

# RSNA® *News*



## RSNA 2008 Meeting Preview and Restaurant Guide

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- Radiology Practices Still Faltering Despite Temporary DRA Relief
- Accountant Turned Radiologist Champions MR-Guided Angioplasty
- Female Radiologists Seek New Solutions to Professional Challenges
- New PET Probe Enables Visualization of Immune System

**Final Advance Registration for RSNA 2008  
November 7**

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## RSNA News

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## RSNA Weekly Debuts as New Member Benefit

*RSNA Weekly*, a weekly briefing on news affecting the profession, launched as a new RSNA member benefit last month.

Each Tuesday, *RSNA Weekly* is delivered directly to members by e-mail and posted at [RSNA.org/Publications/RSNAweekly.cfm](http://RSNA.org/Publications/RSNAweekly.cfm). Members may “opt out” of receiving *RSNA Weekly* by clicking the link included at the bottom

of each week’s e-mail.

RSNA replaced its previous daily news briefing with *RSNA Weekly* after receiving feedback that members valued the information but wanted to reduce the number of e-mails they receive.

Members are encouraged to e-mail their comments regarding *RSNA Weekly* to [rsnaweekly@rsna.org](mailto:rsnaweekly@rsna.org).



### 2008 International Young Academics Named

THE RSNA Committee on International Relations and Education (CIRE) received more than 80 applications for the 2008 Introduction to Research for International Young Academics (IRIYA) program. Selected participants attend a specially designed four-day program, held during the RSNA annual meeting, that encourages them to pursue careers in academic radiology. At its June meeting, the RSNA Board of Directors approved recommendations from CIRE to invite the following 17 candidates to participate in this year’s IRIYA program:

NAME	COUNTRY
Jorge Ahualli, M.D.	Argentina
Farzana Alamm, M.B.B.S.	Japan/Bangladesh
Thorsten Bley, M.D.	Germany
Claudia M. Martinez Rios Arellano, M.D.	Mexico
Orla Buckley, M.D.	Ireland
Yong Eun Chung, M.D.	Republic of Korea
Chandan Jyoti Das, M.D.	India
Maria Magdalena Duma, M.D.	Romania
Emerson Leandro Gasparetto, M.D., Ph.D.	Brazil
Johannes Heverhagen, M.D., Ph.D.	Germany
Catherine Mary Jones, M.B.B.S., B.Sc.	United Kingdom
Chiara Recaldini, M.D.	Italy
Federico Guilherme de Paula Lopes Santos, M.D.	Brazil
Sebastian T. Schindera, M.D.	Switzerland
Nicola Sverzellati, M.D.	Italy
Bathala Tharakeswara Kumar, M.D., M.B.B.S.	Bahamas
Ai-lan Hitandhui Barrientos Priego, M.D.	Mexico

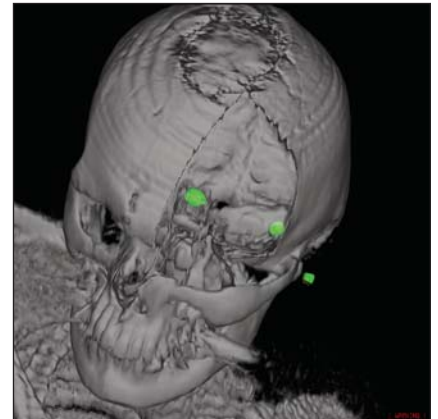
For more information and nomination forms, go to [RSNA.org/IRIYA](http://RSNA.org/IRIYA) or contact Fiona Miller at 1-630-590-7741 or [CIRE@rsna.org](mailto:CIRE@rsna.org). The deadline for nominations each year is April 15.

### SNM Selects Images of the Year

An image revealing a relapse of neuroendocrine cancer including nodal involvement and another illustrating the exact extent and location of an infection in the foot have been jointly selected as the 2008 SNM Images of the Year.

The two images were selected jointly not only to demonstrate the breadth and depth of molecular imaging but also to show that imaging techniques are increasingly being used in combination to provide precise snapshots of both the molecular function and the anatomy of disease in various parts of the human body, according to SNM. The Images of the Year were announced during the SNM annual meeting in New Orleans.

“Using positron emission tomography (PET) and CT, one group of physicians was able to see that a suspicious lesion in the left ear was not confined just to that area, but also involved a lymph node—this helped them plan the subsequent treatment,” said Henry N. Wagner Jr., SNM past-president and a professor at The Johns Hopkins University Bloomberg School of Public Health, who annually selects the SNM Image of the Year from thousands presented at the annual meeting. “The image of the foot shows that single photon emission computed tomography (SPECT) with MR imaging is being used just as successfully as PET/CT. In this one, the fused image shows clearly that the patient has not only a soft tissue infection but also osteomyelitis.”



## Vendor Summit Spurs Manufacturers to Act on Radiation Safety

**M**EDICAL IMAGING equipment manufacturers have agreed to collaborate with radiologists, medical physicists and radiologic technologists to create standardized radiation dose estimates and vendor-sponsored technologist education opportunities.

Representatives from GE Healthcare, Philips Healthcare, Siemens Healthcare and Toshiba America Medical Systems met with radiology leaders at a vendor summit, arranged by the Alliance for Radiation Safety in Pedi-



atric Imaging, on Aug. 20 at Cincinnati Children's Hospital. The more than 50 vendor summit participants, including the vendor representatives as well as radiologists, medical physicists, radiologic technologists and others representing the alliance, developed recommendations to:

- Encourage application specialists to teach the key messages of the alliance's Image Gently™ campaign to "child-size" radiation exposure
- Provide training for all technologists,

not just managers

- Provide online materials for technologists who can't attend in-person training
- Develop uniform language to discuss technological concepts
- Provide e-mail listservs or discussion boards for additional help
- Involve medical physicists with applications trainers to help with dose reduction techniques

For more information regarding the Image Gently campaign, go to [image-gently.org](http://image-gently.org).

## Clinical Trials Article on *RadiologyInfo*™ Lauded

A new article on *RadiologyInfo.org* describing the need for clinical trials and what they entail has drawn the praise of National Cancer Institute Director John E. Niederhuber, M.D., who has directed his media office to use the article as a model for explaining complex scientific concepts to the public.

A joint venture of RSNA and the American College of Radiology, *RadiologyInfo.org* is designed to answer patient questions related to many radiologic procedures and therapies. The article details the differences between observational studies and randomized,

controlled trials and also describes treatment trials. Also addressed are screening trials and the questions surrounding the use of imaging tests in screening.

"The piece is exceptional in its content, clarity and common sense explanation about how to use the best science to evaluate screening tests," said Dr. Niederhuber.

Go to the homepage of *RadiologyInfo.org* to access the article. Click Clinical Trials and Screening on the right-hand side.

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## RADIATION SAFETY Question of the Month

**Q** An administrator asks, "Why can't manufacturers make tables strong enough to hold our obese patients?"

[Answer on page 35.]

### MEDICAL IMAGING COMPANY NEWS

#### Noteworthy Acquires ChartConnect

■ Noteworthy Medical Systems, of Cleveland, originator of the market's only three-screen ambulatory electronic health record (EHR), has announced it is acquiring ChartConnect, of Yakima, Wash. ChartConnect's Web-based applications allow secure exchange and transfer of clinical information among physicians, including radiologists, on a patient's care team.

The new company will retain the name Noteworthy Medical Systems and will serve a combined customer base of more than 1,200 practices, 5,700 healthcare providers and 12,000 users across 43 states. The ChartConnect acquisition follows on the heels of Noteworthy's acquisition of MARS Medical Systems, of Phoenix.

#### Planar Sells Medical Business Segment to NDSsi

■ Planar Systems, of Beaverton, Ore., has announced the sale of its medical business segment to NDS Surgical Imaging (NDSsi), of San Jose, Calif., for \$34.25 million. Planar is a developer of specialty display solutions. NDSsi designs and manufactures advanced surgical imaging technologies.

## SNM Bestows Awards

SNM announced a number of awards at its recent annual meeting. **Peter J. Ell, M.D., Ph.D.**, director of the Institute of Nuclear Medicine and chair of nuclear medicine at the University College London, U.K., received the 2008 Georg Charles de Hevesy Nuclear Pioneer Award.

**Mathew L. Thakur, Ph.D.**, was awarded the 2008 Benedict Cassen Prize for Research. Dr. Thakur is a professor of radiology and radiation oncology at Thomas Jefferson University Medical College in Philadelphia, where he also serves as director of radiopharmaceutical research and nuclear medicine research and on the staff at the

Kimmel Cancer Center.

Also named were recipients of the SNM Distinguished Service Award. **Paul H. Murphy, M.D.**, is a professor in the nuclear medicine section of the Department of Radiology at Baylor College of Medicine and head of medical physics and radiation safety at St. Luke's Episcopal Hospital, Texas Heart Institute and Texas Children's Hospital, all in Houston. **Arthur M. Weis, J.D.**, was founder and chair of the board of Capintec, a maker of radiation dose calibrators and other nuclear medicine instruments. **Martin G. Pomper, M.D., Ph.D.**, is a professor of radiology,



Peter J. Ell, M.D., Ph.D.



Mathew L. Thakur, Ph.D.

pharmacology and molecular sciences and in oncology at The Johns Hopkins University.

The 2008 SNM Distinguished Educator is **Carolyn J. Anderson, Ph.D.**, a professor of radiology, biochemistry and chemistry at Washington University in St. Louis.

## Drayer Resigns Mount Sinai Post

**Burton P. Drayer, M.D.**, RSNA Board Liaison for the Annual Meeting and Technology, has resigned as president of The Mount Sinai Hospital in New York. Dr. Drayer was named president in 2003 and was instrumental in the financial and operational turnaround of the hospital and medical center. He stepped down to focus on his roles as chair of a growing Department of Radiology and his future RSNA responsibilities. He will also remain as medical center executive vice-president overseeing medical liability, emergency management and enterprise risk, as well as continue his role in the Medical Center Strategic Management Group. Dr. Drayer will serve as RSNA Board Chair in 2009.



Burton P. Drayer, M.D.

### IN MEMORIAM

## Nuclear Medicine Loses Two Pioneers

**John G. McAfee, M.D.**, recipient of the RSNA Gold Medal in 2004, died July 26 at the age of 82.

In 1958, Dr. McAfee co-founded the first nuclear medicine facility at The Johns Hopkins University, which spawned such discoveries as the use of technetium-99m for brain scanning. The facility also produced a chemical kit for liver imaging and became the first to use a large 8 crystal scanner.

An early technique developed by Dr. McAfee and his colleagues to superimpose nuclear scan results on chest or brain X-rays is widely used today. Dr. McAfee is also known for his many contributions to imaging the kidneys with radiomercury-labeled

chlormerodrin, an event regarded by SNM as a historic moment in nuclear medicine.

**Robert N. Beck**, professor emeritus in the Department of Radiology at the University of Chicago and known to many as "Mr. Collimator," died Aug. 6 at the age of 80.

Beck was known for his fundamental role in developing the theoretical framework at the core of much of nuclear medicine and for bringing mathematical rigor to imaging systems such as SPECT and PET. He was also part of a group credited with introducing technetium-99m into clinical practice in the early 1960s as a radiotracer



John G. McAfee, M.D.



Robert N. Beck

agent—a discovery that would prove critical in establishing nuclear medicine as a medical specialty.

Beck also developed scanning devices for radionuclide imaging, optimized collimator design and evaluated the trade-offs between spatial resolution and sensitivity.

**Larose Receives Alabama Service Award**

**James H. Larose, M.D.**, a radiologist in private practice in Montgomery, Ala., has received the Ira L. Myers Service Award from the Alabama Medical Association for serving the medical profession faithfully and meritoriously during his lifetime. Dr. Larose helped found the American College of Nuclear Physicians.



**James H. Larose, M.D.**

**Rezai is Chief at Chicago Hospital**

**Mohammad Rezai, M.D.**, has been named chief of radiology services at Our Lady of the Resurrection Medical Center in Chicago. Dr. Rezai has worked at the medical center since 1982.



**Mohammad Rezai, M.D.**

**Farrell Honored for Rural Radiology Work**

**Julie Farrell, M.D.**, chief radiologist at Brown County General Hospital in Georgetown, Ohio, for 25 years, recently received the Congressional

Medal of Distinction for her work in radiology in rural Brown County. Dr. Farrell, who received the medal for the southwest Ohio region, advocates for

people in rural areas to be screened for breast cancer and lung cancer.



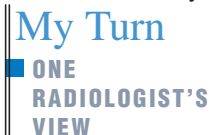
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MY TURN

Moving Forward, Technically Speaking

As RSNA 2008 approaches, I am excited to see some dramatic changes unfold. Most obvious will be the unveiling of a third Technical Exhibition space—Hall D in the Lakeside Center. While this expansion could be considered simply “moving outward,” I encourage you to think of it as “moving forward” as well.

When I first attended the RSNA annual meeting 20 years ago, all exhibits were housed in the Lakeside Center. Now, after expanding into the North (Hall B) and South Buildings (Hall A), we are back in Hall D. The expansion allows continued growth for our exhibitors, as we have once again eclipsed 510,000 square feet of exhibit space. More than 700 companies, including 100-plus first-time exhibitors, have requested room this year.



Expanding the layout also allows greater flexibility and complexity in the exhibits, decreased congestion within and surrounding the displays and easier access to them. I look forward to greater ease of use and a better overall experience.

An important aspect of this expansion is the increased size and availability of Hands-on Workshops, which will be located in Hall A. These sessions cover topics such as radiology information systems, PACS and new techniques in computer-aided diagnosis. Increased attendance at these workshops reflects a growing trend toward more interactive experiences—a need we are poised to meet.



**Jonathan M. Alexander, M.D.**

As we continue to strive for greater quality and safety of care for the patients, improve the interaction between referring physicians, radiology staff and patients and attempt to fend off competing fields, increasing the accessibility and ease of interaction between our educational endeavors and the newest

technology only makes sense. I believe that we are getting not only bigger, but also better, and excelling while we're expanding.

*Jonathan M. Alexander M.D., is director of the Departments of CT, MR Imaging and Ultrasound and Acting Director of the Breast Imaging Center at Rush North Shore Medical Center in Skokie, Ill. Dr. Alexander chairs the RSNA Technical Exhibits Committee.*



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*RSNA.org*

# Radiology Practices Still Faltering Despite Temporary DRA Relief

**W**HILE MANY radiologists applaud recent action by Congress to end an on-again, off-again Medicare reimbursement drama and extend the June 2008 physician pay rates with an additional 1.1 percent update for 2009, many said they still await a permanent healthcare financing fix that remains a distant hope.

Focusing laser-like on the growth of outpatient imaging for nearly two years, the Deficit Reduction Act (DRA) legislation is slowly changing the radiology landscape. Enacted to bring Medicare costs to heel, its effect has been considerable—some say enormous—and many radiologists and their practices are feeling the pain more than ever.

The 18-month fix leaves a future 21 percent cut still on the table. Meanwhile, a September 2008 Government Accountability Office report on the effects of the DRA on medical imaging reimbursement revealed that the DRA cuts were far deeper than the Congressional Budget Office (CBO) initially stated. The American College of Radiology (ACR) issued a statement noting that the report confirms a 2005 ACR statement that cuts are approximately three times that of the initial CBO estimates.

“It’s pretty obvious that imaging has already been tapped for more than its fair share of any budget neutrality initiative,” said James H. Thrall, M.D., chair of the ACR Board of Chancellors and radiologist-in-chief at Boston’s Massachusetts General Hospital.

Dr. Thrall acknowledged that all medical societies have an interest in crafting a permanent approach to a sustainable growth rate but finds the current sustainable growth rate (SGR) formula “fundamentally flawed.”

## Expenses Escalate as Revenues Fall

AGI Healthcare Group, a radiology-niche consulting firm in San Ramon, Calif., reports that the DRA has affected all of its clients, even the well established. “Everybody saw a 2007 revenue drop and it’s continuing in 2008, while expenses are escalating at historic rates,” said AGI vice-president John Buckhalter. “It’s certainly becoming less attractive going forward.”

The DRA came in the wake of reports from numerous federal data collectors showing dramatic increases in imaging volume. Many in the specialty, however, doubt the DRA can provide effective and equitable solutions that harness costs arising from technological innovation, new diagnostic and clinical applications, more beneficiaries, defensive medicine and patient demand.

## “Survival” Strategies Sought

“Our DRA hit was \$2.5 million,” said Richard Jensen, M.D., chairman and president of Dallas-Fort Worth-based ASI consulting company and its parent, Radiation Associates of Tarrant County. In a growing Texas market, the companies managed to salvage a good year, he said. It’s a landscape of haves

and have-nots, he said, “and the small operators are being devastated. We’ve been approached by practices looking to be bought out, while others have just gone out of business.”

Dr. Jensen said he sees very few entrants in the market and little investment or upgrading of equipment.

With a 45 percent Medicare population, “the DRA was a pretty big hit for us,” said Alan Budzier, administrator of Mt. Baker Imaging in Bellingham, Wash. “Roll all the negative factors together and we’re feeling the pain.”



**Jonathan Breslau, M.D.**  
Radiological Associates of Sacramento Medical Group



**John Buckhalter**  
AGI Healthcare Group



**Richard Jensen, M.D.**  
Radiation Associates of Tarrant County



**Cynthia Moran**  
American College of Radiology



Budzier said he has worked to reduce expenses on “the big cost things—medical liability, our teleradiology services contract and maintenance agreements, with individual strategies targeted at each of those in an effort to reduce costs.” Mt. Baker has also self-insured and, while maintaining competitive salaries, is offering employees health savings accounts. “It’s not going to turn around in a year,” Budzier said. “There’ll be more bad patient debt for us. You have to adjust your internal policies based on the larger market. Those are the survival strategies.”

### Teleradiology Firms Seen to Benefit

In a climate of cost-cutting, national teleradiology firms are benefiting, said neuroradiologist Jonathan Breslau, M.D., of Radiological Associates of Sacramento Medical Group, Inc., and newly installed president of the California Radiological Society. “If you have just a few people and you have to cover 24/7, it’s nice to have someone doing the nighttime work,” he said. “But telerad firms represent an existential threat to independent radiology practices by constituting a large, aggregating, financial intermediary with real power in the marketplace and economies of scale with respect to the most expensive resource—radiologists.” They also move into desirable daytime work, Dr. Breslau said, often negotiating directly with hospital administrations.

### Accreditation, Appropriateness Criteria Tapped to Control Growth

A new Government Accountability Office (GAO) report released this past June—showing that imaging costs doubled between 2000 and 2006 to reach a record \$14 billion—served to amplify and support steps Congress was already acting to address the rapid growth in Medicare imaging services, said Cynthia Moran, ACR assistant executive direc-

tor for government relations and economic health policy. However, while the GAO recommended accreditation and pre-authorization for imaging services as cost controls, Congress declined to embrace pre-authorization. Instead, with the help of ACR, Congress developed legislation that focuses on accreditation and appropriateness criteria.

The Medicare Improvements for Patients and Providers Act of 2008 (HR 6331) requires physicians and others who furnish advanced diagnostic imaging services to meet Medicare accreditation standards by January 1, 2012. It also establishes a 2-year project examining models of appropriateness criteria—provisions ACR pushed aggressively. “In fact, it’s fair to say

*It’s pretty obvious that imaging has already been tapped for more than its fair share of any budget neutrality initiative.*

James H. Thrall, M.D.

that the provisions concerning accreditation and appropriateness criteria came off an ACR typewriter,” said Dr. Thrall.

The GAO Report noted various self-referral arrangements as significant contributors to overutilization, a practice that Dr. Thrall said “drains resources out of the healthcare system with no benefit to patients.” The GAO Report concludes, “Not all of these services were appropriate ... [and] more healthcare services do not necessarily lead to better outcomes.”

While self-referral remains—in Dr. Breslau’s estimation—“the 800 pound gorilla in the room,” it’s gaining new scrutiny. In response to the GAO Report, Sen. Chuck Grassley (R-Iowa) introduced the Medicare Imaging Disclosure Sunshine Act of 2008 (S 3343), which, effective Jan. 10, 2010, would tighten restrictions found in the Stark Law. ACR has focused on self-referral for quite some time, said Dr. Breslau. “Congress long considered it a turf battle among physicians. Now they understand we’re talking about billions, and ‘Hey, radiologists are helping lower the cost of healthcare.’”

The DRA energized industry, physician and patient groups to consider long-term strategies to avoid future DRAs, said Moran.

“Yes, we were extremely successful this year in convincing the Congress that across the board reimbursement cuts were not going to deal with the underlying concerns of overutilization,” she said. “This year the good forces came together, but victory lasts as long as you can spell it.” She said she sees continued uncertainty without some very dramatic policy changes.

For those wondering how practices should react, Dr. Breslau recommended caution, cost control and diversification of revenue sources. “The answer is, ‘You don’t know what changes are coming over the next five to 10 years,’” he said. “And I mean you really, really don’t know.” □

### Learn More

■ Read previous *RSNA News* coverage of the Deficit Reduction Act (DRA) at [rsnanews.org](http://rsnanews.org). “Radiologists Brace for the Effects of DRA Cuts” appeared in the January 2007 issue and “Physicians Seek Relief in DRA’s Second Year” appeared in January 2008.

## Emerging Economic Issues at RSNA 2008

Implications of the November elections on the healthcare system and radiology are among the issues to be discussed during



**RSNA2008**  
Personal Learning in the  
Global Community

“ACR Update on Critical Issues Facing Our Profession,” a special focus session to be held at RSNA 2008. The session, scheduled for Thursday, Dec. 4, 3:00 p.m. – 4:00 p.m., will also focus on:

- Medicare payment system changes for 2008 and 2009
- Relative Value Update Committee actions for 2007 and 2008
- New CPT codes and payment status for coronary CT angiography and CT colonography

Registration for RSNA 2008 continues at [RSNA.org/register](http://RSNA.org/register).

# Women Radiologists Seek New Solutions to Professional Challenges

**A**N INCREASING number of women practicing radiology around the globe are fueling a drive for solutions to the professional challenges they face. Many find themselves struggling with some of the same issues faced by the specialty's pioneers.

Traditional work patterns and life-work balance were among the topics addressed during a special 2008 European Congress of Radiology (ECR) session focusing on female radiologists, while the address during the American Association for Women Radiologists (AAWR) President's Luncheon at RSNA 2008 will focus on improving job negotiation skills.

## Numbers Slowly Increasing

Surveys by the American College of Radiology found women made up 18 percent of professionally active radiologists in the U.S. in 2003, up from 16 percent in 2000, 14 percent in 1995, 13 percent in 1990 and 12 percent in 1982.

In Canada, meanwhile, there are many more women in radiology. Studies by the Canadian Association of Radiologists show women made up 33 percent of practicing radiologists in 2005, up from 30 percent in 2003 and 25 percent in 1998. Reports from European countries show the percentage of women practicing radiology varies widely throughout the continent.

The ECR session, "Women in Radiology: How to Maximize Their Input," featured a panel of speakers addressing such topics as the sociology of gender employment, the working environment, family obligations throughout one's career and conflicts in combining parenthood and academic work.



**Etta D. Pisano, M.D.**  
University of North Carolina



**Kimberly E. Applegate, M.D., M.S.**  
Indiana University School of Medicine



**Lynn Fordham, M.D.**  
University of North Carolina

RSNA Board Chairman Hedvig Hricak, M.D., Ph.D., Dr. h.c., participated in the session, offering advice garnered during her successful 30-year career.

"Ask questions and don't assume that people know what you think or want," said Dr. Hricak, who currently serves as the Carroll and Milton Petrie Chair of the Department of Radiology at the Memorial Sloan-Kettering Cancer Center in New York.

Other advice offered by Dr. Hricak: Don't take comments personally; sit at the front of the room or around the executive table—that is, not in the background; and avoid being defensive or confrontational when asking for promotions.

