

RSNA *News*



Photos by Maggie Bartlett and Eric Hanson

NIH Announces Bold Research Initiative

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- Need Examined for U.S. Radioisotope Production Facility
- Studies Link Early Breast Radiation Therapy and Lung Cancer
- You Can Orchestrate a Winning Business Strategy
- RSNA Editors Hit the Road to Teach Potential Authors about *Radiology* and *RadioGraphics*

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Statue Erected to Maynard in N.C.

A statue dedicated to **C. Douglas Maynard, M.D.**, was unveiled in October in Piedmont Triad Research Park—part of the Wake Forest University campus. It was dedicated to Dr. Maynard “in recognition of his service to Wake Forest University School of Medicine and the greater community of Winston-Salem.”

Dr. Maynard, who is retiring after more than a half-

century at the school—as a student, a professor and chair of the Radiology Department—played an integral role in developing the research park. Supporters of the park believe it will attract biotechnology companies and result in thousands of research jobs.

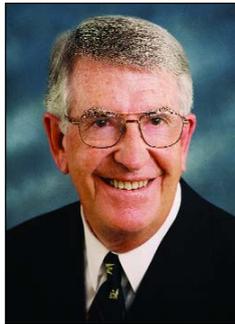
The statue, called Triple Helix, stands 22-feet tall and is made of stainless steel and brass.



C. Douglas Maynard, M.D., and his wife Mary Anne, stood in front of the Triple Helix during the dedication ceremony in October.



C. Douglas Maynard, M.D.



David B. Fraser, M.D.

CIR Honors Maynard, Fraser

Dr. Maynard, 2000 RSNA President, will receive a gold medal from the Colegio Interamericano de Radiology (CIR) at the 22nd Congress of the CIR to be held jointly with the 23rd International Congress of Radiology in Montreal next June. 1998 RSNA President **David B. Fraser, M.D.**, from Musquodoboit Harbor, Nova Scotia, will receive honorary membership in CIR.



Betty L. Rohr

Rohr Distinguished Member of ACME

Betty L. Rohr, director of RSNA Program Services, has attained the status of Distinguished Member in the Alliance for Continuing Medical Education (ACME). This special award recognizes significant service, active participation and sustained membership in the Alliance. An awards ceremony will be held in January.

CAR Exec Earns Leadership Award

Normand LaBerge, chief executive officer of the Canadian Association of Radiologists (CAR), is the winner of the 2003 Banff Centre/CSAE Award for Excellence in Association Leadership from the Canadian Society of Association Executives.

“Since assuming his current position in 1999, Normand LaBerge has doubled his association’s sponsorship support and doubled membership. As a direct result of implementing his action plan, the association has attracted \$3.5 billion in government funding—an astounding increase from the \$250 million received before his arrival. He also serves on several committees and projects aimed at helping other associations with strategic planning and change management,” CSAE said in announcing the award.

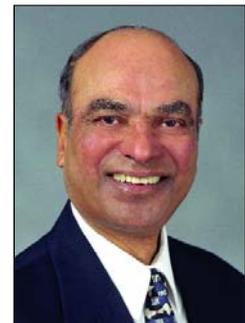


Normand LaBerge

Thakur to be SNM President

Mathew L. Thakur, Ph.D., professor of radiology/nuclear medicine at Thomas Jefferson University in Philadelphia, will be installed as president of the Society of Nuclear Medicine (SNM) in June 2004.

Dr. Thakur has developed or helped to develop several widely used radiopharmaceuticals that have improved diagnostic accuracy and ultimately improved patient care, including Krypton-81m, Indium-111 Bleomycin, In-111-oxine and 99mTc Anti-CD15 Anti-Granulocyte Antibody.



Mathew L. Thakur, Ph.D.

NLM Exhibit Honors Women in Medicine

Four radiologists are among those featured in a new exhibit at the National Library of Medicine in Bethesda, Md. The exhibit, *Changing Face of Medicine*, celebrates the lives and achievements of America's women physicians through artifact, textile and digital-portrait galleries as well as in an activity zone with interactive installations.

The honorees include:

- **Alice Ettinger, M.D.** (1899 – 1993), was a radiologist and educator who brought the technique of spot-film imaging to the United States in 1932. She later became the first chair of radiology at Tufts University School of Medicine. In 1982, she received an RSNA Gold Medal.
- **Barbara J. McNeil, M.D., Ph.D.**, is the founding head of the department of healthcare policy at Harvard Medical School. In addition to academic

and clinical appointments in radiology, she has published a series of papers in the area of decision analysis and patients' preferences that are among the most cited studies in the field.

- **Marilyn A. Roubidoux, M.D.**, associate professor of radiology at the University of Michigan School of Medicine, works to bring existing medical tools to the underserved to diagnose cancer and identify risk factors for the disease. As a member of the Sioux and Iowa Nations, she draws national attention to health disparity and raises awareness within at-risk communities.
- **Lucy Frank Squire, M.D.** (1915-1996), was the first woman to be enrolled as a resident in Massachusetts General Hospital's radiology program. She was a noted radiologist who became known as a medical



educator and mentor to generations of students at the State University of New York (SUNY) Health Science Center. Her landmark book *Fundamentals of Radiology* has been a standard in the field for nearly 40 years.

The exhibition has a companion Web site at www.nlm.nih.gov/changingthefaceofmedicine.

Bagshaw Named Cancer Fighter of the Year

Malcolm A. Bagshaw, M.D., professor emeritus from the Department of Radiation Oncology at Stanford University, is the recipient of the 2003 Cancer Fighter of the Year award.

During the ceremony at the American Society for Therapeutic Radiology and Oncology meeting in Salt Lake City, Dr. Bagshaw was cited for "exemplary leadership in cancer research, treatment, education and patient care."



Malcolm A. Bagshaw, M.D.

Jain Elected to IOM

Rakesh K. Jain, Ph.D., the A.W. Cook professor at Harvard Medical School and director of the Edwin L. Steele Laboratory in the Department of Radiation Oncology at Massachusetts General Hospital in Boston, is among the 65 newly elected members of the Institute of Medicine of the National Academies.

Members are elected through a highly selective process that recognizes those who have made major contributions to the advancement of the medical sciences, healthcare and public health. For more information, go to www.iom.edu.

Three RSNA Staff Earn CMP Credential

Three RSNA employees who are active in planning the complex logistics of the Society's scientific assembly and annual meeting have earned the certified meeting professional (CMP) designation. They are:

Janet Cooper, Director, Convention Operations
Kim Christianson, Manager, Meeting Services
Christina Weres, Manager, Housing and Travel Services

RSNA News

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

ARDMS Welcomes New Board Chair

Paul A. Cardullo, M.S., B.S.N., R.V.T., is the new chairman of the board of directors for the American Registry of Diagnostic Medical Sonographers (ARDMS). During his tenure, Cardullo plans to promote ongoing improvements in the quality and responsiveness of all ARDMS products and services, and to continue building the Registry's knowledge-based organizational and governance structures.



Paul A. Cardullo, M.S., B.S.N., R.V.T.

Shaffer Receives ASHNR Gold Medal

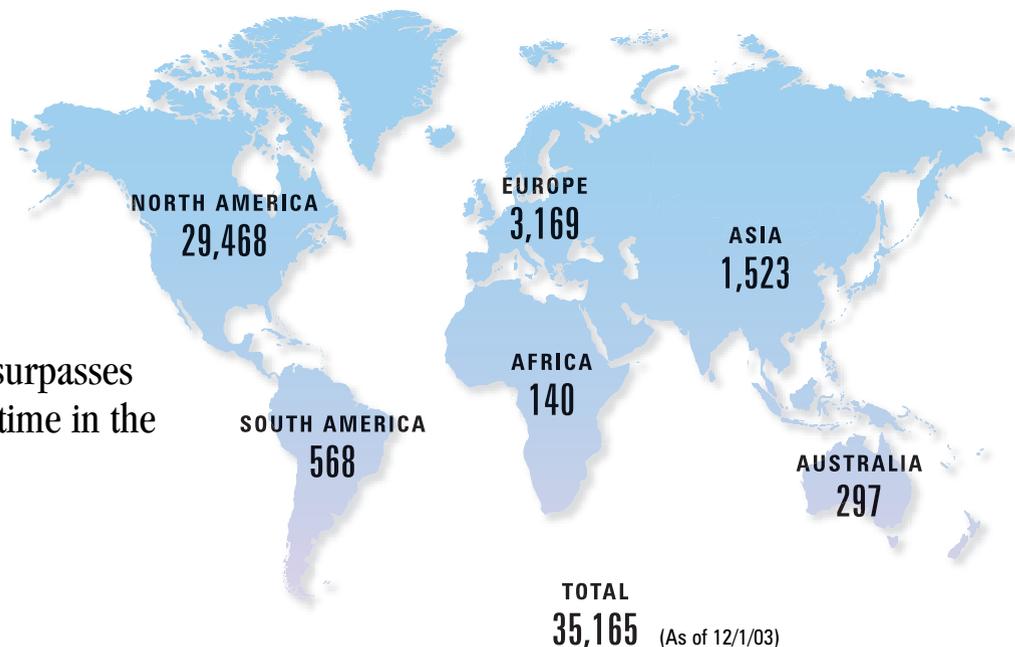
Katherine A. Shaffer, M.D., chief of the Section of Breast Imaging and a professor of radiology at the Medical College of Wisconsin, is the recipient of the 2003 gold medal from the American Society of Head and Neck Radiology (ASHNR). Dr. Shaffer, a former ASHNR president, is a pioneer in the use of CT for temporal bone imaging.



Katherine A. Shaffer, M.D.

ANNOUNCEMENTS

RSNA membership surpasses 35,000 for the first time in the Society's history.



Membership Renewal Online

It's time to renew your RSNA membership. You can renew online at www.rsna.org. At the top of the page, click Members LOGIN and follow the instructions. Invoices for 2004 RSNA membership dues were mailed in early November. Because online access to *Radiology* and *RadioGraphics* is tied to membership status, payments not received by December 31, 2003, may trigger automatic inactivation of online subscriptions.

For more information or to renew by phone, contact the RSNA Membership and Subscriptions Department toll free at (877) RSNA-MEM or membership@rsna.org.

GE Acquires Amersham

General Electric Company and Amersham plc have announced an agreement on the terms of an all-stock transaction whereby GE will acquire all of the outstanding shares of Amersham, a world leader in contrast agents and biosciences (discovery systems and protein separations). The transaction, valued at approximately \$9.5 billion, is subject to regulatory approval.



