the shifts ended, hardly anyone ever left right at that time,” Smith said. “There was a good

transition between the two shifts and people were happy to share the events of the day with each other.”

The patients themselves were at the center of that enthusiasm. “It was an absolute pleasure and privilege to be with the athletes,” Dr. Cresswell said. “You become part of the team. I would often find myself watching TV and seeing people who I knew were competing with injuries doing extremely well, and I found myself rooting for countries I’ve never rooted for before. I felt proud for them, even though I had nothing to do with their training.” The same team also provided imaging care for the Paralympics Games, which ran March 12-21.

Even in defeat, the athletes were uplifting. Dr. Forster cited an early blog entry by OVUS lead technologist Sue Murray, recounting how an athlete, upon hearing he had a career-ending injury, requested a television and spent the remainder of his hospital stay cheering on his teammates from his bed. “Olympic spirit is a funny thing. It creeps up on you when you least expect it,” Murray wrote in the entry. “If I cry at the TV one more time I think that my husband is going to have me medicated.”

### Excitement, Teamwork Translate at Home

“We are all feeling positive about what we did and how exciting it was and that will really translate back at our hospitals,” Dr. Cresswell said.

British Columbia-area facilities will also benefit from the donation of many pieces of legacy equipment. Whistler gets to keep its new 64-slice CT scanner and a number of mobile ultrasound units will be used at future sporting events. “It’s going to have an enormous long-term impact on sports development and imaging of all athletes, and it will carry over to patients who are not necessarily athletes,” Dr. Cresswell said.

“Our experience has also highlighted the importance of maximizing interaction between radiologists, technologists and other healthcare members,” Smith said. “Stretching beyond the routine helps you become a better radiologist and technologist, ultimately benefiting the patient.”

“That patient may be an Olympian or weekend warrior,” Dr. Forster added. “The Olympics has galvanized for all of us working at the games the critical role our specialty plays in musculoskeletal medicine in patients. It will be up to all of us in diagnostic imaging to ensure that this message continues to be told.”

Go to [rsnanews@RSNA.org](mailto:rsnanews@RSNA.org) for the online version of this story and to hear members of the Imaging Team discuss their experiences at the 2010 Vancouver Winter Olympics, including offering instant ultrasound diagnoses to help determine whether athletes were fit to return to play.



Using four imaging modalities—CT, MR, digital radiography and ultrasound—was a “first” at the 2010 Winter Games. “CT is the gold standard, particularly for injuries of the head, spine, abdomen and pelvis, and we need to have it available for these athletes,” said Imaging Manager Bruce Forster, M.D., pictured (right) with teammate Dan Gill, M.D. Above: Athletes compete at the Whistler Sliding Centre and (right) Whistler Olympic Park/Whistler Paralympic Park.

“The Olympics has galvanized for all of us working at the games the critical role our specialty plays in musculoskeletal medicine in patients.”

**Bruce Forster, M.D.**

## IMAGING TEAM BLOGS FROM OLYMPICS

The Imaging Team’s blog, “Scanning the 2010 Games,” is accessible on the Canadian Association of Medical Radiation Technologists (CAMRT) Web site at [CAMRT.ca](http://CAMRT.ca). Excerpts from the blog:

**Luck Louis, M.D.:** A couple of nights ago, our team imaged two athletes from different national teams who fell during their training runs. Both competitors had fractured their upper extremities. Both refused casting and opted instead for lidocaine injections and copious bandaging. Both participated in their events two days later and both finished well back of the eventual medalists.

How many more athletes compete while injured but persevere despite their setbacks? I would imagine most.

Pierre de Coubertin, widely regarded as the father of the modern Olympics, once stated that “The important thing is not to win, but to take part.” If that is true, then I’d say the Olympic Spirit is alive and well.

**Mark Cresswell, M.D.:** The end of the shift at 11 p.m. is frequently when things can start getting busy—some athletes just want the anonymity of a late-night visit and others are post-competition, arriving towards midnight with a broad grin that belies the injury they got in the elimination rounds, before going on to win a medal ..... they spend a quality hour getting more pictures with us for their family album, to be admired later by the orthopedic surgeon, and then they have to be up at 3 a.m. for the European and EST-TV interviews!

**Sue Murray, R.D.M.S.:** Back at the clinic, the patients we have scanned so far have been other staff/volunteers, athletes or Olympic family members. We have no idea who will walk through the door with what problem and in what condition. I am also partaking in the “on-venue ultrasound” project (OVUS) at the Richmond Olympic Oval, home of speed skating competitions. We have a laptop based portable ultrasound unit. It is used to diagnose an injury to an athlete in training or competition if there is a question of “return to play.”

# Resident Duty Hour Proposal Could Impact Night Shifts

**Although specialties other than radiology are likely to be more significantly affected by the Institute of Medicine (IOM) recent proposal to further tighten restrictions on resident duty hours, radiology stands to be especially impacted by recommendations to limit the number of night shifts.**

“THE PROPOSED REQUIREMENT of 12 to 14 hours off after a night- or extended-hour shift could create havoc and require radiology residents to miss too many other department activities,” said Stephen R. Baker, M.D., of the Department of Radiology at New Jersey Medical School in Newark. “I don’t see the justification in that.”

Many radiology organizations—including RSNA—believe restrictions should not be implemented without rigorous study of the current Accreditation Council for Graduate Medical Education (ACGME) requirements. Along with the RSNA, radiology organizations including the American College of Radiology, the American Roentgen Ray Society and the Association of University Radiologists, issued a joint response to ACGME published in the January 2010 issue of the *Journal of the American College of Radiology (JACR)* that reads in part:

“Radiology supports the current ACGME requirements but recognizes that there has been inadequate study of the outcomes of the current duty hour regulations and that there continue to be issues with compliance with those regulations. Therefore we feel that these issues should be addressed with more rigorous monitoring of duty hours before implementing new duty hour requirements.”

In 2003, ACGME set duty hour limits across all specialties nationally to promote safe patient care and resident well-being. In response to continued concern that resident fatigue and lack of supervision is causing preventable medical errors, Congress in 2008 requested that IOM establish a committee and determine strategies to optimize resident work hours and patient care. IOM issued a report calling for further restrictions on resident duty hours, better resident supervision and new federal oversight of the ACGME in monitoring resident duty hours.

## Proposed Shift Changes Could Challenge Radiologists

While IOM is not proposing a change to the current maximum 80-hour workweek for residents averaged over four weeks, changes are proposed for maximum shift length, minimum time off between shifts and maximum number of in-hospital night shifts.

There is currently no limit on consecutive night

shifts. Under the new IOM proposal, residents would be allowed to work a maximum of four nights followed by 48 hours off. The current requirement of a minimum of 10 hours off between scheduled shifts would be amended to 12 hours off after a night shift and 14 hours off after any extended duty period. While current recommendations allow a 30-hour maximum shift with no sleep provision, IOM proposes that shifts be no longer than 16 hours if there is no protected sleep time.

The proposed night shift changes and 16-hour shift limitations will be most challenging for radiologists, according to Martha B. Mainiero, M.D., lead author of the *JACR* article that analyzed the recommendations and included a response from the radiology community.

“If these recommendations are adopted, radiology residents will cycle through night shifts more frequently and miss the daytime educational activities of the department more often,” said Dr. Mainiero, of the Department of Diagnostic Imaging at the Warren Alpert Medical School of Brown University at Rhode Island Hospital in Providence.

The 16-hour shift limitations without unprotected sleep could force more departments to adopt night-float systems, Dr. Mainiero said.

“Departments that have residents who cover calls in-house overnight after working day shifts, will have

“If these recommendations are adopted, radiology residents will cycle through night shifts more frequently and miss the daytime educational activities of the department more often.”

**Martha B. Mainiero, M.D.**



**An Accreditation Council for Graduate Medical Education (ACGME) task force charged with analyzing current resident work hour regulations and formulating recommendations will not likely be finished before the middle of the year, said co-chair E. Stephen Amis Jr., M.D. (above). Second-year resident Jim Gehl, M.D. (bottom) said any new recommendations should balance the need for resident learning with patient safety.**



to guarantee a protected sleep period of five hours, which seems impractical,” Dr. Mainiero said. “This would probably force departments to adopt night-float systems.”

