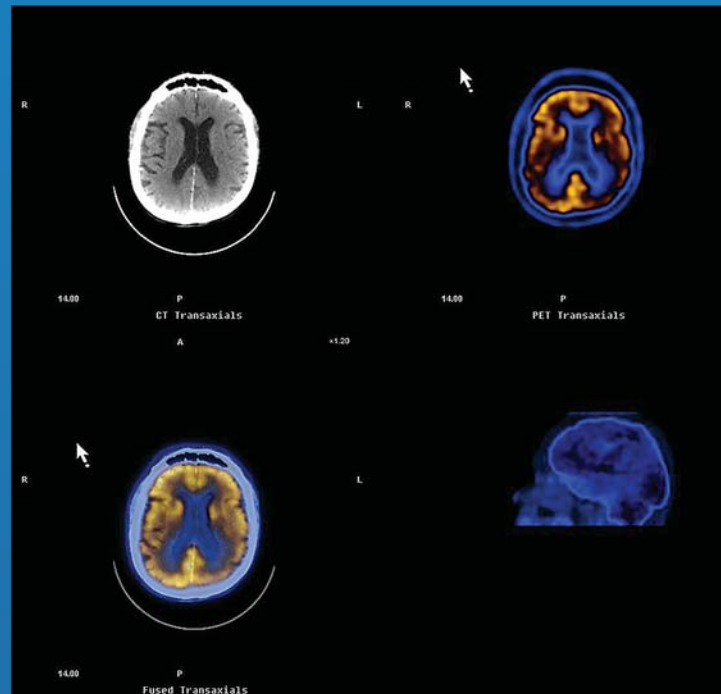


# RSNA *News*



Images courtesy of Michael Kinzer, M.D., PET Fusion Imaging

## Microfluidic Chip Technology May Expand Use of Molecular Imaging Diagnostics for Alzheimer and Other Diseases

### Also Inside:

- Vascular Ultrasound Considered a Win for Radiologists
- Good Eyes + Good Night Sleep = Good Patient Care
- CME Action Plan Helps Direct Lifelong Learning
- RSNA Grant Leads to Routine MR Breast Screening for High-Risk Women

Renew Your RSNA Membership Online  
[RSNA.org/renew](http://RSNA.org/renew)

# RSNA *News*

**1 Announcements**

**3 People in the News**

**4 Board of Directors Report**

## Feature Articles

**5 Microfluidic Chip Technology May Expand Use of Molecular Imaging Diagnostics for Alzheimer and Other Diseases**

**7 Good Eyes + Good Night Sleep = Good Patient Care**

**9 Vascular Ultrasound Considered a Win for Radiologists**

**10 CME Action Plan Helps Direct Lifelong Learning**

## Funding Radiology's Future

**17 RSNA Grant Leads to Routine MR Breast Screening for High-Risk Women**

**18 R&E Foundation Donors**

**12 Journal Highlights**

**13 Radiology in Public Focus**

**14 RSNA: Working for You**

**15 Program and Grant Announcements**

**21 Product News**

**23 Meeting Watch**

**24 Exhibitor News**

**25 RSNA.org**

### RSNA News

February 2006 • Volume 16, Number 2

Published monthly by the Radiological Society of North America, Inc., at 820 Jorie Blvd., Oak Brook, IL 60523-2251. Printed in the USA.

POSTMASTER: Send address correction "changes" to: *RSNA News*, 820 Jorie Blvd., Oak Brook, IL 60523-2251.

Nonmember subscription rate is \$20 per year; \$10 of active members' dues is allocated to a subscription of *RSNA News*.

Contents of *RSNA News* copyrighted ©2006 by the Radiological Society of North America, Inc.

### Letters to the Editor

E-mail: [rsnanews@rsna.org](mailto:rsnanews@rsna.org)  
 Fax: 1-630-571-7837

*RSNA News*  
 820 Jorie Blvd.  
 Oak Brook, IL 60523

### Subscriptions

Phone: 1-630-571-7873  
 E-mail: [subscribe@rsna.org](mailto:subscribe@rsna.org)

### Reprints and Permissions

Phone: 1-630-571-7829  
 Fax: 1-630-590-7724  
 E-mail: [permissions@rsna.org](mailto:permissions@rsna.org)

### RSNA Membership:

1-877-RSNA-MEM

### EDITOR

Bruce L. McClennan, M.D.

### CONTRIBUTING EDITOR

Robert E. Campbell, M.D.

### MANAGING EDITOR

Natalie Olinger Boden

### EDITORIAL ADVISORS

Dave Fellers, C.A.E.

*Executive Director*

Roberta E. Arnold, M.A., M.H.P.E.

*Assistant Executive Director*

*Publications and Communications*

### EDITORIAL BOARD

Bruce L. McClennan, M.D.,

*Chair*

Silvia D. Chang, M.D.

Richard T. Hoppe, M.D.

Valerie P. Jackson, M.D.

Jonathan B. Kruskal, M.D., Ph.D.

Steven M. Larson, M.D.

Stephen J. Swensen, M.D.

Hedvig Hricak, M.D., Ph.D.,

*Board Liaison*

### CONTRIBUTING WRITERS

Dennis Connaughton

Amy Jenkins, M.S.C.

Marilyn Idelman Soglin

### GRAPHIC DESIGNER

Adam Indyk

### WEB DESIGNER

Kathryn McElherne

### 2006 RSNA BOARD OF DIRECTORS

Theresa C. McLoud, M.D.,

*Chair*

Gary J. Becker, M.D.,

*Liaison for Science*

Hedvig Hricak, M.D., Ph.D.,

*Liaison for Publications and*

*Communications*

Burton P. Drayer, M.D.,

*Liaison for Annual Meeting and Technology*

George S. Bisset III, M.D.,

*Liaison for Education*

Sarah S. Donaldson, M.D.,

*Liaison-designate for Science*

Robert R. Hattery, M.D.,

*President*

R. Gilbert Jost, M.D.,

*President-elect*

# RSNA News Wins MarCom Award

RSNA News was presented with a 2005 Gold Award in the international MarCom Creative Competition.

The MarCom Creative Awards honor excellence and recognize the creativity and hard

work of marketing and communication professionals.

The Gold Award was presented to “those entries judged to exceed the high standards of the industry.”



## NIH Director's Pioneer Award Program

APPLICATIONS may be submitted through February 27, 2006 for the National Institutes of Health (NIH) Director's Pioneer Award program—a key component of the NIH Roadmap for Medical Research.

“The Pioneer Award supports exceptionally creative scientists who bring their talents, expertise and perspectives to bear on some of the biggest challenges in biomedical research,” said NIH Director Elias A. Zerhouni, M.D. “It is exciting to watch the program mature as the awardees translate their ideas into action. We are eager to start the next round of selection and add a third cohort to the outstanding group we have already assembled.”

Unlike other NIH grants, which support research projects, the Pioneer Award supports individual scientists. The award gives recipients



the intellectual freedom to pursue new research directions and highly innovative ideas that have the potential for unusually great impact.

For more information, go to [nihroadmap.nih.gov/pioneer](http://nihroadmap.nih.gov/pioneer).

## Medical Imaging Company News:

■ **Naviscan PET Systems**, a privately held company that develops and manufactures high-resolution PET scanners, will relocate its company headquarters to San Diego. “As a major biotech hub, San Diego is a logical choice to marry high technology and biotechnology,” said CEO Paul Grayson.

■ **MEDTEC, Inc.**, of Orange City, Iowa, has been acquired by Roper Industries, Inc., the parent company of **CIVCO Medical Instruments**.

■ **Magellan Health Services Inc.** has agreed to buy privately held radiology benefits management firm **National Imaging Associates Inc.** for about \$122 million in cash.

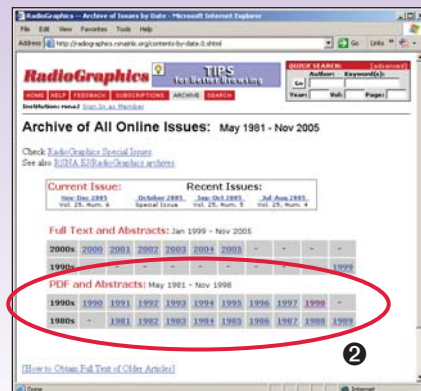
## Legacy Content Available in PDF

Content from *Radiology* and *RadioGraphics* dating back to the early 1980s is now available online in portable document file (PDF) format.

RSNA worked with Google™ to create and archive the PDFs. To access an article, go to

the home page of one of the online journals, click on Select an Issue from the Archive ❶ and click on an issue in the

PDFs and Abstracts section ❷. Once you choose an article, click on PDF ❸.



## RSNA 2005 Provides Important Meeting Venue

IN ADDITION to the popular refresher courses and cutting-edge science presented at the RSNA annual meeting, the venue provided an important gathering place for radiology leaders from around the world.

### Radiology Leaders

The World Leadership Council of the International Society of Radiology met during RSNA 2005 to discuss international cooperation.

(from left) Robert R. Hattery, M.D., RSNA; Peter Baierl, ECR; R. Gilbert Jost, M.D., RSNA; Antonio Chiesa, M.D., ECR; Dave Fellers, C.A.E., RSNA; Miguel E. Stoopan, M.D., CIR; Francisco A. Arredondo, M.D., ISR; Harald Ostensen, M.D., WHO; Jan Labuscagne, M.B.Ch.B., ISR; Arl Van Moore Jr., M.D., ACR; Nicholas C. Gourtsoyiannis, M.D., EAR; George Klempfner, M.D., Australia/ISR; and Lawrence S. Lau, M.D., IRQN.



### Executive Director's Breakfast

RSNA Executive Director Dave Fellers, C.A.E., hosted a breakfast meeting for national and international medical association executives. The 29 executive directors discussed issues impacting each society, including education, research, staffing and the value of membership.

(seated, from left) Susan Cappitelli, ARRS; Edward J. Cronin Jr., C.A.E., AHRA; Pamela A. Smith, AOCR; Dave Fellers, C.A.E., RSNA; and Catherine Prop, SFR. (standing, from left) Donald Swinbourne, RANZCR; Michael Maves, M.D., AMA; David Schauer, Sc.D., C.H.P., NCRP; Otha W. Linton, M.S.J., ISR; Jorge Bisteni, M.D., SMRI/CIR; Ed Nagy, ARR; Lynn May, C.A.E., ASRT; Richard Evans, SCR; Harald Ostensen, M.D., WHO; Alexander Yule, ISRRT; and Angela R. Keyser, AAPM.



### RSNA R&E Foundation Board of Trustees

The 2006 RSNA Research & Education Foundation Board of Trustees met at RSNA 2005. Peggy J. Fritzsche, M.D., is the 2006 chair; David H. Hussey, M.D., is treasurer and Brian C. Lentle, M.D., is secretary.

(front row, from left) Robert R. Hattery, M.D., Theresa C. McCloud, M.D., David H. Hussey, M.D., Peggy J. Fritzsche, M.D., R. Gilbert Jost, M.D., and Brian C. Lentle, M.D. (back row, from left) Beverly B. Huckman, C. Leon Partain, M.D., Ph.D., Jack E. Price, Stephen R. Thomas, Ph.D., James H. Thrall, M.D., and Anne G. Osborn, M.D.



## Hussey Receives Distinguished Alumnus Award

**R**SNAs Immediate Past-President **David H. Hussey, M.D.**, is the recipient of the 2005 Distinguished Alumnus Award from The University of Texas (UT) M.D. Anderson Cancer Center in Houston.

For 14 years Dr. Hussey served on the M.D. Anderson faculty, where “he helped extend the frontier of radiation oncology through development of an innovative fast neutron therapy program.”

Dr. Hussey is currently a clinical

professor in the Department of Radiation Oncology at the UT Health Science Center at San Antonio. Prior to returning to UT, he was director of the Division of Radiation Oncology at the University of Iowa College of Medicine.



**David H. Hussey, M.D.**

## New Director for Lombardi Cancer Center

A radiation oncologist with more than 20 years of clinical practice specializing in the treatment of breast and prostate cancer has been named interim director of Georgetown University’s Lombardi Comprehensive Cancer Center. **Anatoly “Tony” Dritschilo, M.D.**, was also named interim associate vice-president of the Georgetown University Medical Center (GUMC) and interim chair of the Department of Oncology.

Dr. Dritschilo was previously the chair of the Department of Radiation Medicine at GUMC.

He replaces **Richard Pestell, M.D., Ph.D.**, who accepted a leadership position at the Kimmel Cancer Center in Philadelphia.

## Broda to Head Digital Medical Imaging for Compressus

Software developer Compressus Inc. has appointed **Janine M. Broda, M.B.A.**, as vice-president and general manager of its medical imaging solutions business.

Prior to joining Compressus, Broda worked for Fischer Imaging Corporation, Agfa Healthcare and DuPont.

## RSNA Research Scholar Earns NIBIB Grant

**A. Aria Tzika, Ph.D.**, is the recipient of an R21 grant from the National Institute of Biomedical Imaging and Bioengineering at the National Institutes of Health.

The grant is for her research project, “Feasibility of rehabilitation robots and fMRI in stroke.” Through her research she hopes to demonstrate the utility of fMRI to monitor the effectiveness of rehabilitation maneuvers in stroke patients.

“The anticipated results may lead to the development of a novel optimized method for stroke patient rehabilitation; and upon further development this



**A. Aria Tzika, Ph.D.**

method could become a valuable tool to illuminate stroke-induced pathological and traumatic changes, and to provide unique prospective information for stroke patient management,” she wrote in her abstract.

Dr. Tzika was a 1995–1997 RSNA Research Scholar and attended an RSNA grantwriting course, which she credits for improving her grantwriting skills. Dr. Tzika is currently the director of the NMR Surgical Laboratory at Massachusetts General Hospital and an assistant professor of surgery at Harvard Medical School.

### IN MEMORIAM:

#### Howard S. Stern, M.S.

**Howard S. Stern, M.S.**, co-founder and chairman emeritus of E-Z-EM, died in December from brain cancer at the age of 74.

“Howard contributed many innovations to the field of radiology in his more than 40 years of leadership with E-Z-EM, establishing the company as a recognized name among radiologists around the world,” said Anthony A.

Lombardo, company president and CEO. “Howard dedicated his life to developing and producing medical products that improved healthcare treatment for patients. His desire to improve the methods for the screening and diagnosis of colon cancer was relentless and his passion to encourage everyone to be screened was never ending.”

Stern was involved in a number of

charitable causes. In 2001, the Society of Gastrointestinal Radiologists presented him with a special award “in appreciation for his generous support and dedication to the educational mission of the Society.”



**Howard S. Stern, M.S.**



Send news about yourself, a colleague or your department 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.

# RSNA Board of Directors Report

**M**EMBERS OF the 2006 RSNA Board of Directors participated in their first official meeting on Friday, December 2, 2005, at McCormick Place.

The Board welcomed its newest member, Sarah S. Donaldson, M.D., as the liaison-designate for science, and discussed the successes of RSNA 2005, improvements slated for RSNA 2006 and plans for the first RSNA educational conference to be held February 24–27, 2007, in Arizona.