RSNA 2003 Outstanding Researcher

Robert C. Brasch, M.D., is the recipient of the 2003 RSNA Outstanding Researcher award, established to annually recognize and honor an individual who has made original and significant contributions to the field of radiology or radiologic sciences throughout a career of research.



Robert C. Brasch, M.D.

Dr. Brasch is considered one of the giants in radiologic contrast media research. Having founded the research laboratory at the University of California, San Francisco, Dr. Brasch has been devoted to research in radiology and contrast media since 1976. The major thrust of his early work was related to an exploration of

the role that the immune system plays in contrast media reactions. His work in that area is regarded as the gold standard.

Very early in his research career, he realized the importance of radiation dose to pediatric patients in CT and carefully tested the exposure, depending on the type of equipment and procedure, using specially designed pediatric phantoms. Dr. Brasch has twice received the John Caffey award for research in pediatric imaging. He also was awarded the Harry Fisher medal for contrast media research.

In recent years Dr. Brasch and his associates have turned their attention to the developing field of MR imaging contrast media. His laboratory did some of the first contrast enhanced MR imaging, including early experimental imaging with gadolinium chelates in the early 1980s. Recently his attention has focused on an exploration of imaging methodologies that might be used to characterize tumor vascularity at the arteriolar and capillary levels. He was one of the first individuals to receive NIH support for MR imaging contrast media research.

Dr. Brasch has authored more than 260 scientific articles and has written 72 book chapters. He has trained over 40 fellows in contrast media research from around the world. One of his fellows noted: "During my stay in San Francisco, I was deeply impressed and fascinated by the way Robert Brasch could guide, counsel and help the different fellows working with him. He was able to provide a warm atmosphere in his laboratory, which encouraged every fellow to give the best he could to the research work. His human qualities are extraordinary and he is a wonderful example to follow."

Dr. Brasch has been active for three decades in research and is valued for his effective way of introducing young radiologists from all over the world to experimental radiologic research.

RSNA 2003 Outstanding Educator

Murray Dalinka, M.D., is the recipient of the RSNA 2003 Outstanding Educator award, established to annually recognize and honor one individual who has made original and significant contributions to the field of radiology or radiologic sciences throughout a career of teaching and education.



Murray Dalinka, M.D.

Dr. Dalinka began his career in academic radiology in the 1960s with an appointment as instructor at Harvard's Peter Bent Brigham Hospital. He is currently a professor and associate chair for musculoskeletal imaging at the University of Pennsylvania (Penn) School of medicine. He joined Penn in 1976 and has mentored, educated and influenced countless radiology residents and fellows since that time.

Considered one of the world leaders in musculoskeletal imaging, Dr. Dalinka is a founding member of the International Skeletal Society. He has published over 240 scientific articles and reviews, many of which have become seminal treatises on their topics. His textbook, *Arthrography*, originally published in 1980, remains the definitive work on that topic.

Additionally, Dr. Dalinka has edited six annual radiology yearbooks and five volumes of the *Clinic of North America* series. In 1995, he became editor of the musculoskeletal section of *Radiology Diagnosis, Imaging and Intervention* by Taveras and Ferruci. Dr. Dalinka has served on the editorial boards for *Radiology*, *RadioGraphics* and *Skeletal Radiology*. Currently, he is an assistant editor of the *American Journal of Roentgenology*.

In the words of one of Dr. Dalinka's former residents: "He became my mentor during residency. He is the reason I chose a career in academic radiology." The same resident remembers a particularly busy day when Dr. Dalinka was being pulled in many different directions as he worked with his residents and with visiting fellows who were private practice radiologists. While he was reading cases, patiently answering questions and pulling articles for them, one fellow asked him why he bothered working in academics. Without hesitating, Dr. Dalinka responded, "I love teaching the residents."

Dr. Dalinka's role as an educator has had a far-reaching and tremendous impact on the physicians he has educated and mentored. He has given more than 500 invited lectures, attended by tens of thousands of radiologists in 27 countries.

NIH Announces Bold Research Initiative

Imaging figures prominently in the National Institutes of Health's (NIH) new approach to biomedical research announced on September 30 by NIH Director Elias A. Zerhouni, M.D.

Dr. Zerhouni wants to speed up the pace at which scientific advances at the cellular level are converted into disease treatments and cures. The NIH Roadmap for Medical Research focuses on 28 initiatives to be carried out by nine implementation groups in three specific areas—new pathways to discovery, research teams of the future and re-engineering the clinical research enterprise.

There will be specific new programs in each of the three areas, totaling approximately \$130 million in fiscal 2004, which began October 1. That budget will grow to an estimated \$2.1 billion over the next five years.

"There has been a scientific revolution in the last few years," Dr. Zerhouni said during the press conference. "The opportunities for discoveries have never been greater, but the complexity of biology remains a daunting challenge. With this new strategy for medical research, NIH is uniquely positioned to spark the changes that must be made to transform scientific knowledge into tangible benefits for people."

Two major realizations underline the Roadmap. First, after five years of budget increases of 15 percent a year, NIH will feel the effects of a federal deficit that is threatening to top \$500 billion in fiscal year 2004. Congress has not finished its work on



NIH Director Elias A. Zerhouni, M.D., unveiled his NIH Roadmap for Medical Research in September. Imaging will play a prominent role in at least two of three key areas.

the NIH appropriations bill for fiscal year 2004, but it appears the budget increase will be in the range of two or three percent. Dr. Zerhouni addressed

With this new strategy for medical research, NIH is uniquely positioned to spark the changes that must be made to transform scientific knowledge into tangible benefits for people.

—Elias A. Zerhouni, M.D.

the reduction in the size of the NIH budget increase by calling for a "more efficient and productive system of medical research."

Also, despite a doubling of the NIH budget over the past five years, there are some naysayers in the public and on Capitol Hill who wonder why disease prevention and treatment advances have not multiplied more rapidly. "We have made remarkable progress in medical research in recent

decades and NIH-led research has changed the landscape of many diseases," said Dr. Zerhouni. "However, very real—and very urgent—needs remain."

Role of Imaging

Imaging's potential contribution was highlighted in two of the three Roadmap areas. For example, in New Pathways to Discovery, one of the implementation groups is devoted to Molecular Libraries and Molecular Imaging. New Pathways aims to characterize the many interconnected biological pathways and network molecules that underlie the functioning of cells and tissues, along with sharpening the insights into how these networks are regulated and interact with each other. Imaging will be a key tool in

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describing networks at the cellular and molecular levels.

Research Teams of the Future acknowledges that scientists must move



Francis S. Collins, M.D., Ph.D., director of the National Human Genome Research Institute, helped to develop initiatives in the New Pathways to Discovery area of the Roadmap. He delivered the New Horizons Lecture at RSNA 2003 on behalf of Dr. Zerhouni, who was asked by President Bush to take part in an AIDS initiative in Africa.

beyond the confines of their own discipline and explore new organizational models for team science. The NIH press release announcing the Roadmap alluded to imaging research which, it said, often requires radiologists, physicists, cell biologists and computer programmers to work together on integrated teams. In fact, the National Institutes of Biomedical Imaging and Bioengineering (NIBIB) aims specifically to enhance the development of interdisciplinary research.

The NIH Director's Innovation Award, a new NIH funding mechanism, will encourage investigators to take on creative, unexplored avenues of research that carry a relatively high potential for failure, but also

possess a greater chance for truly groundbreaking discoveries. NIH plans to award at least 10 grants annually. Each grant would offer \$2.5 million over a five-year period.

Colleen Guay-Broder, director of the Office of Science Policy and Public Liaison at NIBIB, stated: "The Roadmap will definitely have a positive effect on us. We'll be an integral player in a large number of initiatives, and not just those having to do directly with imaging. We'll also be involved in areas such as bioinformatics, nanomedicine and public-private partnerships for example." She also emphasized that the Roadmap will help the NIBIB "encourage and entice top-notch researchers" to the Institute.

The most imposing challenge facing the Roadmap is changing the way clinical research is done. "The era of the single-purpose isolated clinical trial with no standardization across trials is coming to a close," said Stephen I. Katz, M.D., Ph.D., director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, who co-led one of the working groups that developed initiatives in this area. "The development of a common infrastructure for clinical research must be explored aggressively as a way of

expanding our knowledge of disease mechanisms and accelerating the therapies of the future."

Jordan J. Cohen, M.D., president of the Association of American Medical Colleges (AAMC), called the Roadmap "imaginative and bold." But he indicated the medical research community will face major organizational, functional and cultural changes in accommodating the transition of biomedical research from what has traditionally been a principal-investigator-focused "cottage industry" to an era of "big science" led by interdisciplinary teams that span the biological, chemical, physical and engineering sciences.

"Perhaps the most exciting component of the plan are those proposals promoting the development of new research tools, ranging from libraries of chemical structures, small bioactive molecules, and imaging probes to powerful new imaging technologies, including nanotechnology, all of which is to be made 'freely accessible' to the research community," Dr. Cohen added. □

For more information on the NIH Roadmap and associated activities, visit the Web site at nihroadmap.nih.gov.

Need Examined for U.S. Radioisotope Production Facility

Should the United States establish a radionuclide production facility to provide radioactive tracers for research and medical treatment?

That question was at the heart of a National Institutes of Health (NIH) workshop in September that aimed to assess the current availability of radioactive tracers suitable for physical characteristics and the future needs of the medical physicists who use them for research and routine clinical applications.

Nuclear medicine as a modality depends exclusively on radionuclides for the quantitative measurements of physiologic processes, diagnostic imaging and the treatment of life-threatening diseases. These tracers play a crucial role in the management of patients in oncology, cardiology, neurology, endocrinology and nephrology. In the United States in 2001 alone, radionuclides were used in more than 16 million procedures for more than 14 million patients.

The problem is that the United States is highly dependent upon radionuclides produced in other countries, such as Canada, Holland, Sweden, Africa and states in the former Soviet Union. The limited facilities to produce radionuclides in this country have threatened the very existence of nuclear medicine in the United States, according to some researchers.

"There were two reasons for the NIH workshop," explains Michael J. Welch, Ph.D., professor of radiology and co-director of the Division of Radiological Sciences at the Washington University School of Medicine in St. Louis. "One, the diagnostic imaging branch at the National Cancer Institute (NCI) is funding nuclear imaging



Michael J. Welch, Ph.D.
Washington University School of Medicine



Richard C. Reba, M.D.
Georgetown University

grants and the grantees are concerned about where to get radionuclides. The second reason for the workshop was so that NCI could find out what types of radionuclides the research community needs and what could be done about it."

