

December 2002 - Volume 12, Number 12 The Newsletter of the Radiological Society of North America

NIBIB Director Enthusiastically Seizes Historic Opportunity



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- Expert Panel Recommends Routine Osteoporosis Screening
- Politics as Important as Economics in Funding Medical Research

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RSNA News

The newsletter of the Radiological Society of North America

December 2002 • Volume 12, Number 12

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

Periodical postage pending mailing with postage in Oak Brook, IL 60523, and additional mailing offices. 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*.

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Reprints and Permissions Phone: (630) 571-7829 Fax: (630) 590-7724 E-mail: strassne@rsna.org

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PEOPLE IN THE NEWS

Two Major Honors for Hricak

edvig Hricak, M.D., Ph.D., chair of the Department of Radiology at Memorial Sloan-Kettering Cancer Center in New York, has been elected to the Institute of Medicine of the National Academies. Election to the Institute is both an honor and an obligation to work on behalf of the organization in its governance and studies. The Institute's committees engage in a broad range of studies on health policy issues such as how best to assure the health of the public in the 21st century and a project examining the long-term medical and social results of cancer treatment and survival.

Dr. Hricak was also awarded the prestigious Marie Curie Award from the American Association for Women Radiologists during a luncheon presentation at RSNA 2002.



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

Cohen New Editor-in-Chief of PSE Series

Harris L. Cohen, M.D., has been named editorin-chief of the American College of Radiology's professional self-evaluation syllabi series. Dr. Cohen is a professor of radiology at State Uni-



Harris L. Cohen, M.D.

versity of New York–Stony Brook where he is also chief of ultrasound and pediatric body imaging and vice-chairman of research affairs.

Dr. Cohen succeeds **Barry A. Siegel, M.D.**, of the Mallinckrodt Institute of Radiology in St. Louis, as editor-in-chief of the PSE series—a position Dr. Siegel held since 1988.

RSNA Research Fellow Earns NIH Award

Jay Locke, M.D., from the Mallinckrodt Institute of Radiology at Washington University in St. Louis, is the recipient of a five-year Mentored Clinical Scientist Development Award (K08) from the National Institutes of Health.

"Without the support of RSNA, none of this would have been possible. Convincing a chairman to give substantial time off as a



Jay Locke, M.D.

resident and then as a junior staff member is not an easy task. Because of the funding RSNA provided to me as a resident and fellow, my request became a reality," says Dr. Locke.

His 1999 Research Resident project was titled, "Mechanism of Heat Inhibition of Radiation–induced Activation of NF-KB," while his 2000 RSNA Fellowship project was titled, "The Cellular and Cytotoxic Effect of Heat Shock, Indomethacin and the Regulation of AP-1."

In Memoriam

Simon Kramer, M.D., a leader in radiation oncology, died in June at the age of 83. Dr. Kramer was the founding chairman of the Department of Radiation Therapy and Nuclear



Simon Kramer, M.D.

Medicine at Thomas Jefferson University Hospital and had also been a research scientist for the National Cancer Institute. The RSNA 2001 Annual Oration in Radiation Oncology was dedicated to him.

McClellan New FDA Commissioner

On October 17, the U.S. Senate confirmed the nomination of **Mark B. McClellan, M.D.**, as FDA commissioner. Dr. McClellan was a member of the President's Council of Economic Advisors and has a background as an economist, researcher, practicing internist and college professor.



Carter Earns ASHNR Gold

Barbara L. Carter, M.D., chief of ENT Radiology at Tufts University School of Medicine, is the recipient of the 2002 Gold Medal



Barbara L. Carter, M.D.

from the American Society of Head and Neck Radiology. The award was presented at the ASHNR annual meeting held in Cleveland in September.

Continued on next page

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ACR Elected Officers

Officers for the American College of Radiology for 2002-2003 are:

President: Valerie P. Jackson, M.D.

Vice-President: Christopher R.B. Merritt, M.D. Speaker: R. Terrell Frey, M.D.

Vice-Speaker: Paul H. Ellenbogen, M.D.

They were elected at the ACR's annual meeting in September in Miami.



American Joint Committee on Cancer

John Andrew Ridge, M.D.,

Ph.D., chief of head and neck surgery at the Fox Chase Cancer Center in Philadelphia, has been appointed to serve on the American Joint Committee on Cancer as a representative of the American Head and Neck Society.

RSNALews

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.

Send your

ANNOUNCEMENTS

RSNA Outstanding Educator

Barbara N. Weissman, M.D., professor of radiology and vice-chair of Ambulatory Services at Brigham and Women's Hospital and Harvard Medical School in Boston, is the recipient of the RSNA 2002 Outstanding Educator Award.

Dr. Weissman is a leading clinician and educator in the field of musculoskeletal radiology. Her approach to clinical



Barbara N. Weissman, M.D.

care of patients with rheumatologic and orthopedic conditions has set the standard in the field. She has promulgated collaboration between radiologists and their orthopedic and rheumatologic colleagues to improve patient care. Part of this effort is exemplified by the publication of the textbook, *Orthopedic Radiology*, which she coauthored with orthopedist Clement B. Sledge, M.D. For more than 25 years, Dr.

Weissman has been director of the Harvard postgraduate course "Orthopedic Radiology." This course brings together clinicians and radiologists to explore current and innovative methods of imaging and treating musculoskeletal conditions. She developed and directed a musculoskeletal radiology fellowship that has become one of the most sought after in the country. Dr. Weissman has also taught at the medical student level, coordinating the radiologic anatomy curriculum and computerizing it. She was one of the first full professors of radiology at Harvard Medical School.

The RSNA Outstanding Educator award recognizes and honors a senior individual who has made original and significant contributions to the field of radiology or radiological sciences throughout a career of teaching and education.

RSNA Outstanding Researcher

erenc A. Jolesz, M.D., the B. Leonard Holman Professor of Radiology at Harvard University and vice-chair for Research in Radiology at Brigham and Women's Hospital in Boston, is the recipient of the RSNA 2002 Outstanding Researcher Award.

Dr. Jolesz is a great innovator and leader in radiologic research, making breakthrough contributions in the

domain of image-guided therapy and in several other areas of MR imaging. He has also been credited with developing, refining and introducing into clinical practice the idea of direct, real-time MR imagingguided surgical intervention. One of his best-known accomplishments is the design and clinical implementation of the intraoperative MR system that can be located within an



Ferenc A. Jolesz, M.D.

operating theater. This breakthrough system is now widely used for MR-guided therapy and surgery.

Dr. Jolesz has been recognized for his work in perfecting the use of high-intensity focused ultrasound as a noninvasive tissue ablation tool and integrating it with an MR imaging guidance system. MRI-guided focused ultrasound surgery is now being introduced into clinical practice.

The RSNA Outstanding Researcher Award recognizes and honors a senior individual who has made original and significant contributions to the field of radiology or radiologic sciences throughout a career of research.

ANNOUNCEMENTS

RSNA News a Favorite Among Radiology Residents



More than half of radiology residents regularly read *RSNA News*, according to a new survey.

The online poll of nearly 550 RSNA members-in-training found that among a list of publications provided, *RSNA News* was the publication most residents (58 percent) said they read regularly, followed by the *American Journal of Roentgenology* (44 percent) and the *ACR Bulletin* (34 percent).

The residents were questioned separately about their preferences for reading the printed and online versions of RSNA's two peerreviewed journals, *Radiology* and *RadioGraphics*. The survey found that 42 percent of the residents preferred reading both the print and online formats of the journals, while another 40 percent preferred the print version only.

ACR/ASRT Confer on Radiologist Assistant Role

In October, the leadership of the ACR and the American Society of Radiologic Technologists met to discuss possible development of a "radiologist assistant" (RA) position, including its potential roles and responsibilities. The leadership of ACR and ASRT believe that the advent of an RA, with mutually agreed-upon responsibilities, will enhance the performance of radiological procedures and patient care and will also provide a professionally satisfying career pathway for radiologic technologists. This concept is pending approval of the ACR Council at its 2003 annual meeting in May.

Findings at Ultrasound Syllabus Now Available

The syllabus is now available in print and electronic formats for the 2002 Categorical Course in Diagnostic Radiology: Findings at Ultrasound – What Do They Mean? Edited by Peter L. Cooperberg, M.D., J. William Charboneau, M.D., and Thomas C. Winter, M.D., either version may be purchased online through the RSNA Education Center Catalog at www.rsna.org/education/catalog. The print



version may also be purchased by phone at (800) 272-2920. RSNA members receive a member discount.

The syllabi from last year can also be purchased through the RSNA Education Center Catalog. The 2001 Categorical Course in Diagnostic Radiology: Thoracic Imaging—Chest and Cardiac is available in electronic format. The 2001 Special Cross-Specialty Categorical Course in Diagnostic Radiology: Practical MR Safety Considerations is available in print format.