The conference is titled, “RSNA Highlights: Clinical Issues for 2007.” Specific details will be included in upcoming issues of *RSNA News*.

During the January 2006 Board retreat, discussion was to focus on international outreach and resident and trainee participation in Society activities. Outcomes and details of both the January retreat and the March Board meeting will be included in the Board Report that will appear in the May issue of *RSNA News*.

## RSNA Scientific Assembly & Annual Meeting

RSNA 2005 saw the highest total attendance and highest international attendance ever for an RSNA annual meeting. More than 62,000 people took part in refresher courses, scientific and educational sessions, lectures and the technical exhibition. The final audited attendance figures for RSNA 2005 are on page 23.

The 2005 technical exhibition also set two records—one for number of exhibiting companies (718), the other for square footage (489,359). The number of abstracts submitted for presentation consideration (9,515) also set a record.

Several changes were made to the Bylaws during the annual business sessions. These changes include allowing radiology assistants and radiology assistants-in-training to become RSNA members, and broadening the category of “physicists and other radiologic scientists” to be more inclusive to specific disciplines in medical science. The new Bylaws and the minutes from the business sessions are available at [RSNA.org/About/index.cfm](http://RSNA.org/About/index.cfm). Click on Annual Business Sessions or RSNA Bylaws in the center of the page.

## RSNA 2006

The program of the 2006 annual meeting will be dedicated to the memory of 1981 RSNA President Milton Elkin, M.D., who died last October.

The Board approved several new courses and course topics for the 2006 annual meeting. A case-based review of magnetic resonance imaging will complement existing case-based courses in neuroradiology, pediatric radiology, interventional radiology and radiation oncology. The new case-based course will be developed in conjunction with the International Society of Magnetic Resonance in Medicine.

Other courses include:

- Categorical Course in Diagnostic Radiology – Genitourinary Radiology
- Categorical Course in Diagnostic Physics – Image Quality Optimization and Dose Management
- Oncodiagnosis Panel – Gynecologic Cancer

The moderator of the 2006 Image Interpretation Session will be Anne C.



**Theresa C. McCloud, M.D.**  
Chair, 2006 RSNA Board of Directors

Roberts, M.D., from La Jolla, Calif. The 2006 plenary session honored lecturers will be chosen in March.

Increased interest and the need for additional courses in emergency radiology prompted the addition of an Emergency Radiology Subcommittee to the

RSNA Education Exhibits Committee. In addition, an emergency radiology Case of the Day will be added in 2006.

Two decisions were made about the technical exhibition—one involving cost, the other about exhibitor practices.

Instead of raising rates the customary \$1 per square foot for technical exhibit booth space, the Board approved a 50¢ per square foot increase. Reduced labor costs resulting from RSNA’s efforts to negotiate labor work rule changes at McCormick Place allow the Society to pass along the savings to exhibitors.

*Continued on page 8*



92nd Scientific Assembly and Annual Meeting  
November 26–December 1, 2006  
McCormick Place, Chicago

# Microfluidic Chip Technology May Expand Use of Molecular Imaging Diagnostics for Alzheimer and Other Diseases

**R**ADIOLOGISTS are increasingly using PET scans to accurately diagnose diseases such as Alzheimer disease (AD). As revolutionary new technologies are developed, including microfluidic chip technology, it is hoped that improved molecular diagnosis of the biology of disease will lead to better disease management and possibly cure.

PET/CT scanning with fluoro-deoxyglucose (FDG) is in widespread use to confirm and document activity of many diseases. These scans can enable an early positive diagnosis of AD and differentiation of AD from other causes of dementia.

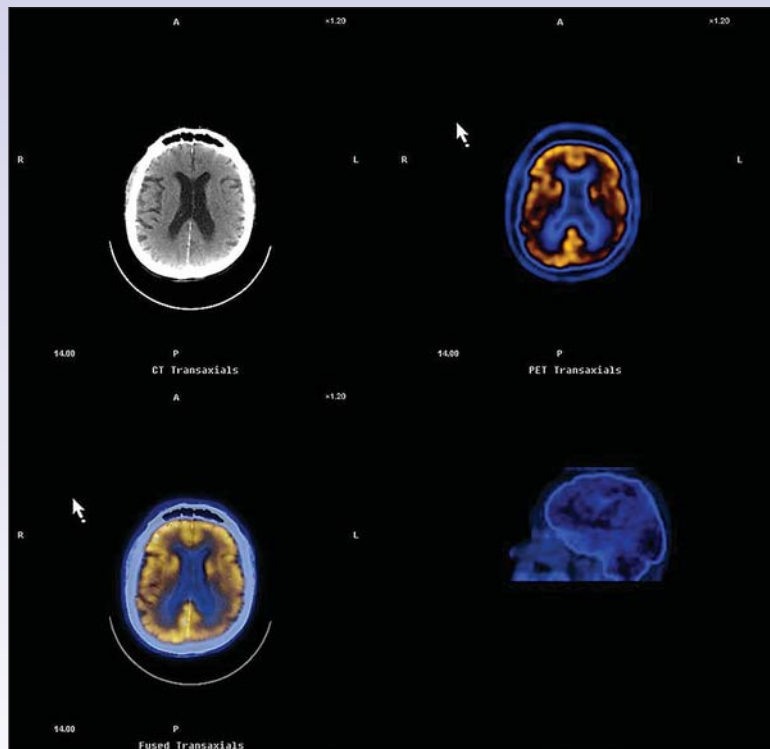
“The right way to use FDG PET is choosing the correct clinical setting,” said Mark A. Mintun, M.D., a professor of radiology at Washington University Medical School in St. Louis, who taught a mini-course on PET at RSNA 2005. “An FDG PET study helps clarify and confirm diagnosis when a patient has comorbidities, such as depression, or other neurological disorders that make an evaluation more complex.”

The published sensitivity for AD diagnosis by FDG PET is between 85 percent and 90 percent.

## Hybrid PET/CT

With PET/CT, radiologists can see the metabolic function of the brain and detect AD before it is clinically evident—up to eight years in some cases.

“PET/CT is the best diagnostic tool to evaluate brain function in the diagnosis of AD,” said Michael Kinzer, M.D., clinical director of PET Fusion Imaging, a partnership of Fort Wayne Radiology and Parkview Health in Fort Wayne, Ind. “As in the evaluation of



**Mild AD as demonstrated by CT (upper left), PET (upper right) and fused image (lower left).**

Images courtesy of Michael Kinzer, M.D., PET Fusion Imaging

cancer, the earlier and more accurately AD can be detected, the better it can be treated.”

Dr. Kinzer and his colleagues have experience with a hybrid PET/CT scanner, the only one available in northeast Indiana. “The metabolic changes the PET scan detects are much earlier than the anatomical changes seen by CT,” he explained. “For example, if I see an abnormality on the PET images that could be due to a stroke or AD, I can look at the CT component of the image that shows the same anatomic slice of brain. The hybrid scanner fuses both images together enabling the differentiation between the sequella of stroke

from the functional decline of AD.”

A study in the February 2006 issue of *Radiology* shows that combined PET/CT is more sensitive and specific than either of its constituent imaging methods alone and probably more so than images obtained from separate PET and CT systems and viewed side by side. See page 12 for more details.

## Benefits of Early Diagnosis

A variety of conditions that mimic AD dementia, such as frontotemporal dementia, multiple mini strokes, chronic depression of the aged (“pseudo dementia”) or other neuropsychiatric disorders,

*Continued on next page*

Continued from previous page

are prevalent in the age group in which AD is most prevalent. All of these conditions have specific characteristics that can be detected with PET and with CT. Dr. Kinzer said after looking at a brain's functional patterns, he can reliably differentiate AD from other disease processes.

Although there is no cure, AD patients who have access to newer treatments early in the disease process realize more benefits than those who start therapy later. Early treatment benefits include delaying progression of symptoms and postponing the need for nursing home care.

"From an emotional standpoint, it is useful for patients and families to have another reliable tool to aid in the diagnosis of AD so they can get their lives in order and prepare for the future," commented Dr. Kinzer. "PET/CT helps us provide helpful information to the clinicians that we serve, their patients and the patients' families. Our hope is that early diagnosis will allow for early treatment, impede dementia and possibly, one day, offer a cure."

#### **Molecular Therapeutics and the Future of AD**

Dr. Kinzer said that imaging has a very exciting role to play in the future of AD diagnosis and treatment. "Biomolecular imaging research may allow a specific antibody to be sent to the destructive plaques of AD. In the future, I can see that instead of merely diagnosing AD, radiologists will be able to send antibodies that are tagged with a nuclear agent to destroy the plaques that are causing AD," he explained.

Dr. Mintun said he believes that future AD imaging will include the regular use of molecular imaging probes

to view the actual amyloid plaques of AD rather than just the metabolic consequences.

"That is very different from imaging the metabolism of the brain with FDG," he explained. "FDG imaging is very useful, but imaging the plaques opens up a whole new way of diagnosing, understanding and potentially managing the treatment of AD."

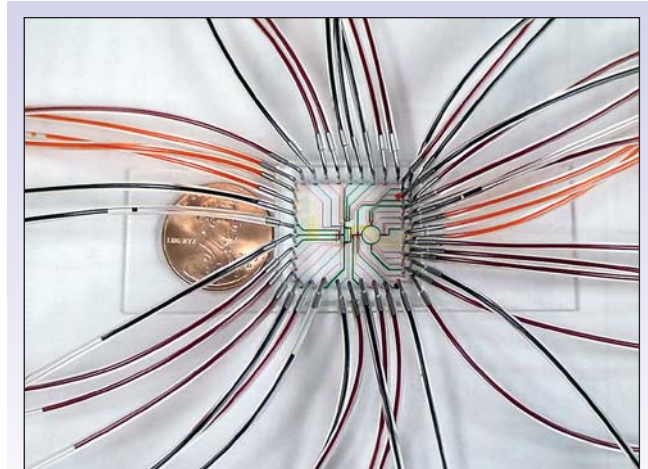
The co-inventor of the PET scanner sees myriad possibilities in the future treatment of AD and other diseases. "The defining issues for the future of molecular imaging will not come from molecular imaging but rather from molecular therapeutics," said Michael E. Phelps, Ph.D., the Norton Simon

*Although it will continue to be important, anatomical imaging alone isn't enough anymore. These advances have prepared radiology and nuclear medicine for the next stage of medical imaging—molecular imaging diagnostics of the biology of disease.*

**Michael E. Phelps, Ph.D.**

Professor and chairman of the department of molecular and medical pharmacology at the UCLA School of Medicine, and director of the UCLA-DOE Institute for Molecular Medicine. "Radiologists should look toward the revolutionary advances occurring in the biology of disease and molecular therapeutics to see the future."

Dr. Phelps said that the numerous pre-clinical molecular imaging centers funded by the National Institutes of Health have brought together radiologists, medical physicists, chemists and biologists to build the scientific foundation of molecular imaging and to merge many imaging technologies together to efficiently present their



**Microchip for production of FDG.**

Image courtesy of Hsian-Rong Tseng, Ph.D., UCLA

combined information regarding disease. Within this pre-clinical environment there are microscanners for PET, MR, CT and ultrasound and optical imaging that are being used to build a new knowledge and procedure base for future clinical practice.

"Young radiologists are now learning more about the biology of disease and pharmaceutical sciences," Dr. Phelps said. "Although it will continue to be important, anatomical imaging alone isn't enough anymore. These advances have prepared radiology and nuclear medicine for the next stage of medical imaging—molecular imaging diagnostics of the biology of disease."

#### **New Microchip Technology**

A new technology using integrated microfluidics chips is being developed to simplify, lower the cost and diversify the types of molecules used to image the biology of disease, such as AD.

In an article in the December 15 issue of *Science*, Dr. Phelps and his colleagues demonstrated that FDG could be synthesized on a "stamp-size" digital chip. These chips have a design similar to integrated electronic circuits, except they are made up of fluid channels, chambers and valves. The chips can execute the chemical operations required to synthesize and label molecules for PET imaging. All of the chip's operations are controlled and

Continued on page 8



# Good Eyes + Good Night Sleep = Good Patient Care

A STUDY RELEASED at RSNA 2005 showed most radiologists have pretty good vision; however, the question remains, Can filmless technology impair a radiologist's eyesight?

Nabile M. Safdar, M.D., and his colleagues at the University of Maryland School of Medicine in Baltimore conducted research to see if there is a significant degradation in the visual acuity of radiologists during the course of an average workday in a filmless imaging department.

Dr. Safdar, an assistant professor of diagnostic radiology, said he observed a constellation of symptoms related to eye fatigue in radiologists.

"Many factors conspire to stress the human visual system. But the ability of radiologists to sense and process visual information is one of the fundamental links in the diagnostic chain. Accurate interpretation of films is critical to patient care," he said.

The researchers adapted a near vision acuity test from one used by the U.S. Department of Transportation's Federal Aviation Administration. Dr. Safdar and his colleagues tested 23 radiologists at three large tertiary care hospitals.

Measurements were obtained from radiologists using 5 mega pixel (mp), 3 mp and 2 mp CRT and LCD monitors. The researchers measured the visual acuity at an intermediate distance of 81.3 cm.

Study participants were allowed to wear glasses or contact lenses. The tests were conducted at three times over several workdays—before 10:30 a.m., between 12:00 p.m. and

3:30 p.m., and after 3:30 p.m.

Participants each completed a questionnaire and provided information on age, medical history and history of ophthalmologic surgery. They were also required to inform the researchers about how much sleep they had the previous night.

Dr. Safdar and his colleagues found the mean corrective visual acuity was approximately 20/16, which is greater than perfect vision of 20/20. The mean visual acuity remained relatively constant no matter what time of day.

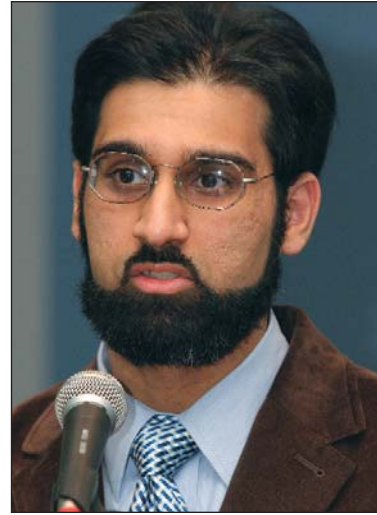
## Surprising Results

"We were surprised to discover the average time since the radiologists had their last vision screening was 25.5 months—that's more than two years," he said.

Another unexpected result was that while the majority of the radiologists had very good vision, about 20 percent had less than 20/20 vision. "To give some perspective, 20/30 vision is like reading an image at a distance that's 50 percent farther away from the monitor or film than you are accustomed. It raises the question as to the quality of patient care

in those studies," Dr. Safdar added.

The average age of the study participants was 45. The participants reported that, on average, they were getting about six hours and 45 minutes of sleep each night. Those under the age of 35 reported an hour less. Dr. Safdar said that the under age 35 group was the



Nabile M. Safdar, M.D.

most likely to be on-call overnight.