Although he does not favor the night shift restrictions, Dr. Baker agrees with the 16-hour shift limit without unprotected sleep. “The 16-hour work day is good enough to absorb lessons but also allows residents to perform well,” Dr. Baker said. “In a 30-hour shift, residents would potentially be doing a very bad job in the last six hours or so.”

One radiology resident said the real difficulty lies in balancing the significant learning load with the need for patient safety. “Patient safety is a vital goal, however, physician learning must also be taken into account,” said Jim Gehl, M.D., a second-year resident at Northwestern University’s Feinberg School of Medicine. “The volume of information we are required to learn is massive and increasing.”

## Task Force Studies Current Regulations

In response to the IOM report, ACGME created a task force charged with analyzing current work hour regulations and formulating recommendations. That process will likely not be finished before the middle of the year, according to E. Stephen Amis Jr., M.D., co-chairman of the 16-member panel shepherding the debate.

The current restrictions have not been in place long enough to effectively evaluate their outcome, said Dr. Amis, a professor and chair of the Department of Radiology at The Albert Einstein College of Medicine and Montefiore Medical Center in New York.

“Some residents in seven-year programs are just graduating now,” Dr. Amis said. “We don’t know if physicians are better off because of the 2003 recommendations. There is some anecdotal evidence showing that discontinuity in care is not good for their training.”

Although consideration was given to categorizing the requirements by specialty or group, that concept was not deemed practical, Dr. Amis said. “The more you customize duty hours, the harder it is to monitor them,” he said.

Dr. Gehl takes the opposite line of reasoning. “I don’t believe that applying the rules to every resident in every specialty is the best solution,” he said. “This is not a one-size-fits-all answer.”

Ultimately, “the most important factor will be balancing the need for extensive training required in medical specialties with the need for duty hours which do not put the resident or patient in jeopardy,” Dr. Mainiero said.

“I don’t know at this point what changes there will be to the duty hour standards,” Dr. Amis said. “We will have to give serious consideration to all of the IOM recommendations.”

Once issued, the ACGME task force recommendations will be open for public comment, Dr. Amis said.



**Stephen R. Baker, M.D.**  
New Jersey Medical School



**Martha B. Mainiero, M.D.**  
Brown University

## SpeakUp

How will the Institute of Medicine proposal affect radiology? Vote in this month’s *RSNA News* reader poll at [rsnanews.org](http://rsnanews.org)

To read the Institute of Medicine proposal on radiology resident duty hours and the *Journal of the American College of Radiology* article, go to [rsnanews@RSNA.org](mailto:rsnanews@RSNA.org).

## SIR Backs Vertebroplasty Despite Controversial Findings

*Despite two controversial studies indicating that vertebroplasty is no more effective than a sham procedure, the Society of Interventional Radiology (SIR) stands firm in its support of the treatment and stresses the need for further research before making a rush to judgment.*

THE AUTHORS OF BOTH STUDIES—which appeared in the August 2009 edition of *The New England Journal of Medicine* and were the first clinical trials to test vertebroplasty against a placebo—not only agree that more research is needed, they said they believe such clinical trials should have been performed long before now.

“How is it possible that about 200,000 people a year receive a treatment for which we do not have a risk-benefit ratio with any element of certainty?” asked Rachelle Buchbinder, M.D., director of the Monash Department of Clinical Epidemiology at Cabrini Hospital in Malvern, Australia, and lead author of one of the studies. “Only randomized controlled trials with placebo control and blinding can determine the true benefit of treatment.”

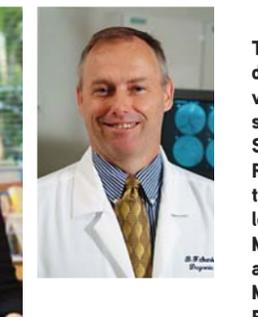
For its part, SIR contends that vertebroplasty is hugely beneficial to appropriately selected patients and that both *NEJM*-published studies are not only flawed but run counter to decades of data and patient testimonials documenting the procedure’s effectiveness.

“These two studies had methodological and statistical flaws and one must carefully consider any data that are discordant with the body of literature,” said SIR President Brian F. Stainken, M.D. “Hundreds of thousands of patients have greatly benefited from vertebroplasty with almost complete resolution of their pain; tens of thousands dependent on intravenous narcotics have been discharged from the hospital virtually pain- and drug-free following their treatment.”

According to Medicare statistics, the number of vertebroplasty procedures nearly doubled from 2001 to 2005 among Medicare enrollees, from 45 per 100,000 to 87 per 100,000.

### Findings Surprise Study Authors

Dr. Buchbinder and colleagues conducted a multicenter, randomized, double-blind placebo-controlled trial with 78 participants who suffered one or two painful unhealed, osteoporotic vertebral fractures in the last year. Participants were randomly assigned to undergo vertebroplasty or a sham procedure. Those assigned to the sham intervention underwent the same procedures as those in the vertebroplasty group up to the insertion of the needle.



Two controversial studies disputing the efficacy of vertebroplasty were described as “flawed” by the Society of Interventional Radiologists (SIR). Pictured clockwise, from top left: SIR member Kevin McGraw, M.D., study author, David Kallmes, M.D., SIR President Brian F. Stainken, M.D., and study author Rachelle Buchbinder, M.D.

At that point, the central sharp stylet was replaced with a blunt stylet. To simulate vertebroplasty, the vertebral body was gently tapped and polymethyl-methacrylate was prepared so the smell permeated the room.

In the second multicenter trial, David F. Kallmes, M.D., and colleagues in the Investigational Vertebroplasty Safety and Efficacy Trial (INVEST), randomly assigned 131 patients to undergo either vertebroplasty or a simulated procedure similar to the one used by Dr. Buchbinder. Primary outcomes were scores on the modified Roland-Morris Disability Questionnaire (a scale of 0 to 23) and ratings of average pain intensity (on a scale of 0 to 10) during the preceding 24 hours at one month follow-up.

In Dr. Buchbinder’s study, vertebroplasty showed no beneficial effect at one week or one, three or

six months after treatment, when compared with a sham procedure. Similarly, researchers found no difference in benefit between vertebroplasty and the sham procedure in Dr. Kallmes’ study.

Both authors were surprised by the results. “I had a high confidence that this procedure was benefiting patients,” said Dr. Kallmes, an interventional radiologist at the Mayo Clinic in Rochester, Minn., who has performed vertebroplasty for about 15 years and written dozens of papers on the procedure first developed in the mid 1980s. Dr. Kallmes is a 1997 Bracco/RSNA Research Scholar Grant recipient.

Because both studies were conducted independently and neither author knew the other’s outcome until publication, both researchers say the nearly identical results strengthen the validity of their findings. “The fact that neither trial found any benefit, yet the size of benefit is supposedly large, means that it is most unlikely we would have missed a treatment benefit,” Dr. Buchbinder said.

### Study Populations, Designs are Flawed, SIR Contends

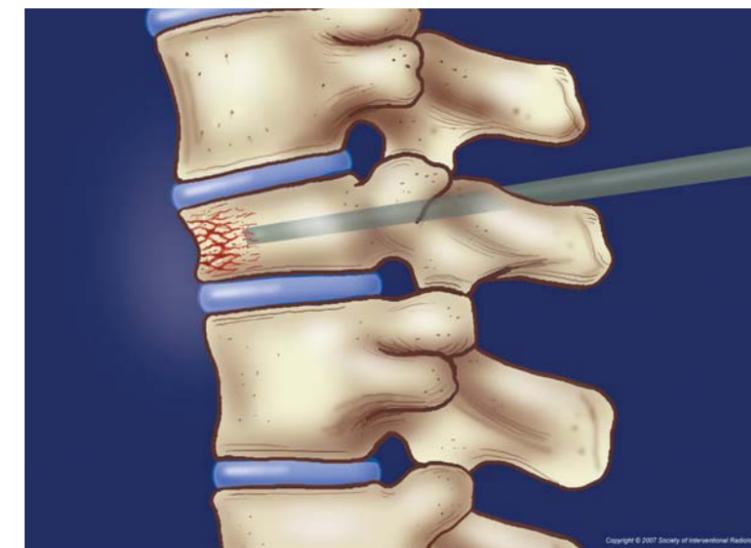
While supporting the role of randomized controlled trials and evidence-based medicine, SIR contends that neither study tells the whole story: potential flaws included small numbers of patients, small percentages of eligible patients actually enrolled, patients with milder degrees of pain and disability being treated and the high rate of crossover from placebo to vertebroplasty in the Kallmes study.