The Society of Nuclear Medicine supported the workshop in a letter to colleagues, arguing that "the availability of radionuclides for routine use and for research and innovation will 1) maintain our world leadership in the field, 2) enhance the development of novel approaches, leading to the growth of this modality, and 3) complement the NIH objectives in advancing molecular imaging."

Richard C. Reba, M.D., a professor in the Division of Nuclear Medicine at Georgetown University, says the medical community has been asking for

decades for a reliable source of radionuclides for biomedical research.

"I have at least seven or eight reports in my files that have been prepared over the last 20 years calling for a reliable source of research radioisotopes.

They all, in general, have concluded that there is a need," Dr. Reba says.

"Why hasn't the United States established a radionuclide production facility? Three reasons—budget, budget, budget."

Another problem, he says, is that the medical community hasn't come

up with a solid business plan that identifies the supply versus demand equation. "It's easy for people to design the supply side, but what the community in my view has not done, is come up with a valid definition of the demand," Dr. Reba explains. "Nobody knows how

In the era of molecular medicine and new molecular therapies, newer diagnostic and therapeutic agents that use radioactivity are not readily available.

—Richard C. Reba, M.D.

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much is needed over a specific period of time because, unlike a hospital which can predict patient load, research is not market-driven and you can't predict the amounts you will need. In my view, that's why commercial companies haven't set up a process to provide radionuclides for research."

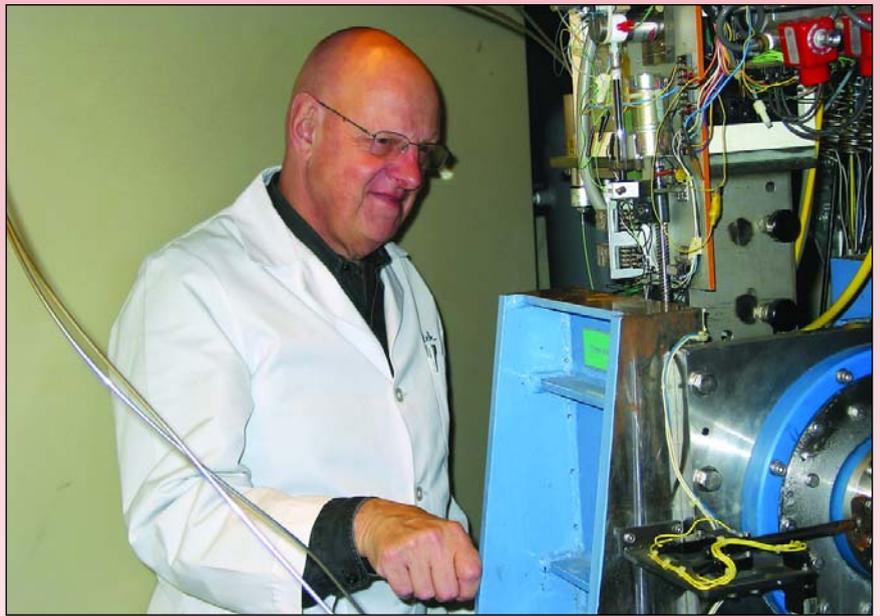
Six years ago, NCI gave funding to Dr. Welch to make radionuclides from the PET cyclotron at Washington University, working in the off hours when it wasn't creating radioactive tracers for a clinical PET scanner. He says if the national facility scenario doesn't come to fruition, he thinks it may be possible to develop a network of PET cyclotrons working in off hours to provide the radionuclides necessary for research.

"If researchers need Copper 64, Bromine 76, Bromine 77, Yttrium 86, Iodine 124 or Gallium 66, those can be produced by a consortium of PET cyclotrons," says Dr. Welch. But researchers would have to turn to a national radionuclide production facility if they need Copper 67 or Astatine 211.

Dr. Reba is less optimistic that a network of PET cyclotrons can adequately do the job. He says not only does it cost money that is not available, but also PET cyclotrons in hospitals don't have the capacity to produce the large amounts of radionuclides for clinical trials.

The Nuclear Energy Research Advisory Committee, an independent advisory committee for the Department of Energy (DOE), discussed the need for a national biomedical tracer facility during a meeting in early November. Dr. Reba, who attended the meeting, says the director of the office has been sympathetic to the need for a facility and indicated he's willing to address the issue again.

The Atomic Energy Act of 1954, which preceded DOE, said the federal government has the responsibility for producing isotopes for research, med-



The National Cancer Institute gave funding to Dr. Welch to make radionuclides from this PET cyclotron at Washington University when the cyclotron wasn't creating radioactive tracers for a clinical PET scanner.



ical and industrial applications. While the primary mission of DOE is to provide energy, Dr. Reba says the department does the best it can under its budget constraints to fulfill that mission.

"In the era of molecular medicine and new molecular therapies, newer diagnostic and therapeutic agents that use radioactivity are not readily available," says Dr. Reba. He adds that he doesn't think there will be any major progress on this issue until national medical organizations, and even NIH, acknowledge that without a national radionuclide production facility, clinical applications will continue to be constrained and impeded.

"These national medical organizations need to contact key members in Congress and urge them to provide the budget necessary," he says. "DOE gets criticized, but when it comes down to it, no one controls the budget except Congress." □

To view the nuclear energy protocol for research isotopes, go to www.nuclear.gov/infosheets/snm_nepri.pdf. For more information on isotope production and distribution, go to www.ornl.gov/isotopes/catalog.htm.

Studies Link Early Breast Radiation Therapy and Lung Cancer

Separate studies published in the October issue of *Cancer* shed new light on the association between breast radiation therapy and lung cancer. One study centers on the radiation therapy used in the 1970s. The other study examines the effect of smoking during radiation treatment.

Early Breast Cancer Treatment

Melvin Deutsch, M.D., and colleagues at the University of Pittsburgh Medical Center report that “extensive post mastectomy irradiation of the chest wall and regional lymphatic node areas ... was associated with an increased incidence of subsequent primary lung tumors.”

The scientists reviewed data regarding new primary lung carcinomas from two large, prospective, randomized National Surgical Adjuvant Breast and Bowel Project (NSABP) clinical trials for breast carcinoma. Patients were randomized for treatment with surgery alone versus treatment with surgery and postoperative radiation.

The first trial, called NSABP B-04, accrued 1,665 eligible patients between 1971 and 1974. Those with clinically negative axilla were placed in one of three groups:

- Radical mastectomy without radiation
- Total mastectomy and radiation to the chest wall, axilla, supraclavicular region and internal mammary lymph node regions
- Total mastectomy without radiation

Those with a clinically involved axilla were treated with either:

- Radical mastectomy without radiation
- Total mastectomy and radiation to the chest wall, axilla, supraclavicular region and internal mammary lymph node regions

The second trial, called NSABP



Melvin Deutsch, M.D.
University of Pittsburgh Medical Center



Melissa Bondy, Ph.D.
University of Texas M.D. Anderson Cancer Center

B-06, accrued 1,850 eligible patients between 1976 and 1984. Patients were separated into one of three groups:

- Total mastectomy and axillary lymph node dissection without breast radiation
- Lumpectomy and axillary lymph node dissection without radiation
- Lumpectomy and axillary lymph node dissection with postoperative radiation

In the B-06 trial, radiation following lumpectomy posed no significant increase in the risk of developing lung cancer. In the B-04 study, 1.4 percent of patients developed confirmed or probable lung cancer.

Among patients randomized to receive comprehensive radiation treatment, there was a statistically significant increase in the total number of lung carcinomas, both confirmed and unconfirmed, compared with those who had not received radiation. There also

was a statistically significant increase in confirmed ipsilateral lung carcinoma among the irradiated patients. “However, when the unconfirmed ipsilateral lung carcinoma cases were included,”

The good news is that radiotherapy, as it is now administered for treatment of primary breast cancer following lumpectomy, is not associated with an increased risk of lung cancer.

Melvin Deutsch, M.D.

write the authors, “there was only a strong trend toward an increased incidence of ipsilateral lung carcinoma among the irradiated patients.”

There was no significant difference in new primary lung cancer noted between patients in the NSABP B-06 trial who received radiation therapy to the breast only and those who did not.

An accompanying editorial by Thomas A. Buchholz, M.D., chief of the Breast Radiotherapy Service in the Department of Radiation Oncology at

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the University of Texas M.D. Anderson Cancer Center in Houston, says the data used by the Deutsch group are valuable because both trials tested radiation as a randomized variable and both studies now have 20 year outcome information.

Dr. Buchholz says that while the studies do not retrospectively quantify the volumes of normal lung included within the irradiated treatment volumes for each patient, an estimate can be extrapolated by applying previous research by Indra J. Das, M.D., from Fox Chase Cancer Center in Philadelphia.

“Assuming an average of 2 cm of lung in the tangent field, the estimated percentage of lung irradiated for the B-06 study would be 10 percent for carcinomas of the left breast and 12 percent for those of the right breast.” Dr. Buchholz says. “Because post mastectomy radiotherapy typically requires more circumferential coverage of the anterior thorax and also includes a separate field used to treat the supraclavicular fossa, the lung volumes irradiated in the B-04 trial were likely about twice that of the lung volumes irradiated in the B-06 trial.”

Where does this leave the clinician? Dr. Deutsch says this study, because it relies on prospective, clinical data rather than tumor registries, confirms that irradiating a large volume of lung tissue, as was more commonly done when B-04 was undertaken, can increase lung cancer risk. But, he adds that that was 30 years ago.

“When this first study was done, there was no CT and we had less appreciation for late effects,” Dr. Deutsch explains. “We treated rather large portions of the chest wall, the lung and the lymph nodes. We did a lot of things which we realize today could have some consequences. With the use of electron beam radiotherapy, CT planning and linear accelerators, the volume of irradiated lung and the administered dose to the lung can be reduced substantially.”

He adds, “The good news is that radiotherapy, as it is now administered for treatment of primary breast cancer following lumpectomy, is not associated with an increased risk of lung cancer.”