Contact the Education Center for specific pricing information.



<u>NEWI</u> Virtual Journal Club

Beginning in January 2003, one article from the current issue of *RadioGraphics* will be chosen for the new Virtual Journal Club (*vjc.rsna.org*). This interactive site will be especially valuable for residents and fellows. After reviewing the article, either as a PDF or on *RadioGraphics Online*, readers are encouraged to post their questions and comments to which the authors of the article will respond. The Virtual Journal Club will be "live" for a specified, three-week period after which, the discussion will still be open, but the authors will not respond.

Additional information will be available in future editions of *RSNA News*.

NEW!

Membership Renewal Online

It's time to renew your RSNA membership. Beginning this year, you can renew online at *www.rsna.org*. At the top of the page, click Members LOGIN and follow the instructions. Invoices for 2003 RSNA membership were mailed in early November. Because online

access to *Radiology* and *RadioGraphics* is tied to membership status, payments not received by December 31, 2002, may trigger automatic inactivation of online subscriptions.



For more informa-

tion or to renew by phone, contact the RSNA Membership and Subscriptions Department at (630) 571-7873 or *membersh@rsna.org*.

NIBIB Director Enthusiastically Seizes Historic Opportunity

here would be nothing surprising about a Ph.D. from M.I.T. taking over as head of one of the federal government's hard-science crown jewels such as the National Science Foundation or NASA. But when a new director at one of the National Institutes of Health's 27 Institutes and Centers comes on board with a Ph.D. in applied radiation physics from the Cambridge "Palace of Technology," something interesting is happening.

That something interesting is the National Institute of Biomedical Imaging and Bioengineering (NIBIB). Roderic I. Pettigrew, its first director, who started work on September 23, is a head-turner. No question about that. Forget about his Ph.D. thesis on the development of a boron-neutron capture therapy for treatment of malignant brain tumors. How many physicianshe received his M.D. from the University of Miami School of Medicine in an accelerated two-year programwould leave a residency to work at a manufacturing company? Before diving into academic waters as a faculty member at Emory University in 1985, Dr. Pettigrew spent a year with Picker International, the first manufacturer of MR imaging equipment. Prior to joining NIBIB, he was a professor of radiology, medicine (cardiology) and bioengineering and director of the Emory Center for MR Research at the Emory University School of Medicine, and a professor of bioengineering at the Georgia Institute of Technology.

It is fitting that Dr. Pettigrew's background is unique because so is the new Institute he now heads. Only just beginning its second year, NIBIB is at the crossroads where technology and



Roderic I. Pettigrew, M.D., Ph.D., director of NIBIB, says his number 1 funding priority is extramural grants.

biomedical sciences meet. Its role, according to Dr. Pettigrew, is to foster emerging technologies that cross-cut multiple disciplines and either make or enable them to bear on organ systems and in biological fields in order to make fundamental leaps in knowledge or understanding.

Even after his first month on the job, Dr. Pettigrew was impressed with the wide range of issues landing in his lap. "In my first week here, I attended meetings where initiatives discussed included computational cell biology, combination hormone replacement therapy in menopausal women, functional imaging of pancreatic beta cells, biosensors and tissue engineering, and technology for imaging on a nanoscale," he relates. "All of these things are of major importance."

Given the unique expertise NIBIB has to offer, directors at the other NIH Institutes and Centers have enthusiastically welcomed Dr. Pettigrew's arrival. That didn't surprise him, but others in radiology might be surprised given the notion that has gained some credence: that the other disease- and organ-based Institutes were trying to undercut NIBIB and absorb its imaging responsibilities within their Institutes. In fact, prior to Dr. Pettigrew's arrival, it had been alluded to that there were initial concerns about the creation of NIBIB within NIH. Dr. Pettigrew senses none of that concern. "There is considerable enthusiasm for the role quantitative science can play in helping other Institutes achieve their missions," he says. He mentions, for example, a potential initiative on diabetes, but because it is still under development, he was hesitant to

provide details. The new effort is a result of a meeting with the National Institute of Diabetes & Digestive & Kidney Diseases. "One of the major drawbacks in managing diabetes is an inability to visualize, assess and determine the number and functional level of beta cells in the pancreas," he

explains. "The development of a method that is able to make this kind of determination would be a significant step in the effort to better diagnose, treat and manage therapies for diabetes."

Other similar collaborative efforts are in the works. NIBIB will be joining the computational cell biology project being run by the National Institute of General Medical Sciences. "What if we could model the behavior of cells on a computer?" asks Dr. Pettigrew. "That would have broad implications for all organ systems. Our input into this project will be from the engineering, modeling and computer science areas."

Something else unique about Dr. Pettigrew, besides his physics Ph.D., is his long-standing relationship with Elias Zerhouni, M.D., the NIH director. Dr. Zerhouni is also a radiologist. He and Dr. Pettigrew have rubbed elbows at society meetings and the like for 15 years.

Asked if that friendship has help him in his first few months in the job, Dr. Pettigrew laughs. "Dr. Zerhouni is a very level-headed scientist, human being and administrator. His job and his focus is setting policy for NIH as a whole. He has to be concerned about all 27 Institutes and Centers. We probably get 1/27 of his concern."

Like all NIH Institutes, NIBIB's budget for fiscal 2003, which started October 1, is still to be finalized since Congress left town in mid-October without passing the NIH appropriations

Given the unique expertise NIBIB has to offer, directors at the other NIH Institutes and Centers have enthusiastically welcomed Dr. Pettigrew's arrival. bill. President Bush proposed \$271 million for the year. There is the possibility, however, that Congress will boost that a little bit. Dr. Pettigrew says he will work with whatever budget he receives. "There is no paucity of problems, projects and

ideas to pursue," he notes. "The challenge is optimizing the utilization of funds that have been entrusted to you."

His number 1 funding priority is extramural grants. In looking at some of the investigator-initiated applications that have come in to NIBIB, Dr. Pettigrew has acknowledged, "there are some very bright people out there." But at the same time, he worries—like others in radiology—about the shortage of clinical research faculty at academic centers and the lack of high-quality radiology research training programs. He expects to expand on training efforts begun before he arrived, such as the NIBIB National Research Service Award Institutional Research Training Grants and NIBIB National Research Service Awards for Individual Postdoctoral Fellows. There are also likely to be more inter-agency collaborative training programs such as the NIH/NSF **Bioengineering and Bioinformatics** Summer Institute (BBSI) Program. NIBIB and NSF are providing a total of \$6 million over four years for that program.

So while others may be worried about perceived radiology research shortcomings, Dr. Pettigrew is invigorated by the challenge of solving the problem. He sees the glass half full and a pitcher full of progress firmly in his grasp. "We need a new type of researcher who speaks the language of the biologist but is a solid-state mathematician, applied sciences physicist or computer chip engineer," he concludes. Researchers like Rod Pettigrew, in other words.

NIBIB Mission

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The mission of NIBIB is to "improve health by promoting fundamental discoveries, design and development, and translation and assessment of technological capabilities. The Institute coordinates with biomedical imaging and bioengineering programs of other agencies and NIH institutes to support imaging and engineering research with potential medical applications and facilitates the transfer of such technologies to medical applications."

 National Institute of Biomedical Imaging and Bioengineering 31 Center Dr Room 1B37 Bethesda, MD 20892-2077 (301) 451-6768 www.nibib.nih.gov/

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Expert Panel Recommends Routine Osteoporosis Screening

or the first time ever, the U.S. Preventive Services Task Force is recommending that women over age 65 be routinely screened for osteoporosis to reduce the risk of fracture and spinal abnormalities often associated with thinning of the bones.

The panel also urges women aged 60 to 64 to have routine screening if they are at increased risk for osteoporosis. "We defined increased risk as women not currently taking estrogen and women who weigh less than 154 pounds," says Janet Allan, Ph.D., R.N., vice-chair of the task force.

The U.S. Preventive Services Task Force is an independent panel of experts sponsored by the Agency for Healthcare Research and Quality (AHRQ). Its new recommendations, published in the September 17 issue of the Annals of Internal Medicine, are based on a report from a team led by

Heidi Nelson, M.D., M.P.H., and Mark Helfand, M.D., M.P.H., of AHRQ's Evidence-Based Practice Center at the Oregon Health and Science University.

Dr. Nelson says the team conducted repeated, careful literature searches for all studies applicable to screening for osteoporosis-

statements about the value of certain things-such as the value of these measurement modalities, how reliable are they and how well they predict fractures," she says.