"Offer constructive criticism," Dr. Hricak added. "Propose the changes that you believe will improve the working environment. And remember, you don't need to ask for permission to do the right thing."

## Grant Funding Advocated

Kimberly E. Applegate, M.D., M.S., is among those proposing change. Dr. Applegate, a professor of radiology and

pediatrics and the director of pediatric radiology research at Riley Hospital for Children and the Indiana University School of Medicine in Indianapolis, advocates grants designed especially for young female radiologists. Data about women in science show women need flexibility early in their careers, whereas men seek it later, she said.

"The system is set up by well-intentioned men, but it disadvantages women," said Dr. Applegate, adding that she considers herself "very lucky" in her home life. "I have a fabulous husband who also works full time and three very independent children, ages 15 and 13-year-old twins," she said.

Dr. Applegate received a Research Seed Grant from the RSNA Research & Education Foundation in 1997 for a study titled "The Impact of Imaging on Diagnosis, Management and Cost in Pediatric Patients with Abdominal Pain Presenting to the Emergency Department: A Comparison of Capitated versus Fee-for-Service Plans."

Dr. Applegate cited data from a Massachusetts General Hospital (MGH) program designed to improve the

retention and advancement of women faculty. Launched in 1997, the Claflin Distinguished Scholar Awards program provides bridge funding to junior women faculty during their child-bearing years. A study of program outcomes to date, published in the February 26, 2007, issue of the *Archives of Internal Medicine*, reported 90 percent retention of award recipients, with 36 of the 40 recipients remaining at MGH. Additionally, 22 of the 40 have been promoted.

A grant program focusing on radiologists, radiation oncologists and medical physicists would be similarly successful, Dr. Applegate said, and may help not only women but also men. Applauding how radiology's increasing international focus has increased the stature of the specialty, she noted, "Now, I want to see radiology think more about helping young researchers who need to balance family and career goals."

### Negotiation Skills Can Be Improved

Women radiologists—both the young and more experienced—can also benefit from improving their salary negotiation skills, said AAWR President Etta D. Pisano, M.D. In her positions as vice-dean for academic affairs and the Kenan Professor of Radiology and Biomedical Engineering and director of the University of North Carolina Biomedical Research Imaging Center, Dr. Pisano negotiates contracts with all senior hires.

"The literature shows women and men behave differently in negotiations," said Dr. Pisano, who will address the AAWR President's Luncheon at RSNA 2008. "I am always struck by the differences when I negotiate with women and men. The range is enormous, from accepting whatever is offered to making incredible demands."

The message during her talk at RSNA 2008, said Dr. Pisano, will not be one of "We need to get our due."

"We haven't learned how to negotiate," she said. "My goal is to offer some idea of what to expect in negotiations. Some people have never negotiated before. You need to ask yourself

what you need to have, versus what you want to have."

Dr. Pisano said she has always prided herself on being a good negotiator, even at the beginning of her career. Part of the lesson she wants to impart, she said, is that women need to get an appropriate salary from the start. She also offered this advice: "The faster you move up, the more flexible your hours become. Keep asking yourself, 'What are you doing to reach your goals?'"

### Setting Priorities, Finding Mentors Critical

Women radiologists interviewed for this story said their success has hinged on setting priorities, finding mentors and seeking new solutions to challenges.

"Have a plan. Have a back up plan and have another back up plan," said Lynn Fordham, M.D., section chief of pediatric radiology and an associate professor of radiology at the University of North Carolina and AAWR president-elect.

Balancing it all is an ongoing challenge but well worth the effort, said Dr. Fordham. Good childcare, both when her children were babies and now at ages 12 and 14, has allowed her to work full-time, she said. She added that her husband has always been supportive; however, the couple has found they have little time for their own pursuits. "I have an ever-growing list of things I want to do when our children go to college," she said.

Dr. Fordham added that she has

sought advice from mentors but separated her work life from her family life. "I tried not to involve my colleagues," she said. "This is my issue, not theirs." She said she listened well to the advice of her role models, who told her how to maintain personal and work balance. "Hearing creative solutions from other women helped inspire me," she said.

"I am happy to be in radiology," Dr. Fordham continued. "I have a rewarding career and rewarding children. This can be a family-friendly career, given appropriate leadership. We need more administrative support to allow career flexibility and more support for part-time people. We need to find better solutions."

Silvia D. Chang, M.D., F.R.C.P.C., chose to work 90 percent time after her child was born almost two years ago. Dr. Chang, an assistant professor at the Department of Radiology at the University of British Columbia and head of abdominal MR imaging at Vancouver Hospital and Health Sciences Center, said she knew it was going to be a challenge. She has made her life more organized and efficient as she allocates time for work and family. It is important to have balance and to make time for yourself once in a while, said Dr. Chang, and a supportive husband and family are essential. Separating job and family is important, as no one should bring family issues to the workplace, she added.

Dr. Chang, also a member of the *RSNA News* Editorial Board and the

*Continued on Page 11*

## Egyptian Radiologist to Address AAWR International Luncheon

**N**AGLAA ABDEL RAZEK, M.D., of Giza, Egypt, will discuss "Life as a Woman Radiologist in Egypt" during the American Association for Women Radiologists (AAWR) International Luncheon at RSNA 2008.

Dr. Abdel Razek is an assistant professor of radiology at Cairo University and is director of the breast imaging unit and quality manager at the Alfa Scan Radiology Center in Giza. She serves as secretary general of the Scientific Society of Radiology-Egypt and assistant secretary general of the Egyptian Society of Women's Imaging & Health Care.

The luncheon, to be held Thursday, Dec. 4, from 12:00 p.m. to 1:00 p.m., costs \$10 and is open to all RSNA 2008 attendees. People interested in attending should complete the registration form available at [www.aawr.org](http://www.aawr.org).



**Naglaa Abdel Razek, M.D.**

# New PET Probe Enables Visualization of Immune System

**A** NEW positron emission tomography (PET) probe that models and measures the immune system may help physicians more quickly determine how patients are responding to treatment.

A team at the University of California, Los Angeles, Jonsson Comprehensive Cancer Center, has altered the chemotherapy drug gemcitabine to create the molecule fluoracetate (FAC), which in turn can be used as a probe monitoring the immune system with 3D PET. Owen N. Witte, M.D., and Caius Radu, M.D., led the team, which published its findings in the July 1, 2008, issue of the journal *Nature Medicine*.

“The challenge that motivated me was to develop a new way to visualize the immune system in a noninvasive way using PET,” said Dr. Radu, an assistant professor of molecular and medical pharmacology at UCLA. “One of the first ideas we had was developing such imaging drugs by using a very simple screening strategy.”

Dr. Witte, director of the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at UCLA, described how he had gotten to know Michael Phelps, Ph.D., a UCLA colleague and pioneer in modern PET scanning. “I began asking him about the potential for PET to evaluate immune function,” explained Dr. Witte. “We came about this not by taking anything that anyone else had done, but by working with the principles, to try to understand how cells involved in an immune response could be potentially imaged.”

*We believe that probably the most important implication of this study is that one can see it as a pathway to developing other PET imaging probes.*

**Caius Radu, M.D.**

through the salvage pathway and is taken up quite beautifully in lymphoid cells, particularly when they’re in an activated state.” The result, he said, is vivid PET imaging of the probe and thus the immune system response.

Dr. Radu said he sees this imag-



Owen N. Witte, M.D., and Caius Radu, M.D., of the University of California, Los Angeles, led the team that developed a way to noninvasively monitor the immune system using PET.

Focusing on how immune response cells behave, the team looked at DNA salvage pathways—the scavenger mechanism that takes up DNA building blocks that have been degraded as cells died during immune response.

The team knew that gemcitabine and related molecules are efficiently picked up by the DNA salvage pathway. According to Dr. Witte, with some modification of the gemcitabine molecule, the newly created

FAC molecule “goes

ing development in the larger picture of personalized medicine. “Doctors need to start treating individual patients rather than generic diseases,” he said. New ways to image the immune system, he said, will allow doctors to both predict how a specific patient would respond to a drug and to quickly determine whether patients are responding to the drug once treatment begins.

“You can measure antibodies, the soluble protein components of the immune system, quite well,” said Dr. Witte. “But the cellular immune system is very poorly monitored by modern technology. We take cells out of the peripheral blood, but you have to realize there’s only a tiny, tiny fraction of the cells in the peripheral blood and they’re only there transiently. In order to think about cells that are actually functioning, we would have to take cells out of a place where they’re carrying out a function—for example,

attacking a tumor.”

With FAC and similar PET probes, said Dr. Witte, doctors will soon be able to look for “abnormal accumulation of lymphoid cells in places they shouldn’t be, indicating an autoimmune disease or a response to another pathological process. It’s really a completely different way of measuring.”

The research required a multidisciplinary team. “You have to think about everything from fundamental physics all the way to the immune system and the whole body, so it covers a lot of turf,” said Dr. Witte. “You need people who are both synthetic chemists as well as radiochemists, you need people who are trained in the physics and mathematics of image construction. You need engineers who build and design the latest varieties of PET scanners.”

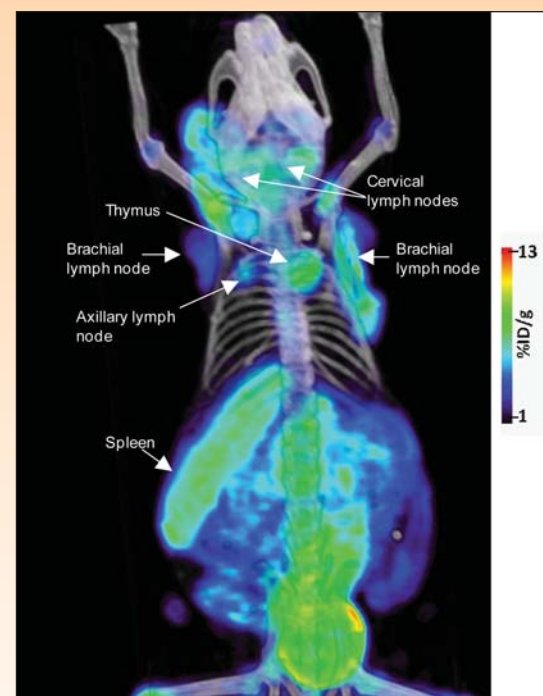
Moving ahead, the UCLA team will be testing FAC in humans to see if it works as well as it has in mice. The researchers are also actively seeking more PET probes. “We are trying to take the lessons we learned from developing FAC and apply them to the discovery of other probes,” said Dr. Radu. “We believe that probably the most important implication of this study is that one can see it as a pathway to developing other PET imaging probes.”

Added Dr. Witte: “There’s a whole collection of relatives that we’re working on. They are being evaluated in a

broad range of experimental models that look at different aspects of the immune response, some against cancer in terms of cellular therapies and some against infectious agents and in cases of autoimmune disease. There’s quite a bit of work to do in characterizing FAC.”

The team is committed to moving ahead into the clinic with the agents, said Dr. Witte. “We want to see which, if any, of these compounds has any value in the clinic for diagnosis or prognosis of autoimmune disease or cellular therapeutics for cancer,” he said.

Because FAC and its derivatives are related to a family of cancer chemotherapy agents like gemcitabine, researchers hope to be able to use the probes to predict which patients would respond to the chemotherapy agents, said Dr. Witte. “Some patients really do respond to the chemotherapy agent and you know you’re having a therapeutic effect,” he said. “In other patients, there’s remarkably little response and it’s not clear why. It can be for lots of reasons, such as the drug wasn’t taken up or it’s metabolized differently. What we hope to do is use a probe like FAC to identify patients who are taking up a lot of this class of compound because we believe they’d be the ones who are more likely to have a favorable chemotherapy response. We may have a way of predicting how patients with a certain types of cancer will respond best to



Researchers altered the chemotherapy drug gemcitabine to create the molecule fluoroacetate (FAC), which can be used as a probe for monitoring the immune system with 3D PET. Researchers are using the probe and its derivatives to look at different aspects of immune response, including cases of autoimmune disease.

a selected, more targeted therapy.”

Both Drs. Radu and Witte are excited about expanding their diagnostic toolbox. “What’s important is I don’t think we’re finished finding good, new, effective probes,” said Dr. Witte. “We’re not looking at a single molecule perspective; we’re looking at a pathway perspective.” □

## Women Radiologists Seek New Solutions to Professional Challenges

*Continued from Page 9*

RSNA Education Exhibits Committee, said the best guidance she can offer to others in her situation is to prioritize: “Ask yourself what you want out of life, so that you don’t have regrets later.”

2003 RSNA President Peggy J. Fritzsche, M.D., encourages her female colleagues who have succeeded to share their experiences as role models for the younger generation.

“I believe that radiology has the reputation of being not only fast paced and exciting, but also very com-

petitive,” said Dr. Fritzsche, during an interview with RSNA earlier this year. Dr. Fritzsche, who will receive the RSNA Gold Medal at RSNA 2008 (see profile on Page 20), was the Society’s second female president and one of just a few women in her medical school class in the 1960s.

“It’s possible that women see radiology as too difficult, too competitive,” said Dr. Fritzsche. “Medical students see the typical day for trainees in surgery and medicine, but they have only a vague idea of variations in a day for a

radiology trainee; therefore, they avoid radiology based on hearsay. We need to change that, and one way would be to arrange informal discussions with medical student interest groups and radiologists who love their work.” □

### Learn More

■ An extract of the study “A Targeted Intervention for the Career Development of Women in Academic Medicine,” published in the February 26, 2007, issue of the *Archives of Internal Medicine*, is available at [archinte.ama-assn.org/cgi/content/extract/167/4/343](http://archinte.ama-assn.org/cgi/content/extract/167/4/343).

# Accountant Turned Radiologist Champions MR-Guided Angioplasty

**J**IM GEHL, M.D., may have ultimately decided against pursuing a career with his undergraduate degree in accounting and management information systems, but he still found use for his skills on a research team comparing MR- and X-ray-guided angioplasty.

Dr. Gehl, now beginning his radiology residency at Northwestern Memorial Hospital in Chicago, opted for a career in medicine after discovering his job as a computer consultant was simply not his calling. He was a student at Northwestern's Feinberg School of Medicine in 2004 when he received the RSNA Medical Student Grant—a “life-changing” experience that helped steer him toward radiology, he said.

“I enjoyed aspects of consulting, but I would not have wanted to do it for a lifetime,” said Dr. Gehl, whose father, Jerome J. Gehl, M.D., is a radiologist in private practice in Little Rock, Ark. “Honestly, I wanted to pursue a career where I could make a more direct personal impact.”

The RSNA program, he said, gave him the opportunity to explore clinical research for the first time. “It also connected me with fantastic mentors like Reed Omary, M.D., M.S., who gave me the freedom to explore the process from conception to culmination. Being an active participant in that process was amazing and ultimately solidified my interest in radiology and academic research.”

## MR-Guided Angioplasty Tested in Renal Artery Stenosis

Dr. Gehl's project compared MR-guided angioplasty procedures to the traditional X-ray-guided variety. “We surgically induced renal artery steno-

sis in a small sample of swine and performed balloon angioplasty in one artery under X-ray guidance, and in the other artery under MR imaging guidance. We then compared efficacy, procedure times and complication rates.”

The research demonstrated that while MR-guided procedures took significantly longer to complete, there was no statistical difference in complication rates or success.

Dr. Gehl is a critical part of the research team not only for his medical skills but also for the computer expertise he gained as an undergrad, said Dr. Omary, an interventional radiologist and vice-chair of research for the Department of Radiology at Northwestern.

“Any time a person brings another skill set to medicine, it's a real asset,” said Dr. Omary. “Those additional skills allow them to think differently. In very practical terms, Jim brings a lot of very valuable computer experience. During the RSNA project, Jim was able to figure out how to move our images from an X-ray unit onto a computer for analysis when others, including outside computer experts and the manufacturer of our machine, could not. Jim found the solution and to this day, we call Jim when we run into computer problems.”

## Search for Non-gadolinium Contrast Changes Research

Since completion of the team's pre-clinical work, initial clinical translation of their techniques has hit a significant stumbling block due to nephrogenic systemic fibrosis (NSF), a progressive and debilitating condition affecting the skin, muscles and vital organs. NSF has affected patients with acute kidney injury, stage IV or V chronic kidney disease or patients who are on dialysis



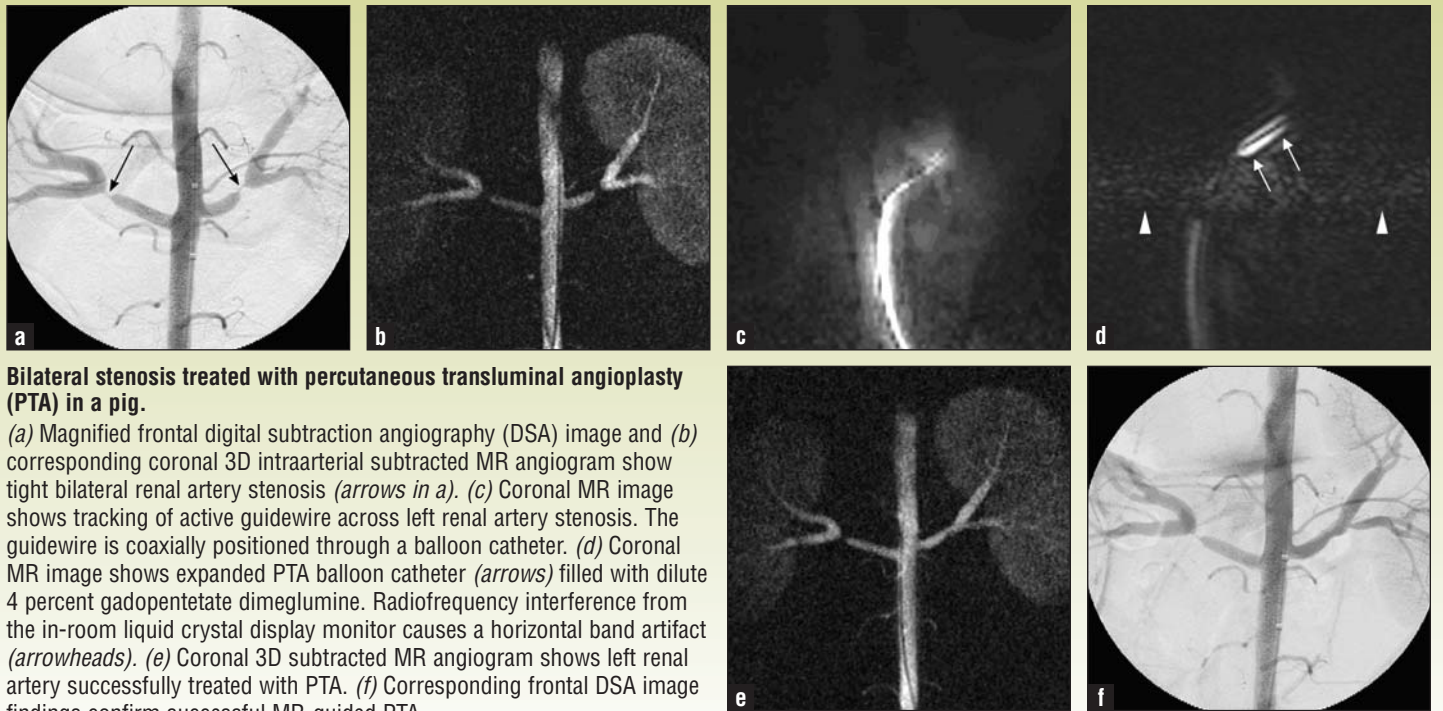
**James A. Gehl, M.D.**  
Northwestern Memorial Hospital

and who received very high doses of gadolinium or repeated doses over a relatively short period of time.

“There is now a very strong focus on developing MR techniques that don't use gadolinium,” said Dr. Omary. “It's a very fertile area for research right now and when those techniques are further refined, we can go back and revisit the clinical translation of our methods in the kidney.”

Dr. Gehl said he believes the technique still holds promise. “The procedure may offer benefits to both patients and interventional radiologists,” he said. “In addition to reducing exposure to ionizing radiation for both the patient and physician, MR imaging provides superior concurrent tissue visualization and the potential to measure end organ function as a possible measure of the success of the intervention.”

While completing his internal medicine internship, Dr. Gehl had little time to devote to research; however, he was able to collaborate with Dr. Omary on a study using another interventional



**Bilateral stenosis treated with percutaneous transluminal angioplasty (PTA) in a pig.**

(a) Magnified frontal digital subtraction angiography (DSA) image and (b) corresponding coronal 3D intraarterial subtracted MR angiogram show tight bilateral renal artery stenosis (arrows in a). (c) Coronal MR image shows tracking of active guidewire across left renal artery stenosis. The guidewire is coaxially positioned through a balloon catheter. (d) Coronal MR image shows expanded PTA balloon catheter (arrows) filled with dilute 4 percent gadopentetate dimeglumine. Radiofrequency interference from the in-room liquid crystal display monitor causes a horizontal band artifact (arrowheads). (e) Coronal 3D subtracted MR angiogram shows left renal artery successfully treated with PTA. (f) Corresponding frontal DSA image findings confirm successful MR-guided PTA.

*Radiology* 2006; 238:489-496. © RSNA, 2006. All rights reserved. Reprinted with permission.

MR imaging technique to monitor the treatment of patients with liver cancer during chemoembolization treatment.

Dr. Gehl now looks forward to getting back into the lab as a resident. “I think my love of technology is partly what attracted me to radiology,” he said. “Research has added another dimension, allowing me to be creative and do some work that may ultimately help a large number of people. I find that very exciting.”

Recipient of an RSNA Research Resident Grant in 1993 and an RSNA Research Scholar Grant in 1999, Dr. Omary noted the power of RSNA grants not only to fuel groundbreaking research, but also nurture careers. “RSNA programs have had an immeasurable impact on my own personal career,” he said. “It is fulfilling to use what I’ve learned through my RSNA experience and pass that knowledge along to trainees like Jim—that’s what education is all about.” □

**NAME:**

Jim Gehl, M.D.

**GRANT RECEIVED:**

Medical Student Grant (2004)

**STUDY:**

“Comparison of MR versus X-ray Guided Renal Angioplasty in Swine”

**CAREER IMPACT:**

“The RSNA program gave me an opportunity to explore clinical research for the first time,” said Dr. Gehl. “It also connected me with fantastic mentors who gave me the freedom to explore the process from conception to culmination. Being an active participant in that process was amazing and ultimately solidified my interest in radiology and academic research.”

**CLINICAL IMPLICATIONS:**

This study demonstrated the preclinical feasibility of employing MR imaging to guide interventional procedures, said Dr. Gehl’s mentor, Reed Omary, M.D., M.S. “Elements of this research, such as the ability to inject gadolinium contrast agent into catheters for real-time MR imaging, can now be incorporated by interventional radiologists into their innovative clinical services,” Dr. Omary said.

For more information on all Foundation grant programs, including examples of funded grant applications, go to [RSNA.org/Foundation](http://RSNA.org/Foundation) or contact Scott Walter, M.S., Assistant Director, Grant Administration at 1-630-571-7816 or [swalter@rsna.org](mailto:swalter@rsna.org).



**Grants  
in Action**

# RSNA 2008 Delivers Radiology's Present and Future

With increased integration of refresher course material and scientific papers, RSNA 2008 offers attendees myriad opportunities to not only learn about the latest breakthroughs in the specialty, but also take home knowledge to apply immediately in their work settings.

"Medical imaging informatics, which plays a crucial role in the daily practice of radiology, will be featured in scientific and focus sessions, as will quantitative imaging, structured reporting and molecular imaging," said RSNA Scientific Program Committee Chair Robert M. Quencer, M.D., a professor and chair of radiology at the University of Miami School of Medicine.



This year the committee received 10,878 abstracts for consideration—7,052 for scientific presentations and 3,826 for education exhibits. Over the summer, the committee, with its subcommittees, selected 1,803 abstracts as scientific papers and 729 as scientific posters. A separate committee accepted 1,606 abstracts for education exhibits.