Drs. Deutsch and Buchholz also emphasize that a small increase in the risk of lung cancer should always be weighed against the risk of

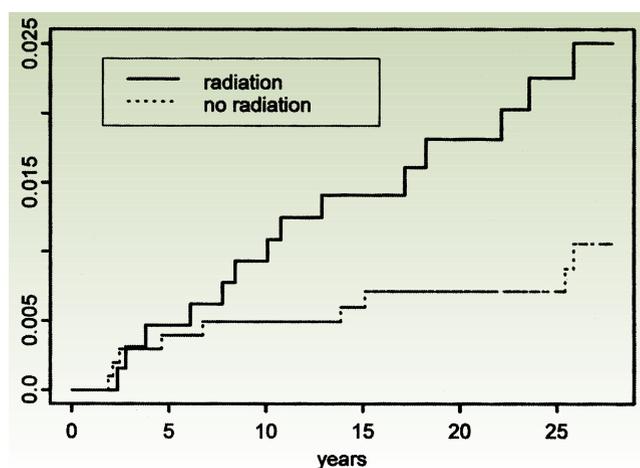
not undergoing radiotherapy. “There are some patients who have a relatively high chance of breast cancer recurrence without radiation, so the benefit of adding radiation to those patients well supercedes the risk of getting a lung cancer 10 or 15 years down the road,” says Dr. Buchholz. “The fear I have is that some people will read about this on the Internet, refuse radiation and be at a markedly greater risk of recurrence from breast cancer as a result.”

Dr. Buchholz adds that for others, the risk-benefit ratio is less clear. In those cases, a decision has to be very specific for each patient based on the risk of recurrence.

Smoking During Radiotherapy

A second study in the October issue of *Cancer* factored cigarette smoking into the equation. Previous literature suggested that smoking during radiotherapy increased lung tumorigenesis after breast cancer. Melissa Bondy, Ph.D., and colleagues at M.D. Anderson analyzed smoking and radiation, separately and together, on lung carcinoma development in 280 case patients previously treated for breast carcinoma.

The patients were compared with 300 randomly selected controls treated at M.D. Anderson for breast cancer. At the time of breast carcinoma diagnosis,



Cumulative incidence of all lung carcinomas in the National Surgical Breast and Bowel Project (NSABP) B-04 trial (ipsilateral and contralateral, confirmed and unconfirmed).

Cancer, Volume 98, Issue 7, Pages 1362-1368 © 2003 American Cancer Society. Reprinted by permission of Wiley-Liss, Inc., a subsidiary of John Wiley & Sons, Inc.

84 percent of case patients had ever smoked cigarettes, compared with 37 percent of the control patients. Forty-five percent of both groups received radiotherapy for breast carcinoma.

They found that:

- Smoking alone increased the risk of lung cancer six-fold
- Radiotherapy alone did not increase the risk of lung cancer
- Smoking and radiotherapy together increased the risk of lung cancer nine-fold

“Smoking was a significant independent risk factor for lung carcinoma after breast carcinoma, but radiotherapy alone was not. Smoking and radiotherapy combined enhanced the effect of either alone, with marked increased risks of lung carcinoma after radiotherapy for breast carcinoma,” the researchers write.

Dr. Bondy adds: “We strongly urge women undergoing radiotherapy for breast cancer to undergo smoking cessation programs. Even though former smokers remain at higher risk than those who have never smoked, quitting is always a good idea.” □

To view the Deutsch abstract, go to www3.interscience.wiley.com/cgi-bin/abstract/104550883/ABSTRACT. To view the Bondy abstract, go to www3.interscience.wiley.com/cgi-bin/abstract/10455064/ABSTRACT.

RSNA Editors Hit the Road to Teach Potential Authors about *Radiology* and *RadioGraphics*

You did all the research. You proved your hypothesis. You worked on that manuscript for a long time and it still comes back rejected. How are you ever going to get an article published?

The faculty and staff at three U.S. universities found out this fall as part of the RSNA Visiting Editors Program.

This is the second year of a three-year pilot program developed by *Radiology* Editor Anthony V. Proto, M.D., in which he and *RadioGraphics* Editor William W. Olmsted, M.D., visit three medical school campuses per year to inform staff radiologists and radiation oncologists, fellows, residents and medical students about how to submit manuscripts to RSNA's peer-reviewed journals. They also provide insight on some of the Web-based programs RSNA offers in its mission to improve patient care through education and research.

This year, Drs. Proto and Olmsted visited Brown University School of Medicine in Rhode Island, the Hospital of the University of Pennsylvania in Philadelphia, and the University of South Alabama in Mobile.

"I enjoy visiting the various medical schools and talking with researchers about their projects. It's important to let people know what we are looking for in our journals," says Dr. Proto, also RSNA's Science Editor.

"These visits demystify the process," adds Dr. Olmsted, who is also RSNA's Education Editor. "People are surprised by the amount of work it takes to publish these journals. The peer-review process, while lengthy,



Anthony V. Proto, M.D.
Radiology Editor



William W. Olmsted, M.D.
RadioGraphics Editor

ensures the quality of the articles. RSNA is only interested in publishing quality products."

The Presentation

At each seminar, Dr. Proto makes a 45-minute presentation about *Radiology*, then Dr. Olmsted makes a 45-minute presentation about *RadioGraphics* and the RSNA Education Portal. A one-and-a-half hour question-and-answer session follows. After lunch, the program is repeated to give individuals who are not able to attend the morning session the opportunity to attend the afternoon program without interruption to patient care.

Dr. Proto says many of the ques-

tions he receives relate to the specifics about decision categories. Other questions are about the similarities and differences between the journals, about the statistical review process, how reviewers are chosen and print versus the online journals.

The program offers residents an overview of manuscript writing techniques, which is something that is often overlooked in residency training.

—Leigh Ann Cashwell, M.D.

Leigh Ann Cashwell, M.D., a second-year radiology resident at the University of South Alabama, praised the presentation. "The program offers residents an overview of manuscript writing techniques, which is something that is often overlooked in residency training," she says. "I gained a much better understanding of the editorial process for choosing manuscripts for *Radiology* and *RadioGraphics*. I am

Continued on next page

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impressed with the amount of effort put into reviewing and selecting each of the published manuscripts.”

Warren Geftter, M.D., chief and associate chair of thoracic imaging at the Hospital of the University of Pennsylvania, says one of the most fascinating aspects of the Visiting Editors Program was the explanation of the rigorous review process. “Dr. Proto told us

after a paper is accepted and revised by its authors, it then undergoes a statistical review, if appropriate, because the statistics may have changed during the revision. It’s interesting to see how that works out in the timeline,” he says. “Authors may not fully understand the multiple stages involved

in a thorough manuscript evaluation.”

E. Scott Pretorius, M.D., the Wallace T. Miller Sr. chair of radiologic education, associate chairman for education, and residency program training director at the Hospital of the University of Pennsylvania, says the Visiting Editors Program gave him perspective. “We in academic radiology often think of the journals as separate from us. In fact, these journals are the product of work by all of us, and they are reviewed and edited by radiologists just like us,” he says.

“I think the most valuable information for our residents was learning how the journals work, the process for getting a manuscript published and how all of this relates to RSNA,” says Steven K. Teplick, M.D., chairman of the Radiology Department at the University of South Alabama and a member of the RSNA Ethics Committee. “The vast majority of those meeting in Mobile have never attended the annual meeting. The Visiting Editors Program helps let them know how important RSNA is for their education and their futures.”

2002 RSNA President R. Nick Bryan, M.D., Ph.D., agrees. “We can’t assume younger faculty know everything they should know about RSNA and the journals. We at the University of Pennsylvania are very appreciative of RSNA for sponsoring this program,” says Dr. Bryan, the Eugene P. Pendergrass professor and chair of the Department of Radiology.

In addition to the journals, Drs. Proto and Olmsted share a wealth of information about other RSNA activities such as the RSNA Scientific Assembly and Annual Meeting, *RSNA Link* (www.rsna.org), the RSNA Education Portal, InteractED and the Virtual Journal Club.

“We know residents are interested in these important Internet programs, but more seasoned radiologists searching for CME credits should look at them as well,” Dr. Olmsted says.

Dr. Cashwell says her favorite part of the presentation was Dr. Olmsted’s demonstration of InteractED. “I am impressed with the wealth of educational material that is available on the Web site. It will certainly be added to my list of favorites,” she adds.

The Teachers Learn from the Students

Audience members aren’t the only ones learning valuable information through the Visiting Editors Program. Dr. Proto says he’s learned that readers prefer the print versions of *Radiology* and *Radiographics* for sustained reading because they are portable and items of importance can be underlined. However, the online versions are preferred when radiologists and residents are conducting literature searches.

Dr. Olmsted says the questions asked and ideas generated at these sessions are “really interesting and of real use for me as we plan content and educational programs for the future.”

Future of the Visiting Editors

In 2004, the Visiting Editors Program will go to Indiana University, the National Naval Medical Center and Michigan State University. After these visits, the RSNA Board of Directors will receive a summary of the critiques made by participants to determine if the program will continue.

RSNA pays the airfares for Drs. Proto and Olmsted, their hotel rooms and a luncheon for attendees. □

Decision Categories for Radiology

1. Accept with Revisions
2. Under Consideration (neither accepted nor rejected but to be evaluated by the original reviewers after revisions by the authors)
3. Reject with the Opportunity to Resubmit
4. Outright Reject

What is the Impact Factor?

Radiology has the highest impact factor among 79 imaging or imaging-related journals at 4.844, according to Thomson/Institute for Scientific Information.

But what is the impact factor? The impact factor measures how frequently the average article in a journal has been cited in a particular year or period. It is calculated by dividing the number of citations to items published in the two previous years by the total number of articles and reviews published in the two previous years.

Radiology also has the greatest number of “total cites” of all diagnostic imaging journals for 2002—36,704—almost twice the number of the journal ranked second in total cites.

What does it mean? The impact factor is regarded as an indirect indication of the importance of a journal in its field. It is also used by librarians, researchers, editors, publishers and authors. While many equate high impact factor with high prestige, other considerations such as quality of peer review and citation rates should be considered.

2002 IMPACT FACTOR

<i>Radiology</i>	4.844
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2002 TOTAL CITATIONS

<i>Radiology</i>	36,704
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You Can Orchestrate a Winning Business Strategy

For today's radiologists, the key to a successful practice is deciding where they are today, where they want to be in five to 10 years, and how to get there.

"You cannot run the business aspect of radiology—and believe me, radiology is a business—without having a plan," states Fred Gaschen, M.B.A., C.H.E., executive vice-president of Radiological Associates of Sacramento, Calif. "You need a blueprint."

Gaschen says the initial problem is that radiologists in the same group may have widely differing priorities. For some, he says, the top priority may be financial. For others, it might be security or a better work environment or more time off.

"If one assumes that all owners in a radiology group are equal, then the only way to be able to come to any kind of consensus is to sit down and go through a strategic planning process," he says, adding that the blueprint will need to change as the environment of the practice evolves.

"You should update your strategic plan every year," he stresses. "It's a dynamic document."

He recommends starting with an environmental assessment.

"The first thing you need to do in your environmental assessment is take a look at changes in reimbursements and costs," Gaschen says. These can include proposed changes in Medicare reimbursement for services ranging

from mammography to MRI to PET.

