ACR LEADERSHIP | INTEGRITY | QUALITY | INNOVATION

JULY 2017 | VOL.72 | NO.7

# Bulletin

## IT Manager: The Invisible Conductor

*Don't miss the interview with RLI Summit faculty Lakshmi Balachandra, MBA, PhD on how to position your practice to respond to change on page 9.*

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## 2017 RLI LEADERSHIP SUMMIT
### SEPT. 7–10, 2017 | BABSON COLLEGE | WELLESLEY, MA

Radiology is being challenged on many fronts. From commoditization and new CDS documentation rules to AI, Machine Learning and value-based care.

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Go to **radiologyleaders.org/leadership-summit** to view the schedule, session descriptions and faculty info, and to register now.

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AMERICAN COLLEGE OF RADIOLOGY

ACR
# Bulletin
JULY 2017 | VOL.72 | NO.7

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**QUESTIONS? COMMENTS?** Contact us at bulletin@acr.org
**Archives of past issues are available at ACR.ORG**

**Check out the digital edition!**
This month, you'll find a video guide to machine learning, information on how to find the right mentor, and more at **acrbulletin.org**

**OUR MISSION:** The *ACR Bulletin* supports the American College of Radiology's Core Purpose by covering topics relevant to the practice of radiology and by connecting the College with members, the wider specialty, and others. By empowering members to advance the practice, science, and professions of radiological care, the *Bulletin* aims to support high-quality patient-centered health care.

James A. Brink, MD, FACR, Chair

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# Investing in Radiology

***The College's strategy for financial sustainability ensures a solid foundation for radiologists and their patients.***

The ACR was established to serve the needs and interests of radiologists. While the challenges the profession faces have changed over time with the ever-shifting health care environment, the heart of the ACR has never wavered. We are dedicated to investing in our core purpose: to serve patients and society by empowering members to advance the practice, science, and professions of radiological care.

In 2014, the ACR leadership approved a new strategic plan that articulated a vision for the future and aligned the ACR's programs with that vision. The strategic plan contained six goals designed to guide the ACR's future success; the sixth and final goal is an unwavering commitment to financial sustainability. A strong financial plan provides the means to achieve the program-specific goals of the organization.

We are dedicated to investing in our core purpose: to serve patients and society by empowering members to advance the practice, science, and professions of radiological care.

Positive margins, reserves, and diverse revenue streams form the basis for ensuring a long and healthy future for an organization. These are the resources that enable the ACR to invest in programs and initiatives that support its members and the profession. In conjunction with the strategic plan, the ACR initiated a program-assessment process to analyze the organization's activities, align them to the strategic plan, and ensure that the College resources are used judiciously.

The ACR has had great success in generating margins, building reserves, and funding new initiatives. Over the last 10 years, the ACR has made several strategic investments. Each new program or service was developed to provide the tools and services necessary for our members to continue to thrive in a competitive health care environment and to further the practice of radiology:

**ACR Education Center:** The ACR Education Center opened in 2008 to provide a unique learning environment that combines faculty lectures with one-on-one interaction. Each course consists of an intensive, self-paced case review. Since 2008, the Education Center has trained over 10,000 participants.

**Harvey L. Neiman Health Policy Institute®:** The Neiman Institute was established in 2012 to contribute credible, objective, and reproducible research to the national health policy debate. To date, 55 papers have been published through the institute, several of which have influenced major policies by CMS and insurers. In addition, critical data tools, such as the Neiman Almanac, have been developed to aggregate data from national and state sources.

**Radiology Leadership Institute (RLI)®:** In 2013, the RLI was created to equip radiologists with leadership skills that enable them to stay at the forefront of the most important issues in health care. Over 4,000 radiologists have participated in RLI's unique leadership training program, approximately one quarter of whom are members in training.

**Imaging 3.0®:** The ACR developed the Imaging 3.0 initiative to protect the vital role of radiology within the changing health care system. The multi-phase initiative gives members the tools and resources they need to provide value-based, consultative, patient-centered, and outcome-focused care. These principles are critical to the Quality Payment Program defined by the MACRA legislation.

**Clinical Decision Support:** In 2012, the ACR partnered with a software-development company to create a computer-based diagnostic imaging decision-support system: ACR Select®. The tool leverages the evidence-based guidelines of the ACR Appropriateness Criteria® to enable physicians to order the right image at the right time. ACR Select is in use in over 1,000 different acute-care facilities in more than 125 health systems.

*Continued on page 21*



# DISPATCHES

NEWS FROM THE ACR AND BEYOND

## July

14–16 Body and Pelvic MR, ACR Education Center, *Reston, Va.*

20–22 Musculoskeletal MR of Commonly Imaged Joints, ACR Education Center, *Reston, Va.*

31–8/4 AIRP Categorical Course: Musculoskeletal, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*

31–8/25 AIRP Correlation Course, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*

## August

21–24 AIRP Categorical Course: Neuroradiology, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*

## September

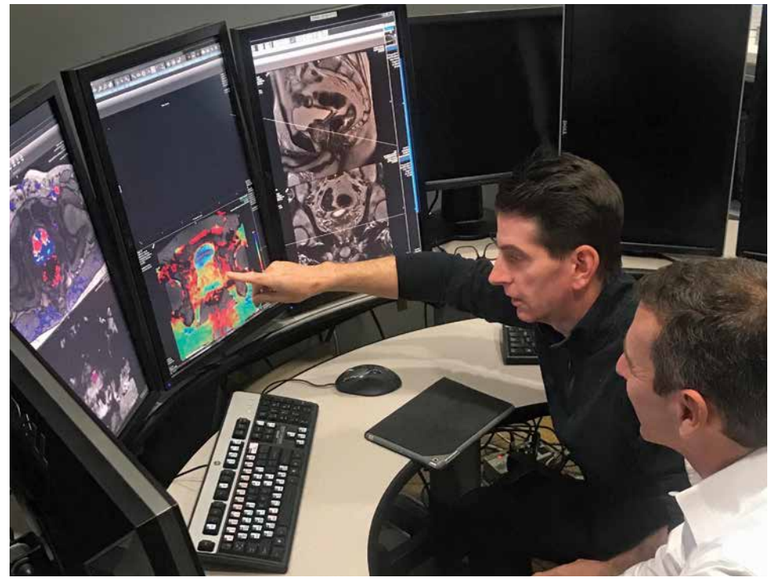
7–9 Coronary CT Angiography, ACR Education Center, *Reston, Va.*

7–10 RLI Leadership Summit, Babson College, *Wellesley, Mass.*

11–13 ACR-Dartmouth PET/CT, ACR Education Center, *Reston, Va.*

14–16 Breast Imaging Boot Camp With Tomosynthesis, ACR Education Center, *Reston, Va.*

18–19 Breast MR With Guided Biopsy, ACR Education Center, *Reston, Va.*



Patients like Michael Pines (left) consult with Ross E. Schwartzberg, MD, in his reading room to discuss prostate MRI results.