## Breast Imaging

Defining breast cancer risk and selecting patient-specific screening strategies are developing areas this year, said Jennifer A. Harvey, M.D., subcommittee chair. Presentations examine the cost-effectiveness of MR screening, risk assessment, the role of screening ultrasound and how to address the lower sensitivity of mammography in women with denser breasts.

Other presentations examine digital tomography, breast-specific gamma imaging and MR screening for women with prior breast cancer. There is a marked increase in submitted studies on diffusion-weighted MR, Dr. Harvey said.

Notable trends include the application of cross-sectional and functional imaging using detectors specifically designed for the breast. "This includes positron emission mammography, breast specific gamma imaging, CT, tomosynthesis and whole breast ultrasound," said Dr. Harvey. "These developing applications may play a role in improving diagnostic capabilities and provide ancillary screening for women at high risk of developing breast cancer."

## Cardiac Radiology

Overall, there is strong interest in cardiac CT, with presentations focusing on radiation dose and technique develop-

ment, said subcommittee chair Andre J. Duerinckx, M.D., Ph.D.

Cardiac subcommittee members identified many great abstracts in two key areas—early population studies about clinical acceptance and applications of cardiac CT as well as the use of dual-source CT, said Dr. Duerinckx.

Other sessions will cover radiation safety, cardiac CT technique improvements, plaque imaging, quantitative cardiac radiology and comparisons with echocardiography and nuclear stress testing, he said.

## Chest Radiology

In the chest subspecialty, there is continued interest in pulmonary emboli and nodules, said H. Page McAdams, M.D., subcommittee chair.

Pulmonary embolism presentations will explore dose issues and applications in pregnancy, while studies in nodule classification will examine computer-aided detection (CAD), nodule volumes and screening. Many abstracts focus on CAD applications beyond mere nodule definition, Dr. McAdams said.

Other remarkable topics are texture-based classification of interstitial pneumonia, variability in pulmonary nodule volume software and dual-energy CT of the peripheral vessels, said Dr. McAdams.

## Emergency Radiology

Subcommittee Chair Diego B. Nuñez Jr., M.D., M.P.H., noted continuing trends toward validation of current practices, such as CT utilization and radiation safety in the emergency setting. He observed "particular interest in multidetector CT for abdominal trauma, particularly as it relates to scanning protocols, delayed imaging and multiplanar display."

Notable presentations will examine cumulative data on modality utilization, the appropriateness of Prospective Investigation of Pulmonary Embolism Diagnosis (PIOPED) II criteria for patients aged 40 years and younger, the importance of delayed CT in blunt trauma and pelvic CT angiography in blunt trauma using 64-slice multidetector CT, said Dr. Nuñez.

## Gastrointestinal Radiology

CT colonography as a viable screening study for polyp detection remains a popular topic, said Erik K. Paulson, M.D., subcommittee chair. "There is also continued interest in exploring the efficacy of this technology, applications of computer-aided detection and development of novel bowel preparations," he said. He also noted increased interest in analyzing the biologic behavior and treatment response of tumors with quantitative CT and MR techniques, including 3T MR applications.

"Dual-energy CT is now offered on clinical scanners and the first wave of critical assessment of this technology will be presented," Dr. Paulson said. "Researchers in the subspecialty also continue to explore novel methods to reduce radiation dose without suffering loss in diagnostic accuracy."

## Genitourinary Radiology

Marcia C. Javitt, M.D., subcommittee chair, reported more studies on diffusion-weighted imaging of masses in the kidneys, ovaries and prostate. New data also were submitted reporting long-term follow-up on patients who underwent





### 2008 RSNA Scientific Program Committee

The RSNA Scientific Program Committee met in June at RSNA Headquarters in Oak Brook, Ill.

(front row, from left) Jennifer A. Harvey, M.D., Marcia C. Javitt, M.D., N. Reed Dunnick, M.D., Robert M. Quencer, M.D., Diego B. Nuñez Jr., M.D., M.P.H., and Ruth C. Carlos, M.D., M.S.

(back row, from left) H. Page McAdams, M.D., James S. Welsh, M.D., M.S., David A. Rubin, M.D., Keith J. Dreyer, D.O., Ph.D., Lane F. Donnelly, M.D., Erik K. Paulson, M.D., Mauricio Castillo, M.D., Andre J. Duerinckx, M.D., Ph.D., and Milton J. Guiberteau, M.D.

(not pictured) John A. Kaufman, M.D., Umar Mahmood, M.D., Ph.D., and Martin J. Yaffe, Ph.D.

renal tumor and fibroid ablation, as well as cryotherapy.

A groundbreaking area of study, said Dr. Javitt, is the linkage of gene expression to tissue characterization. In these studies, she said, the morphology visible on cross-sectional imaging studies was compared with genetic markers of renal cell cancer. She noted another practical study of contrast-induced nephropathy and nephrogenic systemic fibrosis, which reported on the use of glomerular filtration rate measurement techniques.

### Health Services Policy and Research

A broader range of research topics and some novel submissions will be part of the program this year, said Subcommittee Chair Ruth C. Carlos, M.D., M.S.

Notable topics include disparity in types of imaging related to socioeconomic status or insurance coverage, the effects of including a patient photo with a radiologic exam, occupational stress in radiologists and evaluation of an outpatient

imaging center where radiologists consult directly with patients, said Dr. Carlos.

Other presentations this year will address resident education, evidence-based medicine and guideline development.

### Informatics

This year's submissions indicate that business intelligence and data analytics are being increasingly used for clinical and operational data mining, said Keith Dreyer, D.O., Ph.D., subcommittee chair. He also noted a significant trend in the understanding of natural-language for radiology reports.

Informatics presentations will cover topics such as the effects of structured reporting and decision support, using the iGoogle dashboard to monitor a radiology department, the RAD-DASH Web-based graphical business platform for managing radiology performance, quality metrics and the National Cancer Institute's Cancer Biomedical Informatics Grid (CaBIG), said Dr. Dreyer.

### Molecular Imaging

Subcommittee Chair Umar Mahmood, M.D., Ph.D., noted an increased variety of applications and agents in this year's submissions. "This is exactly what we want as the field moves more into the clinic," he said.

Topics of note include new MR molecular imaging methods, multimodal agents, the use of fluorodeoxyglucose PET to predict cardiovascular risk, a new PET tracer to assess innervation and increased use of MR smart agents. "Human application represents a small minority of abstracts, but I think it has increased somewhat compared to previous years," said Dr. Mahmood.

### Musculoskeletal Radiology

Presentations this year represent more attempts to characterize bone and soft tissue tumors using advanced MR techniques like diffusion imaging and spectroscopy, said David A. Rubin, M.D., subcommittee chair.

*Continued on next page*

## RSNA 2008 Delivers Radiology's Present and Future

*Continued from previous page*

More emphasis is placed on quantitative analysis of images and data, as opposed to qualitative analysis, Dr. Rubin added. "This trend is present in tumor characterization, imaging methods for osteoporosis and even tendon sonography," he said.

Dr. Rubin also noted a trend toward using CT and ultrasound guidance, rather than fluoroscopy, to increase the safety of risky procedures like cervical spine injections. Other presentations, he said, will explore applications of diffusion tensor imaging and tractography for the imaging of peripheral nerves and muscles, use of diffusion MR to help distinguish benign from malignant musculoskeletal tumors, ultrashort TE MR applications, percutaneous tumor and pain management techniques and tendon sonoelasticity.

### Neuroradiology/Head and Neck

Utilization of advanced imaging techniques like diffusion-weighted imaging, perfusion with MR and CT and spectroscopy for all masses in the neck are increasing, said Subcommittee Chair Mauricio Castillo, M.D. He noted that sonographic elastography for diagnosis of neck masses is also beginning to emerge as a mature clinical imaging technique.

"Diffusion-weighted imaging of the spinal cord is being refined and beginning to be clinically utilized and helpful," said Dr. Castillo. "Diffusion-weighted imaging of the intervertebral disc may be able to identify an abnormal disc before other techniques. Also, the effects of iron deposition in the brain and its relationship to several neurodegenerative disorders are being investigated with susceptibility weighted imaging."

Also presented this year will be several techniques that may help to distinguish between symptomatic and asymptomatic atherosclerotic plaques in the internal carotid arteries, said Dr. Castillo.

### Nuclear Medicine

PET imaging techniques with respiratory gating and new hybrid technology such as "gamma ultrasound" will be highlighted this year, said Milton J. Guiberteau, M.D., subcommittee chair.

Presentations will also represent the emerging literature of correlative clinical imaging technologies such as fluorodeoxyglucose (FDG) PET, CT and MR, Dr. Guiberteau continued. "In addition to using nuclear medicine to assess and predict lesion response to more established conventional treatments, important topics will include nuclear medicine evaluation of the success of emerging therapies, such as liposomal-mediated oncologic treatments and interventional therapy outcomes."

A nuclear medicine quantitative imaging session will address FDG-PET standardized uptake value (SUV) determinations in a variety of clinical settings, Dr. Guiberteau said.

### Pediatric Radiology

Subcommittee Chair Lane F. Donnelly, M.D., said attendees can look forward to important presentations on CT dose, helical MR, diffusion tensor imaging for body applications and pediatric interventional radiology.

### Physics

Notable physics abstracts explore non-contrast MR detection of tumor microvasculature and a four-view CAD system for breast masses, said subcommittee chair Martin J. Yaffe, Ph.D. Other presentations will address distortion-free MR imaging near metallic implants, prognosis of breast carcinoma using computer-extracted morphological and kinetic features in dynamic contrast-enhanced MR and monitoring intrahepatic and subcutaneous hepatocellular carcinoma growth with  $^{23}\text{Na}$  and  $^1\text{H}$  MR.

### Radiation Oncology/Radiobiology

Subcommittee chair James S. Welsh, M.D., M.S., said notable topics this year include consolidative radiotherapy for non-Hodgkin lymphoma, hepatic arterial embolization with Holmium-166 poly (L-lactic acid) to predict distribution of therapeutic dose and immunomodulator therapy to enhance radiotherapy response. There are also a variety of interesting radiation biology subjects, said Dr. Welsh, along with strong submissions for the Bolstering Oncoradiologic and Oncoradiotherapeutic Skills for Tomorrow (BOOST) program. (To read more about BOOST, see Page 18.)

### Vascular and Interventional Radiology

MR-guided galvanotherapy for prostate cancer, cryotherapy for painful bone metastases, drug-coated percutaneous transluminal angioplasty balloons to improve patency and percutaneous recanalization after failed surgery are remarkable topics this year, said John A. Kaufman, M.D., subcommittee chair. Oncologic interventions constitute the single largest topic, he said.

## Global Commitment to Quality

**"The substantial input into the quality of the meeting by radiologists and scientists involved in imaging research throughout the world will make RSNA 2008 an important meeting for all those involved in radiology and its allied fields," said Dr. Quencer.**

# Expand Your Experience at RSNA 2008

The new layout of the Technical Exhibition isn't all that's expanded at RSNA 2008. New dining options, technology and educational offerings will also help attendees broaden their horizons.

## Get More Now:

Look for this icon to find more information online. To use course or session numbers, access the online program by going to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click Meeting Program in the left-hand column. Search the program by clicking Search at the top of the page and then entering the course or session number in the Code box.

### Get More Now

Web address or course or session number



For more information about the Technical Exhibition, see Page 30.

## Technical Exhibition Spans Three Halls

Three exhibit halls—Hall A in the South Building, Hall B in the North Building and Hall D in the Lakeside Center—house the RSNA 2008

Get More Now  
[RSNA.org/showcase](http://RSNA.org/showcase)

Technical Exhibition. Each hall offers a uniform experience, with dining options and a mix of small, medium and large exhibitors.

Anchor exhibitors, with very large booths, in each hall are:

### Hall A

- Agfa HealthCare
- Bayer Healthcare Pharmaceuticals
- FUJIFILM Medical Systems USA, Inc.
- GE Healthcare
- Hitachi Medical Corp.
- Shimadzu Medical Systems USA
- Toshiba America Medical Systems

### Hall B

- Carestream Health, Inc.
- Canon USA, Inc.
- McKesson Provider Technologies
- Philips Healthcare

### Hall D

- Hologic, Inc.
- Siemens Medical Solutions
- TeraRecon, Inc.

## Lakeside Learning Center Moved to Hall E

The Lakeside Learning Center, home to education exhibits, scientific posters and informatics demonstrations, will be located in Hall E (Level 2, Lakeside Center) across from the Arie Crown Theater. Lakeside Learning Center content is organized by subspecialty, with signs clearly marking the location of each subspecialty. For more information about content housed in the Lakeside Learning Center, see Page 27.

Also located in the Lakeside Learning Center will be the RSNA Residents Lounge, providing RSNA members-in-training and non-member residents a place to relax and network while enjoying complimentary refreshments. The lounge will be open Sunday through Thursday from 8:00 a.m. to 6:00 p.m.

The *Radiology* and *RadioGraphics* editorial offices will also be located in the Lakeside Learning Center.

## Bistro RSNA Offers New Dining Options

Avoid the hassle of waiting in long lunch lines and vying for a place to eat your meal with the new Bistro RSNA. Conveniently located within each of the three technical exhibit halls, as well as in the Lakeside

Get More Now  
[rsnamealticket.com](http://rsnamealticket.com)

Learning Center, Bistro RSNA provides attendees with a place to eat, meet and network. The menu includes several fresh and healthy options, international cuisine and hearty regional favorites. Single meal tickets can be purchased or tables of four can be reserved for the whole day or the entire meeting.

Attendees can also network with their peers by attending one of the topic tables to be featured in the Bistro located in the Lakeside Learning Center (Hall E) Monday–Wednesday. Attendees are welcome to join these luncheon discussions at no extra cost. Attendees preferring a quiet, relaxing lunch will find open tables without topic discussions.

## Japan Presents Highlights CT and MR Studies

Monday, Dec. 1  
10:30 a.m. – 12:00 p.m.

Offered in conjunction with the Japan Radiological Society, the Japan Presents scientific session will feature the results of Japanese studies of CT and MR imaging of various organs. Among the topics to be covered in the session are non-contrast MR angiography, diffusion tensor tractography of the brain at 3T, development of area-detector CT and physiopathological imaging of chronic obstructive pulmonary disease with oxygen-enhanced MR imaging.

Get More Now  
SSC22

*Continued on next page*

## Expand Your Experience at RSNA 2008

Continued from previous page

### On-stage “Lifelines” Spice Up Image Interpretation Session

Held during the RSNA annual meeting since 1939, the popular Image Interpretation Session brings together five experts from various radiology subspecialties, each of whom are shown two unknown cases. The cases are assembled from contributions by radiologists throughout the U.S. and are chosen to provide a challenge to the panelists and a learning experience for the audience. The session is designed as an opportunity to observe expert radiologists as they analyze images, develop differential diagnoses and use the differential diagnoses to guide patient care.

New this year, each panelist will receive only one case in advance of the meeting and will be presented with the other on the spot. In addition, during the session, panelists may utilize the help of on-stage “lifelines.” Names of the panelists and “lifelines” are listed on Page 24.

### RSNA Digital Presentation System Makes Classroom Interactive

The RSNA digital presentation system expands to the classroom at RSNA 2008, with testing in the refresher course Imaging of Focal Liver Lesions (RC409, Tuesday, Dec. 2, 4:30 p.m.–6:00 p.m.). For past meetings, the RSNA system has been used to create and view electronic scientific posters and education exhibits. RSNA has modified the software application so that attendees can use it to follow along with course presentations on their own laptop screens. A registered course attendee can log in to the system and view the presentation as it happens, take notes and save it for later access and participate in live chats with other attendees about the course material. The system also enables participants to submit questions to presenters during the presentation.

#### Get More Now

[rsna2008.rsna.org/image\\_interpretation\\_session.cfm](http://rsna2008.rsna.org/image_interpretation_session.cfm)



### Applied Science Presentations Debut

Presentations in this new category include non-hypothesis-based examinations of important radiology-related topics. Applied science presentations are available in physics and informatics and are identified with an **A** in the physics and informatics subspecialty content brochures, available at kiosks in McCormick Place.

### Educational Opportunities Meet Variety of Needs, Interests

#### Quality Improvement Symposium

**Tuesday, Dec. 2**  
8:30 a.m. – 6:00 p.m.

In its second year, this daylong series focuses on quality improvement in radiology practices. Sessions this year will address process improvement, customer satisfaction, patient safety and professional assessment.

#### Get More Now

[Q131 – Q134](#)

#### Quality Improvement Roundtable Seats Available

Seats are also available for Quality Improvement Roundtables to be held during RSNA 2008. Each roundtable session will focus on a topic covered during the Quality Improvement Symposium

#### Get More Now

[RSNA.org/quality/qi\\_training\\_and\\_education.cfm](http://RSNA.org/quality/qi_training_and_education.cfm)

and will be targeted to radiologists and related professionals from practices in the U.S. and Canada.

### Bolstering Oncoradiologic and Oncoradiotherapeutic Skills for Tomorrow (BOOST) Program

**Monday, Dec. 1–Thursday, Dec. 4**  
8:30 a.m. – 4:30 p.m.

Back for its second year, BOOST encourages new partnerships between radiation oncologists and diagnostic radiologists. Daylong tracks are organized so that one type of cancer is addressed in each track. Topics this year are head and neck, lung, central nervous system, gastrointestinal, prostate and gynecology. BOOST courses encourage specialists to learn from each other via audience participation exercises and question-and-answer periods.

#### Get More Now

RO21 – RO23 (Head and Neck)  
RO31 – RO33 (Lung)  
RO34 – RO36 (Central Nervous System)  
RO41 – RO43 (Gastrointestinal)  
RO44 – RO46 (Prostate)  
RO51 – RO53 (Gynecology)

## Molecular Imaging Symposium

Wednesday, Dec. 3  
8:30 a.m. – 4:45 p.m.

This daylong series of four sessions for practicing radiologists offers an overview of molecular imaging and its applications in oncology, cardiovascular imaging and neurology.

Get More Now  
M141 – M144

At the Molecular Imaging Zone in the Lakeside Learning Center, all molecular imaging education exhibits and posters are grouped together. Also displayed are exhibits from federal agencies and molecular imaging societies and funded centers of excellence. "Meet the Expert" sessions feature booth representatives and poster and exhibit authors.

Technical exhibitors with molecular imaging products feature the Molecular Imaging Zone logo in their booths in Hall A (South Building), Hall B (North Building) and Hall D (Lakeside Center).



## Cardiac CT Mentored Case Review

Monday, Dec. 1  
8:30 a.m. – 6:00 p.m.

This course, offered in conjunction with the North American Society for Cardiac Imaging, is designed to assist attendees in satisfying one of the recommendations of the American College of Radiology Practice Guidelines for the Performance and Interpretation of Cardiac CT. An audience-response system enhances learning. Participation in all four courses is required to receive a certificate of completion.

Get More Now  
MC21 – MC24

## Series Courses

Sunday Nov. 30 – Thursday, Dec. 4  
Times vary

Each course in a series combines education and research on related topics. Series courses are designed with a "take home" strategy—attendees can expect to receive information they can apply immediately in their practices. In addition, having refresher course instructors available to comment when new science is presented provides the opportunity for dynamic discussion and healthy debate.

Get More Now

VB31 (Breast)  
VC41 (Chest)  
VG21 (Gastrointestinal)  
VG31 (Gastrointestinal/Emergency)  
VU21 (Genitourinary)  
VI11, VI21, VI31, VI41, VI51 (Interventional Oncology)  
VS41 (Musculoskeletal)  
VN31 (Neuroradiology)  
VP11, VP12, VP21, VP31, VP32 (Pediatric)

## More Than 50 SAMs Available

RSNA will offer 51 self-assessment modules (SAMs) in 20 subspecialty categories at RSNA 2008. These SAMs are approved for diagnostic and interventional radiologists, radiation oncologists and radiologic physicists participating in the American Board of Radiology's main-

Get More Now  
[RSNA.org/register](http://RSNA.org/register)

tenance of certification process. SAMs are available to U.S.-licensed physicians for select courses and are a free benefit of RSNA membership (non-members will be charged \$50 per SAM). Advance online registration is required for SAMs. To register, look for the SAM icon **S** next to the course listing in the Advance Registration, Housing and Course Enrollment brochure or online. For additional information, contact the RSNA Education Center at 1-800-381-6660 x3733.

## RSNA Services Offers One Stop for RSNA Amenities

At RSNA 2008, all RSNA amenities will be consolidated in one location called RSNA Services. Located on Level 3 of the Lakeside Center, RSNA Services will feature:

- Membership
- Education Store
- Career Connection
- RadiologyInfo™
- *RSNA.org*, including myRSNA®
- Journals
- Research & Education Foundation



# RSNA 2008 Gold Medalists

RSNA will award three individuals its Gold Medal—RSNA's highest honor—at the 94th Scientific Assembly and Annual Meeting. They are Peggy J. Fritzsche, M.D., of Redlands, Calif., Anthony V. Proto, M.D., of Richmond, Va., and Lee F. Rogers, M.D., of Tucson, Ariz.

**Peggy J. Fritzsche, M.D.**, never doubted her bold decision—at age 8—to pursue a career in medicine. That same spirit fueled a long and successful career championing radiologic innovation and improving patient care.

"I have always admired Dr. Fritzsche," said 2008 RSNA President Theresa C. McLoud, M.D. "She has been a strong leader in organized radiology and a creative and tireless worker. She has emphasized the commitment that radiology as a specialty must make to improving communications with our patients and referring clinicians."

Said Dr. Fritzsche, a professor of radiology at Loma Linda University, "It is an honor to be recognized for the innovation, vision, whatever it is that I have been able to contribute to further the cause of radiology and RSNA."

Dr. Fritzsche was medical director of Riverside MRI Center in Riverside, Calif., from 1991 to 2004, and established her reputation as a pioneer in private practice by introducing advanced MR imaging techniques into the community setting. Her prototype office design made patient comfort a priority and became a model for MR practice in the 1990s.

Dr. Fritzsche has also conducted innovative research into urologic radiology and MR imaging, particularly related to contrast material use and to procedures such as percutaneous nephrostomy and ureteral stent placement.

An RSNA member since 1978, Dr. Fritzsche joined the RSNA Board of Directors in 1995, advocating expanded public communication efforts. She helped launch the public information Web site *RadiologyInfo.org* and chaired the committee responsible for RSNA's 3-year radiology exhibit at Disney's Epcot Tech-

nology and Science Center in Orlando, Fla. In 2003, she became RSNA's second female president.

Dr. Fritzsche is a past-president of the American Association for Women Radiologists, an honorary member of the



Peggy J. Fritzsche, M.D.

European Society of Radiology, and a corresponding honorary member of the Swiss Radiological Society. She has even made time to learn to fly an acrobatic plane. While she has since hung up her pilot's jacket, she talks fondly of the constant urge to learn something new.

"There is always a cutting-edge aspect to radiology and I'm not afraid of change," said Dr. Fritzsche. "It's a very dynamic and exciting field."

As *Radiology* editor, **Anthony V. Proto, M.D.**, showed a particular sense of pride in implementing and upholding standards for consistency, accuracy and intellectual integrity.

While most radiologists know Dr. Proto from his *Radiology* role, he has also had a distinguished career as a thoracic radiologist, said 2008 RSNA President Theresa C. McLoud, M.D. "During my own career I have highly valued our friendship, professional collaboration and mentorship," she said. "During his tenure as editor of *Radiology*, he brought the journal to new heights through his visionary leadership, dynamism and dedication to the task at hand."

Said Dr. Proto, "Being honored with the RSNA Gold Medal is an event that will never fade from my memory, an event I will always cherish."

Dr. Proto is a tenured professor of radiology at the Medical College of Virginia at Virginia Commonwealth University, where he served as chair of the Department of Radiology from 1990 to 1997.