"We also looked at all the different drugs for treatment of low bone density to see what some of that evidence looks like—if there really are effective, safe treatments that could be applied to a pri-

Radiologists should be more

familiar with not only how to

perform bone densitometry

correctly, but also how to

mary care population," Dr. Nelson continues. "And we put all of that together in what we call a systematic evidence review. Based on that report, the U.S.

> **Preventive Services** Task Force made the recommendations."

"We gave it a 'B' recommendation," says Dr. Allan. "That means it's not our highest level of recommendation. 'A' is the highest level of recommendation. But we did find good evidence that bone mineral density measurements accu-

rately predict the risk for fractures in the short term, and that treating women early reduces their risk for fracture."

In 1996, the Task Force found insufficient evidence to recommend for



Janet Allan, Ph.D., R.N. Vice-chair, U.S. Preventive Services Task Force

or against osteoporosis screening. But more research has been done since that time.

Dr. Nelson says treatment options have also come a long way, as indicated by convincing trials over the past few years. "So, if the clinician finds a person has low bone density, there are some effective things you can do," she says. "It doesn't mean that every person is a candidate. That's a whole

other set of decisions. But there is a longer list of things that can be done now. That makes a huge difference whether you screen or not. It's not worth screening if you can't do anything about it."

The Task Force made no recommendation for or against routine screening for women under age 60 and for those aged 60 to 64 who are not at higher risk based on weight or use of estrogen.

The panel also made no recommendations on how often women should be screened for osteoporosis. "We couldn't make a recommendation on the frequency of having this test done, because we don't have the evidence to determine the optimal interval between tests," says Dr. Allan. "We also have no data on when to stop screening either. We don't have very much data on women over age 85. That is another area for research."

Much of the research on osteoporo-

interpret the results correctly and to be able to communicate with the referring clinicians effectively. —Leon Lenchik, M.D. including bone densitometry, ultrasound and other modali-

ties for measuring bone. "We went through all of that and evaluated it, rated its quality and combined it, whenever we could, to come up with some



Digital DEXA images of hand including the calibration step wedge (sw): a, low energy and b, high energy. Photon energies provide large separation of bone mineral and soft-tissue components in the region of interest. Note that the RA aluminum reference wedge (aw) is not used in DEXA analysis.

(Gulam et. al. Radiology 2000; 216:586-591) ©2000 RSNA. Reprinted with permission.

sis screening involves the dual x-ray absorptiometry scan (DEXA), the most commonly used modality. "We're not specifically recommending DEXA in our recommendations—we don't do that. We just recommend the screening," says Dr. Allan. "But we have said that the DEXA is the best predictor of hip fracture. And it also does a comparable job of looking at fractures in the forearm and other sites."

"I think, in the short term, most people will remain with DEXA as the gold standard, simply because with that technology, the understanding about how bone density relates to fracture risk is best," says Leon Lenchik, M.D., associate professor of musculoskeletal radiology at Wake Forest University School of Medicine in Winston-Salem, N.C. "There is less that we know about that relationship with other devices, such as CT or peripheral devices."

Dr. Nelson says that while peripheral ultrasound scans are becoming popular, there is less data about them. "Also, it's important for clinicians and patients, that all the clinical trials that show us if a medicine works all used DEXA criteria for entry into the trials," she says. "So we really don't know if someone measured by ultrasound, and then treated, is really the same person that would be found by DEXA and be treated."

Dr. Lenchik believes the recommendations from the U.S. Preventive Services Task Force are very good overall, and supported by the current literature and understanding of the importance of osteoporosis diagnosis in preventing fractures. But he suggests the report may be a little too narrowly defined, compared to the standard practice in the community.

"They seem to be focused in particular on the femoral neck measurement with DEXA," he says. "And I think that's probably a little bit too narrow, in particular because the majority of clinicians use both the spine in the PA projection and the hip DEXA."

Dr. Lenchik suggests the new recommendations should increase the overall utilization of the technology. "And what that means is that radiologists should be more familiar with not only how to perform bone densitometry Note from *Radiolo*gy study author:

The type of peripheral DEXA that we describe in the above cited paper is not really a very common approach as yet, and there is controversy over whether DEXA should be done only at some sites (like the spine and hip) or can be done at other (peripheral) sites in the body (hand or foot).

The technique worked quite well as we reported it, but is not accepted as standard at the present time.

— David W. Holdsworth, Ph.D.

correctly, but also how to interpret the results correctly and to be able to communicate with the referring clinicians effectively," he says.

"In the osteoporosis community in general, there is some criticism of radiologists not doing this interpretation correctly," Dr. Lenchik continues. "So, as the demand for the services increases, I think radiologists should use that as an opportunity to increase their expertise in the field and to provide more accurate and more clinically relevant interpretations of the results."

The osteoporosis recommendations and materials for clinicians are available on the AHRQ Web site at www.ahrq.gov/clinic/3rduspstf/osteoporosis/.

7

Politics as Important as Economics in Funding Medical Research

ust as medicine fights battles with viruses and other diseases, so too must presidents and governments fight battles to support medical research, says John C. Burnett Jr., M.D., director for research at the Mayo Clinic in Rochester, Minn., who spoke recently at a conference on medicine and the media at the Mayo Clinic.

In a session devoted to addressing how politics and government affect medical research, Dr. Burnett highlighted a number of high priority issues in the relationship between medicine and government, most of which focus on the importance of funding. These include the many factors that govern the distribution of federal dollars into medical research, such as the current strength of the economy, political issues that channel monies into current areas of interest (such as the current war mentality and focus on bioterrorism) and regulations and laws governing the availability of funding from philanthropy.

The primary influence of funding on medical research has been highlighted in numerous publications. In his address at RSNA 1999 and subsequently published in *Radiology*, then-RSNA president Seymour H. Levitt, M.D., described the impact of the 1997 Balanced Budget Act and managed care on academic health centers as a whole and radiology/radiation oncology in particular.¹

An article in the October issue of *RSNA News* reported on current questions being addressed by the Academy of Radiology Research (ARR) in dealing with funding issues that will directly affect research efforts in imaging for the year 2003. Among them is the reorganization within the Center for Scien-

tific Review that could potentially change the way imaging grant applications are reviewed.

Other issues that play a strong role in how radiology and radiation oncology are shaped by current economic demands and needs include the ever changing focus on "hot" areas of research, the limitations of human resources within radiology and radiation oncology departments, and strictures on research and development posed by the lengthy FDA approval process.

Clearly, the major obstacle to basic research is the increasing clinical load, the lack of organized residency research rotations and the poor research training offered to residents and fellows in training, —William P. Dillon, M.D.

Hot Areas of Research

There are certainly fluctuations in funding opportunities, says 2003 RSNA Board Chairman David H. Hussey, M.D., a clinical professor in the Department of Radiation Oncology at the University of Texas Health Sciences Center in San Antonio. "In the past, it was difficult to get clinical projects funded, whereas now it is somewhat easier."

He says the current hot topics within radiology and radiation oncology include molecular biology, cancer biology, genes and gene therapy, and functional imaging. It is more difficult to get support for classic radiation biology and outcomes research, according to Dr. Hussey.

During an interview on National Public Radio in September, radiologist and NIH Director Elias A. Zerhouni, M.D., pointed to three hot areas:

- The ability to image the entire body in less than a minute and for computers to analyze the data for abnormalities.
- The development of image-guided therapies.
- The new field of molecular imaging. The RSNA Research & Education Foundation also noted molecular imaging as a hot topic this year. It is this year's "topic of interest" for the RSNA Research Fellow Grants awarded to young investigators.

Governmental agencies, other than those that fund research, can also provide a significant incentive for research. For example, "The Center for Medicare and Medicaid Services (CMS) authorized payment for intensity modulated radiation therapy (IMRT) last year, with good reimbursement," Dr. Hussey noted at this year's meeting of the American Society for Therapeutic Radiology and Oncology. "This has led to significant purchase of IMRT equipment over the past year and a tremendous increase in research in this area."

Limited Human Resources

A major obstacle facing radiology departments is the lack of sufficient human resources and the shortage of radiologists needed to carry out research activities. The heavy demands of clinical care that dominate the activities of clinical departments in academic healthcare centers in the wake of man-



John C. Burnett Jr., M.D. Director for Research, Mayo Clinic

aged care have placed limitations on the ability of these departments to carry out their research and educational missions.¹ "Clearly, the major obstacles to basic imaging research are the increasing clinical load, the lack of organized residency research rotations and the poor research training offered to residents and fellows," says William P. Dillon, M.D., vice-chairman of the Department of Radiology and chief of the Neuroradiology Section at the University of California, San Francisco.