## Imaging 3.0®: A Clearer Picture of Prostate Health

When a man presents with an elevated prostate-specific antigen (PSA) level, clinicians typically order a biopsy to see whether the man has prostate cancer. But most PSA blood tests return false-positives, often leading to unnecessary biopsies. Recognizing this, Ross E. Schwartzberg, MD, a neuroradiologist in San Diego, opened a prostate-imaging clinic in 2014. At the clinic, direct patient consultations give men a better understanding of their prostate health without invasive needles or probes.

**Read more about how Schwartzberg established the prostate imaging clinic at bit.ly/prostateimaging.**

## MRI Necessity Questioned Following MSK Ultrasound

MRI exams performed after MSK ultrasounds usually find similar results and rarely change clinical management, said presenters at the 2017 American Institute of Ultrasound in Medicine conference. This begs the question: Are the MRIs really needed? Research at the Cleveland Clinic suggests this could be a chance to reduce redundant imaging. "MSK can be a definitive advanced imaging modality without the need for additional diagnostic imaging in most cases," said Lulu He, DO, one of the presenters and MSK radiology fellow at the Cleveland Clinic.

**Read more at bit.ly/MRI_MSK.**

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## About Your College

Here are some things you might not know about the ACR.

- ACR was founded during the Annual Meeting of the American Medical Association by 21 radiologists.
- The first assembly and convocation of the College was held in Chicago in 1924.
- Today there are more than 39,000 members. This includes more than 9,000 members-in-training and 6,000 retired members.
- The ACR governing structure is modeled after the U.S. government. The Council Steering Committee (CSC) functions as the legislative arm. The CSC represents the membership and its interests. Then, the ACR Board of Chancellors implements the policies, just as the executive branch of the government would.
- About 2,100 member volunteers work on 250 commissions, committees, and task forces.
- This year we inducted 137 new fellows at the ACR 2017 Convocation.

> In the era of 'big data,' radiology will continue to lead in mining and mobilizing data — turning dumb data into smart knowledge to be delivered in real time — just-in-time — at the point of care.
>
> **– James H. Thrall, MD, FACR.** *Read more at bit.ly/_Mine_Data.*

## FBI Urges Health Care Community to Guard FTP Servers

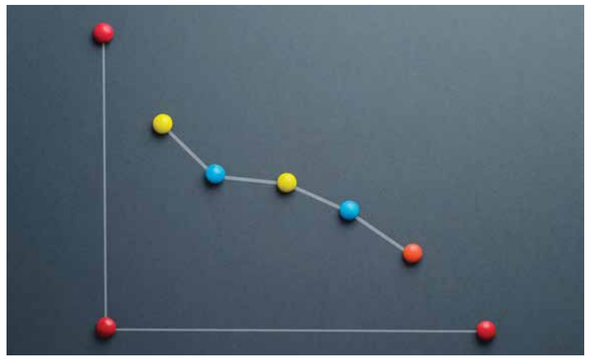
The FBI has put the health care sector on alert, warning that there has been a spike in the past year in "ransomware" attacks. These incursions threaten to destroy or publicly display patient data found on servers and backup devices. The alert notes that the agency is aware of "criminal actors who are actively targeting FTP servers operating in 'anonymous' mode and associated with medical and dental facilities to access protected health information and personally identifiable information in order to intimidate, harass and blackmail business owners."

Read more at bit.ly/FBI_Notice.

## Breast Cancer Deaths Still Declining

More than a quarter of a million deaths from breast cancer have been averted since 1990, including more than 22,000 in 2014 alone, according to a recent analysis of newly added 2014 data to the National Cancer Institute SEER database. The breast cancer death rate has now fallen 38 percent since 1990, and that downward trend is credited to increased use of mammography screening that was bolstered in the mid-1980s. In 1990, 73.8 women per 100,000 women died of breast cancer. The new SEER data shows that figure has dropped to 45.9 breast cancer deaths per 100,000 women.

Read more data findings at bit.ly/Cancer_Deaths.







## Non-Radiologists Ask a Chatbot

In an attempt to provide a tool for non-radiologists in hospital settings, interventional radiologists at the University of California at Los Angeles are using artificial intelligence to offer clinical support via a so-called virtual radiologist. A virtual consultant, or chatbot, can have a conversation with clinicians via text messages to help them choose the best course of action, such as what contrast to use for a particular patient.

Read more at bit.ly/ChatBot_UCLA.

## Medicare Imaging Utilization and Costs Vary More at County Than State Levels

A new study by the Harvey L. Neiman Health Policy Institute® looks at Medicare-beneficiary imaging resource consumption in relation to population economic status at the county level. The study, published in the *JACR®*, found that in the Medicare population, imaging utilization and costs vary greatly at the county level far more than at the state level. "We observed wide (up to 4-fold) variation in Medicare beneficiary imaging utilization and program costs at the state-level and far wider (up to 14-fold) variation at the county-level," says Andrew B. Rosenkrantz, MD, MPA, lead study author and a Neiman Institute affiliate research fellow. For radiologists, the study shows the importance of understanding their local mix of patients and how patient characteristics might play into their practices' shift from volume-based to value-based payment models.

Read more at bit.ly/HPI_MedicareImaging.

## Second-Opinion Breast Reads Change Interpretation

Findings that could impact disease management decisions come up nearly 30 percent of the time after a second opinion review of breast images from a different institution, according to a study published in the *American Journal of Roentgenology*. Researchers were looking at why radiologists at specialized cancer centers are reinterpreting breast imaging exams from other institutions. They found that patients with suspicious findings from imaging performed through community-organized centers that offer screening services, for instance, are often referred to physicians at cancer centers for evaluation. The goal of the study was to evaluate the overall agreement between the second opinion review and the initial report and to assess how an additional interpretation would affect clinical management.

Read more at bit.ly/Second_Read.

## Radiologists Rank Sixth for Salaries

With an average annual compensation of $396,000, radiologists' salaries come in at number six, behind orthopedic physicians, plastic surgeons, cardiologists, urologists, and otolaryngologists. Family medicine and pediatric physicians took the lowest paying slots in a new Medscape compensation survey.

Read more at bit.ly/Rad_Pay.

## Here's What You Missed

The *Bulletin* website is home to a wealth of content not featured in print. Check out blog posts, extra articles, and multimedia content at acrbulletin.org.

### Onboarding for Long-Term Success

Physicians face multiple transitions during training and practice. Read more about how to successfully manage these new environments at bit.ly/LT_Success.

### Resident Work-Life Balance

There's an alarming trend across radiology: physician burnout. Read about declining job satisfaction among radiologists at bit.ly/MD_Burn.

### Creating the Ideal Patient Experience

Read a Q&A with a radiation oncologist on how patients are deal with the stress of an ominous diagnosis and radiation therapy at bit.ly/Final_Read.

> We're probably going to be forced to change our practice style. Isolation is largely going to go away as payment models change. Physicians of the 21st century face the challenge of coordinating care with teams of experts and support staff.
>
> **– Jonathan W. Berlin, MD, MBA, FACR.**
> *Read more at bit.ly/Rad_Future.*

By Ezequiel Silva III, MD, FACR, Chair

# How We Got Here

***Radiologists in the United States have a history that is different from that of other physicians — and understanding this history is important to the future of radiology.***

Health care and payment policy are evolving rapidly in this country. New laws and regulations are voluminous, and the decisions we make are far-reaching. With so many detailed decisions, it is important that we understand how we got to this place. In this column, I describe why the advocacy role of physicians, particularly radiologists, is different in the U.S. than the rest of the world.