Gaschen says a radiology group also needs to analyze new products and services, in addition to increasing the use of old services. For example, the group might find new uses for its existing CT scanner. The group may also decide to add a scanner as usage increases and new clinical applications are discovered.

Business contracts also need to be considered. Gaschen suggests asking

A radiology group out there today that doesn't have a strategic plan is probably doing okay right now because of the shortage of radiologists. But the bottom line is, over time, they're going to be in a worse position than they are today.

—Fred Gaschen, M.B.A., C.H.E.

the question, "Is one of your large contracting groups having internal problems which may cause them to eliminate or change their services?"

"Suppose you're working with a medical group, and you keep hearing that doctors are leaving and the group's about to implode," he explains. "Do you want to add more services to support that group, when there's a chance that they may not be around in a year?"

Next, he says consider the competition. "What I always say to myself is that paranoia is not really a bad thing," Gaschen quips. "I think that in strategic planning, you need to always analyze your competition and always be looking over your shoulder. You should look at your competition and say, 'What are their strengths and weaknesses? What do they do better than we do? What do we do better than they do?'"

He also recommends analyzing the competition from the patients' perspec-



Fred Gaschen, M.B.A., C.H.E.
Radiological Associates of Sacramento

tive and from the referring physicians' perspective. And he emphasizes that when it comes to competition, change is always over the horizon.

"In the radiology world, orthopedic surgeons, cardiologists and pulmonologists are all now trying to get a piece of our business," he points out. "So you have to look at what's happening in the industry and look at who is not a competitor today that may be a competitor tomorrow."

Changing demographics of the market will also impact a radiology practice, as will changes in health policy and new technological advances.

Gaschen stresses the importance of staying on top of technological changes. "There's a body of evidence out there that says MR and CT technology had the most significant impact on the practice of medicine over the last 30 years," he says. "So the question that we should be asking is, 'What's going to be the next major impact on

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medicine? If CT and MR scanners are considered the greatest medical advances over the past 30 years, and they both happen to be diagnostic imaging tools, what's next?"

Gaschen says he believes the successful radiology practice must always be mindful of potential threats.

"I know what my strengths are. I know what my weaknesses are. They don't change a lot from year to year," he says. "But the threats to this company do—whether they are internal threats, because a group of radiologists

is going to break professional ties, or they are external threats, because the hospital's going to compete with us."

In the end, he says, it all comes down to planning ahead.

"A radiology group out there today that doesn't have a strategic plan is probably doing okay right now because of the shortage of radiologists. But the bottom line is, over time, they're going to be in a worse position than they are today," he says. "You really need to

develop some kind of a strategic planning process and get everybody singing from the same sheet of music. Some may not like the tune, but they can live with it so that everybody in the group benefits," he concludes.

Gaschen presented these tips during RSNA's "Strategies for Running a Successful Radiology Practice," held in July in Oak Brook, Ill. A similar course will be offered by RSNA in July 2004. □

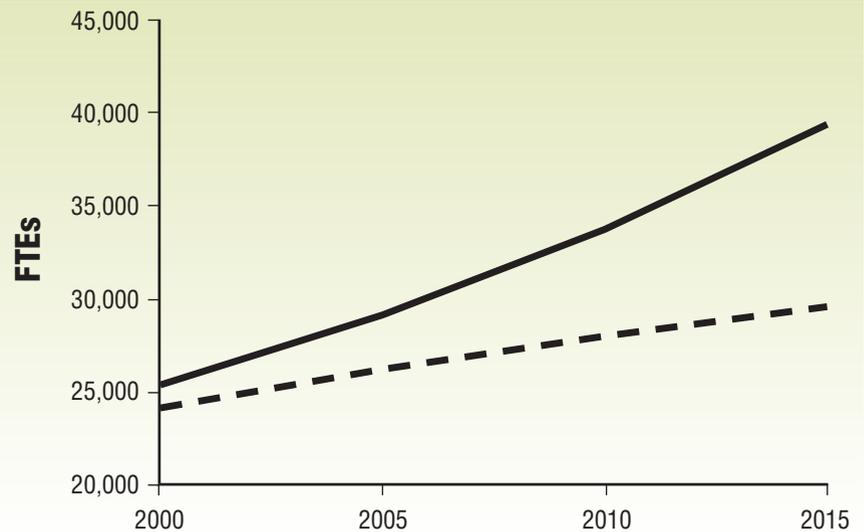
Developing a Winning Business Strategy

- Devise a plan
- Annually update the plan

How to Devise a Plan

- Make an environmental assessment
- Analyze new products and services
- Consider existing business contracts
- Analyze the competition
- Stay on top of technology
- Be mindful of potential threats

Shortage of Radiologists



The dashed line represents the projected number of post-training radiologists in practice (FTE). The solid line represents the projected demand for radiologists (FTE).

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Subdivided into shoulder, elbow, hand & wrist, hip & thigh, knee, foot & ankle, musculoskeletal system and protocols & predicaments chapters, there is a wealth of information here for the busy imager at an extremely affordable price. 396 pp.

RSNA Member Price: \$85.50

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Gamuts & Pearls Neuro MRI

Stephen J. Pomeranz, M.D. and Peter J. Smith

Subdivided into brain, spine, head & neck and protocols & predicaments chapters, there is a wealth of information here for the busy imager at an extremely affordable price. 398 pp.

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BOOK

Breast MRI in Practice

Edited by Ruth Warren and Alan Coulthard

This book provides practical and pragmatic guidance in breast MRI for all professionals involved in breast imaging or in the care of patients with breast disease. 269 pp.

RSNA Member Price \$119.00

BOOK

Cross-Sectional Diagnostic Imaging: Cases for Self-Assessment

Nicola Strickland and Preeti Gupta

Specifically aimed at candidates taking their higher exam in clinical medicine (such as the Boards Examination in the US), *Cross Sectional Diagnostic Imaging* focuses on cross-sectional imaging (CT, MR, US and also includes nuclear medicine isotope imaging) since these techniques have become integral to modern clinical medicine. 448 pp.

RSNA Member Price \$40.50

BOOK

Endocavitary MRI of the Pelvis

Edited by Nandita M. deSouza

MR imaging has become a crucially important investigative tool in pelvic disease where the soft tissue contrast enables more accurate diagnostic information to be obtained. *Endocavitary MRI of the Pelvis* puts the new developments in this area into perspective. 184 pp.

RSNA Member Price \$54.00

BOOK

Exercises in Clinical Nuclear Medicine

Gary Cook and Jane Dutton

Exercises in Clinical Nuclear Medicine provides 10 mock papers for those preparing for the reporting section of higher examinations in radiology. 160 pp.

RSNA Member Price \$49.50

BOOK

Handbook of Transrectal Ultrasound and Biopsy of the Prostate

Uday Patel and David Richards

The highly illustrated *Handbook of Transrectal Ultrasound and Biopsy of the Prostate* presents in simple and logical manner the fundamentals of transrectal sonography and focuses on the practical aspects of prostate scanning and biopsy. 136 pp.

RSNA Member Price \$34.00

BOOK

Imaging of the Prostate

Edited by Ethan J. Halpern, Dennis Cochlin and Barry B. Goldberg

Imaging of the Prostate has been edited and written by some of world's leading experts and addresses the problems encountered during patient examination. Superb quality radiological images – ultrasound, MRI and CT illustrate the chapters. 232 pp.

RSNA Member Price \$135.00

BOOK

Imaging of the Scrotum and Penis

Matthew Rifkin and Dennis L. Cochlin

Imaging of the Scrotum and Penis is a problem solving text. It employs a symptom related approach, starting with the clinical history and physical examination, progressing to the imaging modalities. The main imaging modality used in the scrotum is ultrasound and discussion of ultrasound images including Doppler comprises the greatest portion of the book. 304 pp.

RSNA Member Price \$157.50

BOOK

Nuclear Medicine in Radiological Diagnosis

A. Michael Peters

This new clinical reference provides an essential resource for all those working in the field of nuclear medicine and clinical imaging. The emphasis is on the role of nuclear medicine technology as part of an integral radiological approach to clinical problems. 832 pp.

RSNA Member Price \$260.00

BOOK

Textbook of Diagnostic Imaging in the Elderly

Mario Impallomeni, Pauline Smiddy, Walter L. Curati, Martin Lipton and David Allison

Textbook of Diagnostic Imaging in the Elderly is the first authoritative textbook on the subject of geriatric imaging. This text allows the physician to maximize the unique and essential contribution that imaging can bring to clinical diagnosis of disease in the elderly patient. 432 pp.

RSNA Member Price \$202.00

BOOK

MRI Manual of Pelvic Cancer

Edited by P.A. Hulse and B.M. Carrington

This title will be an essential reference for all radiologists using magnetic resonance imaging to identify and diagnose pelvic cancer. Intended for those new to pelvic cancer staging, the book starts with three introductory chapters focusing on basic pelvic anatomy, imaging and reporting.

Subsequent chapters focus on each of the major groups of pelvic cancer using a consistent format to aid understanding. 200 pp.

RSNA Member Price \$86.00



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BOOK

PACS: A Guide to the Digital Revolution

Keith J. Dreyer, Amit Mehta and James Hunter Thrall

With contributions from leaders in the field of PACS, this user-friendly guide addresses the introductory concepts, computing fundamentals, advanced imaging technologies and future opportunities. This text is geared toward radiologists, technologists, administrators and IT professionals wishing to gain a broader understanding of this emerging field. 408 pp., 122 illus.

RSNA Member Price \$85.50

BOOK

Atlas of Virtual Colonoscopy

Abraham Dachman

Virtual colonoscopy is a rapidly developing technique that promises to be safer, more economical and less intrusive than conventional diagnostic tests for colon cancer. Renowned radiologist Dr. Abraham Dachman and a distinguished list of international contributors have prepared a comprehensive atlas that explains and depicts the entire range of this new technique. The *Atlas of Virtual Colonoscopy* is a necessary resource for all radiologists and gastroenterologists who desire to learn about VC. 276 pp., 479 illus.

RSNA Member Price \$112.50

CD-ROM

EZTNM for the AJCC Cancer Staging Manual

Frederick L. Greene, Charles M. Balch, Irvin D. Fleming and Fritz April

EZTNM for the AJCC Cancer Staging Manual, 6/e and the *AJCC Cancer Staging Handbook*, 6/e provide the first physician-designed professional grade cancer staging program for handhelds. *EZTNM* puts TNM staging for 50 different anatomic sites at the user's fingertips. It is an essential and ground-breaking resource for all healthcare professionals who care for cancer patients.