"This prompted us to distribute a questionnaire to trainee radiologists asking about their sleep habits. We, again, were really surprised by the results," he said.

There were 21 respondents with an average age of 29. When asked, "Have you ever fallen asleep while driving after being on-call overnight," 28.5 percent said, "Yes." Almost half (47.6 percent) said they had nodded off while reading a patient study during on-call hours.

Finally, the trainees self-reported that an average of 17.5 percent of errors they made on-call were due to a lack of sleep.

## Regular Eye Checks a Must for Radiologists

Dr. Safdar said this study shows radiology departments should be encouraging vision health with regular visits to an eye specialist. "Visual acuity alone is

*Continued on next page*

■ To read the abstract of Dr. Safdar's study, "Evaluation of the Visual Acuity of Radiologists," go to the RSNA Meeting Program at [rsna2005.rsna.org](http://rsna2005.rsna.org). The direct link is [rsna2005.rsna.org/rsna2005/V2005/conference/event\\_display.cfm?em\\_id=4419610](http://rsna2005.rsna.org/rsna2005/V2005/conference/event_display.cfm?em_id=4419610).

---

## Good Eyes + Good Night Sleep = Good Patient Care

*Continued from previous page*

not an adequate assessment metric for radiologist performance ... such an assessment should also consider eye-tracking, search-and-identify tactics and sustained vigilance," he said.

He added that lack of sleep is also an important factor. "You can't accurately read a study if your eyes are closed—regardless of your visual acuity," he said. □

■ Note: This article was adapted from a story that appeared in the RSNA 2005 *Daily Bulletin*. The daily newspapers from the annual meeting are available online at [RSNA.org/bulletin](http://RSNA.org/bulletin).

---

## Microfluidic Chip Technology May Expand Use of Molecular Imaging Diagnostics for Alzheimer and Other Diseases

*Continued from page 6*

executed by a PC.

The commercial version of these chips could be shipped to users—universities, pharmaceutical companies and medical centers—to produce molecules of their choosing for molecular imaging with PET. These chips will fuel growth in the number and diversity of imaging molecules and applications of PET in biology, pharmaceutical research and patient care.

"The value of all this is to move toward an open environment with chips

as an enabling technology," explained Dr. Phelps.

"There is a vast array of PET radiopharmacies throughout the world today. In America, there is a PET radiopharmacy within 100 miles of most hospital beds. While these radiopharmacies ship FDG for clinical service and experimental imaging probes and labeled drugs to commercial research labs, they could also ship the radioisotope so users could make whatever imaging probes or labeled drugs they choose," he said. "This open system would

allow academic labs and pharmaceutical companies to make many different molecules for PET for their use. Some of the labeled molecules would come back to radiology and nuclear medicine for molecular imaging diagnostics." □

■ To view the abstract of the *Science* article, "Multistep Synthesis of a Radiolabeled Imaging Probe Using Integrated Microfluidics," go to [www.sciencemag.org/cgi/content/abstract/310/5755/1793](http://www.sciencemag.org/cgi/content/abstract/310/5755/1793).

---

## RSNA Board of Directors Report

*Continued from page 4*

The Board also approved an amendment to the Technical Exhibitor Rules and Regulations to prohibit exhibitors from directing attendees to specific components of the RSNA meeting program.

### RSNA Strategic Plan

Each year, the RSNA Board of Directors updates the Society's three-year strategic plan. The 2005-2008 strategic plan is available at [RSNA.org/About/strategicplan.cfm](http://RSNA.org/About/strategicplan.cfm).

As a supplement to the plan, the Board is also developing a five-year vision. Some of the targets of the five-year vision include additional educational programs, maintenance of certification, collaboration with other organizations and a strategy for international outreach.

During the January Board retreat, the strategic plan will be updated to incorporate some of these target areas.

### RadioGraphics Editor

*RadioGraphics* Editor William W. Olmsted, M.D., has agreed to a two-year contract extension. Dr. Olmsted will also continue as RSNA Education Editor through March 2009.

### Continuous Quality Improvement

During the December meeting, the Board took initial steps to launch a Continuous Quality Improvement Initiative. Stephen J. Swensen, M.D., of Rochester, Minn., was appointed chair of the initiative. Dr. Swensen will make his assessment and recommendations to the Board in a few months.

### Committee Appointments

RSNA's strength as a Society has always been the solid core of volunteers who dedicate their time and talent to the profession.

The Board has approved numerous RSNA committee appointments and liaison appointments for 2006 and extends its gratitude to all the volunteers for their devotion and commitment.

**THERESA C. McLOUD, M.D.**  
CHAIR, 2006 RSNA BOARD OF DIRECTORS

Note: In our continuing efforts to keep RSNA members informed, the chair of the RSNA Board of Directors will provide a brief report in RSNA News following each board meeting. The next RSNA Board Meeting is in March 2006.

# Vascular Ultrasound Considered a Win for Radiologists

**I**N THE ongoing controversy about appropriate utilization, new research scores radiology as the winner when it comes to vascular ultrasound.

At RSNA 2005, David C. Levin, M.D., unveiled a study showing that radiologists are accruing new vascular ultrasound procedures at a much faster rate than surgeons and cardiologists.

Dr. Levin, a professor and chairman emeritus of the Department of Radiology at Jefferson Medical College and Thomas Jefferson University Hospital (TJUH) in Philadelphia, and his colleagues conducted their research through the Center for Research on Utilization of Imaging Services (CRUISE) at Jefferson.

“There is some degree of conflict and controversy in some places as to who should actually be performing vascular ultrasound,” Dr. Levin said. “There is also concern about the recent rapid growth in utilization of all types of non-invasive diagnostic imaging. For our research, we wanted to determine which physician specialties are most active in vascular ultrasound. Also, we wanted to ascertain utilization trends among those specialties.”

Dr. Levin and his colleagues used

the nationwide Medicare Part B Master Summary datasets for 1998 through 2003. He noted that Medicare-age patients account for about one-third of all imaging studies.

The researchers found 15 codes pertaining to vascular ultrasound in the 90,000 CPT® series. Areas covered include neck and cranial arteries, extremity arteries and veins, aortic vis-

ceral vessels and dialysis access grafts.

The specialty groups the researchers studied included radiologists, all surgeons including

vascular surgeons, cardiologists and primary care physicians. In addition, the researchers included independent diagnostic testing facilities (IDTFs) as part of the count. In 1998, there were 116 vascular ultrasound exams per 1,000 Medicare beneficiaries. Five years later in 2003, there were 156.9 exams, up 35 percent.

The study showed radiologists performed 42.1 percent of the vascular ultrasound studies, surgeons of all types performed 26.4 percent, cardiologists conducted 12.7 percent, pri-

*Radiologists are accruing new vascular ultrasound procedures much faster than surgeons or cardiologists.*

David C. Levin, M.D.

### Total Vascular Ultrasound Exams Per 1,000 Medicare Beneficiaries

| 1998 | 2003  | PERCENTAGE INCREASE |
|------|-------|---------------------|
| 116  | 156.9 | 35%                 |

### Who's Performing Vascular Ultrasound Exams?

|                         |       |
|-------------------------|-------|
| Radiologists            | 42.1% |
| Surgeons                | 26.4% |
| Cardiologists           | 12.7% |
| Primary Care Physicians | 8.1%  |
| All Other Physicians    | 5.6%  |
| IDTFs                   | 5.0%  |



David C. Levin, M.D.

mary care physicians had 8.1 percent, and all other physicians performed 5.6 percent. IDTFs conducted 5.0 percent of the vascular ultrasounds.

“Radiologists did hold a significantly larger percent share,” Dr. Levin said. “In addition, there is a general uptrend in utilization rates by all specialties,” he added.

The researchers looked at the new cases added by specialty and found radiologists were by far the dominant specialty. Radiologists added 900,000 new procedures during those years. Surgeons added a little less than 600,000, while cardiologists performed an additional 370,000 vascular ultrasound exams.

“Radiologists are accruing new vascular ultrasound procedures much faster than surgeons or cardiologists. Vascular ultrasound has been and still is a win for radiologists,” he said. □

■ To read the abstract of Dr. Levin's study, “Recent Trends in Utilization of Vascular Ultrasound (US) by Radiologists, Surgeons, Cardiologists, and Other Physicians,” go to the *RSNA Meeting Program* at [rsna2005.rsna.org](http://rsna2005.rsna.org). The direct link is [rsna2005/V2005/conference/event\\_display.cfm?em\\_id=4408585](http://rsna2005.rsna.org/rsna2005/V2005/conference/event_display.cfm?em_id=4408585).

■ Note: This article was adapted from a story that appeared in the *RSNA 2005 Daily Bulletin*. The daily newspapers from the annual meeting are available online at [RSNA.org/bulletin](http://RSNA.org/bulletin).

# CME Action Plan Helps Direct Lifelong Learning

**R**SNAs is offering a new tool to help members fulfill the lifelong learning and self-assessment component of the American Board of Radiology's (ABR) maintenance of certification (MOC) program and other continuing medical education (CME) requirements.

Called "My CME Action Plan," the new Web-based document will help members identify their personal needs for CME in their own particular areas of practice.

To access the document, go to [RSNA.org/education](http://RSNA.org/education), click on MOC, MOC Registry, and then on My CME Action Plan. A Word document will open that will allow you to type in your information.

The plan contains various sections that guide a radiologist in listing CME requirements, prioritizing educational needs, planning future CME activities and keeping a record of activities.

"This is a joint effort between RSNA and the American Roentgen Ray Society (ARRS)," said George S. Bisset III, M.D., RSNA Board Liaison for Education and vice-chair of the Department of Radiology at Duke University Medical Center in Durham, N.C. "Representatives from both organizations have been meeting to come up with a relatively comprehensive series of questions that will help each person put together a CME plan for lifelong learning." ARRS will also offer the CME plan to its members.

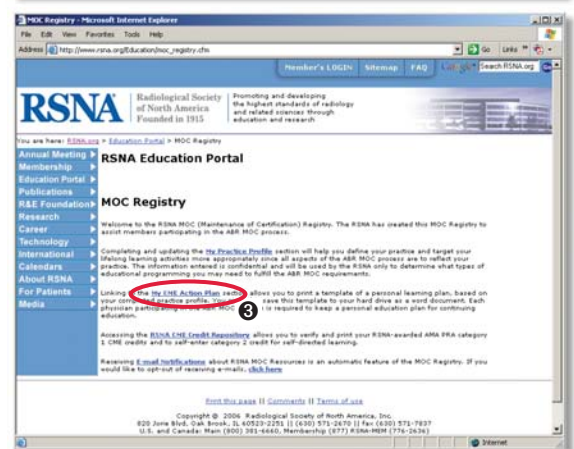
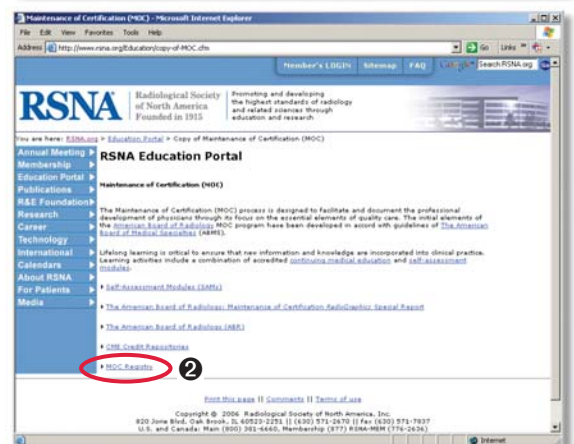
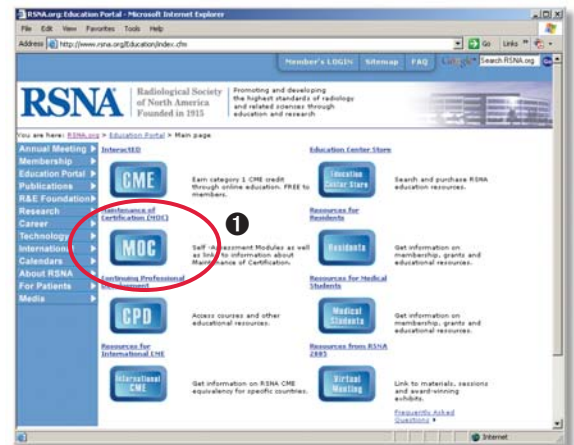
## User Profile

Guided by these questions, each person completing the learning action plan will be able to create a user profile of CME needs and get direction for future lifelong learning, Dr. Bisset said.

"The precipitant for the CME Action Plan was the ABR's MOC program," said RSNA Assistant Executive Director for Research and Education Linda B. Bresolin, Ph.D., M.B.A., C.A.E. "One of the requirements of the lifelong learning and self-assessment component is that every participant must have a personal education plan for continuing education. Each person needs to look at their individual practice, assess learning needs and develop a CME plan to meet those learning needs."

The action plan can be continually updated, so that learning will be a more organized and purposeful process. "ABR requires a written education plan that must be produced if requested," Dr. Bresolin added.

RSNA and ARRS created a template that helps individuals not only think about their learning needs but also record their thinking process. "The end result is a written document that would serve as the required education plan for MOC," she said. "The action plan is also useful for any radiologist in assessing and planning his or her learning needs regardless of whether or not they are involved in the MOC process."



**Create a Personalized CME Action Plan**  
Go to [RSNA.org/education](http://RSNA.org/education) and click on MOC ①. Click on MOC Registry ②, then select My CME Action Plan ③.

## My CME Action Plan

The seven-page action plan initially asks a user to list CME requirements that might apply to his or her practice based on a listing of organizations and programs, including MOC, Mammography Quality Standards Act, National Committee for Quality Assurance, Joint Commission on Accreditation of Healthcare Organizations, Intersocietal Commission for the Accreditation of Vascular Laboratories, Stereotactic Breast Biopsy Accreditation Program, Nuclear Medicine/PET Accreditation Program, MRI Accreditation Program, CT Accreditation Program, state licensure programs and hospital privileges.