In the Kallmes study, patients were allowed to cross over to the other study group after one month. Eight patients in the vertebroplasty group crossed over to the sham procedure whereas 27 in the sham group crossed over to the vertebroplasty group. “The tremendous crossover rate speaks for some obvious benefit of vertebroplasty over sham and is worthy of a future adequately powered analysis to evaluate,” said SIR member Kevin McGraw, M.D., section head of interventional radiology at Riverside Interventional Consultants in Columbus, Ohio.

Dr. McGraw also pointed out that Dr. Kallmes and colleagues did not use MR imaging to determine whether a fracture was in fact the cause of the patient’s pain. “Theoretically, some patients could have a healed fracture and some other etiology for their acute pain that was not appropriately treated,” Dr. McGraw said. He also noted that a physical examination was not performed on patients prior to the procedure.

In Dr. Buchbinder’s study, only 78 of 468 patients screened were enrolled and were randomly assigned to a study group, Dr. McGraw said. “Obviously, selection bias was introduced into the study by enrolling only 16 percent of eligible patients,” he said.

Patient selection is the key to the success of vertebroplasty, according to Dr. Stainken. “We believe that the careful use of pre-procedural imaging correlated with a thorough physical examination offers us the best ability to precisely target the level responsible for the pain,” he said.



The number of vertebroplasty procedures nearly doubled from 2001 to 2005 among Medicare enrollees.

Image courtesy of the Society of Interventional Radiology.

### Follow-up Trials Necessary

While SIR contends that results of these trials are discordant with personal experience and more than 15 years of accumulated medical literature espousing the benefits of vertebroplasty, Dr. Kallmes assesses the results differently.

“I wish they had read our study more carefully, since the observed outcomes of immediate, sustained, statistically significant and clinically relevant improvement—in both groups—were exactly in line with prior studies,” Dr. Kallmes said. “The treatment arm does work, but we have to ask ourselves why the sham group got so much benefit. That is one of many aspects we need to focus on in future research.”

The studies “were read with great scrutiny,” according to Dr. McGraw, who also stressed that SIR members don’t have a financial motive for criticizing the studies. “My group has one of the largest vertebral augmentation practices in the country,” Dr. McGraw said. “If we stopped performing vertebroplasty it would result in a loss of less than 1 percent of our net income.”

Although he struggled for years to get his research funded and completed, Dr. Kallmes has submitted multiple grants for future clinical trials testing the efficacy of vertebroplasty. “I am looking for the truth, plain and simple,” he said.

Based on the results of these studies, SIR is recommending that radiologists inform patients of the studies’ results during consultation and is encouraging larger clinical trials to address the weaknesses of the research, according to a statement from SIR.

At its annual meeting in March, SIR released the results of VERTOS II, the first methodologically sound randomized controlled trial designed to assess the cost-effectiveness of vertebroplasty compared to conservative therapy in patients with an acute osteoporotic vertebral compression fracture. Results showed that vertebroplasty decreases pain immediately for patients with acute osteoporotic vertebral compression fractures and pain relief is sustained for up to one year.

“We need to work to understand what Dr. Kallmes is seeing, and avoid a rush to judgment,” Dr. Stainken said. “The worst thing we can do is harm our patients by denying them a solution.”

For more information on the studies cited in this article and to hear David F. Kallmes, M.D., discuss the results of the Investigational Vertebroplasty Safety and Efficacy Trial (INVEST), go to [rsnanews.RSNA.org](http://rsnanews.RSNA.org).



# RFA May Relieve Bone Metastases Pain

*Patients with bone metastases who would otherwise rely on narcotics may have an effective pain relief alternative in image-guided radiofrequency ablation (RFA), according to researchers at Brown University.*

IN A MULTICENTER TRIAL of 55 patients with solitary bone metastases, researchers concluded that outpatient CT-guided RFA, which is most widely used to treat liver, kidney and lung cancer tumors, was also effective at safely palliating pain from bone metastases, said Damian E. Dupuy, M.D., principal investigator on the American College of Radiology Imaging Network (ACRIN) study published online in the journal *Cancer* in January.

"Some patients improved with RFA after failing previous radiation treatments," said Dr. Dupuy, director of ablation services at Rhode Island Hospital and professor of diagnostic imaging at the Warren Alpert Medical School of Brown University in Providence. "Many patients were able to return to work and enjoy an improved quality of life, something they couldn't do when they were on heavy doses of narcotics."

The study showed that RFA reduced pain at the one- and three-month follow-up marks for all pain assessment measures.

The mean pain intensity score was 54.4 and the average decrease in pain intensity was 26.9 at one month and 14.2 at three months, equating to an improvement of 49 percent at one month and 26 percent at three months. The mean pain relief score was 44.1 and the pain relief increased to 26.3 at one month and 16.38 at three months, equating to a 60 percent pain relief at one month and 37 percent at three months.

"RFA is an effective alternative for patients who previously received radiation therapy and have reached their maximum radiation dose, but are still experiencing pain," Dr. Dupuy said.

RFA is not an effective treatment option for patients whose cancer has spread to multiple sites, he added.

**"We need to make patients more comfortable, quickly"**

RFA appears to be safe and has few side-effects—especially for those who need significant palliation—according to Stephanie A. Terezakis, M.D., who presented "Basic Concepts in Radiation Oncology" at RSNA 2009. "We need to make patients more comfortable, quickly," Dr. Terezakis said. "They've already undergone so much."



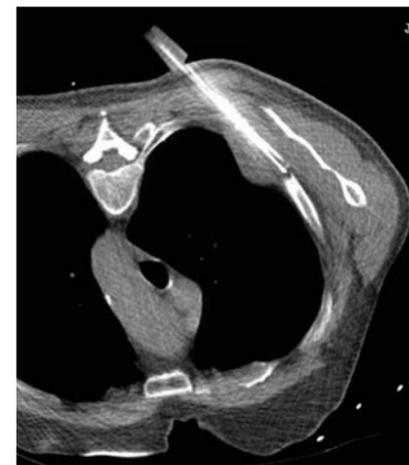
**Damian E. Dupuy, M.D.**, left, is the principal investigator on a study showing that image-guided radiofrequency ablation may effectively relieve pain for patients with bone metastases. **Top right, Stephanie A. Terezakis, M.D.**, and **bottom right, Dwight E. Heron, M.D.**

**“RFA is an effective alternative for patients who previously received radiation therapy and have reached their maximum radiation dose, but are still experiencing pain.”**

**Damian E. Dupuy, M.D.**



Radiofrequency ablation (RFA) reduced pain at the one- and three-month follow-up marks for all pain assessment measures, the study showed. **Left: A 72-year-old man with non-small cell lung cancer who underwent previous external beam radiotherapy to the primary site. The tumor resisted and progressed into the patient's chest wall, causing pain. Given that the previous radiotherapy was unsuccessful, RFA was offered as a local treatment option. Axial CT images show two cryoprobes within the mass and the ensuing ice ball encompassing the tumor.**



**A 76-year-old man with a history of renal cell carcinoma status post-nephrectomy 7 years earlier presented with a solitary painful rib mass and was referred for radiofrequency ablation (RFA). A prone CT image shows the RFA electrode in the metastasis. The patient's pain was relieved following RFA treatment.**

Of the nearly 1 million new cancer cases diagnosed in the U.S. each year, between 30 and 70 percent of these patients will develop a painful bone metastasis, according to the study authors. Life expectancy of patients with osseous metastatic disease is limited, with an average median survival of three to six months.

