

# RSNA *News*



## RSNA 2005 Meeting Preview and Restaurant Guide

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- Nanoparticles Show Promise in Cancer Detection and Treatment
- Radiologist Shortage Over? Survey Says Yes
- Salaries Flat for Interventional Diagnostic Radiologists
- RSNA 2005 Offers Digital Mammography Self-Assessment Workshop

**Final Advance Registration for RSNA 2005  
November 11**

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## RSNA News

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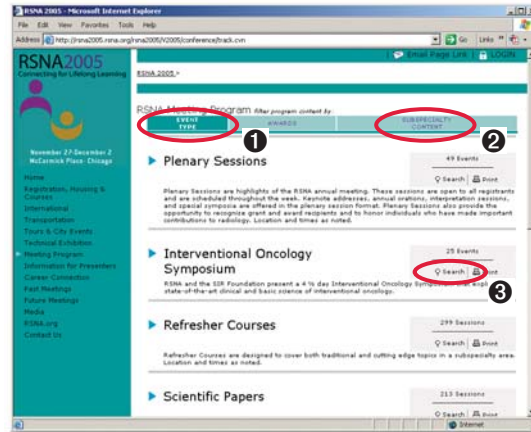
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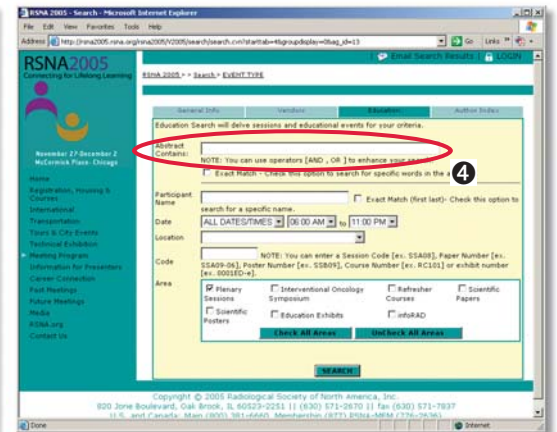
# Online *RSNA Meeting Program* Now Available

**C**REATE a customized schedule for RSNA 2005 by using the online *RSNA Meeting Program*. Go to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Meeting Program in the left-hand column. You can also go directly to [rsna2005.rsna.org/rsna2005/V2005/conference/track.cvn](http://rsna2005.rsna.org/rsna2005/V2005/conference/track.cvn).

You have several options to search for courses and events in your areas of interest. You can use choose event type ❶ (plenary sessions, refresher courses, etc.) or subspecialty content ❷ (cardiac radiology, genitourinary radiology, etc.). You can do a comprehensive



search by date or presenter by clicking on one of the search icons ❸ and then adding your search text to the search box. ❹



Once you find an item to add to your schedule, click on Add to Briefcase. You must be logged in to add an event to your virtual briefcase.

## First Recipient of New Grant Announced

The first recipient of the RSNA/AUR/APDR/SCARD Radiology Educational Research Development Grant is **Kitt Shaffer, M.D., Ph.D.**, from the Department of Radiology, Brigham & Women's Hospital in Boston.

The grant is designed to encourage innovation and improvement in health sciences education by providing research opportunities to individuals in pursuit of advancing the science of radiology education.

Dr. Shaffer's project is "Investigation of the Use of 3D Modeling Software to Enhance Teaching of Radiologic Anatomy."

A full list of 2005-2006 RSNA Research & Education Foundation grant recipients are on pages 32-34.



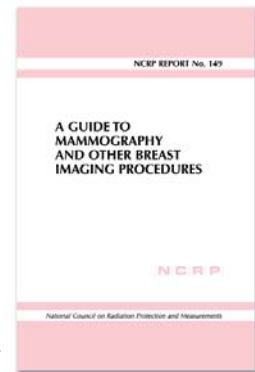
**Kitt Shaffer, M.D., Ph.D.**

## NCRP Releases Updated Guide to Mammography

The National Council on Radiation Protection and Measurements (NCRP) has released "Report No. 149 – A Guide to Mammography and Other Breast Imaging Procedures." The new report supersedes NCRP Report No. 85, published in 1986.

"Mammography, in conjunction with physical examination, is the method of choice for early detection of breast cancer. Other methods should not be substituted for mammography in diagnosis or screening, but may be useful adjuncts in specific diagnostic situations," NCRP said in a statement.

For more information on the publication, go to [www.ncrp.org/publications.org/index.cfm?fm=Product.AddToCart&pid=4367281879](http://www.ncrp.org/publications.org/index.cfm?fm=Product.AddToCart&pid=4367281879).



## Public Service Announcements

RSNA distributes radio public service announcements (PSAs) that tie into national health observance topics when the topics are radiology related.

In September, printed scripts were offered on prostate cancer awareness

and ovarian cancer awareness. Pre-recorded PSAs and printed scripts were distributed for breast cancer awareness month in October and lung cancer awareness month in November.

The PSAs describe risks, symp-

oms, detection and treatments for these diseases and direct listeners to the public information Web site, *Radiology Info.org*, for more information.

### Becker Moves West

**Gary J. Becker, M.D.**, branch chief of image-guided intervention at the National Cancer Institute's Cancer Imaging Program, has accepted a position as professor of radiology at The University of Arizona (UA) School of Medicine. He will also be director of translational research and a member of the board of directors for UA's new Biomedical Imaging Research Consortium.

Dr. Becker is the RSNA Board Liaison for Science.



**Gary J. Becker, M.D.**

### Sostman Heads to Houston

**H. Dirk Sostman, M.D.**, is the new chief academic officer and chief medical officer for The Methodist Hospital System in Houston.

Dr. Sostman will continue as executive vice-dean of Weill Cornell Medical College in New York and will spearhead a partnership between Weill Cornell, New York Presbyterian and The Methodist Hospital.



**H. Dirk Sostman, M.D.**

### New Office, New Executive Director for NASCI

The North American Society of Cardiac Imaging (NASCI) has a new headquarters office in Salem, Mass. **Robin Lynn Hoyle J.D.**, a founder of the management company Administraré LLC, has been hired as NASCI executive director. She previously represented the Society for Vascular Medicine & Biology and the Society for Clinical Vascular Surgery. Hoyle currently represents the American Venous Forum.



### Molecular Insight Expands Executive R&D Team

Molecular Insight Pharmaceuticals has announced two appointments to its research and development (R&D) team.

**John A. Barrett, Ph.D.**, has been named vice-president of research. He has more than 20 years of experience in working to discover and develop agents in oncology and angiogenesis-directed tumor imaging and therapy at various organizations, including Johnson & Johnson and DuPont Merck.

**James F. Kronauge, Ph.D.**, has been promoted to vice-president of process chemistry. He has been an active researcher in radiology and nuclear medicine for the past 20 years. Prior to joining Molecular Insight in 1999, Dr. Kronauge was an assistant professor of radiology at Harvard Medical School and associate director of radiopharmacy at Brigham and Women's Hospital.

### RITA Medical Systems Names New VP of Operations

**Mario Martinez** has been named vice-president of operations for RITA Medical Systems, Inc. Martinez previously worked for EP Technologies and is a founder and former president of Technix, LLC.

### Chalaoui Awarded CAR Gold Medal

**Jean Chalaoui, M.D.**, chief of cardio-thoracic imaging and clinical professor at the Centre Hospitalier Universitaire de Montréal (CHUM), received a gold medal from the Canadian Association of Radiologists (CAR) during the CAR annual meeting in Alberta.

**Nathalie Duchesne, M.D., F.R.C.P.(c)**, a breast radiologist at the Ottawa Regional Women's Breast Health Center and newly appointed director of the Ville Marie Radiology Center, received the CAR young investigator award for her outstanding contributions to the field of radiology.



**Jean Chalaoui, M.D.**



**Nathalie Duchesne, M.D., F.R.C.P.(c)**



Send your submissions for *People in the News* to [rsnanews@rsna.org](mailto:rsnanews@rsna.org), (1-630) 571-7837 fax, or *RSNA News*, 820 Jorie Blvd., Oak Brook, IL 60523. Please include your full name and telephone number. You may also include a non-returnable color photo, 3x5 or larger, or electronic photo in high-resolution (300 dpi or higher) TIFF or JPEG format (not embedded in a document). *RSNA News* maintains the right to accept information for print based on membership status, newsworthiness and available print space.

# Nanoparticles Show Promise in Cancer Detection and Treatment

**T**INY PARTICLES one millionth the size of a human hair may become one of the most significant new products in the biomedical field. University of Missouri researchers in radiology, physics, veterinary medicine and other fields are working together to explore the potential of nanoparticles to detect and treat cancer at the molecular level.

“The rationale behind nanoparticulates for biomedical applications is based on the similarity in sizes of nanoparticles to those of living cells,”

said Kattesh V. Katti, Ph.D., a professor of

radiology and physics, and senior research scientist at the University of Missouri-Columbia. “Because nanoparticles can get down to the levels of cells in terms of their size, it is hypothesized that we can selectively target specific cells using the nanoparticles.”

That means cells can be targeted not only for diagnosing disease, including cancer, but also to monitor the therapy used to treat disease.

The University of Missouri recently opened a Nanoparticle Production Core Facility (NPCF), one of the first on-campus facilities of its kind. The NPCF produces gold and silver nanoparticles in 5–10 minutes, or 240 times faster than the previous method.

Dr. Katti said that in order to be beneficial in medical applications, nanoparticles must be manufactured quickly, under biologically friendly conditions.



(back row, from left) **Evan Boote, Ph.D., Robert Churchill, M.D., Amanda Tinsley, B.S., Sharanya Bhaskaran, B.S., Ravi Pandrapragada, M.S.** (front row, from left) **Kavita Katti, B.S., Kattesh V. Katti, Ph.D., Raghuraman Kannan, Ph.D., Leah Arrigo, B.S., Chandrika Mysore, M.S.**

“The process works by taking chemical precursors that are available in the market and performing a couple of chemical reactions in water—an aqueous media—which is biologically benign,” he explained. “The produced nanoparticles are stable at physiological pH, can be used in routine clinical protocols and can be kept in bottles. We can then take them as we need them.”

Over time, some nanoparticles grow larger, becoming macroparticles, and lose their imageable photophysical properties. Nanoparticles, because of their small size, exhibit a very large surface area to which varieties of diagnostic imaging and/or therapeutic drugs can attach.

“This combination of imaging and therapy on one nanoparticulate surface will lead to unprecedented multimodal imaging and therapeutic agents to diag-

nose and treat different disease within one molecule,” he explained. “Likewise there are many properties that are attainable only when a material, such as a metal, is reduced to the size of a nanoparticle.”

Gold nanoparticles are the metal of choice because gold remains unoxidized at the nanoparticulate size. “Most other metals tend to get oxidized, whereas gold retains its nanoparticulate properties at the nanoparticulate size. That’s why gold is so unique,” Dr. Katti said.

The gold nanoparticles hold the promise to produce good contrast and can be used to image different organs in the body with contrast imaging. “The same x-rays with slightly higher energy can be used to actually kill cancerous cells, which means that nanoparticles could potentially be used to diagnose as

*Continued on next page*



**CT scanning of a swine model.**

Photo courtesy of Kattesh V. Katti, Ph.D.

*Continued from previous page*

well as to treat different cancers,” Dr. Katti pointed out.

### **Nanoparticles for Detecting Cancer**

How does the use of nanoparticles help earlier detection of cancer?

Once the biocompatible nanoparticles are synthesized, information is coded on the nanoparticles by attaching them to a tumor-avid peptide/antibody, to target them to the tumor site after administration. The third step is using them as contrast agents in detecting the tumor with CT.

“It has been proven that the formation of new blood vessels—angiogenesis—is a first step for tumor growth. Agents that can detect cancer at this stage with an imaging technique, such as CT, will significantly increase our ability to detect cancer during regular check-up visits,” said Raghuraman Kannan, Ph.D., a member of the research team and an assistant professor in the Department of Radiology at the University of Missouri.

“Targeting angiogenesis is difficult owing to the smaller size of new blood

vessels, but nanoparticles, because of their size similarity, provide researchers with a tool to probe all cellular components as well as angiogenesis,” Dr. Kannan said. “By simply blocking angiogenesis, the food chain of the tumor, the growth of the tumor can be curtailed.”

Dr. Katti said the researchers have had some very solid preliminary data so far, and lung cancer detection and treatment is one area where nanoparticles show promise. Another advantage of using nanoparticles is that they clear out of the lungs safely.

“We can inject these nanoparticles with a degree of comfort and confidence into animals, in lower concentrations. Once they’re injected, they would localize, according to the localization characteristics of the nanoparticles,” he said.

“Once they localize, for example in the lungs, we can then image these nanoparticles using contrast imaging techniques,” Dr. Katti continued. “We

do have some preliminary data to suggest that gold nanoparticles can be used as markers to establish a contrast medium for lung imaging using CT.”

These imaging studies in animals are currently being carried out in collaboration with Evan Boote, Ph.D., a

medical physicist and assistant professor of radiology at the University of Missouri-Columbia, and Stan Casteel, Ph.D., animal modeling expert and a professor in the school’s College of Veterinary Medicine.

“It’s all about building a unique platform of collaborators—from disparate basic sciences and engineering, to biological and clinical disciplines—to develop highly effective interdisciplinary cancer nanotechnology initiatives,” said Dr. Katti.

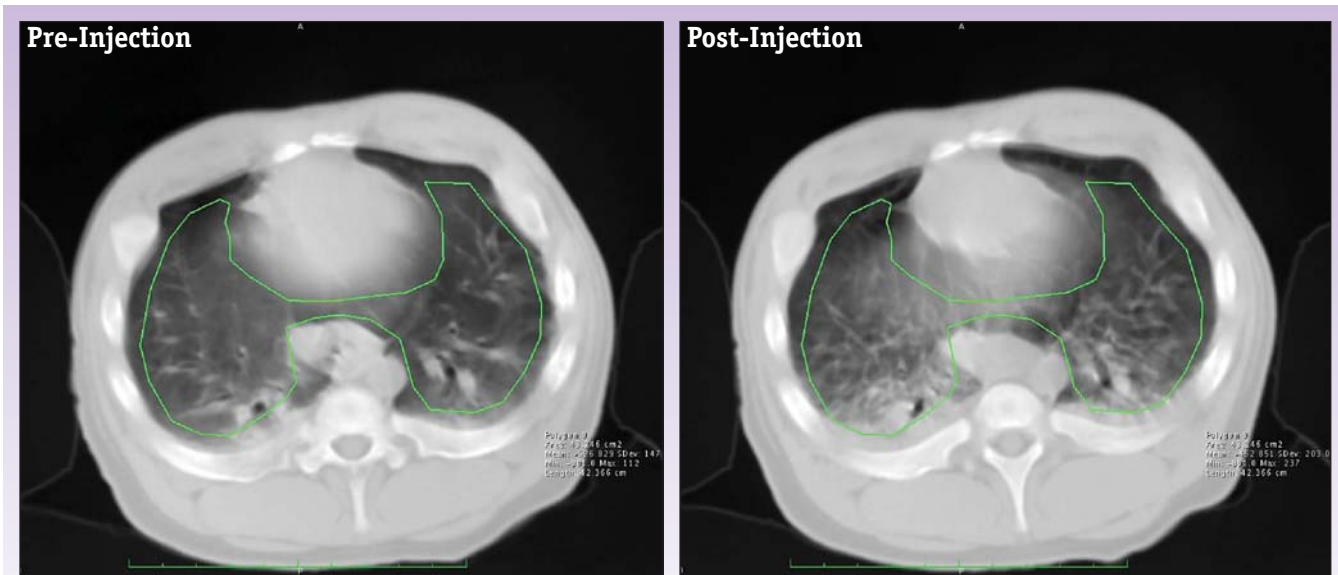
Nanoscience research has brought experts at the University of Missouri together in a highly multidisciplinary effort. “Our team consists of radiologists, medical physicists, chemists, biologists, biomedical engineers,

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*Nanoparticles could potentially be used to diagnose as well as treat different cancers.*

**Kattesh V. Katti, Ph.D.**

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**CT lung scans of a swine model before administration of gold nanoparticles and 30 minutes post-intravenous administration of gold nanoparticles—the peak opacification for the lungs. A qualitative change in the lung texture is apparent, along with an increase in Hounsfield unit values.**

CT images courtesy of Jimmy C. Lattimer, D.V.M., M.S.

mechanical engineers, isotope production experts and tumor biologists,” Dr. Katti explained. “It needs all of these people under one roof. That’s the only way you can make any measurable progress in this field.”

“Twenty years ago, we invested in nuclear medicine and as a result we have produced two FDA-approved radiopharmaceuticals for imaging and therapy of human cancers,” said Robert Churchill, M.D., chairman of the Department of Radiology at the University of Missouri, Columbia. “Under Dr. Katti’s leadership, we are currently investing resources in nanomedicine research infrastructure because we see a great future in the development of novel nanoparticle-based imaging and therapeutic agents.”

### Nanoparticles in Clinical Practice

When might we see nanoparticles being used in a clinical setting?

“Toxicity studies of nanoparticles need to be thoroughly investigated before we proceed further in utilizing them for a clinical setting,” Dr. Kannan said.

One advantage that may catalyze efforts toward human testing is that the same CT scanners already in use in hospitals can be used if gold nanoparticles are part of contrast imaging.

“Nanoparticles would be ideal candidates in CT diagnosis of different diseases such as cancer, asthma, emphysema and cystic fibrosis,” said Dr. Katti. “We hope that nanoparticles will increase the sensitivity, as well as the scope of diagnostic imaging.” □

**NEW!**

## Emerging Technologies Refresher Course Track at RSNA 2005

RSNA 2005 will feature four new refresher course tracks: cardiac radiology, emerging technologies, radiology education and vascular radiology.

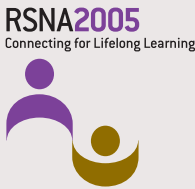
The emerging technologies track (track 17), organized by Martin G. Pomper, M.D., Ph.D., from Johns Hopkins University, includes eight courses that, when taken together, provide a comprehensive look at the at the emerging field of molecular imaging.

“The emerging technologies track is geared toward practicing physicians, residents, fellows, students or imaging scientists who would like to learn more about the new field of molecular imaging,” explained Dr. Pomper. “Throughout the week we will cover nearly all topics germane to molecular imaging, extending from introductory material, to, for example, applications of informatics, molecular biology and clinical translation. The lectures are provided by acknowledged leaders in the field.”

The track includes:

- Molecular Biology for Radiologists (RC117)
- Target Identification and Bioinformatics (RC217)
- Probe Design II (RC317)
- Imaging Modalities and Instrumentation (RC417)
- Molecular-Genetic Imaging (RC517)
- In Vivo Cellular Imaging (RC617)
- Clinical Translation (RC717)
- Opportunities from Industry and Government (RC817)

To learn more, or to register for refresher courses, go to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on the Advance Registration, Housing and Course Enrollment brochure.



# Radiologist Shortage Over? Survey Says Yes

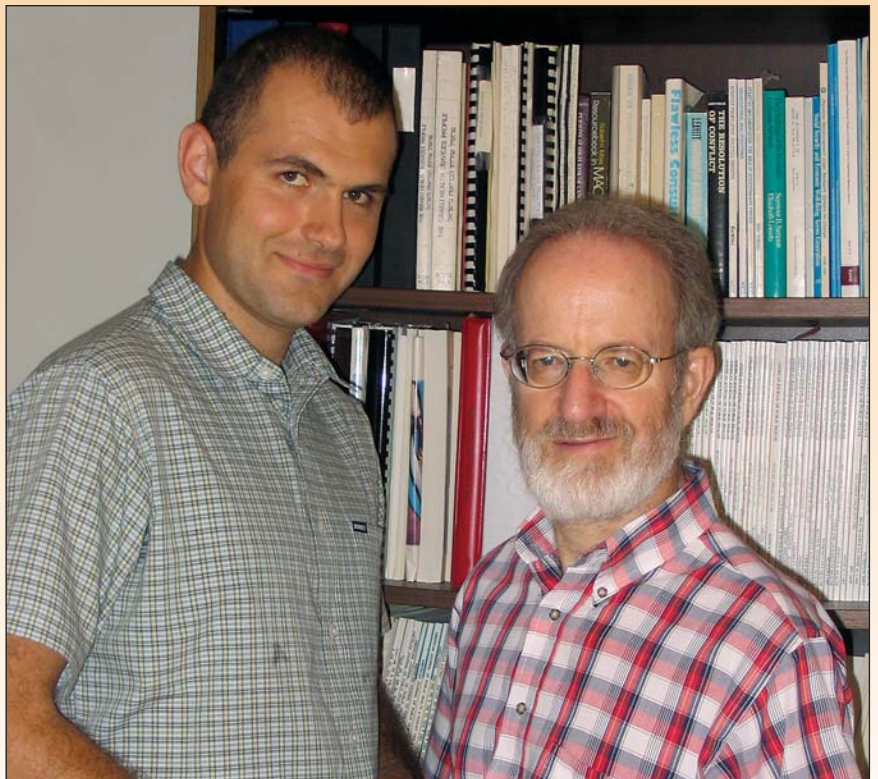
**T**HE SEVERE shortage of radiologists experienced only a few years ago has alleviated considerably, according to a study appearing in the September issue of *Radiology* by Cristian I. Meghea, Ph.D., and Jonathan H. Sunshine, Ph.D., from the American College of Radiology (ACR).

In fact, some indicators suggest the disappearance of a shortage altogether. “We were very surprised when our survey showed an overall balance between the demand and supply of radiologists, given that a few years ago there were many indications of an acute shortage,” said Dr. Meghea.

Within this overall balance, an unforeseen surplus of radiologists was reported in academic and government-owned practices, while private practices and practices in non-metropolitan locations faced shortages.

In their study, Drs. Meghea and Sunshine analyzed data collected for the ACR 2003 Survey of Radiologists. This nationwide, random sampling of radiologists in the United States was conducted by mail between March and July 2003. A total of 1,346 responses were collected from professionally active radiologists, for an overall response rate of 63 percent.

The analysis excluded data from trainees, retirees and others not working in radiology. Responses were classified according to age group (ranging from less than 35 years old to 65 years and older), geographic region and practice type (solo, academic, nonacademic private, etc.). Physicians were queried about their main subspecialty, their weekly hours,



**Cristian I. Meghea, Ph.D., and Jonathan H. Sunshine, Ph.D.**  
American College of Radiology

*We were very surprised when our survey showed an overall balance between the demand and supply of radiologists.*

**Cristian I. Meghea, Ph.D.**

number of separate locations at which they work, whether they are an owner of their main practice and whether they work full or part time.

Results indicated that the supply and demand of radiologists was generally balanced in 2003, based on the following radiologist responses:

- 67 percent were content with their workloads

- 17 percent wanted less work
- 16 percent wanted more work

This is in stark contrast to the severe shortage experienced in 2000,

only three years prior. At that time, 51 percent of radiologists reported that they were overworked, and only five percent said that they wanted to work more. However, Dr. Meghea said the 2000 ACR survey did not clearly point out that reduction in workload may also mean less income.

### **Some Look for an Increased Workload**

The survey also revealed that additional work was sought by solo practitioners (30 percent), those in government practice (31 percent) and those in academic practice (18 percent), while 23 percent of private practitioners desired less work. The authors speculate that this may result from a higher workload in private practice.



Among the subspecialties, the workloads were generally balanced, with a slight shortage (less than four percent) in pediatric and musculoskeletal radiology and a small surplus in body imaging. "Given anecdotal evidence regarding shortages in various subspecialties, we were pleased to find an overall balance," said Dr. Meghea.

One-third of radiologists surveyed said that they do not subspecialize, even to a small extent.

The authors did find a slight residual shortage in nonmetropolitan areas. Twenty-five percent of radiologists working in these areas wanted less work, which was significantly greater than any other group surveyed. In contrast, there seems to be no relative shortage or surplus according to any particular geographic region surveyed.

RSNA Past-President C. Douglas Maynard, M.D., is a former co-chair of the ACR Task Force on Human Resources. When queried about factors that may have contributed to the apparent easing of the shortage, he indicated that the increased number of people completing radiology residency programs have made a substantial impact.

"In 2001, at the height of the shortage, 785 individuals took their oral board exams for the first time. In 2005, 1,057 individuals took their exams. This constitutes an increase of 34 percent—a significant influx of radiologists into the workforce," Dr. Maynard stated.

He added that the number of fellowships has gone down in recent years, which has led to higher numbers of radiologists entering the workforce more quickly. "The number of radiology procedures performed each year has been steadily increasing by six percent annually. This increase in staffing has aided enormously in keeping up with the workload," he commented.

### Descriptive Statistics by Preferences about Workload

Descriptive Statistic	Want Less Work	Workload OK	Want More Work	All Respondents
Percentage of radiologists	17	67	16	100
Percentage part-time workers within group	21	8	11	16
Mean weekly hours	54 (0.98)	47 (0.48)	49 (0.88)	49 (0.40)
Mean annual hours	2283 (50.49)	1964 (23.03)	2064 (43.91)	2034 (19.36)
Mean percentage change sought	21 (0.71)	NA	26 (1.28)	0.59 (0.46)
Mean weekly change sought (h)	12 (0.53)	NA	13 (0.72)	0.04 (0.2)
Mean annual change sought (h)	501 (24.69)	NA	546 (33.67)	1.59 (10.90)
Mean weekly hours desired	42 (0.76)	47 (0.48)	62 (1.33)	49 (0.44)
Mean annual hours desired	1782 (37.62)	1964 (23.03)	2610 (66.59)	2036 (21.18)

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### Annual Hours Worked and Vacation Days of Full-Time Radiologists by Practice Type

Practice Type	Annual Hours	Vacation Days
Solo	2199 (79)	18 (3)
Academic	2410 (42)	20 (1)
Nonacademic		
Multispecialty	2143 (32)	35 (1)
Government	2206 (99)	17 (3)
Private	2189 (27)	40 (1)

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Both Drs. Meghea and Maynard agree that technology and better organization has made a considerable difference in productivity levels, which has in turn aided in abating the shortage.