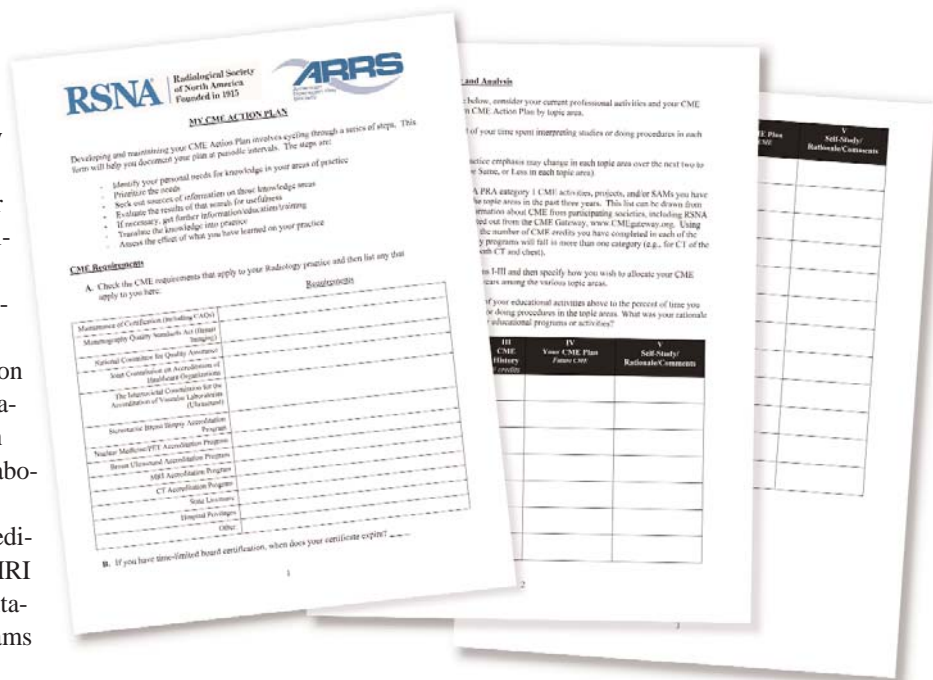
It then asks for a personal CME history and analysis using a table for specific areas of imaging practice, including breast, cardiac, chest, gastrointestinal, emergency, genitourinary, head and neck, musculoskeletal, neuro-radiology, oncologic, pediatric, radiation oncology, vascular/interventional, ultrasound, computed tomography and magnetic resonance imaging.

A practitioner is asked to estimate the percent of time spent interpreting studies or doing procedures in each area and to indicate whether practice emphasis will increase, decrease or remain the same in each area. The plan also calls for a practitioner to generate a list of category 1 CME activities for the American Medical Association's Physician's Recognition Award and any self-assessment modules completed in each area. Reports to provide this information can be generated through the multi-society [CMEgateway.org](http://CMEgateway.org) or by using the RSNA CME Credit Repository ([RSNA.org/cme](http://RSNA.org/cme)).

In addition, a practitioner is asked to estimate the proportion of time spent in clinical care, teaching, research, administration, informatics, consulting, volunteerism and other activities.

## Planning Future Activities

In the section on planning for future activities, a user is asked to compare



CME history with current and projected professional activities, CME requirements and any perceived gaps between skills or knowledge and learning needs. Anticipated practice changes over the next several years are also required.

“The action plan helps members evaluate all the components of CME and plan to fill in any deficits by picking up new CME credits or self-assessment modules,” Dr. Bisset said. “The fundamental underpinning of this tool is self-assessment. RSNA provides its members with a tool to do a thorough self-assessment of educational needs and plans.”

Dr. Bresolin added: “When learners complete the plan, they will have documented what their learning goals are, how they will obtain the knowledge they need and what they will do with that information or those skills. The last page of the document constitutes the education plan required for the MOC.”

RSNA members can either print out the action plan from the Internet and fill it out on paper for their personal records, or fill out the plan electronically and store it in their personal profile on [RSNA.org](http://RSNA.org).

“Members need to understand that the action plan is a process,” Dr. Bresolin said. “The point is not the document at the end, but the process they go through to create the document. The process helps them reflect on their patient population and what changes they anticipate coming in their practice and then look at their pattern of CME

to see if their practice matches their CME activities.”

If their CME activities do not meet their practice needs, RSNA members can then seek out CME activities that better meet the needs of their practices and

any future changes they anticipate, she said.

“By asking members to record a practice profile, the action plan will give them a global view of the education they need,” Dr. Bisset said. “It’s a management tool for each individual in planning their future learning.” □

# Journal Highlights

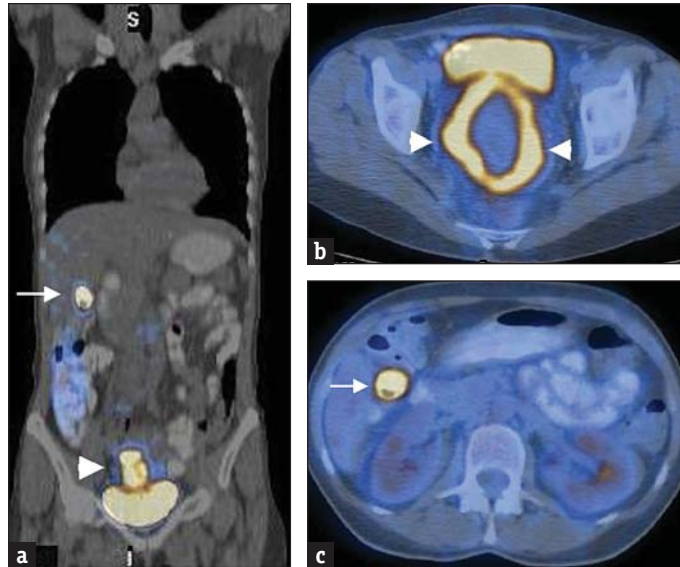
The following are highlights from the current issues of RSNA's two peer-reviewed journals.

## Integrated PET/CT: Current Applications and Future Directions

**A**LL CURRENTLY available data indicate that combined PET/CT is a more accurate test than either of its individual components and is probably also better than side-by-side viewing of images from both modalities.

In an article in the State of the Art section of the February issue of *Radiology* ([RSNA.org/radiologyjnl](http://RSNA.org/radiologyjnl)), Gustav K. von Schulthes, M.D., Ph.D., from the University Hospital of Zurich in Switzerland, and colleagues describe the general aspects of PET/CT, issues relevant to clinical imaging protocols and general clinical insights from the use of PET/CT.

They also describe several well-designed



Coronal (a) and transverse (b) PET/CT images in a patient with cervical carcinoma (not shown) and associated pyometrium (arrowheads). Strongly avid focus of FDG uptake (arrow) is seen in left upper abdominal quadrant on a, which appears to be localized in the liver, suggesting liver metastasis. (c) Transverse PET/CT image shows that lesion (arrow) is located in right colonic flexure, thus representing focal bowel lesion. Histologic examination demonstrated a large polyp.

(*Radiology* 2006;238:679-688) © RSNA, 2006. All rights reserved. Printed with permission.

studies that have demonstrated the benefits of PET/CT, especially in staging of non-small cell lung cancer, recurrent colorectal cancer and malignant lymphoma.

## Radiology

This article includes “Essentials” or highlighted points to help busy readers recognize important information at a glance.

## Multi-Detector Row CT of Hemoptysis

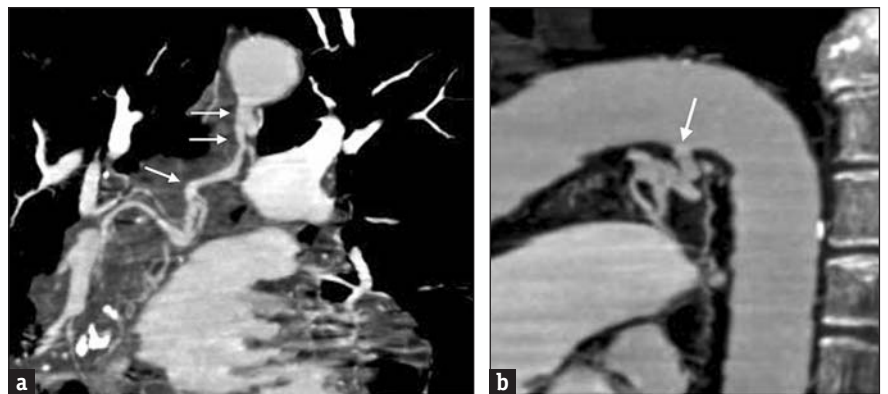
**M**ASSIVE HEMOPTYSIS is a medical emergency requiring prompt assessment. CT is a quick and noninvasive tool that is helpful in the diagnosis and management of hemoptysis, and its use should be considered in any patient who presents with this condition.

## RadioGraphics

In an article in the January-February issue of *RadioGraphics* ([RSNA.org/radiographics](http://RSNA.org/radiographics)), John F. Bruzzi, FFR-RCSI, from the Hospital Calmette at the University Center of Lille in France, and colleagues:

- Review the pathophysiologic features

Continued on page 16



## Anomalous bronchial artery anatomy in a patient with acute hemoptysis.

Coronal (a) and sagittal (b) thin-section multiplanar reformatted images from thoracic CT angiographic data obtained with a four-detector row scanner show bronchial arteries (arrows) arising from the concavity of the aortic arch. Bronchial arteries have ectopic origins outside the T5 through T6 range in 20 percent of cases, the most common origin being the one shown in this case. Such arteries can be difficult to visualize on axial images alone.

(*RadioGraphics* 2006;26:3-22) © RSNA, 2006. All rights reserved. Printed with permission.

# Radiology in Public Focus

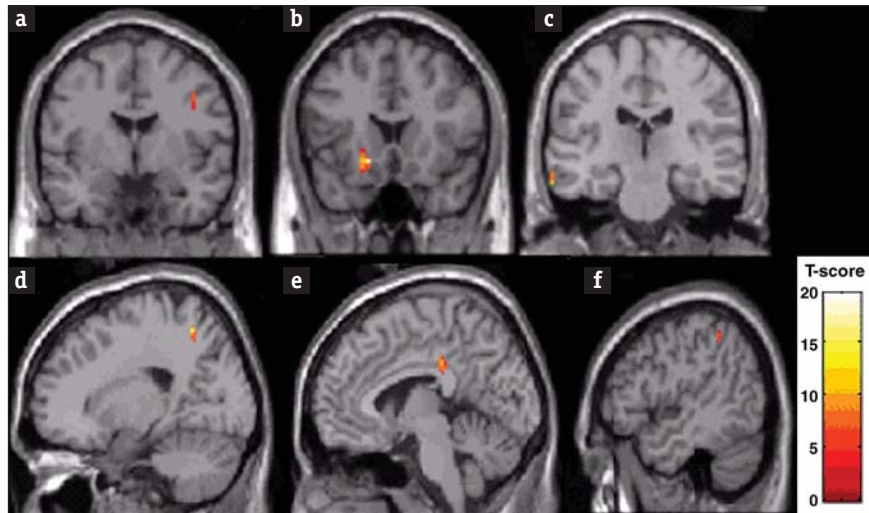
Press releases have been sent to the medical news media for the following articles appearing in the February issue of *Radiology* ([RSNA.org/radiologyjnl](http://RSNA.org/radiologyjnl)):

## Brain Mapping of Deception and Truth Telling about an Ecologically Valid Situation: An fMRI and Polygraph Investigation—Initial Experience

**F**UNCTIONAL magnetic resonance imaging (fMRI) can be used to identify specific areas of the brain involved in deception and honesty.

Feroze B. Mohamed, Ph.D., from the Functional Brain Imaging Center at Temple University Hospital and School of Medicine, and colleagues used fMRI to examine the brain activity of 11 subjects randomly assigned to “truth only” or “lie only” groups. The researchers compared the results to a standard polygraph examination and concluded that more areas of the brain were activated when subjects lied than when they told the truth.

“Our results show that the deceptive process is associated with activations of the limbic system, parts of the frontal lobe that are probably involved in suppressing or inhibiting the truth, and parts of temporal lobe which might be involved in memory encoding and



**Functional MR images show significant areas of activation that are seen during the truth condition. Functional MR images were obtained by using an echo-planar pulse sequence and show the (a) precentral gyrus (transverse section), (b) subcallosal gyrus or lentiform nucleus (transverse section), (c) inferior temporal (transverse section), (d) precuneus (sagittal section), (e) posterior cingulate (sagittal section) and (f) parietal lobule (sagittal section).**

(*Radiology* 2006;238:679-688) © RSNA, 2006. All rights reserved. Printed with permission.

retrieval,” the researchers wrote.

“Furthermore there is presumably anxiety associated with deception, which is reflected in the activation of the limbic system. However, when a subject is telling the truth, there is minimal to far less anxiety and an alternative cognitive thought process does not

have to be inhibited. This is seen by a smaller number of brain areas to be active in the frontal and limbic system during the truth telling process.”

It is unlikely that someone could mask fMRI brain activation patterns, the researchers added.

## Bone Scintigraphy in Predicting the Short-Term Outcome of Facet Joint Injection in Patients with Lower Back Pain

**U**SING A bone scan with single photon emission computed tomography (SPECT) can help distinguish patients with low back pain who will benefit from facet joint injections from those less likely to see any improvement.

Spiros G. Pneumaticos, M.D., and colleagues at the Departments of Orthopedic Surgery and Radiology at the Baylor College of Medicine studied 47 patients with low back pain scheduled

for facet joint injections. Two-thirds of the patients were randomly assigned to receive bone SPECT prior to injection; those with positive scans received injections at the abnormal levels identified on the scans. Those with negative scans and those who did not receive bone SPECT received injections at levels indicated by the referring physician.

The researchers found that bone SPECT not only changed the levels for

injection in some patients, but also—based on pain scores reported by patients at one, three and six months—may also have led to a better response following the injections.

“Our prospective study showed that patients with a positive bone SPECT have an excellent response to facet injections when injected at the abnormalities seen on the SPECT, while

*Continued on page 16*

# Working For You

## Use Images from RSNA Online Journals for Teaching

**T**HE ONLINE versions of *Radiology* ([RSNA.org/radiologyjnl](http://RSNA.org/radiologyjnl)) and *Radiographics* ([RSNA.org/radiographics](http://RSNA.org/radiographics)) have a new feature that allows RSNA members and journal subscribers to download images in PowerPoint® format.

Within the full text of any article, you can click on an image to make it larger. At the top of each image, there is a gray box—PowerPoint Slide for Teaching.

When you click on the gray box,

you'll be able to save the file to your computer. These images are free for non-commercial purposes. The journal citation and copyright, incorporated in the download, must be included.

A tutorial on how to download the PowerPoint slides appeared in the November issue of *RSNA News*, available online at [rsnanews.org](http://rsnanews.org). The direct link to the tutorial is [rsna.org/publications/rsnanews/nov05/rsna\\_org1105.cfm](http://rsna.org/publications/rsnanews/nov05/rsna_org1105.cfm).

## Canadian Radiologists Earn Section 3 Credits from *RadioGraphics*

Online CME tests from RSNA's peer-reviewed education journal *Radiographics* now qualify for Section 3 Credit as defined by the maintenance of certification program of the Royal College of Physicians and Surgeons of Canada.

These educational materials are offered to RSNA members free of charge at [RSNA.org/education](http://RSNA.org/education). Non-members are charged a \$15 fee to access the CME tests.

## Educational Materials to Developing Countries

The RSNA Committee on International Relations and Education (CIRE) awarded 40 gratis journal subscriptions to radiology departments in 22 developing countries. The donations were part of RSNA's 2005 Education Material and Journal Award program.

Donations of RSNA educational materials from RSNA 2003 were awarded to an additional seven institutions.

Working with the Radiology Outreach Foundation (ROF), CIRE was also able to distribute 165 educational videos to 21 institutions in 19 countries.

## Administration and Human Resources

**T**HE PRIMARY function of the Administration and Human Resources Department is to maintain the work environment necessary so that staff can service RSNA members.