While noting that some of the lesions treated with RFA in this study were larger than those typically treated with stereotactic image-guided therapy, Dr. Terezakis questions the study's comparisons of RFA and external beam therapy given recent improvements in radiotherapy techniques. In the study, Dr. Dupuy and colleagues point out that previous research involving external beam therapy has shown frequent relapse after initial response and poor pain relief.

"Today, stereotactic image-guided treatments can give a higher per dose fraction of radiation in a shorter number of days, or even in a single treatment," said Dr. Terezakis, a radiation oncologist at Johns Hopkins University School of Medicine.

This technique has proven effective because it is highly precise in destroying the tumor while minimizing harm to normal surrounding tissue.

Future studies comparing the effectiveness of stereotactic image-guided radiation therapy and RFA are necessary, according to Dwight E. Heron, M.D., a member of the Radiation Subcommittee of the RSNA Scientific Program Committee.

"RFA may be an option, modest at best, for pain relief in patients not eligible for radiation, radio-surgery or radiopharmaceuticals," said Dr. Heron, an associate professor of Radiation Oncology at the University of Pittsburgh School of Medicine and director of radiation services at the University of Pittsburgh Cancer Institute. "Nevertheless, it is important to have the range of palliative treatment options available for those patients at the end of their lives."

Dr. Dupuy agrees more research is necessary and would like to see future studies address cost issues involving RFA compared to traditional treatment.

"I would like to see how much is spent on pain relief with this method versus traditional treatments," he said. "If RFA is less costly, surely this is something insurance companies and the federal government would be interested in reviewing, especially since many of these patients are on Medicare."

For more information on the study cited in this article, go to [rsnanews.RSNA.org](http://rsnanews.RSNA.org).

## Journal Highlights

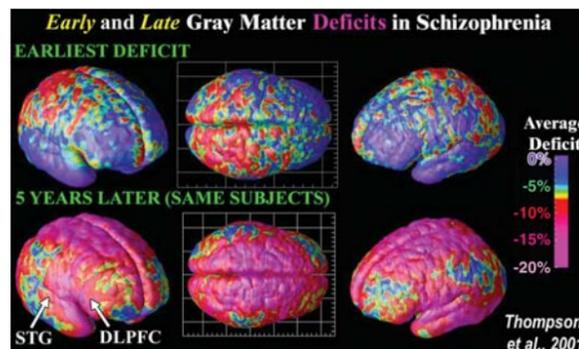
The following are highlights from the current issues of RSNA's two peer-reviewed journals.

### Update on the Use of MR for Assessment and Diagnosis of Psychiatric Diseases

DURING THE PAST THREE DECADES, MR-based tools such as MR morphometry, diffusion-tensor imaging, functional MR imaging and MR spectroscopy have yielded findings that provide tangible evidence of the neurobiologic manifestations of psychiatric diseases.

In an article in the April issue of *Radiology* ([RSNA.org/Radiology](http://RSNA.org/Radiology)), Nivedita Agarwal, M.D., of Harvard Medical School in Boston, and Perry F. Renshaw, M.D., Ph.D., M.B.A., of the University of Utah in Salt Lake City, and colleagues summarize major MR imaging findings of schizophrenia, mood disorders, anxiety disorders and attention deficit-hyperactivity disorder. In addition, the authors:

- Inform radiologists of the potential roles of MR imaging in psychiatric imaging research
  - Discuss confounding factors in the design and interpretation of MR imaging findings in psychiatry
- The future of MR research as a tool for the



**3D color-coded maps of early and late gray matter loss in schizophrenia.** Patients and healthy control subjects were examined at baseline (top) and followed up at five years (bottom) to compare changes in gray matter thickness over time. Gray matter loss in the temporal prefrontal cortex and dorsolateral prefrontal cortex (DLPFC) is seen later during adolescence. Color coding demonstrates the importance of these effects. STG = superior temporal gyrus.

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diagnosis and treatment in psychiatric disease will involve a multifaceted approach, the authors conclude.

### Radiology

“The emerging patterns of MR abnormalities should be used as guides for more hypothesis-driven studies of specific neuropsychiatric circuit abnormalities from both a structural perspective and a functional perspective,” they write.

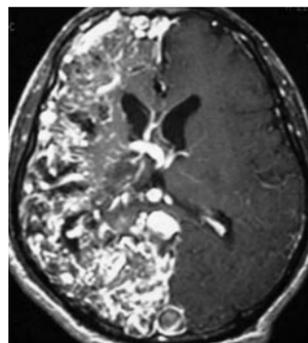
### Radiologic Assessment of Brain Arteriovenous Malformations: What Clinicians Need to Know

IMAGING FINDINGS IN brain arteriovenous malformations (AVMs) that have the greatest impact on decision making with respect to clinical management are those known to be associated with risk of future hemorrhage, including evidence of previous hemorrhage, intranidal aneurysms, venous stenosis, deep venous drainage and deep location of the nidus.

In the March-April issue of *RadioGraphics* ([RSNA.org/RadioGraphics](http://RSNA.org/RadioGraphics)), Sasikhan Geibprasert, M.D., of the Hospital for Sick Children in Toronto, and colleagues discuss the imaging features and differential diagnosis of brain AVMs with special emphasis on radiologic findings that have the greatest impact on clinical management decisions. Specifically, authors:

- Describe the clinical features of brain AVMs and other vascular lesions of the brain
- Identify imaging features that help differentiate brain AVMs from other vascular brain lesions
- Discuss imaging findings that should be included in radiology reports in patients with brain AVMs

“We have described the classic imaging features of brain AVMs, as well as vascular brain lesions that can mimic brain AVMs,” the authors conclude. “Because the natural history and treatment options differ among these mimics, it is crucial that the radiologist be able to differentiate them from a typical brain AVM.”



**Proliferative angioarchitecture in a 26-year-old man with a six-year history of progressive left-sided weakness.** MR images show multiple flow voids and contrast-enhanced tubular structures representing a large vascular lesion that involves the entire right cerebral hemisphere.

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### Radiology Receives Top Australian Ranking

*Radiology* has been awarded the highest rating from the Australian Research Council (ARC) as part of its mission to assess research quality within Australia's higher education institutions.

Experts evaluated 20,712 peer-reviewed journals, assigning *Radiology* the highest quality tier—“one of the best in its field.”

Published regularly since 1923, *Radiology* is the number one cited journal in the field and holds a 5.996 impact factor.

*Radiology* was recently named one of the “100 Most Influential Journals in Biology & Medicine over the Last 100 Years” by the Biomedical & Life Sciences Division of the Special Libraries Association.

To access ARC's journal ranking, go to [leavesamark.wordpress.com](http://leavesamark.wordpress.com).

## Radiology in Public Focus

Press releases have been sent to the medical news media for the following articles appearing in the latest issue of *Radiology*.

### H1N1 Influenza: Initial Chest Radiographic Findings in Helping Predict Patient Outcome

FINDINGS AT INITIAL chest radiography of influenza A (H1N1) may have significance in the prediction of clinical outcome.

In a retrospective study of 179 H1N1 adult emergency room patients who underwent frontal chest radiography within 24 hours, Galit Aviram, M.D., of the departments of radiology, internal medicine and pulmonology at Tel Aviv Sourasky Medical Center in Israel, and colleagues characterized findings by type and patterns of opacities and zonal distribution. Findings in four or more zones and bilateral peripheral distribution occurred with significantly higher frequency in patients with adverse outcomes compared with patients with good outcomes, the authors found.

“Extensive involvement of both lungs, as expressed by the presence of multizonal and bilateral peripheral opacities, was associated with adverse prognosis,” the authors concluded. “However, a normal radiograph cannot exclude an adverse outcome later during the course of the disease.”



**Initial chest radiograph of 45-year-old woman after gastric banding who presented 48 hours after onset of fever and sore throat. Bilateral central ground-glass opacities are seen in perihilar region. The patient was discharged three days later after clinical improvement.**

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### Colorectal and Extracolonic Cancers Detected at Screening CT Colonography in 10,286 Asymptomatic Adults

RESEARCHERS DETECTED clinically unsuspected cancer at routine screening CT colonography of generally healthy adults with a frequency of greater than one case per 200 individuals screened.