*There still appears to be subspecialty areas that are shorthanded in the academic programs, such as pediatric radiology, vascular/interventional radiology, women's imaging and chest imaging.*

**C. Douglas Maynard, M.D.**

Other possible factors for the easing of the deficit, outlined by Dr. Sunshine and colleagues in the February 2004 issue of the *American Journal of Roentgenology*, include delayed retirement of radiologists, longer working hours combined with less vacation, an increase in on-call productivity due to the use of nighthawks and teleradiology and the erosion of radiology "turf" to other specialties.

Despite the apparent good news, Dr. Maynard warns, "There still appears to

be subspecialty areas that are shorthanded in the academic programs, such as pediatric radiology, vascular/interventional radiology, women's imaging and chest imaging."

### Declining Shortage in Other Specialties

In a similar staffing assessment, the American Society of Radiologic Technologists (ASRT) reported that the vacancy rate for radiologic technologists (R.T.s) performing radiation therapy decreased from a national average of 7.9 percent in January 2004 to 6.2 percent in April 2005.

Comments from survey respondents indicated that rural areas may be more likely to experience shortages of R.T.s performing radiation therapy, which is consistent with findings of the ACR radiologist survey. The situation was reversed for urban and metropolitan areas.

The ASRT survey also reported vacancy rates for other members of the

*Continued on page 9*

# Salaries Flat for Interventional Diagnostic Radiologists

**I**NTERVENTIONAL diagnostic radiologists in group practices remain the second highest-paid specialists in the United States; however, they earned the same salary in 2004 as in the previous year, and a key productivity measure, relative value units (RVUs), dropped nearly two percent.

The American Medical Group Association (AMGA) has released its 2005 Medical Group Compensation & Financial Survey. It included responses from 197 medical groups—about half of them physician-owned—representing more than 34,000 physicians.

The survey found no change from 2003 to 2004 in the median salary of the interventional diagnostic radiologist, which was \$410,250. Cardiac/thoracic surgeons were again the highest paid among the 27 medical specialties studied. They earned a median income of \$421,620 in 2004—an increase of 1.13 percent from 2003.

Other specialists in the top five were orthopedic surgeons at \$381,429 (up 7.60 percent), catheter lab cardiologists at \$380,279 (up 3.07 percent) and non-interventional diagnostic radiologists at \$364,899 (up 5.58 percent).

AGMA President and Chief Executive Officer Donald W. Fisher, Ph.D., C.A.E., said median compensation increases for interventional diagnostic radiologists have slowed over the past couple of years. “This could be due to a few reasons,” he explained. “The market has shown large increases in this specialty for several years prior and most groups have already made significant compensation adjustments to recruit and retain. Also,

since high-demand specialties draw more physicians, the supply eventually catches up and salary increases level off; however, I don’t think the supply has caught up completely in interventional diagnostic radiology.”

Dr. Fisher added that starting salaries for new physicians out of medical school saw sharp increases in 2005.

Many factors influence a change in physician compensation, including market demand, new technology and new procedures. RSM McGladrey, the firm that conducted the survey for AMGA, found that a majority of specialties experienced increases at or just above the rate of inflation. The highest increases were found in the categories of general surgery (8.89 percent), pediatrics & adolescent (8.76 percent), and hematology & medical oncology (8.52 percent).

non-interventional diagnostic radiology (20.55 percent).

“The peak increase was four years ago for non-interventional diagnostic radiology at 15 percent,” said Dr. Fisher. “Since then, the increases have been 4.0 percent, 9.7 percent and 6.0 percent, respectively. For the most part, interventional and non-interventional trends follow relatively close to one another. I think that next year, we will see about a five percent increase for this specialty.”

## Dedining RVUs for Interventional Diagnostic Radiologists

RSM McGladrey measured three key areas for the survey—compensation, RVUs and gross charges.

RVUs are becoming the primary measure of a physician’s productivity or financial contribution to the medical group, according to RSM McGladrey.

RVUs are established by Medicare and are used in its fee formula, along with practice and malpractice expenses. The work RVU takes into account calculations involving patients and procedures performed, along with the skill of the physician

and the risk of the procedure.

RVUs over the past four reporting years increased modestly overall. Catheter lab cardiologists saw the highest percentage increase in RVUs at 7.50 percent, but the median RVU total (8,562) was still lower than the total for interventional diagnostic radiologists (8,582), who saw a 1.66 percent drop in RVUs from 2003 to 2004.

The largest percentage decline in

**Median Physician Compensation by Salary**

	2004	2003	% CHANGE
Cardiac/Thoracic Surgery	\$421,620	416,896	1.13%
Diagnostic Radiology – M.D.s (Interventional)	\$410,250	410,250	0.00%
Orthopedic Surgery	\$381,429	354,495	7.60%
Cardiology – Cath Lab	\$380,279	368,938	3.07%
Diagnostic Radiology – M.D.s (Non-Interventional)	\$364,899	345,619	5.58%

Source: AGMA

## Four-Year Evaluation

Evaluation of salaries over the past four years demonstrates continuing demand for medical specialists.

Since 2001, five medical specialties have seen increases of 20 percent or more in median salary. They are gastroenterology (24.97 percent), dermatology (24.12 percent), catheter lab cardiology (22.47 percent), hematology & medical oncology (21.43 percent) and

RVUs was found in nephrology at -5.75 percent.

Despite the inherent interest among physicians to compare RVUs among specialties, Dr. Fisher warned, "We have found that it is not wise to compare RVUs between specialties that are not 'code similar' to one another."

He added that the five-year review for RVUs will be next year and could mean significant changes for many codes. "With the technology changes that have occurred for radiology in the last five years, I would imagine the radiologists would be very active with their comments to the committees making the changes to the RVU," Dr. Fisher said.

### Gross Charges

The survey found the overall increase in gross charges from 2003 to 2004 slowed

from previous years.

Infectious disease specialists reported the highest percentage increase in median gross charges at 19.18 percent. Double-digit increases were also seen in non-interventional diagnostic radiology (11.48 percent) and general cardiology (11.49 percent).

Seven specialties reported decreases in gross charges from 2003 to 2004. Cardiac/thoracic surgeons reported the highest percentage decrease at -15.93 percent.

Gross charges previously served as a measure of physician productivity as well as a factor in determining physician compensation, but Dr. Fisher said the trend has changed and gross charges are generally no longer used as a major component of compensation plans. □

### Median Work RVUs by Volume

	2004	2003	% CHANGE
Diagnostic Radiology – M.D.s (Interventional)	8,582	8,726	- 1.66%
Cardiology – Cath Lab	8,562	7,965	7.50%
Diagnostic Radiology – M.D.s (Non-Interventional)	7,679	7,183	6.91%
Cardiac/Thoracic Surgery	7,650	8,107	- 5.64%
Gastroenterology	7,298	7,219	1.09%

Source: AGMA

### Median Gross Charges by \$ Amount

	2004	2003	% CHANGE
Cardiology – Cath Lab	\$2,161,296	2,047,041	5.58%
Diagnostic Radiology – M.D.s (Interventional)	\$1,748,617	1,609,605	8.64%
Diagnostic Radiology – M.D.s (Non-Interventional)	\$1,722,194	1,544,799	11.48%
Orthopedic Surgery	\$1,511,748	1,499,557	0.81%
Gastroenterology	\$1,510,762	1,440,603	4.87%

Source: AGMA

■ To review the entire Median Physician Compensation 2001–2004 chart from AMGA, go to [RSNA.org/Publications/rsnanews/oct05/salaries2.cfm](http://RSNA.org/Publications/rsnanews/oct05/salaries2.cfm).

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## Radiologist Shortage Over? Survey Says Yes

Continued from page 7

radiation oncology team. The vacancy rate for medical dosimetrists declined from a national average of 8 percent in 2004 to 5.8 percent in 2005; the vacancy rate for medical physicists dropped from 9.6 percent to 7.6 percent; and the vacancy rate for oncology nurses fell from 6.2 percent to 4.8 percent. Only radiation oncologists experienced an increase in average vacancy rates, from 6.2 percent in 2004 to 6.4 percent in 2005.

The decline in vacancy rates among R.T.s performing radiation therapy is being attributed to increasing numbers of individuals becoming certified in

radiation therapy. According to the American Registry of Radiologic Technologists, 941 people took the certification examination in radiation therapy in 2004, up from 830 people in 2003 and 652 in 2002.

These statistics and the results of the study of Drs. Meghea and Sunshine are a welcome sigh of relief, considering that only a few years ago, the shortage was projected to worsen in coming years. However, many physicians still have long-term concerns.

In response to this, Dr. Meghea asserted: "We at ACR are carefully monitoring the workforce situation on behalf of the entire radiology commu-

nity. For now, practices should concentrate on their operations and technology in order to keep productivity high.

ACR will soon publish research that will help practices focus on the factors that increase productivity the most."

RSNA members and *Radiology* subscribers can access the full-text of the article, "Who's Overworked and Who's Underworked among Radiologists? An Update on the Radiologist Shortage," at [radiology.rsna.org/cgi/content/full/236/3/932](http://radiology.rsna.org/cgi/content/full/236/3/932). □

# RSNA 2005 Offers Digital Mammography Self-Assessment Workshop

IT'S BEEN A hit at the European Congress of Radiology (ECR) in Vienna, Austria, and at the Royal Australian and New Zealand College of Radiology in Sydney, Australia. For the first time in the United States, a Digital Mammography Training and Self-Assessment Workshop will be offered at RSNA 2005.

"This is an exciting opportunity for participants to practice and improve their mammography interpretation skills," said RSNA Assistant Executive Director of Research and Education Linda B. Bresolin, Ph.D., M.B.A., C.A.E.

In traditional training sessions, PowerPoint® slides are used as a way to replicate a digital workstation. Participants look at images and discuss them, but they can't manipulate the images. At the RSNA workshop, state-of-the-art diagnostic and screening workstations will be used.

"It is important that radiologists and radiology residents receive hands-on experience in reading and manipulating digital mammography cases on diagnostic and screening workstations, and have the ability to assess their skills in that area," explained

RSNA Board Liaison for Education Theresa C. McLoud, M.D. "It is a fabulous learning opportunity."

In September, the results from the largest randomized trial ever on the comparison of digital mammography with standard film mammography were revealed. The Digital Mammographic

Imaging Screening Trial (DMIST) confirmed that digital mammography is more accurate for women with dense breasts, and was also more beneficial than standard mammography for women under the age of 50 and pre- and perimenopausal women.

An expanded article on DMIST will appear in the November issue of *RSNA News*.

## How Does It Work?

The workshop will be held in Room E266 in the Lakeside Center of McCormick Place. Twelve workstations will allow 24 people to participate at a time. Sessions will be held every 60 minutes, seven times per day, from Sunday, November 27 through Thursday, December 1, 2005.

There will be 35 sessions and 840 possible participants. Participants can register for a one-hour session in advance at [rsna2005.org](http://rsna2005.org) or they can register onsite.

Because this type of workshop has been very popular in the past, advance registration is highly recommended.

Participants will elect to read one of eight validated case sets, each made up of 30 real-life cases of asymptomatic women presenting for mammography



**Gary B. Sahlstrom, M.D. (left), and Erik J. Kilgore, M.D., of Vancouver Radiologists in Washington, examine digital images on a softcopy workstation like the one that will be available during the Digital Mammography Training and Self-Assessment Workshop at RSNA 2005.**

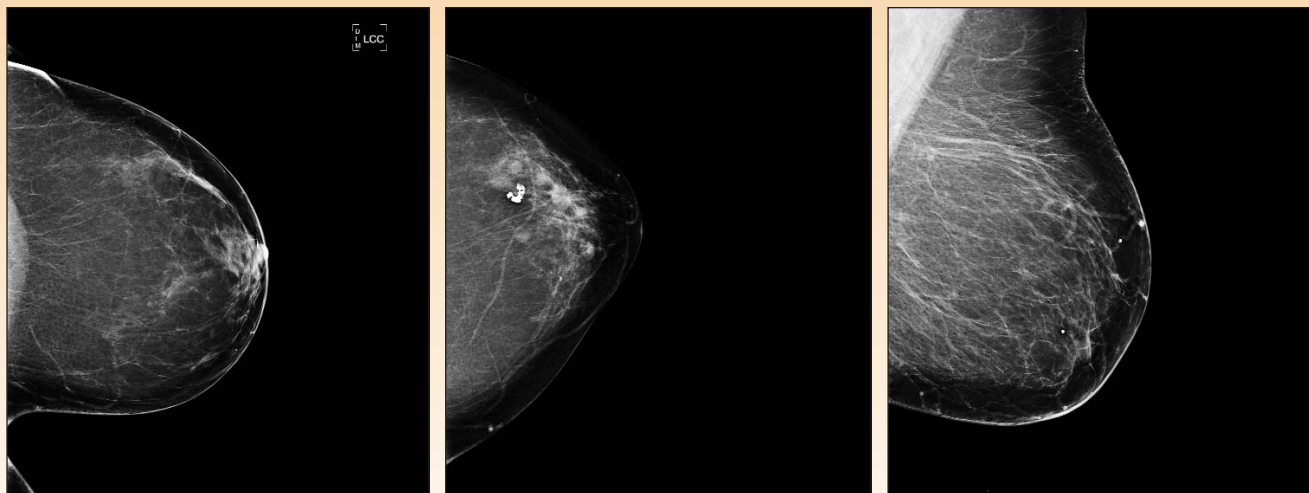
screening, of which four to six are cancer cases. Four cases are full-field digital mammography cases and four are digitized film-screen images. After a brief introduction, participants will have 40 minutes to read the cases using a dedicated, high-end digital mammography workstation. Participants can use all the usual workstation tools to review the images, magnify them, etc., and then decide if the woman should be recalled for further radiologic assessment and possible biopsy.

After the case set is completed, participants will get immediate feedback by comparing their decisions against an answer key. There are three possible results:

- Right answer
- False-positive: The woman is called back but she has no cancer.
- False-negative: The woman should have been called back because she has a mammographic abnormality that turned out to be a cancer.

*It is important that radiologists and radiology residents receive hands-on experience... and have the ability to assess their skills in that area.*

**Theresa C. McLoud, M.D.**



These digital images are similar to the ones that will be available for assessment during the Digital Mammography Training and Self-Assessment Workshop at RSNA 2005. (left) Microcalcifications in the upper-outer quadrant of the left breast of a 71-year-old woman. (middle) Newly diagnosed cancer in the upper-outer region of the left breast of a 54-year-old woman. (right) Calcifications in the retro-areolar area—possible mass-like lesion—in the left breast of a 49-year-old woman.

Images courtesy of Hologic

After reviewing the answers, participants will move to the discussion area where they can talk with leading breast cancer experts about the false-negative and false-positive results. These experts have the clinical histories on the patients, so they can provide information about the results of further assessment of each patient. Additional views, ultrasound, specimen x-rays and pathologic results are available for many of the positive cases in the datasets.

Participants may choose to repeat the process with another set of validated cases. Continuing medical education (CME) credit is available for each completed dataset.

Dr. McLoud said that when she and Dr. Bresolin saw this workshop at ECR, they were very impressed. “It’s a flexible program offering hands-on, real-time experience. It’s similar to a self-assessment module and should prove very useful to participants,” said Dr. McLoud.

She urged all RSNA 2005 attendees specializing in breast imaging to consider taking the workshop, “If digital mammography is not in your medical facility yet, it will be in the near future.”

Carl Evertz, Ph.D., president of MeVis BreastCare and a spokesman for the Digital Workshop Team comprising representatives from Barco, Hologic,

MeVis BreastCare and Siemens, said digital mammography is available in only about seven percent of all U.S. facilities right now. The Digital Workshop Team made possible the use of the high-end digital mammography workstations and gathered the digital cases for the workshop faculty to evaluate.

#### Leading Breast Cancer Experts

The Digital Mammography Training and Self-Assessment Workshop, based on a training program including cases from the Dutch Population-based Screening Project, was developed by Roland A. Holland, M.D., Ph.D., the late Jan H.C.L. Hendriks, M.D., Ph.D., and Henny Rijken.

“This workshop is to help radiologists find the right balance between recall, detection and false-positive rates,” explained Dr. Holland, a professor of pathology at the University Medical Center Nijmegen and chief pathologist of the Dutch Screening Mammography Program. “At a low recall rate when only women with more or less obvious mammographic abnormalities are recalled, a number of cancers will surface as interval cancers. By lowering the threshold for recall by focusing on more subtle mammographic abnormalities, a substantial number of can-

cers could be detected earlier.”

That issue is the subject of an article in the May 18, 2005, issue of the

*Journal of the National Cancer Institute*. The abstract for the article, “Effect of Recall Rate on Earlier Screen Detection of Breast Cancers Based on the Dutch Performance Indicators,” can be accessed online at [jnci.cancerspectrum.oxfordjournals.org/cgi/content/abstract/jnci;97/10/748](http://jnci.cancerspectrum.oxfordjournals.org/cgi/content/abstract/jnci;97/10/748).

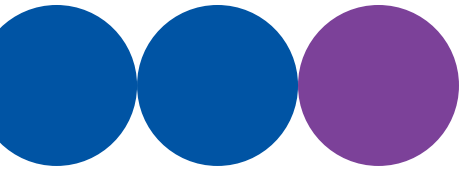
Dr. Holland, who is one of the authors of the article, will serve as faculty at the workshop along with Henny Rijken, Ulrich Bick, M.D., and J. Timothy Blackwelder, M.D. □

### Digital Mammography Training and Self-Assessment Workshop

#### LEARNING OBJECTIVES

- 1 | To perform a self-assessment for accuracy in reading screening mammograms, using dedicated mammography softcopy workstations.
- 2 | To improve softcopy reading skills in screening mammography.
- 3 | To understand the right balance between recall rates, detection rates and false-positive rates in digital screening mammography.
- 4 | To gain hands-on experience with the features, functions and performance of dedicated high-end mammography workstations.

To learn more, or to register in advance, go to [rsna2005.rsna.org](http://rsna2005.rsna.org).



# RSNA 2005 Features Latest Research in fMRI, MDCT, PET/CT and Other Modalities

A record number of abstracts was submitted this year for presentation at RSNA 2005, reflecting the latest developments in radiology from investigators around the world.

**RSNA2005**  
Connecting for Lifelong Learning



"The quality of the submissions was excellent, and we are blessed to have received so many abstracts that reflect cutting-edge research and new trends in the field," said Gerald D. Dodd III, M.D., chairman of the RSNA Scientific Program Committee and professor and chairman of the Department of Radiology at the University of Texas Health Science Center in San Antonio.

A total of 9,515 abstracts were submitted for consideration for RSNA 2005, including 6,218 abstracts for scientific paper or scientific poster presentation, 3,026 for education exhibit presentation and 271 for *infoRAD* presentation. Members of the RSNA Scientific Program Committee and its 16 subcommittees reviewed the 6,218 abstracts for scientific paper or scientific poster presentation. Over the summer, committee members accepted for presentation 1,623 scientific papers and 460 scientific posters. Separate committees accepted 1,230 abstracts for education exhibits and 160 abstracts for *infoRAD* exhibits.

Dr. Dodd said several major trends were apparent in the abstracts, including:

- Further development of both anatomical and functional MR imaging (fMRI) to evaluate and characterize conditions of the brain, heart, gastrointestinal structures and genitourinary system.
- Increased use of multidetector CT (MDCT) for cardiac imaging, CT colonography and vascular imaging.

- A significant movement toward greater use of interventional techniques, especially radiofrequency ablation.

"The interest in interventional oncology has been so great that RSNA and the SIR Foundation have collaborated to create a 4½-day Interventional Oncology Symposium at RSNA 2005 that will explore the latest research in the basic science of interventional oncology and include a series of state-of-the-art clinical presentations," Dr. Dodd said. (See page 24 for more details.)

## Subspecialty Abstracts

The chairs of the 16 Scientific Program Committee subcommittees have also identified trends and noteworthy abstracts that will be presented in their subspecialty areas at RSNA 2005.

Valerie P. Jackson, M.D., chair of the subcommittee on **breast imaging**, said that the latest trends in her subspecialty include greater use of MR spectroscopy for breast imaging and computer-aided diagnosis for mammography.

Among the abstracts that will be presented at RSNA 2005, Dr. Jackson highlighted a paper showing that the number of breast biopsies performed for Medicare patients has increased substantially and that radiologists now perform almost twice as many of these biopsies as surgeons.

She also found noteworthy a paper describing initial experience with digital tomosynthesis of the breast in women who had an abnormal digital screening mammogram. The study found that

tomosynthesis was equivalent or superior to diagnostic mammography in 87 percent of these women.

In the field of **cardiac imaging**, subcommittee chair Martin J. Lipton, M.D., agreed with Dr. Dodd that the use of MDCT to evaluate coronary arteries was a significant trend. Dr. Lipton also highlighted papers reflecting the greater use of MDCT in clinical settings and a trend toward more practicing radiologists being trained in cardiac imaging.

A noteworthy abstract in this subspecialty is one that compared the potential clinical value of a new generation 64-slice CT system with that of invasive coronary angiography in the diagnosis of coronary artery disease.

The authors of the study concluded that 64-slice CT coronary angiography offers significantly better spatial and temporal resolution and holds great promise in the diagnosis or exclusion of a diagnosis of coronary artery disease.

The chair of the subcommittee on **chest radiology**, John R. Mayo, M.D., noted that more abstracts came from Asian countries this year than last year and found noteworthy abstracts on the use of short-time inversion recovery (STIR) MR to detect lung metastases and the increased yield of CT angiography for pulmonary embolism.

One such abstract Dr. Mayo found noteworthy was a comparison of STIR turbo spin-echo MR imaging versus fluorodeoxyglucose (FDG) positron emission tomography



## 2005 RSNA Scientific Program Committee

(from left) Matthew A. Mauro, M.D., Donald P. Frush, M.D., Martin J. Lipton, M.D., Robert M. Quencer, M.D., Valerie P. Jackson, M.D., Mitchell E. Tublin, M.D., Jay P. Heiken, M.D., Gerald D. Dodd III, M.D., Philip J. Kenney, M.D., Maryellen L. Giger, Ph.D., Chul Soo Ha, M.D., H. Hugh Hawkins Jr., M.D., and Georges Y. El-Khoury, M.D. (not pictured) John R. Mayo, M.D., Stuart E. Mirvis, M.D., Howard P. Forman, M.D., and Jack A. Ziffer, M.D., Ph.D.

(PET) combined with CT in the quantitative assessment of the N-stage in patients with non-small cell lung cancer. There were 115 consecutive lung cancer patients who underwent STIR MR and FDG-PET/CT followed by surgical resection and pathological examination.

The study found that STIR MR is more accurate and more sensitive than FDG-PET/CT in the quantitative assessment of N-stage in these patients.

Among the significant trends in **emergency radiology** is the greater use of MDCT to evaluate trauma and acute vascular disease in the emergency department and the increased use of whole-body CT to evaluate pulmonary embolism. Stuart E. Mirvis, M.D., is chair of the subcommittee on emergency radiology.

One noteworthy abstract describes preliminary experience with the use of whole-body digital radiography (Statscan) compared with computed radiography in the evaluation of acute trauma patients. The authors found that whole-body digital radiography was comparable in diagnostic quality to computed radiography but it was faster and allowed for a smaller radiation dose to the patient.

Another abstract in emergency radiology described a three-year experience with whole-body CT to assess polytrauma in a level 1 trauma center in Paris. The investigators concluded that whole-body CT was highly accurate and they recommended it for the assessment of polytrauma to enable prompt and early treatment of surgical lesions.

Jay P. Heiken, M.D., chair of the subcommittee on **gastrointestinal radiology**, noted a trend toward greater use of CT colonography with limited or no cathartic bowel preparation, greater emphasis on contrast-enhanced ultrasound to detect and characterize liver lesions, the use of radiofrequency ablation for liver lesions and the use of multidetector CT for the evaluation of gastrointestinal bleeding and mesenteric ischemia.

Dr. Heiken highlighted two abstracts that demonstrate the feasibility of using CT colonography without requiring the patient to undergo a cathartic bowel preparation. "The studies show excellent results," he said.

In one of the studies, researchers evaluated the feasibility of using MDCT colonography without bowel preparation but with non-ionic isomolar contrast medium for fecal tagging, indicating a diagnostic accuracy comparable to that of traditional colonoscopy for the detection of polyps 10 mm in diameter or larger. The other study found that multidetector CT colonography without cathartic bowel preparation compared favorably with colonoscopy for the detection of polyps 8 mm in diameter or larger.

The chair of the subcommittee on **genitourinary radiology**, Philip J.

Kenney, M.D., noted a large number of studies on prostate disease imaging, fetal MR imaging, and the use of MR for the evaluation of obstetric and gynecologic conditions. He also saw a large number of

papers on the use of diffusion MR, with only a smattering of PET papers and few papers on interventional techniques and the use of fMRI for renal disease.

Dr. Kenney highlighted papers

describing the use of MR spectroscopy to evaluate adrenal masses, the value of PET/CT imaging for gynecologic disorders, a study of cervical cancer by the American College of Radiology Imaging Network and the use of real-time fetal MR imaging.

One of those papers described the use of cine MR to detect delicate fetal motions in real time for prenatal diagnoses. Cine MR was able to detect fetal arm and leg movements, swallowing, head turning and peristalsis of the fetal gastrointestinal and urinary tracts, providing "profound information for prenatal diagnosis," according to the authors of the study.

Among the trends noted in the abstracts submitted in the area of **health services policy and research** was an increased emphasis on resident education and career choices in radiology among medical students, especially women. Howard P. Forman, M.D., is the chair of this subcommittee.

One abstract reported a study of the perception of barriers to a career choice of radiology among women residents who opted for a career in radiology. The study found that the most frequently

*Continued on next page*

**AMONG THE TRENDS NOTED IN THE ABSTRACTS SUBMITTED IN THE AREA OF HEALTH SERVICES POLICY AND RESEARCH WAS AN INCREASED EMPHASIS ON RESIDENT EDUCATION AND CAREER CHOICES IN RADIOLOGY AMONG MEDICAL STUDENTS, ESPECIALLY WOMEN.**

# RSNA 2005 Features Latest Research in fMRI, MDCT, PET/CT and Other Modalities

*Continued from previous page*

cited barriers were fear of radiation exposure, lack of accommodation for childrearing and the long length of training.

Another study, done on medical students who completed a survey at the end of their third or fourth year of radiology clinical clerkship, found that intellectual stimulation and job satisfaction were ranked as the most important factors in choosing radiology as a career and that lack of direct contact with patients was the most important factor in deciding against a career in radiology.