In addition, there are not enough mentors or research training centers with faculty and resources required to develop the interests of young investigators, says 2003 RSNA Board Liaison for Science Gary J. Becker, M.D., of the Miami Cardiac & Vascular Institute. "Nor do we have the radiology trainees who are inclined to enter research centers or who are sufficiently trained and experienced to enable such a selection. Most of them have the wrong backgrounds." RSNA can play a big role here, he adds.

The current focus on bioterrorism will undoubtedly have an effect on how federal monies are distributed, says Wayne Hanson, Ph.D., director of RSNA's Department of Research. He adds that this will affect research in all disciplines, not just radiology and radi-



David H. Hussey, M.D. Department of Radiation Oncology University of Texas Health Sciences Center

ation oncology. On the other hand, for radiology in particular, he says basic research for such things as radiation protectors is in a boom period right now.

A Call to Action

In addition to supporting basic research through contributions to the RSNA Research and Education Foundation, ARR urges all radiologists, radiation oncologists and allied scientists to join RADPAC, the American College of Radiology (ACR) political action committee.

ARR has entered into an agreement with ACR through which RADPAC will expand its support for legislators who serve on committees with jurisdiction over funding for medical research. The primary focus of this cooperative effort has been funding for the National Institutes of Health, particularly for the newest institute, the National Institute of Biomedical Imaging and Bioengineering (NIBIB). Greater participation in RADPAC by members of the imaging community will enable RADPAC to build increased support among the Senators and Representatives who make the decisions on the budgets for the NIH and other federal agencies that support radiology and imaging research.

"Participation in RADPAC is



Gary J. Becker, M.D. Miami Cardiac & Vascular Institute

important, but is not the only means of strengthening the voice of the imaging community," says ARR Executive Director Ed Nagy. "Grassroots contact with legislators on specific issues remains the heart of the Academy's advocacy strategy. Radiologists, radiation oncologists and allied scientists who are willing to contact their Representatives and Senators in support of increased funding for imaging research should advise the Academy through its Web site: www.acadrad.org. The Academy will then contact you and provide supporting materials when letters, e-mails or personal visits to legislators are needed."

He adds that personal contact from constituents is the most effective means of communicating with lawmakers—it was the key element in the passage of legislation creating NIBIB. "The Academy is the leading advocacy organization for imaging research, and increased participation in its grassroots efforts will make a positive difference for radiology," Nagy says.

Editor's Note: See related article on RSNA's Revitalizing the Radiology Research Enterprise on page 10.

Reference: 1. *Radiology* 2000; 216:618-623

RSNA Pilot Program Advances Imaging Research in Academic Radiology

"oday's research is tomorrow's clinical care." N. Reed Dunnick, M.D., says that's why he's so excited about RSNA's pilot program, Revitalizing the Radiology Research Enterprise (RRRE).

RRRE is designed to help academic radiology departments strengthen their research infrastructure and clarify their strategic direction with regard to radiology research. Two senior level radiology researchers from other institutions visit the departments and provide consultation.

Dr. Dunnick is the chair and Fred Jenner Hodges Professor of Radiology in the Department of Radiology at the University of Michigan Health System in Ann Arbor. His program was one of five to complete the process in the first two years of RRRE. Now, he's the lead committee member for planning and managing the next cycle of visits.

"Just as a rising tide raises all boats, this program will improve the quality and quantity of all radiology research," he says.

Launch of RRRE

Under the direction of the Research Development Committee, the RRRE subcommittee received approval in 1999 from the RSNA Board to "enable academic radiology research departments to more effectively achieve the progress in

biomedical imaging necessary to meet societal expectations of improved health and public welfare."

Both Dr. Dunnick and Foundation Trustee C. Leon Partain, M.D., Ph.D., credit another RSNA member, Edward V. Staab, M.D., chief of the Diagnostic Imaging Branch in the Biomedical Imaging Program at the National Cancer Institute, for urging the RSNA Board to create this program. Dr. Partain is the chair of RSNA's Research Development Committee and the Carol D. and Henry P. Pendergrass Chairman and Professor of Radiology and Radiology Sciences at Vanderbilt University Medical School in Nashville, Tenn.

"This initiative is critically important in the larger context of new knowledge for the future," Dr. Partain says. "RRRE is a new operating paradigm. It is my hope that RRRE will redefine and reenergize research," he adds.

"We need to focus more on research. It is an important part of our work," Dr. Dunnick adds.

How RRRE Works

Academic diagnostic radiology and radiation oncology programs are invited to participate in RRRE through a Request for Proposals (RFP) released

> by RSNA in December. Dr. Dunnick explains that each step of the RRRE process is positive. He says when

department chairs apply to participate in RRRE they

must crystallize thoughts about their own goals for research. Applicants then meet in the Chicago area to present their research goals.

Six programs are then selected. In the first year of RRRE, two upper-level, two mid-level and two lower-level



N. Reed Dunnick, M.D. Department of Radiology, University of Michigan Health System

research centers were chosen. Of the six, five completed the process. They are: Indiana University, State University of New York (SUNY) in Stonybrook, University of Alberta in Canada, University of Michigan Health System and University of Texas Health Sciences Center at San Antonio.

Two senior research-oriented radiologists visit the universities to get an overview of the program. Department chairs, faculty and staff are required to do a great deal of preparation in advance of the visit.

While there, the senior radiologists review research work and meet the faculty and dean. They ask dozens of questions, such as: How will your department's participation in this program benefit the radiology profession?





What is the total amount of clinical funds set aside for research during the past fiscal year as a percent of net operating revenues? Does the department have a departmental plan for research?

The senior consultants make suggestions about ways to improve the program and frequently present ideas

This program will improve the quality and quantity of all radiology research. —N. Reed Dunnick, M.D.

they've seen at other institutions. After the visit, they write a report offering their recommendations on ways to nurture more and better research.

A follow-up plan is being created so that the five academic institutions in the first round of RRRE visits remain connected and share information on how RRRE has improved their research programs. "Lessons learned may be applied across North America," Dr. Dunnick explains.

"RSNA is an important organization. The fact that RSNA is sponsoring a program like RRRE shows how significant it is," he says.



The Department of Radiology at the University of Michigan Health System in Ann Arbor was one of five programs to complete the process in the first two years of RRRE. Isaac Francis, M.D., *left*, is the associate chair for research; Lubomir Hadjiyski, Ph.D., *right*, is a research investigator.

A special focus session on RRRE will be held at RSNA 2003.

Dr. Dunnick and his committee welcome input on what aspects of RRRE should be preserved and what should be eliminated in future years. Comments should be sent to *rdunnick@umich.edu*.

All department chairs will receive a

request for proposals. For more information, contact Wayne Hanson, Ph.D., director of the RSNA Department of Research, at (630) 368-3751 or *hanson@rsna.org*.

Editor's Note: See related article on research on page 8.

RSNA:PROGRAM & GRANT ANNOUNCEMENTS

Fellow Needed for Cardiovascular Imaging Program

The first RSNA Research and Education Foundation Institutional Clinical Fellowship in Cardiovascular Imaging Grant has been awarded to the Section of Cardiovascular Imaging of the Division of Radiology at the Cleveland Clinic Foundation. The three-year grant provides \$50,000 salary support for one fellow per year, under the scientific guidance of Richard D. White, M.D. (Head, Section of Cardiovascular Imaging). The Cleveland Clinic is seeking the first Fellow to participate in the program from July 2003-June 2004. Interested applicants must be citizens or permanent residents of a North American country, have completed their residency training in the radiologic sciences, hold an M.D. degree or the equivalent as recognized by the American Medical Association, and must be ACGMEcertified in radiology or be eligible to sit for such certification.

For more information, contact Richard D. White, M.D., at (216) 444-2740 or *whiter@ccisd1.ccf.org*.

<u>New:</u> Operation of Sensors In Vivo

The National Institute of Biomedical Imaging and Bioengineering and the National Institute on Deafness and Other Communication Disorders seek investigator-initiated applications for research grant awards (R01) or exploratory/developmental research grant awards (R21) for the development of innovative technologies designed to increase the utility of a sensor in vivo. Applications are due January 21, 2003. For more information, go to www.nibib.nih.gov/research/ investigators.htm

Continued on page 16

93-Year-Old Radiologist Still Loves Practicing

nspiration comes in a variety of packages. In Augusta, Ga., inspiration is packaged in the person of Sava M. Roberts, M.D., a senior staff radiologist at the Augusta VA Medical Center.

At age 93, Dr. Roberts works five days a week as a part-time diagnostic radiologist. He is also an assistant clinical professor of radiology at the Medical College of Georgia, a position he has held since 1975.

Dr. Roberts has taught many generations of radiologists rotating through the VA's radiology department. "Dr. Roberts always told us that radiology keeps him young, and I believe him," says former resident Katarzyna J. Macura, M.D., Ph.D., now an assistant professor in the Russell H. Morgan Department of Radiology and Radiological Science at the Johns Hopkins Medical Institutions in Baltimore.

