User Feedback Fuels RSNA’s Innovative Website Redesign Coming in Early 2012

ALSO INSIDE:

- India Ushers in New Era of Advanced Imaging
- Ultrasound Telemedicine Project Improves High-risk Obstetric Healthcare
- Resources Help Residents Make Radiology Their Business
- LI-RADS Enables Standardized Interpretation, Reporting of HCC

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Editorial Fellowship

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The Eyler Editorial Fellowship provides an opportunity for radiologists in mid-career to further their experience in radiologic journalism. Learn about manuscript preparation, peer review, manuscript editing, journal production, printing, and electronic publishing by working with the...

The fellow will also assist the editors and attend editorial meetings during the RSNA annual meeting.

Award

One fellow will be selected each year and will be awarded a stipend of $10,000 to cover the cost of transportation, lodging, and meals during the fellowship.

Eligibility

Candidate must:

✓ Be an RSNA member
✓ Have accomplished at least 3 years of attending-level work at an academic institution
✓ Have served as a reviewer for a major imaging journal
✓ Be affiliated with a national radiologic society in his or her country

Applications

Learn more and download an application at www.rsna.org/publications/editorial_fellowships.cfm or email editfellowships@rsna.org.

Deadline for applications is May 1, 2012

The Fellowship Experience

Fellows prepare evaluations and follow-up reports on their experiences during and as a result of the fellowship.

See firsthand accounts at www.rsna.org/publications/editorial_fellows.cfm
RSNA Online Education, Research Courses Qualify for New Leadership Certificate

Select Radiographics CME articles, as well as RSNA online refresher courses and an online Self-Assessment Module (SAM), “When the Physician is the Problem,” all count toward the Certification of Achievement offered by the new Academy of Radiology Leadership and Management (ARLM). ARLM helps radiologists focus their professional development by prescribing 50 hours of education across a spectrum of core learning domains including financial skills, human resources, professionalism, legal/contracting and academic mission.

ARLM is sponsored by RSNA and the American Roentgen Ray Society, Association of University Radiologists and Society of Chairs in Academic Radiology Departments. Go to www.rsna.org to learn more about earning the certificate. A feature article about the new academy will also appear in the March issue of RSNA News.

Awardees

Zhongxing Liao, M.D., a professor and medical director in the Department of Radiation Oncology at the University of Texas MD Anderson Cancer Center in Houston, received the Marie Sklodowska-Curie Award. Dr. Liao is president of the AAWR Research and Education Foundation.

Mar-Lan Ho, M.D., a third-year radiology resident in the Scholar’s Track Program at Beth Israel Deaconess Medical Center in Boston, received the Lucy Frank Squib Distinguished Resident Award in Diagnostic Radiology.

Ana Ponce Kiess, M.D., Ph.D., a fourth-year resident in the Department of Radiation Oncology at Memorial Sloan Kettering Cancer Center in New York, was honored with the Eleanor Montague Distinguished Resident Award in Radiation Oncology.

AAWR ANNOUNCES 2011 AWARDS

The American Association for Women Radiologists (AAWR) has announced its 2011 award recipients:

Zhongxing Liao, M.D.

Mar-Lan Ho, M.D.

Ana Ponce Kiess, M.D., Ph.D.

AAWR Research and Education Foundation.

“DSI Imaging: Advances in Ultrasound and MRI” Distinguished Lecture Award

Squire Distinguished Resident Award in Diagnostic Radiology

Honored with the Eleanor Montague Distinguished Resident Award in Radiation Oncology.

“When the Physician is the Problem,” all count toward the Certification of Achievement offered by the new Academy of Radiology Leadership and Management (ARLM). ARLM helps radiologists focus their professional development by prescribing 50 hours of education across a spectrum of core learning domains including financial skills, human resources, professionalism, legal/contracting and academic mission.

RSNA 2011 Attendees Support Diagnostic Imaging Services Protection Act; CMS Changes Course on MPPR

Hundreds of RSNA 2011 attendees stopped by the American College of Radiology (ACR) booth to learn about H.R. 3269, the Diagnostic Imaging Services Protection Act, while more than 60 attendees who visited the booth e-mailed their congressmen to register support for the legislation. At RSNA 2011, ACR provided dedicated terminals that visitors could use to contact their members of Congress to ask them to cosponsor the bill and protect patient access to diagnostic imaging.

The proposed legislation, which has garnered more than 150 bipartisan cosponsors, seeks to prevent the Centers for Medicare and Medicaid Services’ multiple procedure payment reduction (MPPR) to radiologists from taking effect in January.

The MPPR imposes a 25 percent payment reduction to the professional interpretation of advanced diagnostic imaging services for multiple imaging studies administered to the same patient, by physicians in the same practice setting on the same day.

On Dec. 19 CMS announced that “operational limitations” would prevent the agency from applying the professional component MPPR to group practices in 2012, meaning that CMS will not apply the MPPR to imaging services performed by separate physicians in the same group practice. However, CMS still plans to apply the MPPR to services performed by the same physician to the same patient during the same session. ACR continues its efforts to reverse this decision through H.R. 3269.