As the sixth editor of *Radiology*, serving from 1997 to 2007, Dr. Proto brought major transformations to the journal. He reformed its authorship criteria, streamlined the peer-review process, transitioned to an online version of the journal and an online submissions system, implemented a requirement for manuscript review by statisticians and helped establish *AMA PRA Category 1 Credit™* for reviewers. In 2006 he introduced the journal design scheme nicknamed the "New Gray," along with a new layout, features and sections to help busy readers glean information more efficiently.

Dr. Proto received his medical degree from Yale Medical School in 1971 and completed a residency and surgical internship at the State University of New York (SUNY) Upstate Medical Center in Syracuse. He served in the U.S. Air Force as a training officer (Major) and chief of diagnostic and chest radiology at the Wilford Hall USAF Medical Center at San Antonio's Lackland Air Force Base. He was also a clinical associate professor

of radiology at The University of Texas Health Science Center.

An RSNA member since 1973, Dr. Proto has been a trustee and assistant executive director of the American Board of Radiology and is a senior member of the Fleischner Society. He has been awarded honorary membership in the Rocky

Mountain Radiological Society, Philadelphia Roentgen Ray Society, Canadian Association of Radiologists, Italian Society of Medical Radiology and Chicago Radiological Society.



Anthony V. Proto, M.D.

**Lee F. Rogers, M.D.**, is an expert in skeletal trauma imaging in adults and children and a diligent advocate for the responsible practice of radiology.

“Dr. Rogers is truly a renaissance man in radiology—he has served in numerous capacities,” said 2008 RSNA President Theresa C. McLoud, M.D. “To his friends and professional colleagues he is perhaps most admired for his unflinching good humor, collegiality and high sense of professionalism. Dr. Rogers has had a significant impact on my professional life. He has been a mentor to me and many others over the years.”

Said Dr. Rogers, “It is a distinct honor and privilege to receive the RSNA Gold Medal and to have my name added to that impressive roster of outstanding radiologists who have been previously so recognized.”

Dr. Rogers, a clinical professor of radiology at the University of Arizona School of Health Sciences in Tucson, was editor-in-chief of the *American Journal*

*of Roentgenology (AJR)* from 1995 to 2004. His two-volume text, *Radiology of Skeletal Trauma*, is considered “must” reading by scholars across the world.

He received his medical degree from Northwestern University Medical School in Chicago in 1959 and served in the U.S. Army Medical Corps as chief of radiology at Second General Hospital in Landstuhl, Germany.

Dr. Rogers was a professor and chair of the Department of Radiology at Northwestern for more than 21 years. He was named I. Meschan Distinguished Professor of Radiology at Wake Forest University School of Medicine in 1995, the same year he became *AJR* editor.

His editorials in *AJR* often called for responsibility, cooperative standards and integrity among radiologists.

An RSNA member since 1966, Dr. Rogers has served as president of the American College of Radiology (ACR), American Board of Radiology, American Roentgen

Ray Society (ARRS), Chicago Radiological Society (CRS), Association of University Radiologists (AUR) and Society of Chairs of Academic Radiology Departments, as well as first vice-president of RSNA.

Dr. Rogers is an honorary member of a dozen radiological societies, including the American Society of Neuroradiology, American Association for Women Radiologists and the Society for Pediatric Radiology. He has been awarded gold medals from ACR, ARRS, AUR, CRS and American Society of Emergency Radiology.

For expanded versions of the biographies of Drs. Fritzsche, Proto and Rogers, see the *RSNA Meeting Program* or go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click Meeting Program in the left-hand column.



Lee F. Rogers, M.D.



# RSNA 2008 Honorary Members

**Honorary Membership in RSNA is presented for significant achievements in the field of radiology. At RSNA 2008, Honorary Membership will be given to Jian-Ping Dai, M.D., of Beijing, Maximilian F. Reiser, M.D., of Munich, Germany, and Gustav K. von Schulthess, M.D., Ph.D., of Zürich, Switzerland.**

While many know **Jian-Ping Dai, M.D.**, for his recent role as vice-minister of the Games Services Department for the Beijing Organizing Committee of the 2008 Olympic Games (BOCOG), radiologists have long regarded him as a visionary who helped advance radiology practice in China. He serves as the principal advisor for radiology to the Chinese Ministry of Health.

Dr. Dai is a professor of neuroradiology in the Beijing Neurosurgical Institute of Beijing Tiantan Hospital at the Capital University of Medical Sciences. He is also president of Beijing Tiantan Hospital and immediate past-president of the Chinese Society of Radiology.

"Dr. Dai's strong and thoughtful leadership of Chinese radiology has placed imaging in the forefront of medical specialties both nationally and throughout the global community," said 2008 RSNA President Theresa C. McCloud, M.D.

Dr. Dai said he accepts honorary membership on behalf of all radiologists in his country. "Thirty years ago, the Chinese people resolutely embarked on the historic journey of reform and an opening up to the international community," he said. "This new policy afforded me to the opportunity to travel abroad and start my 'personal learning in the global community' and to work with international colleagues towards universal standards of quality care for our patients."

Dr. Dai received his medical training at Beijing Xuan Wu Hospital and completed a fellowship in the neuroradiology division of the Department of Radiology at Massachusetts General Hospital (MGH). Returning to China, Dr. Dai worked with neurosurgery pioneer C.C. Wang, M.D., to introduce neurointerventional

therapy and establish the first full-time neuroimaging center in the country.

As BOCOG vice-minister, Dr. Dai oversaw medical services for more than 16,000 Beijing games athletes. He recruited professional volunteers and emphasized technology in assembling the venue's central polyclinic, outfitting it with CT and MR imaging systems, ultrasound, PACS and RIS.



Jian-Ping Dai, M.D.

An RSNA member since 1991, Dr. Dai has served as president of the Chinese Society of Radiology and chief editor of the *Chinese Journal of Radiology* from 1996 to 2005 and established the Chinese Society of Neuroradiology in 1987. He is vice-president of the Chinese Medical Association, Chinese Hospital Association, Chinese Doctor Association and China Association of Medical Equipment. Dr. Dai is also president-elect of the Asian Oceanian Society of Radiology.

**Maximilian F. Reiser, M.D.**, is an internationally recognized authority on the clinical applications of CT and MR in body imaging and a leader in European radiology.

"Those of you who know or have worked with Dr. Reiser recognize his energy, strong work ethic and dedication to scholarship and excellence," said 2008 RSNA President Theresa C. McCloud, M.D. "He is profoundly committed to the advancement of radiology and the care of his patients."

Dr. Reiser is a professor and chair of the Department of Clinical Radiology at Ludwig Maximilian University of Munich. He was recently elected dean of the Munich University medical faculty.

"Throughout my professional life, I was deeply impressed by North American radiology and radiologists and had the privilege to get to know and make friends among the most prominent of them," said Dr. Reiser. "RSNA, both the organization and the scientific and educational meeting, are exemplary and outstanding. Receiving honorary membership in this distinguished society is more than I would ever have dreamed of."

Dr. Reiser received his medical degree from Ludwig Maximilian University. He has served as professor and chair of radiology at the University of Bonn, chair of the academic promotion committee of the Munich University medical faculty and chair of the vascular center and the breast center of Munich University hospitals.

Earlier this year, Dr. Reiser presided over the European Congress of Radiology (ECR) as it launched a new program intended to encourage more interdisciplinary exchange. Under Dr. Reiser's tutelage, ECR attracted 17,000 participants from more than 90 countries and is now the second largest radiologic congress worldwide.

Dr. Reiser has served as president of the European Society of Musculoskeletal Radiology, congress president of the German and Austrian radiological societies and president of the German Radio-

logical Society. This year he was named second vice-president of the European Society of Radiology.

A member of RSNA since 1990, Dr. Reiser has received the Holtheuesen Ring Award of the German Radiological Society and honorary membership in the Austrian Radiological Society, Hellenic Radiologi-

cal Society, Korean Radiology Society and U.K. Royal College of Radiology. He is also a member of the Leopoldina, the German National Academy of Science.



Maximilian F. Reiser, M.D.



**Gustav K. von Schulthess, M.D., Ph.D.**, has pioneered the applications of physics to functional imaging and improved cooperation between nuclear medicine and radiology.

“Dr. von Schulthess’ leadership serves as an example of his endless enthusiasm, vigor and dedication to education,” said 2008 RSNA President Theresa C. McLoud, M.D. “All these attributes are combined with his charm, enthusiasm and depth of knowledge.”

Said Dr. von Schulthess: “My education and affiliations have been at the crossroads of Europe and North America. In many ways, my professional approach has stayed more American. I am grateful to have imbibed the American spirit and I am proud that RSNA honors my ‘go between’ role in this way.”

Dr. von Schulthess is director of the Division of Nuclear Medicine and co-director of the MR Centre at University Hospital Zürich, Switzerland. He is also a professor of nuclear medicine at the University of Zürich.

During his graduate education Dr. von Schulthess pursued both medicine and physics, eventually enrolling in the Joint Division in Health Sciences and Technology program at Harvard Medical School and Massachusetts Institute of Technology (MIT). He graduated in 1980 with a physics Ph.D. from MIT and a medical degree from Harvard.



**Gustav von Schulthess, M.D., Ph.D.**

Back in Switzerland, under Dr. von Schulthess’ direction, University Hospital Zürich became one of the first sites in Europe to introduce MR in 1985, echoplanar MR in 1992 and interventional MR in 1995. The hospital was the first clinical site worldwide to introduce clinical

PET/CT scanning in March 2001.

Dr. von Schulthess has investigated combined modality fusion imaging, especially of tumors and infection, with PET/CT, SPECT/CT and PET/MR. In 2003 he co-founded Timaq, a company providing expertise for the pharmaceutical indus-

try and contract research organizations in clinical trials, and now serves as the company’s chief scientific advisor.

Dr. von Schulthess, an RSNA member since 1985, has served as an associate editor and reviewer for *Radiology* and a reviewer for numerous other journals. He received an honorary degree in medicine from the University of Copenhagen in 2007. He was 1994–1995 president of the European Society for Magnetic Resonance in Medicine and Biology and president of the Swiss Society of Nuclear Medicine from 1996 to 1999.

For expanded versions of the biographies of Drs. Dai, Reiser and von Schulthess, see the *RSNA Meeting Program* or go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click Meeting Program in the left-hand column.



# Plenary Sessions

Considered the highlights of the RSNA annual meeting, plenary sessions are open to all registrants. Some of these sessions require separate registration (+) and/or an additional fee (\*).

## Saturday

9:30 a.m. – 12:30 p.m.

### RSNA Personal Financial Seminar +\*

#### Effective Estate Planning Strategies

Presenter: Barry Rubenstein, B.S., J.D., L.L.M.

12:00 – 2:00 p.m.

### AAPM/RSNA Physics Tutorial for Residents

#### Radiation Dose in Medical X-Ray Imaging

Organizer: Mahadevappa Manesh, M.S., Ph.D.

1:30 – 5:30 p.m.

### RSNA Personal Financial Seminar +\*

#### Effective Investment Strategies

Presenter: J. Michael Moody, M.B.A.

2:15 – 4:15 p.m.

### AAPM/RSNA Tutorial on Equipment Selection

#### MR Imaging

Organizer: Jerry A. Thomas, M.S.

## Sunday

8:30 – 10:15 a.m.

### President's Address

#### Trends in Radiology Training: North American and International Implications

Theresa C. McCloud, M.D., RSNA President

#### • Announcement of Outstanding Educator and Outstanding Researcher Awards

(Information about the award recipients will be included in the November issue of *RSNA News*.)

## Opening Session

### Radiology Education for the 21st Century

Moderator: Robert M. Quencer, M.D.

#### • Lifelong Learning in the 21st Century and Beyond

Lecturer: Jannette Collins, M.D., M.Ed.

#### • When Opportunity Knocks: Simulation as a Learning Tool in Radiology

Lecturer: Steven L. Dawson, M.D.

10:45 a.m. – 12:15 p.m.

### Oncodiagnosis Panel

#### Liver Tumors

Moderator: Albert C. Koong, M.D., Ph.D.

4:00 – 4:10 p.m.

### Report of the RSNA Research & Education Foundation

Anne G. Osborn, M.D., Chair, R&E Foundation Board of Trustees

4:00 – 5:45 p.m.

### Image Interpretation Session

Moderator: Elliot K. Fishman, M.D.

Panelists: Donald P. Frush, M.D., Laurie A. Loevener, M.D., William E. Palmer, M.D., Eric J. Stern, M.D., and Jeffrey C. Weinreb, M.D.

**New this year**—Each panelist will receive only one case in advance of the meeting and will be presented with the other on the spot. During the session, panelists may utilize the help of onstage “lifelines” Lane F. Donnelly, M.D., Michael P. Federle, M.D., Jeremy J. Kaye, M.D., Ella A. Kazerooni, M.D., and James G. Smirniotopoulos, M.D.

## Monday

1:30 – 2:45 p.m.

### Eugene P. Pendergrass New Horizons Lecture

#### Nanotechnology in the Future of Imaging: Prospects and Pitfalls

Michael J. Welch, Ph.D.

(A lecture preview will be included in the November issue of *RSNA News*.)

### Presentation of Honorary Memberships

• Jian-Ping Dai, M.D.  
Beijing, China

• Maximilian F. Reiser, M.D.  
Munich, Germany

• Gustav K. von Schulthess, M.D., Ph.D.  
Zurich, Switzerland

(See pages 22–23 for honoree biographies.)

1:30 – 2:45 p.m.

### AAPM/RSNA Basic Physics Lecture for the Radiologic Technologist CT Technology—Cone-Beam and Dose Considerations

Moderator: Douglas E. Pfeiffer, M.S.

1:30 – 5:30 p.m.

### NIH Grantsmanship Workshop

Facilitator: Belinda Seto, Ph.D.

1:30 – 5:45 p.m.

### Physics Symposium

#### Clinical Implementation of Monte Carlo Dose Calculation Methods

Course Directors: Bruce H. Curran, M.Eng., and Indrin J. Chetty, Ph.D.



4:30 – 6:00 p.m.

### Special Focus Sessions

- Imaging Algorithms in Pulmonary Embolism: So Many Tests, So Little Time
- Implementations of Pay for Performance: Implications for Radiology
- Image Overload: Dealing with It
- Molecular Imaging: Making It Useful and Usable
- Peripheral Nerve Imaging at the Crossroads of Musculoskeletal Imaging and Neuroimaging
- Practical Realities of Functional MR Imaging: Ready for Prime Time?
- Imaging the Fetal Brain and Spine: Why, When, and How?
- Photon Counting: Is It the Future of X-ray Imaging from Mammography to CT?
- Nonoperative Treatment of Liver Tumors: What Are the Best Options?
- The New Reality of Combat Injuries, with Emphasis on Central Nervous System Trauma
- Musculoskeletal US: Has the Time Come?

### Tuesday

10:10 – 10:20 a.m.

#### RSNA Business Session

1:30 – 2:45 p.m.

#### Annual Oration in Diagnostic Radiology

##### CT Colonography: Achievements and Challenges

*Elizabeth G. McFarland, M.D.*

(A lecture preview will be included in the November issue of *RSNA News*.)

#### Presentation of Gold Medals

- *Peggy J. Fritzsche, M.D.*  
*Redlands, Calif.*
- *Anthony V. Proto, M.D.*  
*Richmond, Va.*
- *Lee F. Rogers, M.D.*  
*Tucson, Ariz.*

(See pages 20–21 for honoree biographies.)



### Wednesday

1:30 – 2:45 p.m.

#### Announcement of Education Exhibit Awards

#### Annual Oration in Radiation Oncology

##### Alchemy, Early Detection, Precision Guidance, and Radiotherapy

*Minesh P. Mehta, M.D.*

(A lecture preview will be included in the November issue of *RSNA News*.)

4:30 – 6:00 p.m.

### Special Focus Sessions

- Advances in Breast Imaging: Impact of PET, MR Imaging, and CT
- Functional Lung Imaging: What Does It Offer?
- Controversies in Emergency Radiology: Point/Counterpoint
- Neck Nodes: Cutoff Criteria and Controversies
- Choosing the Right Radiology Job: What You Need to Know
- Controversies in Musculoskeletal Radiology: Point/Counterpoint
- PET/CT: Who Should Read It?
- Controversies in Pediatric Radiology: Get Ready to Rrrrrumble! (An Interactive Session)
- Endocrine Related Neoplasms: A Radiologic-Pathologic Review (In Conjunction with the Armed Forces Institute of Pathology)
- Quantitative Structured Reporting in Cancer Imaging? Get Ready: It Is Coming
- Informatics for the Future of Radiology

### Thursday

1:30 – 1:40 p.m.

#### Inauguration of RSNA Board of Directors for 2009

1:40 – 1:50 p.m.

#### Introduction of 2009 AAPM Officers and Council Chairmen

1:50 – 2:45 p.m.

#### RSNA/AAPM Symposium

##### Advances in Limited-Angle Tomography: Emergence in Clinical Applications

*Moderator: Andrew D.A. Maidment, Ph.D.*

3:00 – 4:00 p.m.

### Special Focus Sessions

- Covering the Emergency Department: 24/7
- Rationing of Imaging Services: Facing the Inevitable Crisis in Resources—U.S. versus Canadian Perspective
- Managing the Risk of Radiation from CT
- ACR Update on Critical Issues Facing Our Profession
- How to Structure and Manage an Effective PACS Program in 2008
- How Should Physics Be Taught to Radiology Residents? (An Interactive Session)

### Friday

12:45 – 3:15 p.m.

#### Friday Imaging Symposium

##### Contemporary Topics—Radiation Safety in CT

*Moderator: Lane F. Donnelly, M.D.*

# Associated Sciences Program

The Associated Sciences Consortium will hold 10 refresher courses on Monday, Tuesday and Wednesday. The consortium comprises 11 associations representing the various disciplines that function within the radiology department.

## Refresher Courses

### Monday – December 1

- Radiation Dose: Are We at Crisis?—Protecting Our Personnel
- Radiation Dose: Are We at Crisis?—Protecting Our Patients
- Preventing Radiology Errors
- Fusion Imaging

### Tuesday – December 2

- Why Imaging Network Deployments Are Behind Our Non-Healthcare IT Brethren
- Design That Makes a Difference: Solutions for Today's Radiology Environment
- Radiology's Role: When Disaster Strikes!
- Satisfying Our Diverse Patient Needs: Unique Like Everyone Else

### Wednesday – December 3

- Imaging in the Operating Room
- Current Regulatory Impacts on Compliance



**Edward I. Bluth, M.D.**  
Chair, RSNA Associated Sciences Consortium



**Barbara A. Whitefield, M.A., R.T. (R) (CV)**  
Coordinator, Associated Sciences Consortium

# Scientific Paper Sessions

**RSNA 2008 will feature more than 1,800 scientific papers in 16 subspecialties:**

- Breast Imaging
- Cardiac
- Chest
- Emergency Radiology
- Gastrointestinal
- Genitourinary
- Health Services, Policy & Research
- Informatics
- Musculoskeletal
- Molecular Imaging
- Neuroradiology/Head & Neck
- Nuclear Medicine
- Pediatrics
- Physics
- Radiation Oncology & Radiobiology
- Vascular/Interventional

Scientific paper sessions will be held during nine designated time slots during the week. Seating is on a space-available basis. Those attending a scientific paper session will be able to evaluate the most current research, identify current and future scientific and technological developments, modify academic and clinical practices and identify and practice research methods.

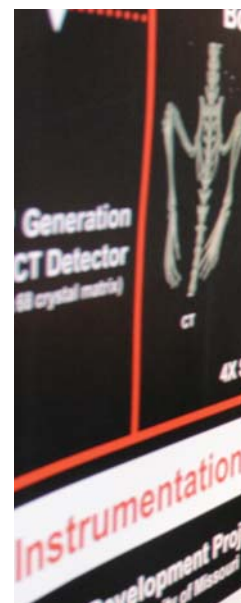
*AMA PRA Category 1 Credit™* and *Category A+ CE credit* are available for technologists.

## Integrated Science and Practice

Subspecialties will also offer Integrated Science and Practice (ISP) sessions combining education and science in the same session. ISP sessions start with an invited lecturer, followed by abstract presenters. Some will conclude with a panel discussion of the subject.



**Robert M. Quencer, M.D.**  
Chair, RSNA Scientific Program Committee



# Education Exhibits and Scientific Posters

**NEW!** This year the education exhibit and scientific poster area, known as the Lakeside Learning Center, will move down one level to Hall E, across from the main entrance to the Arie Crown Theater. The Lakeside Learning Center will also house a new expanded dining option, called Bistro RSNA, where attendees can sit down and enjoy a meal from a kiosk or a one-price buffet in a spacious dining area without interrupting exhibit and poster viewing time.

For more information about Bistro RSNA, which will also be offered in each of the three Technical Exhibits halls at RSNA 2008, see Page 17.

RSNA will also offer “topic tables” Monday through Wednesday at Bistro RSNA in the Lakeside Learning Center. Facilitators will lead discussions on different topics each day. See the *RSNA Meeting Guide* for more details.



**Richard L. Baron, M.D.**  
Chair, RSNA Education Exhibits Committee

This year's 1,606 education exhibits and 729 posters cover numerous subspecialties. Scientific posters help attendees evaluate current research, identify current and future scientific and technologic developments, modify academic and clinical practices and identify and practice research methods.

Education exhibits are designed to review the diagnosis of a specific condition using either a single-modality or multimodality approach, identify the state-of-the-art imaging and methods of treatment of various pathologic conditions and assess new research on applications of various imaging and therapeutic modalities.

All scientific posters and some education exhibits are presented electronically. They can be viewed on computers within each subspecialty area in the Lakeside Learning Center as well as the

## Hands-on Workshops Move to Hall A

Hands-On Computer Workshops will move this year to Hall A. See the Technical Exhibits section on Page 30 for workshop hours.

electronic presentation area. During the lunch period, select scientific poster and education exhibit authors are scheduled to be available for discussion.

Hard-copy, backboard-panel education exhibits will be clustered according to subspecialty in the Lakeside Learning Center. Authors of some of these exhibits are also available for discussion during the lunch period. See the *RSNA Meeting Program* for more details.

A map of the Lakeside Learning Center will be featured in the *RSNA Meeting Guide*, available at McCormick Place.



# Refresher Courses

RSNA 2008 offers more than 300 refresher courses on traditional and cutting-edge topics.

Refresher Courses are conducted in a multiple- or single-instructor lecture format.

Advance registration is recommended for all refresher courses. If a particular course is full, attendees may check the availability of stand-by seating at the classroom location prior to the beginning of the course.

AMA PRA Category 1 Credit™ and Category A+ CE credit are available for technologists.

## Radiologist Assistants Symposium

Five refresher courses at RSNA 2008 are designed to meet the educational needs of the radiologist assistant (RA) as defined by the American Registry of Radiologic Technologists (ARRT®). Topics are the RA Role in Breast Intervention, Education and Certification, Practice in Nuclear Medicine and Sonography, Radiologist Preceptor in RA Education and Extending the Reach of the Radiologist.

## Case-based Review Courses

Single-day, case-based review courses feature an audience-response system (ARS) to facilitate assessment. Topics this year are MR imaging, neuro-radiology, pediatric radiology and interventional radiology. Advance registration is required for case-based courses. Register online at [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org).

## Essentials of Radiology Courses

This 2-day series of eight refresher courses is designed especially for generalists, trainees and subspecialists who want to review other areas of radiology. The series will provide a thorough review of basic radiology in the areas of musculoskeletal, cardiac, pediatric, genitourinary/gynecologic, trauma, neuroradiology, abdominal and chest radiology. Attendees may register for individual courses or the whole series.



**James A. Brink, M.D.**  
Chair, RSNA Refresher  
Course Committee

## 2008 Categorical Course in Diagnostic Radiology

### • Cardiac Imaging

*Co-Directors: Jill E. Jacobs, M.D., and U. Joseph Schoepf, M.D.*

## 2008 Categorical Course in Diagnostic Radiology Physics

### • CT and MR Imaging

*Co-Directors: Willi A. Kalender, Ph.D., and Edward F. Jackson, Ph.D.*

For more information or to register for these or any other courses, go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click Advance Registration and Course Enrollment.