Dr. Roberts worked full time until his bypass surgery a few years ago.

"Dr. Roberts is an inspiring person because of his enthusiasm and love for radiology," says Dr. Macura. "When I

was a resident, Dr. Roberts was in his 80s. I know he was coming to work every day, not only to do the work, but also because he truly enjoyed what he was doing. I felt that Dr. Robert's strong ties and

I think retiring early is one of the worst things that could happen to a human being. —Sava M. Roberts, M.D.

bonds with radiology were something very special. It was an interesting experience being a new resident and seeing how radiology becomes your life. It was important to see how much the profession can mean to a person."

Lloyd B. Schnuck, M.D., a staff radiologist at the Augusta VA Medical



Sava M. Roberts, M.D., and Prabhakar Battu, M.D., work together in the Radiology Department at the Augusta VA Medical Center.

Center and an associate professor at the Medical College of Georgia, estimates that Dr. Roberts has seen more than a million films in his career. "He has truly seen everything since the 30s," says Dr. Schnuck. In addition to diagnostic radiology, Dr. Roberts has worked in

> radiation therapy, nuclear medicine and ultrasound, as well as radium and radon implants.

> Dr. Macura describes Dr. Roberts as a walking encyclopedia of radiology. "When I was a resident, a group of us was

looking at an x-ray of a woman's hands trying to identify what we were seeing. We were puzzled and started to pull out books. Dr. Roberts happened to walk by and commented, 'Oh, what a nice case of sarcoidosis.' We were delighted."

In the late 1930s, Dr. Roberts started a general practice outside of Fort

Wayne, Ind., making house calls to farms. "As I recall this was mostly in the middle of the night. I charged only 25 or 50 cents. Times were tough."

After leaving private practice, Dr. Roberts joined the United States Army in 1939 as a post surgeon at Camp Custer Michigan, now Fort Custer. "I had a 25-bed hospital with a portable 10-milliamp Kellakat. It was the late 30s, and I could hear the distant beating of the drums of war. Following the Pearl Harbor attack, I was shipped out to the Pacific where the army made me a radiologist. The station hospital had 500 beds and we used a 10-milliamp Picker Field unit. I did everything with it."

After the war was over, Dr. Roberts completed his radiology residency training and accepted a position with the newly formed VA hospital at the Augusta facility. "They didn't have much better equipment than the army," recalls Dr. Roberts. "The VA had a couple of old Kellakat machines. You had to stand them up and crank them into position. The tube was open in the bottom of the table. Every now and then it would short circuit and spark. Radiology involved a lot of guesswork. In those days I made my own stuff for angiograms-I would use one of the Kellakat machines and the Picker Field machine and would do cerebral angiography for the neurosurgeons. I'd have one tube hanging from above and the side tube for the laterals would be the Picker Field unit. I'd pull the strings as quickly as I could while the dye was still moving through the vascular structures. Back then we all wore red goggles to accommodate our eyes."

After more than 20 years as the chief of radiology, Dr. Roberts left the VA in 1969 for a seven-year stint in private practice in Americus, Ga. "My health was poor, so I gave it up. About that time I received a call from the VA asking me to take over the department again."

"I've been exposed to so much radiation that I gave up nuclear medicine, radiation therapy and ultrasound," says Dr. Roberts. "I had been stretching myself too far. The field of radiology became so vast that no one person can really manage to be an expert in all of the sub-branches."

"Up until five years ago, he was taking call and was reading every modality we had. The chief relieved him that so he wouldn't have to drive at night," says Dr. Schnuck. Several years ago, Dr. Roberts was awarded a 50-year pin for federal service. "Dr. Roberts is a joy to work with and is a wonderful person," added Dr. Schnuck.

"I am not the retiring kind. I am very active now, and I've been busy all my life," says Dr. Roberts. "I think retiring early is one of the worst things that could happen to a human being. I think the worst thing that could happen is to get up in the morning and have only four walls and a television."

Dr. Macura is thankful for his commitment to radiology. "Dr. Roberts



Sava M. Roberts, M.D., views patient information at a lighted viewbox station at the Augusta VA Medical Center.

maintains an extraordinary level of excitement that was exhilarating to me when I was a resident. He is highly curious about new technology and is always attending educational courses. Dr. Roberts taught me that a good radiologist has a combination of interest and passion," she says.

An RSNA member since 1951, Dr. Roberts has attended virtually every RSNA scientific assembly.

He attended RSNA 2002 and took an ultrasound refresher course. In a typical year, Dr. Roberts attends two or three meetings or symposia.

Dr. Roberts has been married to his wife, Emma, for 64 years. He has three children—his son, Dion, is a pediatrician in Anchorage, Alaska; his daughter Bonnie is a social worker in Atlanta; and his daughter Alice lives in southwest Georgia. He has six grandchildren and two great grandchildren.

Dr. Roberts was born in what was formerly Austria and is now Croatia. He immigrated to the United States after World War I. He attended the University of West Virginia for two years and earned his medical degree from the University of Louisville in Kentucky in 1937. He interned at Lutheran Hospital in Fort Wayne, Ind., and completed his residency at Louisville General Hospital following World War II.

The American Medical Association honored Dr. Roberts with the Physician's Recognition Award in Continuing Education in 1977, 1981, 1984, 1987 and 1999.

in-spi-ra-tion \in(t)-spe-'ra-shen, -(')spi-\ *n* (Date: 14th century) 1 a : a divine influence or action on a person believed to qualify him or her to receive and Ň communicate sacred revelation **b** : the action or power of moving the intellect or emotions c: the act of influencing or suggesting opinions 2: the act of drawing in; specifically: the drawing of air into the lungs 3a: the quality or state of being inspired **b** : something that is inspired <a scheme that was pure inspiration> 4 : an inspiring agent or influence

Source: Merriam-Webster's Collegiate® Dictionary

History of the RSNA—Part 21 Further Challenges

he new cabinet system of management for RSNA, as established by Society leaders in the late 1970s, was operating smoothly by 1985. However, since RSNA was now publishing Radiology, RadioGraphics and the Scientific Program for the annual meeting, with plans being discussed to print course syllabi and a catalog of educational materials, RSNA leaders believed a new cabinet position-a liaison for publications-needed to be added to the Board of Directors. Consequently, to avoid increasing the size of the Board, the positions of secretary and treasurer, which had been combined temporarily in the 1960s, were combined again and filled by California radiologist Malcolm Jones, M.D. The first liaison for publications was E. Robert Heitzman, M.D.

Introducing RSNA Today Video

Soon the Society developed another cutting-edge, year-round continuingeducation publication. By the mid-1980s, videocassette technology had established itself in American society. Individuals were purchasing new videocassette recorder/players (VCRs) and small stores that offered videotapes of movies for rent began dotting the landscape. RSNA leaders believed the Society should add videotape recordings of courses, lectures and annual meeting sessions to its library of slides and audiocassettes. From this idea came the development of a "videotape journal." Periodically, RSNA members received a videotape containing news and presentations on various radiology topics. This new type of journal was called RSNA Today Video. Dr. Heitzman served as interim editor until Irvin I. Kricheff, M.D., was selected as the



Attendees at RSNA '86 viewed scientific exhibits such as this one titled, "Pitfalls in Cholangiographic Interpretation."

permanent editor. Circulation approached 2,000, although RSNA had difficulty attracting advertisers to this new concept.

Farewell to Adele Swenson

The middle of the decade was also marked by fond farewells to the Society's dynamic executive director, Adele Swenson, who had announced her retirement. As a reflection of the gratitude Society leaders felt for Swenson, a special book was put together in her honor entitled RSNA Remembered: *Reminiscing with Adele —1985.* The book was coordinated on behalf of the past RSNA presidents and the Board of Directors by 1984 RSNA President Douglas W. MacEwan, M.D., and his wife. Many past presidents contributed chapters to the book, which described events in RSNA history from the

formation of the Western Roentgen Society to the development of *Radio-Graphics*.

The Board of Directors, through a selection committee, chose Mary Ann Tuft to replace Swenson. Tuft had a master's degree in education from Lehigh University. She began her career as an elementary school teacher. Like Swenson, Tuft had a solid background in administration, which included experience with the Girl Scouts. In 1966, Tuft had joined the Great Valley Girl Scout Council of Allentown, Pa., as director of personnel services and worked her way up to the national inservice instructor of education courses for the Executive Staff of Girl Scout Councils. Her experience with medical societies began when she became a consultant to the National League for Nursing in New York. By 1969, she

was the executive director of the 35.000-member American Student Nurses' Association and was responsible for operations, fundraising, financial management, publication and recruiting. She was also president of the Board of Directors of the New York Society of Association Executives.¹

Staying in Chicago

On November 17, 1985, the 71st **RSNA Scientific Assembly and Annual** Meeting commenced in Chicago's McCormick Place. The number of scientific sessions and scientific exhibits had increased from the previous meeting, which had been held in the much smaller Washington Convention Center. The plenary session schedule was unchanged, although the New Horizons Lecture was renamed the Eugene P. Pendergrass New Horizons Lecture to honor the Society's 1954 president and one of the most important leaders in radiology education.