Perry J. Pickhardt, M.D., of the Department of Radiology at the University of Wisconsin School of Medicine in Madison,

and colleagues retrospectively reviewed the medical records of 10,286 adults who had undergone CT colonoscopy between April 2004 and March 2008. Unsuspected cancer was confirmed in 58 patients, which included invasive colorectal carcinoma in 22 patients and extracolonic cancer in 36 patients. Extracolonic malignancies

included renal cell carcinoma, lung cancer, non-Hodgkin lymphoma and other tumors.

“Combined colorectal and extracolonic evaluation at screening CT colonography will result in earlier detection of clinically unsuspected cancers in some cases, presumably leading to more favorable outcomes,” the researchers concluded.

### Support Quantitative Imaging, RSNA Science Advisor Asks Congress

Tools are urgently needed to enable quantitative and comparable medical imaging on current and future imaging platforms, RSNA's science advisor told a Congressional subcommittee.

“It is clear that the development of standard methods, validation procedures and reference materials for a variety of imaging methods will be of direct benefit to patients as well as to the biotechnology industry,” said Daniel C. Sullivan, M.D. (top right), a professor and vice-chair for research in radiology



### Media Coverage of Radiology

In February, media outlets carried 189 news stories generated by articles appearing in the print and online editions of *Radiology*. These stories reached an estimated 111 million people.

February coverage included AOL News, Yahoo! News, MSN Health, *Businessweek.com*, *Health.com*, *ModernMedicine.com*, *USNews.com*, *docguide.com*, *The Citizen's Voice* (Wilkes Barre, Pa.), *Crescent News* (Toledo), *Times Tribune* (St. Louis) and *Women's Health Weekly*.

### April Outreach Activities Focus on Radiation Safety

In April, the RSNA will distribute the “60-Second Checkup” audio program to nearly 100 radio stations across the U.S. The segments will focus on radiation safety measures for adults and pediatric patients.

Continued on Page 18

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Suzette G. Casal, M.D.  
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**Rosemary J. Chambers, M.D.**  
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S. Murthy Chennapragada, M.B.B.S.  
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Christopher J. Chicoskie, M.D.  
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Daniel L. Croteau, M.D.  
Mena Ahuja & Jonathan J. Crystal, M.D.  
Eric A. Dame, M.D.  
Robert H. Darwin, M.D.  
Charles S. Day, M.D.  
Philippe Demange, M.D.  
Lisa & Morris A. Diamant, M.D.  
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Antonio L. Diaz-Rivera, M.D.  
Michael P. Dixon, M.D.  
William D. Donovan, M.D.  
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Margaret & Jimmie L. Eller, M.D.  
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Marcos Flajszer, M.D.  
Andre L. Fonteyne, M.D.  
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Marijn Franx  
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Jill H. Kingsly, M.D. &  
Robert A. Friedman, M.D.  
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Harpreet K. Gill, M.D.  
Mabel T. Llaca, M.D. & Luis A. Glaria  
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Srikumar Gopalan, M.D.  
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Beate & Thomas J. Hess, M.D.  
Gloria L. Hwang, M.D. &  
Steven W. Hetts, M.D.  
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Andrew J. Kalnin, M.D.  
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Bart P. Keogh, M.D., Ph.D.  
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Korosh Khalili, M.D.  
Paul H. Kim, M.D.  
Amy B. Kirby, M.D., M.A. & Tom Kirby  
Christopher L. Kottra, M.D.  
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Alexander M. Kowal, M.D.  
Judy & Mark J. Kransdorf, M.D.  
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Kent T. Lancaster, M.D.  
Karah M. Lanier, M.D.  
Lorette P. & Michael D. Lavine, M.D.  
Michele Dubreuil & Alfred Leblanc, M.D.  
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Jennifer & Nicholas S. Lemoine, M.D.  
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Frances S. Maeda, M.D.  
Martin C. Majer, M.D.  
Grace P. Malantic-Lu, M.D.  
Jane Maloof, M.D.  
Ana B. Manning, M.D. & John J. Manning  
Sandra B. Martin, M.D. &  
John H. Martin Jr.  
Janine R. Martyn, M.D.  
Louis Mazzarelli, M.D., M.S.  
April & Bradford S. McCrary, M.D., Ph.D.  
Jennelle &  
Alexander M. McKinney IV, M.D.  
Shaun P. McManimon, M.D.  
Richard J. Meli, M.D.  
Joel R. Meyer, M.D.  
Sarah S. Milla, M.D.  
Howard M. Miller, M.D.  
Mitchell A. Miller, M.D.  
Rudolph H. Miller III, M.D.  
Slobodan M. Miseljic, M.D.  
Sarah G. Mizuguchi, M.D.  
Jen & Michael Moore, M.B.B.Ch.  
Thea C. Moran, M.D.  
Jonathan S. Movson, M.B.Ch.B.  
Martha M. Munden, M.D. &  
Reginald F. Munden, M.D., D.M.D.  
Alexandra L. Muschenheim, M.D.  
Surya P. Nadimpalli, M.D. &  
Raja Nadimpalli  
Craig A.W. Nasralla, M.D.  
Jean N. Nauwelaers, M.D.  
Amy M. Neville, M.D.  
Lien & Dan T. Nguyen, M.D.  
Daniela Nalio & Marcelo A.C. Nico, M.D.  
Olufolajimi O. Obembe, M.D.  
Eliezer L. Offenbacher, M.D.  
Bernardo M. Olhagaray-Rivera, M.D.  
Fukiat Ongsens, M.D.  
Wendy & Robert Orth, M.D., Ph.D.  
Clay H. Padginton, D.O., M.S.  
Eva & Eduardo C. Padilla, M.D.  
Georgia Kapuambells &  
Darian M. Pajak, M.B.B.S.  
Enrique Palacios, M.D.  
Satish C. Panduranga, M.B.B.S.  
Martin I. Parker, M.D.  
Girish L. Patel, M.D.

Andrew K. Peppin, M.D.  
Mary Ann Peterson, M.D.  
John Pierce, M.D.  
Maureen & Christopher E. Pierpont, M.D.  
Gabriel Pivawer, D.O.  
Thurman N. Polchow, M.D.  
Zenon Protopoulos, M.D.  
Thomas F. Pugh Jr., M.D.  
Kalpana Ramakrishna, M.D.  
Sebastian Retzlaff, M.D.  
George T. Ripeckyj, M.D.  
Luis Rodriguez, M.D.  
Jesus E. Rodriguez Gonzalez, M.D.  
Piper K. Rooke, M.D.  
Kathleen M. McCarten, M.D. &  
Ricardo Rosales, M.D.  
Laura & Lawrence N. Rothenberg, Ph.D.  
Susan G. Roux, M.D.  
Vicki M. & Kenneth S. Rugh, M.D.  
Holly & Gregory K. Russo, M.D.  
Shahzad Sadiq, M.D.  
Rocky C. Saenz, D.O.

Nabile M. Safdar, M.D.  
Karen L. Salzman, M.D.  
Leah E. Schafer, M.D.  
Eric B. Schell, M.D.  
Peter Schmidt, M.D.  
Ingrid K. Schneider, M.D.  
Michael F.H. Schocke, M.D.  
Polly L. & Joachim F. Seeger, M.D.  
Gwy Suk Seo, M.D., Ph.D.  
Natalie & Amir K. Sepahdari, M.D.  
Neela & Dipakkumar S. Shah, M.D.  
Nancy A. Shaheen, M.D.  
William J. Shea Jr., M.D.  
Harry S. Shulman, M.D.  
Richard J. Silberstein, M.D.  
Daniel W. Simon, M.D.  
Ravinder K. & Jaspal Singh, M.D.  
Michael L. Sloan, M.D.  
Spencer M. Smith, M.D.  
Steven H. Stern, M.D.  
Bruce G. Stewart, M.D.  
Tina & Paul Suiter, M.D.