Go to www.acr.org to stay up-to-date on the progress of H.R. 3269 and other Congressional activity affecting imaging reimbursement, including the fate of a 27 percent cut to Medicare physician reimbursement statutorily required by the Sustainable Growth Rate (SGR) formula. In December, Congress postponed the cut for two months as part of the payroll tax cut extension package; the cut will take effect March 1 unless Congress acts again.

RSNA R&E Foundation Offers Charitable Gift Annuities in New States

RSNA has been approved to offer charitable gift annuities in five states: Arkansas, New Jersey, New York and Texas, which join more than 20 states where donors can take advantage of this type of donation. A charitable gift annuity provides a donor with immediate and future income tax deductions while guaranteeing a fixed annuity payment for life. Based on age, fixed annuity rates range from 4.4 to 9 percent.

To see a customized annuity rate calculation and benefits summary, visit RSNA.org/PlannedGiving and click on Gift Calculator. The R&E Foundation offers charitable gift annuities in Florida and other states as well.

To see a customized annuity rate calculation and benefits summary, visit RSNA.org/PlannedGiving and click on Gift Calculator.

Polak Named to Inaugural Post at Yale

Jeffrey S. Polak, M.D., has been appointed the inaugural Robert I. White Jr., M.D., Professor of Interventional Radiology at Yale University in New Haven, Conn. Dr. Polak is the co-section chief of vascular and interventional radiology and director of the vascular and interventional radiology fellowship program at Yale. The Robert I. White Jr., M.D., Professorship was established through the generosity of Dr. White’s patients and friends to support the teaching, research and clinical activities of a full-time faculty member in interventional radiology.

RTOG Names Lu Chair of Lung Cancer Subcommittee

The Radiation Therapy Oncology Group (RTOG) has appointed Bo Lu, Ph.D., as chair of the lung cancer subgroup of the Translational Research Program Committee, which supports the integration of new scientific discoveries into the design of multicenter clinical trials.

Dr. Lu is a professor in the Department of Radiology Oncology at Thomas Jefferson University in Philadelphia, where he also serves as director of the department’s division of molecular radiation biology.

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Academic radiology departments do a great job at turning out trainees who are very well versed in the science of radiology. But we’ve fallen down in training them to understand the business of radiology. In an age when government regulations, payer policies, medical politics and the possibility of healthcare reform are making it harder and harder to run a successful practice, it’s crucial that young radiologists get paid and what they need to do to ensure that they collect what they’re entitled to. I was recently dismayed to learn that many residents don’t know what a CPT code is. They don’t realize that many of them don’t know what a CPT code is. They don’t realize that that they’re about to encounter a whole alphabet soup out there that they need to know about — P4P, ICD, AR, ACO, MPFS, PEVIR, RBRVS, PQRS, RUC, MPRP, GPCI, MedPAC, AHP and a ton of others. There are many other nonfinancial assets they need to know about, too, such as how to promote quality, how to relate to other specialties, how to get along with their hospital administrations, and how to understand new practice and payment models, etc.

I’m glad to see organizations like RSNA, the American College of Radiology and other groups work together to develop curricula covering all this. In addition, each individual academic department has to get to work developing their own resources. The sooner the better!

Chaudhari Receives Two Imaging Awards

Abhijit J. Chaudhari, Ph.D., an assistant professor of radiology at the University of California, Davis in Sacramento, has received two honors for his contributions to medical imaging.

The Nuclear Medical and Imaging Sciences Council of the Institute of Electrical and Electronic Engineers (IEEE) has awarded Dr. Chaudhari the 2011 Bruce H. Haasega Young Investigator Medical Imaging Science Award in October at the 2011 IEEE Nuclear Science Symposium and Medical Imaging Conference in Valencia, Spain.

The IEEE gives the Haasega Award annually to a young individual in recognition of significant and innovative contributions to the field of medical imaging sciences.

The American College of Rheumatology selected one of Dr. Chaudhari’s images as the winner in the 2011 Annual Image Competition at the college’s annual meeting in Chicago.

My Turn

Educating Residents about the Business of Radiology

interventional radiology pioneer Dr. Irvin Hawkins, M.D., known for developing CO2 angiography, died June 8, 2011, at the age of 74.

A professor of radiology and surgery at the University of Florida for more than 50 years, Dr. Hawkins is also recognized for groundbreaking work in needle and catheter design, with smaller catheter sizes that reduced complication rates and made more minimally invasive techniques possible. Dr. Hawkins was the first physician in the world to safely perform a percutaneous cholecystostomy more than 30 years ago. Dr. Hawkins began his career at Florida in 1968 as the chief of interventional radiology in 1969, a position he held for the next 30 years. He became chief of cardiovascular radiology. He became chief of interventional radiology and surgery at the University of Florida for more than 50 years.

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India Ushers in New Era of Advanced Imaging

Despite having started late in the field of antenatal MR—due to limited availability of state-of-the-art MR scanners, concerns about MR imaging safety and the legal issues related to prenatal sex determination—India is now almost on par with its Western colleagues in using the modality in clinical practice, according to a co-presenter of the “India Presents” session at RSNA 2011.

Antenatal MR is now an important imaging tool, second line after ultrasound, and is rapidly moving from select academic medical centers into community practice in India, said Nitin P. Ghonge, M.D., D.N.B., M.B.B.S., an investigator at Dowar Chand Imaging Research Center in New Delhi.