Georges Y. El-Khoury, M.D., chair of the subcommittee on **musculoskeletal radiology**, pointed out trends toward the use of low-dose CT for the evaluation of spinal fractures, whole-body CT to assess the extent of multiple myeloma, whole-body MR for the study of multiple myeloma, metastases and type I neurofibromatosis. He also said there were a large number of papers on the use of vertebroplasty for patients with osteoporosis and a smaller number of papers on radiofrequency ablation followed by vertebroplasty for patients with neoplastic vertebral collapse.

Dr. El-Khoury highlighted as a major breakthrough a study of the use of a prototype high-speed cone-beam CT to achieve four-dimensional analysis of the knee under dynamic loaded conditions. The study demonstrated that this new cone-beam CT enabled the investigators to visualize deformations of components of the knee, such as the menisci, ligaments and cartilage.

He also noted a study showing that microscopic MR imaging of fingers provided detailed information about irregular synovial thickening and tiny bone erosion that allowed for an early diagnosis of rheumatoid arthritis.

According to Robert M. Quencer, M.D., chair of the subcommittee on **neuroradiology/head and neck radiology**, the abstracts accepted for presentation in his specialty reflect an "increased emphasis on functional MR. This will become a major discipline." The papers also reflect the value of 64-slice CT in characterizing vascular disease of the head and neck, he said.

Dr. Quencer pointed to one fMRI study that was able to demonstrate functional deficits in patients with schizophrenia. The study showed decreased activation in prefrontal and parietal neural networks and confirmed earlier findings that schizophrenics have impaired processing of working memory.

Another study he flagged demonstrated that diffusion-tensor imaging (DTI) reveals changes in the anisotropy in the brain of schizophrenics that suggest damage to the white matter tracks that connect various cortical areas. "Thus, DTI can have an important role to play in the workup of patients with suspected neuropsychiatric diseases," the authors of the study concluded.

In the subspecialty of nuclear medicine, the trends indicated by the abstracts accepted for presentation at RSNA 2005 include greater use of hybrid PET/CT

imaging to evaluate various cancers and guide and follow up on procedures to treat malignant tumors, especially metastases. Jack A. Ziffer, M.D., Ph.D., is chair of the subcommittee on **nuclear medicine**.

One such study compared the value of F-18 FDG-PET/CT versus FDG-PET alone and Tc-99m methylene diphosphonate bone scans in the detection of breast cancer metastases to bone and found that FDG-PET/CT was more sensitive and specific than PET alone or bone scans in finding bone metastases.

Another study found that when contrast-enhanced CT was added to hybrid PET/CT to detect liver metastases in patients with colorectal cancer, the sensitivity, specificity and accuracy of PET/CT in detecting these tumors were enhanced.

Donald P. Frush, M.D., chair of the subcommittee on **pediatric radiology**, said trends reflected in the pediatrics abstracts include a continued focus on techniques or technology to reduce radiation dose, an increase in pediatric cardiac imaging and an increase in neuroradiology submissions.

Among the papers Dr. Frush found noteworthy was one describing the use of an innovative imaging technique, hyperpolarized helium-3 (HHe) diffusion

MR, to detect the alveolar enlargement that normally occurs with lung growth during childhood. The authors concluded that HHe MR was able to detect the expected increase in alveolar size and that it may find a role in the assessment of both the normal development of lung microstructures and the abnormalities that result from disease.

Another paper he noted was one showing that low-dose helical CT used without an oral contrast agent can be successfully employed to evaluate children with acute abdominal pain rapidly and expedite a diagnosis of acute appendicitis.

The chair of the subcommittee on **physics**, Maryellen L. Giger, Ph.D., noted that the number of abstracts involving computer-aided diagnosis (CAD) was down compared with last year in the physics area, but appeared to be up in clinical areas such as breast

and thoracic CT, thus indicating the promising transition of CAD from algorithmic development to clinical evaluation.

Dr. Giger highlighted an abstract showing the feasibility of performing ultrasound

(US) imaging in an MR scanner to obtain simultaneous US and MR images by placing a custom-made MR-compatible diagnostic ultrasound transducer in a mechanical positioning device of a 1.5 T MR unit. "Simultaneous ultrasound imaging may offer additional

**TRENDS REFLECTED IN THE PEDIATRICS ABSTRACTS INCLUDE A CONTINUED FOCUS ON TECHNIQUES OR TECHNOLOGY TO REDUCE RADIATION DOSE, AN INCREASE IN PEDIATRIC CARDIAC IMAGING AND AN INCREASE IN NEURORADIOLOGY SUBMISSIONS.**



diagnostic information and provide a means to perfectly correlate diagnostic ultrasound and MR imaging findings," the authors concluded.

Another study she noted demonstrated an automated electronic coronary calcium scoring method that allows radiologists to assess a patient's risk for coronary artery disease by using any CT scan of the heart, without the need for an operator to manually identify calcified lesions in the arteries.

In the area of **radiation oncology and radiobiology**, the abstracts show a significant movement within radiation oncology toward the use of more sophisticated techniques to identify tumor volumes and to achieve conformal dose delivery, such as intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT), said subcommittee chair Chul Soo Ha, M.D.

One such study compared the use of IMRT versus 3D conformal and 2D radiation therapy for pelvic nodal irradiation in patients with prostate carcinoma. The authors found that the use of IMRT dramatically reduced the amount of radiation delivered to normal structures surrounding the target volume.

Another study reported the early results of a prospective, randomized trial comparing a urethra-sparing IMRT technique with a standard whole-prostate IMRT technique to minimize urinary tract toxicity, a common complication of radiation therapy in patients with prostate cancer. The

urethra-sparing technique significantly decreased the radiation dose to the proximal urethra without compromising coverage of the planning target volume or increasing the dose to other normal structures in the pelvis.

H. Hugh Hawkins Jr., M.D., chair of the subcommittee on **radiology informatics**, noted a trend among the abstracts to try to optimize electronic information systems to help resolve workflow issues, such as prioritizing work lists and improving throughput to increase productivity.

One study tested the value of a software algorithm that dynamically prioritized radiologists' computerized work lists so that examinations considered urgent were marked urgent and sorted to the top of the lists. "Automated dynamic sorting of worklists can provide the radiologist with useful decision support for choosing high-priority cases," the authors concluded.

Another study explored the use of ontologies to organize and retrieve radiology reports and images in radiology information systems to improve access to these data. An ontology is a structured way of describing concepts and relationships in a manner that can be comprehended by people and processed by machines. The study found that using ontologies improved access to reports and images, and they

may help radiologists better manage the explosive growth of radiologic data.

The chair of the subcommittee on **ultrasound**, Mitchell E. Tublin, M.D., found noteworthy some innovative papers on contrast perfusion and gene therapy, such

as the use of microbubble ultrasonography for gene transfer procedures, plaque enhancement and sonographic diagnosis.

Dr. Tublin highlighted one study that investigated using microbubble

US to deliver non-viral cystic fibrosis gene therapy. The investigators administered naked plasmid DNA and polyethylenimine plasmid DNA complexes to the lungs of mice by using microbubble US to increase the gene transfection rates. They found that "microbubble ultrasound shows encouraging promise as a physical delivery system to improve gene transfer efficiency to the lung."

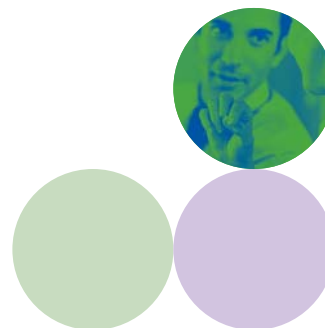
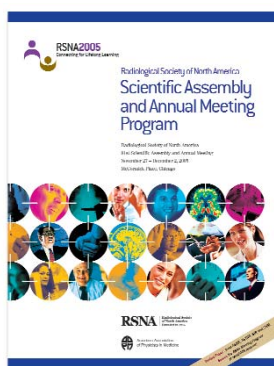
Another study he noted examined recent trends in the utilization of vascular ultrasound by radiologists and other physicians for Medicare recipients. The study found that radiologists perform the largest proportion of vascular US studies in the Medicare population, followed by surgeons, cardiologists and primary care physicians, in that order. However, cardiologists are increasing their utilization rates almost twice as fast as radiologists.

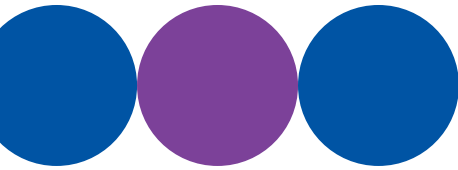
Finally, Matthew A. Mauro, M.D., chair of the subcommittee on **vascular and interventional radiology**, identified a trend toward fewer studies on interventional therapy for vascular disease and more on MR and CT angiographic imaging of vascular disease. He also found noteworthy the use of MR-guided high-intensity focused ultrasound surgery for breast cancer and uterine fibroids.

Dr. Mauro highlighted one study evaluating the use of virtual intravascular endoscopy to depict peripheral arteries based on data acquired with MDCT. The study showed that virtual endoscopy was able to depict thin arterial vessels of about 2 mm and could be useful as a supplement to 3D imaging of peripheral arteries.

Another study he noted used ultrasonography and fluoroscopy to guide percutaneous intrahepatic islet cell transplantation in patients with type 1 diabetes. The authors of the study found that the procedure was safe and effective, with a low rate of complications.

**More information about each of these abstracts is available in the online *RSNA Meeting Program* at [rsna2005.rsna.org](http://rsna2005.rsna.org).**





# Two RSNA Service Centers

To better serve members and annual meeting attendees, RSNA services will be located together in the Lakeside Center Ballroom and on the technical exhibit floor.

Some of these services include:

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online journal subscriptions and show you how to quickly and easily search for what you need.

### RSNA Education Center Store

The RSNA Education Center Store will provide quality education materials for purchase, including course syllabi, refresher courses on CD-ROM, *RSNA Meeting Programs* and

*RadioGraphics* Special Issues.

### RSNA Career Connection

Demonstrations and one-on-one assistance will be available for RSNA's online job center, Career Connection ([RSNA.org/careers](http://RSNA.org/careers)), in RSNA booth 1100 on the technical exhibits floor.

Career Connection allows individuals to search for available posi-

tions or submit résumés, and allows companies to post job opportunities and search for potential candidates.

RSNA staff will also be available in both RSNA service areas to answer questions about RSNA Self-Assessment Modules, maintenance of certification, [RSNA.org](http://RSNA.org) and [RadiologyInfo.org](http://RadiologyInfo.org).

### RSNA Services

#### Lakeside Center Ballroom, Level 3

##### HOURS OF OPERATION

Saturday . . . . . 12:00 p.m. – 6:00 p.m.  
Sunday . . . . . 7:00 a.m. – 6:00 p.m.  
Monday – Thursday . . . 7:30 a.m. – 6:00 p.m.  
Friday . . . . . 7:30 a.m. – 1:00 p.m.

#### RSNA Booth 1100 South Building, Hall A

##### HOURS OF OPERATION

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

## RSNA Research & Education Foundation Pavilion

The RSNA Research & Education Foundation Pavilion at RSNA 2005 will be adjacent to RSNA Services in the Lakeside Center Ballroom.

Throughout RSNA 2005, the R&E Foundation staff will be available to answer questions and provide information on all of the Foundation's grant and giving programs.

Individuals donated nearly \$900,000 and corporations gave about \$1.1 million to the Foundation from October 1, 2004, until September 30, 2005. These contributors will be acknowledged on a donor wall near the R&E Pavilion.

The pavilion will feature posters honoring major individual and corporate contributors, as well as current grant recipients and project titles.

In addition to highlighting the Foundation programs, the R&E Pavilion will also have information on the RSNA Department of Research programs.

### Donor Lounge

The R&E Foundation Donor Lounge provides a place for Foundation donors to relax, check e-mails, hang their coat or converse with colleagues. Complimentary beverages will be available

throughout the day and light refreshments will be available 7:30 a.m. – 9:30 a.m. and 2:00 p.m. – 4:00 p.m. A white and gold donor ribbon acknowledging a donation to the Foundation is required for entry to the lounge.

Contributions will be accepted onsite.

The new R&E Foundation grant recipients are listed on pages 31-34.

### R&E Foundation Pavilion

#### Lakeside Center Ballroom, Level 3

##### HOURS OF OPERATION

Saturday . . . . . 12:00 p.m. – 6:00 p.m.  
Sunday . . . . . 7:00 a.m. – 4:30 p.m.  
Monday–Thursday . . . 7:30 a.m. – 6:30 p.m.  
Friday . . . . . 7:30 a.m. – 1:00 p.m.

### R&E Foundation Donor Lounge

#### Lakeside Center Ballroom, Level 3

##### HOURS OF OPERATION

Sunday . . . . . 7:30 a.m.–4:30 p.m.  
Monday–Thursday . . . . 7:30 a.m.–5:30 p.m.  
Refreshments  
7:30 a.m. – 9:00 a.m., 2:00 p.m. – 4:00 p.m. daily  
Beverages . . . . . Throughout the day

# RSNA 2005 Gold Medalists

Three individuals will receive a Gold Medal—RSNA's highest honor—at the 91st Scientific Assembly and Annual Meeting: Edmund A. Franken Jr., M.D., from Iowa City, Iowa; C. Douglas Maynard, M.D., from Winston-Salem, N.C.; and H. Rodney Withers, M.D., D.Sc., from Los Angeles.

**Edmund A. Franken Jr., M.D.**, is a respected researcher, educator and philanthropist who has demonstrated outstanding leadership in the field of radiology for more than 40 years.

“Dr. Franken is one of the leading pediatric radiologists in the United States, with an established worldwide reputation,” said RSNA President David H. Hussey, M.D. “He is also an excellent department chair, pulling together many diverse elements with seeming tranquility. Dr. Franken has a tremendous ability to keep everybody working in the same direction, and during his tenure at the University of Iowa, his department flourished to become one of the leading academic radiology centers in the country.”

Dr. Franken said receiving the RSNA Gold Medal is the most prestigious award of his professional life. “My career has included several components—practitioner, teacher and researcher in pediatric radiology, administrator of an academic department and investigator in medical imaging and perception,” he said. “Receiving this award makes me feel like the totality of my efforts has been appreciated and recognized. I hope to continue working with RSNA in various aspects of its educational and scientific roles.”

Dr. Franken graduated from the University of Oklahoma Medical School in 1961 and served for two years as a medical officer in a

branch of the U.S. Public Health Service before completing a radiology residency at the Indiana University Medical Center. In 1967, he became chief of radiology at the James Whitcomb Riley Children's Hospital of Indiana



University and spent the next 12 years teaching and practicing pediatric radiology, with a particular emphasis on the gastrointestinal tract. He published his first book, *Gastrointestinal Radiology in Pediatrics*, in 1975.

That year he was appointed professor and chair of radiology at the University of Iowa, where he served for the next 15 years and where he is still active today. Under his steadfast leadership, the university tripled the number of radiology faculty and jump-started the residency and fellowship programs to establish radiology as a significant constituent in the medical school curriculum. During this time, Dr. Franken teamed up with Kevin Berbaum, Ph.D., and worked on perceptual research for more than 20 years.

An RSNA member since 1971, Dr. Franken was the first RSNA International Visiting Professor in 1987. He was named an RSNA Roentgen Centennial Fellow in 1995 and was RSNA first vice-president in 1996.

Among his many accomplishments, Dr. Franken has published more than 200 articles and has served as editor-in-chief of *Acade-*

*mic Radiology* from 1997 to 1999.

For an expanded version of Dr. Franken's biography, see the *RSNA Meeting Program* or go online to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Meeting Program in the left-hand column.

**C. Douglas Maynard, M.D.**, is a revered physician and scholar whose influence has been a driving force in the field of radiology for the past 50 years.

“Dr. Maynard's high level of integrity sets a goal for all those with whom he is associated,” said RSNA President David H. Hussey, M.D. “He has significantly influenced the practice of radiology in this country. He has always demonstrated significant vision, insight and ingenuity within and outside RSNA. Dr. Maynard has generated an amazing number of great ideas within our specialty, and he is an inspiration to all who know him.”

Dr. Maynard said it's an honor to be recognized by his peers. “Many of the accomplishments for which I am being recognized are the result of collaborative work with other individuals,” he said. “To have been associated with so many other volunteers in this fantastic endeavor has been one of the most enjoyable aspects of my radiology career.”

Having spent much of his youth in Costa Rica, Dr. Maynard returned

*Continued on next page*

# RSNA 2005 Gold Medalists

*Continued from previous page*

to the United States to attend Wake Forest University, where he has maintained close ties ever since. In 1966, he was appointed to the radiology faculty at the Bowman Gray School of Medicine at Wake Forest, and became the director of the nuclear medicine laboratory at North Carolina Baptist Hospital.

Dr. Maynard later served as assistant dean for admissions and associate dean for student affairs at Wake Forest, as well as chairman of the Department of Radiology and acting dean of the medical school. He now serves on the board of directors of Wake Forest University Health Sciences.

Among his crowning achievements, Dr. Maynard helped create the combined graduate biomedical engineering program between the Wake Forest University School of Medicine and the Virginia Tech School of Engineering and was instrumental in the creation of the National Institute of Biomedical Imaging and Bioengineering.

An RSNA member since 1968, Dr. Maynard has demonstrated longstanding leadership and infallible commitment to the Society. He helped establish the RSNA Research & Education Foundation as an independent entity, and subsequently helped generate the Foundation's education grants program. He also helped establish the Office of Research Development and had a major hand in creating the RSNA radiology exhibit at EPCOT® in 1999. From 1993 to 2000, Dr. Maynard was on the Board of Directors, serving as president of RSNA in 2000.

**For an expanded version of Dr. Maynard's biography, see the RSNA Meeting Program or go online to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Meeting Program in the left-hand column.**

**H. Rodney Withers, M.D., D.Sc.**, is an acclaimed pioneer in the field of radiation biology, whose groundbreaking efforts have helped establish radiation therapy as the standard of care for patients with cancer.

"Dr. Withers is one of the most innovative minds in the fields of radiation oncology and radiation biology," said RSNA President David H. Hussey, M.D. "He's probably the world's leading expert on the effects of radiation

on normal tissues. He's received almost every award a radiation oncologist could receive."

Dr. Withers said earning the RSNA Gold Medal represents an important professional accomplishment. "It is a very special honor to be recognized by a Society that, year after year, mounts such a wonderful scientific meeting and, less conspicuously, continues yearlong to support the research of young physicians. I am privileged to join those who have been honored by the Society in the past, and I know I will be honored by the medalists who follow," said Dr. Withers.

Born in Queensland, Australia, Dr. Withers attended the University of Queensland Medical School and subsequently conducted his doctoral work at the University of London. He specialized in radiation oncology in the 1970s at the M.D. Anderson Cancer Center and the University of Texas Graduate School of Biomedical Sciences at Houston. In 1980, Dr. Withers was appointed professor and director of experimental radiation oncology at the University of California, Los Angeles (UCLA), a position he held for the next 14 years.

After a leave of absence from UCLA to serve as professor and director of the Institute of Oncology at the Prince of Wales Hospi-

tal in Sydney, Australia, Dr. Withers returned to UCLA in 1991, where he became professor and vice-chair of the Department of Radiation Oncology and director of experimental radiation oncology. In 1992, he began an American Cancer Society clinical research professorship, an under-

taking he is still involved with today. He currently serves as professor and chair of the Department of Radiation Oncology at UCLA.

Dr. Withers is responsible for

many landmark advances in radiation biology, involving the effects of ionizing radiation on normal and malignant tissue. He has also devoted himself to the study of the kinetics of metastases development. The clinical implementation of his research has enabled millions to receive safe and effective radiation therapy treatment for cancer.

He is the recipient of many prestigious awards, most notably the Enrico Fermi Award, and serves on many editorial boards.

**For an expanded version of Dr. Withers' biography, see the RSNA Meeting Program or go online to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Meeting Program in the left-hand column.**



# RSNA 2005 Honorary Members

Honorary Membership in RSNA is presented for significant achievements in the field of radiology. At RSNA 2005, Honorary Membership will be given to Antonio Chiesa, M.D., from Brescia, Italy; Janet E. Husband, F.Med.Sci., F.R.C.P., F.R.C.R., from Sutton Surrey, United Kingdom; and Rolf-Peter Mueller, M.D., Ph.D., from Cologne, Germany.

**Antonio Chiesa, M.D.**, is a dedicated physician and educator, whose progressive leadership and involvement in the global radiology community have guided the advancement and unification of radiology in Europe for decades.

“Dr. Chiesa has distinguished himself by raising the levels of head and neck radiology throughout Europe,” said RSNA President David H. Hussey, M.D. “His leadership abilities and vision in the Italian and European radiology communities have enabled him to make far-reaching decisions regarding the advancement and modernization of the education of European radiologists. Dr. Chiesa is credited with transforming Italian radiology into an efficiently functioning discipline, and he is a friend and trusted advisor to many leaders in the American radiology community.”

Dr. Chiesa said he was surprised, but deeply honored to receive this distinction. “The influence that RSNA has had on my professional life has been both strong and beneficial. As an Honorary Member, I will feel much more involved in RSNA programs, especially those pertaining to the international environment,” he said.

Dr. Chiesa obtained his medical degree at the University of Padua and practiced there until 1982. He then moved to the University of Brescia, as chairman of the Department of Radiology and director of the Postgraduate

School of Radiology, modernizing the department and overseeing its transformation into a well-equipped unit with up-to-date information and technology.

Today, Dr. Chiesa directs the Radiology Department at the University of Brescia.

He served as the president of the 2005 European Congress of Radiology (ECR) in Vienna and is also chairman of the ECR executive

committee. Dr. Chiesa is an active international speaker, presenting in more than 22 countries. Most of his speaking engagements focus on aspects of general and head and neck radiology.

An RSNA member since 1986, Dr. Chiesa also serves on the editorial boards of several Italian and European journals.

**For an expanded version of Dr. Chiesa’s biography, see the [RSNA Meeting Program](#) or go online to [rsna2005.rsna.org](#) and click on Meeting Program in the left-hand column.**

**Janet E. Husband, F.Med.Sci., F.R.C.P., F.R.C.R.**, is an inspirational practitioner, researcher and visionary who has made invaluable contributions to cancer imaging.

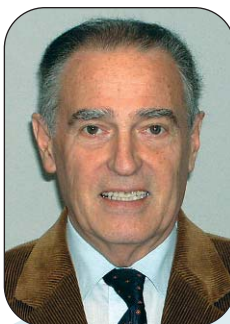
“Through her tireless efforts, Dr. Husband has placed the United Kingdom at the center of oncologic imaging and has disseminated the specialized knowledge of oncologic imaging worldwide,” said RSNA President David H. Hussey, M.D. “She has also shown

that through hard work and dedication, it is entirely possible to balance one’s family life and career and become an internationally renowned leader in academic radiology.”

Dr. Husband said she is extremely proud of the honor. “It is a very special award for me because of my long association with RSNA over the last 25 years. Indeed, my career has been shaped and enhanced through the relationships I developed in the early days of CT, through presentations at the RSNA annual meeting. I will continue to support the Society by supporting its work in whatever way I am able,” she said.

Dr. Husband began her career in radiology working part-time while raising her three young sons. In 1977, she was appointed to the Royal Marsden Hospital to organize a CT department and clinical CT research unit, and has since conducted groundbreaking clinical research in both CT and MR imaging in the study of cancer.

She is currently the academic head of the Department of Diagnostic Radiology and medical director of the Royal Marsden National Health Service Foundation Trust in London. She is a professor of diagnostic imaging at the Institute of Cancer Research at the Royal Marsden Hospital,



*Continued on next page*

# RSNA 2005 Honorary Members

Continued from previous page

and is also president of the Royal College of Radiologists, the first woman to hold the title. She is a past-president of the British Institute of Radiology

An RSNA member since 1987, Dr. Husband founded the International London Courses in CT, one of the most prestigious annual courses in cross-sectional imaging in the world. One of her most prized acknowledgements came in June 2002, when she was appointed Officer of the Most Excellent Order of the British Empire in Queen Elizabeth II's Jubilee Birthday Honours, in recognition of her role in cancer imaging.

**For an expanded version of Dr. Husband's biography, see the [RSNA Meeting Program](#) or go online to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Meeting Program in the left-hand column.**

**Rolf-Peter Mueller, M.D., Ph.D.**, is a leading investigator and scholar in the field of radiation therapy and radiosurgery, whose indispensable research contributions had a great impact on the course of radiobiologic applications.

"An internationally recognized radiation oncologist, Dr.

Mueller has made significant contributions to the study of Hodgkin disease. His work has become the standard of care," said RSNA President David H. Hussey, M.D. "Dr. Mueller has accomplished many landmark achievements during his eminent career."

Dr. Mueller said he is proud to accept the award. "RSNA is like a big family to me, offering a brilliant opportunity to promote your professional accomplishments and relationships with people in other subspecialties. I am honored to be a part of the amazing



programs RSNA offers, and I volunteer my talents for the future promotion of interdisciplinary growth and cooperation," he said.

Born in Dortmund, Germany, Dr. Mueller attended medical school at the University of Muenster, Germany, and the University of Vienna, Austria. His research pursuits began at the

University of Dortmund as a research fellow involved in experimental investigations of local disorders of microcirculation in muscles and solid organs after megavoltage radiation therapy.

He acquired his doctorate of philosophy in 1982, and in 1984 received the Herrman-Holthusen Ring, given by the German Roentgen Ray Society, which is the highest award given to young scientists. In 1985, he became the acting head of the Department of Radiation Oncology at the University of Cologne and was

appointed director and head of the department in 1987, where he still presides today.

Dr. Mueller has initiated many groundbreaking endeavors. His experimental and clinical investigations have mainly focused on studies of radiation applications in cancer and circulation abnormalities. The related fields of radiochemotherapy, radiosurgery and radiation therapy have all grown progressively as a result of his dedicated research efforts.

An RSNA member since 1992, Dr. Mueller is responsible for the development of the radiation therapy program in the German Hodgkin Study Group and is a founding member of the German Society for Radiation Oncology.