The department keeps headquarters office running smoothly on a day-to-day basis by hiring quality employees, providing essential services such as reception and mail delivery, and assisting staff with payroll, benefits, and office equipment and supplies.

Promoting a "can do" attitude, the department brings each area of RSNA together to support the common goal of

*Working  
for you*  
DEPARTMENT  
PROFILE



providing RSNA members with outstanding professional-level services, year in and year out.

The department reports to Assistant Executive Director Mark G. Watson, C.P.A.

(standing, from left)  
**Mark Lichtenberger**, Managing Director, **Jeanne Jendra**, **Tony Rivera**

(seated, from left)  
**Diane Lopez**, **Wayne Rohr**, **Edith Macdonald**  
(not pictured)  
**Michelle Clifford**

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).



# Program and Grant Announcements

## **NEW!**

### **2006 RSNA Editorial Fellowship for Trainees**

**Application deadline – April 1, 2006**

**R**ESIDENTS and fellows who have attended the Introduction to Research program at the RSNA annual meeting are eligible to apply for the 2006 RSNA Editorial Fellowship for Trainees.

The selected editorial fellow will work at the *Radiology* editorial office for two days, at the *RadioGraphics* editorial office for one day, and with the RSNA publications staff for one day at Society headquarters in Oak Brook, Ill. The fellow will then complete an evaluation about the experience and submit a report about its effectiveness. The fellow will receive a stipend of \$3,000.

For more information or for an application, send an e-mail to [editfellowships@rsna.org](mailto:editfellowships@rsna.org).

### **Transdisciplinary Conference on Distributed Diagnosis and Home Healthcare**

**April 2–4 • Crystal Gateway Marriott, Arlington, Va.**

The Biotechnology Council, of which RSNA is a member, is sponsoring the Transdisciplinary Conference on Distributed Diagnosis and Home Healthcare (D<sub>2</sub>H<sub>2</sub>), April 2-4, in Washington, D.C. The conference will bring together industry, academia and government leaders to discuss the current status, important components/ingredients, enabling technologies and policies for future distributed home healthcare delivery.

Topics include:

- Point-of-care diagnostics and monitoring/screening devices
- Portable/wearable/implanted sensors and devices
- Telemedicine
- IHE, integration and interoperability

The deadline for early registration is **February 20, 2006**.

For more information, go to [icsl.ee.washington.edu/d2h2](http://icsl.ee.washington.edu/d2h2).

### **Speedier NIH Review of New Investigator R01 Applications**

The National Institutes of Health (NIH) will launch a pilot next month to significantly shorten its peer reviews of research grant applications for new investigators (R01 applications).

The pilot rose from a growing concern that the current grant review process takes too long and is hindering the careers of promising researchers and the advancement of science and health.

“The scientific world moves fast, and we must keep up with it. We plan to use new electronic and management tools while preserving the rigor and fairness of NIH peer review, so we can identify the most promising medical research more rapidly. Our goal is to reduce the grant review process by half,” said Center for Scientific Review (CSR) Director Toni Scarpa, M.D., Ph.D.

For more information, go to [grants.nih.gov/grants/guide/notice-files/NOT-OD-06-013.html](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-06-013.html).



### **BIROW 4**

**February 24–25, 2006 • Bethesda North Marriott Hotel & Conference Center, North Bethesda, Md.**

**T**HE ADVANCE registration deadline is **February 10, 2006**, for the fourth Biomedical Imaging Research Opportunities Workshop (BIROW 4). The goal of the workshop is to identify and explore new opportunities for basic science research and engineering development in biomedical imaging, as well as related diagnosis and therapy.

This year's topics include:

- Instrumentation for Rodent Research
- Role of Imaging in Drug Development
- Imaging of Chronic Metabolic Disease: Diabetes
- Image-Guided Therapy in the 4th Dimension—Time

AMA PRA category 1 continuing medical education (CME) credits and medical physics continuing education credits (MPCEC) are available. For program information or to register, go to [www.birow.org](http://www.birow.org).

BIROW 4 is sponsored by RSNA, Academy of Radiology Research, American Association of Physicists in Medicine, American Institute for Medical and Biological Engineering, and Biomedical Engineering Society.



**Biomedical  
Imaging  
Research  
Opportunities  
WORKSHOP 4**

## Multi-Detector Row CT of Hemoptysis

Continued from page 12

and causes of hemoptysis

- Describe the complex anatomy and varied imaging appearances of the bronchial and nonbronchial systemic arteries

- Discuss the initial evaluation of acute hemoptysis
- Enumerate the essential principles of thoracic CT angiography performed prior to embolization therapy for massive hemoptysis

They also illustrate the role of multi-detector row CT in hemoptysis with regard to its diagnostic capabilities and its potential influence on management decision making.

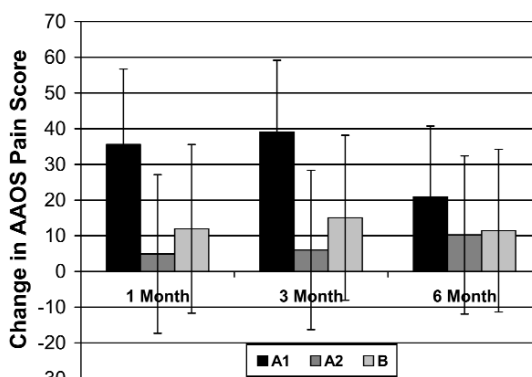
This article meets the criteria for 1.0 CME credit.

## Bone Scintigraphy in Predicting the Short-Term Outcome of Facet Joint Injection in Patients with Lower Back Pain

Continued from page 13

patients with a negative SPECT have a much smaller chance of improving," the researchers wrote.

The researchers noted that the results have implications for patient safety, as patients with a decreased chance of benefiting from facet joint injections can avoid the risks of the procedure, and economic implications as well. Using Medicare reimbursement rates and the data from their study, the researchers determined that using the bone scan with SPECT prior to injection could save as much as \$37,000 per 100 patients.



Graph shows change in the American Academy of Orthopaedic Surgeons (AAOS) pain score at one, three and six months after injection compared with baseline scores for groups A1, A2, and B. The change in the AAOS pain score of group A1 was significantly greater than it was in the other two groups at one and three months after treatment. At six months after treatment, the change was similar in all three groups. Error bars represent the statistical error.

(Radiology 2006;238:693-698) © RSNA, 2006. All rights reserved. Printed with permission.

### EDUCATION RESEARCH

## Program and Grant Announcements

Continued from previous page

### Six Awards for Cancer Signatures Program

THE National Cancer Institute (NCI) has awarded six grants to collaborative research groups to explore how information derived from comprehensive molecular analyses can be used to impact the care of cancer patients and ultimately improve outcomes.

The grants are part of NCI's Strategic Partnering to Evaluate Cancer Signatures (SPECS) program.

The newly funded SPECS projects are designed to bridge the gap between

the discovery and application of molecular profiles by confirming, refining and evaluating molecular signatures that previously have been demonstrated to be clinically useful. These projects will also focus on developing robust, reproducible assays for specific molecular signatures that will then be tested in clinical trials. The grants, which total \$10 million for the first year of funding, were awarded to six multi-institutional, multi-disciplinary teams:

- Children's Hospital, Los Angeles
- University of California, Irvine
- University of Nebraska Medical Center, Omaha
- University of New Mexico, Albuquerque
- Vanderbilt-Ingram Cancer Center, Nashville, Tenn.
- Washington University, Department of Medicine, St. Louis

For more information, go to [www.cancerdiagnosis.nci.nih.gov](http://www.cancerdiagnosis.nci.nih.gov).

# RSNA Grant Leads to Routine MR Breast Screening for High-Risk Women

IN 1996, Priscilla Slanetz, M.D., M.P.H., was a diagnostic radiology resident at Massachusetts General Hospital (MGH). She received an RSNA Research Fellow grant to pursue technology assessment and outcomes analysis for abdominal aortic aneurysms (AAAs); however, after unexpectedly losing her mentor, her work changed course and she ultimately began using MR imaging to screen women at high-risk for breast cancer.

## Abdominal Aortic Aneurysms

In the mid-1990s, ultrasonography and CT were used to diagnose and monitor patients with AAA, but these modalities were not providing adequate assessments of relevant related vascular anatomy. Subsequent invasive angiography was required prior to elective repair to determine the exact size of the aneurysm, as well as to map the major aortic branches and their relationship to the aneurysm.

Dr. Slanetz believed a more efficient means of assessing patients prior to surgical repair would not only significantly reduce the costs associated with the diagnosis and treatment of an AAA, but also improve the overall quality of care.

Her research focused on newly developed MR angiography (MRA) techniques, which offered a less-invasive alternative than conventional angiography, for providing information prior to repair without the need for ion-

izing radiation. She also looked at multidetector CT angiography (CTA) for patients who could not tolerate MRA due to such conditions as extreme claustrophobia.

Dr. Slanetz's original goal was to establish MRA and CTA as good alternatives and/or supplements to the gold standard, which, at that time, was conventional contrast angiography (CA), for the preoperative evaluation and planning associated with AAA repair.

Then, just as she began her research, Dr. Slanetz ran into some major research roadblocks.

"My research advisor left to accept another position in the early phases of my project and I found obtaining collaboration among the involved clinical departments to be quite challenging," she explained. "Although I was not able to complete the proposed project,

*It's amazing how rapidly we've made progress in this field. Insurance companies will now pay for MR screening for women who are known to have the breast cancer gene.*

Priscilla Slanetz, M.D., M.P.H.

the experience was a great opportunity to learn more about the potential problems and inherent difficulties that can be associated with the multidisciplinary clinical research process. It taught me about the types of support that have to exist and remain in place during the grant period in order to really accomplish what you've set out to do."

## Changing Course

Dr. Slanetz regrouped and had her RSNA Research Fellow grant redirected. She spent the next five years



**Priscilla Slanetz, M.D., M.P.H.**  
1996 RSNA Research Fellow

performing research focused on MR imaging of the breast.

Her work led to the first study showing that MR imaging of the breast might be an effective screening tool, since early on, she discovered contralateral breast cancer in several newly diagnosed patients. "We used MR to screen patients who had just been diagnosed with cancer in one breast only to find that some had multiple sites of involvement in the same breast and others had cancer in the opposite breast," said Dr. Slanetz.

Numerous scientific papers were subsequently published on the topic, and today, MR breast screening is routinely used for high-risk women, especially those known to be carriers of BRCA-1 and BRCA-2 genes.

"It's amazing how rapidly we've made progress in this field," Dr. Slanetz said. "Insurance companies will now pay for MR screening for women

*Continued on page 20*



# Research & Education Foundation Donors

THE BOARD OF TRUSTEES of the RSNA Research & Education Foundation and its recipients of research and education grant support gratefully acknowledge the contributions made to the Foundation between **November 25, 2005 – January 3, 2006**.

For more information on Foundation activities, go to [RSNA.org/foundation](http://RSNA.org/foundation).

## PLATINUM (\$1,000 – \$4,999)

Claire E. Bender, M.D.  
*In memory of Paul J. Bender, M.D.*  
 Theresa C. McCloud, M.D.  
 Piyush C. Patel, M.D.  
*In memory of William T. Meszaros, M.D.*  
 Martin R. Prince, M.D., Ph.D.  
 Sadasiva T. Reddy, M.D.  
*In memory of William T. Meszaros, M.D.*  
 Jack Wittenberg, M.D.  
 Ann & Carl J. Zylak, M.D.

## GOLD (\$500 – \$999)

Kristina & Norman Joseph Beauchamp Jr., M.D., M.H.S.  
 Melissa L. Rosado de Christenson, M.D. & J. Paul Christenson, M.D.  
 Joan Eliasoph, M.D.  
 Jerome J. Gehl, M.D.  
 Gail Fishman & Steven C. Horii, M.D.  
 Daniel H. Johnson Jr., M.D.  
 Laura C. Knight, M.D.  
 Denise & Matthew S. Pollack, M.D.

## SILVER (\$200 – \$499)

Hani H. Abdel-Nabi, M.D., Ph.D.  
 Jean & Gerald R. Aben, M.D.  
 Judith & Ronald C. Ablow, M.D.  
 Wynn W. Adam, M.D. & Jeffery S. Adam  
 Kenneth S. Allen, M.D.  
 Steven M. Amberson, M.D.  
 John A. Arrington, M.D.  
 Elizabeth & Algis V. Babusis, M.D.  
 Joseph J. Back, D.O.  
 Ian D. Baronofsky, M.D.  
 Patricia Barth, Ph.D. & Merle H. Barth, M.D.  
 Svetlana & George M. Benashvili, M.D.  
 William A. C. Berry, M.D.  
 Anjala & Davender Bhardwaj, M.D.  
 Kalpana & Shailesh M. Bhatt, M.D.  
 Russell D. Blumer, M.D.  
 Linda & Edwin L. Boren Jr., M.D.  
 William D. Boswell Jr., M.D.  
 Mara & Steven H. Brick, M.D.  
 Charles R. Brite, M.D.  
 Loretta & Manuel L. Brown, M.D.  
 Jerry Brown, M.D.  
 Robert T. Brown, M.D.  
 Frank C. Brownell, M.D.  
 Matthew W. Burke, M.D.  
 William C. Burnette Jr., M.D.  
 Donald R. Buxton Jr., M.D.  
 Nicole L. Carbo, M.D.  
 Nicholas J. Carlevato, M.D.  
 Viplava & Krishna Chadalavada, M.D.  
 Veena Chandler, M.D.  
 David S. Cho, M.D.  
 Jai H. Choi, M.D.  
 Chamaree Chuapetcharasopon, M.D. &

## VANGUARD GROUP

E-Z-EM, Inc.  
  
**\$10,000**  
 A Vanguard company since 2000

Somkiet Chuapetcharasopon  
 Tim P. Close, M.D.  
 Yariv Cohen, M.D.  
 Angel R. Colon, M.D.  
 Mary & Anthony M. Cook, M.D.  
 Karen & Glendon G. Cox, M.D.  
 Leonard Davis, M.D.  
*In memory of Robert M. Lowman, M.D.*  
 Marian Demus, M.D.  
 David J. Di Santis, M.D.  
 Beverly A. Dreher, M.D.  
 Eric Drouot, M.D.  
 Thomas L. Dumler, M.D.  
 Mark S. Edens, M.D.  
 Malik Englmaier, M.D.  
 Natasha Eshbaugh, M.D.  
 Peter T. Evangelista, M.D.  
 Joseph Fakhry, M.D.  
 Annelly & Vincent R. Fennell, M.D.  
 Dan Fertel, M.D.  
 Lori Gottlieb, M.D. & Elliot K. Fishman, M.D.  
 Kelly Mayson & Bruce B. Forster, M.D.  
 Ziporah & Fabius N. Fox, M.D.  
 Sharon & E. Edward Franco, M.D.  
 Michelle & R. Terrell Frey, M.D.  
 Elizabeth Orvoen-Frija, M.D. & Guy Frija, M.D.  
 Kenji Furuichi, M.D.  
 Ann & William G. Gawman, M.D.  
 Anna & Michael S. Girard, M.D.  
 Nydia & John S. Gletne, M.D.  
*In memory of Earl Miller, M.D.*  
 Robert B. Golson, M.D.  
 Jack A. Goode, M.D.  
 Gregory I. Gordon, M.D.  
 Albert G. Grabb, M.D.  
 Joel E. Gray, Ph.D.  
 W. Lawrence Greif, M.D.  
 Elisabeth Cohen & Robert I. Grossman, M.D.  
 David B. Hammack, M.D.  
 William S.C. Hare, M.D.  
 Helmut W. Heep, M.D.  
 Manorama & Surjit E. Hermon, M.D.  
 Todd M. Hertzberg, M.D.  
 Paul K. Hiatt, M.D.  
 Glenn A. Hofer, M.D.  
 Sandra & David W. Hunter, M.D.  
 Niamh & Gerard Hurley, M.D.  
 Yutaka Imai, M.D.