The U.S. health care marketplace is different from that of the rest of the industrialized world. Nowhere else in the world is there such a sizable contribution of employer-sponsored health care. World War II is the reason for that. In the 1940s, the U.S. government was concerned about the economic effects of the post-war inflation that had devastated Europe. The government's solution was wage and price controls. Workers responded with threats to strike. At the same time, the war had made hiring in the U.S. tight because of a decreased labor pool and an increased demand for goods. As a concession to workers, the National War Labor Board exempted employer-paid health benefits from the wage freeze.

## What we do over the coming years could define our specialty for decades to come.

This action allowed employers to provide robust health care plans as a benefit and provided for an attractive tax advantage. This trend drove a large demand for employer-provided health insurance. Later, when the government tried to move to a single-payer system, it was too late to overcome the considerable size of the private insurance market. This is relevant for physicians, because we are required to influence payment policy across a spectrum of different payers and geographic domains. Government payment policy is important, but it cannot be our only focus.

The structure of our government allows physicians sizable influence in health care policy. The founders of our country purposefully created a constitutional division of government with checks and balances in place. As such, no single branch of government can unilaterally implement policy on matters as significant and far-reaching as health care policy. This division of government enables influence of stakeholders at multiple levels, including both houses of Congress and the executive branch. One could argue that this is sometimes a strength and sometimes a hindrance, but the circumstance cannot be ignored. For example, the Affordable Care Act took a remarkable set of political circumstances in order to become law. And the recent inability of a republican-led government to pass the American Health Care Act shows how quickly outcomes can swing the other way. This circumstance gives us the opportunity, and the responsibility, to influence policy to a greater degree than physicians in other industrialized nations.

External perceptions of quality are especially relevant. In my March column, I discussed how policymakers perceive the quality delivered in U.S. health care — and how they do not necessarily believe that physicians have done a sufficient job of ensuring patients receive high-quality care. They think we need help. We can complain and resist the myriad quality metrics being forced on us, but the push to prove quality is not going away. Policymakers are giving us a chance to do this ourselves.

The CMS Quality Payment Program (QPP) is the most significant vehicle for us to influence quality. The QPP is complex, and its regulations are very much being formulated in the early years of the program. Since MACRA mandates special considerations for specialties such as radiology, our ability to influence the metrics that will affect radiologists and their patients is consequential.

Where we find ourselves is this: We have a heterogeneous payer system, a sizable ability to influence policy, a mandate to improve quality, and a calling to represent our specialty. The Affordable Care Act and MACRA are significant efforts by the government to gain greater control over health care. The call for action is as great as it has ever been to shape radiology delivery. What we do over the coming years could define our specialty for decades to come. Understanding the history that brought us to this place will help enable decisions that are in the best interest of our specialty and of the patients we serve.





# The New Rules of Leadership

***This year's RLI Leadership Summit goes deep on finding your individual leadership style, creating sustainable success, and preparing your practice to respond to change.***

Faculty at the 2017 RLI Leadership Summit hail from all corners of the business world. Lakshmi Balachandra, MBA, PhD, has one of the most wide-ranging resumes, which includes working at venture capital firms, performing stand-up comedy, and running a toy shop she opened right out of college. Today, she is faculty at Babson College and a leading expert in improvisation, negotiation, and entrepreneurial pitching. She is also a fellow in the Women and Public Policy Program at the Harvard Kennedy School of Government.

The *Bulletin* caught up with Balachandra to discuss leadership in a changing health system and what this year's RLI Summit has to offer.

**Why is it important for radiologists to learn to be leaders?**

The reality is, you can't get ahead in your career if you're just a subject-matter expert holed up in a reading room somewhere. You need to be engaged with what's happening around you in your practice, your health system, and your specialty. This is a real opportunity to be a leader, and now is the time to develop those leadership skills.

Leaders are not born, and they certainly don't just all of a sudden appear. They need to be developed in order to emerge.

**What advice would you give to someone whose interest lies primarily in reading cases?**

You need to make time to do that, but as you progress in your career and as the health care system evolves, you may have more and more opportunities to expand your work. Even if you don't see yourself as a natural leader, leadership skills can absolutely be learned — and developing them will contribute greatly to your ability to be effective and enjoy your work.

I would also point out that leadership skills will also benefit you outside of your professional life. Learning to effectively work with others, plan strategically, and balance competing priorities — these are all going to serve you well in your home life and your social life as well.

**Can you be a leader even without a management title?**

Absolutely. Being a leader isn't about a title. It's about how you engage with the work and the people around you. As you are able to manage these things more efficiently and successfully, leadership will come.

Take negotiation as an example. I used to think that negotiation was a skill that leaders have, but now I realize it's actually the other way around. When you effectively manage the various negotiations in your life and your work, you emerge as a leader. It's not a title or a position. It's how you relate to others that enables you to become a leader.

**How is leadership changing?**

Our view of what leadership physically looks like has evolved greatly, especially in this country. In past generations, the quintessential idea of a leader was almost universally a white male. Today the accepted definition of a leader is expanding. That's not to say there haven't always been capable women and people of color acting as leaders, but mainstream leadership positions were by and large not available to these groups.

As we see increasing representation in terms of things like gender, race, religion, and orientation across professional domains, it then becomes a self-perpetuating process that brings in even more diverse perspectives. The picture of a leader at work, in the community, or in society doesn't have to be one particular type of person.

**How can people find their own leadership style?**

The best thing you can do is take some time and observe. Get a feeling for what your colleagues value, how the culture works, and what expectations are at play. For example, I'm a professor at Babson College, and before that I was a professor at Northeastern University. I'm doing the exact same job (teaching and conducting research), but the community and the values of the institutions are incredibly different. As a result, the way that I interact with people and the things I choose to focus on may not enable me to become a leader at one place like it did at another place. You have to constantly listen to your surroundings and adjust your approach.

**What are you excited about at this year's RLI Leadership Summit?**

We'll be helping people learn a little more about themselves and what is driving them when it comes to leadership roles. We're going to explore some of the traps that people fall into as leaders and talk about how to break out once you're back in your natural habitat. The summit is a way to step back and focus on yourself and how you can reach that next level as a leader.

What we often see is that you are your own worst enemy in most difficult leadership situations. So how do you get out of your own way?

2017 RLI Leadership Summit
Sept. 7–10
Babson College, Wellesley, MA

Join radiology colleagues from throughout the country for a program focused on building your playbook for sustainable success. The innovative program uses panel sessions, interactive case studies, and small-group discussion models to tackle the biggest challenges facing radiologists today.

Reserve your spot at radiologyleaders.org.

# JOIN the NARRATIVE

*Exchanging stories with your patients can transform your practice.*

If ever there was an appropriate cliché in medicine, it's that there are two sides to every story. In radiology, your story can help connect you with your patients. This connection can give rise to a more altruistic perspective and change how your patients see you as a medical professional. Engaging more closely with patients also ensures your place in an evolving, value-based landscape in which payment is tied to patient satisfaction.