RSNA Member Price \$35.95

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Frederick L. Greene, David L. Page, Irvin D. Fleming, April Fritz, Charles M. Balch, Daniel G. Haller, Monica Morrow

The *AJCC Cancer Staging Manual and Handbook*, prepared by the Amer-

ican Joint Committee on Cancer, are used by physicians and health care professionals throughout the world to facilitate the uniform description of neoplastic diseases. The staging information in the *AJCC* is uniform with the UICC and must be used for all tumors staged as of January 1, 2003. The manual includes 45 staging forms on CD Rom for individual or institutional use. 480 pp., 95 illus., with CD-ROM.

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RSNA Member Price \$35.95

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408 pp., 37 illus.

RSNA Member Price \$58.45

BOOK

Practical FDG Imaging

A Teaching File

Dominique Delbeke, William H. Martin, James A. Patton and Martin P. Sandler

This is a comprehensive reference of cases with FDG images obtained on dedicated PET tomographs and hybrid scintillation gamma cameras. With over 300 FDG images, this book will serve as an excellent stand-alone guide for nuclear medicine physicians, radiologists, oncologists and residents in their practice of clinical PET. 440 pp., 320 illus.

RSNA Member Price \$116.00

BOOK

Positron Emission Tomography

Basic Science and Clinical Practice

Peter E. Valk, Dale L. Bailey, David Townsend, Michael N. Maisey

This book covers the basic scientific principles and clinical applications of PET in research and medical practice and contains a final section discussing future directions of PET. It will be an invaluable reference resource to advanced research laboratories, clinicians, graduates and advanced trainees general nuclear medicine and radiology practices requiring more in-depth knowledge of the principles of PET. 904 pp., 546 illus.

RSNA Member Price \$152.00

BOOK

PET and PET-CT in Oncology

Peter Oehr, Hans-Jürgen Biersack, and R. Edward Coleman

In clear and straightforward fashion, this book offers instructive information and overviews of the basic principles of PET and PET-CT as well as the routine clinical PET scanning procedures for all important oncological indications. It is designed to serve as a reference work for specialists in nuclear medicine and radiology and for oncologists. It also provides student and physicians in other medical specialties

with a general introduction to the effective integration of this modern technique into routine clinical diagnostics. Above all, this volume illustrates the importance of PET and PET-CT in comparison with other imaging techniques. 350 pp.

RSNA Member Price \$125.00

BOOK

Normal and Abnormal Swallowing Imaging in Diagnosis and Therapy

Second Edition

Bronwyn Jones

This beautifully illustrated volume presents an updated approach to the role of imaging in the diagnosis and treatment of the patient with dysphagia. Centered around the "gold standard" imaging modality, i.e. videofluorography, the text also includes chapters on other modalities such as ultrasound, computed tomography and magnetic resonance imaging. 308 pp., 248 illus.

RSNA Member Price \$143.00

BOOK

PET

Molecular Imaging and Its Biological Applications

Michael E. Phelps

This book is a comprehensive guide to PET and PET CT and serves as a valuable resource for practicing physicians and residents. The text covers topics ranging from the basic principles of physics, molecular assays, preparation of molecular imaging probes and biochemistry relevant for PET. Additionally, clinical applications in cancer, cardiovascular diseases and neurological disorders are thoroughly discussed. 616 pp., 250 illus.

RSNA Member Price \$152.00

BOOK

Atlas of Cross-Sectional and Projective MR Cholangio-Pancreatography

A Teaching File

Lieven van Hoe, Dirk Vanbeckvoort, Werner van Steenberghe

Magnetic resonance cholangio-pancreatography (MRCP) is a novel non-invasive technique for diagnosis of pancreatic-biliary disease. This book highlights the advantages, limitations and indications of MRCP, including specific examples that showcase the utility of this technique in a large variety of clinical conditions. 429 pp., 450 illus.

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BOOK

A Clinician's Guide to Nuclear Medicine

Andrew Taylor, M.D., David M. Schuster, M.D. and Naomi Alazraki, M.D.

This book builds on and expands the basic concepts found in *Fundamentals of Nuclear Medicine*. This introduction to the diagnostic and therapeutic uses of nuclear medicine procedures is a must have for clinicians, residents, interns, medical students and referring physicians. It reviews nuclear medicine procedures, available alternatives, advantages and limitations of each, and provides patient information to aid in preparing patients. Softcover, 410 pp., 2000
RSNA member price: \$40.50

BOOK

Self-Study Program III: Nuclear Medicine Cardiology

Series Editor: Elias H. Botvinick

Whether you're a nuclear medicine resident preparing for your board exams or a veteran clinician, the *Nuclear Medicine Self-Study Program Series in Nuclear Medicine Cardiology* will meet your self-assessment needs. Each book includes an extensive list of annotated references, questions and answers with critiques, along with an authoritative syllabus review of the topic.

Topic 1: Physical and Technical Aspects of Nuclear Cardiology

Softcover, 95 pp., 1997
RSNA member price: \$31.50

Topic 2: Pharmacologic Stress

Softcover, 195 pp., 1998
RSNA member price: \$56.70

Topic 3: Cardiac PET Imaging and Topic 4: Radionuclide Assessment of Congenital Heart Disease

Softcover, 127 pp., 1998
RSNA member price: \$44.10

Topic 5: Myocardial Perfusion Scintigraphy—Technical Aspects

Softcover, 218 pp., 2001
RSNA member price: \$107.10

Topic 6: Myocardial Perfusion Scintigraphy—Clinical Aspects

Softcover, 396 pp., 2001
RSNA member price: \$163.80

BOOK

Self-Study Program IV: Oncology

Series Editor: Thomas P. Haynie, M.D.

Management of cancer patients has significantly grown with better diagnostic techniques and chemotherapeutic agents. Learn

about these exciting advances in nuclear oncologic imaging and therapy with SNM's *Self-Study Program Series in Oncology*. Each book includes an extensive list of annotated references, questions and answers with critiques, along with an authoritative syllabus review of the topic. This series is ideal either for residents preparing for board examinations or for veteran clinicians seeking to enhance their knowledge.

Topic 1: An Overview of Nuclear Oncology

Softcover, 50 pp., 1997
RSNA member price: \$18.00

Topic 2: Conventional Tumor Imaging

Softcover, 74 pp., 1997
RSNA member price: \$31.50

Topic 3: Antibody Tumor Imaging

Softcover, 49 pp., 1998
RSNA member price: \$18.00

Topic 4: PET Tumor Imaging

Softcover, 88 pp., 1999
RSNA member price: \$25.20

Topic 5: Bone Cancer Therapy and Topic 6: Radioimmunotherapy

Softcover, 83 pp., 2000
RSNA member price: \$18.00

BOOK

A Tabulated Summary of the FDG PET Literature

Sanjiv S. Gambhir, M.D., Ph.D., Johannes Czernin, M.D., Judy Schwimmer, M.B.A., M.A., Daniel H.S. Silverman, M.D., Ph.D., R. Edward Coleman, M.D. and Michael E. Phelps, Ph.D.

This supplement to *The Journal of Nuclear Medicine* provides a comprehensive literature review of the use of FDG PET in oncology, cardiology and neurology. This supplement has proven useful for healthcare providers, administrators and health economists who wish to better understand the role of FDG PET in the medical management of patients. Softcover, 93 pp., 2001
RSNA member price: \$13.50

BOOK

SNM Procedure Guidelines Manual

Commission on Health Care Policy and Practice Guidelines and Communications Committee

The guidelines were developed in response to requests for standardized protocols for nuclear medicine procedures and will keep your department up to date on the latest technologies and recently approved radiopharmaceuticals used in nuclear medicine. Softcover, 180 pp.
RSNA member price: \$67.50

BOOK

Guide for Diagnostic Nuclear Medicine

Jeffrey Siegel, Ph.D.

New SNM/ACNP Guidance on Revised 10 CFR Part 35

The newly published *Guide for Diagnostic Nuclear Medicine* is a one-stop reference for nuclear medicine professionals who want to bring their departments and institutions into compliance with the recently revised requirements of 10 CFR Part 35. Working closely with representatives

from the Nuclear Regulatory Commission (NRC), Jeffrey A. Siegel, Ph.D., compiled this useful resource that covers all pertinent regulations, addresses compliance concerns and standards, and provides "At a Glance" and summary features. Siegel is chair of the Joint Government Relations Committee of the American College of Nuclear Physicians and the Society of Nuclear Medicine (SNM), which recognized the need for such a volume and initiated its preparation. The book is intended to serve as a useful bridge between the new regulations and nuclear medicine practitioners who want to ensure continued compliance and thereby maintain the security and safety of licensed materials in clinical and research settings. Softcover, 86 pp., 2002
RSNA member price: \$39.60

CD-ROM

Basic Science Module

The Basic Science Module CD-ROM offers 22 hours of education toward the requirement mandated by the Nuclear Regulatory Commission for program requirements for residency education in nuclear medicine. This training module covers the basic science associated with the field of nuclear medicine including radiation science, radiation detection and instrumentation, the operation of the gamma camera, emission tomography, radiochemistry and radiopharmacy, radiation biology and radiation safety.
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This new book describes a range of imaging techniques used in the region of the head, neck, and spine. 368 pp.
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Up-to-date coverage of the effects of ionizing radiation on human tissues. 472 pp.
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Imaging in Rheumatology

David Isenberg & Peter Renton

This book provides a unique review of all modalities in imaging that can assist the clinician in diagnosing rheumatological diseases. 560 pp.
RSNA Member Price: \$134.60

BOOK

Principles and Practice of Brachytherapy

C.A. Joslin, A. Flynn and E.J. Hall

This highly effective treatment is given complete coverage in this book. 464 pp.
RSNA Member Price: \$112.10

BOOK

Practical Radiation Protection in Healthcare

Colin J. Martin and David G. Sutton

Includes general radiation principles, coverage of both ionizing and non-ionizing radiations, and guidance on which methods to follow. 384 pp.
RSNA Member Price: \$52.50

BOOK

Functional MRI

An Introduction to Methods

Peter Jezzard, Paul M. Matthews and Stephen M. Smith, eds.