Mark W. Sykes, M.D.  
Kathryn H. & John P. Tampas, M.D.  
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Kurtis L. Tedesco, M.D.  
Stephen W. Thal, D.O.  
Mariam Thomas, M.D.  
Karen J. & Matthew H. Thomas, M.D.  
James H. Timmons, M.D., Ph.D.  
Carla E. Tjon Pian Gi-van Loon, M.D.  
Keith A. Tonkin, M.D.  
Salina D. Tsai, M.D.  
Marybeth & Michael T. Twohig, M.D.  
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Andrew A. Wade, M.D.  
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Ellen B. Wetter, M.D.  
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Carl S. Winalski, M.D.  
Jason T. Wong, M.D.  
Paul W. Wood, M.D.  
Gary L. Wood, M.D.  
Kathryn & John D. Wrench, M.D.  
Tracy & Grady D. Yoder, M.D.  
Cristiane S. Zoner, M.D.  
Salvina Zrinzo, M.D.

**Celebrating 25 years, the RSNA R&E Foundation provides the research and development that keeps radiology in the forefront of medicine. Support your future—donate today at [RSNA.org/donate](http://RSNA.org/donate).**

## Radiology in Public Focus

### Support Quantitative Imaging, RSNA Science Advisor Asks Congress

*Continued from Page 16*

at Duke University in Durham, N.C. “If researchers working in federal agencies such as the National Institute of Standards and Technology (NIST), government regulators, industry and academic scientists work together in this effort, it is much more likely that the outcomes will be successful.”

The U.S. House of Representatives Committee on Science and Technology, Subcommittee on Technology and Innovation called the Feb. 24 hearing to learn how NIST could better serve the biomedical community. Dr. Sullivan called for an expanded NIST quantitative imaging program focusing on:

- Identifying, evaluating and minimizing or eliminating sources of variability and error in imaging modalities
- Developing well-characterized phantoms to reliably and accurately calibrate a variety of instruments and systems
- Developing standardized image databases for comparing internal dose models for radiation-based imaging modalities

Dr. Sullivan told the subcommittee about RSNA's leadership in quantitative imaging activities including the Quantitative Imaging Biomarkers Alliance and Imaging Biomarkers Roundtable.

“Clinicians clearly need more objective diagnostic tests and the imaging device manufacturers want to provide their customers with such tools,” Dr. Sullivan concluded. “NIST can be a critical participant in this endeavor.”

The subcommittee is now considering such initiatives as forming an expert biomedical advisory board, creating joint NIST/university centers for biomedical research and establishing a NIST facility for use by industry and academia.

“Clinicians clearly need more objective diagnostic tests and the imaging device manufacturers want to provide their customers with such tools.”

**Daniel C. Sullivan, M.D.**

### Other Radiology Headlines

#### U.S., European Radiologists Should Expect New Face of HIV/AIDS

Radiologists in the U.S. and Europe will increasingly see cases of combined HIV/AIDS and tuberculosis (TB) as migration increases and the prevalence of multiresistant and extreme drug-resistant TB rises, even in rich countries, a renowned neuroradiologist said during the European Congress of Radiology (ECR) opening lecture last month in Vienna. “We need to become familiar with unusual manifestations of HIV/AIDS,” said Anne G. Osborn, M.D., a distinguished professor of radiology at the University of Utah in Salt Lake City. “We need to learn now how to recognize these signs, this new unfamiliar ‘face’ of HIV/AIDS that we don’t know yet, because these cases will probably be showing up in our practices very soon.”

(Source: *ECR Today*, March 5, 2010)

#### Radiology Critical in Treating Female Urinary Incontinence

The number of repeat surgical procedures to counter pelvic-floor weakness could be reduced if surgeons used radiological images to guide their work, according to an authority in genitourinary imaging and ultrasound. Incorrectly placed tapes or meshes to support the urethra will not only fail to prevent incontinence, but also can lead to post-operative complications, Andrzej Wieczorek, M.D., said during the ECR Maria Sklodowska-Curie Honorary Lecture. “Surgeons are the captains of the boat, but with tools like ultrasound and MR imaging, radiologists can be good navigators,” said Dr. Wieczorek, an associate professor of radiology at the Medical University of Lublin, Poland.

(Source: *ECR Today*, March 8, 2010)

## For Your Benefit

### Second Phase of Physics Modules Under Way

As part of the second phase of the RSNA/American Association of Physicists in Medicine (AAPM) Physics Modules, submissions for modules have been reviewed and authors will learn this month whether their proposals have been accepted. The second phase of the modules is expected to launch online in January 2011.

Designed for use by radiologists and radiology residents, each module addresses an important physics concept as identified by the AAPM physics curriculum. An RSNA/AAPM Task Force has been formed to oversee construction of this second set of educational modules.

"The task force has worked with incredible intensity and focus on this project," said William R. Hendee, Ph.D. (above), who is leading the task force. "The response from contributors—radiologists and physicists—has been tremendous as well. I think everyone realizes



how important physics is to good practice and we've seen some great ideas for making physics compelling and truly interactive."

Available online since December, the first phase of the modules has been viewed more than 4,000 times. The

modules were introduced at RSNA 2009. RSNA/AAPM members have free access to the first phase of the modules at [RSNA.org/Education](http://RSNA.org/Education). For more information, call 1-800-272-2920 or e-mail [physics@rsna.org](mailto:physics@rsna.org).

### Member Spotlight

#### Involvement, Insight Among Benefits of 47 Annual Meetings

RSNA 2009 marked my 47th annual meeting. In fact, I have not missed an RSNA annual meeting since I began my residency in 1963. As a result I was able to see first-hand the great changes occurring in radiology over those many years.

My participation in the annual meeting led to my active involvement in the RSNA committee structure and to helping shape the future direction of the RSNA as a member of the RSNA Board of Directors. I know of no other radiology meeting that offers the wide exposure to all aspects of the specialty while providing insight into the practice of radiology.

Although I am now retired, I still look forward to the annual meeting as a way of keeping in touch with the continuous advances in radiologic practice.



**Jerry P. Petasnick, M.D.**  
2001 RSNA President

#### RSNA Annual Meeting "The Place to Be"



**Marco A. Alvarez-Arrazola, M.D.**

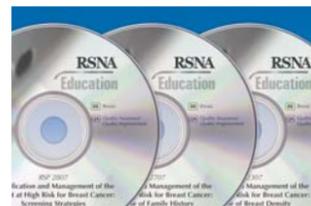
Courses are tailored to all levels of knowledge from physics and clinical reviews to state-of-the-art science and research. Personally, I enjoy the "hands-on" workshops and the lectures that

offer self assessment modules (SAMs).

I have had the opportunity to share these meetings with friends, teachers and brothers, and I can tell you that the networking among peers and providers is outstanding. I have always felt welcome at RSNA annual meetings and I have left every one feeling part of a community with a truly broad, worldwide reach.

An RSNA member since 1999, Dr. Alvarez-Arrazola, of *Unidad de Radiología Clínica in Mazatlan Sin in Mexico*, is a member of RSNA's *International Relations & Education Committee*.

Registration for RSNA 2010 begins April 28. See Page 21.



#### CD-ROM Collections Make Topical Learning Affordable

RSNA Education Center's new CD-ROM collections of refresher courses from past RSNA annual meetings are available for viewing in the 2009–2010 product catalog. Go to [RSNA.org/Education](http://RSNA.org/Education) and click Education Center Store.

Bundled into topical sets for easy reference, the collections allow members to build a comprehensive education library at a reduced price.

For more information on these products, contact the RSNA Education Center at [ed\\_ctr@rsna.org](mailto:ed_ctr@rsna.org) or call 1-800-272-2920.

#### Member Question of the Month

This month, *RSNA News* launches the Member Question of the Month, a quick and easy way to get to know your fellow RSNA members a little better. This month's question:

#### Who inspired you to join RSNA and why?

E-mail us your answer at [tellus@rsna.org](mailto:tellus@rsna.org). Respondents featured in an upcoming issue of *RSNA News* will receive a small gift featuring the new RSNA logo.

## Education and Funding Opportunities

### RSNA Eyer Editorial Fellowship

Application Deadline: May 1  
Candidates are sought for the RSNA Eyer Editorial Fellowship, sponsored by the RSNA Publications Council and the Committee on International Relations and Education (CIRE).