## VISIONARIES IN PRACTICE

|  |  |  |
|--|--|--|
| Radiology Group of Abington, PC<br>Abington, Pennsylvania<br><br><b>\$10,000</b><br>Bronze level   | Southeast Medical Imaging at Brinton Lake<br>Glen Mills, Pennsylvania<br><br><b>\$10,000</b><br>Bronze level | St. Paul Radiology<br>St. Paul, Minnesota<br><br><b>\$10,000</b><br>Bronze level |
| Department of Radiology<br>University of Pennsylvania Health System<br>Philadelphia, Pennsylvania<br><br><b>\$10,000</b><br>Bronze level | West Reading Radiology Associates<br>West Reading, Pennsylvania<br><br><b>\$10,000</b><br>Bronze level       |  |

## PRESIDENT'S CIRCLE \$1,500 per year

|   |   |
|---|---|
| Martha & James P. Borgstede, M.D.<br>Gilda Cardenosa, M.D.<br><i>In memory of Gilda Cardenosa, Mother</i><br>Michaele & Burton P. Drayer, M.D.<br>Ayca Gazelle, M.D. & G. Scott Gazelle, M.D., Ph.D.<br>Thomas R. Jones, M.D.<br>Cathy & Mark A. Jones, M.D.<br>Howard Kahen, M.D.<br>Noriko Kamata, M.D.<br>Daniel C. Karnicki, M.D.<br>Melanie & Mark W. Keenan, M.D.<br>Kari & Bryan J. Kenny, M.B.B.Ch.<br>Kari & George M. Khoury, M.D.<br>Etta D. Pisano, M.D. & Jan A. Kylstra<br><i>In memory of Etta O'Toole Pisano</i><br>Katsuhiko Kobayashi, M.D.<br>Donald F. Koch, M.D.<br>Ravi P. Kodali, M.D.<br>Riki & Mordecai Koenigsberg, M.D.<br>Sukehiko Koga, M.D.<br>Marla & D. Bradley Koslin, M.D.<br>Cheryl & Jeffrey A. Kugel, M.D.<br><i>In memory of J. Dennis Kugel, M.D.</i><br>Frode Laerum, M.D., Ph.D.<br>Natalie Salem, Ph.D. & Philipp K. Lang, M.D.<br>William P. Lawrence, M.D.<br>Avelina E. Laxa, M.D.<br>Gail & Clifford G. Leach, M.D.<br>Claude Levy, M.D.<br>Hans H. Lien, M.D., Ph.D.<br>Arthur G. Livingstone Jr., M.D.<br>Oscar J. Llugany, M.D.<br>Anthony Lomonaco, M.D.<br>Connie & Rodolfo A. Lopez, M.D.<br>Angelica T. Aguirre & Jesus A. Loza, M.D.<br>Mary & Charles R. Luttenton, M.D. | Cyndi & Leonard M. Glassman, M.D.<br>Donald R. Logan, M.D.<br>Jose T. Medina, M.D.<br>Carol M. Rumack, M.D. & Barry H. Rumack, M.D.<br>Giovanna Casola, M.D. & Scott Stewart<br>Liaquat N. Malik, M.D.<br>Antonella & Angelo Marrone, M.D.<br>Carl R. Martino, M.D.<br>Andrew C. Mason, M.B.B.Ch.<br>James F. Mastromatteo, M.D.<br><i>In memory of Howard J. Mindell, M.D.</i><br>Laura & Vincent P. Mathews, M.D.<br>Bruce L. McClennan, M.D.<br><i>In memory of William B. Seaman, M.D.</i><br>Ernest J. McKenzie, M.D.<br>Elizabeth & John R. McMahan III, M.D.<br>Mark W. Mewissen, M.D.<br>John M. Milbourn, M.D.<br>Sharon See & Robert M. Miller, M.D.<br>Rudolph H. Miller III, M.D.<br>Charles J. Miller Jr., M.D.<br>Jerome A. Molitor, M.D.<br>Joel Mollin, M.D.<br>Susan I. Wendel, M.D. & Peter R. Mueller, M.D.<br>Ureddi R. Mullangi, M.D.<br>Maria A. Muns Garcia, M.D.<br>Jill & Mark D. Murphey, M.D.<br>Gerald P. Murphy, M.D.<br>James F. Murphy, M.D.<br>Susan & Tambarahalli A. Nagaraja, M.D.<br>Kiyoshi Namba, M.D.<br>Kiwen Nan, M.D.<br>Jeffrey H. Newhouse, M.D.<br>Gordon W.T. Ng, M.D.<br>Wendolyn B. Nichols, M.D.<br>Arthur J. Nussbaum |
|---|---|

Tien-Hay Oei, M.D.  
 Yeon-Hee Oh, M.D.  
 Motoomi Ohkawa, M.D., Ph.D.  
 Roseanne Oliverio, M.D.  
 Carol & Mitchell T. Pace, D.O.  
 Alexis Pagacz, M.D.  
 Milan V. Pantelic, M.D.  
 Smita S. Parikh, M.D.  
 Aruna & Manu N. Patel, M.D.  
 Tatjana & Zivojin Pavlovic, M.D.  
 William F. Pfisterer II, D.D.S., M.D.  
*In memory of William H. Pfisterer, M.D.*  
 Julie & Edward K. Phillips, M.D.  
 Katherine & David W. Piraino, M.D.  
 William O. Pischnotte, M.D.  
 Marvin Platt, M.D.  
 Krishnamurti Ramprasad, M.D.  
 Jill & Donald E. Red, M.D.  
 Lisa A. Ribons, D.O.  
 Nelson T. Rice, M.D.  
 Barry F. Riggs, M.D.  
 Merri & Carl S. Rubin, D.O.  
 Vicki McNally & Kenneth S. Rugh, M.D.  
 Ernst J. Rummenny, M.D.  
 Helen & Michael R. Sage, M.D.  
 Stephen G. Salamy, M.D.  
 Zarrin Salimi, M.D.  
 Richard A. Sarner, M.D.  
 Anne & Ernest M. Scalzetti, M.D.  
 Anna Scheurecker, M.D.  
 Herbert Schunk, M.D.  
 William W. Scott Jr., M.D.  
 Richard M. Seger, M.D.  
 Kathryn & Michael J. Seider, M.D., Ph.D.  
 Patrick F. Sheedy II, M.D.  
 Melinda & Edward Q. Shepherd, M.D.  
 Harry S. Shulman, M.D.  
 Richard J. Silberstein, M.D.  
 Pakorn Sirijintakarn, M.D.  
 Antonio P. Sison, M.D.  
 Eleanor M. Smergel, M.D.  
 Kathleen & Gerald C. Smidebush, M.D.  
*In honor of C. Douglas Maynard, M.D.*  
 Annette & Gerald S. Smyser, M.D., Ph.D.  
 Ruth D. Snow, M.D.  
 Coralli R. So, M.D.  
 Kalevi Soila, M.D.  
 Sat Somers, M.D.  
 Vivian M. Fraga, M.D. & James B. Spies, M.D.  
 Frieda & Leon H. Steinberg, M.D.  
 Martin Steinhoff, M.D.  
 Veronique Barois De Stooppen & Miguel E. Stooppen, M.D.  
 Elizabeth Gourley & Steven M. Stufflebeam, M.D.  
 Thomas D. Suby-Long, M.D.  
 Mihra S. Taljanovic, M.D. & Husein Taljanovic  
 Maria Monteforte & Tommaso Tartaglione, M.D.  
 Karen & Robert D. Tarver, M.D.  
 Carolyn & Frank C. Taylor, M.D.  
 Gregorio M. Tolentino, M.D.  
 Kathleen & Clayton K. Trimmer, D.O.  
 Bonita & David A. Turner, M.D.  
 Hideaki Uozumi, M.D.  
 Gert Van Der Westhuizen, M.B.Ch.B.  
 Richard A. Vanbergen, M.D.  
 Joel J. Vazquez Garcia, M.D.  
 Manuel Viamonte Jr., M.D.  
 Helen & Johnny D. Walker, M.B.B.S.

Andrew B. Weber, M.D.  
 George A. Weis, M.D.  
 Irwin D. Weisman, M.D.  
 John M. Wentz, M.D.  
 Gavin J. White, M.D.  
 Francis W. Willi, M.D.  
 Rolla E. Wilson, M.D.  
 Margaret C. Winston, M.D.  
 Rayeann & Scott F. Woomeer, M.D.  
 Takashi Yamane  
 Masashi Yamashiro, M.D.  
 Brian L. Yemen, M.D.  
 Donna & Frank R. Yuppa, M.D.  
 Muhammad A. Zaheer, M.D.  
 Shahnaz & Amir A. Zamani, M.D.

**BRONZE (\$1 – \$199)**


Marvin R. Abdalah, M.D.  
 June Lee & German G. Abdo Sarras, M.D.  
 Soichi Akata, M.D.  
 Kingsley & Adenike O. Akhigbe, M.B.B.S.  
 Pedro Aleixo, M.D.  
 Luis A. Schiaffino, M.D.  
 Rebecca Jo Caven & Marco A. Alvarez, M.D.  
 Raul A. Alvarez-Arrazola, M.D.  
 Suvarna Amin, M.D. & Naimish Amin  
 Aghama O. Amissah, M.D. & George Armissah  
 Judith K. Amorosa, M.D. & Louis F. Amorosa, M.D.  
 Urs J. Amstler, M.D.  
 Jose C. Arduan, M.D., Ph.D.  
 Jorge A. Sotelo, M.D.  
 Safinaz S. Asaad, M.D.  
 Carmen & Robert A. Ashforth, M.D.  
 Adel A. Assaf, M.D.  
 Mahdieh H. Amou Assar, M.D.  
 Paul N. Backas, M.D.  
 Gail & Richard J. Baker Jr., M.D.  
 Kamala & Ammuni S. Bala-Subramanian, M.D.  
 Laura Ballesio, M.D.  
 Luis G. Barajas, M.D.  
 Jelle O. Barentsz, M.D., Ph.D.  
 Deborah A. Baumgarten, M.D., M.P.H.  
 Gerald R. Berg, M.D.  
 Mark O. Bernardy, M.D.  
 Timothy J. Berrigan, M.D.  
 Stefan A. Beyer-Enke, M.D.  
 Maciek J. Bobinski, M.D., Ph.D.  
 Gert L. Bodendoerfer, M.D.  
 Maurice L. Bogdonoff, M.D.  
 Heinz-Dieter Borchers, M.D.  
 Enrique O. Bosch, M.D.  
 Melvin V. Boule, M.D.  
 Jill & Jeff R. Brace, M.D.  
 Robert E. Brantley, M.D.  
 Brian D. Briscoe, M.D.  
 Richard A. Bronen, M.D.  
 Oleg E. Bronov, M.D.  
 Geraldine Teresa Brusca-Augello, D.O.  
 Sarah & Alan David Brydie, M.B.Ch.B.  
 Nancy & Robert E. Campbell, M.D.  
*In memory of Milton Elkin, M.D.*  
 Rsella Evangelisti & Marcello Caratozzolo, M.D.  
 Mary Foster-Carre & Joseph N. Carre, M.D.  
 Natividad & Anthony R. Carter, M.D.  
 Arilton J. Carvalhal, M.D.  
 Martha A. Nowell, M.D. & Mark J. Carvlin, Ph.D.  
 Hayde De Alba Rodriguez & Omar C. Urbina, M.D.  
 Jagdish Chabra, M.D.  
 Angela DuPont & Jean Chalaoui, M.D.  
 Mark A. Chambers, M.D.  
 Kwan-Yee Chan, M.D.  
 Chin-Yu Chen, M.D.  
 Frank A. Chia, M.D.  
 Cheng-Hui Chiu, M.D.  
 Ting-Ywan Chou, M.D.  
 Alfred W. Christopher Jr., M.D.  
*In memory of Medley Christopher*  
 Michael G. Cloutier, M.D.  
 Daniel T. Cohen, M.D.  
 David H. Cohn, M.D.  
 Benjamin Z. Cooper, M.D.  
 Marisa Bacchi & Michele Copercini, M.D.  
 Caille & Mark O. Cosentino, M.D.  
 Antonio S. Daiz, M.D.  
 Barry D. Daly, M.D.  
 Lisa & Jay M. Daly, M.D.  
 Minh-Tri D. Dang, M.D.  
 Huu-Ninh V. Dao, M.D.  
 Carolina M. de Azevedo, M.D.  
 Carlos F. De Pierris, M.D.  
 Adrian K. Dixon, M.D.  
 Maria Thea V. Dolar, M.D.  
 Charles C. Du Montier, M.D.  
 Anne P. Dunne, M.D.  
 Le Roy M. Erickson, M.D.  
 Laura S. Gordon, M.D. & Frank A. Erickson, M.D.  
 Irma & Eli Abraham Etscovitz, M.D.  
 James W. Farn, M.D.  
 Christine C. Feig, M.D. & Stephen A. Feig, M.D.  
 Angela J. Feyereabend, M.D.  
 F. Willard Filyaw, R.T.  
 Eric R. Fisher, M.D.  
 Ruth & Gerhardt R. Fitz, D.O.  
 Judy & Marc C. Flemming, M.D.  
 Stephanie Flucker, M.D.  
 Lindy Aboody-Freeman & Neil J. Freeman, M.D.  
 Arlene & David B. Freiman, M.D.  
 Nobufusa Furukawa, M.D.  
 Manuela Conceicao Souto, M.D.  
 Xavier Garcia-Rojas, M.D.  
 Marit & Spencer B. Gay, M.D.  
 Richard Ghavami, M.D.  
 Raymond A. Gibney, M.D.  
 Andreas Giger, M.D.  
 Ross H. Golding, M.D.  
 Jose A. Gomez Jardon, M.D.  
 Diane & Lawrence H. Goodman, M.D.  
 Lyn & Stephen M. Greenberg, M.D.  
 Robert J. Gresick Jr., M.D.  
 Manfred Gruenke, M.D.  
 Ilka M. Guerrero, M.D.  
 Daniel S. Gurell, M.D.  
 Kathryn A. Evers, M.D. & Allen Haas  
 Eberhard Hagel, M.D.  
 H. Phillip Hahn, M.D.  
 Jeffrey A. Hale, M.D.  
 G. Christopher Hammet, M.D.  
 Glenn I. Hananouchi, M.D.  
 Curtis L. Harlow, M.D.  
 Catherine & John H. Harris Jr., M.D., D.Sc.  
 Melene & Walter B. Hatcher, M.D.  
 Patricia & Robert J. Herfkens, M.D.