This book provides a comprehensive introduction to functional magnetic resonance imaging (fMRI), the scanning technique which allows mapping of active processes within the brain. These maps are used by neuroscientists to learn how the normal human brain works and by clinicians to study the diseased state. 432 pp.
RSNA Member Price \$85.00

BOOK

Diseases of the Lymphatics

Sir Norman Browse, Kevin G. Burnand and Peter S. Mortimer

This comprehensive and authoritative book covers all aspects of the lymphatic system and its diseases. Divided into two sections, the book first discusses in detail the anatomy, physiology, pathology and investigation of the lymphatic system as well as the principles underlying medical and surgical treatment. The second section covers the clinical management of specific conditions. Throughout, the book combines both surgical and non-invasive therapeutic approaches. 416 pp.
RSNA Member Price \$198.50

Radiology in Public Focus

Press releases have been sent to the medical news media for the following scientific articles appearing in the December issue of *Radiology* (radiology.rsnaajnl.org):

“Serial MRI as a Predictor of Cognitive Decline: A Six-Year Longitudinal Study of Normal Aging”

An increased rate of medial temporal lobe (MTL) atrophy appears to be predictive of early stage memory decline.

Henry Rusinek, Ph.D., and colleagues from New York University School of Medicine, gave a comprehensive battery of neuropsychometric tests and performed MR imaging on 45 normal, elderly people over the age of 60. These tests were performed three times over six years. The brain atrophy rate between baseline and the first follow-up scan was assessed using an automated procedure that included spatial coregistration of the two scans and the regional brain boundary shift analysis.

The researchers found the overall accuracy of prediction was 91 percent (41/45).

They write, “Accurate and early

recognition of atrophic changes could enable therapy and better tracking of the progression of mild cognitive impairments and early Alzheimer’s disease in an individual patient.”

(*Radiology* 2003; 229:691-696)

“Speech Delayed Children: An fMRI Study”

Functional MR imaging (fMRI) indicates that speech delayed children over the age of three years show more right-brain activation than normal age-matched controls who tend to show more left-dominant activation.

Byron Bernal, M.D., and Nolan R. Altman, M.D., from the Department of Radiology at Miami Children’s Hospital, evaluated 17 children with speech delay and 35 normal children. All children had normal structural brain MR

studies and absence of auditory impairment or mental retardation.

When exposed to the same passive listening tasks under sedation, 83 percent (5/6) of the speech delayed children demonstrated lateralized activation of fMR signal to the right hemisphere, while 71 percent of the controls showed activation in the left hemisphere.

The researchers write: “The role of fMR in the monitoring of intervention and treatment needs to be evaluated with further investigations. The findings of this study suggest new alternatives for further investigation of cognitive processes in infants and children.”

(*Radiology* 2003; 229:651-658)



RSNA press releases are available at www2.rsna.org/pr/pr1.cfm.

RSNA: MEMBER BENEFITS

Working For You

Member Needs to be Evaluated

Two surveys were mailed in late October to two randomly selected groups of 1,000 RSNA members. The surveys will assess how well members like various RSNA member benefits and how the Society can better serve member needs in the future. Because the validity of the results depends on obtaining a high response rate, member participation is crucial.

The survey will take less than

15 minutes to complete and includes a postage-paid return envelope. Questions include whether or not the member has attended the annual meeting, as well as rating the value of various member benefits, such as free attendance at the annual meeting, subscriptions to *Radiology* and *RadioGraphics*, and access to CME credit on InteractED.

AMA Restores CME Credit for Journal Review

As of January 1, RSNA will again be allowed to offer continuing medical education (CME) credit for journal manuscript review. In 2002, the American Medical Association (AMA) announced that it would no longer authorize the offering of CME credit. Six medical associations, led by RSNA, succeeded in persuading the AMA to reverse its decision.

For more information on the standards for manuscript review, go to www.ama-assn.org/ama/pub/category/11062.html.

WORKING FOR YOU PROFILE

SERVICE TO MEMBERS:

My position at RSNA carries with it a wonderful variety of responsibilities. As the Director of Board Affairs, I am responsible for the administrative support services provided to the Board of Directors, which includes working with the chairman of the Board to manage the Board's agenda and coordinating its meetings and the implementation of the actions taken. As a natural extension of these responsibilities, our office handles the process of filling committee appointments and maintaining historical records of individual members' participation in RSNA activities. The Strategic Planning Process is administered through this office as well.

On a lighter note, there are responsibilities related to events at the annual meeting that add pure fun to my position, including planning the VIP social functions, such as the Leadership Recognition Reception. This is RSNA's opportunity annually to thank the many volunteers who make key contributions to the work of the Society and the success of the annual meeting.

**NAME:**

Barbara Jarr

POSITION:Director,
Board Affairs**WITH RSNA SINCE:**

February 2000

WORK PHILOSOPHY:

I have worked in association management for many years and recognize that the greatest strength of any organization comes from its volunteers—the extraordinary talent and precious time they devote to the organization's activities and programs. Our role as staff members is to collaborate with our members to make the most of that; mutually to explore and coach each other in finding ways to achieve the objectives; and to support one another in maintaining a vital organization while taking the risks necessary to assure that it is relevant in years to come.

RSNA:PROGRAM&GRANTANNOUNCEMENTS

Program and Grant Announcements

Participation at All-Time High in RSNA Grant Program

More radiology departments are taking an active role in introducing academic radiology research to medical students. Eleven departments participated in the 2003 RSNA Medical Student Departmental Program Grant. While there is a limit to the number of grants that the RSNA Research & Education Foundation can provide, all interested departments have been funded to date.

For more information about the RSNA Medical Student Departmental Program Grant go to www.rsna.org/research/foundation/medstudent_dept.html or contact Scott Walter at (800) 381-6660 x7816.

Register for BIROW 2

The 2004 Biomedical Imaging Research Opportunities Workshop (BIROW 2) has received a \$10,000 operational grant from the Whittaker Foundation, a private, nonprofit foundation dedicated to improving human health through the support of biomedical engineering.

Online registration (www.birow.org) is available for BIROW 2, scheduled for February 25-26 at the Bethesda Marriott Hotel.



**Biomedical
Imaging
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Opportunities
WORKSHOP 2**

This workshop is the second in a series being sponsored by RSNA, American Association of Physicists in Medicine, Biomedical Engineering Society, Academy of Radiology Research and American Institute for Medical and Biological Engineering.

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



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In memory of Mrs. Clare Taylor

Annual Report Available

The 2003 RSNA Research & Education Foundation Annual Report is available on *RSNA Link* at www.rsna.org/research/foundation/annualreport.

A report will be mailed to all contributors in mid-December.



Online donations can be made at www.rsna.org/research/foundation/donation.

RSNA: PROGRAM & GRANT ANNOUNCEMENTS

ACRIN Fellowship in Clinical Trials of Medical Imaging

Applications must be received by January 3, 2004, for the American College of Radiology Imaging Network (ACRIN) fellowship program. Through funding from the National Cancer Institute and the Avon Foundation, ACRIN is seeking four fellows for instruction on how to conduct rigorous, multi-center trials of

diagnostic imaging and image-guided interventional technologies. The ultimate goal is to develop successful, independent clinical researchers and future scientific leadership for ACRIN.

For more information, go to www.acrin.org/pdf_file2.html?file=fellowapp.pdf.

NIH Loan Repayment Program

December 31, 2003, is the application deadline for the Fiscal Year 2004 National Institutes of Health (NIH) Loan Repayment Program. NIH awards up to \$35,000 annually in student loan repayments to health professionals engaged in qualifying research. Details and applications are available at www.lrp.nih.gov.

In FY 2003, NIH awarded \$63.3 million in student loan repayment contracts to 1,200 health researchers—a 66 percent increase in the number of awards from FY 2002, the first year of the program.



News about RSNA 2004

NEW!

Submit Abstracts for RSNA 2004

A new online abstract submission system will be activated in January, making it easier than ever before to submit an abstract for the RSNA Scientific Assembly and Annual Meeting. This new system, which will be available through *RSNA Link* (www.rsna.org), will also make it more efficient for the Scientific Program Committee to evaluate submissions.

Electronic submission of scientific abstracts for the annual meeting was first offered in 1997. Submissions have been online only since 2001.

Complete abstract submission instructions will be printed in the back of the January, February and March 2004 issues of *Radiology* and the

January–February 2004 issue of *RadioGraphics*.

All abstracts must be received by April 15, 2004.

Abstracts are required for scientific papers, scientific posters, education exhibits, mobile computing exhibits and *infoRAD* exhibits.

Scientific presentations can be made in either oral or poster format. Oral presentations will be delivered at an assigned date and time and will be limited to seven minutes followed by three minutes for dis-

cussion. Attendees of oral presentations are awarded category 1 CME credit. An author of a poster will be assigned to a one-hour scientific session in which

attendees will earn category 1 CME credit.

Posters will be on display during the entire week for independent review by attendees who

can claim self-study credit.

For more information, contact (800) 381-6660 x7774 or programs@rsna.org.

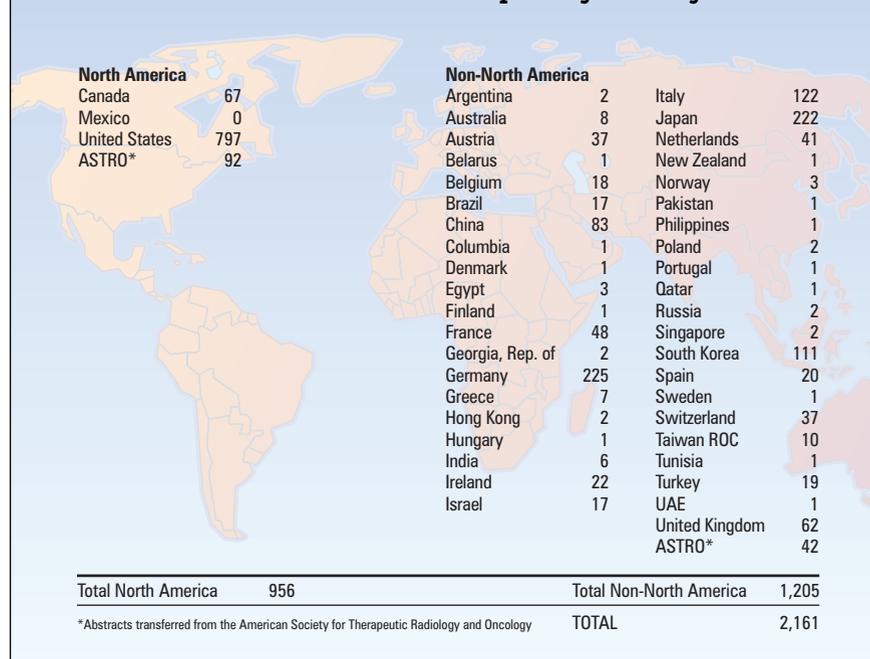


November 28 – December 3, 2004
McCormick Place, Chicago

Important Dates for RSNA 2004

April 15	Deadline for abstract submission
April 26	Registration and housing open for RSNA and AAPM members
May 24	Registration and housing open for non-RSNA members
June 21	General registration, housing and refresher course enrollment opens
Oct. 29	Final advance registration deadline
Nov. 28–Dec. 3	RSNA 90th Scientific Assembly and Annual Meeting

RSNA 2003 - Scientific Abstracts Accepted by Country



■ For more information about registration at RSNA 2004, visit www.rsna.org, call (800) 381-6660 x7862 or e-mail reginfo@rsna.org.