**For an expanded version of Dr. Mueller's biography, see the [RSNA Meeting Program](#) or go online to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Meeting Program in the left-hand column.**

## Chicago Welcomes Meeting Attendees



Through the 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 91st Scientific Assembly and Annual Meeting. The welcome includes:

- Complimentary *Chicago Tribune*

*newspapers* delivered to each attendee's hotel room. The papers will have a customized wrap highlighting the RSNA schedule at a glance and special offers/discounts.

- Attractions in Advance calendar highlighting special events and attractions in Chicago during the meeting.
- RSNA and Chicago's "We're Glad You're Here" banners posted in about 180 locations

including O'Hare International Airport and on streets including S. Michigan Ave., Fort Dearborn Dr., Martin Luther King Dr., Columbus Dr., North Water St. and Stetson Dr.

- Welcome Centers available at O'Hare and Midway Airports for information about the City and RSNA.
- Ambassador Meet and Greet program at Terminals One and Three at O'Hare Airport to

direct attendees to Welcome Centers.

- Welcome signs displayed throughout O'Hare, at retail outlets, restaurants, cultural attractions and on taxicabs and shuttle buses.
- Complimentary afternoon coffee Sunday through Wednesday in the Cyber Oases.

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

# Plenary Sessions

Plenary Sessions are highlights of the RSNA annual meeting and are open to all registrants. Some of the following courses listed require separate registration (+) and/or an additional fee (\*).

## Saturday

**10:00 a.m. – 12:00 p.m.**  
RSNA Financial Investment Seminar+\*

- *Protecting Assets From Creditor Claims, Including Malpractice Claims*

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

**12:00 p.m. – 2:00 p.m.**  
AAPM/RSNA Physics Tutorial for Residents

- *Cardiac CT Physics*

Moderator: Mahadevappa Mahesh, Ph.D.

**1:00 p.m. – 5:00 p.m.**  
RSNA Financial Investment Seminar+\*

- *Effective Real Estate Investment Strategies*

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

**1:00 p.m. – 5:00 p.m.**  
NIH Grantsmanship Workshop+\*

Facilitator: Lee Rosen, Ph.D.

**2:15 p.m. – 5:15 p.m.**  
AAPM/RSNA Tutorial on Equipment Selection

- *Digital Radiography*

Moderators: Beth A. Schueler, Ph.D., and Randell L. Kruger, Ph.D.

## Sunday

**8:30 a.m. – 10:15 a.m.**  
President's Address

- *Radiation Oncology and RSNA: Returning to Our Roots*

David H. Hussey, M.D., RSNA President

- Dedication of *RSNA Meeting Program* to Robert G. Parker, M.D.

- Announcement of Outstanding Researcher and Outstanding Educator Awards

## Opening Session

- *Multidetector CT: Beyond 16 Slice—Too Much of a Good Thing?*

Moderator: Gerald D. Dodd III, M.D.

- *Sixteen-Slice Multidetector CT and Beyond: When is Enough Enough?*

Lecturer: Elliott K. Fishman, M.D.

- *Multisection CT Run Amok: Excesses of Technology in Patient Care*

Lecturer: John M. Boone, Ph.D.

**4:00 p.m. – 4:10 p.m.**  
Report of the RSNA Research & Education Foundation

R. Nick Bryan, M.D., Ph.D., Chairman, R&E Foundation Board of Trustees

**4:10 p.m. – 5:45 p.m.**  
Image Interpretation Session

Moderator: Geoffrey D. Rubin, M.D.

Panelists: William G. Bradley Jr., M.D., W. Dennis Foley, M.D., Christian H. Herold, M.D., Diego Jaramillo, M.D., M.P.H., and Leanne L. Seeger, M.D.

Webcast Available! (Information will be included in the November issue of *RSNA News*.)

## Monday

**8:30 a.m. – 6:00 p.m.**  
Interventional Oncology Symposium: RSNA/SIR Foundation+

Clinical Science of Interventional Oncology

**1:30 p.m. – 2:45 p.m.**

Eugene P. Pendergrass New Horizons Lecture

- *Imaging in Drug Discovery: Emerging Roles and Challenges*

Lawrence H. Schwartz, M.D.

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

Presentation of Honorary Memberships

- Antonio Chiesa, M.D., Brescia, Italy
- Janet E. Husband, FMed.Sci., FR.C.P., FR.C.R., Sutton Surrey, United Kingdom
- Rolf-Peter Mueller, M.D., Ph.D., Cologne, Germany

(See pages 19–20 for honoree biographies)

**1:30 p.m. – 2:45 p.m.**  
RSNA/AAPM Basic Physics Lecture for the Radiologic Technologist

- *PET/CT*

Speakers: Anne C. Chapman, Beth A. Harkness, M.S., and Lei Xing, Ph.D.

**1:30 p.m. – 5:45 p.m.**  
Physics Symposium

- *Intensity-Modulated Radiation Therapy: State of the Art—Part II*

Course Co-Directors: Jatinder R. Palta, Ph.D., and T. Rockwell Mackie, Ph.D.

**4:30 p.m. – 6:00 p.m.**  
Special Focus Sessions

- *Novel Breast Therapies and Techniques*

Continued on next page

# Plenary Sessions

Continued from previous page

- *Point/Counterpoint: Controversial Issues in Neuroradiology, Part I*
- *MR Imaging of Prostate Cancer: What Are the Best Practices?*
- *Small-Bowel Cross-Sectional Imaging: State of the Art*
- *Quantitative Imaging in Clinical Trials and Therapeutic Monitoring: A National Cancer Institute Perspective*
- *Sports Injuries in Children*
- *Diagnostic Radiation and Carcinogenesis: Fact or Hypothesis?*
- *Vertebroplasty and Sacroplasty*
- *Optical Methods for Cancer Detection and Therapeutic Monitoring*
- ASTRO Invited Papers

## Tuesday

8:30 a.m. – 6:00 p.m.

### Interventional Oncology Symposium: RSNA/SIR Foundation+

- *Clinical Science of Interventional Oncology*

10:10 a.m. – 10:20 a.m.

### RSNA Business Session

1:30 p.m. – 2:45 p.m.

### Annual Oration in Diagnostic Radiology

- *Radiology: Back to the Future*  
William R. Brody, M.D., Ph.D.

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

## Presentation of Gold Medals

- Edmund A. Franken Jr., M.D., Iowa City, Iowa
  - C. Douglas Maynard, M.D., Winston-Salem, N.C.
  - H. Rodney Withers, M.D., D.Sc., Los Angeles
- (See pages 17–18 for honoree biographies)

## Wednesday

8:30 a.m. – 12:00 p.m.

### Associated Sciences Symposium

- *Radiology's Leaders: Challenges of the Future*

Moderators: Bobbi Miller, B.A., R.T.(R)(M), C.R.A., and Judy LeRose, B.S., R.T.(R), C.R.A.

8:30 a.m. – 6:00 p.m.

### Interventional Oncology Symposium: RSNA/SIR Foundation+

- *Basic Science of Interventional Oncology*

1:30 p.m. – 2:45 p.m.

### Annual Oration in Radiation Oncology

- *Integration of Functional Images into Future Radiation Oncology Research and Practice*

K.S. Clifford Chao, M.D.

Presented in memory of Rupert Schmidt-Ullrich, M.D.

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

4:30 p.m. – 6:00 p.m.

### Oncodiagnosis Panel and Special Focus Sessions

- *MR Imaging of Articular Cartilage: Morphologic and Functional Assessment*

- *Obesity: The Impact on Radiology*
- *Radiologic Management of the Pregnant or Potentially Pregnant Patient*
- *Lymphoma from Head to Toe*
- SNM Invited Papers
- *Oncodiagnosis Panel: Multidisciplinary Assessment and Therapy of Head and Neck Cancer*
- *Point/Counterpoint: Controversial Issues in Neuroradiology, Part II*
- *Will Tomosynthesis Replace Conventional Mammography?*
- SIR Invited Papers

## Thursday

8:30 a.m. – 6:00 p.m.

### Interventional Oncology Symposium: RSNA/SIR Foundation+

- *Basic Science of Interventional Oncology*

10:10 a.m. – 10:20 a.m.

### RSNA Business Session

1:30 p.m. – 1:40 p.m.

### Inauguration of the 2006 RSNA Board of Directors

1:40 p.m. – 1:50 p.m.

### Introduction of 2006 AAPM Officers and Council Chairs

1:50 p.m. – 2:45 p.m.

### RSNA/AAPM Symposium

- *Molecular Imaging: The Expanding Role of Clinical PET*

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

3:00 p.m. – 4:00 p.m.

### Special Focus Sessions

- *Portable Ultrasound Devices: Threat or Opportunity?*
- *Medical Errors and Patient Safety in Radiology*
- *International Collaboration in Clinical Teleradiology: Stage I*
- *Ensuring Our Future: Integrating Academic and Private Practice Radiology*
- ASNR Invited Papers
- *Cardiac Hybrid Imaging: What's Next?*
- *The Diffusion of Imaging and the Peril of Inappropriate Utilization*
- *Dose and Multidetector CT: What You Need to Know*
- ISMRM Invited Papers

## Friday

8:30 a.m. – 12:00 p.m.

### Interventional Oncology Symposium: RSNA/SIR Foundation+

- *Basic Science of Interventional Oncology*

12:45 p.m. – 3:15 p.m.

### Friday Imaging Symposium

- *Cardiac CT Imaging*

Moderators: Richard D. White, M.D., and Suhny Abbara, M.D.

Panelists: Suhny Abbara, M.D., Christoph R. Becker, M.D., Richard D. White, M.D., and Frandies P. Chan, M.D., Ph.D.



# Refresher Courses

RSNA 2005 offers 299 refresher courses on traditional and cutting-edge topics.



Robert A. Novelline, M.D.  
Chairman, RSNA Refresher  
Course Committee

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

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

For more information or to register for courses, go to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Registration, Housing & Courses in the left-hand column.

**AMA PRA category 1 CME credits and Category A CE credits for technologists are available.**

## **New!** Refresher Course Tracks

Four new course tracks are available this year. They are in cardiac radiology, emerging technologies, radiology education and vascular radiology. In addition, 136 new refresher courses are available.

## **New!** Case-based Review Course and SAMs

A case-based review in radiation oncology has been added to the curriculum.

Audience-response system (ARS) technology helps course instructors tailor case-based courses to the knowledge level of the audience.

In addition, RSNA will offer self-assessment modules (SAMs) for case-based review courses in neuroradiology, interventional radiology and pediatric radiology. You must register in advance for the case-based courses and for a SAM.

You can register online at [rsna2005.rsna.org](http://rsna2005.rsna.org), or RSNA members can go to the refresher course ticket desk at RSNA 2005 and ask for a SAM ticket. SAMs are free for RSNA members. Non-members pay \$50 per SAM.

At the beginning of the case-based course, you can turn in your SAM ticket for an ARS keypad. You will have to enter your badge number. A hard copy of your pre-test and post-test scores, a comparison of your scores to the rest of the class, and a list of references and additional resources will be provided at the end of the course.

## **New!** Essentials of Radiology Courses

Four new Essentials of Radiology courses are available. The Essentials of Radiology is a course series offered in a compact, two-day format designed for general radiologists, residents and subspecialists who want to review other areas of radiology.

The new courses are in abdominal MR, cardiovascular imaging, chest imaging, and head and neck imaging. The four existing courses are in knee imaging, gynecologic pelvic imaging, brain MR and urology.

## **New!** Course Track Organization

Course tracks are now organized by organ system. For example, musculoskeletal MR is included

within the musculoskeletal imaging course track rather than an MR course track. CT of the acute abdomen is included

in the gastrointestinal imaging course track.

## 2005 Categorical Course in Diagnostic Radiology

*Breast Imaging*

Director: Stephen A. Feig, M.D.

## 2005 Categorical Course in Diagnostic Radiology Physics

*Multidimensional Image Processing, Analysis, and Display*

Co-Directors: Samuel G. Armato III, Ph.D., and Matthew S. Brown, Ph.D.

**More detailed information on RSNA 2005 is available at [rsna2005.rsna.org](http://rsna2005.rsna.org).**



### Most Important Components of the RSNA Annual Meeting

A Web-based survey of RSNA 2004 attendees asked participants to rate components of the annual meeting. The top five components were:

1. Refresher courses
2. Interaction with colleagues
3. Update courses
4. Education exhibits
5. Technical exhibits

Source: RSNA

# Interventional Oncology Symposium

## New!

RSNA and the Society of Interventional Radiology (SIR) Foundation are offering a “meeting within a meeting” on interventional oncology. This program runs Monday–Friday and requires registration for RSNA 2005, as well as for enrollment in the course(s).

The first two days, Monday and Tuesday, are devoted to new developments in clinical interventional oncology. The second half of the program, Wednesday, Thursday and until noon on Friday, is focused on the basic science of image-guided interventional oncology.

**RSNA** | Radiological Society of North America  
Founded in 1915

**SIR FOUNDATION**  
Advancing interventional radiology through research and education.

For more information or to register for the symposium, go to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Registration, Housing & Courses in the left-hand column.

A feature article on the symposium was included in the September issue of *RSNA News*, which is available online at [rsnanews.org](http://rsnanews.org).

**AMA PRA category 1 CME credits and Category A CE credits for technologists are available.**

## Digital Mammography Training and Self-Assessment Workshop



## New!

RSNA 2005 will offer a Digital Mammography Training and Self-Assessment Workshop that will allow participants to test their skills and improve their performance in mammography screening using state-of-the-art dedicated softcopy reading workstations.

Sessions are available Sunday–Thursday, November 27–December 1. Advance registration is strongly advised.

For more information, see page 10.

**AMA PRA category 1 CME credits are available.**

# Scientific Paper Sessions

RSNA 2005 will feature more than 1,600 scientific papers in 16 specialties:

- Breast Imaging
- Cardiac
- Chest
- Emergency Radiology
- Gastrointestinal
- Genitourinary
- Health Services, Policy, and Research
- Musculoskeletal
- Neuroradiology/Head and Neck
- Nuclear Medicine
- Pediatrics
- Physics
- Radiation Oncology and Radiobiology
- Radiology Informatics
- Ultrasound
- Vascular and 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 technologic developments, modify academic and clinical practices, and identify and practice research methods.

**AMA PRA category 1 CME credits and Category A CE credits for technologists are available.**

**New!**  
**Integrated Science and Practice**

Integrated science and practice (ISP) sessions combine presentation of scientific abstracts and education exhibits on a given topic. The ISP sessions start with an invited lecturer, followed by prof-

fered abstracts, and some conclude with a panel discussion of the subject.

More information will be available in the November issue of *RSNA News*.

**Invited Papers from Specialty Societies**

Scientific papers from four specialty society meetings will be presented at RSNA 2005 in the Special Focus Session format. Invited papers from the American Society for Therapeutic Radiology and Oncology will be presented on Monday. Invited papers from the Society of Interventional Radiology and the Society of Nuclear Medicine will be presented on

Wednesday. Invited papers from the American Society of Neuroradiology and International Society for Magnetic Resonance in Medicine will be presented on Thursday.



**Gerald D. Dodd III, M.D.**  
RSNA Scientific Program Committee Chairman

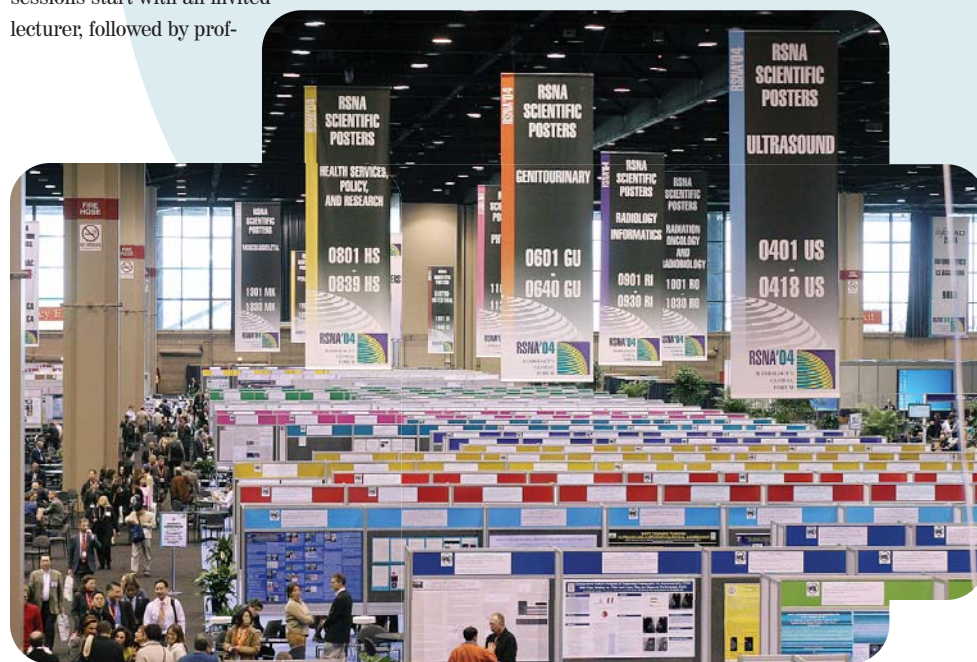
More detailed information on RSNA 2005 is available at [rsna2005.rsna.org](http://rsna2005.rsna.org).

**Number of Days at the RSNA Annual Meeting**

A Web-based survey of people who attended RSNA 2004 found that most spent between three and six days at the meeting.

1-2 days	11.6%
3-4 days	39.0%
5-6 days	42.0%
7 days	7.4%

Source: RSNA



# Scientific Poster Sessions

RSNA 2005 will feature 460 posters covering 16 subspecialties.



Posters allow attendees to evaluate the most current research, identify current and future scientific and technologic developments, modify academic and clinical practices, and identify and practice research methods.

**New!**  
**All Posters in Electronic Format**

Scientific posters are in electronic format on dedicated computers located behind the traditional backboard education exhibits on Level 3, Hall D1 of the Lakeside Center. Presentation theaters are also available, except during the lunch period, for group viewing of scientific posters and electronic education exhibits.

**New!**  
**Integrated Science and Practice**

Integrated science and practice (ISP) poster sessions combine presentation of scientific posters and education exhibits on a given topic.

More information will be available in the November issue of *RSNA News*.

**AMA PRA category 1 CME credit** is available for posters in the Presentation Theaters on Sunday from 12:30 p.m. to 1:30 p.m., and Monday–Thurs-

day from 12:15 p.m. to 1:15 p.m. during which time authors of the posters will be in attendance.

**Scientific Poster Viewing Hours**

**Lakeside Center, Level 3, Hall D**

Sunday . . . . . 8:00 a.m.–6:00 p.m.  
Monday–Thursday . . . 7:00 a.m.–10:00 p.m.  
Friday . . . . . 7:00 a.m.–12:45 p.m.

**Late Night Shuttle Bus**

For the convenience of those who wish to study the posters in the evening, shuttle bus service between hotels in the RSNA hotel block and the Lakeside Center shuttle gates is scheduled Monday–Thursday from 7:00 p.m. until 10:00 p.m. Limited food service is also available from area vending machines during the evening, Monday–Thursday.

## Associated Sciences Consortium

**New!**  
**Format Change for Associated Sciences Program**

The Associated Sciences Consortium has updated the format for its refresher course series and symposium at the RSNA annual meeting. Instead of the refresher courses being spread over six days, four courses will be held on Monday and four will be held on Tuesday during RSNA 2005. The symposium will be held on Wednesday morning.

**Refresher Courses**

**Monday – November 28**

- Capital Asset Management: From Acquisition to Replacement Strategies
- Development of the Radiologist

Assistant: An Education and Certification Update

- HIPAA: Ongoing Impacts and Re-inventions in Radiology
- Joint Commission on Accreditation of Healthcare Organizations National Patient Safety Goals

**Tuesday – November 29**

- PET/CT and SPECT/CT Fusion Imaging: Technical and Clinical Highlights
- The Art and Science of Radiology Planning and Design
- Digital Radiography: A Comparison of Cassetteless and Cassette-based Systems
- Controversies in Image-based Screening

**Symposium**

**Wednesday, November 30 (8:30 a.m. – 12:00 p.m.)**

**Associated Sciences: Radiology's Leaders—Challenges of the Future**

Moderators: Bobbi Miller, B.A., R.T.(R)(M), C.R.A., and Judy LeRose, B.S., R.T.(R), C.R.A.

**A. Tomorrow's Leader: The Radiology Business of the Future**

Patricia Kroken, C.R.A.

**B. Radiology in the Clinical Setting: The Final Frontier**

Suzanne K. Ramthun, M.B.A., R.T.(R), and Carrie E. Abendroth, M.B.A., M.H.A.



**Jordan B. Renner, M.D.**  
Chairman, RSNA Associated Sciences Committee

**C. Education: The Amazing Race**

Carole South-Winter, M.Ed., R.T.(R), C.N.M.T., B.S.

# Education Exhibits

More than 1,200 education exhibits covering 16 subspecialties will be on display at RSNA 2005.

Education exhibits allow attendees 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.

## New!

### Electronic Exhibits in Five Specialties

Education exhibits in neuroradiology, chest radiology, cardiac radiology, uroradiology, vascular/interventional and select other categories are in electronic format. Dedicated computers are available to view these exhibits. Presentation theaters are also available, except during the lunch hour, for group viewing of electronic education exhibits.

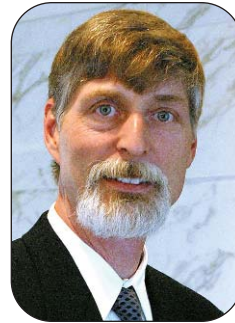
More detailed information on RSNA 2005 is available at [rsna2005.rsna.org](http://rsna2005.rsna.org).

### Cases of the Day

Cases of the Day will be featured Sunday–Thursday in 13 subspecialties in the Education Exhibits area. Attendees can submit a diagnosis electronically at any of the computers located in the

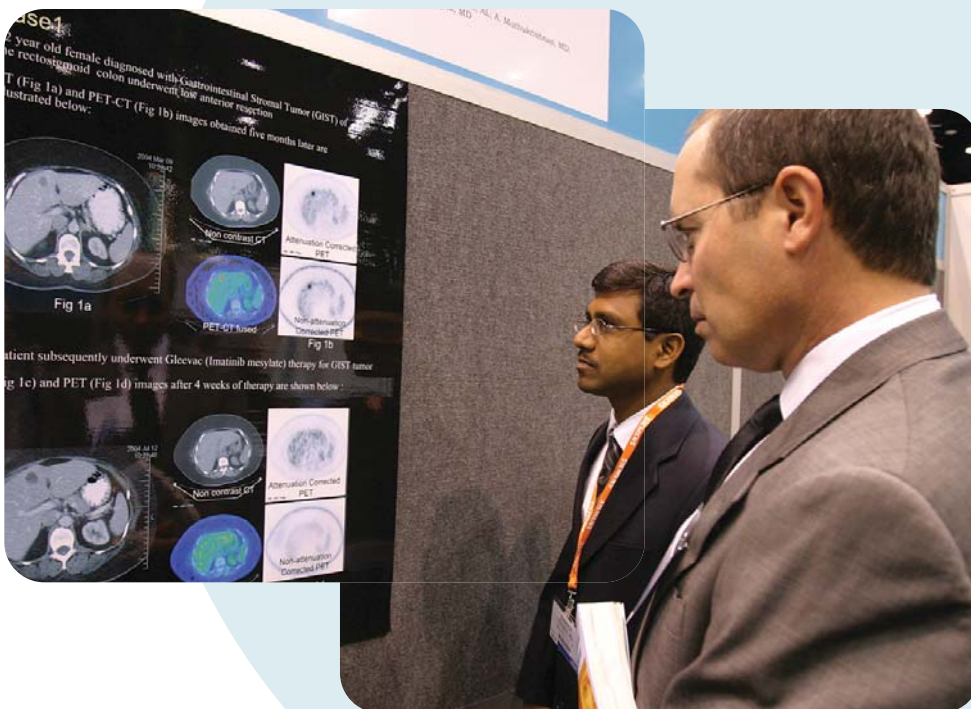
Internet access areas or in the WiFi areas of McCormick

Place. 0.5 category 1 CME credit is available for each correct diagnosis. Revealed cases remain on display for the duration of the week for continued self-study.



**Kerry M. Link, M.D.**  
Chairman, RSNA Education Exhibits Committee

**AMA PRA category 1 CME credit** is available for some exhibits on Sunday from 12:30 p.m. – 1:30 p.m., and Monday–Thursday from 12:15 p.m. to 1:15 p.m., at which time an author of the exhibit will be in attendance. Some computer exhibits will be presented in the presentation theaters on Sunday from 12:30 p.m. – 1:30 p.m., and Monday–Thursday from 12:15 p.m. – 1:15 p.m. Some authors of backboard-panel and standalone exhibits will be available at their exhibit to discuss their presentations as scheduled during these same times.



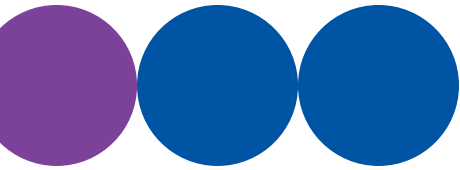
### Education Exhibit Hours

#### Lakeside Center, Level 3, Hall D

Sunday . . . . . 8:00 a.m.–6:00 p.m.  
Monday–Thursday . . . 7:00 a.m.–10:00 p.m.  
Friday . . . . . 7:00 a.m.–12:45 p.m.

### Late Night Shuttle Bus

For the convenience of those who wish to study the posters in the evening, shuttle bus service between hotels in the RSNA hotel block and the Lakeside Center shuttle gates is scheduled Monday–Thursday from 7:00 p.m. until 10:00 p.m. Limited food service is also available from area vending machines during the evening, Monday–Thursday.



# infoRAD Exhibits

infoRAD is the area of the annual meeting devoted to computer applications in radiologic education and practice. It includes a technical exhibition and demonstration area in which vendors display and demonstrate their products. Hands-on Computer Workshops will be held in the infoRAD area.