In their assessment of MR and MR spectroscopy applications for evaluating the mother and fetus, Dr. Ghonge and colleagues found that MR proved most useful in fetal anomaly screening in high-risk pregnancy, oligohydramnios, fetal CNS assessment, characterization of fetal mass, fetal spine assessment, delineation of fetal alimentary tract and other abdominal viscera, conjuncted twin assessment and evaluation prior to antenatal intrauterine fetal surgery or ex utero intrapartum procedures.

The team incorporated both state-of-the-art and time-honored traditional techniques, planned with the fetal biological clock in mind. “We have the mother walk before antenatal MR in an attempt to induce fetal sleep,” Dr. Ghonge said. “We also schedule our patients according to the fetal biological clock and scan during the phase of minimal fetal movements.”

The team is also exploring MR spectroscopy to detect antenatal fetal hydrops and lung maturity status and anticipate an increasing role for diffusion-weighted MR in antenatal imaging of placenta and fetal kidneys and lungs in the near future, Dr. Ghonge said. “Antenatal MR is surely an up-and-coming area of imaging in India,” he said. “Greater academic collaboration between RSNA and our national radiology society will definitely play a crucial role in this direction.”

Also during “India Presents,” Natesam Chidambaranathan, M.D., demonstrated the use of proton MR spectroscopy in characterizing intracranial cystic lesions, including those more common in India than in North America, such as tuberculous cystic lesions, including those more common in India than in North America, at Rsna 2011.

MR spectroscopy provides unique information because certain metabolites, including acetate, succinate and/or amino acids other than lactate, are frequently observed in brain abscesses and ependymomas. Dr. Chidambaranathan said. “Pathologically, the pyogenic brain abscesses contain large amounts of neutrophils and proteins. The breakdown of the neutrophils results in the release of a large amount of proteolytic enzymes that hydrolyze the proteins into amino acids. These metabolites have never been detected in cystic and necrotic brain tumors, and can be considered a specific marker for cerebral abscesses.

On the other hand, tuberculous abscesses term with mycobacteria along with lymphocytes and some neutrophils, Dr. Chidambaranathan said. The mycobacteria are predominantly composed of lipids, with a relative lack of proteolytic enzymes.

Even different types of brain tumors can be differentiated from each other. “Cystic meningioma could be differentiated from cystic schwannoma by the presence of amines in the former,” Dr. Chidambaranathan said.

“India Presents,” presented in conjunction with the Indian Radiological and Imaging Association (IRIA), was the latest in a series of annual sessions celebrating radiology innovation and collaboration around the world. “Brazil Presents” is scheduled for RSNA 2012.

Appendicitis Also the Focus of International Research

Other international investigators presenting their research at RSNA 2011 demonstrated how ultrasound and MR imaging are proving effective in diagnosing acute appendicitis for patients in the emergency department.

Javier Fernandez-Jara, M.D., Ph.D., a radiology resident at Hospital Universitarios Severo Ochoa in Madrid, Spain, shared results of a retrospective study of 165 patients who had undergone an emergency appendectomy in the facility in 2010. The study showed that 116 patients, or 70 percent, underwent imaging tests prior to the appendectomy and that ultrasound was the most frequent imaging test (50 percent).

“Ultrasound should be the first imaging modality used to evaluate patients with suspected acute appendicitis,” Dr. Fernandez-Jara said. “It has been proven especially useful in young patients with either high C-reactive protein (CRP) and/or leukocytosis.”

Ultrasound, CT and ultrasound plus CT—yielded high sensitivity (97 percent, 100 percent and 100 percent respectively) and high positive predictive values (88 percent, 89 percent and 91 percent respectively). Ultrasound was used extensively in 6- to 30-year-old age group. Researchers found negative results for CRP in 51 (30 percent) and negative results for leukocytosis in 43 (27 percent) in the pathology-proven cases of appendicitis. Only 10 patients (6 percent) presented with neither CRP increased-values nor leukocytosis.

“Not only is ultrasound useful in ruling out appendicitis, but also in the differential diagnosis of acute appendicitis mimickers without patient radiation exposure,” Dr. Fernandez-Jara said.

MR imaging was also gaining ground in evaluating suspect- ed appendicitis, according to Marjelien Leeuwenburgh, M.D., a Ph.D. student at Academic Medical Center Amsterdam, the Netherlands. She and colleagues evaluated 263 MR imaging scans of patients with suspected appendicitis to identify MR imaging features associated with acute appendicitis, and assessed the probability of appendicitis if combinations of those features were present.

Results showed that features with the strongest associa- tion with acute appendicitis were appendix diameter (less than 7 mm), perappendiceal fat infiltration and restricted diffusion of appendiceal wall. Presence of those features leads to a high probability—96 percent—of appendicitis. Appendicitis was present in 3 percent of cases without those features.

“MR imaging has entered the emergency department for patients with suspected appendicitis,” Dr. Leeuwenburgh said. “However, most radiologists are not familiar with this relatively new modality for evaluating suspected appendicitis. Knowledge of the diagnostic value of specific MR imaging features can help radiologists increase their performance.”

“Greater academic collaboration between RSNA and our national radiology society will definitely play a crucial role in this direction.”