All radiologists can share a memorable case, behind which is a story of a patient and a family whose lives have changed by how they were treated and the course of care they were set upon. For many radiologists, what they take away from a patient experience will ultimately drive their practice and become tangible in the treatment they provide.

Some experiences can shape how you view your job and instill a deep sense of empathy. One such experience, recalls Jennifer L. Kemp, MD, FACR, a private practice radiologist with Diversified Radiology of Colorado, was when her husband was diagnosed with rectal cancer. "I had been reading CT scans on cancer patients day in and day out," she recalls. "When we got the news about my husband, I thought I had a pretty good handle on how to deal with how our lives were about to change. But I didn't."

## FEAR and ANSWERS

Kemp says the cancer diagnosis and ensuing treatment was horrible. "I had no idea about the fear around imaging and waiting for results. It was torture for my husband, who was otherwise in good health and only 37," she says. "I couldn't imagine how it would have been for patients with chronic conditions or advanced age."

As she and her husband navigated the health system, Kemp realized how unwelcoming health care can be. "And radiology is a big part of that problem," Kemp says. Keeping patients' feelings — their fears and frustrations — in mind during all stages of testing, diagnosis, and treatment should be paramount for all radiologists, she says. Her experience with her husband has resulted in changes to the way she practices. "I'm much more careful about the wording of my reports now," she says. "I'm also very aware that patients are waiting for results.

*"Radiologists need to be a part of the communication chain between the patient and referring physician."*

*"Let them know you're actually a doctor."*

**Ella A. Kazerooni, MD, FACR**

So if I have a follow-up cancer CT for example, it's not going to the bottom of my pile."

Experimenting with small adjustments has made a big difference in Kemp's work. "One of the things my colleagues and I do is to put our phone numbers at the bottom of our reports." Now, she says, not only do other doctors call to exchange information, but patients call too. "I get a few calls each week. I don't feel inundated at all and it's extremely rewarding."

## MEANINGFUL EXCHANGES

Communication is key to understanding and connecting with your patients. Start small and do what you can, Kemp says. After the positive experience of addressing patients' questions and concerns by phone, she and some of her colleagues decided to add their email addresses to their reports as well. Breaking down communication barriers between patients and doctors can rewrite the script for everyone. "Sometimes I'll get a call from a patient asking me to look at their scan again," Kemp says. "They may tell me about specific areas where they are having pain or symptoms, and I might come up with an entirely different diagnosis because of that."

Talking to patients face-to-face can prove even more valuable, says Ella A. Kazerooni, MD, FACR, director of cardiothoracic radiology at the University of Michigan. "We should be prepared to talk to our patients," she says. "Outside of things like doing biopsies and other interventional procedures, our role with patients has been narrow. We work in an almost video game-like environment, where we sit in a room with a list of cases and images and our task is to clear that list as fast as possible." Those work habits, Kazerooni says, can obscure the patients behind the images. "When you train and practice in those environments you can sometimes become uncomfortable communicating with people. Your people skills might atrophy." Getting out of the reading room can put you on the right track to a much-needed conversation.

"Talk to the patients," Kazerooni says, "even when the findings are equivocal." You can tell them what the next steps may be and what their options are, she says. "Radiologists need to be a part of the communication chain between the patient and referring physician. Let them know you're actually a doctor."

## STORY ELEMENTS

For radiologists, bettering a patient's care can take many forms. It could be making sure patients understand the procedure they are undergoing and providing appropriate contacts for answering questions (see sidebar). It could mean being prepared to answer patient questions yourself or simply asking, "Is there anything I can help you with?"

"When talking to patients you might hear things like 'Why do I have to drink this contrast?' or 'When am I going to get my test results?'" says Kazerooni. "That's a great opportunity to explain how the procedure will work or tell them about your patient portal for receiving results." You can share more about your practice via social media platforms, like Twitter or Facebook, showing patients another side of the professionals who provide their care. You may want to look into the patient experience at your facility when it comes to things like the waiting room amenities or the parking situation.

At Kazerooni's hospital, the nuclear medicine area is farthest away from the main entrance. "Our patients had to walk a really long distance to get to the PET/CT area. These are patients with cancer or heart disease, and they don't feel well or may be in a wheelchair," she says. Not only would some patients be exhausted by the time they reached the testing area, she says, but because of their poor muscle conditioning the patients consume a lot of the tracer (an IV-administered radioactive drug) used for the tests, which impacted the quality of the scan. When she and her staff discovered what was happening, they spoke with the parking employees and arranged for all such patients to park in a closer lot. "We alleviated what was a stressful issue for patients and a diagnostic quality issue for our technologists," says Kazerooni.

The challenges your patients face won't always be clear. Sometimes you have to ask. Occasionally they are wrapped up in a nice package for the opening. "A cancer patient left behind a spiral notebook in the waiting area one day," Kazerooni recalls. In an attempt to find the name of the owner, staff skimmed a few pages. "No one knew who the person was, but he or she had written down how they were feeling that day," she says. They decided to leave the notebook in the cubicle changing area and more and more patients started leaving notes. After seeing the response, staff decided to try something. They bought new notebooks, added an introductory message inviting patients to share their thoughts, and placed several in various waiting areas.

"Sure enough, patients started to write," Kazerooni says. "They write that they are nervous. They add to what others have said." The stories help connect patients to one another, they give radiologists and staff a glimpse into the patients' experience, and they offer patients an opportunity to express their feelings during what can be a vulnerable moment. "It's very touching," says Kazerooni. "The entries contain quite a wide range of human reactions."

## LEARNING BREAKS

This kind of information is found outside of the reading room and only furthers your efforts toward value-based patient care. "Working with patients in many capacities has taught me the value of their input," says James Rawson, MD, FACR.[1] "As a medical student, I learned from patients as I took clinical histories and made diagnoses. As chair of a radiology department, I have included patients in the design of MRI scanners and mammography suites."

"It's good for you," says Kazerooni. Patient interaction can be a needed break from a labor-intensive focus and sometimes tedious work. "You'll take a coffee break anyway, so walk through the waiting room and introduce yourself to your patients," says Kazerooni. What you hear from them might be surprising.

In an age of radiology burnout, connecting with patients may also amount to self-preservation, Kemp says. "We sit and churn out the interpretations, working as fast as we can," she says. "Any little things we can do to make the patient experience better will contribute to our experience and satisfaction as physicians."

Everyone has a story someone else needs to hear. Kemp's story, in part, was the effect her husband's illness (and eventual recovery) had on her identity as a radiologist and the small things she could do to make her patients' lives better. For Kazerooni, her patients' notes provided a window into the people behind the images she reads each day.

"By the nature of being physicians, we ask questions," Kazerooni says. "We need to remember there are people behind those questions, and that they don't just need good medicine, but also good care."

By Chad Hudnall, ACR Press managing editor

ENDNOTE

1. Rawson J. Improving the patient experience by working together. PCORI Blog. Dec. 14, 2015. Available at bit.ly/DR_Rawson. Accessed May 15, 2017.

For more ideas and guidance on improving referring physician relationships and communication with patients, access the Most Valuable Practice Guide **bit.ly/ACR_MVP**.