**Ronald L. Arenson, M.D.**  
Chairman, RSNA Electronic Communications Committee

infoRAD education exhibits and features at RSNA 2005 include:

- Informatics Classroom with IHE, MIRC, RadLex and additional courses
  - Web Classroom
  - NLM/Internet2 Demonstrations
  - Hands-on Computer Workshops
  - Image Manipulation/Analysis
  - Literature Searches/RSNA Journal Searches
  - PACS Classroom
  - Personal Digital Assistants (PDAs)
  - Picture Archiving and Communication Systems (PACS)
  - Practice Management/Workflow/IHE
  - Decision Support/Computer-aided Diagnosis
- New!**
- IHE, MIRC, and RadLex Kiosks

More detailed information on RSNA 2005 is available at [rsna2005.rsna.org](http://rsna2005.rsna.org).

## Informatics Classroom

Courses involving the Integrating the Healthcare Enterprise (IHE) initiative, RSNA Medical Imaging Resource Center (MIRC), Radiology Lexicon (RadLex) project, and RSNA manuscript preparation will take place in this classroom.

Medical professionals and industry experts will share their knowledge to help improve workflow and information sharing in support of optimal patient care. Sessions are designed to showcase the integration capabilities IHE makes possible, provide a detailed understanding of their operational and clinical benefits, and give users and purchasers the tools they need to achieve systems integrations in their institutions. Courses are planned on how to author teaching files by using MIRC; how to set up a system for teaching files and conferences; how to set up a system for clinical trials and research data sets; and discussion of MIRC case studies that

use MIRC software for education and research. A course on the RSNA RadLex project will also discuss uniform terminology in radiology.

## New!

### Ask the Expert Panel

A special panel discussion will be held in the infoRAD Theater on Tuesday, November 29 from 1:30 p.m. – 2:30 p.m., where audience members can “Ask the Expert” questions related to radiologic computing and imaging informatics. Topics will include IHE, DICOM, RIS and PACS, as well as practical issues related to improving workflow and efficiency through the judicious deployment of these technologies.

The panel discussion provides a unique opportunity to discuss specific problems and get feedback from the expert panel and other attendees.

**AMA PRA category 1 CME credit** is available for courses in the infoRAD Tutorial Classroom, the infoRAD PACS Workstation Classroom and the infoRAD Web Classroom.



### Hands-on Computer Workshops

**Hall D  
Lakeside Center**

Sunday–Thursday . . . . . 8:30 a.m.–4:30 p.m.  
Friday . . . . . 8:30 a.m.–12:45 p.m.

### infoRAD Exhibit Hours

Sunday–Thursday . . . . . 8:00 a.m.–5:00 p.m.  
Friday . . . . . 8:00 a.m.–12:45 p.m.

# Technical Exhibits

The Technical Exhibits at the RSNA annual meeting comprise the world's largest medical exhibition. Approximately 700 leading manufacturers, suppliers and developers of medical information and technology showcase an impressive array of radiology products and services.

**Technical Exhibit Hours**  
**Halls A & B**  
**South and North Buildings**  
 Sunday-Wednesday . . . 10:00 a.m.-5:00 p.m.  
 Thursday . . . . . 10:00 a.m.-2:00 p.m.

A comprehensive, up-to-the-minute list of the exhibitors, their products and services is available at [rsna2005.rsna.org](http://rsna2005.rsna.org). Click on Exhibitor List in the left-hand column.

A detailed floor plan of the exhibits area, along with exhibiting company names and contact information, will be available in the *Daily Bulletin* Meeting Guide section.

See page 44 for instructions on how to use the interactive floor plan of the Technical Exhibition.



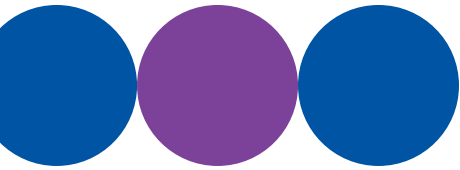
**Dennis Kay, M.D.**  
 Chairman, RSNA Technical Exhibits Committee



**Hours on the Technical Exhibits Floor**  
 One of three RSNA annual meeting attendees spends more than seven hours looking at the technical exhibits, according to a Web-based survey of people who attended RSNA 2004.

7 or more hours . . . . .	32.2%
5-6 hours . . . . .	21.8%
3-4 hours . . . . .	25.5%
0-2 hours . . . . .	20.4%

Source: RSNA



# Expanded WiFi Areas

More wireless access points will be available at McCormick Place during RSNA 2005. These areas will be clearly marked with signs, as well as highlighted in detailed floor maps in the RSNA Meeting Guide.

The wireless access points use the 802.11b protocol, known as wireless fidelity or WiFi. Hotspots will be located in:

- Grand Concourse
- Lakeside Center, Grand Ballroom
- Lakeside Center, near Arie Crown Theater
- New!**
- Lakeside Center, at the front end of Hall D1 in the Education Exhibits/Scientific Posters area
- Lakeside Center, at the far end of the *infoRAD* exhibit area (north end of Hall D2)
- New!**
- North Building, Level 2, between McDonald's and Connie's
- New!**
- South Building, Levels 4 & 5, outside of the classrooms

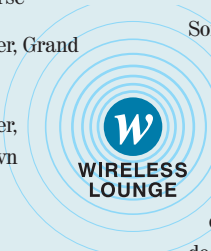
RSNA will also provide computers in Internet access points throughout McCormick Place so that

attendees have access to online meeting information. Most of this information will be available before, during and after the meeting at [rsna2005.rsna.org](http://rsna2005.rsna.org).

Some of the features include:

## Message Center

This is an e-mail facility for communicating with colleagues, exhibitors and others at McCormick Place. Attendees can log in using their badge number. Users outside McCormick Place will be able to send e-mail to attendees by using their badge number *@show-mail.org*. Attendees can assign themselves a password to increase the privacy of messages sent through the Message Center.



Attendees who know the name of their remote POP3 or IMAP mail service will be able to add a temporary account for remote access to their e-mail.

## Attendee Locator

This utility is a quick and easy way to find friends and colleagues who are attending RSNA 2005 and the hotels where they are staying.

## Virtual Briefcase

The Virtual Briefcase is a personal itinerary planner with which attendees can maintain a list of technical exhibitors (My Exhibits), access a personalized floor plan (My Floor Plan) and create a schedule of sessions selected from the *RSNA Meeting Program*.

More detailed information on RSNA 2005 is available at [rsna2005.rsna.org](http://rsna2005.rsna.org).

## Certificate of Attendance

Attendees can use the computers in the Internet access areas to print a personalized certificate of attendance. *Onsite only*

## RSNA Press Releases

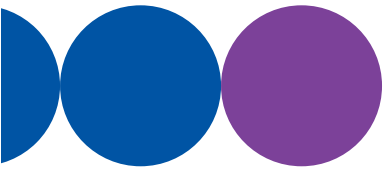
The Media section will include press releases about RSNA 2005, along with daily attendance figures.

## Meeting Announcements

A free electronic bulletin board is available for non-profit associations and institutions to post alumni events, course information and educational activities directly related to radiology. Printed or handwritten announcements will not be accepted. All submissions will be reviewed before posting.







# RSNA Research & Education Foundation 2005-2006 Grants

## The RSNA Research & Education Foundation has announced its grant recipients for 2005-2006.

Like the National Institutes of Health (NIH), the Foundation relies on study sections to evaluate and score grant applications. One study section works on research applications and the other on education applications. During the study section meetings, the primary reviewer for each proposal reads his or her critique and provides a score of 1-5 (1 being the best). The secondary reviewers then give their assessment of the proposal and their scores. The rest of the group scores the application based on the three reviewers' comments and may provide additional evalu-



ation if the proposal is in their area of expertise.

A reviewer summary sheet is sent to each applicant to provide constructive criticism and helpful hints to improve their project design and grantwriting skills.

Foundation Trustees are presented with a rank order of all grants and the funding line is drawn at a point determined by

the amount of available funds. RSNA has supplemented the Foundation's funds for the past three years to ensure that as many meritorious grant applications as possible could be funded.

The Research Study Section, chaired by Maryellen Giger, Ph.D., from the University of Chicago, includes 31 members with expertise in diagnostic radiology, interventional radiology/cardiovascular imaging, molecular imaging,



The study sections met in Chicago this spring to review and score the 2005 grant applications. The Research Study Section is chaired by Maryellen Giger, Ph.D. (left). The Education Study Section is chaired by Ernest J. Ferris, M.D. (right).

radiation oncology/biology and medical physics.

The Education Study Section, chaired by Ernest J. Ferris, M.D., from the University of Arkansas

in Little Rock, includes 14 members with expertise in radiologic education in general, as well as in specific areas of imaging science.

## The following are the Foundation grant recipients for 2005-2006. They will be recognized during RSNA 2005 in the Foundation pavilion.

### Research Scholar Grant

**Bonnie N. Joe, M.D., Ph.D.**  
Berlex Laboratories/RSNA Research Scholar Grant  
Department of Radiology, University of California, San Francisco  
*Non-invasive Evaluation of Fetal Lung Maturity by MR Spectroscopy: Development and assessment of ex vivo and in vivo techniques*

**Joe Y. Chang, M.D., Ph.D.**  
Tyco Healthcare/Mallinckrodt/RSNA Research Scholar Grant  
Department of Radiation Oncology,

University of Texas M.D. Anderson Cancer Center, Houston  
*Radiotherapy Sensitization by Apoptotic Gene Therapy and Molecular Imaging of Apoptosis in a Human Lung Cancer Model*

**Jingfei Ma, Ph.D.**  
Bracco Diagnostics/RSNA Research Scholar Grant  
Department of Imaging Physics, University of Texas M.D. Anderson Cancer Center, Houston  
*Differentiation between Benign and Malignant Vertebral Compression Fractures with Quantitative Diffusion and Fat MR Imaging*

**Christine B. Chung, M.D.**  
GE Medical Systems/RSNA Research Scholar Grant  
Department of Radiology, University of California, San Diego  
*MR imaging of Patellofemoral and Femorotibial Articular Cartilage: Qualitative and Quantitative Assessment with Ultrashort TE (UTE) Imaging*

### Research Fellow Grant

**Bart P Keogh, M.D., Ph.D.**  
Agfa Corporation/RSNA Research Fellow Grant  
Department of Radiology, University of Washington, Seattle  
*Functional Neuroimaging of a Rat Temporal Lobe Epilepsy Model*

### Research Fellowship in Basic Radiologic Sciences

**Michael Rosol, Ph.D.**  
Fonar Corporation/RSNA Research Fellowship in Basic Radiologic Sciences  
Department of Radiology, University of Southern California, Los Angeles  
*Dynamic Tracking of Engraftment and Enhancement of Human Common Lymphoid Progenitor Cells in Vivo using Bioluminescent Imaging*

Continued on next page

# RSNA Research & Education Foundation 2005-2006 Grants

Continued from previous page

## Research Resident Grant

### Jeffrey Miller, M.D.

Agfa Corporation/RSNA Research Resident Grant  
Department of Diagnostic Radiology, Saint Louis University School of Medicine

*Correlation of Neonatal Encephalopathy Severity with Automated Multi-Spectral 3T MRI Tissue Segmentation and Diffusion Tensor Imaging Injury Quantification*

### Rajiv Gupta, Ph.D., M.D.

Cesare Gianturco/RSNA Research Resident Grant endowed by Cook Incorporated

Department of Radiology, Massachusetts General Hospital, Boston  
*Accuracy and Precision of Image-Guided Interventions in Temporal Bone using Ultra-High Resolution Flat-Panel CT*

### Michael A Papagikos, M.D.

Eastman Kodak Company/RSNA Research Resident Grant  
Department of Radiation Oncology, Wake Forest University School of Medicine, Winston-Salem, N.C.  
*Manganese-Enhanced Magnetic Resonance Imaging of Radiation-Induced Normal Rat Brain Injury Following Clinically Relevant Fractionated Whole Brain Irradiation*

### Bradley Foerster, M.D.

GE Medical Systems/RSNA Research Resident Grant  
Department of Radiology, University of Michigan, Ann Arbor  
*Imaging and Treatment of Metastatic Breast Cancer with Molecular Based Techniques Using Engineered Bacteria*

### Darren P. Lum, M.D.

Hitachi Medical Systems/RSNA Research Resident Grant  
Department of Radiology, University of Wisconsin Hospital and Clinics, Madison  
*Non-Invasive Measurement of Pressure Gradients Across Stenotic Vascular Lesions with Time-Resolved Phase Contrast MRA: Validation in a Swine Model*

### Mary Frances McAleer, M.D., Ph.D.

Siemens Medical Solutions, Inc./RSNA Research Resident Grant  
Department of Radiation Oncology, Thomas Jefferson University Hospital, Philadelphia  
*Characterization of the Radiation Response in Zebrafish Embryos*

### Marta Heilbrun, M.D.

RSNA President's Circle Research Resident Grant  
Department of Radiology, Wake Forest University Health Sciences, Winston-Salem, N.C.  
*A Non-Human Primate Model for Quantitative CT Volumetric Measures of Obesity and Cardiovascular Disease Risk Factors*

## Research Seed Grant

### Jan Grimm, M.D.

FUJIFILM Medical Systems/RSNA Research Seed Grant  
Department of Radiology—Center for Molecular Imaging Research, Massachusetts General Hospital, Charlestown  
*Tracking of Monocytic Cells to Atherosclerotic Plaques In Vivo by SPECT/CT*

### David J. Hall, Ph.D.

Philips/RSNA Research Seed Grant  
Department of Radiology, University of California  
*The Development of a Full-field Time Domain Optical Molecular Imaging System*

### Amita Dave, Ph.D.

Philips/RSNA Research Seed Grant  
Departments of Medical Physics and Radiology, Memorial Sloan Kettering Cancer Center, New York City  
*Predicting Prostate Cancer Aggressiveness by Multiparametric MR*

### Steven Burrell, M.D., F.R.C.P.C.

Siemens Medical Solutions, Inc./RSNA Research Seed Grant  
Department of Radiology, Dalhousie University, Halifax, Nova Scotia  
*123I-Iodo-alpha-Methyl Tyrosine SPECT: A New Method for Evaluation of Brain Metastases*

### Ann-Katherine Carton, Ph.D.

Philips/RSNA Research Seed Grant  
Department of Radiology, University of Pennsylvania, Philadelphia  
*Quantitative Comparison of Contrast-Enhanced Digital Tomosynthesis and Magnetic Resonance Imaging of Breast Cancer*

### G. Wilson Miller, Ph.D.

Toshiba Medical Systems, Inc./RSNA Research Seed Grant  
Department of Radiology, University of Virginia, Charlottesville, Va.  
*Evaluation of Three Methods for Regional Mapping of Intrapulmonary Oxygen Partial Pressures with Helium-3 MRI*

### Igor N. Pronin, M.D., Ph.D.

Toshiba Medical Systems, Inc./RSNA Research Seed Grant  
Department of Radiology, Burdenko Institute of Neurosurgery, Moscow  
*Pre-Operative and Intra-Operative Assessment of the Involvement of the Corticospinal Tract by Brain Tumors by Mathematical Modeling of Diffusion Tensor MRI*

## Holman Pathway Research Resident Seed Grant

### Andres Rahal, M.D.

Stentor/RSNA Holman Pathway Research Resident Seed Grant  
Department of Radiology, University of Texas Health Science Center at San Antonio  
*Improved Specificity of MRI Diagnosis of Collagenous Lesions in Tendon*

### Christopher D. Willey, M.D., Ph.D.

Varian Medical Systems/RSNA Holman Pathway Research Resident Seed Grant  
Department of Radiation Oncology, Vanderbilt University Medical Center, Nashville, Tenn.

*The Role of Membrane Derived Second Messengers and Phosphatases in Response to Radiation Treatment of Lung Cancer*

## Medical Student/Scholar Assistant Grant

### Pooja R. Rohatgi, B.A.

RSNA Medical Student/Scholar Assistant Grant  
Assistant to: Joe Y. Chang, M.D., Ph.D., RSNA Research Scholar  
Department of Radiation Oncology, University of Texas M.D. Anderson Cancer Center, Houston  
*Radiotherapy Sensitization by Apoptotic Gene Therapy and Molecular Imaging of Apoptosis in a Human Lung Cancer Model*

## Medical Student

## Departmental Program Grant

### Columbia University Medical Center, New York City – Radiology Department

RSNA Medical Student Departmental Program Grant  
Medical Student: Peter Y. Shen  
Scientific Advisor: John Pile-Spellman, M.D., and John H. Rundback, M.D.

Department Chair: Philip O. Alderson, M.D.

*Asymptomatic Unruptured Intracranial Aneurysm Screening Feasibility Study (AURIAS)*

### University of California, Los Angeles – Radiology Department

RSNA Medical Student Departmental Program Grant  
Medical Student: Jared Allen, Ph.D.  
Scientific Advisor: Jonathan Goldin, M.D., Ph.D.

Department Chair: Dieter R. Enzmann, M.D.  
*Assessment of Airway Reactivity in Asthma by Functional Computed Tomography*

### Georgetown University, Washington, D.C. – Radiology Department

Canon USA, Inc./RSNA Medical Student Departmental Program Grant  
Medical Student: Amy White  
Scientific Advisor: Filip Banovac, M.D.

Department Chair: James B. Spies, M.D.

*Longitudinal Outcomes and Parametric Analysis of a Large Database of Patients after Uterine Artery Embolization for Fibroids: UAE Implications in Symptomatic Relief, Quality of Life, Imaging Outcomes, Recurrence and Complications*

### Duke University Medical Center, Durham, N.C. – Radiology Department

FUJIFILM Medical Systems/RSNA Medical Student Departmental Program Grant  
Medical Student: Srinivas Peddi  
Scientific Advisor: James Provenzale, M.D.

Department Chair: Carl Ravin, M.D.  
*Use of Diffusion Tensor Imaging for Assessment of Leukodystrophies*

### Albert Einstein College of Medicine, Bronx, N.Y. – Nuclear Medicine Department

Philips/RSNA Medical Student Departmental Program Grant  
Medical Student: Jahan Aghalarpour  
Scientific Advisor: Suman Jana, M.D.  
Department Chair: M. Donald Blaufox, M.D., Ph.D.

*Comparison between Cesium and CT Attenuation Correction of PET Images*

### Northwestern University, Chicago – Radiology Department

RSNA Medical Student Departmental Program Grant  
Medical Student: Joseph Y. Young, B.S.  
Scientific Advisor: Reed A. Omary, M.D., M.S.

Department Chair: Eric J. Russell, M.D.  
*MRI Monitoring of Transcatheter Hepatic Artery Embolization of Liver Tumors*

### University of Texas Health Science Center, San Antonio – Radiation Oncology Department

RSNA Medical Student Departmental Program Grant  
Medical Student: Adrian Wong  
Scientific Advisor: Charles R. Thomas Jr., M.D.

Department Chair: Terence S Herman, M.D.  
*Assessment of Quality of Life and Toxicity in the Treatment of Abdominal Malignancies Utilizing BAT Daily Ultrasound Targeting for Intensity Modulated Radiotherapy*

### University of California, San Diego – Radiology Department

RSNA Medical Student Departmental Program Grant  
Medical Student: Gautam Bahl  
Scientific Advisor: Claude B. Sirlin, M.D.

Department Chair: William G. Bradley, M.D., Ph.D.  
*Magnetic Resonance Imaging Quantitative Texture Analysis of Liver Fibrosis*

### Baylor College of Medicine, Houston – Radiation Oncology Department

RSNA Medical Student Departmental Program Grant  
Medical Student: Snehal Desai  
Scientific Advisor: Bin S. Teh, M.D.,

# RSNA Research & Education Foundation 2005-2006 Grants

and E. Brian Butler, M.D.  
Department Chair: Michel E. Mawad, M.D.

*Pelvic Lymph Nodes Mapping and Its Implications*

**Emory School of Medicine, Atlanta – Radiology Department**  
RSNA Medical Student Departmental Program Grant  
Medical Student: Andrew Styperek, A.B.

Scientific Advisor and Department Chair: Sanjay Saini, M.D., M.B.A.  
*Imaging ABCs: A cost comparison of imaging service models*

**University of California, San Francisco – Department of Radiology**  
RSNA Medical Student Departmental Program Grant  
Medical Student: Jeffrey J. Hom, B.A.  
Scientific Advisor: Gautham P. Reddy, M.D., M.P.H.  
Department Chair: Ronald L. Arenson, M.D.

*Velocity-encoded cine phase-contrast MR imaging of aortic coarctation: Functional assessment of hemodynamic compromise before and after stent placement*

## World Wide Web-Based Educational Program Grant

**Judith K. Amorosa, M.D.**  
GE Medical Systems/RSNA World Wide Web-Based Educational Program Grant  
Department of Radiology, University of Medicine & Dentistry of New Jersey/Robert Wood Johnson Medical School, New Brunswick  
*Developing a Radiology Clerkship Companion for Medical Students*

**Walter Huda, Ph.D.**  
Department of Radiology, SUNY Upstate Medical University, Syracuse, N.Y.  
J.A. Seibert, Ph.D.  
Imaging Research Center, University of California Davis, Sacramento  
RSNA World Wide Web-Based Educational Program Grant  
*Physics Teaching File for Radiology Residents*

## International Radiology Education Program Grant to “Teach the Teachers” from Emerging Nations

**Barry B. Goldberg, M.D.**  
RSNA International Radiology Education Program Grant to “Teach the Teachers” from Emerging Nations  
Department of Radiology, Thomas Jefferson University, Philadelphia  
*“Teaching the Teachers” Initiative for Ultrasound Training in Latin America*

## Educational Scholar Program Grant

**W. Robert Lee, M.D., M.S.**  
Philips/RSNA Educational Scholar Program Grant  
Department of Radiation Oncology, Wake Forest University School of Medicine, Winston-Salem, N.C.  
*Development and Validation of a Radiation Oncology Assessment System (ROAS)*

### New!

## RSNA/APDR/AUR/SCARD Educational Radiology Research Development Grant

**Kitt Shaffer, M.D., Ph.D.**  
RSNA/APDR/AUR/SCARD Educational Radiology Research Development Grant  
Department of Radiology, Brigham and Women’s Hospital, Boston  
*Investigation of the Use of 3D Modeling Software to Enhance Teaching of Radiologic Anatomy*

## Institutional Clinical Fellowship in Cardiovascular Imaging

**Johns Hopkins University, Baltimore, Md. – Radiology Department**  
GE Medical Systems/RSNA Institutional Clinical Fellowship in Cardiovascular Imaging  
**Accepting applications for 2006-07 fellowship position**  
Scientific Advisor: David A. Bluemke, M.D., Ph.D.  
Department Chair: Jonathan Lewin, M.D.

*Johns Hopkins University Cardiovascular Imaging Fellowship*  
**Mayo Clinic, Rochester, Minn. – Radiology Department**  
RSNA Institutional Clinical Fellowship in Cardiovascular Imaging  
**Accepting applications for 2006-07 fellowship position**  
Scientific Advisor: Jerome F. Breen, M.D.  
Department Chair: Stephen J. Swensen, M.D.

*Mayo Clinic - Clinical Fellowship in Cardiovascular Imaging: Cardiac MR and CT Emphasis*

**Cleveland Clinic Foundation – Radiology Department**  
RSNA Institutional Clinical Fellowship in Cardiovascular Imaging  
**Accepting applications for 2006-07 fellowship position**  
Scientific Advisor: Richard D. White, M.D.  
Department Chair: Michael T. Modic, M.D.  
*Cleveland Clinic Foundation Cardiovascular Tomography Fellowship Program*

**Stanford University, Calif. – Radiology Department**  
RSNA Institutional Clinical Fellowship in Cardiovascular Imaging  
Participating Fellow: TBD  
Scientific Advisor: Geoffrey D. Rubin, M.D.  
Department Chair: R. Brooke Jeffrey, M.D.  
*Stanford University Cardiovascular Imaging Fellowship*

## Institutional Fellowship in Radiologic Informatics

**Brigham and Women’s Hospital, Boston – Radiology Department**  
Philips/RSNA Institutional Fellowship in Radiologic Informatics  
Participating Fellow: TBD  
Scientific Advisor: Katherine P. Andriole, Ph.D.  
Department Chair: Steven E. Seltzer, M.D.  
*Radiologic Informatics Fellowship Program at Brigham and Women’s Hospital*

## 2005 Roentgen Resident/Fellow Research Award

This award is to recognize and encourage residents and fellows who have made substantial contributions to their department’s research initiatives.