Named after William R. Eyer, M.D., a former editor of *Radiology*, the fellowship is designed to provide an opportunity for a mid-career radiologist to further his/her experience in radiologic journalism. Working with *Radiology* and *RadioGraphics* editors and RSNA publications staff, the fellow will learn about manuscript preparation, peer review, manuscript editing, journal production, printing and electronic publishing.

For more information regarding eligibility requirements and to apply, go to [RSNA.org/Publications/editorial\\_fellowships.cfm](http://RSNA.org/Publications/editorial_fellowships.cfm).

### Imaging for Treatment Assessment in Radiation Therapy

Application Deadline: June 21–22  
June 21–22  
Gaylord National Resort & Convention Center, National Harbor, Md.

RSNA is a co-sponsor of the Imaging for Treatment Assessment in Radiation Therapy (ITART) first biennial meeting on quantitative imaging in radiation therapy. Basic and clinical researchers, practicing clinicians, industry and regulatory bodies will have a forum to review achievements, brainstorm about needs and opportunities and discuss strategies on overcoming roadblocks. For more information, go to [www.aapm.org/meetings/2010ITART](http://www.aapm.org/meetings/2010ITART).

### RSNA Clinical Trials Methodology Workshop

Application Deadline: January 15–21, 2011  
January 15–21, 2011  
Scottsdale/Phoenix, Ariz.  
Applications due June 7

Over the course of this 6½-day workshop, each trainee will be expected to develop a protocol for a clinical study, ready to include in an application for external funding. Participants will learn how to develop protocols for the clinical evaluation of imaging modalities. A dynamic and experienced faculty will cover topics including:

- Principles of clinical study design
- Statistical methods for imaging studies
- Design and conduct of multi-institutional studies
- Sponsorship and economics of imaging trials
- Regulatory processes

Applicants will undergo a competitive selection process for course entrance. Once admitted, trainees will participate in advance preparation, didactic sessions, one-on-one mentoring, small group discussions, self-study and individual protocol development. Familiarity with basic concepts and techniques of statistics and study design is required of all applicants.

For more information, contact Fiona Miller at 1-630-590-7741 or [fmiller@rsna.org](mailto:fmiller@rsna.org).

### RSNA/AUR/ARRS Introduction to Academic Radiology Program

Application Deadline: July 15

Sponsored by RSNA, the American Roentgen Ray Society (ARRS) and Association of University Radiologists (AUR), the Introduction to Academic Radiology program introduces second-year residents to academic radiology, demonstrates the importance of research in diagnostic radiology, illustrates the excitement of research careers and introduces residents to successful clinical radiology researchers. Successful applicants will be assigned to either a seminar held during RSNA 2010 or the ARRS annual meeting in 2011.

More information and an application/nomination form are available at [RSNA.org/Research/educational\\_courses.cfm](http://RSNA.org/Research/educational_courses.cfm)

### Medical Meetings

#### May–June 2010

##### MAY 1–5

American Radium Society (ARS), Annual Meeting, J.W. Marriott Cancun, Mexico  
• [www.americanradiumsociety.org](http://www.americanradiumsociety.org)

##### MAY 1–7

International Society for Magnetic Resonance in Medicine (ISMRM), European Society for Magnetic Resonance in Medicine and Biology (ESMRMB), Joint Annual Meeting, Stockholm International Fairs, Sweden  
• [www.ismrm.org](http://www.ismrm.org)

##### MAY 2–7

American Roentgen Ray Society (ARRS), Annual Meeting, Manchester Grand Hyatt, San Diego  
• [www.rrs.org](http://www.rrs.org)

##### MAY 15–20

American Society of Neuroradiology (ASNR), 48th Annual Meeting, Hynes Convention Center, Boston  
• [www.asnr.org/2010](http://www.asnr.org/2010)

##### MAY 22–25

American College of Medical Physics (ACMP), 27th Annual Meeting, J.W. Marriott, San Antonio Hill Country Resort  
• [www.acmp.org/meetings/2010AM](http://www.acmp.org/meetings/2010AM)

##### MAY 24–27

International Brain Mapping & Intraoperative Surgical Planning Society (IBMISPS), World Congress of IBMISPS, Uniformed Services University of the Health Sciences, Bethesda, Md.  
• [www.ibmisp.org](http://www.ibmisp.org)

##### JUNE 2–5

European Society of Gastrointestinal and Abdominal Radiology (ESGAR), 21st Annual Meeting, International Congress Centre Dresden, Germany  
• [www.esgar.org](http://www.esgar.org)

##### JUNE 3–6

Society for Informatics in Medicine (SIIM), Annual Meeting, Minneapolis Convention Center  
• [www.siim2010.org](http://www.siim2010.org)

##### JUNE 5–9

SNM Annual Meeting, Salt Palace Convention Center, Salt Lake City  
• [www.snm.org](http://www.snm.org)

##### JUNE 7–9

U.K. Radiological Congress (UKRC), National Indoor Arena/ICC Birmingham, England  
• [www.ukrc.org.uk](http://www.ukrc.org.uk)

## Annual Meeting Watch

### Register Online for RSNA 2010 Starting April 28

RSNA 2010 advance registration and housing opens April 28 for RSNA and AAPM members. Non-member registration and housing opens May 26. Advance registration and housing information is available at [RSNA2010.RSNA.org](http://RSNA2010.RSNA.org).



#### Housing Deals Offered During RSNA 2010

Members planning to attend RSNA 2010 can take advantage of economic incentives offered by many Chicago hotels. Of the 79 hotels participating in the RSNA block, a majority are offering reduced rates while the rest have frozen their rates from 2009.

#### International Visitors

If you must apply for a temporary non-immigrant visa to attend RSNA 2010, you are advised to apply as soon as U.S. travel is decided and no later than three to four months in advance of the travel date. The RSNA offers an official letter of invitation for RSNA 2010 attendees.



### Exhibitors Gear Up for RSNA 2010

Representatives from about 30 companies planning to exhibit at RSNA 2010 met at RSNA Headquarters in late February. For the first time, the meeting was also broadcast as a Webinar to 82 exhibiting companies. The meeting included a recap of RSNA 2009, general service contractor rates and a preview of the rates and floor plan for RSNA 2010.

#### Tuymans Exhibit Opens in October at MCA

An exhibition by Belgian painter Luc Tuymans opens Oct. 2 at Chicago's Museum of Contemporary Art (MCA) and continues through Jan. 9, 2011. Tuymans is considered one of the most significant European painters of his generation and he has been an enduring influence on younger and emerging artists.

Born and raised in Antwerp, where he lives and works, Tuymans is an inheritor to the vast tradition of Northern European painting. At the same time, as a child of the 1950s, his relationship to the medium is understandably influenced by photography, television and cinema. For more information on the Tuymans exhibit and other MCA events, go to [mcachicago.org](http://mcachicago.org).

For more information on Chicago events happening during RSNA 2010, go to [www.choosechicago.com](http://www.choosechicago.com).



## RSNA 2010 Registration

#### How to Register

There are four ways to register for RSNA 2010:

##### 1 INTERNET

Go to [RSNA.org/register](http://RSNA.org/register)

##### 2 FAX (24 hours)

1-800-521-6017

1-847-996-5401

##### 3 TELEPHONE

(Mon.-Fri. 8:00 a.m. - 5:00 p.m. ct)

1-800-650-7018

1-847-996-5876

##### 4 MAIL

Experient/RSNA 2010

568 Atrium Drive

Vernon Hills, IL 60061 USA

#### Registration Fees

BY NOV. 5    ONSITE

BY NOV. 5	ONSITE	
\$ 0	\$100	RSNA/AAPM Member
0	0	RSNA/AAPM Member Presenter
0	0	RSNA Member-in-Training, RSNA Student Member and Non-Member Student
0	0	Non-Member Presenter
150	250	Non-Member Resident/Trainee
150	250	Radiology Support Personnel
680	780	Non-Member Radiologist, Physicist or Physician
680	780	Hospital or Facility Executive, Commercial Research and Development Personnel, Healthcare Consultant and Industry Personnel
300	300	One-day registration to view only the Technical Exhibits