**More detailed information about RSNA 2008 is available at [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org).**



# Informatics

Numerous demonstrations at RSNA 2008 highlight the latest developments in radiology informatics.

## NCI caBIG™ Imaging Workspace—Lakeside Learning Center

The National Cancer Institute's Cancer Biomedical Informatics Grid® (caBIG®) Imaging Workspace, now in its third year at the annual meeting, will feature real-world use cases, provide information on new projects and demonstrate currently downloadable tools including the eXtensible Imaging Platform (XIP), Annotations and Imaging Mark-up (AIM) Developer, National Cancer Imaging Archive (NCIA) and Imaging Middleware/Virtual PACS. The caBIG initiative aims to interconnect clinical cancer centers and ultimately make information accessible across the world using grid technology, giving researchers access to patients' DNA makeup, tumor DNA, proteomic data, pharmacokinetic data and anatomic and functional imaging data.



David E. Avrin, M.D., Ph.D.  
Chair, RSNA Radiology Informatics Committee

## National Library of Medicine—Lakeside Learning Center

The National Library of Medicine (NLM) provides free Web access to more than 18 million citations for biomedical and clinical research articles dating back to the 1850s through PubMed/MEDLINE (available online at [PubMed.gov](http://PubMed.gov)). Additional databases provided free by the

NLM include resources on genetics and environmental and toxicological topics. The NLM coordinates delivery of library services to health professionals through the National Network of Libraries of Medicine (NN/LM). Members of NN/LM Greater Midwest Region will staff a booth and teach instructional courses at RSNA 2008.

## IHE® Image Sharing Demonstration—South Building (Hall A), Booth 2842

Once again the Integrating the Healthcare Enterprise (IHE®) Image Sharing Demonstration will showcase the latest IHE developments in electronic health records and standards-based interoperability. IHE provides a number of profiles for improving the efficiency of radiology systems and information sharing within and across care settings:

- *Portable Data for Imaging (PDI)* and *Import Reconciliation Workflow (IRWF)*, used to exchange medical images on compact disk
- *Cross-enterprise Document Sharing for Imaging (XDS-I)*, for sharing images across a network of care sites
- *Cross-enterprise Document Sharing (XDS.a and b)*, using Web services to connect electronic health record (EHR) and personal health record (PHR) systems



## Advanced Imaging, Web and Informatics Classrooms

This year, the Advanced Imaging, Web and Informatics Classrooms have been relocated to McCormick Place meeting rooms in the South Building, Levels 4 and 5. For more information about courses offered in these classrooms and to register, go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click Advance Registration and Course Enrollment.

# Technical Exhibits

**NEW!** This year, the RSNA Technical Exhibition will span three halls to accommodate increasingly spectacular displays and allow attendees to see more in less time. Hall A in the South Building, Hall B in the North Building and Hall D in the Lakeside Center will house the RSNA 2008 Technical Exhibition. Exhibits of similar size and displaying similar product types will be distributed throughout each of the three halls, so attendees can visit the hall closest to their activities.

In addition, a new expanded dining option, called Bistro RSNA, will be available in each of the three halls, enabling attendees to sit down and enjoy a meal from a kiosk or a one-price buffet in a spacious dining area in the hall of their choice.

For more information about Bistro RSNA, which will also be offered in the Lakeside Learning Center at RSNA 2008, see Page 17.



**Jonathan Alexander, M.D.**  
Chair, RSNA Technical Exhibits Committee

Technical exhibits at the RSNA annual meeting make up the one of the world's largest medical exhibitions. More than 700 leading manufacturers, suppliers and developers of medical information and technology will be on hand to demonstrate and discuss a wide variety of radiology products and services.

A comprehensive, up-to-the-minute list of the exhibitors, their products and services is available at [RSNA.org/showcase](http://RSNA.org/showcase). A detailed floor plan of the exhibits area, along with exhibiting company names and contact information, will be available in the *RSNA Meeting Guide*.

## Hands-on Workshops Move to Hall A

At RSNA 2008, commercial vendors will conduct classes on their respective proprietary computer systems in Hall A, South Building. Attendees have the opportunity to learn from experts about using computers in the field of radiology and gain practical, first-hand knowledge with PACS, radiology information systems (RIS), computer-aided diagnosis (CAD) and more. Tickets are required for these workshops. To register, go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org).

Agfa, Apple, Brit Systems, Confirma, GE Healthcare and Philips have reserved classrooms to conduct Hands-on Workshops.

## Technical Exhibit Hours

### Halls A, B and D South and North Buildings

Sunday–Wednesday	10:00 a.m. – 5:00 p.m.
Thursday	10:00 a.m. – 2:00 p.m.

## Hands-On Computer Workshop Hours

### Hall A

Sunday–Wednesday	10:00 a.m. – 6:00 p.m.
Thursday	10:00 a.m. – 2:00 p.m.





# Chicago Welcomes RSNA Attendees

Through Chicago's "We're Glad You're Here®" program, Mayor Richard M. Daley and the Chicago Convention and Tourism Bureau (CCTB) plan a citywide welcome for attendees and exhibitors at the RSNA 94th Scientific Assembly and Annual Meeting. The welcome includes:

- Complimentary bottled water and hot beverages Monday and Tuesday from 5:00 p.m. to 6:00 p.m. at the transportation gates (while supplies last).
- A searchable Calendar of Events highlighting special events and attractions taking place in Chicago during the meeting, located on [www.meetinchicago.com/rsna](http://www.meetinchicago.com/rsna).
- "We're Glad You're Here®" banners posted in approximately 250 locations including O'Hare International Airport and on streets including Michigan Avenue, Fort Dearborn Drive, Martin Luther King Drive, Columbus Drive, Ohio Street, North Water Street and Stetson Drive.

- Welcome Centers at O'Hare and Midway Airports providing information about the city and RSNA.
- Ambassador Meet and Greet program at Terminals 1 and 3 at O'Hare airport to direct attendees to Welcome Centers.
- Welcome signs displayed throughout O'Hare and Midway airports, on shuttle buses and at retail outlets, restaurants, cultural attractions and hotels.
- Restaurant reservations service at the RSNA Help Centers at McCormick Place.

For more information on CCTB and the City of Chicago, go to [www.meetinchicago.com/rsna](http://www.meetinchicago.com/rsna).



# RSNA R&E Foundation Announces 2008 Grant Recipients

THE RSNA Research & Education Foundation funded 62 new and continuing grant projects for the 2008-2009 academic year, totaling more than \$1.8 million. Abstracts for these projects will be on display at RSNA 2008 in the R&E Foundation Pavilion in RSNA Services, Level 3, Lakeside Center. ¶ The Foundation's Board of Trustees thanks the Vanguard companies, individuals and private practices whose generous contributions have made the following grants possible.

## Research Grants

### RESEARCH SCHOLAR GRANT

#### Steve Y. Cho, M.D.

Radiology, Division of Nuclear Medicine/PET, The Johns Hopkins University School of Medicine  
*Prostate Specific Membrane Antigen (PSMA) PET Imaging for Detection of Metastatic Prostate Cancer and Solid Tumor Neovasculation*



#### William Copen, M.D.

Radiology, Massachusetts General Hospital  
*Beyond the Diffusion-Perfusion Mismatch: MR Imaging of Oxidative Metabolism in Acute Stroke*



#### Jiang Du, Ph.D.

Radiology, University of California, San Diego  
*Direct Imaging and Quantification of Cortical Bone on a Clinical 3T MR Scanner*



#### Salomao Faintuch, M.D.

Radiology, Beth Israel Deaconess Medical Center/Harvard Medical School  
*Prostatic Artery Embolization as a Primary Treatment for Benign Prostatic Hyperplasia*



#### Alexander R. Guimaraes, M.D., Ph.D.

Radiology, Massachusetts General Hospital  
*Evaluation of Magnetic Nanoparticle Enhanced Magnetic Resonance Imaging in Clinical Autoimmune Diabetes*



#### Alexis V. Nees, M.D.

Radiology, University of Michigan  
*Assessment of Emerging Technology: Comparison of Breast Tomosynthesis and Digital Mammography in the Evaluation of Heterogeneously Dense and Extremely Dense Breasts*



#### Ashok Srinivasan, M.D.

Radiology, University of Michigan  
*Creation of a Model for Predicting Response to Chemoradiation in Head and Neck Squamous Cell Carcinoma*



#### Bachir Taouli, M.D.

Radiology, New York University Medical Center  
*Correlation Between Perfusion Metrics Measured with Perfusion-Weighted MRI and Tissue Oxygenation Measured with BOLD MRI with VEGF Expression and Microvessel Density in Hepatocellular Carcinoma*

### SIEMENS



#### Gregory Chang, M.D.

Radiology, New York University School of Medicine  
*Osteoarthritis: Abnormalities in Cartilage and Trabecular Bone Micro-architecture Determined by High Resolution 7T MRI*

### PHILIPS

#### Robert Chin, M.D., Ph.D.

Radiation Oncology, Stanford University Medical Center  
*Identification of Epithelial Ovarian Cancer Stem Cells for Radiotherapeutic Targeting*

#### Garry Choy, M.D.

Radiology, Massachusetts General Hospital  
*Development of a Multivariable Risk Prediction Score for Contrast Media-Induced Nephropathy: A Tool For Prevention, Prognostication and Decision Making*

#### Diana L. Gage, M.D., Ph.D.

Radiation Oncology, UCLA Medical Center  
*Radiosensitization with Anti-VEGF in Glioblastoma Cells*

#### Antonio Carlos Westphalen, M.D.

Radiology, University of California, San Francisco  
*Advanced MR Imaging After External Beam Radiation Therapy of Prostate Cancer*



### RESEARCH FELLOW GRANT

#### T. Jason Druzgal, M.D., Ph.D.

Radiology, University of Utah  
*Functional MRI of Theory of Mind: A New Way of Imaging Autism*

### SIEMENS

#### Phuoc T. Tran, M.D., Ph.D.

Radiation Oncology, Stanford University School of Medicine  
*Investigations on the Differential Oncogene-dependency of MYC versus Kras Murine Primary Lung Tumor Model Systems*

### RESEARCH RESIDENT GRANT

#### Tarik Alkasab, M.D.

Radiology, Massachusetts General Hospital  
*RaceTrack: Improving Clinical Follow-up for Radiologists Using Information Technology*

### FUJIFILM

#### Michael D. Hope, M.D.

Radiology, University of California, San Francisco  
*Evaluation of Bicuspid Aortic Valve and Aortic Coarctation with 4D Flow MR Imaging*

#### Ryan Hung, M.D., Ph.D.

Radiology and Diagnostic Imaging, University of Alberta  
*Magnetic Resonance Imaging for In Vivo Cancer Antigen-Specific T Lymphocyte Tracking*

#### Jennifer Jones, M.D., Ph.D.

Radiation Oncology, Stanford University  
*Strategic Design of Novel Radiation and Immunotherapeutic Combinations: Selective Targeting of Radiation-Induced Changes in Costimulatory Pathways*

#### Elizabeth Kidd, M.D.

Radiation Oncology, Barnes-Jewish Hospital, Washington University  
*Intra-Tumoral Metabolic Heterogeneity of Cervical Cancer*



**Moritz Kircher, M.D., Ph.D.**  
Radiology, Beth Israel Deaconess Medical Center/Harvard Medical School  
*Noninvasive In Vivo Imaging of Pleiotropic Statin Effects on Monocyte Trafficking to Atherosclerotic Plaques*

**PHILIPS**

**Edward W. Lee, M.D., Ph.D.**  
Radiology, University of California, Los Angeles, Medical Center  
*A New Image-Guided Tumor Ablation: Percutaneous Irreversible Electroporation (PIE) on Head and Neck Squamous Cell Carcinoma in Rabbit VX2 Neck Tumor Model*

**Steven H. Lin, M.D., Ph.D.**  
Radiation Oncology, The Johns Hopkins University School of Medicine  
*The Role of REPRIMO and REPRIMO-Like Gene Silencing in the Radioresistance of GI Malignancies*

**Akash Nanda, M.D., Ph.D.**  
Radiation Oncology, Harvard Radiation Oncology Program, Massachusetts General Hospital  
*Molecular Targeted Radiation Therapy for Lung Cancer*

**PHILIPS**

**Eleanor Ormsby, M.D., M.P.H.**  
Radiology, University of California, Davis  
*In Vivo Validation of PET Labeling of Liposomal Particle Shells with Optical Imaging in Ultrasound-Enhanced Delivery to Prostate Cancer*



**Michael Rosenthal, M.D., Ph.D.**  
Radiology, Brigham and Women's Hospital and Harvard Medical School  
*Quantitative Estimation of Metastatic Tumor Burden in the Liver Using CT Perfusion Imaging*

**TOSHIBA**

**Michael Spiotto, M.D., Ph.D.**  
Radiation Oncology, Stanford University  
*Molecular Mechanisms for Hypoxia Mediated Immune Suppression in Tumors*

**RSNA Presidents Circle Research Award**

**David Wang, M.D.**  
Radiology, Stanford University School of Medicine  
*Ultrasound-Mediated Suicide Gene Therapy with Molecularly Targeted Microbubbles in a Murine Model of Tumor Angiogenesis*

**TOSHIBA**

**Eddy Shih-Hsin Yang, M.D., Ph.D.**  
Radiation Oncology, Vanderbilt University Medical Center  
*Neuroprotection via Enhanced Repair of Radiation-Induced DNA Damage by GSK3B Inhibitors*



SAMIR ABBOD, B.S.

**Brian Yeh, M.D.**  
Radiation Oncology, UCLA Medical Center  
*The Role of TNF-Alpha Signaling in Normal Brain Tissue Response to Radiation*

**Nam Yu, M.D.**  
Radiology, University of California, Los Angeles, Medical Center  
*Interventional Oncology and the Stromal-Derived Factor-1/CXCR4 Biological Axis: Implications for Post-Therapy Tumor Progression and a Novel Adjuvant Strategy*



**James B. Yu, M.D.**  
Therapeutic Radiology, Yale School of Medicine  
*The Promise of Intensity Modulated Radiation Therapy for Head and Neck Cancer: Patterns of Care, Access to Treatment and Functional Outcomes*

**RESEARCH SEED GRANT**

**Mark Buyyounouski, M.D.**  
Radiation Oncology, Fox Chase Cancer Center  
*Early Detection of Locally Persistent Prostate Cancer Following Radiotherapy*

**PHILIPS**

**Jürgen K. Willmann, M.D.**  
Radiology, Stanford University School of Medicine  
*Development and Validating of a Multi-Targeted Contrast Agent for Contrast-Enhanced Ultrasound Imaging of Tumor Angiogenesis in Early-stage Pancreatic Cancer*

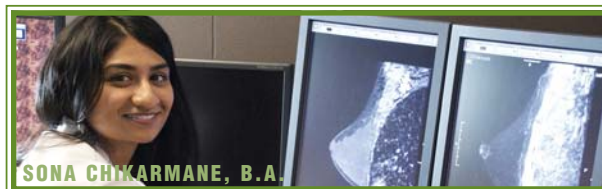


**RESEARCH MEDICAL STUDENT GRANT**

**Samir Abboud, B.S.**  
Radiology/Nuclear Medicine, University of Maryland  
*Role of Whole-Body CT Imaging Autopsy in the Investigation of Mechanisms of Blunt Force in Accidental Traumatic Death*

**Canon**

**Nour Birouti, B.A.**  
Radiology, Northwestern University Feinberg School of Medicine  
*Assessment of Aneurysm Pulsatility in a Rabbit Model*



SONJA CHIKARMANE, B.A.

**Tze Luck Chia, B.Sc.**  
Medical Imaging, University of Toronto, Sunnybrook Health Sciences Centre  
*(Chia is enrolled at Queen's University, School of Medicine, Kingston, Ontario, Canada) Pilot Study—Relationship Between Grey Matter Perfusion and Cognitive Impairment in Multiple Sclerosis Using CT Perfusion*

**Sona Chikarmane, B.A.**  
Radiology, Harvard Medical School, Brigham and Women's Hospital  
*Evaluation of Non-Mass Enhancement of the Breast using 3T Imaging and Correlating Pathology*

**FUJIFILM**

**Lee Coryell, B.A.**  
Radiology, University of Pennsylvania School of Medicine  
*The Spectrum of Findings Associated with Fibroid Expulsion After Uterine Artery Embolization*

**Guillermo Gonzalez, B.A.**  
Radiology, Washington University in St. Louis, School of Medicine  
*Evaluation of Hepatic Steatosis on Contrast-Enhanced Computed Tomography Scan*

**Gaurav Gupta, B.S., M.S.**  
Radiation Oncology, Stanford University School of Medicine  
*Investigating the Tolerance of the Spinal Cord to CyberKnife Radio-surgery*

**Arash Jaber, H.B.Sc.**  
Medical Imaging, University of Toronto  
*Maturation of the Arterio-venous Fistula for Hemodialysis: Tracking the Process by Ultrasound Monitoring*

**Aleksandrs Kalnins, B.A.**  
Radiology, University of Washington School of Medicine  
*Cost-outcomes Analysis and Decision-tree Modeling in the Investigational Vertebroplasty Efficacy and Safety Trial (INVEST) and the Carpal Tunnel Syndrome Diagnosis and Treatment Trial*

**Gunjan Malik, B.A.**  
Radiology, Beth Israel Deaconess Medical Center  
*MRI of Borderline Fetal Ventriculomegaly: Imaging and Outcomes*

**Asad Nawaz, B.S.**  
Radiology/Nuclear Medicine, University of Pennsylvania  
*Diagnostic Performance of FDG-PET in the Diagnosis of Acute Osteomyelitis and Evaluation of Atherosclerosis in the Diabetic Foot*

**Kristen O'Donnell, B.S.**  
Radiation Oncology, Oregon Health & Science University  
*Assessment of Post-Prostatectomy Clinical Target Variation and Critical Structure Dosing During Intensity Modulated Radiation Therapy*



KRISTEN O'DONNELL, B.S.

Continued on next page

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**Ephraim Parent, Ph.D.**

Radiology, Washington University School of Medicine  
(Dr. Parent is enrolled at the University of Illinois at Urbana-Champaign)  
*Directed Radiotherapy of MCF-7 Cells Using 16a-[77Br]-Bromo-11b-Methoxyestradiol-17b*

**Bippan Sangha, B.S.**

Radiology, University of British Columbia  
*The Effect of Varying Arterial Input Function on Cerebral Perfusion Assessment in Acute Ischemic Stroke*



FAISAL A. SIDDIQUI, PH.D.

**Seanthan Senthilnathan, B.A.**

Radiology, Northwestern University Feinberg School of Medicine  
*TACE and Yttrium-90 Microspheres in the Treatment of Hepatocellular Carcinoma: A Cohort Comparison*

**Steve How-Han Sheh, B.S.**

Radiology, Montefiore Medical Center, Albert Einstein College of Medicine  
*Is Computed Tomography Necessary for All Patients With Suspected Pulmonary Emboli? A Retrospective Look Comparing the Mortality and Morbidity of Patients Diagnosed with PE Via CTPA and V/Q*

**Faisal A. Siddiqui, Ph.D.**

Radiation Oncology, Oregon Health & Science University  
*Prostate Cancer Screening and Staging by Dynamic-Contrast-Enhanced Magnetic Resonance Imaging (DCE-MRI) Pharmacokinetics*

**Dina Szein, B.A.**

Radiology/Nuclear Medicine, University of Maryland School of Medicine  
*Evaluation of a Novel Tool to Facilitate Critical Finding Communication Between Radiologists and Clinicians*

**James Walter, B.S.**

Radiology, University of Pennsylvania  
(Walter is enrolled at Creighton University School of Medicine)  
*Determination of Optimal Radiometal-Chelator Complexes for PET-CT Visualization of Lewis Y+ Tumors using hu3S193*

**PHILIPS**

**Andrew Wentland, B.S.**

Radiology and Medical Physics, University of Wisconsin School of Medicine and Public Health  
*Magnetic Resonance Imaging (MRI) Perfusion: Validation in Swine and Correlation with MR BOLD Measurements*

**John-Paul J. Yu, Ph.D.**

Russell H. Morgan Department of Radiology and Radiological Science, The Johns Hopkins University School of Medicine  
(Dr. Yu is enrolled at the University of Illinois, Urbana-Champaign)  
*Novel Radiotherapeutic Approaches to Prostate Cancer: In Vivo Biodistribution Studies of Radiolabeled Small-Molecule Ligands for Prostate-Specific Membrane Antigen*

**Education Grants**

**EDUCATION SCHOLAR GRANT**

**Ivy Petersen, M.D.**

Radiation Oncology, Mayo Clinic Rochester  
*Technical and Professional Skill Development Within Radiation Oncology*



**David Yousem, M.D.**

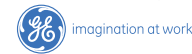
Russell H. Morgan Department of Radiology and Radiological Science, The Johns Hopkins Medical Institution  
*Developing a Curriculum for Teaching the Business of Radiology*

**PHILIPS**

**FELLOWSHIP TRAINING GRANT**

**Iulian Burtea, M.D.**

Radiology, Mayo Clinic  
*Clinical Fellowship in Cardiovascular Imaging*



**Amit Newatia, M.D.**

Radiology, The Johns Hopkins University  
*Clinical Fellowship in Cardiovascular Imaging*

**EDUCATION SEED GRANT**

**Dianne Georgian-Smith, M.D.**

Radiology, Brigham and Women's Hospital  
*Detection of Breast Cancer—Mammographic Architectural Distortion: Understanding the Perception to Develop Methods for Teaching*

**Yvonne Lui, M.D.**

Radiology, Montefiore Medical Center  
Albert Einstein College of Medicine of Yeshiva University  
*Development, Implementation and Assessment of an Inexpensive Cerebral Catheter Angiographic Training Laboratory and Curriculum*

**RSNA/AUR/APDR/SCARD RADIOLOGY EDUCATION RESEARCH DEVELOPMENT GRANT**

**Andrea Donovan, M.D.**

Medical Imaging, Sunnybrook Health Sciences Centre, University of Toronto  
*Developing Radiology Residents as Teachers: Program Director Views and Implementation of a National Resident Teacher Development Course*



ANDREW WENTLAND, B.S.

**Deadlines for 2009 Grant Applications**

The deadlines for RSNA R&E Foundation Grant applications are:  
 ■ January 10, Education Grants  
 ■ January 15, Research Grants  
 ■ February 1, Research Medical Student Grant

Posters outlining the R&E Foundation research and education grant programs will be mailed this month to department chairs and are available for download at [RSNA.org/Foundation/GrantPosters.cfm](http://RSNA.org/Foundation/GrantPosters.cfm). New this year, a separate poster highlights the Foundation's two grant programs open to international applicants.

Posters will also be available at RSNA 2008 in the R&E Foundation Pavilion in RSNA Services.





# Research & Education Foundation Donors

THE Board of Trustees of the RSNA Research & Education Foundation and its recipients of research and education grants gratefully acknowledge the contributions made to the Foundation July 19 – August 14, 2008.

## VANGUARD PROGRAM

Siemens Healthcare USA Inc.

**SIEMENS**

**\$150,000**

A Vanguard company since 1990

Bracco Diagnostics, Inc.



**\$60,000**

A Vanguard company since 1990

Fujifilm Medical Systems

**FUJIFILM**

**\$15,000**

A Vanguard company since 1990

## EXHIBITORS CIRCLE PROGRAM

BRONZE LEVEL (\$1,500)

Franklin & Seidelmann  
Subspecialty Radiology



ONI Medical Systems



ONI Medical Systems

## LEGACY DONOR PROGRAM

E. Russell & Julia R. Ritenour

## PLATINUM VISIONARY DONORS (\$25,000 CUMULATIVE)

Cynthia & Leonard M. Glassman, M.D.