**Muneeb Ahmed, M.D.**  
Beth Israel Deaconess Medical Center

**Nicola Ally, M.D.**  
Howard University Hospital

**Biral Amin, M.D.**  
New York Methodist Hospital

**Jeff Anderson, M.D., Ph.D.**  
University of Utah Health Sciences Center

**Liva Andreeva, M.D.**  
Baystate Medical Center

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**Roxana G. Baluna, M.D., Ph.D.**  
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University of Toronto

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Rhode Island Hospital/Brown Medical School

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University of Pittsburgh Medical Center

**Veeral Bhoot, D.O.**  
Mercy Catholic Medical Center

**Andrew J Bierhals, M.D., M.P.H.**  
Washington University

**Todd M. Blodgett, M.D.**

University of Pittsburgh Medical Center Presbyterian

**Nicole S. Burbank, M.D.**  
Wake Forest University Baptist Medical Center

**Mark K. Buyyounouski, M.D., M.S.**  
Fox Chase Cancer Center

**Eric B. Callaghan, M.D.**  
The University of Iowa Hospitals and Clinics

**Matthew L. Cavey, M.D.**  
University of Texas Medical Branch

**Keith A. Cengel, M.D., Ph.D.**  
University of Pennsylvania

**Matthew D. Cham, M.D.**  
University of Rochester Medical Center

**Yen-Lin Chen, M.D.**  
Massachusetts General Hospital

**Delphine L. Chen, M.D.**  
Mallinckrodt Institute of Radiology  
Washington University School of Medicine

**Clara Yong Hyon Choi, M.D., Ph.D.**  
Stanford University

**Aamer Rasheed Chughtai, M.B.B.S., M.Sc., F.R.C.R.**  
University of Michigan Medical Center

**Benjamin Chung Lee, M.D.**  
Mount Sinai School of Medicine

**Deborah Citrin, M.D.**  
National Capital Consortium/  
National Cancer Institute

**Jeffrey A. Cochiolo, M.D.**  
Albany Medical Center

**Michael S. Conley, M.D., Ph.D.**  
Indiana University School of Medicine

**Tyler Lee Crawford, M.D.**  
David Geffen School of Medicine at UCLA

**Laurie W. Cuttino, M.D.**  
Virginia Commonwealth University

**Aditya R. Daftary, M.B.B.S.**  
Yale University School of Medicine

**Douglas A. Dougherty, M.D., Ph.D.**  
Stony Brook Health Sciences Center

**Olga Lucia Duran-Castro, M.D.**  
Center for Magnetic Resonance Research  
University of Minnesota

**James Eaton, M.D.**  
Tripler Army Medical Center

**Achilles Fakiris, M.D.**  
Indiana University School of Medicine

**Tanya M. Fields, M.D.**  
University of Kentucky Medical Center

**Maureen S. Filipek, M.D.**  
Oregon Health & Science University

**Brian Zach Fowler, M.D.**  
Emory University School of Medicine

*Continued on next page*

# RSNA Research & Education Foundation 2005-2006 Grants

Continued from previous page

**Erik S. Fraley, M.D.**  
West Virginia University

**Jorge Alex Garcia-Young, M.D.**  
Drexel University College of Medicine

**Brian P. Giles, M.D.**  
The University of Texas Southwestern Medical Center at Dallas

**Aashish Goela, M.D.**  
The University of Western Ontario

**Jeffery D. Gordon, M.D.**  
Mayo Clinic Rochester

**E. Ronald Hale, M.D., M.P.H.**  
University of Rochester Medical Center

**Asif R. Harsolia, M.D.**  
William Beaumont Hospital

**Amir Hedayati, M.D.**  
New York Medical College

**Travis Henley, M.D.**  
Louisiana State University Medical School, Shreveport

**Joseph M. Herman, M.D.**  
University of Michigan Medical School

**John K. Hopkins, M.D.**  
Feinberg School of Medicine of Northwestern University

**Janet K. Horton, M.D.**  
University of North Carolina Hospitals

**Candace M Howard-Claudio, M.D., Ph.D.**  
Thomas Jefferson University Hospital

**Terese L. Howes, M.D.**  
University of Iowa hospitals and Clinics

**Ferdinand K. Hui, M.D.**  
Virginia Commonwealth University

**Francis Isidoro, M.D.**  
University of Tennessee Medical Center

**Stephen E. Jones, M.D., Ph.D.**  
Massachusetts General Hospital

**Lavanya Kalla, M.B.B.S.**  
University of Arkansas for Medical Sciences

**Jeffrey P. Kanne, M.D.**  
University of Washington

**Kenneth J. Kolbeck, M.D., Ph.D.**  
University of Pennsylvania Medical Center

**Chi Wan Koo, M.D.**  
St. Luke's Roosevelt Hospital Center

**Bridget F. Koontz, M.D.**  
Duke University Medical Center

**Jeremy Kuniyoshi, M.D.**  
University of California, San Diego

**Douglas Lake, M.D.**  
Medical University of South Carolina

**Kenneth S. Lee, M.D.**  
Henry Ford Hospital

**Ilya Lekht, M.D.**  
Emory University School of Medicine

**Robert J. Lewandowski, M.D.**  
William Beaumont Hospital

**Amy Liebeskind, M.D.**  
Lenox Hill Hospital

**Bernice Ling, M.D.**  
University of Alberta

**John Lysack, M.D.**  
Queen's University

**Blair MacDuff, M.D.**  
Memorial University of Newfoundland

**John D. MacKenzie, M.D.**  
Brigham and Women's Hospital

**Maria A. Manning, M.D.**  
University of Maryland Medical System

**Daria Manos, M.D.**  
Dalhousie University

**Mary Frances McAleer, M.D., Ph.D.**  
Jefferson Medical College

**Cornelia McCluskey, M.D.**  
The Barret Center for Cancer Prevention, Treatment and Research

**Bradford S. McCrary, M.D., Ph.D.**  
University of Kansas Medical Center

**Douglas Kyle McDonald, M.D.**  
Texas A&M HSC/Scott & White Hospital

**R. Ashley Milam, M.D.**  
Vanderbilt University Medical Center

**Todd Miller, M.D.**  
Albert Einstein College of Medicine/Montefiore Medical Center

**Laszlo Miskolczi, M.D.**  
Jackson Memorial Hospital

**Brian Missett, M.D.**  
University of California, San Francisco

**Alan T. Monroe, M.D.**  
University of Florida

**Josh Moosikasuwana, M.D.**  
North Shore University Hospital

**Sandra Mun, M.D.**  
University of Texas Medical Branch

**Kiran R. Nandalur, M.D.**  
University of Virginia Health System

**William T. O'Brien Sr., D.O.**  
David Grant Medical Center

**Timothy Ozburn, M.D.**  
University of Tennessee Medical Center

**Parag Parikh, M.D.**  
Washington University in St. Louis

**Athos Patsalides, M.D.**  
Georgetown University Hospital

**Vicent Pelsser, M.D.**  
McGill University

**Thinh P. Phan, M.D.**  
University Of California, Irvine

**Gabriel Pivawer, D.O.**  
Long Island College Hospital

**Kelli B. Pokorny, M.D.**  
Albert Einstein Medical Center

**Jeffrey M. Pollock, M.D.**  
University of South Alabama Medical Center

**Ravi S Prasad, M.D.**  
UMDNJ - Robert Wood Johnson Medical School

**Aimee L. Quan, M.D.**  
Cleveland Clinic Foundation

**Dejana Radulovic, M.D.**  
University of Manitoba

**Neena M. Reddy, M.D.**  
University of California, Davis School of Medicine

**Ramesh Rengan, M.D., Ph.D.**  
Memorial Sloan-Kettering Cancer Center

**Maura E. Ryan, M.D.**  
Hartford Hospital

**Amit M. Saindane, M.D.**  
NYU School of Medicine

**Kevin Sanders, M.D., Ph.D.**  
University of Texas M.D. Anderson Cancer Center

**Shawn N. Sarin, M.D.**  
Aultman Hospital

**Sharon Schlossberg, M.D.**  
Albert Einstein College of Medicine/Jacobi Medical Center

**Rodney G. Shaffer, M.D.**  
Geisinger Medical Center

**David B. Siepmann, M.D.**  
Dartmouth-Hitchcock Medical Center

**Clare S. Smith, M.B., B.Ch. B.A.O.**  
Memorial Sloan-Kettering Cancer Center

**Benjamin D. Smith, M.D.**  
Yale University School of Medicine

**Matthew C. Solhjem, M.D.**  
Mayo Clinic

**Ashok Srinivasan, M.D.**  
The Ottawa Hospital, University of Ottawa

**Erik S. Storm, D.O.**  
Walter Reed Army Medical Center National Capital Consortium Radiology Residency

**William Strub, M.D.**  
University of Cincinnati

**Joshua West Stuhlfaut, M.D.**  
Boston University Medical Center

**Jon Benjamin Trecek, M.D.**  
Tulane University Health Sciences Center

**Michelle Udeshi, M.D.**  
St. Vincent's Medical Center

**Gary D. Ulaner, M.D., Ph.D.**  
University of Southern California LAC/USC Medical Center

**Alexandra Talia Vertinsky, M.D.**  
University of British Columbia

**Timothy D. Wagner, M.D., M.B.A.**  
Roswell Park Cancer Institute

**Zhen Jane Wang, M.D.**  
University of California, San Francisco

**Alex Williams, M.D.**  
University of Kentucky Chandler Medical Center

**Darcy J. Wolfman, M.D.**  
Ochsner Clinic Foundation

**Liyuan Yu, M.D.**  
Upstate Medical University

**Syed Furqan Zaidi, M.D.**  
Beth Israel Medical Center

**Steven R Zieber, M.D.**  
Grand Rapids Medical Education & Research Center for Health Professions/Michigan State University

**Falguni Amin-Zimmerman, M.D.**  
University of Louisville Health Science Center

For more information about any of the RSNA Research & Education Foundation grant programs, go to [RSNA.org/foundation/index.cfm](http://RSNA.org/foundation/index.cfm).



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Online donations can be made at [RSNA.org/research/foundation/donation](http://RSNA.org/research/foundation/donation).

## EDUCATION RESEARCH

# Program and Grant Announcements

## Revitalizing the Radiology Research Enterprise

October 21-22, 2005 • Chicago Marriott Oak Brook

THIS RSNA program focuses on the challenges of and strategies for conducting research in radiology and radiation oncology departments. Geared toward department chairs and department research directors, the program will feature presentations, case studies and group discussions.

Two representatives from each department may attend.

For more information, contact Tracy Schmidt at (1-630) 368-3751 or [tschmidt@rsna.org](mailto:tschmidt@rsna.org).



## RSNA Research & Education Grant Deadlines

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

For more information, go to [RSNA.org/foundation/index.cfm](http://RSNA.org/foundation/index.cfm) or contact Scott Walter at (1-630) 571-7816 or [swalter@rsna.org](mailto:swalter@rsna.org).

Continued on next page

# Program and Grant Announcements

Continued from previous page

**NEW!**

## Grantsmanship Seminar

October 17, 2005 • George Washington University Marvin Center, Washington, D.C.

The National Institute of Biomedical Imaging and Bioengineering (NIBIB) and the Washington Academy of Biomedical Engineering (WABME) are offering a one-day grantsmanship seminar that will provide an overview of NIBIB funding opportunities and the NIH application, review and grant-making processes and policies.

For more information, go to [www.rsvpreister.com/event.php?69144](http://www.rsvpreister.com/event.php?69144).

## Image-Guided, Minimally Invasive Diagnosis & Treatment of Prostate Cancer

October 27-29, 2005 • Loews L'Enfant Plaza Hotel, Washington, D.C.

The 3rd international public conference on Innovative Solutions for Prostate Cancer Care will be held this fall in Washington, D.C. The goal of "Image-Guided, Minimally Invasive Diagnosis & Treatment of Prostate Cancer" is to review the current state of the art in and to expedite development and implementation of new technologies in the

area of prostate imaging and image-guided treatment.

This conference is sponsored and organized by AdMeTech, in cooperation with the National Cancer Institute and National Electrical Manufacturers Association.

For more information, go to [www.admetech.org/conferences.php](http://www.admetech.org/conferences.php).



## RSNA Advance Course in Grant Writing

A dozen people participated in the RSNA Advance Course in Grant Writing, held in September at RSNA Headquarters in Oakbrook, Ill. It was the first of four sessions for the group. Janet S. Rasey, Ph.D. (right), a professor of radiation oncology and director of research funding at the University of Washington in Seattle, was the course instructor.

For more information on the program, go to [RSNA.org/research/educational\\_courses.cfm](http://RSNA.org/research/educational_courses.cfm).



## Personal Financial Management Strategies Seminars

November 26, 2005 • McCormick Place, Chicago

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

### Protecting Assets From Creditor Claims, Including Malpractice Claims

10:00 a.m. – 12:00 p.m.

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

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

### Effective Real Estate Investment Strategies

1:00 p.m. – 5:00 p.m.

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

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

For seminar questions, contact the RSNA Education Center at (1-800) 381-6660 x3747 or [ed\\_ctr@rsna.org](mailto:ed_ctr@rsna.org). To register, go to [RSNA.org/register](http://RSNA.org/register).

# Journal Highlights

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

## Facing the New Threats of Terrorism: Radiologists' Perspectives Based on Experience in Israel

**B**ECAUSE of the complexity of injuries encountered in terror attack victims, fast and accurate imaging plays an essential role in triage and identification of abnormalities associated with these types of injuries.

In a special review article in the October issue of *Radiology* ([RSNA.org/radiologyjnl](http://RSNA.org/radiologyjnl)), Jacob Sosna, M.D., and colleagues from Hadassah University Hospital at the Hebrew University Medical School in Jerusalem describe their experience with terror events in Israel and why

the radiologist has become a crucial part of the first-line team of physicians treating these patients.

The article describes the steps involved in imaging victims of terror attacks, including conventional radiography, focused abdominal sonography in trauma (FAST), CT, and angiography, with the judicious use of supplemental imaging.

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

### Radiology



Coronal whole-body CT scout image demonstrates multiple metal objects projected over the chest. Two additional metal objects (arrows) that had not previously been noted on conventional chest radiographs are seen projected over the neck and mid-abdomen.

(*Radiology* 2005;237:28-36) © RSNA, 2005. All rights reserved. Printed with permission.

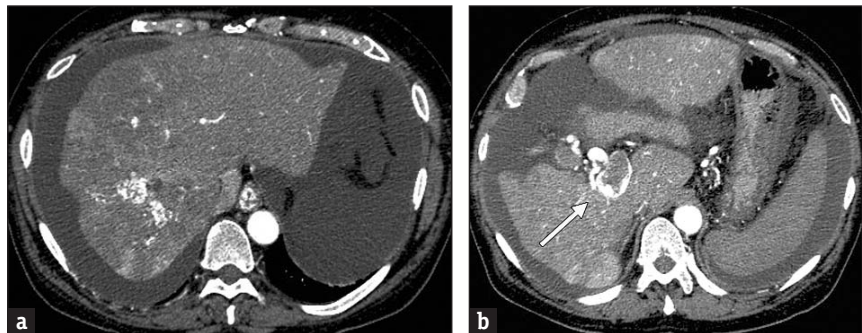
## Staging and Current Treatment of Hepatocellular Carcinoma

**E**ARLY-STAGE hepatocellular carcinoma (HCC) is typically clinically silent and is often advanced at first manifestation. Without treatment, the five-year survival rate is less than five percent.

### RadioGraphics

While many factors must be considered before treatment is selected, a multidisciplinary approach that includes surgery, systemic therapy and radiation therapy may offer the best chance of a cure or at least a longer and more normal life.

In an article in the special October monograph issue of *RadioGraphics* ([RSNA.org/radiographics](http://RSNA.org/radiographics)) that highlights vascular and interventional radiology, Hollins P. Clark, M.D., and colleagues from the Wake Forest University School of Medicine in Winston-Salem, N.C., describe an algorithm for the management of HCC, with emphasis on surgical resection, hepatic trans-



**Pretreatment assessment of HCC in a 57-year-old man with Child-Pugh class B cirrhosis.** (a, b) Axial contrast-enhanced CT images show a heterogeneously enhancing, infiltrative, multifocal HCC and tumor thrombus in the main portal vein (arrow in b).

(*RadioGraphics* 2005;25:3-23) © RSNA, 2005. All rights reserved. Printed with permission.

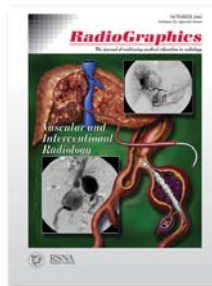
plantation, radiofrequency ablation, transarterial chemoembolization, selective internal radiation therapy and systemic chemotherapy

The approach is based on the cooperation of radiation oncologists, interventional and diagnostic radiologists, hepatologists and pathologists.

The article describes how to:

- Identify the anatomic and clinical parameters that influence the treatment options and prognosis for patients with HCC.
- Discuss the evolving role of image-guided therapies in the treatment of HCC.
- Describe the limitations of traditional surgical and medical management of HCC.

This article meets the criteria for 1.0 CME credit.



# Radiology in Public Focus

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

## Benign versus Malignant Breast Masses: Optical Differentiation using US to Guide Optical Imaging Reconstruction

**O**PTICAL tomography with ultrasound localization can non-invasively differentiate between benign and malignant breast lesions.

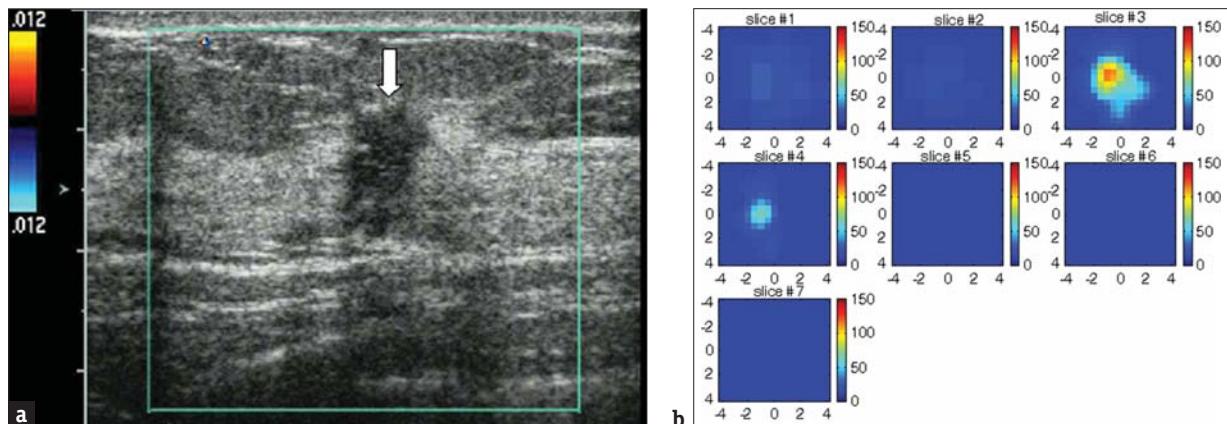
Quing Zhu, Ph.D., from the University of Connecticut in Storrs, and colleagues prospectively investigated 81 breast lesions in 65 female patients. The

patients, who underwent ultrasound-guided biopsy, were scanned with an ultrasound system combined with a near-infrared (NIR) imager that provided functional images of tumor angiogenesis and tumor hypoxia.

The researchers found eight invasive carcinomas and 73 benign lesions. Both

maximum and average total hemoglobin levels were statistically significantly higher in the malignant group than in the benign group.

“We believe our technique of using optical tomography with ultrasound localization has demonstrated a great potential for non-invasively distinguishing malignant and benign masses and therefore a potential role for reducing benign biopsies,” the researchers wrote.



**US image and hemoglobin concentration maps of infiltrating lobular carcinoma located at the 12 o'clock position in the right breast of 37-year-old woman.**

(a) US image demonstrates lesion (arrow) measuring 1 cm in diameter. No blood vessels or blood flow was seen at color Doppler US. (b) Total hemoglobin concentration map computed from absorption maps (not shown) obtained at 780 nm and 830 nm. Hemoglobin map reveals isolated high concentration mass in sections three (slice #3) and four (slice #4). Maximum hemoglobin concentration was 102.1  $\mu\text{mol/L}$ , and average hemoglobin concentration was 68.7  $\mu\text{mol/L}$ . Vertical scale presents total hemoglobin concentration in micromoles and ranges from 0 to 150  $\mu\text{mol/L}$ .

(*Radiology* 2005;238:57-66) © RSNA, 2005. All rights reserved. Printed with permission.

## Media Coverage of Radiology

In August, 103 media outlets carried news stories generated from articles appearing in *Radiology*. These stories reached an estimated 56 million people.


Cerebral blood flow and dementia (*Radiology* 2005;236:990-995) was carried by *The New York Times*, NBC News Channel, Scripps-Howard News Service, United Press International, WebMD, Yahoo! News, *foxnews.com* and *detnews.com*, among others.

Incidental findings at virtual colonoscopy (*Radiology* 2005;236:519-526) continued to receive coverage with placements in the *Seattle Times*, *The Post Standard* (Syracuse, N.Y.), *Grand Rapids Press* (Mich.), *The Gazette* (Canton, Ohio), *The Repository* (Colorado Springs, Colo.) and Ivanhoe Broadcast News.

Diagnostic imaging's role in health-

care costs (*Radiology* 2005;235:934-939) was covered by the *Boston Globe*. Breast tissue perfusion in post-

menopausal women taking hormone replacement therapy (*Radiology* 2005;235:36-41) was featured in *First for Women*. Monitoring ovarian cancer therapy with MR imaging (*Radiology* 2005;235:918-926) appeared in *Physician's Weekly*.

 RSNA press releases are available at [RSNA.org/media](http://RSNA.org/media).



# Working For You

## Exploring Your Future in Radiology

For the fourth year, RSNA will sponsor the Exploring Your Future in Radiology career day program for Chicago Public High School students at the RSNA annual meeting. The program provides students with the opportunity to learn more about radiology and related career opportunities through lectures, hands-on workshops, career presentations and tours of technical exhibits.

About 40 Chicago Public High



School students participate annually. This year's program will be held on Thursday, December 1.

## Welcome New Attendees

First-time attendees of the RSNA annual meeting will receive a Welcome New Attendees kit. It contains a variety of literature designed to make RSNA 2005 a more user-friendly experience, such as a list of frequently asked questions and answers, information about important educational components of the meeting, a *Pocket Guide*, an RSNA membership application and maps of Chicago and McCormick Place.

## Accounting Department

THE RSNA Accounting Department works quietly behind the scenes to help keep RSNA and the RSNA Research & Education Foundation fiscally responsible.

Under the direction of Comptroller Sally Nikkel, the 10-member department is involved in every aspect of the Society's day-to-day activities.

Accounting is the financial nervous system of RSNA. The department provides accurate financial statements and financial reports, oversees the annual budget process and develops long-range financial forecasts.

Even the smallest transaction that originates in any RSNA department will be ana-

### Working for you DEPARTMENT PROFILE

lyzed and documented by the Accounting Department. It all integrates into the big financial picture of the Society.

The Accounting Department reports to RSNA Assistant Executive Director Mark Watson, C.P.A.



(back row, from left)  
**Jeff Gorman**  
**Marie King**  
**Roberta Spoczynski**  
**Susan Miller**  
**Sally Nikkel, Comptroller**  
 (front row, from left)  
**Myran Windham**  
**Olimpia Ballmaier**  
**Theresa St. John**  
**Jil Wu**  
**Lina Pondelick**

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 Subscription Department at (1-877) RSNA-MEM [776-2636] (U.S. and Canada), (1-630) 571-7873 or [membership@rsna.org](mailto:membership@rsna.org).

# Product News

## FDA APPROVAL

### Advanced Imaging Mobile C-Arm System

**T**HE U.S. Food and Drug Administration has granted 510(k) clearance to Siemens Medical Solutions ([www.usa.siemens.com](http://www.usa.siemens.com)) for ARCADIS Avantic, a new mobile C-arm system designed for advanced imaging requirements.

ARCADIS Avantic has several cutting-edge specifications, including 20 kW of power—the strongest in the industry—up to 250 mA output and an industry leading 13-inch image intensifier that results in a generous field of

view. In addition, the new design features reduced weight and smaller footprint requirements, a color-coded brake and a compact, swiveling operating panel.

The new system is equipped with a digital imaging chain that generates and manages all image data at a resolution of 1024 x 1024 pixels from acquisition to documentation. Two 18-inch flat monitors display images as well as results in Digital Cine Mode (DCM). Image sequences



are acquired and stored at speeds of up to 30 frames per second.

## NEW PRODUCT

### 3 MP Color LCD Monitor

Eizo Nanao Technologies Inc. ([www.radiforce.com](http://www.radiforce.com)) has released RadiForce® R31, a 3 megapixel LCD monitor for CT, MR imaging, PET and 3D rendering.

Each color is supported with 10-bit color input compatibility, providing a crisp image for 3D color ren-



dering and fusion images.

All RadiForce monitors are DICOM-calibrated. The new R31 comes with EIZO's image rotation technology, allowing for easy switching between landscape or portrait modes, and various calibration mode settings.

## NEW PRODUCT

### Software Allows Integration of CT Simulation Tools

New AcQSim3 software from Philips Medical Systems ([www.medical.philips.com](http://www.medical.philips.com)) enables the integration of leading CT simulation tools into the Pinnacle3® radiation oncology system from Philips.

AcQSim3 is the only commercial, full CT simulation system on the market with absolute marking for simplified radiation therapy planning.

AcQSim3 can be configured as a CT simulation system by itself or as a complete simulation and external beam planning system, including 3D planning and intensity-modulated radiation therapy, as well as optional Syntegra™ image registration.



## NEW PRODUCT

### Expanded Non-Contrast MR Angiography

Toshiba America Medical Systems, Inc. ([www.medical.toshiba.com](http://www.medical.toshiba.com)) is offering Contrast Improved Angiography (CIA), providing better visualization of smaller vessels with greater contrast and better separation of arterial and venous blood flow using MR.

Incorporating flow-adjusted technology, CIA provides detailed images without the need for costly contrast material and enables radiologists to perform reproducible noninvasive MR angiography.

CIA is available on Toshiba's Excelart Vantage™ MR system, which incorporates high-performance imaging capabilities into a patient-focused design with dramatically reduced scan noise.

# News about RSNA 2005

## Final Advance Registration

**November 11, 2005**, is the final advance registration deadline for RSNA 2005. North Americans who register in advance will have their registration materials mailed to them prior to the meeting. International attendees whose registration forms are received by **October 28, 2005**, will have their registration materials mailed to them. If registered after October 28, international documents will be available for pick-up onsite at Professional Registration in the Lakeside Center, Level 2, Hall E, Desk A.



## Register in Advance

There are four ways to advance register for RSNA 2005:

### 1 Internet

Go to [rsna2005.rsna.org](http://rsna2005.rsna.org). Use your member ID# from the *RSNA News* label or meeting flyer sent to you. If you have questions, send an e-mail to [rsna@itsmeetings.com](mailto:rsna@itsmeetings.com).



### 2 Fax

(24 hours)  
(1-800) 521-6017  
(1-847) 940-2386

### 3 Telephone

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

### 4 Mail

ITS/RSNA 2004  
108 Wilmot Rd., Ste 400  
Deerfield, IL 60015-5124  
USA

## Register Onsite

Those who register in advance can wear their badge at McCormick Place and proceed into the exhibit halls and classrooms. Those who need to register onsite should proceed to Professional Registration in the Lakeside Center, Level 2, Hall E.

### Hours of Operation

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

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

## Housing Deadline

The deadline for housing reservations and changes through RSNA is **November 7, 2005**. After that date, you can contact the hotel directly. For more specific information, go to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Registration, Housing & Courses in the left-hand column.