# IT Manager
# The Invisible Conductor

When the radiologists at Lahey Hospital & Medical Center in Burlington, Mass., log into their workstations, they unlock an integrated suite of clinical management systems that includes their workflow manager, PACS, voice recognition system, a summary of the relevant electronic medical record (EMR) database, and a host of contextual communication, peer review, and quality reporting tools. With one login, the radiologists gain immediate access to all of the information they need to provide high-quality patient care. It's a significant improvement from the past, when the radiologists had to log in and hunt for relevant patient data in each system separately — a tedious process that bogged down their workflow and often resulted in an incomplete discovery of clinical information.



## Radiology IT managers and their teams can position groups for success under Imaging 3.0® and MACRA.

The radiology department accelerated this IT systems integration in 2013, when it hired John Gagnon, MBA, PMP, as its radiology IT manager and recruited members of the hospital's enterprise IT department to form a new dedicated radiology IT team. Since then, Gagnon and his team have worked closely with Christoph Wald, MD, PhD, FACR, chair of the department of radiology and president of the medical staff at Lahey, and other radiology department leaders to identify and implement informatics solutions designed to increase the department's efficiency and position it to meet the value objectives of Imaging 3.0®. (Learn more about Imaging 3.0 at acr.org/Imaging3.)

"Our vision was to drive value through scalable informatics solutions that help our radiologists optimally select, interpret, and protocol exams and communicate findings to referring physicians," says Wald, who is also a radiology professor at Tufts University Medical School. "To achieve this vision, we needed a partner in radiology IT who understood it and who could translate it into purchasing the right equipment, contracting with the right vendors, overseeing the detailed work necessary to support our value delivery, and coordinating the talent management and development in the IT group to achieve a team approach with redundant skillsets amongst the individual analysts. That's what our radiology IT manager does."

### Understanding a Radiology IT Manager's Role

As illustrated at Lahey, radiology IT managers work with radiologists to bridge the clinical and technical sides of imaging. Forging this connection is increasingly important as radiologists use advanced informatics solutions to maximize their efficiency and strengthen their value proposition, which will serve them well in new payment models such as those under the Medicare Access and Chip Reauthorization Act (MACRA).[1] "Radiology IT managers and their PACS administrator teams understand radiology's unique workflow and guide radiologists toward informatics solutions to optimize it," says Jay W. Patti, MD, chief informatics officer at Mecklenburg Radiology Associates in Charlotte, N.C., which contracts with NOVANT Health Presbyterian Hospital.

Unlike informatics professionals who work in a hospital's enterprise IT department, radiology IT managers and their teams work exclusively within the radiology department. Leveraging their deep understanding of radiology objectives and workflows, a radiology IT manager and team can address radiologists' informatics needs more promptly and with more tailored expertise than enterprise IT staff. "Hospital IT teams service every department in the hospital, making them generalists," explains Gagnon, who worked in Lahey's enterprise IT department before joining the radiology department. "In contrast, a radiology IT manager and team focuses solely on the success of the radiology department and becomes specialized over time to the department's needs."

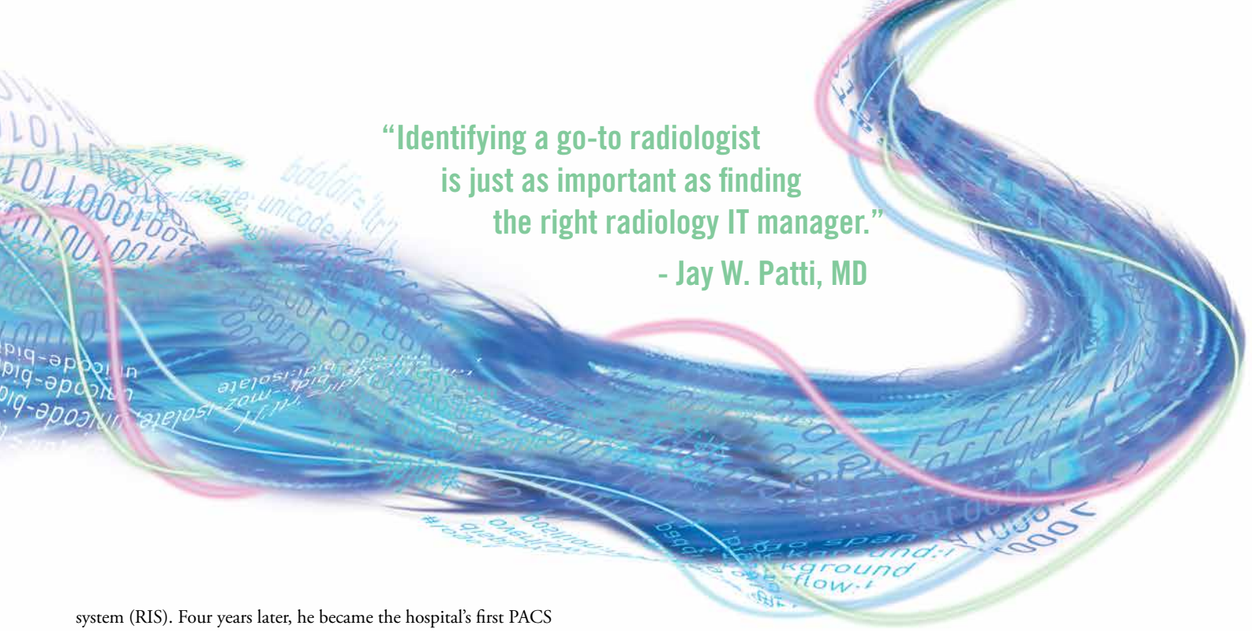
While radiology IT managers concentrate on radiology, they also interface with the enterprise IT department. In this critical role, radiology IT managers work with enterprise IT on change management, project management, and IT security projects, as well as network and interface solutions. They also ensure the radiology department's informatics systems are compatible with the enterprise framework, and they represent radiology's interests in meetings with the hospital IT department and other hospital administrators.

"In the past, radiology was one of the only specialties that relied on IT solutions for nearly every step in the departmental workflow, but the recent adoption of EMRs has increased other departments' IT reliance. That means the dollars that used to go to IT-heavy specialties, like radiology, are now being shared among all specialties," Patti explains. "So having someone within the radiology department who understands IT and who can advocate for solutions to radiologists' unique challenges is extremely valuable."

### Hiring a Radiology IT Manager

Since radiology IT managers must collaborate closely with a hospital's enterprise IT staff, Wald recommends hiring a manager who already has a relationship with that team, if possible. He says that's one of the reasons his department hired Gagnon, who had worked in the hospital's enterprise IT department for more than 15 years and had good relationships with his colleagues there. "If you bring in a candidate from the outside, it will take years for them to develop those relationships," Wald says. "I'm not saying not to hire that person, but, in my opinion, someone who has those relationships has an edge because our informatics systems are so interconnected with enterprise IT."

Radiologists at Mecklenburg Radiology were similarly pleased when Peyton R. Watson, RT(R), was promoted to manager of radiology systems in 2005. An employee of NOVANT Health, Watson started out as a radiology technologist and has a long history with the health system. In 1999, he began managing the hospital's first radiology information



> "Identifying a go-to radiologist is just as important as finding the right radiology IT manager."
>
> - Jay W. Patti, MD

system (RIS). Four years later, he became the hospital's first PACS administrator. Patti says Watson's experience with radiology IT systems and his relationships with both the radiology and IT departments made him a perfect choice for radiology IT manager. "Radiology departments don't have to look far to find a suitable radiology IT manager," Patti says. "They can easily groom a savvy and confident PACS administrator for the position."