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*In memory of Stephen W. Brown, M.D.*

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William A. Shipley, M.D.

Mary & Allen F. Turcke, M.D.

### \$250 OR LESS

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John R. Blackwell, M.D.

Becky & Barry G. Cook, M.D.

Harriet F. & Daniel B. Crane, M.D.

Jennifer M. & Kirkland W. Davis, M.D.

Sharon H. & John F. Dotter, M.D.

Diane L. Edge, M.D.

Tova & James P. Eisenberg, M.D., Ph.D.

Connie & Charles W. Emarine Jr., M.D.

Laurie & W. Phil Evans III, M.D.

Kiyomi Furuya, M.D.

Emmy & Nicholas C. Gourtsoyiannis, M.D.

Bernhard Heinze, M.D.

N. Carol Dornbluth, M.D. & Don D. Howe, M.D.

Sherrill & Kenneth L. Kraudel, M.D.

Milton Margulies, M.D.

Mehran Midia, M.D.

Werner Rosshirt, M.D.

MaryAnn & Frank J. Simone, M.D.

**Karen & Michael A. Sullivan, M.D.**

Richard S. Young, M.D.

Donors who give \$1,500 or more in the giving year qualify for membership in the Presidents Circle. Their names are shown in bold face.

## New Pacesetters Keep Campaign Goal in Sight

THE FOUNDATION would like to welcome three new Pacesetters to the Silver Anniversary Campaign. Helen and Paul J. Chang, M.D., Mary and Richard E. Buenger, M.D., and Cynthia and Leonard M. Glassman, M.D., have joined 36 other Pacesetters leading the way toward the \$15 million campaign goal.

## RADIATION SAFETY

# Answer

[Question on page 2.]

**A** Tables can be made to support any patient. Such tables are heavy, hard to move and may attenuate too much of the X-ray beam to be optimal for most patients.

Q&A courtesy of AAPM.

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

# Journal Highlights

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

## CT of Esophageal Emergencies

**CT** CAN PLAY a primary and complementary role in the diagnosis and evaluation of esophageal emergencies, which can result in significant morbidity and mortality if not recognized and treated promptly.

In an article in the October monograph issue of *RadioGraphics* (RSNA.org/radiographics), Catherine A. Young, M.D., of the Mallinckrodt Institute of Radiology in St. Louis, and colleagues identify the esophageal conditions that may manifest emergently. Also addressed are the clinical and CT manifestations of common esophageal emergencies and the utility of CT in the evaluation of acute esophageal disease.

The 2008 *RadioGraphics* monograph issue focuses on emergency radiology.

Specifically, Dr. Young and colleagues address:

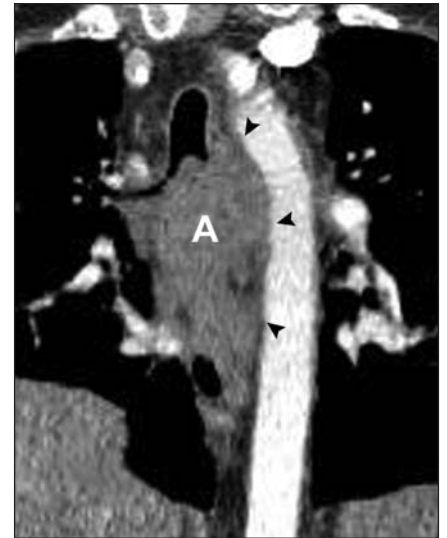
- Esophagitis
- Foreign body impaction
- Trauma
- Mallory-Weiss tear and other mucosal lacerations



**Aortoesophageal fistula in a middle-aged man with a history of erosive esophagitis and chest pain initially thought to have a cardiac origin.**

(a) Axial contrast-enhanced CT image obtained with an aortic dissection protocol shows mediastinitis and a large gas-containing abscess (A) directly abutting the aorta. The wall of the proximal descending aorta is irregular, giving rise to small projections of contrast material (*arrowheads*), findings suggestive of an aortoesophageal fistula. (b) Coronal reformatted CT image from the same study as a nicely depicts the long interface between the two lumina, with total obliteration of the intervening fat plane (*arrowheads*). These findings and the history of hematemesis are indicative of an aortoesophageal fistula. The diagnosis was confirmed at endovascular treatment and subsequent surgery.

(*RadioGraphics* 2008;28:1541-1553) © RSNA, 2008. All rights reserved. Printed with permission.



- Intramural dissection and hematoma
- Transmural perforation

“An awareness of the CT findings associated with the spectrum of acute esophageal disease will promote

This article meets the criteria for 1.0 AMA PRA Category 1 Credit™.

the radiologist's ability to accurately diagnose esophageal emergencies, thereby reducing delays in diagnosis that are likely to have a negative effect on outcomes,” the authors conclude.

## Abdominal Wall CT Angiography: A Detailed Account of a Newly Established Preoperative Imaging Technique

**A**UTOLOGOUS surgical breast reconstruction with use of abdominal wall donor flaps based on the deep inferior epigastric artery (DIEA) and one or more of its anterior musculocutaneous perforating branches (DIEA perforator flap) is being used with increasing frequency. Using abdominal wall CT angiography to preoperatively map the DIEA perforators provides the surgeon with infor-

mation that can optimize the surgical technique, shorten procedure time and reduce surgical complications.

In a How I Do It article in the October issue of *Radiology* (RSNA.org/radiology), Timothy J. Phillips, M.B.B.S., of The Royal Melbourne Hospital in Victoria, Australia, and colleagues outline use of abdominal wall CT angiography in these cases, noting that they require a

novel approach differing substantially from typical abdominal CT angiographic techniques.

Addressed by Dr. Phillips and colleagues:

- Appropriate patient selection
- Contrast material enhancement
- Image acquisition and reconstruction parameters
- Image display and analysis techniques

Continued on Page 38

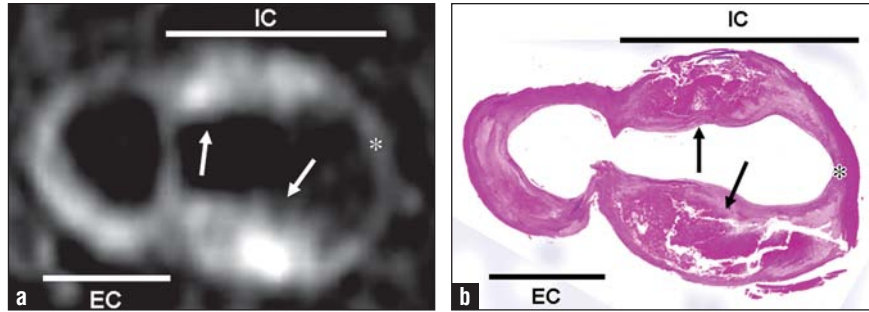
# Radiology in Public Focus

A press release has been sent to the medical news media for the following article appearing in the current issue of *Radiology* ([RSNA.org/radiology](http://RSNA.org/radiology)):

## Intraplaque Hemorrhage: In Vivo 3D High-Spatial-Resolution MR Imaging

T1-weighted 3D MR imaging can detect the precise location of intraplaque hemorrhage (IPH) within complicated plaques in the carotid arteries, researchers have found.

In light of recent imaging research that has demonstrated the role of IPH in the destabilization of atherosclerotic plaques, Richard Bitar, M.D., M.Sc., of the University of Toronto, and colleagues evaluated MR imaging for detecting the location of IPH, testing the hypothesis that T1-hyperintense material represents methemoglobin as defined by histological standards. The researchers studied 97 images from 11 patients undergoing carotid endarterectomy, employing a 3D T1-weighted fat-suppressed spoiled gradient echo for high-resolution MR examination. Compared with histological findings, the MR sequence yielded sensitivity of 93.5 to 100 percent, specificity of 80.3 to 87.9 percent, positive predic-



**Images of intraplaque hemorrhage (IPH) obtained in a 69-year-old man with asymptomatic carotid artery stenosis.**

(a) MR image of IPH obtained at the level of the bifurcation shows high-signal-intensity regions of IPH (arrows). Noncomplicated areas of the plaque (\*) are also visible. (b) Corresponding slice of the carotid endarterectomy specimen at the level of the carotid bifurcation enabled confirmation of the presence of IPH (arrows). (Hematoxylin-eosin stain; original magnification, x12.5.) EC = external carotid artery, IC = internal carotid artery.

(*Radiology* 2008;249:259-267) © RSNA, 2008. All rights reserved. Printed with permission.

tive values of 70.5 to 78.4 percent and negative predictive values of 96.7 to 100 percent between two readers.

With its high spatial resolution, Bitar and colleagues write, the MR sequence “permits in-slice detection of plaque hemorrhage location, resulting in strong agreement between imaging and histology.”

The researchers identify the high-

resolution MR technique as a noninvasive method for identifying patients with high-risk carotid atherosclerosis. The method “is an easy technique to interpret due to its use of a single contrast weighting and the innate T1-hyperintense tissue contrast thought to be provided by methemoglobin, based on the careful histological correlation provided by this study,” they write.

## Media Coverage of Radiology

IN AUGUST, media outlets carried 887 news stories generated by articles appearing in *Radiology*. These stories reached an estimated 436 million people.

News releases promoted findings from a study on embolization of varicoceles to increase male fertility (*Radiology* 2008;248:540-549) and a study on premedication to reduce discomfort during screening mammography (*Radiology* 2008;248:765-772—published online ahead of print July 22). A video news release was issued in association with the mammography study.

Broadcast coverage included *Good Morning America*, *Today*, MSNBC, FOX News Edge, CBC (Montreal), CBS Radio, *Primer Impacto* (Univision), WABC-TV (New York), KABC-TV (Los Angeles), *America This Morning* (ABC), *AgDay* (syndicated), *Good Morning America Radio*, New England Cable News (Boston), KGUN-TV (Tucson), WDIV-TV (Detroit), WCVB-TV (Boston), WPIX-TV (New York),



WLS-TV (Chicago), WNYW-TV (New York), KGO-TV (San Francisco), WBBM-TV (Chicago), WPVI-TV (Philadelphia), WFAA-TV (Dallas), WTAE-TV (Pittsburgh), KTNX-TV (Phoenix), KING-TV (Seattle), KYW-TV (Philadelphia),

KXAS-TV (Fort Worth), WBAL-TV (Baltimore), KARE-TV (Minneapolis), KTRK-TV (Houston), WJW-TV

*Continued on next page*

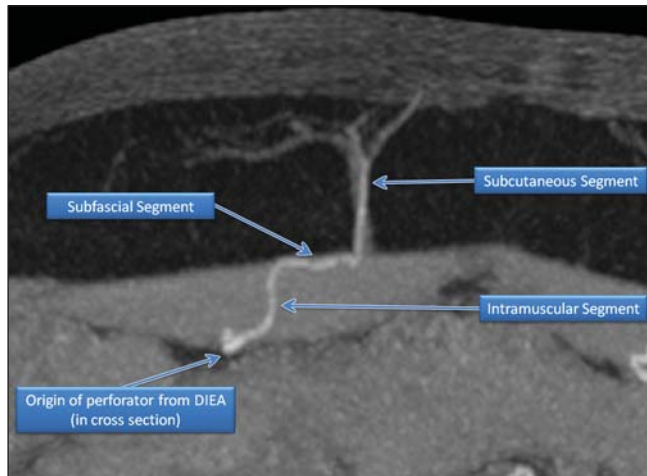
## Abdominal Wall CT Angiography: A Detailed Account of a Newly Established Preoperative Imaging Technique

Continued from Page 36

- Presentation of data to the referring surgeon

The authors also explain the surgical and radiologic anatomy of the DIEA and the characteristics that define favorable perforators.

“These recommendations are based on the authors’ experience in performing and interpreting the results of 65 abdominal wall CT angiographic examinations and on close collaboration between the departments of radiology and plastic surgery at our institution,” the authors write.



Axial 50-mm section thickness maximum intensity projection (MIP) image obtained with abdominal wall CT angiography shows the labeled segments of a perforator originating from the right DIEA.

(*Radiology* 2008;249:32-44) © RSNA, 2008. All rights reserved. Printed with permission.

## Media Coverage of Radiology

Continued from previous page

(Cleveland), *Take Five* (syndicated radio) and *Martha Stewart Living Radio* (syndicated).

Print and wire coverage included *Washington Post*, *Newsday*, *Philadelphia Inquirer*, *Miami Herald*, *Houston Chronicle*, *News & Observer* (Raleigh, N.C.), *Idaho Statesman*, *Akron Beacon Journal* (Ohio), *South Bend Tribune* (Ind.) and *The Hamilton Spectator* (Ontario).

Web placements included WebMD, Yahoo! News, Medscape, *MSNBC.com*, *Washingtonpost.com*, *CBSnews.com*, *ABCnews.com*, *LAtimes.com*, *NYdailynews.com*, *USNews.com* and *Forbes.com*.

## October Public Information Activities Focus on Breast Cancer Awareness

To highlight National Breast Cancer Awareness Month in October, RSNA will distribute public service announcements (PSAs) focusing on the importance of regular screening mammograms.

In addition to the PSAs, RSNA will distribute the “60-Second Checkup” radio program focusing on digital mammography, stereoscopic digital mammography, mammography screening/imaging and the breast imaging information offered on *Radiology Info.org*.

## RSNA On Hand for ASTRO 50th Anniversary

*Radiology* Managing Editor John Humpal, M.A., and 2008 RSNA President Theresa C. McCloud, M.D., greeted visitors to the RSNA informational booth at the American Society of Therapeutic Radiology and Oncology (ASTRO) annual meeting, held last month in Boston. Presentations at the ASTRO meeting included the latest in radiation therapy for breast and prostate cancer, as well as the results of studies into the costs that keep patients out of clinical trials and the stress suffered by long-term cancer survivors.

RSNA will take its booth to the annual meeting of the Sociedad Mexicana de Radiología e Imagen (SMRI) in Mexico City next February and the European Congress of Radiology (ECR) in Vienna next March.





# Working For You

## Making MIRC™ Work

RSNA News continues its series of profiles on real-world Medical Imaging Resource Center (MIRC®) users with Daniel Rubin, M.D., M.S., a clinical assistant professor of radiology at Stanford University Medical Center, research scientist at Stanford Informatics and director of scientific development at the National Center for Biomedical Ontology. Dr. Rubin and his colleagues have been using the clinical trials processor (CTP) tool, based on MIRC technology, for about seven months in a study characterizing liver lesions.

Making **MIRC** Work

RSNA.ORG/MIRC  
RSNA'S FREE ONLINE RESEARCH  
AND EDUCATION TOOLS

“We needed to customize the system to anonymize particular fields and name the cases in a particular way according to the requirements of the research study,” said Dr. Rubin. “CTP is open-source and scalable and offered the flexibility and features we need.”

The researchers have set up and successfully tested CTP's image sharing capabilities as they plan for a joint project to share images with other institutions, said Dr. Rubin. “When other institutions are involved, the de-identification is absolutely critical,” he said. “There are multiple steps in the pipeline—you need the DICOM receiver, you need the image anonymizer and then you need a DICOM sender. CTP lets institution A configure it to receive an image from the PACS, then anonymize it and ship it off to institution B. At institution B, CTP receives images and then stores them in a local image archive.”

Especially useful is CTP's ability

to customize anonymization based on any field within the DICOM image, as well as its ability to filter DICOM images using a flexible scripting language, Dr. Rubin said. “Some files that are secondary captures might have personal health information (PHI) burned into the image,” he said. “With CTP, you can avoid the potential glitch of most anonymizers, which take a secondary capture image and anonymize the DICOM headers but haven't anonymized PHI contained within the image itself. We can enter some rules to recognize secondary capture images and not send them at all. In that regard, CTP has proven very powerful and flexible for image transmission.”

CTP also gives the researchers options for manipulating images, said Dr. Rubin. “They're not locked in to a single pre-specified workflow that any



Daniel Rubin, M.D., M.S.

particular vendor provides,” he said. “In addition, CTP provides a Web-based way of browsing the images you receive, like a mini-PACS, and you can download them using a Web browser and then delete the images off the server when you're done with them.”

For details about CTP installation and different customization options, Dr. Rubin urges potential users to consult the CTP wiki at *MIRCwiki.RSNA.org*. “It's very straightforward for anyone who has any kind of technical background,” he said. “You're going to need to work with someone who knows to install the application on a server, but it's no more difficult to set up and install than MIRC.”

## New Educational Content Available on InteractED®

Several RSNA 2007 refresher courses are now available online for *AMA PRA Category 1 Credit™* as a free RSNA member benefit:

- Practical and Operational Issues in PACS and Radiology Information Systems (Basic Imaging Informatics)
- Patient Centered Radiology: Use it or Lose it

- Update Course in Diagnostics Radiology Physics: Screen-Film and Digital Mammography
- The Economics of Breast Imaging

An RSNA 2007 Quality Improvement Symposium session, Developing the Infrastructure, is also available.

To view these new programs and

other InteractED content, go to *RSNA.org/education*. For more information, contact the RSNA Education Center at 1-800-381-6660 x3753 or 1-800-272-2920.

RSNA Education

# Program and Grant Announcements

## Financial Education Seminars at RSNA 2008

Saturday, November 29 • McCormick Place

RSNA will offer two financial seminars prior to RSNA 2008. Effective Estate Planning Strategies will be presented by Barry Rubenstein, B.S., J.D., L.L.M. and Effective Investment Strategies will be presented by J. Michael Moody, M.B.A.

More information is available at [RSNA.org/Education/RSNA\\_short-courses.cfm](http://RSNA.org/Education/RSNA_short-courses.cfm). Further questions can be directed to the RSNA Education Center at 1-800-381-6660 x7772 or [ed-ctr@rsna.org](mailto:ed-ctr@rsna.org).



## Bioengineering & Imaging Research Opportunities Workshop 6 (BIROW VI)

January 15–16, 2009 • Bethesda North Convention Center, Maryland

BIROW workshops identify and explore new opportunities for basic science research and engineering development in biomedical imaging, as well as related diagnosis and therapy. The workshop will provide information and ideas for new investigators, support accelerated development of biomedical imaging as a scientific discipline and facilitate coordinated imaging research. RSNA is co-sponsoring this workshop. For more information, go to [www.birow.org](http://www.birow.org).



Bioengineering & Imaging Research Opportunities WORKSHOP 6

## Writing a Competitive Grant Proposal

January 30–31, 2009 • RSNA Headquarters, Oak Brook, Ill.  
Application Deadline—December 15

Registrations are being accepted for the second Writing a Competitive Grant Proposal program, designed for researchers in radiology, radiation oncology, nuclear medicine and related sciences who are interested in actively pursuing federal funding.

Limited seating is available for this 1½-day intermediate-level program. The course combines didactic and small group interactive sessions to help radiologic researchers understand and apply the key components of writing a competitive grant proposal. Topics to be covered include the NIH grant review process, developing specific

aims and funding opportunities.

Guided by a faculty of leading researchers with extensive experience in all aspects of grant applications and funding, the program will focus on developing realistic expectations and provide tools for getting started. Faculty includes G. Scott Gazelle, M.D., Ph.D., of Massachusetts General Hospital in Boston and King C. Li, M.D., of Methodist Hospital in Houston.

The course fee is \$175. Registration forms can be found at [RSNA.org/CGP](http://RSNA.org/CGP). Contact Fiona Miller at 1-630-590-7741 or [fmiller@rsna.org](mailto:fmiller@rsna.org) for further information.



## RSNA MEMBER BENEFITS

### 2008–2009 Product Catalog Published



THE 2008–2009 RSNA Education Center product catalog will be included with the October special issue of *RadioGraphics*. The brochure includes descriptions of new products as well as other available content.

To access the brochure online, go to [RSNA.org/education](http://RSNA.org/education). For answers to questions about courses or products, contact the RSNA Education Center at 1-800-381-6660 x3753 or 1-800-272-2920.

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

# News about RSNA 2008

## Final Advance Registration

The final advance registration, housing and course enrollment deadline for RSNA 2008 is **November 7**. North Americans who register in advance will have their registration materials mailed to them prior to the meeting. International attendees, whose registration is completed by **October 24**, will have their registration materials mailed to them. International attendees registered after October 24 may pick up their materials onsite at Professional Registration in the Lakeside Center Ballroom, Desk A.



## RSNA2008

Personal Learning in the  
Global Community

**94th Scientific Assembly  
and Annual Meeting**  
Nov. 30–Dec. 5, 2008  
McCormick Place, Chicago

## Housing

The deadline to make housing reservations and changes through RSNA is **November 7**. After November 7, contact the hotel directly. For more specific information, go to [RSNA.org/register](http://RSNA.org/register).

## United Airlines Discount

[United.com](http://United.com) offers a discount on select United Airlines and United Express qualifying flights. Use promotional code 553SB to check schedules, make reservations or learn about ticketing information at [United.com](http://United.com).

## Onsite Registration

Those who register in advance can wear their badge at the McCormick Place Convention Center and proceed directly into the exhibit halls and classrooms. Those who must register onsite should proceed to Professional Registration in the Lakeside Center Ballroom.

## Hours of Operation

Saturday, November 29 . . . . . 12:00 p.m. – 6:00 p.m.  
Sunday, November 30 – Thursday, December 4 . . . . . 7:30 a.m. – 5:00 p.m.  
Friday, December 5 . . . . . 7:30 a.m. – 12:00 p.m.

For more information about registering for RSNA 2008, visit [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org), e-mail [reginfo@rsna.org](mailto:reginfo@rsna.org) or call 1-800-381-6660 x7862.



## Registering for RSNA 2008

There are four ways to register for RSNA 2008:

### 1 Internet

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

Fastest way  
to register!

Use your member ID number from the *RSNA News* label or meeting flyer sent to you. If you have questions, send an e-mail to [rsna@experient-inc.com](mailto:rsna@experient-inc.com)

### 2 Fax (24 hours)

1-800-521-6017  
1-847-940-2386

### 4 Mail

Experient/RSNA 2008  
108 Wilmot Rd.,  
Suite 400  
Deerfield, IL 60015-5124  
USA

### 3 Telephone

(Monday–Friday,  
8:00 a.m.–5:00 p.m. CT)  
1-800-650-7018  
1-847-940-2155

## Registration Fees

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

BY 11/7	ONSITE	
\$0	\$100	RSNA Member, AAPM Member
\$0	\$0	Member Presenter
\$0	\$0	RSNA Member-in-Training, RSNA Student Member and Non-Member Student
\$0	\$0	Non-Member Presenter
\$130	\$230	Non-Member Resident/Trainee
\$130	\$230	Radiology Support Personnel
\$620	\$720	Non-Member Radiologist, Physicist or Physician
\$620	\$720	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 for RSNA 2008

<b>Oct. 24</b>	International deadline to have full-conference materials mailed in advance
<b>Nov. 7</b>	Final advance registration, housing and course enrollment deadline
<b>Nov. 30–Dec. 5</b>	RSNA 94th Scientific Assembly and Annual Meeting

# Navigating RSNA 2008

RSNA 2008 publications, procedures and features help attendees make the most out of the annual meeting.

## Name Badge

Names badges must be worn at McCormick Place to attend courses or events or to enter the exhibit halls. RSNA will track attendance in the Technical Exhibit halls, Lakeside Learning Center and multiple session rooms using radiofrequency identification, also known as RFID. No personal information is stored on the RFID badge, only an identification number. RFID is used to obtain total attendance counts and exhibit floor traffic. Attendees wishing to opt of this program should visit a Help Center onsite.

## ExpoCard™

ExpoCard™ is an electronically personalized business card attendees can use at the technical exhibition to request exhibitor information. The card is encoded with the holder's name, institution, address, e-mail address, phone/fax numbers and radiologic specialty. Attendees who prefer that exhibitors contact them at a different address than the one used during advance registration should provide the alternate information directly to the exhibitor at the point of contact. They may also visit either Help Center at McCormick Place to change the registration and ExpoCard detail.