The RSNA Board of Directors had

For those radiologists who had attended crowded Society meetings at Chicago's Palmer House Hotel, it seemed incredible that the scientific assembly could be on the verge of becoming too large for McCormick Place.

also formed a site-selection committee to analyze potential alternative locations for future meetings, but RSNA leaders were convinced Chicago was the best place for the scientific assembly. The city had the optimal combination of an adequate convention center, large international airport, topnotch hotel accommodations, appealing cultural attractions, fine restaurants and efficient transportation. However, by the late 1980s, the RSNA meeting was taking up nearly all the exhibit and

classroom space at McCormick Place. For those radiologists who had attended crowded Society meetings at Chicago's Palmer House Hotel, it seemed incredible that the scientific assembly could be on the verge of becoming too large for McCormick Place. Fortunately, plans were under way to build an addition to the convention center, which would be connected to the original lakeside building by a pedestrian walkway that would span Chicago's busy Lake Shore Drive. The RSNA Board of Directors scheduled every annual meeting in McCormick Place through the end of the century.

Reference

1. Buenger RE. Mary Ann Tuft: new executive director, Radiological Society of North America. Radiology 1985; 155:839.

The entire History of the RSNA series, to date, is available on our Web site at www.rsna.org/ about/history/index.html.

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New Exhibitor's Circle Program Unveiled at RSNA 2002



The RSNA Research & Education Foundation is offering a new corporate giving program.

The RSNA Exhibitor's Circle, introduced this month at RSNA 2002 in Chicago, allows small and mid-size companies to annual-

ly support research at more modest levels than required for the Vanguard Program.

"The Exhibitor's Circle is a way for these smaller companies to take part in forging the future of radiology," stated Michael A. Sullivan, M.D., 2002 chairman of the Foundation's Board of Trustees.

"We decided to offer the Exhibitor's Circle because a few corporate representatives said they were eager to contribute, but were unable to commit at least \$100,000 per year as is **RSNA Exhibitor's Circle PLATINUM CIRCLE MEMBERSHIP** \$10,000 per year

GOLD CIRCLE MEMBERSHIP \$5,000 per year

SILVER CIRCLE MEMBERSHIP \$2,500 per year BRONZE CIRCLE MEMBERSHIP

\$1,000 per year

required in the Vanguard Program. They realize that there is nothing more critical to the future of radiology and imaging than the support for scientific inquiry now."

The Foundation's Board of Trustees hopes this new program will further build bridges between clinical investigations and commercial innovations by allowing more companies to participate.

Since 1984, the RSNA Research and Education Foundation has awarded nearly \$17 million in grants to more than 425 physicians and scientists conducting research in the radiologic sciences.



Michael A. Sullivan, M.D. 2002 Chairman, R&E Foundation's Board of Trustees

For more information or to become a member of the Exhibitor's Circle program, contact Deborah Kroll at (630) 368-3742 or *dkroll@rsna.org.*

RSNA:PROGRAM & GRANT ANNOUNCEMENTS

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Biomedical Imaging Research Opportunities Workshop

Register online for the Biomedical Imaging Research Opportunities Workshop (BIROW) to be held January 31– February 1, 2003, at the Hyatt Regency, Bethesda. The workshop is co-sponsored by RSNA, AAPM, ARR and BMES along with support from many other radiologic, engineering and basic imaging science societies.

This workshop is intended to identify and explore opportunities for basic science research and engineering development in biomedical imaging as well as related diagnosis and therapy. Topics will include:

- An example of imaging solutions to a multi-disease biological challenge imaging of hypoxia
- Extending imaging methodologies and systems across spatial scales
- Assessment and validation of imaging methods and technologies

• Image-guided therapy

Registration before January 3, 2003, is \$275. Onsite registration is \$325. CME credit will be awarded.

To register or for more information, go to *www.birow.org* or send an e-mail to *birow@aapm.org*.



Biomedical Imaging Research Opportunities workshop

Vanguard Company Spotlight: Shimadzu Medical Systems



As one of the premier manufacturers of advanced imaging systems and equipment, Shi-

madzu Medical Systems develops, manufacturers and distributes a wide range of diagnostic systems with clinical applications in CT, digital subtraction angiography, cardiovascular systems, digital radiography and fluoroscopy systems, ultrasound and general radiology equipment. Shimadzu's imaging experience dates to 1909 when the company produced the first x-ray apparatus in Japan for medical use. Since then, Shimadzu has remained a prominent manufacturer of equipment for use in the diagnosis and treatment in the medical arena.

"We are proud to join with other corporate partners in support of the RSNA Research & Education Foundation and its Board of Trustees. Our contribution to the Foundation is a sign of our support to this valuable endeavor," says Frank Serrao, Shimadzu's Marketing Manager.

Shimadzu has pledged to donate \$200,000 to the Foundation.

The company's commitment to the advancement of the radiologic sciences is evident through its support of two Medical Student Departmental Awards. The Medical Student Departmental Award is a program designed to permit radiology investigators greater opportunities to identify medical students to work with them to mutual advantage. The RSNA Research and Education Foundation will provide matching funds to a radiology department of \$1,000 per month for each medical



Shimadzu Medical Systems displays some of its products and services during the 2001 RSNA Scientific Assembly at McCormick Place.

student. The school/department will identify medical students to work for a minimum of a three-month period. Grants are awarded to Departments of



Diagnostic Radiology, Radiation Oncology or Nuclear Medicine allied with fully accredited North American medical schools for five consecutive years.

For more information on the RSNA Research & Education Foundation Grant programs, contact Scott Walter at (630) 571-7816 or *walter@rsna.org*.

For more information about becoming an RSNA Research & Education Foundation Vanguard Company, contact Deborah Kroll at (630) 368-3742 or *dkroll@rsna.org*. The current Shimadzu Medical Systems/RSNA Medical Student Departmental Awardees are Marna J. Eissa, from the Department of Radiology at

the Louisiana State University Health Sciences Center in New Orleans, and Daniel C. Schiffner, from the Department of Radiology

from the Department of Radiology at the University of California, San Francisco. Eissa will participate on the research study "Percutaneous Placement of Extraluminal Stent-Graft: A New Concept for Treatment of Occlusive Disease in the Superficial Femoral Artery." Schiffner will assist in a study titled, "MRI-Guided Cardiovascular Therapy."



Research and Education Foundation Donors

THE BOARD OF TRUSTEES of the RSNA Research and Education Foundation and its recipients of research and educational grant support gratefully acknowledge the contributions made to the Foundation between **October 1, 2002 and October 30, 2002.**

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

RSNA:PROGRAM & GRANT ANNOUNCEMENTS

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The RSNA Research & Education Foundation Offers Two New Fellowships

NEW!

The Research Fellowship in Basic Radiologic Sciences was developed to provide training and research opportunities for scientists, who possess a Ph.D. degree, to gain insight into scientific investigation and to develop competence in research in basic radiologic sciences. Additionally, the program is designed to promote and enhance the understanding and utilization of basic radiologic sciences within departments of diagnostic radiology, radiation oncology and nuclear medicine. The fellowship provides \$45,000 salary support for one year with \$5,000 to the institution to be applied to direct expenses. Application for renewal for a second year of salary support at \$50,000 with \$5,000 to the institution will be considered based on progress toward the stated goals during the initial year.

Deadline for applications is January 15 each year.

NEW!

The **Institutional Fellowship in Radiologic Informatics** is designed for a department to provide training opportunities to young physicians and scientists in the radiologic sciences who are not yet professionally established in the area of informatics. The program is intended to:

- Promote and enhance the understanding and utilization within radiology departments of communications capabilities, PACS, Internetbased databases and educational materials, and computer-linked modalities.
- Increase the integration and efficiency of electronic media within radiology departments and hospital environments.
- Assist in collaboration with industry in the establishment and implementation of clinical requirements for

electronic media communications.

Departments that successfully compete to provide Fellowships in radiologic informatics will be funded for three consecutive years. This grant provides \$50,000 per year to be used as salary support for the selected Fellows. Fellows are chosen from physicians in North America who have completed their clinical training in residency programs in diagnostic radiology, radiation oncology or nuclear medicine. It is expected that one or more research projects will be undertaken during the Fellowship training.