#### Important Dates

April 28	RSNA/AAPM member registration and housing open
May 26	Non-member registration and housing open
June 30	Course enrollment opens
October 22	International deadline to have full-conference materials mailed in advance
November 5	Final discounted advance registration, housing and course enrollment deadline to have full-conference materials mailed in advance
Nov. 28 - Dec. 3	RSNA 96th Scientific Assembly & Annual Meeting

## Product News

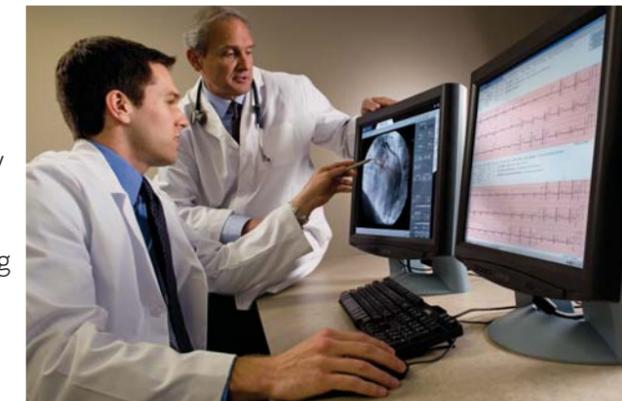
#### NEW PRODUCT

### ECG Processing and Storage System Upgraded

Agfa HealthCare ([www.agfa.com](http://www.agfa.com)) introduces newly enhanced capabilities for its IMPAX HeartStation ECG Management System™, a comprehensive data management solution for automating the processing and storage of electrocardiograms (ECG). IMPAX HeartStation now supports 15-lead ECG and provides the ability to store and view stress test and Holter monitor measurements.

Automating ECG processing and storage with IMPAX HeartStation dramatically improves clinical workflow. The system provides a single point of access to historical and current ECG exams in a universally familiar and easy-

to-read format. It improves physician access to ECG exams by providing the ability to display, review, edit, confirm, print and archive ECGs throughout the secure hospital network, wherever it extends.



The system supports both 12- and 15-lead ECG. In keeping with Agfa HealthCare's commitment to interoperability and open standards, IMPAX HeartStation is a vendor-neutral solution.



#### NEW PRODUCT

### Needle-Guidance System

CIVCO Medical Solutions ([www.civco.com](http://www.civco.com)) introduces the Infiniti needle-guidance system for use with GE Healthcare 11L, 11L-D, 12L-RS and 12L-SC transducers to shorten procedure time and increase accuracy. The needle-guidance system utilizes a two-part system consisting of a custom reusable biopsy bracket and disposable snap-on needle guide with sterile CIV-Flex transducer cover. The needle guide's open-channel design allows instruments to be positioned in the scan plane, providing a safe, efficient means for ultrasound-guided puncture procedures. The needle guide attaches to the reusable bracket and accepts 14- and 18-gauge or 20-, 21/22- and 25-gauge instruments.

#### FDA CLEARANCE

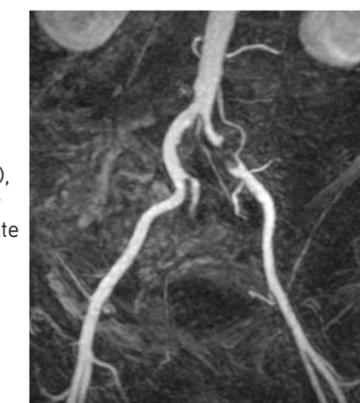
### Digital Radiography System

FUJIFILM Medical Systems USA ([www.fujimed.com](http://www.fujimed.com)) has received FDA clearance for its Fuji Digital Radiography (FDR) AcSelerate system, the only general radiography system available that uses a direct image capture technology. The system includes special design elements and fast image cycle times to help increase efficiency and maximize productivity. A fully automated table and upright system, it can be properly positioned for most any general radiography exam with the touch of a button. The FDR AcSelerate provides image preview in two seconds with cycle times of only four seconds and the new FDX Console workstation is now configured to alert technologists when exams are ready to expose.

#### NEW PRODUCT

### Injectable MRA Contrast Agent

Lantheus Medical Imaging ([www.lantheus.com](http://www.lantheus.com)), has launched ABLAVAR™ (gadofosveset trisodium), a unique, injectable MR angiography (MRA) imaging agent used to evaluate aortoiliac occlusive disease (AIOD) in adults with known or suspected peripheral vascular disease. ABLAVAR is the first and only contrast imaging agent approved in the U.S. for use with MRA to evaluate AIOD. In clinical studies, ABLAVAR demonstrated statistically greater sensitivity compared with non-contrast MRA.



Information for *Product News* comes 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](mailto:rsnanews@rsna.org). Information may be edited for purposes of clarity and space.

RSNA.org

# RSNA.org Gets Makeover

RSNA.org has introduced a fresh new look. Unveiled last month, the RSNA's updated logo—reflecting the Society's cutting-edge, collaborative vision—has now been incorporated throughout RSNA.org. Although innovative content and navigational tools remain intact, visitors will notice a new color scheme and updated RSNA logo anchoring familiar departments including Membership, Education, Science, Career and Publications.

In conjunction with launching its new look, Informatics has consolidated RSNA-developed technology-based tools including Integrating the Healthcare Enterprise (IHE®), the Medical Imaging Resource Center (MIRC®) and RadLex®, in one, easy-to-access location.



# myRSNA® Forum Answers Your Questions

Have questions about how to use myRSNA® features? Get answers from the myRSNA Web team by logging in and clicking on Forums at the top of the page. Tell us what's on your mind, ask when certain features will be developed, or make suggestions for future tools. Questions and answers will be posted and archived on the page so other members can benefit. Questions that come to myRSNA via phone or e-mail will also be reposted with their responses on the forum page.



# 20 Retrospective

Celebrating 20 Years of RSNA News

## Headlines

Remembering the radiologic topics that made news throughout the last 20 years. This month: radiologic education and staffing.

- March 1998** Survey Dispels Myth of Pessimistic Employment Outlook for Radiologists
- April 2001** Consensus Conference Seeks New Pathways for Radiologic Education
- August 2001** Senate Mulls Funding for Additional Radiology Residency Slots
- September 2001** Radiology Faculty in Short Supply
- July 2002** Limiting Work Hours for Residents
- June 2003** Radiology Residents Shy Away from Mammography
- November 2003** Controllable Lifestyle Attracts Medical Students
- March 2004** Radiology Needs More Women, Expert Says
- October 2005** Radiologist Shortage Over? Survey Says Yes
- November 2005** More Empirical Evidence Needed on Fatigue and Resident Duty Restrictions
- December 2005** Surveys Reveal Why More Women are Not Choosing Radiology as a Specialty
- March 2007** Residency Study Can't Explain Gender Gap in Radiology Specialty
- October 2008** Women Radiologists Seek New Solutions to Professional Challenges
- August 2009** Early Radiology Exposure Could Lure Medical Students to Specialty

## Crossword Answers

Here are the answers to the 20th anniversary crossword from our March 2010 issue. Missed the puzzle and still want to give it a try? Go to [rsnanews@RSNA.org](mailto:rsnanews@RSNA.org) to try an interactive version, complete with timer and optional clues. A new puzzle will be published in print and online with the May 2010 issue of RSNA News.



## Flashback: 1996

# RSNA and FDA Work to Hasten Medical Technology Approval Process

An upcoming conference convened by RSNA around its white paper, "Impact of the Regulatory Process on Research, Technology Transfer, and Patient Care in the United States," was detailed in the Spring 1996 issue of RSNA News. "The RSNA white paper will document the plight of U.S. industry and medical practitioners and describe how this worsening situation is ultimately detrimental patient care and research efforts in the United States," the article read.

An article in the September 1998 issue of RSNA News updated the efforts to reform the regulatory environment for medical devices, which saw RSNA recommending radiologists to serve on FDA panels and working with radiologic subspecialty groups to identify issues to be addressed by the FDA. "Although some people believe it may be an insurmountable task, we need to do what we can to inform the radiologic community and the public about the current research environment in North America," said 1999 RSNA President Seymour H. Levitt, M.D., who chaired the steering committee for the FDA conference.

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