## Pocket Guide

The RSNA 2008 *Pocket Guide* is an important, easy-to-use reference guide with two main sections:

### Overview of RSNA 2008

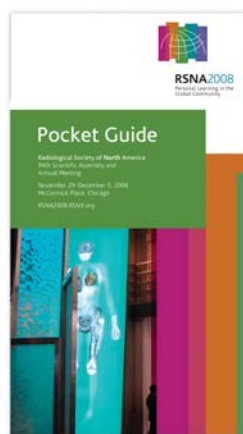
- Complete A-Z listing of everything available to attendees
- Room assignments for the scientific sessions, refresher courses and plenary sessions
- Floor plans of each building and each floor of McCormick Place



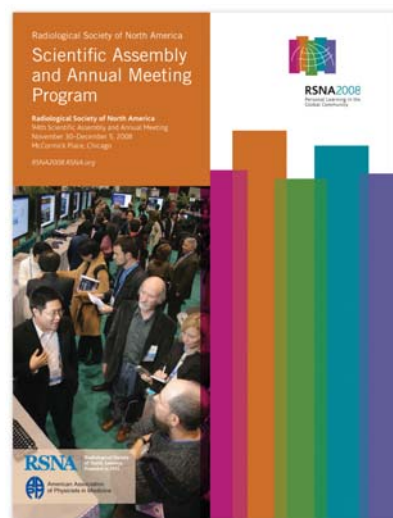
NAME BADGE



EXPO CARD



POCKET GUIDE



RSNA MEETING PROGRAM

## Traveling to and from McCormick Place

- Shuttle bus schedules, routes and boarding locations
  - Taxi fees and loading and unloading areas
  - Airport transportation service information, including times, costs and boarding
  - Complete Metra Electric Line Train System schedule outlining station locations, times and drop-off destinations
  - Parking lot locations, hours and fees
- Transportation information is also available online. Go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click Transportation Guide.

## RSNA Meeting Program, Official Meeting Bag and Lanyard

One complimentary copy of the *RSNA Meeting Program*, official meeting bag and lanyard are available with the presentation of a voucher at the distribution counters located in the Grand Concourse (Level 3), Lakeside Center (Level 3) and South Building (Level 2, Gate 3). Additional copies of the *Meeting Program* will be available to RSNA members for \$20 each and non-members for \$50 each at the Education Stores.

The *RSNA Meeting Program* is also available at [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org). The online version makes it quick and easy to search and customize your schedule at RSNA 2008. The program will be available online in early October and will remain online after the meeting.



DAILY BULLETIN



OFFICIAL MEETING BAG



MEETING GUIDE

### Daily Bulletin

The *Daily Bulletin* is the official newspaper of the RSNA annual meeting. Featuring overnight news from the meeting, the newspaper can be found in bins throughout McCormick Place. Each day's edition will also be available online at [RSNA.org/bulletin](http://RSNA.org/bulletin).

Each day's *Daily Bulletin* also includes a New Products & Services section, to alert attendees to some of the newest radiologic technology and services being demonstrated by technical exhibitors during the annual meeting.

### Meeting Guide

The RSNA 2008 *Meeting Guide* features floor maps of McCormick Place, various program and transportation schedules and a comprehensive listing of the technical exhibitors, along with

company contact information and booth number. The *Meeting Guide* will be available in bins adjacent to the *Daily Bulletin*.



### Transportation

RSNA offers complimentary shuttle bus service to and from McCormick Place. A dedicated bus lane makes the trip quick and easy, even during rush hours. Routes servicing 40 hotels in the RSNA block use a dedicated lane. Check signage in the hotel lobby and at McCormick Place Convention Center for exact

pick-up and drop off locations.

Ride the Metra Electric Train for free using the Metra ticket located in your registration wallet. Trains run from downtown Chicago stations (Millennium Station, Van Buren Street and Roosevelt Road) to the McCormick Place Convention Center Station in just 7 minutes. Stations are located within walking distance to many hotels. The ticket must be shown to the conductor when requested.

For more information about shuttle bus service and Metra, including the arrival and departure schedules, go to [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org) and click on Transportation in the left-hand column.

### Services for International Attendees

- **Certificate of Attendance**—Use the computers in the Internet Zones to print a personalized certificate of attendance.
- **Foreign Currency Exchange Services**—Exchange foreign currency and cash foreign or U.S.-denominated traveler's checks. Located across from the Business Center on the Grand Concourse (Level 2.5)
- **Interpretation Services**—Visit the Help Centers or Professional Registration for assistance with conference questions in the following languages: Chinese, Dutch, French, German, Italian, Japanese and Spanish.
- **Travel Services**—ESA Voyages, the official international travel provider for RSNA 2008, will be available at the Help Center (Grand Concourse, Level 3) and at Professional Registration (Lakeside Center Ballroom) to assist with questions.

# Product News

## NEW PRODUCT

### Transportable Breast-Specific Gamma Camera

**D**ILON TECHNOLOGIES ([www.dilon.com](http://www.dilon.com)) has introduced a transportable version of its Dilon 6800 breast-specific gamma camera, the Dilon 6800 Access. Transportability allows access at centers such as small community hospitals that may not have high enough patient volumes to justify a full-time system. Gamma imaging is useful for diagnosis in women with dense breast tissue, multiple suspicious lesions or microcalcifications, implants, post-surgical masses or palpable lesions not detected by mammography or ultrasound, and in women taking hormone replacement therapy. The Dilon 6800 Access also aids treatment and surgery by helping determine the extent of the primary lesion, detecting occult secondary lesions and evaluating the axillary region for node status in breast cancer patients.



## NEW PRODUCT

### Web-based Reference, Education, Communication Suite

Elsevier introduces the Web-based Mosby's Imaging Suite ([www.mosbysimagingsuite.com](http://www.mosbysimagingsuite.com)). The suite provides an online searchable edition of Merrill's Atlas of Radiographic Positioning and Procedures, education modules for technologists with access to up to 70 continuing education credits and an announcement system to create, post and update department protocols. The education compo-

nent can be customized to build skills and conduct testing to any organization's requirements or the requirements of compliance and regulatory organizations, including the Joint Commission. The ability to build a comprehensive set of institution- and physician-specific protocols allows staff to verify protocols for any series of projections and procedures at any time.

## NEW PRODUCT

### Compact Mobile Workstation

AFC Industries, Inc. ([www.afcindustries.com](http://www.afcindustries.com)) has unveiled the compact, versatile XLCD Cart, a computer workstation designed to maximize functionality and ergonomic comfort in a limited space. The cart can accommodate monitors with up to a 42" viewing area, while maintaining a 26.5" diameter footprint and 72" height. The XLCD Cart features an adjustable monitor, keyboard, computer and writing platform to ensure ergonomically correct placement for a full range of users. It enables easy movement for use when seated or standing.

## NEW PRODUCT

### Functional MR Imaging System

An integrated functional MR imaging system from Nordic NeuroLab ([www.nordicneurolab.com](http://www.nordicneurolab.com)) is now available. A hardware system for stimulus presentation and response collection combines with nordicICE BOLD Module data analysis software and nordicAktiva stimulus presentation software to form a complete solution for simplifying and standardizing functional MR imaging in clinical environments. The nordicICE BOLD Module includes basic pre-processing steps, voxel-based statistical analysis based on the General Linear Model and visualization of statistical parametric maps. nordicAktiva offers a collection of ready-to-use standard clinical paradigms, allowing physicians to test a wide range of perceptual, motor and cognitive functions.



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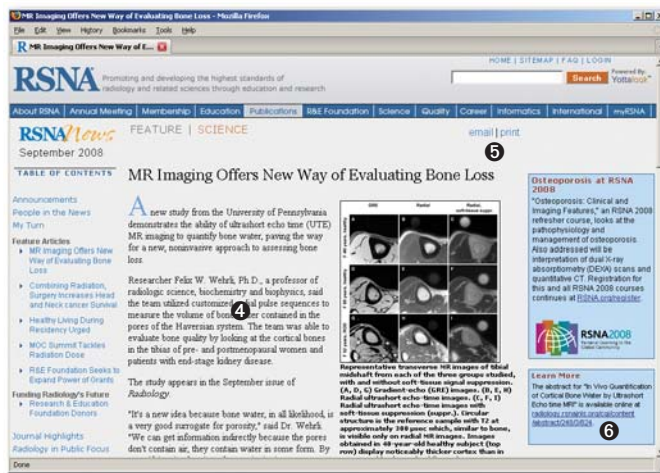
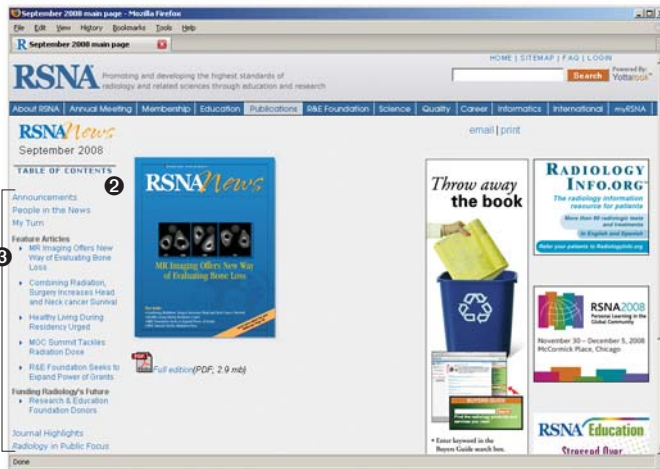
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# Bon Appetit! Taste Chicago's Many Flavors During RSNA 2008

**T**AKE TIME after busy days at McCormick Place to sample Chicago's widely varied restaurants. Additional information about Chicago and its many attractions is available from the Chicago Convention and Tourism Bureau Web site at [www.meetinchicago.com/RSNA](http://www.meetinchicago.com/RSNA).

**NEW**—Indicates a restaurant appearing on the RSNA list for the first time.

## 312 CHICAGO

136 N. LaSalle; 1-312-696-2420  
Situating in the heart of the Loop Theater District, the inviting and sophisticated 312 Chicago offers an Italian-influenced American menu with specialties such as artichoke and provolone tortellini and old standards. *Expensive*

## 437 RUSH

437 N. Rush; 1-312-222-0101  
This Italian steakhouse, a block off Michigan Avenue, offers steak, lobster and regional fare in a classic setting. *Expensive*

## 676 RESTAURANT AND BAR

676 N. Michigan; 1-312-944-7676  
This Omni Chicago Hotel restaurant overlooks the Magnificent Mile and boasts a moonscape mural on the ceiling. Menu highlights include flatbreads, a raw bar and "charcuterie," a selection of antipasti meats. *Expensive*

## AIGRE DOUX

230 W. Kinsie; 1-312-329-9400  
The French translation of Aigre Doux is sweet and sour, said to describe both the relationship between the husband and wife chefs-owners and the menu. Pastry chef Malika Ameen's sticky toffee is the talk of the town. *Expensive*

## NEW AJASTEAK

660 N. State; 1-312-202-6050  
Kobe and Wagyu beef, wasabi-but-tered steaks, an extensive sake list and a sushi bar set this fashionable Japanese steakhouse apart. Located in the Dana Hotel and Spa, ajasteak is enhanced by a two-story glass wall and two fireplaces. *Expensive*

## ALINEA

1723 N. Halsted; 1-312-867-0110  
Unique food preparation, pairings and presentation highlight meals of 12-plus courses and several hours. Wine tasting progressions matched to each menu are recommended, as are reservations made well in advance. *Very Expensive*

## NEW A MANO

335 N. Dearborn; 1-312-629-3500  
The wine list in this contemporary restaurant showcases small produc-

ers, ancient grape varieties and organic options, while the Italian menu includes handcrafted pastas, salumi, antipasti and wood-fired pizzas. *Moderate*

## ARIA

200 N. Columbus; 1-312-444-9494  
The Fairmont Hotel has recreated Aria as a Pan Asian restaurant, with an emphasis on seafood. A glass-enclosed private dining room adds to Aria's flair. *Expensive*

## ARUN'S THAI RESTAURANT

4156 N. Kedzie; 1-773-539-1909  
Personalized 12-course Thai dinner designed by the chef for each table, with no menu. *Expensive*

## AVENUE M

695 N. Milwaukee; 1-312-243-1133  
At this colossal steakhouse, lounge crowds sip colorful drinks and nosh on Kobe beef burgers in the hip, bi-level lounge while diners enjoy traditional steak, pasta and seafood in the formal dining room. *Expensive*

## AVENUES

108 E. Superior; 1-312-573-6754  
This elegant, leather-accented restaurant in the Peninsula Hotel offers a view of Chicago's famous Water Tower along with European fish served French style. Some fish are boned tableside, adding to the drama. *Very Expensive*

## BALLO

445 N. Dearborn; 1-312-832-7700  
This latest incarnation of Chicago restaurant group Rosebud serves classic vats of homemade pasta and wood-fired pizzas. Vintage mafia flicks on big screens, throbbing music and a disco ball complete the scene. *Moderate*

## BEN PAO

52 W. Illinois; 1-312-222-1888  
Artistically lit black slate and red accents are juxtaposed with cascading water and still pools in this elegant Asian restaurant. Vegetarians will delight in the menu, which also features seafood, duck, beef and chicken. *Moderate*

## NEW BIG JONES

5347 N. Clark; 1-773-275-5725  
Coastal southern-style fare is served

in Andersonville under high ceilings and iron chandeliers that recall the South. Look for alligator sausage with jalapenos and sweet and spicy baby back ribs along with subtle southern touches like orange blossom butter. *Moderate*

## BLACKBIRD

619 W. Randolph; 1-312-715-0708  
This trendy hot spot serves contemporary American cuisine with seasonal emphasis. *Expensive*

## BOKA

1729 N. Halsted; 1-312-337-6070  
The theme under the unique fabric stretched ceiling is seafood. Start with seared Maine scallops with cauliflower puree, tartar of Atlantic salmon or the raw bar and add an entrée such as steak or pan-seared grouper. *Expensive*

## BRASSERIE JO

59 W. Hubbard; 1-312-595-0800  
Authentic French in every way, Brasserie Jo serves favorites such as steak frites, endive and blue cheese salad, escargot, steak béarnaise and six preparations of fish, all accompanied with wonderful wines. *Moderate*

## NEW BRASSERIE RUHLMANN STEAKHOUSE

500 W. Superior; 1-312-494-1900  
Step into Paris when you enter River North's Brasserie Ruhlmann Steakhouse with its classic bistro menu, raw bar and impressive wine list. The Art Deco room features mosaic tile floors and crushed red velvet banquettes. *Expensive*

## NEW C-HOUSE

166 E. Superior; 1-312-523-0923  
Marcus Samuelsson's Chicago endeavor emphasizes seafood and raw bar selections, but there are still trusty steak and chop entrees. The modern room's exposed wine cellar separates C-House from the lobby of the Affinia Chicago Hotel. *Expensive*

## CAFÉ BA-BA-REEBA!

2024 N. Halsted; 1-773-935-5000  
At this festive DePaul hotspot, rhythmic Spanish music greets guests before the hosts do. Café Ba-Ba-Reeba! specializes in paella,

sangria and tapas. *Inexpensive*

## NEW CAFÉ BIONDA

1924 S. State; 1-312-326-9800  
Thick noodle Italian with traditional salumi, or cold cuts, is popular here. One half of this South Loop spot is an elegant room with warm wood tones and original art while the other half offers a more casual sports bar. *Moderate*

## CALITERRA

633 N. St. Clair; 1-312-274-4444  
California meets Italy in this restaurant tucked away in the Wyndham Chicago Hotel. Views include the city and the open kitchen, where activity revolves around woks, brick ovens and grills. *Expensive*

## CAPE COD ROOM

140 E. Walton; 1-312-787-2200  
The Cape Cod Room at the venerable Drake Hotel serves fresh seafood in a comfortable, cozy setting reminiscent of a seaside saloon. *Expensive*

## CAPITAL GRILLE

633 N. St. Clair; 1-312-337-9400  
In the dark wood and leather interior, complete with oil paintings, waiters in white aprons offer robust wines, oversize steaks and side orders as large as entrées. This restaurant is one for a hearty appetite. *Expensive*

## CARNIVAL

702 W. Fulton Market; 1-312-850-5005  
Attention-grabbing décor, music and menu all contribute to a festive ambiance. Enjoy ceviches along with heartier fish and meat creations from Brazil, Colombia, Cuba and Puerto Rico. *Expensive*

## CHAISE LOUNGE

1840 W. North; 1-773-342-1840  
Pastels, mirrors, sheer curtains and candles contribute to romance. A seasonal, eclectic American menu includes both the expected, like pan-seared snapper, as well as the surprising, such as chicken under a brick. *Moderate*

## CHEZ JOEL

1119 W. Taylor; 1-312-226-6479  
This pretty French bistro is blossoming in the middle of Little Italy. *Moderate*



**CHICAGO CHOP HOUSE**

230 N. Ontario; 1-312-787-7100  
This restaurant features 1,400 photos of musicians, gangsters and every Chicago mayor. *Expensive*

**CHINA GRILL**

130 N. Michigan; 1-312-334-6700  
A haven for trendy city-hoppers, the new Hard Rock Hotel gave new life to the neglected Carbide and Carbon Building. Stop by for a drink at Hard Rock's Base bar or dine at the China Grill, an Asian-influenced restaurant. *Expensive*

**CHOCOLATE BAR AT THE PENINSULA HOTEL**

108 E. Superior; 1-312-337-2888  
Heaven on Earth for some and certainly not an experience to be duplicated, the Peninsula hotel offers a magnificent \$20 all-you-can-eat chocolate buffet on Friday and Saturday evenings. *Moderate*

**CITÉ**

Lake Point Tower, 505 N. Lake Shore; 1-312-644-4050

From the rooftop of Lake Point Tower, experience Chicago's sophisticated side. Offering French/Italian fare, Cité is one of the few Chicago establishments to require jackets in both restaurant and bar. *Very Expensive*

**COCO PAZZO**

300 W. Hubbard; 1-312-836-0900  
Tuscan cuisine served in a fabric-draped studio, complete with a beautiful bar. *Expensive*

**COPPERBLUE**

Lake Point Tower, 505 N. Lake Shore; 1-312-527-1200

This jewel is a small, elegant restaurant insulated from the clamor of nearby Navy Pier. An outstanding wine list and an experienced staff accompany the French-Mediterranean fare. *Very Expensive*

**CUATRO**

2030 S. Wabash; 1-312-842-8856  
Hidden behind an 8-foot tall salt-water aquarium, Cuatro's kitchen pumps out dishes emphasizing seafood and Caribbean and Latin American preparations. A Latin jazz Sunday brunch is popular with the locals. *Moderate*

**CUSTOM HOUSE**

500 S. Dearborn; 1-312-523-0200  
The name of this Printer's Row restaurant inside Hotel Blake comes from the Custom House Levee District, former home of bordellos, gambling parlors and saloons. The focus is on steak and local farm-raised foods. *Expensive*

**D'VINE RESTAURANT & WINE BAR**

1950 W. North; 1-773-235-5700  
Sleek wine bar serves a fusion of French, Asian and Mediterranean influenced dishes. *Expensive*

**DAVID BURKE'S PRIMEHOUSE**

616 N. Rush; 1-312-660-6000  
At this ultramodern steakhouse, dry-aged steaks are displayed in a special temperature and humidity controlled salt cave. Appetizers such as angry lobster share the menu with unreasonably large steaks. *Expensive*

**DECERO**

814 W. Randolph; 1-312-455-8114  
This lively restaurant on Randolph Street restaurant row offers regional Mexican specialties in a stylized Roadhouse décor. Creative tacos featuring braised duck and sautéed salmon are excellent for sharing. *Moderate*

**DELACOSTA**

465 E. Illinois; 1-312-464-1700  
As much a restaurant as it is a nightclub. Exposed brick walls are tempered with a harlequin motif accented with modernistic chandeliers. The most popular dish on the fish-focused menu is chorizo in a blanket. *Expensive*

**DEVON SEAFOOD GRILL**

39 E. Chicago; 1-312-440-8660  
Here, Michigan Avenue shoppers get a break from seemingly mandatory department store restaurant lunches and North Michigan Avenue hotel guests a break from hotel bars. A wraparound bar is a local favorite. *Moderate*

**NEW DUCHAMP**

2118 N. Damen; 1-773-235-6434  
Following Chicago's popular trend of large and small plate menus, these dishes offer interesting American cooking with international flair. Please note that communal tables are used for seating. *Moderate*

**EVEREST**

440 S. LaSalle; 1-312-663-8920  
Enjoy Alsatian emphasis in French cuisine served on the 40th floor with a dramatic city view. *Very Expensive*

**FOLLIA**

953 W. Fulton; 1-312-243-2888  
Food and fashion unite at this Italian restaurant serving timeless Italian risottos, pastas and entrées cooked to order. Mannequins in the windows wear haute couture designed by local students and available for purchase. *Moderate*

**FRANCESCA'S FORNO**

1576 N. Milwaukee; 1-773-770-0184  
At this triangular restaurant, floor-to-ceiling windows overlook the busy six-point intersection defining the Wicker Park neighborhood. Francesca restaurants are known for delicious pasta and long waits for tables. *Expensive*

**FULTON'S ON THE RIVER**

315 N. LaSalle; 1-312-822-0100  
Although Fulton's can please everyone—seafood, steaks and sushi are all on the menu—this beautiful riv-

erside restaurant has possibly the best oysters in the country. Carefully matched wines round out the offerings. *Inexpensive*

**THE GAGE**

24 S. Michigan; 1-312-372-4243  
Housed in a 1930s hat factory across from Millennium Park, The Gage enjoys an atmosphere created by brass, leather and subway tile. Comfort food is paired with 30 bottled beers and interesting small-batch whiskeys. *Moderate*

**GIOCO**

1312 S. Wabash; 1-312-939-3870  
A big-portioned, contemporary Italian feast in a Prohibition-era speak-easy. In line with a trattoria, the menu offers tortellini, beef and octopus carpaccios, pizza, veal scaloppini, rabbit, mussels and seafood. *Moderate*

**NEW GRAHAM ELLIOT**

217 W. Huron; 1-312-624-9975  
Graham Elliot Bowles left his throne at the nearby Peninsula Hotel's Avenues restaurant to open this warehouse space in River North. He makes haute cuisine accessible by providing paper menus and removing tablecloths and tuxedoed waiters. *Expensive*

**GRILLROOM CHOPHOUSE AND WINE BAR**

33 W. Monroe; 1-312-960-0000  
The specialty at this Loop/Theater District steakhouse is wet-aged certified angus beef. Location and flexibility of the service make this restaurant a good choice for a pre-theater dinner or drink. *Expensive*

**THE GRILL ON THE ALLEY**

909 N. Michigan; 1-312-255-9009  
The Westin Hotel's rendition of the famous Beverly Hills Grill on the Alley serves large steaks and seafood in a clubby leather-bound atmosphere. A pianist plays nightly in the lounge. *Expensive*

**GREEN ZEBRA**

1460 W. Chicago; 1-312-243-7100  
Vegetarians rarely have much choice in fine dining but Green Zebra has turned the tables, offering upscale vegetarian dishes in a fine dining setting. Carnivores will often find chicken and fish on the menu. *Expensive*

**HABANA LIBRE**

1440 W. Chicago; 1-312-243-3303  
This real Cuban food may be worth practicing some Spanish. Try the rellenas—ground beef encased in fried bread—as well as mashed potatoes with mango sauce and crusty empanadas with guava paste and cheese. *Inexpensive*

**HACKNEY'S PRINTERS ROW**

733 S. Dearborn; 1-312-461-1116  
At this pub located in one of the oldest buildings in Printer's Row, a

neighborhood as famous and historic as the Hackneyburger, try the popular deep-fried onion loaf with one of the many imported tap beers. *Inexpensive*