Deadline for applications is June 1 each year.

For information on these and other RSNA Research & Education Foundation grants and awards, contact Scott Walter at (630) 571-7816 or *walter@rsna.org* or look on the RSNA Web site at *www.rsna.org*.

Working For You

Patient Education Brochures

RSNA has developed new patient education brochures to help patients prepare for various radiologic procedures. Five brochures are available, including one on Abdominal Ultrasound Scanning. This brochure pro-



vides insight into how and why the procedure is performed, explains how to prepare for an ultrasound, and teaches the patient about the physician who interprets the results.

Other brochures are available on Mammography, CT of the Body, MRI of the Musculoskeletal

System and Radiology & Your Health.

For more information or to place an order, go to *www.rsna.org/practice/ index.html* or call (800) 272-2920. RSNA members receive a discount.



InteractED Awards 72,000 Category 1 Credits

RSNA's online education resource, InteractED (*www.rsna.org/education/ interactive*), continues to be an important resource for the radiology community. InteractED currently features 275 programs including cases of the day, education exhibits, refresher courses and cardiovascular imaging programs. More than 7,300 InteractED registrants have been awarded 72,000 certificates of AMA category 1



credit. RSNA members have free access to InteractED, while non-members pay \$15 for seven-day access per program. For more information, contact the Education Center at (630) 590-7715 or *ed-ctr@rsna.org*.

Intellectual Property Rights and Medical Images

Beginning in January, RSNA introduces a new policy regarding medical images from the authors of scientific manuscripts and educational material submitted for publication by RSNA. Currently, authors transfer copyright ownership in total to RSNA—a policy followed by nearly all publishers.

Under the new policy, authors will still transfer copyright ownership to RSNA, but RSNA will give authors a license for publication of their images that extends for the full term of copyright and allows the authors to sublicense their images to others. Thus, when an author wishes to use images from his or her *Radiology* or *RadioGraphics* article in an article or book chapter to be published by another organization, the author need not request RSNA permission.

A special communication on this new policy will appear in the January issue of *Radiology*, the January-February issue of *Radio-Graphics*, and the January issue of *RSNA News*.





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 (630) 571-7873 or membersh@ rsna.org.

Working For You

SERVICE TO MEMBERS:

Mark works closely with the Board of Directors, the Research & Education Foundation Board of Trustees and various committees to help assure the Society and its Foundation operate in a fiscally sound manner. His areas of responsibility include accounting, administration, human resources, building management, and membership and subscriptions services. Specific responsibilities include preparation of financial statements, annual budgets and long-range financial forecasts; making short-term investments and monitoring long-term investments for compliance with Board-established guidelines; managing the activities of the Society's Headquarters building; maintaining competitive benefits for the RSNA employees; and overseeing membership retention and recruitment efforts. While many of Mark's areas don't provide direct service to members, they supply the structure and facilities that enable those services to be delivered.

WORK PHILOSOPHY:

My philosophy is to lead by example. My staff knows that I am very detail oriented, willing to do whatever it takes



to get the job done, that I won't ask anybody to do anything that I am not willing to do myself and that I expect the same of them. I strive to present clear and concise financial reports to the RSNA and Foundation boards so they can make informed decisions. The core of my work ethic was instilled into me by my father, and that is "if a job is worth doing, it is worth doing right." NAME: Mark G. Watson, C.P.A.

WITH RSNA SINCE: May 29, 1990

POSITION: Assistant Executive Director: Finance and Administration

connections Your online links to RSNA

RSNA Link www.rsna.org

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Radiology Online radiology.rsnajnls.org

Radiology Manuscript

Central radiology.manuscript central.com RadioGraphics Online radiographics.rsnajnls.org Education Portal www.rsna.org/education/ etoc.html CME Credit Repository

www.rsna.org/cme

RSNA Index to Imaging Literature rsnaindex.rsnajnls.org Database of Funding Opportunities

www3.rsna.org/dor/

RadiologyInfo[™] ACR-RSNA public information Web site *www.radiologyinfo.org*

RSNA Online Products and Services www.rsna.org/member services

NEW ADDRESS

RSNA Link Onsite rsna2002.rsna.org

JOURNALS

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.rsnajnls.org)*:

"Female Genitalia: Dynamic MR Imaging with Use of MS-325—Initial Experiences Evaluating Female Sexual Response"

The recently developed blood pool agent MS-325, used during serial MR imaging of the external genitalia, enables study of vascular changes associated with female sexual arousal response.

Anastasia V. Deliganis, M.D., and colleagues from the University of Washington in Seattle, say their findings hold promise for future studies of sexual arousal dysfunction in women.

They write, "Given the difficulty in viewing the underlying anatomy and the complex physiologic response simultaneously, it is essential to the study of female sexual dysfunction that a simple, objective and less intrusive technique for monitoring changes that occur during sexual arousal be developed."

They cite recent studies showing that 30 percent to 50 percent of all women have some form of sexual dysfunction. (*Radiology* 2002; 225:791-799)

"Prediction of Adverse Outcome with Cerebral Lactate Level and Apparent Diffusion Coefficient in Infants with Perinatal Asphyxia"

Higher Lactate/Choline ratios in the basal ganglia/thalami predict worse clinical outcomes for infants with perinatal asphyxia.

Maria K. Zarifi, M.D., and colleagues from Children's Hospital and Harvard Medical School in Boston, compared cerebral lactate and apparent diffusion coefficient (ADC) in infants with perinatal asphyxia in the early postnatal period.

They write, "Cerebral lactate by proton MR spectroscopy is a noninvasive predictor useful in identifying infants who would benefit from early therapeutic intervention." Although ADC images were useful in the clinical evaluation of these infants, the study shows that quantitative ADC values were not predictive of outcome.

The researchers add that early identification of neonates with perinatal asphyxia at risk for hypoxic-ischemic encephalopathy is crucial because of the cascade of biochemical events that eventually may lead to neuronal necrosis and/or apoptosis. (*Radiology* 2002; 225:859-870)

Editor's Note: The findings of the Zarifi study were presented during an AMA media briefing on medical imaging held in New York on November 14.

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



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News about RSNA 2003

Abstracts for RSNA 2003

It's not too early to make preparations to submit scientific abstracts for RSNA's 89th Scientific Assembly and Annual Meeting. All abstracts for RSNA 2003 must be submitted online. The submission site will be operational beginning in



early 2003 through RSNA Link (www.rsna.org).

Complete abstract submission instructions will be printed in the back of the January, February and March 2003 issues of *Radiology* and the January–February 2003 issue of *RadioGraphics*.

All abstracts must be received by April 15, 2003.

November 30–December 5 McCormick Place, Chicago

COMMUNICATION FOR

BETTER PATIENT CARE

Abstracts are required for scientific papers, scientific posters, education exhibits and *info*RAD 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 six minutes followed by three minutes for discussion. 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.

Important Dates for RSNA 2003

April 15	Deadline for abstract submission	
April 28	RSNA and AAPM member registration opens	
June 23	General registration, housing and refresher course enrollment opens	
Oct. 10	Registration deadline for Non-North American participants to have badge wallet mailed	
Oct. 31	Final advance registration deadline	
Nov. 30–Dec. 5	RSNA 89th Scientific Assembly and Annual Meeting	

For more information about RSNA 2003, call (630) 571-7862 or e-mail *reginfo@rsna.org*



Attendees view scientific posters at RSNA 2001. In 2002, over 3,000 scientific and education exhibit abstracts were accepted for RSNA 2002.

Physicians **Opportunity in Colorado! BC/BE Radiologist** We A highly attractive practice associated with a 326-bed tertiary regional medical center make admitting patients from a four-state area awaits radiologists who seek ColoradoÕs practicing enviable lifestyle. Greeley, a city of 80,000 with the snow-capped Rockies on one side and rich farmlands on the other, offers an perfect. incomparable selection of recreational options and easy access to DenverOs metropolitan attractions. The hospital showcases a Birthing Center with Level II nursery, Level II Trauma Center, Heart Care Center, and col The Radiolog s state-of-th Department equipment luding Pe Ultra-fast CT. E ience onal and MSK d For immediate consideration send CV to Rob Weaver at rob.weaver@bannerhealth.com, or fax to 970-392-2099. EOE Banner Health System

Practice where you play.

RSNA 2003 Exhibitor News

RSNA Buyer's Guide

The RSNA 2002 *Buyer's Guide* will be available online (*www.rsna.org*) until September 2003. The site can be used as a year-round business tool. Exhibitors who wish to makes changes to their listing should contact RSNA Technical Exhibit Services at (630) 571-7851.