While Watson's clinical background was an added bonus for Mecklenburg, Wald says a radiology IT manager doesn't necessarily need to come with clinical experience, as long as they are willing to learn. In fact, Gagnon had little clinical knowledge when he joined the department at Lahey. He eventually gained that knowledge from Wald and the other radiologists. "When you hire a radiology IT manager, you might not find someone who understands radiology," Wald explains. "You'll probably have an easier time finding someone who has deep IT knowledge, and you'll have to invest real time and effort in bringing them up to speed. This investment pays many dividends, given the integrated systems and other value-driven solutions a radiology IT manager can bring to your group."

## Working With a Radiology IT Manager

Regardless of a radiology IT manager's level of clinical understanding, the radiologists must communicate with that person regularly to achieve their informatics goals. Patti recommends appointing a tech-savvy radiologist as the point person to work directly with the IT manager. Sometimes these radiologists are called chief information officers or chief radiology informatics officers. "Identifying a go-to radiologist is just as important as finding the right radiology IT manager," says Patti, who fills this role in his group. "You can't just hire a radiology IT manager and not interact with that person."

Watson says his relationship with Patti has been critical to Mecklenburg's informatics success, with projects that have included PACS upgrades and new software integrations. Watson contends that having a radiology informatics liaison in the department is just as important as, say, having a chief of neuroradiology. Without that perspective, he says, a radiology IT manager is forced to make assumptions about the department's needs. "When we purchase a new informatics solution from a vendor, for instance, it's like a bowl of vanilla ice cream," Watson explains. "Radiology IT managers and their teams are the ones who add the chocolate syrup, sprinkles, and other toppings that make it better. But choosing the appropriate toppings is difficult without knowing what the radiologists want to achieve with the solution."

## Making the Investment

Radiology groups that don't have radiology IT teams and need more individualized attention than perhaps enterprise IT can offer sometimes contract with consultants for their informatics projects. Wald says his group has hired radiology IT consultants to work on its EMRs and RIS in the past, but the approach was not as fruitful as having a radiology IT manager and team on staff. "Consultants aren't cheap, and you spend a lot of time bringing them up to speed only for them to leave once the project is completed," Wald says. "It's not the most efficient way to do business."

Instead, Wald recommends that radiology groups approach their hospital administrators about dedicating radiology informatics teams. He says groups can easily make a financial case for such a request by, for instance, documenting the amount of time radiologists spend searching for patient- and exam-related information in disparate systems — the way Lahey's radiologists used to do. "If you calculate the amount of time spent based on each radiologist's full-time salary across the year, you'll get a substantial number," Wald explains. "If groups can show how much that number would decrease as a result of system integrations and other informatics projects, they can illustrate why it's worth spending the money to hire the people who can make those things happen."

For that reason alone, groups of all sizes and hospital affiliations should invest in a radiology IT manager and team, Wald says. "Even if a group has only 10 radiologists, they would be well advised to set aside some professional income to hire someone to manage their informatics systems," he says. "It will make their lives easier, and it will help ensure they have the appropriate systems in place to meet the reporting requirements under MACRA. Radiology is already dependent on IT, and our dependency is only going to increase as metrics drive how much we're paid going forward." B

By Jenny Jones, Imaging 3.0 project specialist

ENDNOTE

1. Wald C, Patti JW, Tilkin M, Dreyer K. ACR introduction to the ACR Imaging IT Reference Guide. *JACR*. 2014;11(12):1195-1196. Available at bit.ly/2oaSHJa. Accessed May 16, 2017.





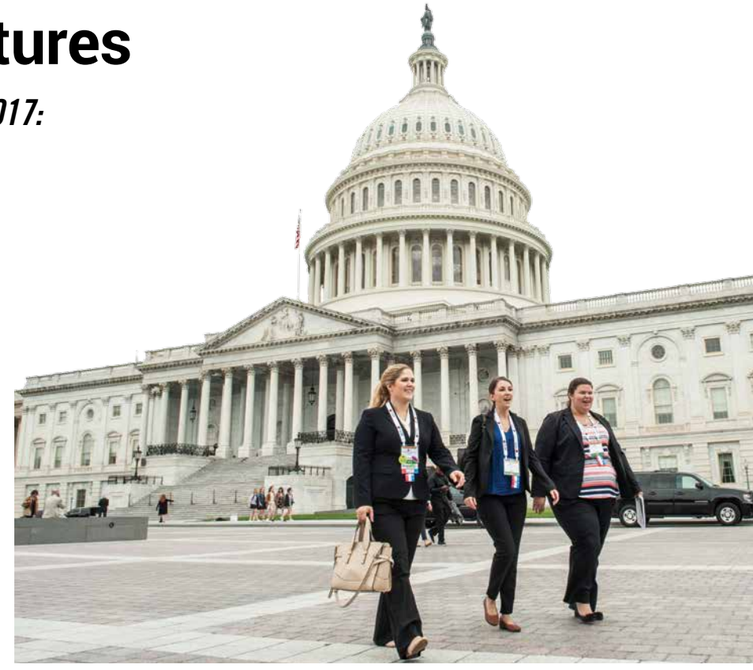
ACR2017 THE CROSSROADS OF RADIOLOGY®

# ACR 2017 in Pictures

***Check out these photos from ACR 2017: The Crossroads of Radiology.***

This year's annual meeting held a ton of excitement for members, including lessons on machine learning, patient experience, and more. Check out some highlights from the Crossroads of Radiology below, and catch the full coverage in the August issue of the *ACR Bulletin*.

James A. Brink, MD, FACR, delivers the Board of Chancellors Chair Report to the membership.



Kimberley M. Beavers, MD, Ashley G. Grindol, MD, and Ivey R. Royall, MD, take part in Hill Day.

Kimberly E. Applegate, MD, MS, FACR (left), was among the mentors participating in the speed mentoring session.

Paul A. Larson, MD, FACR, Jeffrey C. Weinreb, MD, FACR, Valerie P. Jackson, MD, FACR, and E. Stephen Amis Jr., MD, FACR, catch up at the President's Reception.


New fellows take the ACR Pledge.

HOLOGIC®
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# PRODUCT INVESTMENTS
## *ROOTED IN PROOF, NOT PROMISES*

**As more companies** enter the breast tomosynthesis market, making purchasing decisions has become increasingly complicated. Radiologists and purchasing departments, more than ever before, must come together to make choices that are informed, driven by clinical data and best for all stakeholders, including the patient. Sounds simple, but looking past sleek advertising and trendy buzz words to get a better understanding of the true product attributes has become more difficult in a cluttered marketplace. With more suppliers, new entrants are eager to shout, "look over here" and "check out our shiny new device" – but what they don't often say is, "here's the clinical proof and science behind our products," and shouldn't radiologist purchasing recommendations start and end there?