Nitesam Chidambaranathan, M.D., demonstrated the use of proton MR spectroscopy in characterizing intracranial-cystic lesions, including those more common in India than in North America, at RSNA 2011.

Fernandez-Jara

Leeuwenburgh

Nitin P. Ghonge, M.D., D.N.B., M.B.B.S.

Chidambaranathan
Ultrasound Telemedicine Project Improves High-risk Obstetric Healthcare

Obstetric ultrasound performed with portable telemedicine units is reducing medical complications to high-risk pregnant women and cutting infant mortality rates in Arkansas’ rural areas, according to research presented at RSNA 2011.

Results of the statewide telemedicine model, Antenatal and Neonatal Guidelines, Education and Learning System (ANGELS), were presented by Megan Long, M.D., a first-year radiology resident at the University of Arkansas for Medical Sciences (UAMS). “The mission of ANGELS is to ensure that every woman in Arkansas at risk of having a complicated pregnancy receives the best possible perinatal care,” Dr. Long said.

Created in 2003, ANGELS allows local providers to care for their patients while simultaneously delivering the specialty expertise found at UAMS, the state’s only academic medical center and tertiary care facility. Federal Medicaid dollars, overseen by the Arkansas Medicaid program, fund the telemedicine equipment that the ANGELS program provides at no cost to rural providers.

Obstetric ultrasound examinations are performed locally with portable telemedicine units, to assist diagnosis and management of high-risk pregnancy conditions, Dr. Long said. UAMS holds weekly teleconferences using real-time audio/video conferencing for providers across the state to review real-time targeted, Level II ultrasounds.

Experts at UAMS help local providers detect and manage maternal and fetal complications including congenital anomalies, oligohydramnios or polyhydramnios, and maternal medical disorders such as diabetes, hypertension and autoimmune disorders, Dr. Long said.

“Since the inception of ANGELS, high-risk pregnancies have been identified more frequently and earlier in the pregnancy. In the first two years of the project, the proportion of low birth weight infants from rural areas delivered at UAMS increased from 37.7 percent to 42.1 percent and the 60-day mortality rate dropped by 0.5 percent,” Dr. Long said.

While it was initially thought that fewer medical complications would result in savings for the Arkansas Medicaid program, more data has since been collected indicating that ANGELS does not reduce those Medicaid expenditures, Dr. Long said.

Since 2003, more than 7,500 telemedicine conferences have been held—1,822 in 2010 alone—while the number of telemedicine consultations performed each year has grown from 215 in 2003 to 3,906 in 2010, Dr. Long said. Of the 27 telemedicine clinic sites throughout Arkansas, 18 are equipped to provide real-time, Level II ultrasound examinations.

Such a project is especially critical in Arkansas, which ranks 48th in overall health, 38th in low birth weight, 40th in preterm births, 41st in prenatal care and 43rd in infant mortality, Dr. Long said. Additionally, 75 of 75 counties are designated as medically underserved.

“Healthcare access is one of the reasons for Arkansas’ poor health standing,” Dr. Long said.

Women residing in rural and underserved areas often lack access to regional perinatal centers and maternal fetal medicine subspecialists who can assist local providers with the diagnosis and management of high-risk pregnancy conditions, Dr. Long added.

ANGELS was the first project of its kind in the state and the nation. Last year, the program received more than $102 million from the American Recovery and Reinvestment Act grant for the Arkansas Healthcare, Higher Education, Public Safety, and Research Integrated Broadband Initiative, which will allow for upgrading the broadband network as well as access to more than 450 sites across Arkansas by 2013. The American Telemedicine Association is advocating for the ANGELS program to be funded in other states.

Other Technology Also Pivoted to Improve Patient Care

Patients will also benefit from other technology presented at RSNA 2011, including next-generation image sharing via the Internet and cloud, rather than films or even CDs. Such sharing offers workflow efficiency to physicians and enhances patient safety and care by connecting healthcare institutions in new ways, say RSNA 2011 attendees who experienced the Integrating the Healthcare Enterprise (IHE®) Image Sharing Demonstration.

Of particular interest was the new RSNA Image Share, a secure, patient-centric medical image sharing network that enables patients to control access to their information through personal health records (PHR) without relying on CDs. The future of medical imaging and reports is on the edge of great change, said another visitor, Ben Arnold, Ph.D., of Columbia, Ky. “Cloud computing and electronic medical exams are going beyond what DICOM was a few years ago,” he said.

“The patient is the winner here.”

“It has great potential for giving patients access to their own information,” added Sherie Lenn, M.P.H., of New York. “Even if the referring physician is not affiliated with the network, as long as the radiologist is in the network, patients have access to the cloud. It means patients have control over their own images and reports, and no more CDs.”

RSNA Image Share was launched in 2009 through a $4.7 million contract with the National Institute of Biomedical Imaging and Bioengineering (NIBIB) and is being tested at five sites.

Also presented at RSNA 2011 was an ontology-driven electronic health record (EHR) search system with the potential to improve the quality of emergency department care by providing radiologists quick summaries of a patient’s essential past medical histories in the emergency department.

“EHRs improve image interpretation quality because information is shared,” said Arun Krishnaraj, M.D., M.P.H., of the Department of Radiology at Massachusetts General Hospital (MGH), Boston. “Unfortunately, a lot of the information in an EHR is scattered through multiple data repositories and there are few applications that pull together the important pieces and present them in a timely and digestible manner.”