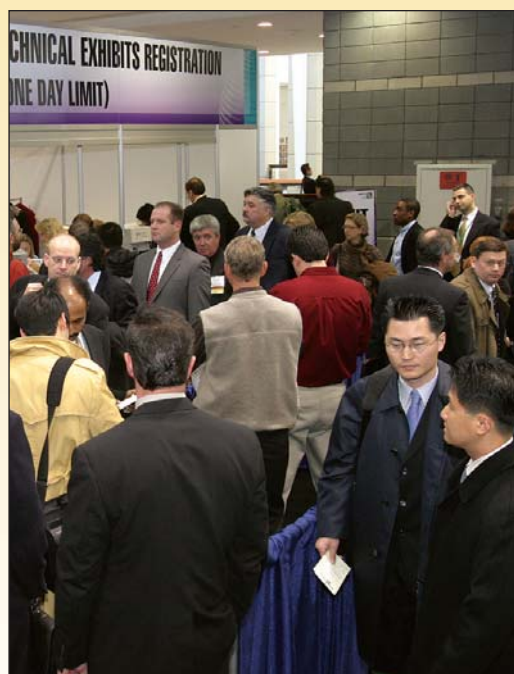
## Registration Fees

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

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

For more information about registration at RSNA 2005, visit [rsna2005.rsna.org](http://rsna2005.rsna.org), e-mail [reginfo@rsna.org](mailto:reginfo@rsna.org), or call (1-800) 381-6660 x7862.

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



# Navigating RSNA 2005

To make the most of the annual meeting, you should be familiar with some of the publications, procedures and features of RSNA 2005.



## Name Badge

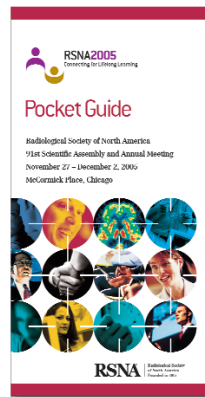
You must wear your name badge at McCormick Place to attend RSNA courses or events or to enter the exhibit halls. The bar code on the name badge will be scanned upon entry and exit of the exhibit halls. Data accumulated from the scanning process will be used only by RSNA to determine exhibit hall activity.



## 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 2005 *Pocket Guide* is an important, easy-to-use reference guide for the annual meeting. It includes two main sections: **Overview of the RSNA Scientific Assembly and Annual Meeting**

- 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

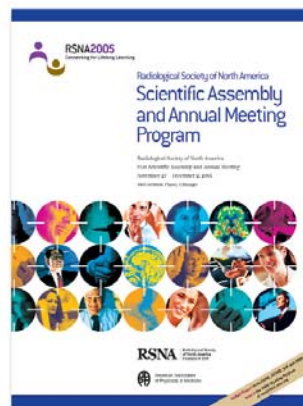
## Traveling to and from McCormick Place

- Shuttle bus schedules, routes and boarding locations
- Taxi fees, loading and unloading areas
- Airport transportation service with times, cost and

boarding information

- Complete Metra Train System schedule outlining station locations, times and drop-off destinations
- Parking lot locations, hours and fees

Transportation information is also available online at [rsna2005.rsna.org](http://rsna2005.rsna.org). Click on Transportation in the left-hand column.



## RSNA Meeting Program

One complimentary copy of the *RSNA Meeting Program* is available with the presentation of a blue, red or green badge ticket stub at Registration or one of the Help Centers. Additional copies of the *RSNA Meeting Program* will be available to RSNA members at Education Center Stores for \$10 each. New copies are available for \$45 each to holders of badges of colors other than blue, red or green.

The *RSNA Meeting Program* is also available at [rsna2005.rsna.org](http://rsna2005.rsna.org). The

online version makes it quick and easy to search and customize your schedule at RSNA 2005. The program will be available online in early October and will remain online after the meeting.



## Daily Bulletin

The *Daily Bulletin* is the official newspaper of the RSNA annual meeting. It features overnight news from the meeting and new products and services from some of the technical exhibitors. The newspaper can be found in bins throughout McCormick Place. The overnight news section will also be available online at [RSNA.org/bulletin](http://RSNA.org/bulletin).

The *Meeting Guide* includes floor maps of McCormick Place, various program schedules 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 **shuttle bus service** to and from McCormick Place. A dedicated bus lane makes the trip quick and easy, even during rush hours. Routes servicing 35 hotels in the RSNA block use the dedicated lane.

A free **Metra Train System** pass will be included with the annual meeting registration materials. Metra trains run from two downtown Chicago stations (Randolph Street and Van Buren Street) to the McCormick Place Station. The trip is approximately seven minutes.

For more information

about shuttle bus service and Metra, including the arrival and departure schedules, go to *rsna2005*.

*rsna.org* and click on Transportation in the left-hand column.



**One-Day Badge**

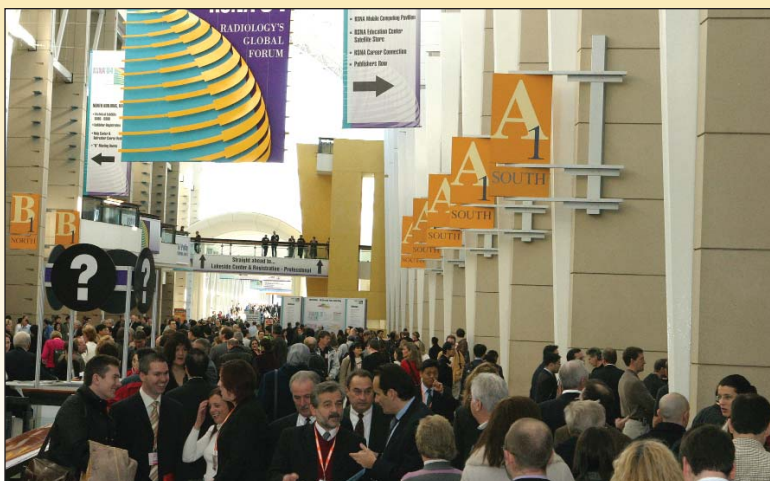
A one-day badge is available to view the technical exhibits area only. The badge can be purchased onsite on the day of use for \$300 at Exhibitor Registration. Attendance for more than one day requires a full

conference purchase at Professional Registration, Lakeside Center, Hall E, Level 2.

**International Information**

The following services are available at RSNA 2005 to assist international attendees:

- Certificate of Attendance – Attendees can use the computers in the Internet access points to print a personalized certificate of attendance.
- Foreign Currency Exchange Services – Exchange foreign currency, cash foreign or U.S. denominated traveler’s checks or purchase phone
- Interpretation Services – International attendees will be assisted at the Help Centers and at Professional Registration with their conference questions in the following languages: Chinese, French, German, Italian, Japanese, Korean and Spanish.
- ESA Voyages will be available at the Help Center (Grand Concourse, Level 3) and at Professional Registration (Desk A, Lakeside Center, Level 2, Hall E) to assist with questions.



**Important Dates for RSNA 2005**

- Oct. 28** International deadline to have full-conference badge and tickets mailed in advance
- Nov. 7** Final housing reservation deadline
- Nov. 11** Advance registration deadline
- Nov. 27–Dec. 2** RSNA 91st Scientific Assembly and Annual Meeting

■ For more information about registration at RSNA 2005, visit *rsna2005.rsna.org*, e-mail *reginfo@rsna.org* or call (1-800) 381-6660 x7862.

# RSNA 2005 Exhibitor News

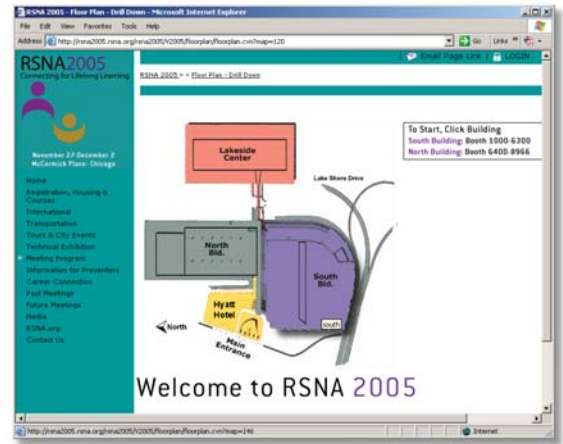
## View the Online Technical Exhibition Floor Plan

**A**N INTERACTIVE technical exhibition floor plan for RSNA 2005 is available online.

Go to [rsna2005.rsna.org](http://rsna2005.rsna.org), click on 2005 Technical Exhibition in the right-hand section and then click on Floor Plan in the center gray box. You'll see a footprint of the three McCormick Place buildings.

In addition to the RSNA services area in the Lakeside Center,

the Society will have booth 1100 in the South Building. To find it, click on South Building, then drag the mouse over the various sections until you find section 1 (top left corner), click on it and then click on booth 1100. You'll see contact information and a description of the RSNA services that will be available in the booth.



## Submission Deadline for New Products

All exhibitors can take advantage of a free promotional outlet for the new products and services they will be offering at RSNA 2005.

The RSNA *Daily Bulletin* features a daily *New Products and Services* section.

The deadline to submit materials for the section is 4:00 p.m. Central Time on **October 12, 2005**. Submissions received after that time will be considered on a space-available basis. For specific details and submission



requirements, see the Technical Exhibitor Service Kit at [rsna/te/servicekit/service-kit.htm](http://rsna/te/servicekit/service-kit.htm).

■ For up-to-date information about technical exhibits, go to [rsna2005.rsna.org](http://rsna2005.rsna.org).

**RSNA2005**  
Connecting for Lifelong Learning



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

## Final Exhibitor Mailing

The primary contact at each exhibiting company will receive a package in early November that will include one *Pocket Guide*, one *Exhibitor Information Guide*, vouchers for the RSNA Meeting Program and pertinent updates on registration and exhibitor functions.

## Exhibit Space Summary

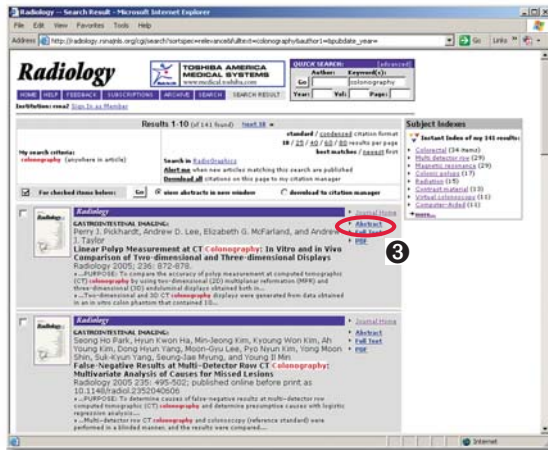
As of September 2, the technical exhibition at RSNA 2005 will encompass 477,730 square feet with 656 companies registered to exhibit, including 98 first-time companies.

## Important Exhibitor Dates for RSNA 2005

- Oct. 12** RSNA net early bird deadline  
New Products submission deadline
- Oct. 14** Exhibitor Appointed Contractor Request Form deadline
- Oct. 21** Attendee mailing list request deadline
- Oct. 28** Exhibitor booth giveaways approval deadline  
Raffle notification form deadline  
Exhibitor badge order deadline
- Nov. 4** Housing changes and cancellations deadline  
Exhibitor individual housing deadline  
Function space requests deadline
- Nov. 11** Technical exhibit space assignments close
- Nov. 27–** RSNA 91st Scientific  
**Dec. 2** Assembly and Annual Meeting

■ For more information, contact RSNA Technical Exhibits at (1-800) 381-6660 x7851 or e-mail [exhibits@rsna.org](mailto:exhibits@rsna.org).

# RSNA.org



## Searching RSNA's Peer-Reviewed Journals

*Radiology Online* and *RadioGraphics Online* offer a literature search tool that even “techno-phobes” find easy to use.

Go to [RSNA.org/radiologyjnl](http://RSNA.org/radiologyjnl). In the lower left-hand column, there is a box called *Quick Search*. ❶ Type in a key word or phrase, such as “colonography,” and click Go. ❷ All of the articles in *Radiology* and *RadioGraphics* that include the word “colonography” in the title, abstract or text from 1999 to the present will be listed. Clicking on Abstract ❸ will allow you to see the abstract for the article. ❹

You can also use the *Quick Search* box to search by author and/or year.



### Demonstration at RSNA 2005

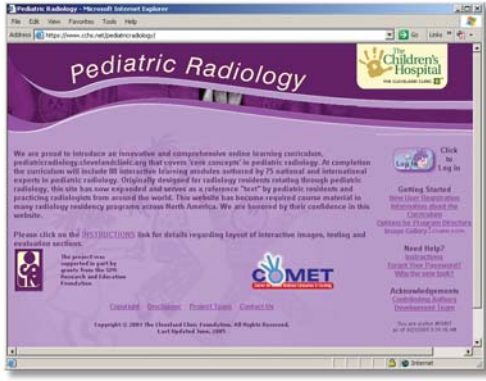
A course will be offered at RSNA 2005 that will help participants perform online literature searches. “Literature Searching Made Easy through the RSNA Web Site: Hands-on Workshop” will be conducted twice, on Monday and on Wednesday, in the *infoRAD* area. To register for this course, go to [rsna2005.rsna.org](http://rsna2005.rsna.org) and click on Register Now!

### OTHER WEB NEWS:

#### Online Pediatric Radiology Curriculum

THE Cleveland Clinic is offering a comprehensive online curriculum, [pediatricradiology.clevelandclinic.org](http://pediatricradiology.clevelandclinic.org), that covers core concepts in pediatric radiology. The curriculum includes 80 interactive learning modules authored by 75 national and international experts in pediatric radiology.

Originally designed for radiology residents rotating through pediatric radiology, the site now serves as a reference text by pediatric residents and practicing radiologists from around the world.



### connections

Your online links to RSNA

- RSNA.org**
- Radiology Online**  
[RSNA.org/radiologyjnl](http://RSNA.org/radiologyjnl)
- Radiology Manuscript Central**  
[RSNA.org/radiologyjnl/submit](http://RSNA.org/radiologyjnl/submit)
- RadioGraphics Online**  
[RSNA.org/radiographics](http://RSNA.org/radiographics)
- RSNA News**  
[rsnanews.org](http://rsnanews.org)
- Education Portal**  
[RSNA.org/education](http://RSNA.org/education)
- RSNA CME Credit Repository**  
[RSNA.org/cme](http://RSNA.org/cme)
- CME Gateway**  
[CMEgateway.org](http://CMEgateway.org)
- RSNA Medical Imaging Resource Center**  
[RSNA.org/mirc](http://RSNA.org/mirc)
- RSNA Career Connections**  
[RSNA.org/careers](http://RSNA.org/careers)
- RadiologyInfo™**  
RSNA-ACR patient information Web site  
[radiologyinfo.org](http://radiologyinfo.org)
- RSNA Press Releases**  
[RSNA.org/media](http://RSNA.org/media)
- RSNA Online Products and Services**  
[RSNA.org/memberservices](http://RSNA.org/memberservices)
- RSNA Research & Education Foundation**  
Make a Donation  
[RSNA.org/donate](http://RSNA.org/donate)
- Community of Science**  
[RSNA.org/cos](http://RSNA.org/cos)
- Membership Applications**  
[RSNA.org/mbrapp](http://RSNA.org/mbrapp)
- RSNA Membership Directory**  
[RSNA.org/directory](http://RSNA.org/directory)
- Register for RSNA 2005**  
[RSNA.org/register](http://RSNA.org/register)
- RSNA 2005**  
[rsna2005.rsna.org](http://rsna2005.rsna.org)

## Chicago Restaurants Dish Up Something for Everyone at RSNA 2005

**A**FTER A full day of attending scientific presentations and viewing the massive technical exhibition at RSNA 2005, meeting attendees and their families can get a taste of Chicago through its wide selection of restaurants. Additional information about Chicago and its many interesting tourist attractions is available from the Chicago Convention and Tourism Bureau Web site at [www.meetinchicago.com/rsna](http://www.meetinchicago.com/rsna).

An expanded list of restaurants is available online at [rsnanews.org](http://rsnanews.org).

### 437 RUSH

437 N. Rush; (312) 222-0101  
This Italian steakhouse, a block off Michigan Ave., offers steak, lobster and Italian fare in a classic room.  
*Expensive*

### AMBRIA

2300 N. Lincoln Park West; (773) 472-5959  
This formal French masterpiece is a favorite of visiting dignitaries and celebrities. Dark wood-paneled walls with mountains of fresh flowers are upstaged only by the food. Generous portions guarantee satisfied diners.  
*Very Expensive*

### ARIA

200 N. Columbus Dr.; (312) 444-9494  
The Fairmont Hotel has made its move into hotel fine dining with Aria, an international restaurant, with dishes ranging from cassoulets to curries. The exotic décor of this earth-toned room matches the extensive, internationally influenced menu. Beautiful plates and flatware along with a glass-enclosed private dining room add to Aria's flair.  
*Expensive*

### AVEC

615 W. Randolph St.; (312) 377-2002  
Popular enough to enforce a no-reservation policy, Avec packs diners into banquettes made of cedar. For those who wish to experiment with the wine list, many interesting vintages are available by the glass or small carafe. Rustic cheeses and in-house made sausages are specialties. Big meat dishes like pork shoulder and fish stew share the menu with tapas-sized dishes like fried sardines with ham and dates stuffed with chorizo and wrapped with bacon.  
*Expensive*

### AVENUES

108 E. Superior; (312) 573-6754  
An elegant, leather-accented restaurant with a view of Chicago's famous Water Tower. This restaurant lifts seafood to new heights with offerings of European fish served in the French style. Some fish are boned tableside, adding an extra level of drama. Game and red meat as well as dessert also receive expert treatment.  
*Very Expensive*

### BEN PAO

52 W. Illinois; (312) 222-1888

The décor of this elegant Asian restaurant is dramatic—artistically lit black slate and red accents are juxtaposed with cascading water and still pools. Vegetarians will delight in the menu, which also features seafood, duck, beef and chicken. In addition to the classic Chinese dishes, the imaginative Asian entrees should be given equal consideration.  
*Moderate*

### THE BERGHOFF

17 W. Adams; (312) 427-3170  
A deeply authentic German restaurant, The Berghoff is a don't-miss Chicago lunch spot. Owned by the Berghoff family, this restaurant has stayed close to its roots, serving veal and creamed spinach. The Berghoff offers a true slice of authentic Chicago German heritage and is considered a Chicago icon.  
*Inexpensive*

### BICE RESTAURANT

158 E. Ontario St.; (312) 664-1474  
The Chicago sister of the well-known Manhattan Bice, home of the power lunch, is also a see-and-be-seen restaurant one block east of Michigan Ave. The art deco rooms are painted in warm Tuscan ochers, golds and oranges. Wonderful pastas compete with seafood and game in contemporary Italian presentations.  
*Expensive*

### BIG BOWL

6 E. Cedar; (312) 640-8888  
60 E. Ohio; (312) 951-1888  
A casually elegant Asian restaurant with good vibes. A large, square bar fronts the dining room; an open kitchen occupies the back.  
*Moderate*

### BLACKBIRD

619 W. Randolph; (312) 715-0708  
Trendy hot spot serves contemporary American cuisine with seasonal emphasis.  
*Expensive*

### BLUE WATER GRILL

520 N. Dearborn St.; (312) 777-1400  
Steps from Michigan Ave., this Manhattan transplant is all about fish with the occasional beef offerings for the carnivores. Complete with a raw bar the shellfish platters, sushi rolls, and creative seafood entries are this tasteful New York-style eatery's mainstay. An impressive wine list and sassy desserts round out the experience.  
*Expensive*

### BOKA

1729 N. Halsted St.; (312) 337-6070  
BOKA offers an American menu under a unique fabric stretched ceiling that is more art than interior decor. The theme here is seafood. Start with the seared Maine scallops with cauliflower puree, or tartar of Atlantic salmon. If you are an oyster fan, the raw bar makes an excellent choice for appetizers. Main courses include traditional steak, chicken and lamb, but back to the seafood: the pan-seared grouper is outstanding.  
*Expensive*

### BRASSERIE JO

59 W. Hubbard St.; (312) 595-0800  
Authentic French in every way, Brasserie Jo serves patrons wonderful French brasserie favorites such as steak frites, endive and blue cheese salad, escargot, steak béarnaise and six preparations of fish, all accompanied with wonderful wines. High ceilings and French music transport you to Chef Jean Joho's Parisian vision, where a warm baguette greets diners at their table.  
*Moderate*

### CAFÉ BA-BA-REEBA!

2024 N. Halsted; (773) 935-5000  
The festivities begin at the door of this DePaul hotspot. Rhythmic Spanish music greets guests before they approach the smiling hosts. The fun and festivities are carried on throughout the restaurant, especially in the mural art created by local artists. Café Ba-Ba-Reeba! specializes in Spanish tapas, paella and sangria. Tapas, small dishes of vegetables, seafood, cheese and Spanish sausages, are fun to share.  
*Inexpensive*

### CAFÉ NORDSTROM

520 N. Michigan; (312) 464-1515  
This stylish cafeteria has revived many an exhausted shopper. Lunch spots in the newly designated North Bridge section of Michigan Ave. are limited, so don't forget this oasis when visiting Nordstrom or the Shops at Nordstrom.  
*Inexpensive*

### CALIFORNIA PIZZA KITCHEN

52 E. Ohio St.; (312) 787-6075  
For the shopping-exhausted, the California Pizza Kitchen offers a well-earned respite. Located two blocks

from Michigan Ave. (also on the 7th floor of Water Tower Place), this sunny restaurant offers 29 individual-sized pizzas, some traditional, but many with fascinating ingredients such as caramelized pears and gorgonzola, barbecue chicken—even tandoori chicken is a popular choice.  
*Inexpensive*

### CALITERRA

633 N. St. Clair; (312) 274-4444  
California meets Italy in this lovely restaurant with views of both the open kitchen and the city. With no outside signs, Caliterra is a hidden treasure. Activity revolves around Caliterra's woks, brick ovens and grills, where the chef combines Italian and California ingredients and cooking styles. Located in the Wyndham Chicago Hotel, one block off Michigan Ave., this versatile restaurant also serves breakfast.  
*Expensive*

### CAPE COD ROOM

140 E. Walton; (312) 787-2200  
The venerable Drake Hotel's Cape Cod Room serves fresh seafood in a comfortable, cozy setting. The décor is reminiscent of a seaside saloon.  
*Expensive*

### CAPITAL GRILLE

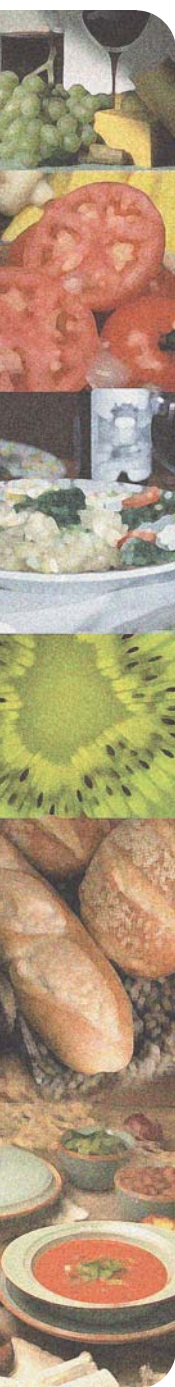
633 N. St. Clair; (312) 337-9400  
One block from Michigan Ave., the Capital Grille offers the best of steak house experiences. Ensnared in the dark wood and leather interior, complete with oil paintings, waiters dressed in white aprons offer robust wines, oversized steaks and side orders as large as entrees. This is a restaurant for a hearty appetite.  
*Expensive*

### CHARLIE TROTTER'S

816 W. Armitage; (773) 248-6228  
Reservations are scarce, and a month's lead-time does not guarantee a table. This world-famous chef has created an experience that can't be duplicated. Choose between the grand menu and the vegetarian menu to begin the parade of imaginative dishes.  
*Very Expensive*

### CHEZ JOEL

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





**CHICAGO CHOP HOUSE**

60 W. Ontario; (312) 787-7100

The 1,400 photos displayed throughout the three-level restaurant feature musicians, meat purveyors, city fathers, gangsters and every Chicago mayor. The first level is available to cigar, pipe and cigarette smokers; the second floor main dining room is cigarettes-only; the third-floor "Skybox" is nonsmoking. A pianist performs in the evening in the first-level room. *Expensive*

**CHILPANCINGO**

358 W. Ontario; (312) 266-9525

Filled with colorful Mexican art, this restaurant serves gourmet Mexican cuisine. *Moderate*

**CHINA GRILL**

230 N. Michigan Ave.; (312) 345-1000

A haven for trendy city-hoppers, the new Hard Rock Hotel gave new life to the neglected Carbide and Carbon Building, which actually looks like it was built out of carbon and carbide. Stop by for a drink at Hard Rock's Base bar or dinner at the China Grill, an Asian-influenced restaurant. The dramatic room is almost overpowered by the impressive menu. *Expensive*

**CHOCOLATE BAR AT THE PENINSULA HOTEL**

108 E. Superior St.; (312) 337-2888

Heaven on Earth for some and certainly not an experience to be duplicated; the Peninsula hotel offers a magnificent \$20 chocolate buffet on Friday and Saturday evenings. Best of all, it is an all-you-can-eat buffet; an absolutely perfect way to end the evening after dinner downtown. *Moderate*

**CITÉ**

505 N. Lake Shore Dr.; (312) 644-4050

For those who want to experience the sophisticated side of Chicago, Cité is a can't-miss choice situated on the rooftop of Lake Point Tower, with one of the best views in Chicago. Cité offers French/Italian fare and is one of the few Chicago establishments to require jackets in both restaurant and bar. The waiters wear tuxedos, the food is first-class and the elegant experience is unforgettable. *Very Expensive*

**COCO PAZZO**

300 W. Hubbard; (312) 836-0900

Tuscan cuisine served in a fabric-draped studio, complete with a beautiful bar. *Expensive*

**CONNIE'S PIZZA**

151 E. Wacker; (312) 565-3661

2373 S. Archer Ave.; (312) 326-3443

With a new location in downtown Chicago, this Windy City favorite serves serious pizza. *Inexpensive*

**DECERO**

814 W. Randolph St.; (312) 455-8114

This lively new addition to the Randolph St. restaurant row offers

regional Mexican specialties in a memorable setting. Some diners like the stylized Roadhouse décor, while other find it somewhat gimmicky. The selection of creative tacos featuring braised duck and sautéed salmon is an excellent choice for sharing. *Moderate*

**D'VINE RESTAURANT & WINE BAR**

1950 W. North; (773) 235-5700

Sleek wine bar serves a fusion of French, Asian and Mediterranean influenced dishes. *Expensive*