As product details begin to blur together, radiologists, who must advocate for the best possible product for their patients and practices – even in the face of tightening budgets in the purchasing department – need to carefully evaluate company promises and claims. When it comes to imaging technology, it's best to take a few key considerations into account: availability of clinical evidence, manufacturer service and training offerings, patient experience and whether or not a purchase will prove to be a sound investment.

### Clinical evidence.

Promises surrounding product performance abound in imaging technology marketing. Phrases like "widest angle" and "lowest dose" scatter advertising copy, and brands put stakes in the ground proclaiming the clearest, most accurate image quality. Why? There's no question radiologists agree that early detection saves lives, and increased imaging accuracy is one of the major steps towards the earliest possible detection and diagnosis. But, radiologists — like all physicians — base their decisions on scientific facts and evidence, and decision makers should be encouraged to do the same, ensuring that there are clinically proven results and factual proof to support each claim.

***"Each day my patients trust me with their lives — with that incredible trust comes a responsibility to act with purpose and make educated and informed decisions on the types of equipment I use," said radiologist Dr. Linda Greer, MD.***

"I'm seeking the most accurate technology available, and when I'm purchasing new mammography equipment, I look beyond the headlines and into the clinical proof to really be sure I'm getting the best imaging technology available, because my patients deserve it. For example, more than 100 clinical studies have proven the effectiveness of Hologic's Genius™ 3D Mammography™ exam – these are claims that I feel confident standing behind, because they are grounded in truth and have been validated time and time again."

As radiologists consider which mammography gantry is best for their facilities and their patients, they should ask the tough questions. Have the claims about accuracy and clarity been tested and proven? Is there ample clinical evidence to support the manufacturer's statements around cancer detection and callback rates? Is there evidence that supports performance in women with dense breasts? Asking these tough questions, along with asking whether the product is FDA approved as equivalent or superior to 2D, is critical.

### Manufacturer support.

It's both natural and practical to feel more comfortable working with a well-established brand in the general medical space. However, one should also consider the brand's reputation within the specific modality being purchased and identify a brand that is established in the breast imaging industry and has a longstanding track record of commitment to the field. "I believe the best radiologists approach their jobs and face their daily challenges with confidence, and for me, having complete confidence in the tools I use for imaging allows me to focus more on the patient," said Dr. Greer. "One of the ways I find that assurance is from purchasing equipment from trusted, committed leaders, like Hologic, who stand behind their products and offer unmatched technical and training support, long after the initial sale is complete."

The value of a company's overall commitment to improvement through innovation and client service, as well as their longevity in the space, are key factors when comparing and evaluating their promises. Radiologists should ask themselves, "Is the company laser focused on breast health, and committed to advancing patient care?" It's also worth asking, "Will this company support my facility through service and technology upgrades that will help serve our needs and the needs of our patients?"

### Patient experience.

Radiologists know that mammograms are not typically pleasant, and that patients are not lining up to be first through the door for their annual screenings. "There is a lot of buzz in this field around patient satisfaction, and its potential to impact a radiologist's reputation, insurance reimbursement rates and patient compliance," noted Dr. Greer. "I'm the first to say that patient satisfaction is incredibly important, but when it comes to breast imaging, I'd recommend that my colleagues proceed with extreme caution with any manufacturer that prioritizes patient comfort and experience over clinical evidence – and I know that our patients will ultimately appreciate that decision."

Radiologists must not accept evolutions in mammography comfort without close examination, and should ask themselves and manufacturers making claims that are not substantiated with clinical evidence, "does this advance prioritize the physical comfort of my patients while also ensuring imaging accuracy and my ability to achieve adequate compression to generate clear results?" Also, "will this product compromise our facility workflow or detract from the skilled work of our technologists?"

### Sound investment.

Today's healthcare landscape requires an increasing need to justify purchases from a business mindset. A mammography system may pass the first round of consideration for purchasing once decision makers feel confident in a brand's ability to execute across the key focus areas of clinical evidence and manufacturer support, but the decision should also take into account the old adage, "you get what you pay for."

A potential investment must meet a few criteria in order to be considered sound. Radiologists should ask themselves, "will the manufacturer help me build patient demand to warrant this investment?" and "will offering this technology give my facility a boost among area competitors based on product claims, ultimately helping to make a positive impact on the bottom line?" The purchase should always include platform support for the facility, and the manufacturer should be able to offer concrete examples and a strong track record of successful installs and solutions from current and past customers.

### Ask the leader.

Finally, before signing on the dotted line for these critical purchasing decisions, radiologists and administrators should seek out an alternative opinion from the leader in the space. Securing an expert point of view on the system and associated benefits offered by the manufacturer not only helps buyers reduce the many options clouding their investment decisions, but also provides them with the justification required by their peers to proceed with their recommended choice. Doing so can allow radiologists to feel the utmost confidence in their administrators' buying decisions, and most importantly, the tools they'll have at their disposal to care for patients.



# Case of the Year

## *One case stood out in a sea of 261 submissions.*

In medicine, a diagnosis is not always straightforward. Many diseases or conditions can present in various ways, depending on the circumstances. So how do you train for the uncommon presentations?

Case in Point (caseinpoint.acr.org) allows radiologists to evaluate common findings as well as diseases and conditions that can present in interesting ways. The 2016 Case in Point Case of the Year, isolated neurosarcoidosis, is an example of the latter.

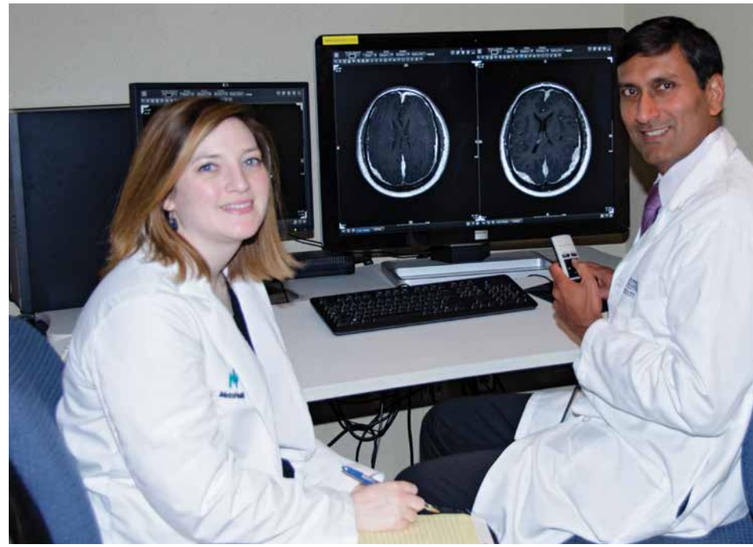
"Neurosarcoidosis is not uncommon but is a great mimic," says Vikas Jain, MD, assistant professor of radiology at MetroHealth Medical Center in Cleveland, Ohio, and co-author of the case. "Our case was a very unusual presentation of a common disease."

Throughout the year, ACR staff gathered data from reader surveys to determine Case of the Month winners. The Case of the Year is pulled from those 12 cases and ultimately determined by Case in Point associate editors. "This is always challenging because we have so many great cases," says Kitt Shaffer, MD, CIP editor-in-chief and program chair. "It was a very close race this year."