The Queriable Patient Inference Dossier (QPID) search system created by Dr. Krishnaraj and colleagues extracts critical, detailed information from a patient’s record in less than a minute, offering a quick overview of a patient’s condition based on many different searches. “The system essentially aggregates and indexes all the information in an electronic health record and prepares it for these searches,” Dr. Krishnaraj said. “Searches with potential to directly impact imaging utilization in the emergency department include deep vein thrombosis (DVT), pulmonary embolism, evidence of prior ectopic pregnancy, prior imaging studies and presence of an automatic implantable cardioverter defibrillator,” Dr. Krishnaraj said.

The mission of ANGELS is to ensure that every woman in Arkansas at risk of having a complicated pregnancy receives the best possible perinatal care.”

Megan Long, M.D.
Resources Help Residents Make Radiology Their Business

Although radiology residents are equipped with a wealth of medical knowledge and experience in patient care, most leave their training unprepared to handle the economic, financial and leadership challenges that await them, experts say.

“At times, fields like radiology are considered to be research based,” Dr. Yousem said. “It’s not necessarily thought that radiologists need to think about business. But the business of medicine is changing, and the role of the radiologist is changing along with it.”

Free, Online Business Course Targets Residents

Dr. Yousem created a free online course to help prepare radiology trainees for the economic, financial and leadership challenges they will face in a private or academic setting. The project, “Developing an Online Curriculum for Teaching the Business of Radiology,” was developed through a 2008-2010 RSNA Scholar Grant, 2008-2010 Philips Medical Systems/RSNA Research & Education Foundation (R&E) Education Scholar Grant.

In these times of declining reimbursements, more radiologists in both the private and academic setting are recognizing the importance of understanding the expense-reimbursement side of the business of radiology,” Dr. Yousem said. Fortunately, an increasing number of tools and resources—some fueled by recent changes in healthcare reform—are becoming available to help radiology residents increase their business savvy.

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At RSNA 2011, Dr. Thorwarth was among the presenters of an entire program—“Career 101: Planning for Success After Residency”—devoted to residents and fellows, while Dr. Yousem presented the course, “Hospital Issues: Business of Radiology” and was among the presenters of “Mind Your Own Business: Required Skills for Your First Job.”

Dr. Yousem urges residents to stay in tune with the policymakers who create the laws that govern the specialty. Radiologists have to learn to speak the language of legislators and third-party payers and learn how decisions made by these groups have an impact on their business office, he said. “They’re not always in sync with you on what your work is worth.”

Mentors Critical to Filling Knowledge Gaps

Regardless of their business acumen, residents are aware that such knowledge is critical to the specialty. In a survey of 39 graduates of the Johns Hopkins residency training program, Dr. Yousem discovered that 34 were uncomfortable with business principles and 35 had received less than 10 hours of teaching on the subject. All 39 said they believed there was a benefit to business courses.

Strong mentorship is one way to make up for such shortfalls in education. Dr. Yousem said. He credits his mentor at Johns Hopkins, Elias A. Zerhouni, M.D., former director of the National Institutes of Health, with imparting the importance of business knowledge in radiology. “Dr. Zerhouni relied on the Division of Neuroradiology to account for a significant portion of the profit margin of the department and expected me to manage my division in a way that ensured that profitability,” Dr. Yousem said. “While he did not explicitly tell me to enter business school, he was pleased when I told him I was pursuing a Johns Hopkins Business of Medicine degree. My current chairman, Jonathan Lenkinski, M.D., also challenged me to assist our department in growing new services in radiology. Nowadays, I find the business of radiology to be a nice niche in my academic pursuits and have enjoyed the ability to bring new material to trainees and practitioners to foster that knowledge.”

Along with supplementing their education through research and other programs, Dr. Thorwarth urged newly minted radiologists to find out as much as they can about the business side of operations during interviews with prospective employers. “Be inquisitive about the business information,” he advised. “Is it outsourced or done in house? How sophisticated are the people running the process? Does the practice have certified coders turning reports into claims?”

“A resident’s fiscal viability is dependent on being paid for services provided,” added Dr. Thorwarth. “You should get paid for what you do.”

Additionaly, more business-oriented CME courses are being created and more residency programs are adding business-financial material to their trainee curricula, Dr. Yousem said. Print and electronic resources are also on the rise, while the RSNA annual meeting remains a useful source of information.

• "The Business of Radiology" link.

GRANTS IN ACTION

Name: David Yousem, M.D., M.B.A.

Grant Received: $150,000 Philips Medical Systems/RSNA Education Scholar Grant, 2008-2010

Study: "Developing an Online Curriculum for Teaching the Business of Radiology.

Career Impact:

After spending his early career focusing on research in neuroradiology, Dr. Yousem devoted time provided by the RSNA Education Scholar Grant to develop the business of radiology curriculum that allowed him to organize research projects in operations management. “Now, I am equally focused on quality assurance issues, utilization trends and critical findings enforcement as part of my academic pursuits,” Dr. Yousem said.