Sigrid M. Herold, M.D. & Christian J. Herold, M.D.  
 Christoph M. Heyer, M.D.  
 Michelle & Richard J. Hicks, M.D.  
 Shuichi Higano, M.D., Ph.D.  
 Shozo Hirota, M.D.  
 Gregory P. Holdener, M.D.  
 Miriam Honnicke, M.D.  
 Nancy & John R. Howard, M.D.  
 Connie & George F. Hromyak Jr., M.D.  
 Joseph H. Introcaso, M.D.  
 Klaus L. Irion, M.D., Ph.D.  
 F. Daniel Jackson, M.D.  
 Maya & Ishwar K. Jagasia, M.D.  
 Karen & Thomas M. Jamison, M.D.  
 Vera B. John-Mikolajewski, M.D.  
 Neal Joseph, M.D.  
 William T. Joyce III, M.D.  
 Rathachai Kaewlai, M.D.  
 Junichi Kageyama, M.D.  
 Vasavi Rajagopal & Saravanan Kasthuri, M.D.  
 Min-ha & Dennis Kay, M.D.  
 Leslie Keighan, M.D.  
 Hee-Seork Kim, M.D.  
 Madhuri Kirpekar, M.D.  
 Etsuko & Michio Kono, M.D.  
 Sapna & George M. Koshy, M.D.  
 Masamichi Koyama, M.D., Ph.D.  
 Stacie & Glenn A. Krinsky, M.D.  
 Israel J. Krongold, M.D.  
 Rick A. Kukulka, M.D.  
 Shinko & Masatomo Kuwabara, M.D.  
 Andrea Laghi, M.D.  
 Stephanie & Philipp H. Lampe, M.D.  
 Paul A. Langis, M.D.  
 Andrew L. Laurel, M.D.  
 G. Paul Le Brun, M.D.  
 Lisa Diethelm, M.D. & John T. Lea  
 Ke-Sook & Kyo R. Lee, M.D.  
 Betty Lee, M.D.  
 Eun-Hye Lee  
 Barbara & Paul J. Leehey III, M.D.  
 Michael S. Lefcoe, M.D.  
 Julio A. Lemos, M.D.  
*In memory of Luis A. Lemos, M.D.*  
 Julie Goodman, Ph.D. & Michael H. Lev, M.D.  
 Gregory D. Linkowski, M.D.  
 Tsung-Han Liu, M.D.  
 Thomas Lossow, M.D.  
 Caroline J. Lundell, M.D.  
 Anne M. Lynch, M.D. & David A. Lynch, M.B.  
 Jane B. Lyon, M.D.  
 David E. March, M.D.  
 Santiago Martinez-Jimenez, M.D.  
 Klaus D. Mathias, M.D.  
 Mifumi & Kiyoshi Matsueda, M.D.  
 Christopher W. T. Mattern, M.D.  
 John A. Mattingly, M.D.  
 Mary Anne & C. Douglas Maynard, M.D.  
*In memory of Robert S. Bryan*  
 Mary Ann & Thomas F. McKay, M.D.  
 Elizabeth & Douglas J. Meek, M.D.  
 Mazda Memarsadeghi, M.D.  
 Patricia J. Mergo, M.D.  
 David Merran, M.D.  
 Jean-Yves Meuwly, M.D.  
 Ryogo Minamimoto

Continued on next page

Continued from previous page

- Lee M. Mitsumori, M.D., M.S.  
 Jen & Michael Moore, M.B.B.Ch.  
 Marie & Arl Van Moore Jr., M.D.  
*In memory of Gregory Van Moore*  
 Lieven L. Mortelmans, M.D.  
 Gaspar A. Motta-Ramirez, M.D.  
 Erika Kim, M.D. & Andreas Mueller  
 Kathe & Charles F. Mueller, M.D.  
 Margie & John R. Muhm, M.D.  
 Thelma & Luther S. Nelson, M.D.  
 Hiroshi Nobusawa, M.D., Ph.D.  
 Judith A. Operchal, M.D.  
 Jaime Ortiz, M.D.  
 Esther & Kofoworola Oshagbemi, M.D.  
 Jo Ellen & Len M. Ouzts, M.D.  
 Susanj S. Patel, M.D.  
 Suman A. Patel, M.D.  
 Ricardo Pena, M.D.  
 Michael A. Pollack, M.D.  
 Stan L. Pope, M.D.  
 Angela & Andrew G. Poulos, M.D.  
 Matteo Precerutti, M.D.  
 Gretchen & Kenneth F. Preimesberger,  
 M.D.  
 Jane Phillips-Hughes, M.D. & Pieter M.  
 Pretorius, M.B.Ch.B.  
 Vanessa M. Zayas-Colon, M.D. & Walter  
 M. Radosta  
 Laura Domene de Ramirez & Jose L.  
 Ramirez-Arias, M.D.  
 Bolan R. Rao, M.D.  
 Ronald A. Rauch, M.D.  
 James V. Rawson, M.D.
- Sharon & James C. Reed, M.D.  
 Catherine & Ronald C. Reese, M.D.  
 Rajdai & Dirk Rehder, M.D.  
 Caroline A. Reich, M.D., Ph.D.  
 Maria Claudia Caldas Vasquez & Roy F.  
 Riascos, M.D.  
 Steve N. Rindsberg, M.D.  
 Barbara P. Biber, M.D. & Charles Rizzi  
 Mary & Richard J. Rolfs, M.D.  
 William J. Romano, M.D.  
 Richard S. Rome, M.D.  
 Karen & Joseph A. Ronsivalle, D.O.  
 Jane & Norman S. Rosenthal, M.D.  
 Leslie W. Roub, M.D.  
 Pierre J. Rouge, M.D.  
 Jaap G. Roukema, M.D.  
 Marwan H. Saab, M.D.  
 Mitchell S. Sandler, M.D.  
 Lisa & Steven F. Sands, M.D.  
 Paul Schoenhagen, M.D.  
 Paul M. Schroeder, M.D.  
 Stephen T. Sears, M.D.  
 Lewis I. Segal, M.D.  
 Grace & Michael A. Sein, M.D.  
 Thangaiyan Sezhiyan, M.D.  
 Trudy & Kevin L. Shady, M.D.  
 Msallam M. Shami, M.D.  
 Laura J. Perry, M.D. & Robe G. Sheiman,  
 M.D.  
 Hang C. Shen, M.D.  
 Andrea J. Rothe, M.D. & Michael  
 Shevach  
 Richard Shoenfeld, M.D.  
 Faaiza Mahmoud, M.B.B.S. & Khan M.  
 Siddiqui, M.D.
- Ezequiel Silva III, M.D.  
 Pat & Guy H. Simmons Jr., Ph.D.  
 Andre K. Sommer, M.D.  
 Tong O. Soon, M.Med., M.B.A.  
 Shelley J. Spaner, M.D.  
 Kimberly A. Spencer, M.D.  
 Lou Ann Gartner, M.D. & Dale W.  
 Sponaugle, M.D.  
 Andrea & Gregory S. Stacy, M.D.  
 Jean-Marc Starc, M.D.  
 Jody & Michael G. Stebbins, M.D.  
 Karen & James A. Stevens Jr., M.D.  
 Ernst-Peter K. Strecker, M.D.  
 Deborah Summa  
*In memory of A. Francis Summa*  
 Ayako & Satoru Takahashi, M.D.  
 Yasuo Takehara, M.D.  
 Kristian Talle, M.D.  
 James G. Tarter, M.D.  
 Andre R. Thebert, M.D.  
 Kitt Shaffer, M.D., Ph.D. & Timothy  
 Titcomb  
 Michael R. Tryhus, M.D.  
 Panagiotis V. Tsirkinidis, M.D.  
 Margaret & Glenn A. Tuckman, M.D.  
 Terrence A. Tyrrell, M.D.  
 Masafumi Uchida, M.D., Ph.D.  
 Mary & David B. Underwood, M.D.  
 Cornelis F. Van Dijke, M.D., Ph.D.  
 Farrel K. Van Wagenen, M.D.  
 Ruben M. Vanheste, M.D.  
 Mary & Juan D. Vielma, M.D.  
 Maria & Henrique Vilaca-Ramos, M.D.  
 Robert C. Vogler, M.D.
- Silvio A. Vollmer, M.D.  
 George H. Wakefield III, M.D.  
 Michael E. Waldman, M.D.  
 Betty & John S. Wang, M.D.  
 James H. Watt, M.D.  
 Milo M. Webber, M.D.  
 Gregory V. White, M.D.  
 Keith S. White, M.D.  
 Laura H. Wile & Geoffrey Wile, M.D.  
 Jennifer & Edward W. Williams,  
 M.B.Ch.B.  
 Constance & Edward Y. Wong, M.D.  
 Christine W. Wu, M.D.  
 Rosemary & Danilo A. Wycoco, M.D.  
 Masaki Yamamuro, M.D.  
 Toshihide Yamaoka, M.D.  
 Shuhei Yamashita M.D.  
 Chang W. Ping & Chien-Fang Yang,  
 M.D.  
 Chune W. Yeh, M.D.  
 Jun Yoshigi, M.D.  
 Ernest M. Yuen, M.D.  
 Joseph M. Zeigler, M.D.

 Online donations can be made at  
[RSNA.org/donate](https://www.rsna.org/donate).

## RSNA Grant Leads to Routine MR Breast Screening for High-Risk Women

Continued from page 17

who are known to carry the breast cancer gene or who are at high risk for developing breast cancer.”

After leaving MGH, Dr. Slanetz joined the faculty of Tufts University School of Medicine (TUSM) in Boston, and was named director of breast imaging at Caritas St. Elizabeth’s Medical Center. In addition to her clinical responsibilities, she taught at TUSM and served on the school’s curriculum committee.

Today, Dr. Slanetz is an associate professor of radiology and director of undergraduate medical education for the Department of Radiology at Boston University Medical Center. She remains active in clinical research, which continues to focus on assessing new technologies in breast imaging.

She recently evaluated prospectively a computer-aided detection

(CAD) system for screening mammography. Her findings, which have been submitted for publication, show a five percent increase in cancer detection and a four percent increase in sensitivity with routine use of CAD.

In recent years, she has also increased her attention on the education of medical students, residents and practicing physicians.

“Dr. Slanetz holds a prominent position in our institution in both breast imaging, where she has demonstrated leadership in breast MR imaging, and in medical education,” said Alexander Norbash, M.D., professor and chair of the Department of Radiology at Boston University Medical Center. “She is working diligently on our medical school curriculum committee to transform expectations as radiology demonstrates its increasing value in vivo anatomic, physiologic and metabolic imaging.”

Dr. Slanetz said the work she completed with the RSNA Research Fellow grant served as the foundation of her career. “It really helped me to establish myself as a leader in breast MR imaging,” she said.

A Rhodes scholar finalist, Dr. Slanetz graduated summa cum laude from Smith College with a major in mathematics. She was elected to both Phi Beta Kappa and Sigma Xi. She entered Harvard Medical School in the Health Sciences and Technology program where she received both her M.D. degree and a master’s degree in public health. Over the years, she has been actively involved in organized medicine, serving on numerous committees for the American College of Radiology and the American Medical Association. □

# Product News

## RECALLS/WARNINGS

### Warnings Issued About Generator, Imaging Agent

**M**ALLINCKRODT (*imaging.mallinckrodt.com*), a business unit of Tyco Healthcare, has announced the voluntary recall of its Ultra-TechneKow® DTE Technetium Generator and is requesting the customers immediately discontinue use of this generator.

In addition, Mallinckrodt and Palatin Technologies Inc. are notifying healthcare providers about postmarketing reports of serious and life-threatening cardiopulmonary events following administration of NeutroSpec™ imaging agent. As a result, the companies have

voluntarily stopped all sales of the product.

More information on both of products can be found at *imaging.mallinckrodt.com/WhatsNew/main.asp*.

## NEW PRODUCT

### Chest DXR System

Summit Industries (*www.summitindustries.net*) has introduced its high-performance AMRAD Chest Digital Radiography (DXR) system.

Equipped with a patented, single charge-coupled device, direct digital receptor, AMRAD Chest DXR captures and stores high-resolution images in just six seconds. These images may include lung tissue discrepancies that cannot be detected by conventional film-based systems.

“For a clinic with three to 30 doctors, or a hospital in the 25- to 500-bed range, AMRAD Chest DXR is a perfect diagnostic and productivity tool,” said Bruce Rennecker, vice-president of sales and marketing for Summit Industries.



## NEW PRODUCT

### New Options for CADstream

Confirma, Inc. (*www.confirma.com*) has introduced new products and features for its CADstream line of computer-aided detection for MR imaging.

The newly expanded SureLoc™ is now compatible with all interventional guidance methods and equipment. CADalog™ is the company's new library that provides efficient storage and retrieval of imaging studies, and z3D Contrast Acuity by Clario is a new visualization tool for the evaluation of enhancement patterns in a study.

## NEW PRODUCT

### New PET Atlas

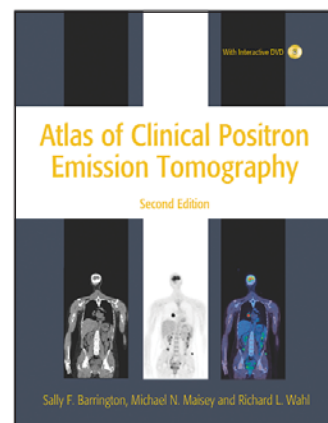
**T**HE SECOND edition of the *Atlas of Clinical Positron Emission Tomography* has been released with the inclusion of an interactive DVD-ROM using software from Hermes Medical Solutions (*www.hermesmedical.com*).

HERMES RAPID™ Software features PET/CT cases for viewing and analysis, with cross-modality image fusion.

“The second edition of the *Atlas for Clinical Positron Emission Tomography*, written by experienced leaders from two continents, is a complete update of the principles and practice of clinical PET and PET/CT, the most exciting

advances in medical imaging in the past 30 years,” wrote Henry N. Wagner Jr., M.D., in the forward to the book.

The authors of the atlas are Sally F. Barrington, Michael N. Maisey and Richard L. Wahl, M.D. The publisher is Hodder Arnold and the U.S. distributor is Oxford Press.



**2006:** Introducing the new look of your Gray Journal.

The superb research and reviews of *Radiology*  
now have a design that complements their quality.