Exhibitor Survey

By now, RSNA 2002 exhibitors should have received their 2002 Exhibitor Survey. Please complete this survey and return to RSNA. Your feedback is very important for the continued success of the annual meeting.

RSNA 2003 Exhibitor Meeting

All RSNA 2002 exhibitors are invited to attend the RSNA 2003 Exhibitor Planning Meeting on February 18 at Rosewood Restaurants and Banquets near O'Hare International Airport. The meeting is intended to review RSNA 2002 and plan for RSNA 2003. More information will be sent to each exhibitor's official contact in mid-January.

		S I A F V d a

Some of the technical exhibitors at the RSNA Annual Meeting provide attendees with hands-on demonstrations at their booths.



The Manipal Education and Medical Group (MEMG) India, in partnership with Wipro, has set up a teleradiology

center in Bangalore that will link up with US hospitals.

This centre will handle supplementary radiology work

Important Exhibitor Dates for RSNA 2003

February 18	Exhibitor Planning Meeting
March 31	Exhibitor Prospectus Mails
June 24	Exhibitor Planning/Booth Assignment Meeting
July 3	Technical Exhibitor Service Kit Mails
Nov. 30–Dec. 5	RSNA 89th 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 Link and Web Browsers

RSNA Link's updated look and improved functionality is well preserved in the latest version of Microsoft's Internet Explorer (IE) 6.0, as well as in Mozilla 1.0, a free, Netscape-like browser released this year.

CNET called Mozilla "speedy and stable" in a generally favorable review.¹ "Because Mozilla aimed this browser primarily at Web developers and seasoned Web surfers," the reviewer states, "it's a little too complicated for the average consumer. Nonetheless, speedy version 1.0 is hard to crash and includes an impressive e-mail program."

In August, *eWeek*, a trade journal of information technology, gave Mozilla a strong recommendation, "The fact that Netscape 7.0 arrives hot on the heels of the similar but superior Mozilla 1.1 only serves to illuminate the small but significant differences between the two: Mozilla is highly customizable and offers a number of user options, while Netscape forces users to accept many features and functions they probably don't want while removing some they probably do."³

As you might expect, there are also differences between Mozilla and IE in performance as well as in features. Some sites designed for IE don't work at all, or

don't work well, with Mozilla.

RSNA Link appears to function equally well in Mozilla and the latest version of IE.

Mozilla 1.0 is available at: www.mozilla.org/releases/mozilla1.0/

In recent years, *RSNA Link* administrators have received fewer complaints based on browser differences, perhaps as a result of the increasing

Internet Explorer
Im 0 Z III d
Netscape* 7.0

popularity of IE.² (In April 2002, CNET reported findings by a Web analysis company in Amsterdam that 97 percent of Web browsers are one version or another of IE.¹) Most report-

ed problems seem to have been caused by differences between versions of IE for PCs and those for Macintosh computers. (Microsoft releases new versions of IE for PCs before it releases

new ones for the Mac, which constitutes a much smaller market segment than PCs.)

At RSNA 2002, all *RSNA Link Onsite* terminals (PCs) used IE 6.0.

References

- 1. www.cnet.com/software/0-3227884-8-20005816-2.html
- 2. Net users flock to IE 6.0; news.com.com/ 2110-1023-895468.html
- 3. www.eweek.com/article2/0,3959,493248,00.asp

E-Mail Pages from Annual Meeting Publications

Even though RSNA 2002 is over, important online infor-



mation from the annual

meeting will remain available through most of 2003. At *rsna2002.rsna.org*, you may view information from the *Scientific Program*, *Buyer's Guide* or press releases. New this year is an "e-mail this page" icon that allows you to e-mail a link to a particular page on the site. You can insert a comment before you send the message.

New R&E Fellowships

The RSNA Research & Education Foundation has two new fellowships.

The Research Fellowship in Basic Radiologic Sciences (*www.rsna.org/ research/foundation/basic_ sciences.html*) starts July 1, 2003 with an application deadline of January 15, 2003.

The Institutional Fellowship in Radiologic Informatics (*www.rsna.org/research/ foundation/radiologic_informatics.html*) starts July 1, 2004, with an application deadline of June 1, 2003.

Finding RSNA

Plan to drive to RSNA headquarters in Oak Brook? Links to driving directions from Chicago O'Hare International Airport and Midway Airport are available, courtesy of MapQuest, on the About



RSNA and Headquarters Office topic pages. These links were added to help airline passengers from out of town, such as RSNA committee members and course participants, find RSNA headquarters in the western suburbs of Chicago.

New Additions

Two Virtual Monographs, "PET Imaging" and "Breast Imaging," were added to the Education Portal in October. The seven-part series by Katarzyna J. Macura, M.D., Ph.D., "Internet Mini Tutorial," which ran in *RSNA News*, has been archived in the Technology section of *RSNA Link*.

ad-Radiology Info

CALENDAR

Medical Meetings January 2003 – April 2003

JANUARY 4-7

Indian Radiological & Imaging Association (IRIA), 56th Annual Congress, Jaipur, India • *www.56iriajaipur.net*

JANUARY 23-26

Radiation Therapy Oncology Group (RTOG), Hyatt Regency Houston • (215) 574-3189

JANUARY 31-FEBRUARY 1

Biomedical Imaging Research Opportunities Workshop (BIROW), RSNA/ARR/AAPM/BMES, Hyatt Regency, Bethesda • *www.birow.org*

FEBRUARY 1-5

Mexican Society of Radiology and Imaging (SMRI), XXVII Annual Course of Radiology and Imaging, Sheraton Hotel Centro Historico, Mexico City • *www.servimed.com.mx*

FEBRUARY 6-7

Fourth National Forum on Biomedical Imaging in Oncology, NCI/FDA/CMS/NEMA, Hyatt Regency, Bethesda • www3.cancer.gov/dctd/forum/

FEBRUARY 8-15

American Board of Radiology (ABR), Winter Meeting, Hualalai Resort, Kona, Hawaii • www.theabr.org

FEBRUARY 15-16

Current Trends in OB/GYN Ultrasound, American Institute of Ultrasound in Medicine (AIUM), "W" New Orleans Hotel, New Orleans • *www.aium.org*

FEBRUARY 16

American Institute of Ultrasound in Medicine (AIUM), Getting Started Workshop, "W" New Orleans Hotel, New Orleans • www.aium.org

FEBRUARY 16-21

Society of Gastrointestinal Radiologists (SGR), 32nd Annual Meeting, Fiesta Americana Grand Coral Beach, Cancun, Mexico • www.sgr.org

MARCH 2-6

Society of Thoracic Radiology (STR), Annual Meeting and Scientific Session, Loews Hotel, Miami Beach, Fla. • (507) 288-5620

MARCH 7-11

European Congress of Radiology (ECR), Vienna, Austria • www.myecr.org

MARCH 12-16

3rd Annual PACS Conference, University of Rochester Department of Radiology, Westin Riverwalk Hotel, San Antonio, Texas • (585) 275-1050 or *www.urmc.rochester.edu/pacs2003*

MARCH 24-28

Society of Computed Body Tomography and Magnetic Resonance (SCBT/MR), 23rd Annual Course, Westin Mission Hills Resort, Rancho Mirage, Calif. • (507) 288-5620

MARCH 27-APRIL 1

Society of Interventional Radiology (SIR), Convention Center, Salt Lake City, Utah • www.sirweb.org

MARCH 30-APRIL 2

American College of Cardiology (ACC), 52nd Annual Scientific Session, Chicago • *www.acc.org*

APRIL 9-13

Society of Chairmen of Academic Radiology Departments (SCARD), Fontainebleau Hilton, Miami • www.scard.org

APRIL 9-13

Association of University Radiologists (AUR), 51st Annual Meeting, Fontainebleau Hilton, Miami • *www.aur.org*

APRIL 9-13

American Association of Chief Residents in Academic Radiology (A3CR2), Fontainebleau Hilton, Miami • www.a3cr2.com

APRIL 9-13

Association of Program Directors in Radiology (APDR), Fontainebleau Hilton, Miami • www.apdr.org

APRIL 11-13

Japan Radiological Society (JRS), 62nd Annual Meeting, Yokohama, Japan • www.radiology.or.jp/english/index.htm

APRIL 12-15

Society of Breast Imaging (SBI), 6th SBI Postgraduate Course, Westin Diplomat Resort and Country Club Hollywood, Fla. • www.sbi-online.org

APRIL 27-MAY 2

American Society of Neuroradiology (ASNR), 41st Annual Meeting, Washington, D.C. • *www.asnr.org*

NOVEMBER 30-DECEMBER 5

RSNA 2003, 89th Scientific Assembly and Annual Meeting, McCormick Place, Chicago • www.rsna.org