“Instead of just collecting data, I can talk to trainees about how policies may impact the business side of training. In the future, I hope to develop a business-oriented curriculum that ties the clinical specialty to the business of radiology.”
User Feedback Fuels RSNA’s Innovative Website Redesign

Before launching the comprehensive redesign of RSNA.org—to be introduced in early 2012—RSNA gathered feedback from the users who have long made the Society’s highly travelled member portal so successful.

After meeting with website stakeholders to assess visitors’ needs, RSNA conducted a user survey to find out what functions and features you want most from RSNA.org. That feedback was the basis for a new website structure targeting access in five categories—members, trainees, international exhibitors, and media—and guided by one simple principle: ease of navigation.

The new RSNA.org consolidates content, creates logical categories and makes it easy for users to access current, relevant information in as few clicks as possible. Expanded social media links on each page keep you connected and increase interactivity. The use of color cues—particularly the multi-colored icons guiding users on each page—gives RSNA.org a vibrant look that you will immediately recognize. Above all, the design maintains a visual consistency that gives RSNA.org its own unique look and feel.

While the dynamic redesign filled with innovative new features is built for expansion, RSNA.org remains unaltered in its primary function: serving as a portal for information and services related to RSNA activities and the radiology profession. Currently, RSNA.org delivers more than 200,000 page views per month—numbers that will undoubtedly increase as the visionary redesign takes hold with members across the globe.

“RSNA is always looking forward and our website should reflect that,” said RSNA Executive Director Mark G. Watson. “We invite you to review highlights outlined here and—of course—to experience the exciting changes firsthand soon on RSNA.org.”

HOME PAGE (below)
A one-stop connection to member resources and services, the homepage also links users to the latest RSNA News, Radiology and Radiographics features and spotlights important announcements. Icons guide readers to Society-wide services.

INFORMATIONS
Icons link readers to user-friendly technology-based tools including Integrating the Healthcare Enterprise (IHE®), the Medical Imaging Resource Center (MIRC®) and RadLex. A menu connects users to these same resources while offering drop-down subcategories for narrowing content.

SCIENCE & EDUCATION
This page consolidates science and education in one place. Information relevant to both is spotlighted at the top of the page, while science and education are broken into separate categories in the section beneath to allow access to content specific to each. Icons connect users to resources including the CME Repository and Molecular Imaging, while a search engine allows users to search education content.

MEMBERSHIP
Users can access popular features including membership renewal and links to numerous exclusive benefits—including myRSNA® and R&E Grant Opportunities—identified by colorful logos. Click on the “Belong” icon at the bottom of the page to access all member benefits.

RSNA NEWS (above)
Announced by the lead news story, this page features links to the current month’s RSNA News feature articles and all other monthly features, including Journal Highlights. Readers can access the RSNA News search engine and link to the App Store to download the magazine’s tablet edition. A new interactive section features Facebook and Twitter posts.

TRAINEE ROLE-BASED LANDING PAGE (right)
An all-new page, this hub for residents and medical students offers important news and links to resources including RSNA education collections, the RSNA RIF Buzz newsletter for residents and fellows, Internet-based CME and more. Trainees can join RSNA for free by clicking the icon at the top of the page.

RSNA JOURNALS
Along with information about RSNA’s peer-reviewed journals, this page links users to current issues of Radiology and Radiographics, the Radiology Legacy Collection and a host of related resources. Users can link to the App Store to download iPhone and iPad editions of both journals.

You spoke. We listened.

“RSNA is always looking forward and our website should reflect that.”

Mark G. Watson
RSNA Executive Director

Dynamic content shows you the latest features affecting your specialty.

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LI-RADS Enables Standardized Interpretation, Reporting of HCC

About six years ago, hepatologists and liver surgeons at the University of California, San Diego (UCSD), were becoming increasingly frustrated with radiologists’ inconsistency in interpreting liver lesions in patients with suspected hepatocellular carcinoma (HCC).

“My different radiologists could look at the same case and use different words to describe the same thing,” said Claude Sirlin, M.D., chief of Body Imaging and Abdominal MRI at UCSD. “Even worse, you could show the same case to the same radiologist on two separate occasions and he could use words like ‘equivocal’ the first time and ‘indeterminate’ the second time, and maybe even shift his opinion about that lesion from ‘probably benign’ to ‘probably malignant’.”

More confusing, a fourth radiologist could look at the same image and say it was “suspicous for cancer” even though specific criteria to determine exactly how suspicious the lesion was didn’t exist. The need for standardization was becoming critical, said Cynthia Santillan, M.D., an assistant professor and vice-chief of the Body Imaging Section and chief of Body CT at UCSD. “If we can’t agree among ourselves, it undermines our credibility with clinicians and also impacts patient care,” Dr. Santillan said.

“Clinicians told us we needed to create a system that would help radiologists become more consistent,” Dr. Sirlin said. “We started by developing their own system of reporting based on degree of suspicion of HCC—which was received with the praise and appreciation of their fellow hepatologists—Dr. Santillan and Sirlin learned of similar systems being developed at other institutions around the country. The first step was to combine the UCSD system with that of Thomas Jefferson University Hospital in Philadelphia, which had developed an equivalent system. “We took the best of both, starting with an amalgam of the two systems and refining it,” Dr. Sirlin said.

“I-LARS categories aim to reflect the criteria that many expert radiologists use to diagnose HCC,” Dr. Santillan said. “Standardized terminology and categories will improve communication between physicians and enable reliable quality control and outcomes analysis.”