RSNA 2004 Exhibitor News

Exhibitor Survey

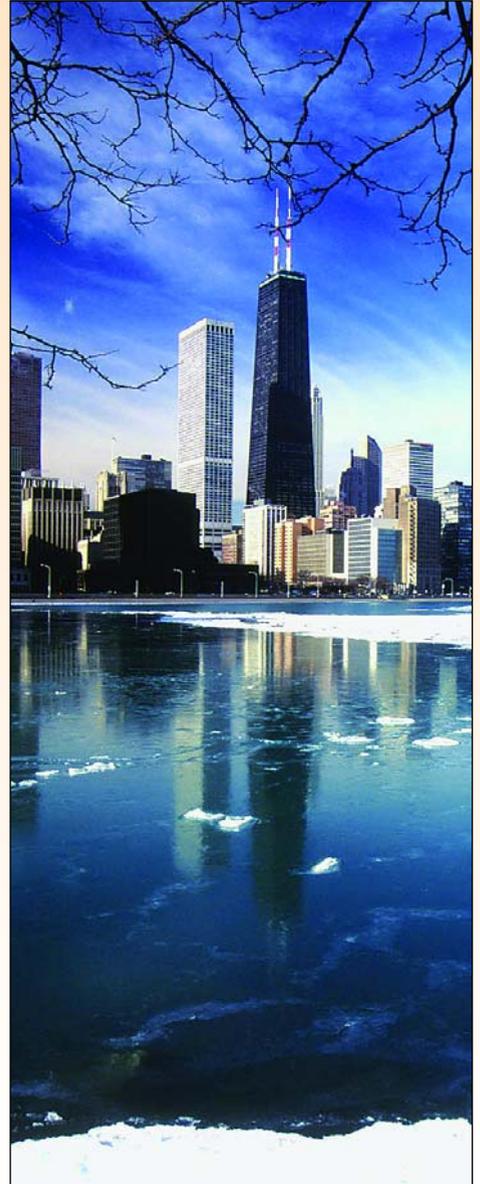
RSNA 2003 exhibitors should have received their 2003 Exhibitor Survey. Please complete this survey and return it to RSNA. Your feedback is very important for the continued success of the annual meeting and improving your experience at the meeting.

RSNA Buyer's Guide

The RSNA 2003 Buyer's Guide will be available online (rsna2003.rsna.org) until September 2004. The site can be used as a year-round business tool. Exhibitors who wish to make changes to their listing should contact RSNA Technical Exhibit Services at (630) 571-7851.

RSNA 2004 Exhibitor Meeting

All RSNA 2003 exhibitors are invited to attend the RSNA 2004 Exhibitor Planning Meeting on March 3 at Rosewood Restaurants and Banquets near O'Hare International Airport. The meeting is intended to review RSNA 2003 and plan for RSNA 2004. More information will be sent to each exhibitor's official contact in mid-January.



Photos by City of Chicago/Mark Montgomery, Peter Schutze and Willy Schmidt



November 28 – December 3, 2004
McCormick Place, Chicago

Important Exhibitor Dates for RSNA 2004

March 3	Exhibitor Planning Meeting
April 5	Exhibitor Prospectus Mails
June 22	Exhibitor Planning/Booth Assignment Meeting
July 6	Technical Exhibitor Service Kit Available Online
Nov. 28–Dec. 3	RSNA 90th Scientific Assembly and Annual Meeting

■ For more information, contact RSNA Technical Exhibits at (630) 571-7851 or e-mail: exhibits@rsna.org.

www.rsna.org

RSNA 2003

- The Message Center on *RSNA Link Onsite* (rsna2003.rsna.org)—the Web site for RSNA 2003—is scheduled to close by the end of December. To save messages in your Message Center mailbox, log in with your badge number and forward them to your regular e-mail account.
- The RSNA 2003 Sunday Image Interpretation Session is available for viewing as a multimedia session. There is no CME credit for viewing the archived session, which runs approximately 90 minutes. Go to www.rsna.org/sunday.
- RSNA 2003 Education Exhibit award winners, announced December 3, are listed on *RSNA Link Onsite* (rsna2003.rsna.org) with a link to each abstract. Click on Scientific Program in the left-hand navigation bar and then on the Special tab near the upper right-hand corner of your screen.

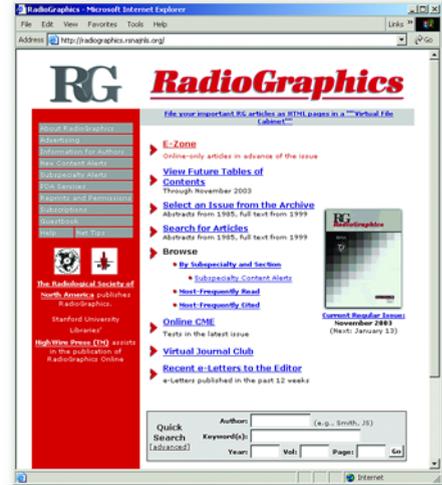
NEW!

Online Membership Applications

Membership candidates can now apply for membership online through Javascript-enabled browsers. Once a candidate has filled out and submitted the form, they will receive an e-mail providing them with a number and password to access the Online Products and Services area of *RSNA Link*. The application process takes 6 to 8 weeks to complete.

To begin the process, go to www2.rsna.org/timssnet/mbrapp/main.cfm.

Application forms are also available in Portable Document Format (PDF) at www.rsna.org/about/membership/memberapps.html for perusal and for submission by mail or fax.



Updated RadioGraphics Homepage

The home page of *RadioGraphics Online* (radiographics.rsna.org) has a new design. Posted in mid-October, it also has functional enhancements, including a Quick Search box.

An expanded article will appear in the January issue of *RSNA News*.

Using intl-radiographics.rsna.org offers faster access if you are in one of the following countries:

Australia	Israel	South Korea
Brazil	Italy	Spain
China	Japan	Sweden
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Germany	Russia	Taiwan
Hong Kong	Singapore	The Netherlands
Ireland	South Africa	UK

Access to the online journals is free with RSNA membership.

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RadioGraphics Online
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RSNA Virtual Journal Club
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www2.rsna.org/timssnet/mbrapp/main.cfm

Medical Meetings

January – April 2004

JANUARY 17–19

International Conference on Applications of Neuroimaging to Alcoholism (ICANA), Medical Campus of Yale University in New Haven, Conn. • info.med.yale.edu/ctna/icana.html

JANUARY 28–31

International Society for Clinical Densitometry (ISCD), Annual Scientific Meeting, Hotel Inter-Continental, Miami • www.iscd.org

FEBRUARY 4–8

Sociedad Mexicana de Radiología E Imagen (SMRI), Annual Meeting, Mexico City • www.smri.org.mx

FEBRUARY 5–8

Society of Nuclear Medicine (SNM), Mid-Winter Meeting, Disneyland Hotel, Anaheim, Calif. • www.snm.org

FEBRUARY 13–15

American Institute of Ultrasound in Medicine, Practical Aspects of Obstetric and Gynecologic Ultrasound, Four Seasons Hotel, Las Vegas • www.aium.org

FEBRUARY 22–26

Healthcare Information and Management Systems Society (HIMSS), 2004 Annual Conference and Exhibition, Orange County Convention Center, Orlando • www.himss.org

FEBRUARY 25–26

Biomedical Imaging Research Opportunities Workshop (BIROW II), Bethesda Marriott Hotel, Md. • www.birow.org

MARCH 5–9

European Congress of Radiology, ECR 2004, Vienna, Austria • www.ecr.org

MARCH 7–10

Society of Skeletal Radiology (SSR), Annual Meeting, Lowes Ventana Canyon Resort, Tucson, Ariz. • www.skeletalrad.org

MARCH 7–12

Society of Gastrointestinal Radiologists (SGR) and Society of Uroradiology (SUR), Abdominal Radiology Course, Westin Kierland Resort, Scottsdale, Ariz. • www.sgr.org

MARCH 22–26

Society of Computed Body Tomography & Magnetic Resonance (SCBT/MR), 27th Annual Meeting, Lake Las Vegas Resort, Henderson, Nev. • www.scbtmr.org

MARCH 25–30

Society of Interventional Radiology (SIR), 29th Annual Scientific Meeting, Phoenix Civic Plaza, Phoenix, Ariz. • www.sirweb.org

MARCH 28–31

Academy of Molecular Imaging (AMI), Annual Conference, Gaylord Palms Resort & Convention Center, Orlando • www.ami-imaging.org

MARCH 28–APRIL 1

Society of Thoracic Radiology (STR), Annual Meeting, Westin Mission Hills Resort, Rancho Mirage, Calif. • www.thoracicrad.org

APRIL 8–10

Japan Radiological Society (JRS), 63rd Annual Meeting, Pacific Convention Plaza, Yokohama, Japan • www.radiology.or.jp/english/index.htm

APRIL 21–24

Association of University Radiologists (AUR)/Society of Chairmen of Academic Radiology Departments (SCARD)/ Association of Program Directors in Radiology (APDR)/ American Association of Academic Chief Residents in Radiology (A³CR³), 52nd Annual Meeting, San Francisco Marriott, San Francisco • www.aur.org

APRIL 21–24

Sociedade Paulista de Radiologia e Diagnóstico por Imagem (SPR), 34th Sao Paulo Radiology Meeting, ITM Expo Convention Center, Sao Paulo, Brazil • www.spr.org.br

APRIL 24–25

American Osteopathic College of Radiology (AOCR), Mid-Year Conference – Mammography, Hilton Chicago O'Hare Airport, Chicago • www.aocr.org

APRIL 24–27

Radiation Research Society (RRS), 51st Annual Meeting, Adams Mark Hotel, St. Louis • www.radres.org

APRIL 27–MAY 1

Society for Pediatric Radiology (SPR), Westin Savannah Harbor, Savannah, Ga. • www.pedrad.org

NOVEMBER 28–DECEMBER 3

RSNA 2004, 90th Scientific Assembly and Annual Meeting, McCormick Place, Chicago • www.rsna.org

RSNANews

RSNA News
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