# THE NEW GRAY

RSNA<sup>®</sup>

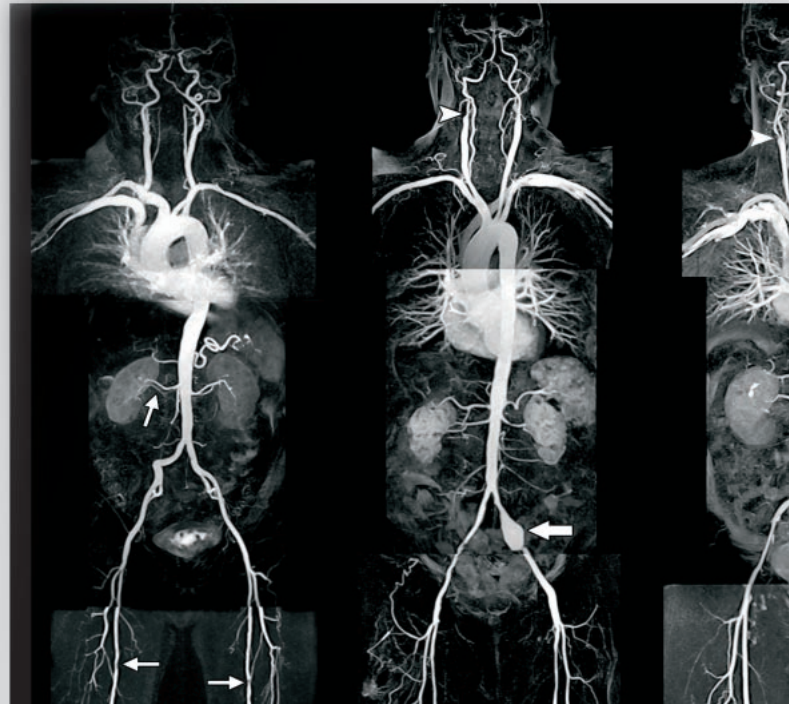
# Radiology

RADIOLOGY.RSNAJNLS.ORG

JANUARY 2006

VOLUME 238 NUMBER 1

Radiology





# News about RSNA 2006

## RSNA 2005 Sets Two Attendance Records

**T**OTAL ATTENDANCE and international attendance at RSNA 2005 were at their highest levels for an RSNA annual meeting.

Total attendance was 62,251, eclipsing the

previous record of 62,169 set in 1996. International attendance was 8,060, topping the previous record of 7,909 set in 1999.

### Official Audited Numbers

|                             | RSNA 1995     | RSNA 1996 | RSNA 1999 | RSNA 2000     | RSNA 2001 | RSNA 2004 | RSNA 2005     |
|-----------------------------|---------------|-----------|-----------|---------------|-----------|-----------|---------------|
| Total Attendance            | 60,873        | 62,169    | 59,566    | 59,794        | 53,033    | 60,338    | <b>62,251</b> |
| Healthcare Professionals    | <b>27,159</b> | 27,000    | 24,645    | 24,412        | 20,788    | 26,202    | 26,709        |
| Exhibitor Personnel         | 27,103        | 28,973    | 28,852    | <b>30,089</b> | 27,165    | 27,664    | 28,782        |
| International Professionals | 6,815         | 7,285     | 7,909     | 7,743         | 5,092     | 7,575     | <b>8,060</b>  |

*Notes: Bold indicates record attendance. Other categories were added for total attendance.*

## Abstract Submission Under Way

The latest news about RSNA 2006 is available at [rsna2006.rsna.org](http://rsna2006.rsna.org). The Web site will be updated through the year.

Meanwhile, abstracts are now being accepted for RSNA 2006. Abstracts are required for scientific papers, scientific posters, education exhibits and *infoRAD* exhibits. To submit an abstract, go

to [RSNA.org/abstracts](http://RSNA.org/abstracts).

**The deadline for abstract submission is April 15, 2006.**

For more information about the abstract submission process, contact RSNA at 1-877-776-2227 within the United States or 1-630-590-7774 outside of the United States.

### Important Dates for RSNA 2006

- April 15** Deadline for abstract submission
- April 24** RSNA/AAPM member registration and housing opens
- May 22** Non-member registration and housing opens
- June 19** Refresher course enrollment opens
- Nov. 10** Final advance registration deadline
- Nov. 26–Dec. 1** RSNA 92nd Scientific Assembly and Annual Meeting



92nd Scientific Assembly and Annual Meeting  
November 26–December 1, 2006  
McCormick Place, Chicago

# News about RSNA Highlights

## RSNA Highlights: Clinical Issues for 2007

**R**SNAs first educational conference will be held February 26–28, 2007, at the J.W. Marriott Desert Ridge Resort & Spa in Phoenix, Ariz.

The conference, RSNA Highlights: Clinical Issues for 2007, will include selected refresher courses and the avail-

able electronic scientific posters and education exhibits from RSNA 2006.

Registration will begin after Labor Day.

Up-to-date information is available at [RSNA.org/highlightsconference](http://RSNA.org/highlightsconference).

### Important Dates for RSNA Highlights

- Sept. 5** Registration opens
- Feb. 26–28** RSNA Highlights: Clinical Issues for 2007



# RSNA 2006 Exhibitor News

## RSNA Connectathon Attracts Record Number of Companies

More than 60 companies participated in the 2006 Connectathon at RSNA Headquarters in mid-January. More than 150 medical systems underwent “real-world” testing to see if they could truly interoperate.

The results of the Connectathon are available at [www.ihe.net](http://www.ihe.net).

At RSNA 2006, a demonstration will show how medical images and other patient information can be exchanged between care sites. The demonstration will be based on the IHE Cross-enterprise Document Sharing for Imaging (XDS-I) integration profile.



## Exhibitor Prospectus

The RSNA 2006 Exhibitor Prospectus will be mailed in late March. To achieve maximum available space and assignment points, your completed application must be received at RSNA Headquarters by April 10, 2006. The first-round space assignment begins May 15.

## Exhibitor Meeting

All RSNA 2005 exhibitors are invited to attend the RSNA 2006 Exhibitor Planning Meeting on February 28 at Rosewood Restaurants and Banquets near O'Hare International Airport.

The meeting is intended to review RSNA 2005 and plan for RSNA 2006. Detailed information was sent to each exhibitor's official contact in mid-January.

## Important Exhibitor Dates for RSNA 2006

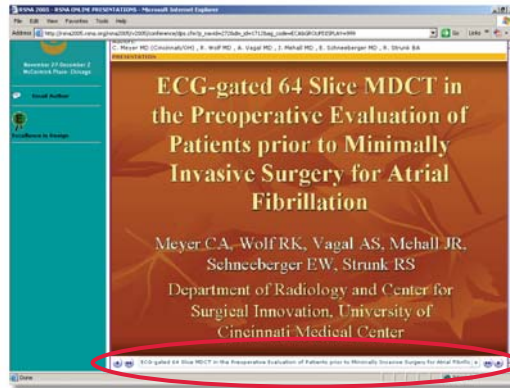
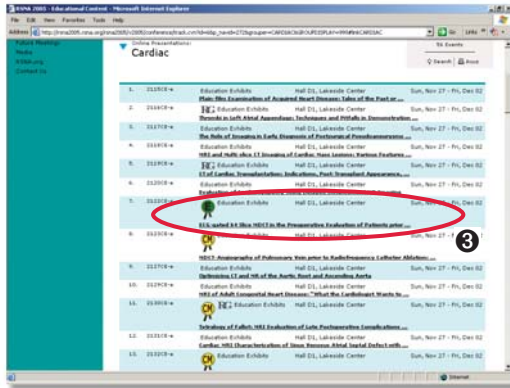
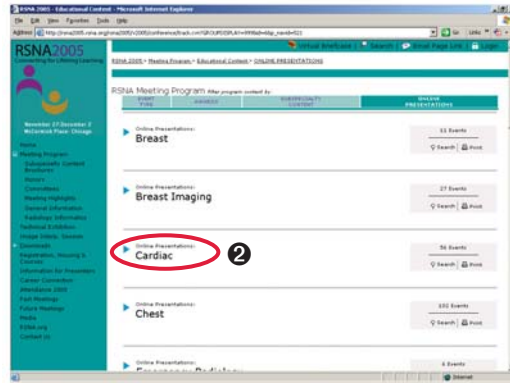
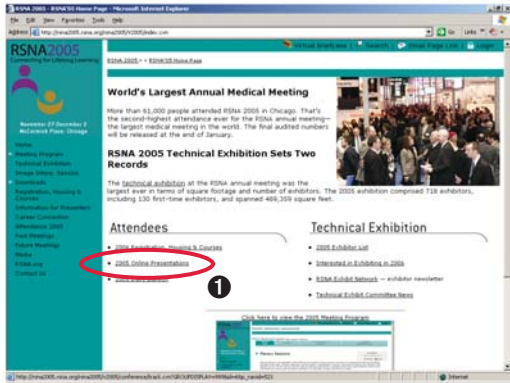
|                         |  |
|-------------------------|--|
| <b>February 28</b>      | Exhibitor Planning Meeting                       |
| <b>March 29</b>         | Exhibitor Prospectus mails                       |
| <b>April 10</b>         | Date point system begins                         |
| <b>May 8</b>            | Date point system ends                           |
| <b>May 15</b>           | First-round space assignment begins              |
| <b>June 27</b>          | Exhibitor Planning/Booth Assignment Meeting      |
| <b>July 5</b>           | Technical Exhibitor Service Kit Available Online |
| <b>Nov. 26 – Dec. 1</b> | RSNA 92nd Scientific Assembly and Annual Meeting |



92nd Scientific Assembly and Annual Meeting  
November 26–December 1, 2006  
McCormick Place, Chicago

■ For more information, contact RSNA Technical Exhibits at 1-800-381-6660 x7851 or [exhibits@rsna.org](mailto:exhibits@rsna.org).

# RSNA.org



## Electronic Exhibits from RSNA 2005

**M**ANY OF the electronic scientific posters and education exhibits featured at RSNA 2005 will be available online until November 15, 2006.

To access the exhibits, go to

[rsna2005.rsna.org](http://rsna2005.rsna.org) and click on 2005 Online Presentations ①.

Choose a category, such as Cardiac ②, and click on it to view the list of presentations in that subspecialty.

You can then view the presentation by clicking on the title ③ and then clicking on the forward and backward buttons ④ at the bottom of the screen.

## OTHER WEB NEWS

### National Oncologic PET Registry Launched

The National Oncologic PET Registry (NOPR) has developed a Web site, [www.cancerpetregistry.org](http://www.cancerpetregistry.org), in response to the Centers for Medicare and Medicaid Services proposal to expand coverage for FDG PET to include cancers and indications not presently eligible for Medicare reimbursement.

Facility registration forms

and instructions, sample data collection forms, a workflow diagram, operations manual, patient information and much more are now available on the site.

The NOPR is sponsored by the Academy of Molecular Imaging and is managed by the Amer-

ican College of Radiology through the American College of Radiology Imaging Network.



## 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)

**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)

**NEW**  
**R&E 25 Questions Forum**  
[RSNA.org/25questions](http://RSNA.org/25questions)

**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)

**Abstract Submission for RSNA 2006**  
[RSNA.org/abstracts](http://RSNA.org/abstracts)

**RSNA 2006**  
[rsna2006.rsna.org](http://rsna2006.rsna.org)

**NEW**  
**RSNA Highlights: Clinical Issues for 2007**  
[RSNA.org/highlightsconference](http://RSNA.org/highlightsconference)

# Medical Meetings

## March – May 2006

**MARCH 3-7**

European Congress of Radiology (ECR), ECR 2006, Austria Center Vienna • [www.myeccr.org](http://www.myeccr.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 23-26**

American Institute of Ultrasound in Medicine (AIUM), 2006 Annual Convention, Marriott Wardman Park, Washington, D.C. • [www.aium.org](http://www.aium.org)

**MARCH 24-25**

Clinical Research Conference 2006, Institute of Clinical Research and National Bio Science Society, Kiev, Ukraine • [www.ct-institute.boom.ru](http://www.ct-institute.boom.ru)

**MARCH 24-26**

American Society for Therapeutic Radiology and Oncology (ASTRO), Spring Program, Intercontinental Miami • [www.astro.org](http://www.astro.org)

**MARCH 25-29**

Academy of Molecular Imaging (AMI), 2006 Annual Conference, Gaylord 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 2-4**

Transdisciplinary Conference on Distributed Diagnosis and Home Healthcare, Biotechnology Council, Crystal Gateway Marriott, Arlington, Va. • [icsl.ee.washington.edu/d2h2](http://icsl.ee.washington.edu/d2h2)

**APRIL 4**

Molecular Biology for Imagers, National Institutes of Health (NIH)/Association of University Radiologists (AUR), Hilton Austin, Texas • [www.aur.org](http://www.aur.org)

**APRIL 5-8**

AUR 54th Annual Meeting, Hilton Austin, Texas • [www.aur.org](http://www.aur.org)

**APRIL 7-9**

Japan Radiological Society (JRS), 65th Annual Meeting, Yokohama, Japan • [www.radiology.or.jp/english/index.html](http://www.radiology.or.jp/english/index.html)

**APRIL 10-12**

International Electronic Portal Imaging Workshop, EPI2K6, Carlton Crest Hotel and Conference Centre, Melbourne, Australia • [www.epi2k6.org.au](http://www.epi2k6.org.au)

**APRIL 20-23**

São Paulo Radiological Meeting, ITM Expo Convention Center, São Paulo, Brazil • [www.spr.org.br](http://www.spr.org.br)

**APRIL 21-22**

ASTRO, Image-Guided Radiotherapy/Stereotactic Radiotherapy Symposium, Scottsdale Resort and Conference Center, Ariz. • [www.astro.org](http://www.astro.org)

**APRIL 27-30**

Society for Computer Applications in Radiology (SCAR), Annual Meeting, Hilton Austin Hotel & Austin Convention Center, Texas • [www.scarnet.org](http://www.scarnet.org)

**APRIL 28-30**

American College of Radiology (ACR), National Conference on Breast Cancer, Manchester Grand Hyatt, San Diego • [www.acr.org](http://www.acr.org)

**APRIL 29-MAY 5**

American Society of Neuroradiology (ASNR), 44th Annual Meeting, San Diego Convention Center, Calif. • [www.asnr.org](http://www.asnr.org)

**APRIL 30-MAY 5**

American Roentgen Ray Society (ARRS), 106th Annual Meeting, Vancouver Convention and Exhibition Centre, British Columbia, Canada • [www.rrs.org](http://www.rrs.org)

**NOVEMBER 26-DECEMBER 1**

RSNA 2006, 92nd Scientific Assembly and Annual Meeting, McCormick Place, Chicago • [rsna2006.rsna.org](http://rsna2006.rsna.org)

**FEBRUARY 26-28, 2007**

RSNA Highlights: Clinical Issues for 2007, J.W. Marriott Desert Ridge Resort & Spa, Phoenix, Ariz. • [RSNA.org/highlightsconference](http://RSNA.org/highlightsconference)

**RSNA**News

RSNA News  
820 Jorie Blvd.  
Oak Brook, IL 60523  
1-630-571-2670  
1-630-571-7837 Fax  
[rsnanews@rsna.org](mailto:rsnanews@rsna.org)

NONPROFIT ORG.  
U.S. POSTAGE  
**PAID**  
PERMIT #186  
EASTON, PA 18042