In presenting, “Liver Imaging Reporting and Data System (LI-RADS): An ACR-supported System for Classification of Hepatic Lesions on CT and MR Imaging in Patients with Cirrhosis,” at RSNA 2011, Dr. Santillan stressed the importance of standardization.

“There is a great deal of variability in terms of how people are being screened for hepatocellular carcinoma, using CT or MRI,” Dr. Santillan said. “There are vast differences in the types of equipment used, the imaging sequences that are performed, as well as how many post-contrast phases or even pre-contrast phases are obtained in these patients. As you can imagine, the variability in the amount of information available for interpretation leads radiologists to come to different conclusions.”

As for reporting, LI-RADS enumerates the elements—including anatomy, number of suspicious lesions and where they’re located in the liver—that should be mentioned in every report, Dr. Santillan said. “These elements really need to be mentioned every time you’re looking at one of these patients, because they can greatly influence the management options that are available to them,” she said.

“LI-RADS categories are based on degree of suspicion of HCC, to avoid false positive diagnoses and unnecessary treatment or transplantation,” Dr. Santillan said.

“LI-RADS categories aim to reflect the criteria that many expert radiologists use to diagnose HCC,” Dr. Santillan said. “Standardized terminology and categories will improve communication between physicians and enable reliable quality control and outcomes analysis.”

“LI-RADS is an ‘active process that will continue to evolve,’ with a potentially significant long-term impact, Dr. Santillan said. “If we have standardized treatment protocols associated with these standardized liver lesions, then we can compare outcomes across institutions and across the world,” she said. “That can really inform the management of these patients.”

If we have standardized treatment protocols associated with these standardized liver lesions, then we can compare outcomes across institutions and across the world.”

Cynthia Santillan, M.D.
The R&E Foundation thanks the following donors for gifts made October 14 – November 18, 2011.

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Pulmonary Hypertension: When the Radiologist Can Help

Noninvasive imaging techniques such as cardiac MR imaging and electrocardiography (ECG) and multidetector computed tomography angiography (CTA) are promising tools that further the understanding of anatomic and functional changes that occur in patients with pulmonary hypertension and help define the course of the disease and the prognosis of those affected by it.

In an article in the January-February issue of *RadioGraphics* (RSNA.org/RadioGraphics), Elena Petta, M.D., of the Ottawa Hospital, Ontario, Canada, and colleagues discuss the role of radiologists in diagnosing and guiding pulmonary hypertension treatment. They focus on the basis of the Dana Point classification system—updated at the fourth World Symposium on Pulmonary Hypertension in Dana Point, Calif., in 2008—and the emerging role of cardiac MR imaging evaluation and follow-up of patients with pulmonary hypertension.

Specifically, the authors:

- Discuss the role of radiologists in diagnosing and guiding pulmonary hypertension treatment.
- Present the basic cardiac MR protocols for cardiomyopathy assessment.
- Suggest an imaging algorithm to be used for the work-up and follow-up of patients with pulmonary hypertension.
- Discuss the advantages and disadvantages of the different imaging modalities used in the classification and have a systematic approach to evaluating patients with pulmonary hypertension, according to the authors.

"It is essential for radiologists to be familiar with the various conditions that may lead to pulmonary hypertension and their imaging appearance at CT and MR, particularly chronic thromboembolic pulmonary hypertension and long-standing left-to-right shunts because they may be surgically correctable," the authors write.

This article notes the importance of pulmonary hypertension and the role of radiologists in its diagnosis and treatment.

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*RadioGraphics* provides an interactive platform where you can virtually navigate through the full-text articles, browse the images, and access the multimedia content. To learn more about this platform, visit RSNA.org/RadioGraphics.

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**CME**

This article notes the importance of pulmonary hypertension and the role of radiologists in its diagnosis and treatment. It provides an opportunity for physicians to earn CME credit while staying up-to-date with the latest advancements in the field.

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Radiology in Public Focus

Media Coverage of RSNA

In November 2011, media outlets carried 1,184 RSNA-related news stories. These stories reached an estimated 625 million people.


Annual Meeting Watch

RSNA 2012 Online Abstract Submission
Now Open

The online system to submit abstracts for RSNA 2012 is now active. The submission deadline is 12 p.m. Central Time on March 31, 2012. Abstracts are required for scientific presentations, education exhibits, applied science and quality storyboards.

To submit an abstract online, go to RSNA.org/abstracts.

The easy-to-use online system helps the Scientific Program Committee and Education Exhibits Committee evaluate submissions more efﬁciently. For more information about the abstract submission process, contact the RSNA Program Services Department at 1-877-776-2227 within the U.S. or 1-630-590-7774 outside the U.S.

RSNA 2011 Attendance Stays Strong, Breaks Records

Despite a slow economy, attendance for RSNA 2011 remained very strong, even setting new records in some categories. RSNA 2011 member attendance was 11,970—more than 4 percent increase from the previous year—while radiologist attendance broke a record at 16,272. Overall attendance was 68,077, almost 2 percent higher than in 2010.

Other key record breakers include non-exhibitor attendees at 36,671, international professionals at 9,142, RSNA member residents at 3,624 (more than 13 percent higher than in 2010), and medical physicists at 3,128 (almost 17 percent higher than in 2010).