**HEAVEN ON SEVEN ON RUSH**

600 N. Michigan; 1-312-280-7774  
Spicy Cajun and Creole dishes served steps from Michigan Avenue, up a steep escalator. "Feed me" fixed price menus, dependent on the chef's whims, are unforgettable. Sunday features a New Orleans-style brunch. *Moderate*

**NEW HUB 51**

51 W. Hubbard; 1-312-828-0051  
The menu of this eclectic River North spot has something from Asia to Mexico. The high ceilings, exposed ductwork and concrete columns create a hip, urban feel for this casual restaurant. Kitchen is open until 2 a.m. *Inexpensive*

**IL MUNO NEW YORK**

1150 N. Dearborn; 1-312-440-8888  
Creamy, garlicky dishes from Italy's Abruzzo region served in the rooms of the former Biggs Gold Coast mansion. Priced well above other Italian eateries, Il Muno is lauded by many as the best they've experienced. *Very Expensive*

**INDIA HOUSE**

59 W. Grand; 1-312-645-9500  
The 150-item menu offers a vast array of India's offerings, from standard fare to street fair delicacies. A glass-enclosed kitchen encourages proud chefs to perform. Specialty drinks allow the adventuresome to experiment. *Moderate*

**JAPONAIS**

600 W. Chicago; 1-312-822-9600  
Combining industrial and chic decor in a converted industrial building, Japonais offers traditional Japanese sushi, smoked duck and, to finish, the Tokyo Tower—a huge helping of ice cream, sorbets and cookies. *Expensive*

**NEW L20**

2300 N. Lincoln Park West; 1-773-868-0002  
Chef Laurent Gras's seafood-focused restaurant adds imagination and sparkle to 21st century fine dining. Choose between a four-course prix-fixe menu and a 12-course tasting menu. White leather chairs, an onyx table and ebony columns create a serene, minimalist atmosphere. *Very Expensive*

**LANDMARK**

1633 N. Halsted; 1-312-587-1600  
Steppenwolf and Royal George patrons meet in the blue dining room to partake in contemporary American fare. The main bar features a mezzanine level catwalk and the downstairs houses a Moroccan style lounge. *Expensive*

*Continued on next page*



Continued from previous page

### LE BOUCHON

1958 N. Damen; 1-773-862-6600  
Small, authentic French bistro located in the fashionable Bucktown neighborhood. *Moderate*

### LE COLONIAL

937 N. Rush; 1-312-255-0088  
In the heart of the Rush Street nightlife district, this French-Vietnamese masterpiece looks back in time to colonial Vietnam. Sugar cane-wrapped shrimp, sea bass and filet mignon grace the sophisticated menu. *Expensive*

### LE LAN

749 N. Clark; 1-312-280-9100  
With Vietnamese spring rolls, foie gras flan, smoked squab, Vietnamese sea bass and poached lobster, this restaurant invokes the time when French colonists first discovered how well their fare complements Asian flavors. *Moderate*

### LES NOMADES

222 E. Ontario; 1-312-649-9010  
Flawless French food served in a downtown mansion with a picturesque entrance so entrancing, it is occasionally used as the setting for movie scenes. *Very Expensive*

### NEW MADO

1647 N. Milwaukee; 1-773-342-2340  
From the recycled menus to the salads this Wicker Park storefront trattoria is "green," offering simple fare with an abundance of flavors. Mado was BYOB at publication time. *Moderate*

### MARCHE

833 W. Randolph; 1-312-226-8399  
Over-the-top décor makes this French restaurant a popular "see and be seen" spot. Be prepared for loud techno music. *Expensive*

### MAY STREET MARKET

1132 W. Grand; 1-312-421-5547  
True farmer's market ingredients are used for the seasonal American dishes at May Street Market, a very earthy restaurant with stone walls, marble floors and copper bar. *Expensive*

### MEIJI

623 W. Randolph; 1-312-887-9999  
Try the tempura appetizer made with vegetables from the Japanese mountains or haru maki with three types of fish, crab and avocado. Patrons and chefs socialize at this restaurant named for the Japanese Meiji period. *Moderate*

### NEW MERCAT A LA PLANXA

638 S. Michigan; 1-312-765-0524  
This Catalan restaurant in the restored Blackstone Hotel offers grilled-to-order tapas. The stunning Spanish modern room's giant windows offer beautiful views of Grant Park. *Moderate*

### MIZU YAKITORI AND SUSHI LOUNGE

315-317 W. North; 1-312-951-8880  
Yakitori is similar to the Thai concept of satay (skewered meats), only smaller. Mizu offers small skewers of grilled meats, seafood or vegetables and multiple dipping options including soy sauce, hot mustard and spices. *Moderate*

### MK, THE RESTAURANT

868 N. Franklin; 1-312-482-9179  
Creative contemporary dishes are superbly offset by this stylish restaurant. Exposed bricks and beams reflect the building's past as a paint factory. *Expensive*

### MON AMI GABI

2300 N. Lincoln Park West; 1-773-348-8886  
Across the lobby from Ambria, Mon Ami is the less formal, more raucous French bistro. Steak is served seven ways piled high with Mon Ami's delicious frites. A clever and convenient rolling cart offers wines by glass. *Moderate*

### MOTO

945 W. Fulton Market; 1-312-491-0058  
Tasting menus of seven or 10 very small courses are offered. Moto leans toward raw food, which chef Homaro Cantu defines as never seeing temperatures above 108 degrees. Inventive twists accompany each course. *Very Expensive*

### NAHA

500 N. Clark; 1-312-321-6242  
This bright, minimalist restaurant is making a hit with its Mediterranean-influenced American offerings. *Expensive*

### NICK'S FISHMARKET

51 S. Clark; 1-312-621-0200  
This Loop favorite has fruit reductions and Asian accents to complement exceptional seafood and fish and outstanding service. *Expensive*

### NINE

440 W. Randolph; 1-312-575-9900  
A place to watch for celebrities and professional athletes, Nine also boasts a remarkable interior. The champagne and caviar bar serves beluga by the ounce, while the upstairs Ghost bar pours a must-try specialty martini. *Expensive*

### NORTH POND CAFÉ

2610 N. Cannon; 1-773-477-5845  
Seasonal Midwestern and French dishes served in well-executed arts-and-crafts-style. A former skaters' warming station, this popular restaurant is in the heart of Lincoln Park on a pristine lagoon with a city skyline view. *Expensive*

### NEW OLD TOWN BRASSERIE

1209 N. Wells; 1-312-943-3000  
Chef Roland Liccioni has added a Vietnamese touch to the classic

French menu with selections such as salmon with eggless Béarnaise sauce and roasted Long Island duck. Reservations suggested. *Moderate*

### ONE SIXTYBLUE

160 N. Loomis; 1-312-850-0303  
Sophisticated contemporary cuisine served to a sophisticated clientele in a setting to match. *Expensive*

### OPERA

1301 S. Wabash; 1-312-461-0161  
"Hip-hop Asian" with clean flavors and dramatic presentations sum up Opera, where interesting sauces and thoughtful presentations make for a unique experience. The building formerly warehoused film reels, which left small, romantic niches cleverly filled with tables. *Expensive*

### OSTERIA VIA STATO

620 N. State; 1-312-642-8450  
Get the feeling of dining in Italy with waiters swooping in with course after course. Select a main course from a chalkboard menu and let the kitchen decide the rest. Seconds are available on everything but entrées. *Expensive*

### NEW OTOM

951 W. Fulton Market; 1-312-491-5804  
This Market District restaurant serves familiar food with an interesting twist. Choose between the comfortable lounge with mirrored fireplace and the vibrantly striped dining room. *Moderate*

### OYSY

50 E. Grand; 1-312-670-6750  
888 S. Michigan; 1-312-922-1127  
Chicago fish lovers agree that Oysy means delicious. Two city locations boast creative menus offering more than 50 maki, nigiri and sushi choices as well as tempura. Hot and cold tapas-sized dishes allow experimentation. *Inexpensive*

### THE PALM

323 E. Wacker; 1-312-616-1000  
Mammoth prime steaks, lobsters and drinks grace the tables at this popular steakhouse. The Palm's personality comes out on walls covered with portraits of patrons—the famous as well as the unknown—and cartoons. *Expensive*

### PARK GRILL

11 N. Michigan; 1-312-521-7275  
Chicago's answer to New York's Tavern on the Green, Park Grill features floor-to-ceiling windows for a great view of Millennium Park. The unpretentious menu includes a double-cut pork chop with port sauce. *Expensive*

### PARLOR

1745 W. North; 1-773-782-9000  
Upscale comfort food has been done before, but here, the baked-potato soup, macaroni and cheese and meatloaf are somehow simultaneously tra-

ditional and trendy. The restaurant offers Sunday brunch. *Moderate*

### PENANG

2201 S. Wentworth; 1-312-326-6888  
Top-notch Malaysian cuisine served in a simple, cheerful room. *Inexpensive/Moderate*

### PETTERINO'S

150 N. Dearborn; 1-312-422-0150  
Located in the southeast corner of the new Goodman Theatre building, Petterino's specializes in quality steaks, pastas and salads. The room and the food are substantial at this recognizably 1940s Loop-style restaurant. *Expensive*

### NEW PICCOLO SOGNO

464 N. Halsted; 1-312-421-0077  
With Murano glass chandeliers, Venetian plastered walls, an Italian marble bar and a terrazzo floor, executive chef Tony Priolo brings his home of Naples to Chicago. *Moderate*

### POPS FOR CHAMPAGNE

601 N. State; 1-312-266-7677  
The success of this nationally renowned lounge prompted a move to River North's historic Tree Studios. Enjoy the raw bar and underground jazz club, choosing from 120 champagnes by the bottle and seven by the glass. *Expensive*

### NEW POWERHOUSE

215 N. Clinton; 1-312-928-0800  
This Warehouse District restaurant is housed in the former power station for the Chicago Northwestern Railroad. The casual lounge serves salads and sandwiches while the more elegant restaurant offers a modern American menu. *Expensive*

### QUARTINO

626 N. State; 1-312-698-5000  
The Italian small plate experience is the focus of Quartino, an old world-style restaurant. In addition to its featured cured meats and cheeses, Quartino also offers a well-known wine bar. *Inexpensive*

### NEW REAL TENOCHTITLAN

2451 N. Milwaukee; 1-773-227-1050  
This inviting Logan Square restaurant serves upscale Mexican fare in a rustic room with beautifully finished hardwood floors, high ceilings and interesting art. Real Tenochtitlan was BYOB at publication time. *Moderate*

### RHAPSODY

65 E. Adams; 1-312-786-9911  
Conveniently tucked inside Symphony Center with an outside entrance on Adams Street, Rhapsody boasts a conservatory-style dining room filled with lovers of food, wine and the arts. *Expensive*

### RICCARDO TRATTORIA

2119 N. Clark; 1-773-549-0038  
Former Bice chef Riccardo Michi opened this small Tuscan restaurant

in Lincoln Park. Many have found their way to Riccardo's dining room to enjoy freshly made pasta and hearty meat dishes including tripe Florentine. *Moderate*

#### NEW RIVA

700 E. Grand; 1-312-644-7482  
Enormous windows offer sweeping views of the Chicago skyline from Navy Pier as you dine on the house specialties of steak and seafood. *Expensive*

#### ROOM 21

2110 S. Wabash; 1-312-328-1198  
Once home to Al Capone's bootleg liquor, this contemporary American restaurant gets its name from the escape tunnel discovered behind a door inscribed "Room 21." A vintage leopard painting adds to the charm. *Expensive*

#### ROSEBUD

1500 W. Taylor; 1-312-942-1117  
A memorable Italian meal served in a comfortable, upscale setting. *Moderate*

#### ROY'S CHICAGO

720 N. State; 1-312-787-7599  
Combining French and Asian techniques, Hawaiian fusion cuisine includes hibachi-grilled salmon, blackened tuna and barbecued baby back ribs. Watch the exhibition kitchen from the bar or dining room. *Expensive*

#### RUMBA

351 W. Hubbard; 1-312-222-1226  
Upscale restaurant reminiscent of the Tropicana nightclub offers tastes of Cuba, Puerto Rico and South America. Thursday through Sunday, guests can tango to live music and see professional dance performances. *Expensive*

#### RUSSIAN TEA TIME

77 E. Adams; 1-312-360-0000  
Not just a tea house as the name suggests, Russian Tea Time is a full-service restaurant run by natives of the former Soviet Republic of Uzbekistan. *Expensive*

#### SCHWA

1466 N. Ashland; 1-773-252-1466  
On the eight- and 10-course tasting menus, ingredients are listed with no description of how they will be presented. Note that Schwa is BYOB. *Very Expensive*

#### SEPIA

123 N. Jefferson; 1-312-441-1920  
This restaurant in a former print shop is visually spectacular and critically acclaimed for its contemporary menu driven by seasonally available foods. Renovations include a floor-to-ceiling wine rack and Art Nouveau floor. *Moderate*

#### SHANGHAI TERRACE

108 E. Superior; 1-312-573-6744  
The Peninsula Hotel's Asian restaurant sparkles with silver and red lac-

quer. The fried rice tastes just like the Hong Kong version, with more ambitious offerings such as wok-fried lobster also on the menu. *Expensive*

#### SHAW'S CRAB HOUSE

21 E. Hubbard; 1-312-527-2722  
Many Atlantic, Gulf and Pacific seafood suppliers stocking this restaurant daily are pictured on the walls of the Blue Crab Lounge, a New Orleans-themed oyster bar with blues and torch recordings on the sound system. *Expensive*

#### NEW SHIKAGO

190 S. LaSalle; 1-312-781-7300  
Amid industrial art and minimalist touches Shikago serves awe-inspiring upscale Asian dishes in Chicago's Loop, from the sushi bar and the yakitori grill to creative entrees such as the bulgogi-marinated ribeye steak with scallion pancakes. *Moderate*

#### NEW SHOCHU

3313 N. Clark; 1-773-348-3313  
Shochu is named for the Japanese liquor, resembling vodka, which mixes into many delightful drinks. The Lakeview lounge and restaurant serves sushi pieces, rolls, yakitori and chicken wings along with more intriguing menu items. *Inexpensive*

#### NEW SIXTEEN

401 N. Wabash; 1-312-588-8030  
The restaurant in Donald Trump's new Chicago building has a mammoth Swarovski crystal chandelier and two-story high windows showcasing sweeping views of the Wrigley building, Tribune Tower and Lake Michigan. The menu promises bold flavors and top grade ingredients. *Very Expensive*

#### SPIAGGIA

980 N. Michigan; 1-312-280-2750  
Sophisticated Italian creations are appropriate for this breathtaking room, filled with those desiring to see and be seen. This is an extremely popular destination with white tablecloths, large windows and first-class service. *Very Expensive*

#### SWEETS & SAVORIES

1534 W. Fullerton; 1-773-281-6778  
This small DePaul storefront has become a favorite among locals craving Continental-inspired creations, especially creative desserts. Noteworthy for the formal tea it serves on weekdays. Reservations required. *Moderate*

#### TABLE 52

52 W. Elm; 1-312-573-4000  
Art Smith, chef to Oprah and best-selling cookbook author, has opened this small, 35-seat restaurant. Heavier weekend menu includes fried chicken, waffles and biscuits and gravy served with chicken gumbo. *Expensive*

#### NEW TAKASHI

1952 N. Damen; 1-773-772-6170  
James Beard award winner Takashi Yagihashi's French and Asian fusion restaurant is tucked into a two-story Bucktown bungalow with an open kitchen on the ground floor. Diners can choose among hot small plates, cold small plates and large plates. *Moderate*

#### NEW TALLULAH

4539 N. Lincoln; 1-773-942-7585  
This American bistro in Lincoln Square serves brie and bacon mashed potatoes with braised short ribs. Another favorite dish is crab and andouille fritters with remoulade. *Moderate*

#### TAMARIND

614 S. Wabash; 1-312-379-0970  
Chinese, Japanese, Thai and Vietnamese dishes grace the menu at this ambitious South Loop restaurant, where sushi, rolls and sashimi selections—as well as personalized stir-fry—are local favorites. *Inexpensive*

#### TASTE OF SIAM

600 S. Dearborn; 1-312-939-1179  
Located in a converted warehouse in the Printers Row neighborhood, this is the spot for Thai cuisine in the south Loop. The menu is extensive, the food exotic but not too challenging, and the crowd is young and urban. *Inexpensive*

#### TEPATULCO

2558 N. Halsted; 1-773-472-7419  
Tepatulco, named for the chef-owners' Mexican hometown, serves regional dishes with contemporary Mexican style. Chef Bahena is famous for his mole sauces. Five-course tasting menu and wine flights available. *Inexpensive*

#### TOPOLOBAMPO

445 N. Clark; 1-312-661-1434  
Complex Mexican flavors abound in the upscale restaurant adjacent to its sister, Frontera Grill. *Expensive*

#### TRATTORIA NO. 10

10 N. Dearborn; 1-312-984-1718  
Subterranean fixture in the Loop has it all. Pin lights add drama to a quiet dining room divided into intimate spaces by pillars and Italian-style archways. Chicagoans visit for amazing pastas, risottos and ravioli dishes. *Expensive*

#### TRU

676 N. St. Clair; 1-312-202-0001  
Considered one of the top restaurants in the city, Tru juxtaposes its flashy, contemporary dishes against a stunning white dining room. This exciting, trendy experience is one block off Michigan Avenue. *Very Expensive*

#### TUSCANY

1014 W. Taylor; 1-312-829-1990  
Fashionable Northern Italian restaurant suitably situated on Taylor Street. *Expensive*

#### NEW VEERASWAY

844 W. Randolph; 1-312-491-0844  
Indian small plates are the focus of this Warehouse District restaurant. Expect traditional Indian recipes blended with American ingredients in a modern room. *Inexpensive*

#### VERMILION

10 W. Hubbard; 1-312-527-4060  
Veering far from the traditional path, Vermilion presents a Latin-Indian fusion menu that works surprisingly well. The tapas-style menu includes roasted baby eggplants, fried plantain dumplings and various curries. *Expensive*

#### VIAND RESTAURANT

155 E. Ontario; 1-312-255-8505  
American bistro with a focus on comfort foods is a hit among shoppers as well as the after-work crowd. Order the clever "junk food cart," a miniature shopping cart filled with sweet treats that begs a double take. *Moderate*

#### WAVE

644 N. Lake Shore; 1-312-255-4460  
This Mediterranean restaurant specializing in seafood is appropriately situated on Lake Shore Drive. Sleek lines and vibrant colors contribute to Wave's ultimate chicness. *Expensive*

#### ZAPATISTA

1307 S. Wabash; 1-312-435-1307  
Named for Mexican revolutionary Emiliano Zapata, this upscale venue offers a broad menu including grilled lobster tails and Negro Modelo marinated filet mignon. Pictures of revolutionaries accent the walls. *Moderate*

#### ZEALOUS

419 W. Superior; 1-312-475-9112  
Zealous boasts a two story glassed-in wine tower that can hold 6,000 wine bottles, and the kitchen brilliantly combines different foods, textures and flavors. The multiple-course degustation menus are highly recommended. *Expensive*

#### NEW ZED 451

739 N. Clark; 1-312-266-6691  
Here waiters also serve as chefs and prowl the room with skewers of assorted meats. Guests are invited to visit the harvest table for salads, side dishes, charcuterie and gourmet cheeses. The floor plan's passageways, stairwells and balconies add drama. *Moderate*

#### ZOCALO

358 W. Ontario; 1-312-302-9977  
Mexican cuisine has become even more festive at this popular River North restaurant where marinated panela cheese with a shot of mescal is flambéed tableside. *Moderate*



# Medical Meetings

## November 2008 – April 2009

### OCTOBER 29–NOVEMBER 1

International Skeletal Society, Annual Meeting and Refresher Courses, Taj Palace Hotel, New Delhi, India  
• [www.internationalskeletalsociety.com](http://www.internationalskeletalsociety.com)

### NOVEMBER 13–15

American Society for Therapeutic Radiology and Oncology (ASTRO), American Society of Clinical Oncology (ASCO), International Society for the Study of Lung Cancer, Multidisciplinary Symposium in Thoracic Oncology, Chicago Marriott Downtown Magnificent Mile  
• [www.oncologymeetings.org/lung.htm](http://www.oncologymeetings.org/lung.htm)

### NOVEMBER 30–DECEMBER 5

**RSNA 2008, 94th Scientific Assembly and Annual Meeting, McCormick Place, Chicago • [RSNA2008.RSNA.org](http://RSNA2008.RSNA.org)**

### DECEMBER 10–12

Society for Pediatric Radiology (SPR), 6th Symposium on Pediatric Cardiovascular MR Imaging, Hospital for Sick Children, Toronto • [www.pedrad.org](http://www.pedrad.org)

### JANUARY 7–11, 2009

Indian Radiological & Imaging Association (IRIA), 62nd Annual Congress, Sri Krishna Memorial Auditorium, Patna • [www.iria.in](http://www.iria.in)

### JANUARY 15–16, 2009

Bioengineering & Imaging Research Opportunities Workshop 6 (BIROW VI), Bethesda North Convention Center, Maryland  
• [www.birrow.org](http://www.birrow.org)

### FEBRUARY 4–8, 2009 VISIT THE RSNA BOOTH

Sociedad Mexicana de Radiología e Imagen (SMRI)  
• [www.smri.org.mx](http://www.smri.org.mx)

### FEBRUARY 7–12, 2009

SPIE, Medical Imaging, Disney Coronado Springs Resort, Lake Buena Vista, Fla. • [spie.org](http://spie.org)

### FEBRUARY 23–27, 2009

Integrating the Healthcare Enterprise (IHE®), Connectathon and Education Conference, Hyatt Regency Chicago • [www.ihe.net](http://www.ihe.net)

### MARCH 6–10, 2009 VISIT THE RSNA BOOTH

European Congress of Radiology (ECR), Austria Center, Vienna  
• [www.ecr.org](http://www.ecr.org)

### MARCH 7–12, 2009

Society of Interventional Radiology (SIR), 34th Annual Meeting, San Diego • [www.sirweb.org](http://www.sirweb.org)

### MARCH 15–20, 2009

Society of Gastrointestinal Radiologists (SGR) and Society of Uroradiology (SUR), Abdominal Radiology Course, Grand Wailea Resort Hotel & Spa, Maui, Hawaii • [www.sgr.org](http://www.sgr.org)

### APRIL 2–5, 2009

American Institute of Ultrasound in Medicine (AIUM), Annual Meeting, Marriott Marquis, New York • [www.aium.org](http://www.aium.org)

### APRIL 4–8, 2009

Healthcare Information and Management Systems Society (HIMSS), Annual Conference and Exhibition, Chicago  
• [www.himssconference.org](http://www.himssconference.org)

### APRIL 18–24, 2009

International Society for Magnetic Resonance in Medicine (ISMRM), 17th Scientific Meeting and Exhibition, Honolulu  
• [www.ismrm.org](http://www.ismrm.org)

### APRIL 21–25, 2009

Society for Pediatric Radiology (SPR), 52nd Annual Meeting, La Costa Resort and Spa, Carlsbad, Calif. • [www.pedrad.org](http://www.pedrad.org)

### APRIL 25–29, 2009

American Radium Society (ARS), Annual Meeting, Four Seasons Vancouver, British Columbia • [www.americanradiumsociety.org](http://www.americanradiumsociety.org)

### APRIL 26–29, 2009

Society of Breast Imaging (SBI), 9th Postgraduate Course, The Broadmoor, Colorado Springs, Colo. • [www.sbi-online.org](http://www.sbi-online.org)

### APRIL 26–MAY 1, 2009

American Roentgen Ray Society, Annual Meeting, John B. Hynes Veterans Memorial Convention Center, Boston • [www.arrs.org](http://www.arrs.org)

### APRIL 27–29, 2009

International Atomic Energy Agency (IAEA), International Conference on Advances in Radiation Oncology, Vienna International Centre, Austria • [www.iaea.org](http://www.iaea.org)

**RSNA**News

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