**EMPEROR'S CHOICE**

2238 S. Wentworth; (312) 225-8800

This bustling second floor Chinatown favorite offers more than 150 entrées with an emphasis on seafood. Lobster, served seven ways, is highly recommended, as is anything in black bean sauce. Ambitious dishes such as ostrich can be found on the village specials. The only thing lacking is ambiance. Chinatown is a 10-minute taxi ride from downtown or McCormick Place. *Inexpensive*

**EVEREST**

440 S. LaSalle; (312) 663-8920

Enjoy the Alsatian emphasis in the French cuisine served on the 40th floor with a dramatic city view, unless the clouds are low. This elegant restaurant competes with Ambria and Charlie Trotter's for sophisticated dining. *Very Expensive*

**FOGO DE CHÃO**

661 N. LaSalle St.; (312) 932-9330

Fogo de Chão is a Brazilian "churrascaria"—all-you-can-eat meat carved tableside. Waiters dressed as gauchos carry long skewers of chicken, filet mignon, leg of lamb, pork loin, pork ribs, rump steak and sausages from table to table. Brazilian beef has a much grainier texture and more pronounced flavor than American beef. The fixed-price dinner also includes a 30-item salad bar, which can be ordered as a meal. *Expensive*

**FOLLIA**

953 W. Fulton Ave.; (312) 243-2888

Food and fashion unite at this charming Italian restaurant in the market district. Chef owner Bruno Abate serves unpretentious timeless Italian risottos, pastas and entrees with everything cooked to order. Follia's windows are decorated with mannequins wearing haute couture designed by local college students. The clothing and art are available for purchase. *Moderate*

**FRONTERA GRILL**

445 N. Clark; (312) 661-1434

Mexican food is taken to a new level in this festive restaurant five blocks from Michigan Ave. *Moderate*

**GENE & GEORGETTI**

500 N. Franklin; (312) 527-3718

This classic steakhouse in the River

North neighborhood is thoroughly lacking in pretension and offers the best steaks available in the city. Ungarnished steaks are served by waiters who appear to have worked at the restaurant since its inception. This is authentic Chicago—expect to hear thick Chicago accents and perhaps catch sight of a local alderman. *Expensive*

**GINO'S EAST OF CHICAGO**

633 N. Wells; (312) 943-1124

Considered one of the top 10 pizzerias in the nation, Gino's East provides the most authentic Chicago-pizza dining experience available. The Chicago school of pizza-making places the sauce on top, with the ingredients and cheese underneath. Gino's slices weigh in at nearly 1/2 pound, so order your size carefully. *Inexpensive*

**GIOCO**

1312 S. Wabash Ave.; (312) 939-3870

Gioco serves a big-portioned contemporary Italian feast in a Prohibition-era speakeasy. The simple menu is in line with a trattoria, offering tortellini, beef and octopus carpaccios, pizza, veal scaloppini, rabbit, mussels, and seafood. Conveniently close to McCormick Place and downtown hotels. *Moderate*

**GRILLROOM CHOPHOUSE AND WINE BAR**

33 W. Monroe; (312) 960-0000

Wet-aged Certified Angus Beef is the specialty at this Loop/Theater District steakhouse. A variety of non-beef selections including pasta, lamb and seafood are also available. The location and the flexibility of the service make this restaurant a good choice for a pre-theater dinner or drink. The Grillroom offers an amazing selection of 40 wines by the glass. *Expensive*

**THE GRILL ON THE ALLEY**

909 N. Michigan; (312) 255-9009

The Westin Hotel's rendition of the famous Beverly Hills Grill on the Alley serves large steaks, prime rib and seafood in a clubby leather-bound atmosphere. Simple sauces and signature salads are mainstays. Decorated with hundreds of pieces of art, the room is old fashioned with high-backed booths and professional service. A pianist plays nightly in the large lounge. *Expensive*

**GREEN ZEBRA**

1460 W. Chicago Ave.; (312) 243-7100

Vegetarians rarely have much choice when it comes to fine dining—their selections are usually an after thought. Green Zebra has turned the tables, offering upscale vegetarian dishes in a fine dining setting. For the non-vegetarians, chicken and fish are often on the menu. *Expensive*

**HACKNEY'S PRINTERS ROW**

733 S. Dearborn; (312) 461-1116

This local pub is located in one of the

oldest buildings in the south Loop Printers Row neighborhood. The location and neighborhood are as famous and historic as the Hackney-burger. Try the popular deep-fried onion loaf with one of Hackney's many imported tap beers, which include Harp, Bass, Stiegl Pils and Tucher Hefe Weiss. *Inexpensive*

**HEAT**

1507 N. Sedgwick; (312) 397-9818

The ultimate in fresh sushi and sashimi cut to order, sometimes from live fish swimming in the three salt-water tanks. *Expensive*

**HEAVEN ON SEVEN ON RUSH**

600 N. Michigan; (312) 280-7774

Spicy Cajun and Creole dishes are served in an equally stimulating room steps from Michigan Ave., up a steep escalator. Not fancy, but the "feed me" fixed price menus, dependent on the whims of the chef, provide an unforgettable experience. Sunday features a New Orleans Jazz Brunch. *Moderate*

**HOUSE OF BLUES**

329 N. Dearborn St.; (312) 923-2000

Folk art meets European theater design in Chicago's spectacular House of Blues. The House of Blues is all about entertainment, including the House of Blues restaurant, which hosts a blues stage seven nights a week. However, the outsider art is entertainment in itself. The Cajun food offers a great selection and is a perfect fit with the décor—hot and spicy. Make advance reservations for the unforgettable Sunday Gospel Brunch. *Expensive*

**JAPONAIS**

600 W. Chicago Ave.; (312) 822-9600

One of Chicago's hottest new restaurants, Japonais combines industrial and chic in its huge, elegant dark wood/red brick interior in a converted industrial building, completing the transformation from warehouse to restaurant with gold curtains and a waterfall. Japonais offers traditional Japanese sushi, Kobe beef carpaccio, smoked duck, chestnut-encrusted chicken stuffed with shiitake rice and, to finish, the Tokyo Tower—a huge helping of ice cream, sorbets and cookies. *Expensive*

**JOE'S SEAFOOD, PRIME STEAK AND STONE CRAB**

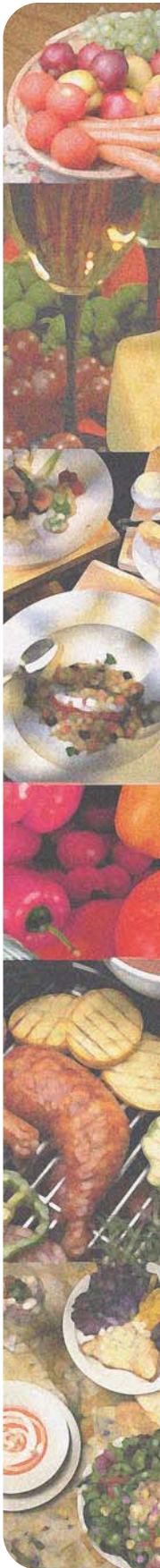
60 E. Grand; (312) 379-5637

This Miami offshoot serves Florida stone crab claws with mustard sauce and steaks in a dining room decorated with vintage black and white photographs. *Expensive*

**JP CHICAGO**

901 W. Weed St.; (312) 337-2001

An American café, JP's serves Prince Edward Island mussels, lamb chops and chocolate cake, among other favorites. However, the room is more

*Continued on next page*

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European than American with vaulted skylights and a sophisticated mahogany bar. JP is tucked away in Old Town on the section of Weed St. that is blooming with nightlife. Plan on a 15-minute taxi ride from downtown. *Expensive*

#### KEVIN

9 W. Hubbard; (312) 595-0055

Kevin delivers an excellent fusion of Asian and French cuisine in a marvelous interior space. Asian influences distinguish the contemporary dining room. Shoji screens, brick walls and hardwood floors blend as beautifully as the cuisine. Located behind Nordstrom, approximately four blocks west of Michigan Ave. *Expensive*

#### LE COLONIAL

937 N. Rush; (312) 255-0088

Located in the heart of Chicago's Rush St. nightlife district, this French-Vietnamese masterpiece features a look back in time to colonial Vietnam. Sugar cane wrapped shrimp, sea bass and filet mignon grace this sophisticated menu. A dimly lit upstairs lounge is the destination for many a late-night romantic meeting. *Expensive*

#### LE LAN

749 N. Clark St.; (312) 280-9100

This restaurant invokes thoughts of Vietnam, when the French colonists brought their cuisine with them and discovered that French fare complements the Asian flavors of Vietnam like a hand in a glove. Le Lan offers a casual but well-thought-out space decorated in the traditional colors of Vietnam—browns, greens and black onyx. Vietnamese spring rolls, foie gras flan, smoked squab, crispy-skinned duck, Vietnamese sea bass and poached lobster are some of the dishes offered in this two-story, intimate building. *Moderate*

#### LES NOMADES

222 E. Ontario; (312) 649-9010

Flawless French food served in a downtown mansion. This elegant restaurant's picturesque entrance is so entrancing that it is occasionally used as the setting for movie scenes. The interior is cozy, warm and inviting. *Very Expensive*

#### MARCHE

833 W. Randolph; (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*

#### MCCORMICK & SCHMICK'S

41 E. Chestnut; (312) 397-9500

This West Coast import is all about fish. The menu offers what is probably the entire day's available catch in Chicago, along with the required token red meat items. Oysters are the house specialty. The dining rooms are clubby with dark wood paneling and

dim lighting. Request a booth. The popular bar serves lighter fare and a late-night menu. *Moderate/Expensive*

#### MEZTISO LATIN BISTRO & WINE BAR

710 N. Wells St.; (312) 274-9500

This new, trendy and convenient River North restaurant with its 100-foot-long bar is of dual cultural heritage—Spanish and Mexican—with a focus on tapas, which are small "tasting plates" brought out when ready, making for an unstructured but interesting experience. Try starting with the Spanish tapas, then move to the Mexican appetizers such as stuffed jalapenos and finish with a Mexican entrée such as carne asada. The wine list features Spanish and Latin American selections. *Moderate*

#### MORTON'S, THE STEAKHOUSE

1050 N. State; (312) 266-4820

The King of steakhouses is famous for its steak and lobster. Located in the center of Chicago's nightlife area. *Expensive*

#### MK, THE RESTAURANT

868 N. Franklin; (312) 482-9179

Creative contemporary dishes superbly offset by this stylish restaurant. Exposed bricks and beams reflect the building's past as a paint factory. *Expensive*

#### MOTO

945 W. Fulton Market Ave.;

(312) 491-0058

Absolutely unique. Chef Homaro Cantu has created a restaurant with an off-the-scale creativity quotient. Tasting menus of seven or 10 courses are offered. Each course is very small, so it is best to opt for the 10-course menu. Moto leans toward raw food, which, by chef Cantu's definition, is food that never sees temperatures above 108 degrees. Each course is presented with some inventive twist. *Very Expensive*

#### NAHA

500 N. Clark; (312) 321-6242

This bright, minimalist restaurant is making a hit with its Mediterranean-influenced American offerings. *Expensive*

#### NICK'S FISHMARKET

51 S. Clark St.; (312) 621-0200

This Loop favorite has fruit reductions and Asian accents to complement the exceptional seafood and fish. The service is outstanding. *Expensive*

#### NINE

440 W. Randolph St.; (312) 575-9900

This steak and seafood restaurant has one of the most interesting and remarked-upon decors in Chicago. Prepare for a visual experience highlighted by the free use of stainless steel, mirrors and expensive wood. No expense was spared; even those that require a champagne and caviar bar serving beluga by the ounce will

feel at home. The upstairs Ghost bar serves a must-try specialty martini. Nine is a good place to watch for celebrities and professional athletes. *Expensive*

#### NOMI

800 N. Michigan; (312) 239-4030

The most noteworthy design element in this minimalist French restaurant is the phenomenal view of North Michigan Ave. and Lake Michigan. *Very Expensive*

#### ONE SIXTYBLUE

160 N. Loomis; (312) 850-0303

Sophisticated contemporary cuisine served to a sophisticated clientele in a setting to match. *Expensive*

#### OPERA

1301 S. Wabash Ave.; (312) 461-0161

"Hip-hop Asian" with clean flavors and dramatic presentations sum up Opera. This four-star restaurant is not something one can experience in a Chinese carry out-box. Interesting sauces—spring onion, five-spice salt and sweet/sour chili sauce—and thoughtful presentations make Opera a unique experience. Draped silk, quilted chair backs, exotic light fixtures and Chinese screens add an undertone of drama to dinner. *Expensive*

#### OSTERIA VIA STATO

620 N. State St.; (312) 642-8450

Convenient for the downtown hotel guest, this Italian masterpiece creates the feel of dining in Italy with waiters swooping in with course after course, each offering more interesting than the one before. Guests select a main course from a chalkboard menu and let the kitchen decide the rest. Seconds are available on everything but entrées. *Expensive*

#### THE PALM

323 E. Wacker; (312) 616-1000

Mammoth prime steaks, lobsters and drinks grace the tables at this popular steakhouse. Hint: reserve your jumbo lobster ahead of time to guarantee availability. The traditional seafood appetizers are well worth sampling. The Palm's personality comes from having walls that are covered with portraits of patrons—the famous as well as the unknown—and cartoons. *Expensive*

#### PARK GRILL

11 N. Michigan Ave.; (312) 521-7275

Chicago's answer to New York's Tavern on the Green, the Park Grill is located in the heart of Chicago's magnificent Millennium Park. Floor-to-ceiling windows allow diners a great view of the ice skaters and Michigan Ave. The menu is American and unpretentious, featuring a double-cut pork chop with port sauce and bone-in rib eye. *Expensive*

#### PENANG

2201 S. Wentworth; (312) 326-6888

Top-notch Malaysian cuisine served

in a simple, cheerful room.

*Inexpensive/Moderate*

#### PETTERINO'S

150 N. Dearborn; (312) 422-0150

Located in the southeast corner of the new Goodman Theatre building, Petterino's specializes in quality pre-theater steaks, chops, pastas and salads. The room and the food are both substantial. Dim lighting artistically blends the dark woods and red leather interior into a comfortable, recognizably 1940s Loop-style restaurant. *Expensive*

#### PIZZERIA UNO AND PIZZERIA DUE

Pizzeria Due: 619 N. Wabash Ave.;

(312) 943-2400

Pizzeria Uno: 29 E. Ohio St.;

(312) 321-1000

Sixty years of Chicago pizza experience culminates into one great pizza tradition split between two downtown Chicago mansions. Pizzeria Uno and Due are across the street from each other at the intersection of Ohio and Wabash. Chicagoans and tourists alike appear to believe the pizza is worth the wait. The basement level Pizzeria Uno has a dark, bar-like environment, while Due's rooms are lighter. *Inexpensive*

#### RHAPSODY

65 E. Adams; (312) 786-9911

This beautiful restaurant is conveniently tucked inside Symphony Center with an outside entrance on Adams St. The conservatory-style dining room is accentuated with towering plants and filled with lovers of food, wine and the arts. Amidst the hustle and bustle of the Loop, Rhapsody's dining room opens onto a downtown rarity, a lovely, hidden garden. *Expensive*

#### RITZ-CARLTON DINING ROOM

160 E. Pearson; (312) 266-1000

Contemporary French masterpieces are served in a comfortable elegant room. *Very Expensive*

#### RL RESTAURANT RALPH LAUREN

115 E. Chicago; (312) 475-1100

Ralph Lauren designed a restaurant that is consistent with his American-style clothing and home accessories. The room is clubby, comfortable and dark. The front bar's mahogany paneling is slightly upstaged by the bookcases and Ralph Lauren-style furniture. The menu is upscale American with Italian accents. The beef is from cattle carefully bred on the actual Lauren ranch. Do not miss out on the memorable desserts. *Expensive*

#### ROOM 22

22 E. Hubbard St.; (312) 527-4900

Just steps off Michigan Ave., the shiny walnut floors and beautiful granite tables of Room 22 appeal to city dwellers and hotel guests alike. The elegant granite and teak bar,



velvet seats and custom LED lighting make for a thoroughly modern experience. Serving a contemporary American cuisine, the menu includes Prosciutto di Parma with melon and golden baby beets with feta cheese, main course choices include short rib of beef and potato pave with wild mushroom, and the creative pepper crusted yellow-fin tuna with red pepper marmalade. *Expensive*

#### ROSEBUD

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

#### ROSEBUD STEAKHOUSE

192 E. Walton; (312) 397-1000  
Rosebud's bone-in filet has won the hearts of Chicago steak enthusiasts. Excellent Italian preparations of chicken, lamb and seafood are also available. The clubby room with its dark wood paneled walls and red leather booths and chairs is a favorite haunt of Chicago's Mayor Daley and other local politicians. The wine list offers a selection of Italian and American wines. Located behind the Drake Hotel. *Expensive*

#### ROY'S CHICAGO

720 N. State; (312) 787-7599  
Hawaiian fusion cuisine, which combines French and Asian cooking techniques, includes hibachi-grilled salmon, blackened tuna and barbecued baby back ribs. Expert wine and food pairings are offered. The bar and a special section of the dining room offer a view of the exhibition kitchen. *Expensive*

#### RUMBA

351 W. Hubbard St.; (312) 222-1226  
This upscale Latin fusion restaurant offers a taste of Cuba, Puerto Rico and South American cuisine. Rumba's Nuevo Latino fare is served in a room reminiscent of the Tropicana nightclub. Thursday thru Sunday, late night guests can tango to live Latin music and occasionally see professional dance performances. Tropical cocktails are a favorite among the sophisticated lounge crowd. Try a caipirinhas or a chocolatada. *Expensive*

#### RUSSIAN TEA TIME

77 E. Adams; (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*

#### SAL & CARVAO

739 N. Clark St.; (312) 932-1100  
Another Brazilian steak house comes to Chicago. This popular River North destination offers a fixed-price meat-on-a-stick smorgasbord. Waiters dressed in Brazilian gaucho attire walk the room with skewers of roasted meats—filet mignon, lamb, beef ribs—to slice and serve tableside

after your feast at one of Chicago's largest salad bars. *Moderate*

#### SEASONS RESTAURANT

120 E. Delaware; (312) 649-2349  
The Four Seasons Hotel provides luxury hotel amenities in its well-respected Seasons Restaurant. The room is elegant, but most important, the large tables are positioned far enough apart to create a sense of intimacy and space not usually found in the city. A variety of tasting menus complete with wine selections accompany the a la carte menu. Seasons is known for light, healthy fare. *Very Expensive*

#### SHAW'S CRAB HOUSE

21 E. Hubbard; (312) 527-2722  
Seasonal seafood is flown in daily from the Atlantic, the Gulf and the Pacific Coast to this popular River North spot. Many of the restaurant's fish and seafood suppliers are pictured on the walls of the Blue Crab Lounge, a New Orleans-themed oyster bar with old blues and torch recordings on the sound system. *Expensive*

#### SMITH & WOLLENSKY

318 N. State; (312) 670-9900  
Sports and steaks are the perfect combination in Chicago. Scattered among the memorabilia and Americana art decorating the walls is a fair assortment of sports-related collectibles and accents. This New York import serves extremely large steaks. The many windows and French doors provide diners with an excellent view of the Chicago River, the Wacker Drive office towers and the State St. Bridge. Lobster cocktail and crabcakes are among the most notable appetizers. *Expensive*

#### SPIAGGIA

980 N. Michigan; (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*

#### SPRING

2039 W. North; (773) 395-7100  
The Zen style of this converted Turkish bathhouse is well matched by the kitchen's harmony. The seafood-dominated menu is influenced by Indian and Asian cuisine. Spring is in the trendy Wicker Park neighborhood, a 15-minute cab ride from downtown. *Expensive*

#### STARFISH

804 W. Randolph St.; (312) 997-2433  
The sushi and maki choices are as endless as the "oohs" and "aahs" that accompany them. The vibrant green walls and red-orange ceiling are a perfect contrast for the dark floors and dim lighting. The music is urban and matches the crowd. *Expensive*

#### SUSHISAMBA RIO

504 N. Wells St.; (312) 595-2300  
A New York transplant, SushiSamba Rio is trendy, hip and flashy. The menu is a mix of Japanese sushi and South American flavors in a stunning room where no architectural expense has been spared. For those who desire style, SushiSamba has it in spades. The beef maki roll is a must-try, and braised rabbit with chipotle mole is the answer to the question of how to fuse Japanese and South American flavors. Sawagani, a Japanese dish of small fresh-water crabs eaten whole, is available for those who are willing to experiment with a crunch. *Expensive*

#### SWK/SUPERIOR WELLS KITCHEN

710 N. Wells St.; (312) 274-9500  
Sophisticated, expensive and American, SWK offers such interesting starters as ostrich satay with peanut sauce, steak tartar, lobster carpaccio and short ribs in Roquefort sauce. A rich start, but it gets even better with main course choices, including sea bass and rib-eye steaks. Fireplaces warm the room and compete for attention with the live orchids that grace the interior. The ultra-sophisticated SWK is an impressive restaurant for business dining. *Very Expensive*

#### TASTE OF SIAM

600 S. Dearborn; (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 large windows and high ceilings add a touch of airiness to this long, narrow room. The menu is extensive and the food is exotic but not too challenging. The crowd is young and urban. *Inexpensive*

#### THYME

464 N. Halsted St.; (312) 226-4300  
Candlelight and a wood toned atmosphere are the background for seasonal foods such as grilled salmon, sliced steak and Nantucket sea scallops at this French-American restaurant. Spit-roasted meat and seafood grace the menu. Thyme's eclectic dining rooms with their array of colors and textures are interesting, welcoming and romantic. The wine list is frequently updated to match seasonal fare. *Expensive*

#### THYME CAFE

1540 N. Milwaukee Ave.; (773) 227-1400  
The little sister of River West's Thyme is deserving of her own acclaim. A contemporary American café serving artichoke fritters in béarnaise sauce and pepper steak along with ingenious desserts might be worth the 15-minute cab ride from downtown. *Moderate*

#### TOPOLOBAMPO

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

#### TRATTORIA NO. 10

10 N. Dearborn; (312) 984-1718  
This subterranean fixture in the Loop has it all. The dark, quiet dining room is divided into intimate spaces by pillars and Italian-style archways. Pin lights add drama to the colorful room. Chicagoans visit Trattoria No. 10 for the amazing pastas, risottos and ravioli dishes. However, meat and seafood lovers will also be pleased. *Expensive*

#### TRU

676 N. St. Clair; (312) 202-0001  
Considered one of the top restaurants in the city, the flashy, contemporary dishes are juxtaposed against the stunning white dining room. This exciting, trendy experience is one block off Michigan Ave. *Very Expensive*

#### TUSCANY

1014 W. Taylor; (312) 829-1990  
Fashionable Northern Italian restaurant suitably situated on Taylor St. *Expensive*

#### VERMILION

10 W. Hubbard St.; (312) 527-4060  
Veering far from the traditional path, Vermilion presents a Latin-Indian fusion menu that, however unusual in combination, surprisingly works well in most cases. Vermilion takes its name from the traditional color of Indian femininity, and the Latin influence is easily seen in the tapas-style menu, where patrons order many small dishes to share, such as roasted baby eggplants or fried plantain dumplings, yucca fries and various curries. Be forewarned, small means small; servings are not large. *Expensive*

#### WAVE

644 N. Lake Shore Dr.; (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*

#### VIVO

838 W. Randolph; (312) 733-3379  
This chic restaurant offers creative Italian fare. *Expensive*

#### ZEALOUS

419 W. Superior; (312) 475-9112  
This warm eggplant and olive room has 18-foot ceilings, texturized walls and a two-story glassed-in wine tower that can hold 6,000 wine bottles. Zealous' kitchen brilliantly combines different foods, textures and flavors. The multiple-course degustation menus are highly recommended. *Expensive*



# Medical Meetings

## November – April 2006

### OCTOBER 30–NOVEMBER 3

Federation of European Cancer Societies, European Cancer Conference (ECCO 13), Palais des Congrès, Paris • [www.fecs.be](http://www.fecs.be)

### NOVEMBER 4–9

Association of American Medical Colleges (AAMC), Annual Meeting, Marriott Wardman Park and Omni Shoreham Hotels, Washington, D.C. • [www.aamc.org](http://www.aamc.org)

### NOVEMBER 6–8

Musculoskeletal Ultrasound Society (MUSOC), 15th Annual International Conference, Rosen Plaza, Orlando • [www.musoc.com](http://www.musoc.com)

### NOVEMBER 12–14

Colégio Brasileiro de Radiologia, 34th Congresso, Meliá, Brazil • [cbr.org.br](http://cbr.org.br)

### NOVEMBER 26

Protecting Assets From Creditor Claims, Including Malpractice Claims, RSNA Education Center, McCormick Place, Chicago • [RSNA.org/education](http://RSNA.org/education)

### NOVEMBER 26

Effective Real Estate Investment Strategies, RSNA Education Center, McCormick Place, Chicago • [RSNA.org/education](http://RSNA.org/education)

### NOVEMBER 27–DECEMBER 2

RSNA 2005, 91st Scientific Assembly and Annual Meeting, McCormick Place, Chicago • [rsna2005.rsna.org](http://rsna2005.rsna.org)

### DECEMBER 7–9

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

### JANUARY 7–13

RSNA Clinical Trials Methodology Workshop, J.W. Marriott Desert Ridge Resort, Scottsdale, Ariz. • [RSNA.org/research/educational\\_courses.cfm](http://RSNA.org/research/educational_courses.cfm)

### JANUARY 19–21

Radiation Therapy Oncology Group (RTOG), Annual Meeting, Fontainebleau Hilton Resort, Miami Beach • [www.rtog.org](http://www.rtog.org)

### FEBRUARY 1–5

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

### FEBRUARY 24–25

4th Biomedical Imaging Research Opportunities Workshop (BIROW 4), Bethesda North Marriott, Bethesda North, Md. • [www.birow.org](http://www.birow.org)

### MARCH 3–7

European Congress of Radiology, ECR 2006, Austria Center Vienna • [www.myeecr.org](http://www.myeecr.org)

### MARCH 12–15

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

### MARCH 19–24

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

### MARCH 23–25

Association for Medical Ultrasound (AIUM), 2006 Annual Convention, Marriott Wardman Park, Washington, D.C. • [www.aium.org](http://www.aium.org)

### MARCH 25–29

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

### MARCH 30–APRIL 4

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

### APRIL 5–8

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

**RSNA**News

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