Thousands flocked to RSNA’s ﬁrst Virtual Meeting for onsite attendees and remote registrants. More than 3,400 registrants visited the online RSNA Services area and Technical Exhibits throughout the week. On Tuesday, more than 1,100 visitors attended real-time plenary sessions, refresher courses and scientiﬁc sessions, and nearly 1,700 attended four real-time Essentials Courses. More than 3,700 answers were submitted to the virtual Cases of the Day exhibit.

RSNA 2012

FEBRUARY PUBLIC INFORMATION ACTIVITIES FOCUS ON HEART HEALTH

In February, RSNA is distributing the “60-Second Checkout” audio program to nearly 100 radio stations across the U.S. The segments focus on the detection of heart disease in African American patients using CT angiography.

Education and Funding Opportunities

RSNA Introduction to Research for International Young Academics

The RSNA Committee on International Relations and Education (CIRE) seeks nominations for this program that encourages young radiologists from countries outside North America to pursue careers in academic radiology by:

• Introducing residents and fellows to research early in their training
• Demonstrating the importance of research to the practice and future of radiology
• Sharing the excitement and satisfaction of research careers in radiology
• Introducing residents to successful radiology researchers, future colleagues and potential mentors

The program consists of a special four-day seminar held during the RSNA Scientiﬁc Assembly and Annual Meeting. CIRE recommends 15 international young academics for consideration by the RSNA Board of Directors each year. Complimentary registration, shared hotel accommodation for the duration of the program and a stipend to help defray travel expenses are awarded to successful candidates.

Eligible candidates are residents and fellows currently in radiology training programs or radiologists not more than two years out of training who are beginning or considering an academic career. Nominations must be made by the candidate’s department chairperson or training director. Fluency in English is required.

Nominations forms are available at RSNA.org/RIR.

SNM 3rd Multimodality Cardiovascular Molecular Imaging Symposium

SNM is a co-sponsor of this meeting designed to stimulate growth in the ﬁeld by attracting individuals from the basic science and clinical communities, with a special emphasis on participation by junior scientists.

The program will focus on advancements in targeted imaging of the cardiovascular system including imaging of cardiovascular receptors, stem cell therapy, vascular biology, myocardial metabolism and other relevant biological processes.

The meeting, which includes a series of lectures by experts in the ﬁeld and panel discussions, will be held on April 19-21, 2012. A call for participation is now open. For more information go to www.snm.org.
Online Ethics and Professionalism Modules are Now Available

Online ethics and professionalism modules designed to educate physicians and physicists on the attributes and nuances of ethics and professionalism essential to diagnostic radiology, radiation oncology, and medical physics, are now available on RSNA.org.

The modules were developed by the American Board of Radiology Foundation (ABRF) with educational grants from RSNA, the American Association of Physicists in Medicine, American Board of Radiology (ABR), American College of Radiology, American Radium Society, American Society for Radiation Oncology and Academy of Radiology Research.

Each module was developed by an expert team of individuals and peer reviewed for content, quality and clarity. Modules are self-guided and include self-testing features for comprehension and application of the principles and practices described in the module.

Modules have been approved for AMA PRA Category 1 Credit™ and have been qualified by the ABR for Self Assessment Module (SAM) credit in fulfillment of Maintenance of Certification (MOC) requirements. Access the modules at RSNA.org/Education/MOC/professionals.gnm.

For Your Benefit

RSNA Offers Affordable Membership as Residents Transition into Practice

Residents and fellows transitioning into practice will likely find one incentive for maintaining their RSNA membership hard to pass up: reduced rates.

While members-in-training receive free RSNA membership, members transitioning from training qualify for greatly reduced rates during their first and second years of practice—just $100 in year one and $200 in year two. It is not until the third year of practice that transitioning members pay standard membership dues.

The RSNA benefit gives residents time to settle into the profession before paying full membership dues.

Under the program, residents receive all the benefits of full membership, including subscriptions to Radiology, Radiographics and RSNA News, free admission (with advance registration) to the annual meeting, and free access to online CME opportunities.

For more information about reduced rates, contact the Membership Department at 1-877-RSNA-MEM (1-877-776-2636) or membership@rsna.org.

Residents and Fellows Corner

Roentgen Award Nominations Being Accepted

Nominations are being accepted now for the RSNA Roentgen Research Award, recognizing residents and fellows who have contributed significantly to advancing their departments through research as evidenced by presentations and publications of scientific papers, receipt of research grants or other contributions. Only one resident or fellow per program can be nominated by the program director or department chair.

The RSNA Research & Education Foundation (R&E) provides an award plaque for the department to display and a personalized award to present to the selected resident or fellow. The nomination deadline is April 1. Learn about the nomination process and see a list of past recipients at RSNA.org/Foundation/Roentgen.cfmp.

Jegan Dewan Gupta, M.D., received his 2011 RSNA Roentgen Research Award from program director Cynthia Hanemann, M.D.
Experts at RSNA 2011 explored the challenges for radiology on smartphones, tablets and beyond—everything from issues of diagnostic quality and institutional security concerns to a novel patient-controlled “samurai” application. We report their findings in next month’s RSNA News.
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