Many Case in Point cases are examples of residents working closely with their mentors and attendings in a traditional fashion — residents provide their assessment and send it on to their attending to look over later. In some instances, it's kismet. "As residents, we try to look at cases on our own, formulate an opinion of the case, and then go over our findings with the attending, but sometimes we're both at the PACS station, and the study just pops up, so we go over it together," says Hollie Gallagher-Zate, DO, the case's resident co-author, also at MetroHealth.

But it's not all about the clinical information. The Case of the Year winner is also selected based on the quality of the writing and the educational value provided.

"This was the first time I had written up a case," says Gallagher-Zate. "The toughest part was the literature search, which consisted of compiling the different sources and determining which were of value, used appropriate research methods, and pertinent. There's a lot of literature on sarcoidosis, but when you start looking for neurosarcoidosis and then isolated neurosarcoidosis, that literature pool gets smaller and smaller. This was definitely the most challenging part of writing up the case," she adds.



The 2017 Case In Point Case of the Year was submitted by Hollie Gallagher Zate, DO, and Vikas Jain, MD.

Unlike his co-author, Jain has some experience working with Case in Point cases. "I've worked with other residents to submit four or five other cases," he says. "It's a great educational tool, and I encourage my residents to review cases."

Check out the case (bit.ly/CaseoftheYear) and then read on to learn more about the Case of the Year and its authors in this Q&A with Gallagher-Zate.

**Why did you select this case for submission?**

It beautifully depicted a rare and interesting case of isolated neurosarcoidosis from initial presentation to biopsy and treatment response.

**What did you learn from working on the case?**

I learned about the various ways neurosarcoidosis can present as well as how difficult testing for it can be (unlike the simple blood test obtained in systemic sarcoidosis). Additionally, submitting this case helped me get a feel for publishing cases and presentations.

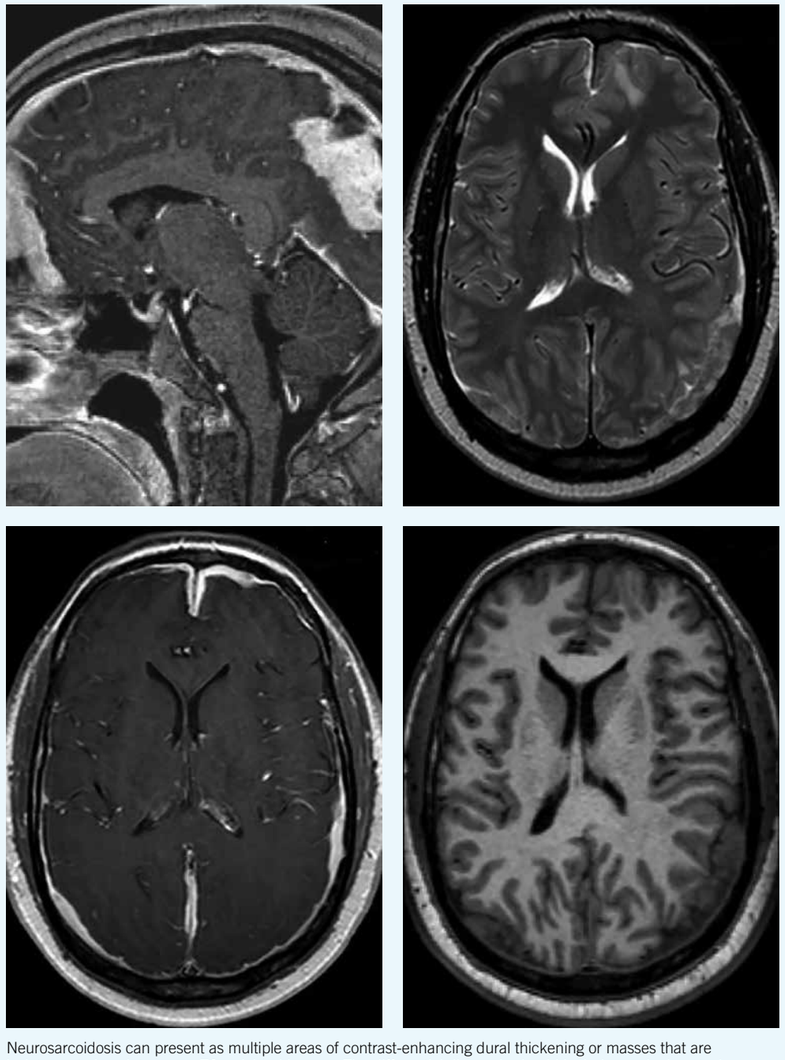
**How did guidance from senior staff at your institution impact your learning and case development?**

My attending greatly impacted both my education of the topic as well as the process of submitting the case, from acquiring the images to the layout of the graphics and difficulty level of the questions.

**Why did you choose Case in Point for submission of your case?**

People visit Case in Point every day because it only takes a short amount of time to learn a great deal of information spanning all aspects of radiology. The image quality is top-notch and the quiz questions are a fun way to learn and take a little break from the day. I wanted to be among those cases and it was an honor to be selected.

Congratulations to all case contributors. The College could not maintain such a high level of quality without a steady supply of incredible cases. B



Neurosarcoidosis can present as multiple areas of contrast-enhancing dural thickening or masses that are isointense to hypointense on T2-weighted images. The differential diagnosis should include meningiomatosis, metastatic disease, lymphoma, granulomatous disease, and idiopathic hypertrophic cranial pachymeningitis (IHCP).

Does your case have what it takes?

You could be a Case of the Year winner! Submit your case at **caseinpoint.acr.org**.

## JOB LISTINGS

**CLASSIFIED ADS** These job listings are paid advertisements. Publication of a job listing does not constitute a recommendation by the ACR. The ACR and the ACR Career Center assume no responsibility for accuracy of information or liability for any personnel decisions and selections made by the employer. These job listings previously appeared on the ACR Career Center website. Only jobs posted on the website are eligible to appear in the *ACR Bulletin*. Advertising instructions, rates, and complete policies are available at http://jobs.acr.org or e-mail careercenter@acr.org.

**Massachusetts** – Cambridge Health Alliance is seeking a full-time board-certified interventional radiologist to join group of 12 physicians due to growth. New IR suite, MRI/CT/US, 3D-mammography, bone densitometry, nuclear medicine, fluoroscopy. Epic/PACS/Nuance 360. Academic appointment available. CHA is an EOE, and all qualified applicants will receive consideration. **Contact:** Submit CVs via email at lanastasia@challiance.org or fax: 617-665-3553.



CONTINUED

## Investing In Radiology

*Continued from page 4*

**Registries:** The ACR National Radiology Data Registry® provides radiology facilities with a mechanism to benchmark outcomes and process-of-care measures and to develop quality improvement programs. It has been approved by CMS as a Qualified Clinical Data Registry since 2014. Its constituent registries are designed to meet CMS reporting requirements, including MACRA/MIPS performance metrics. Participation in ACR registries has grown 800 percent since 2012.

**Commission on Patient- and Family-Centered Care:** In 2016, a new commission was created to evaluate and address new practice and payment models that focus on patient-centered care. The ACR is developing a central database of resources to help members ensure they are an integral part of the patient-care model.

**Innovation Fund:** In 2015, the College's reserves reached a level that allowed leadership to set aside dollars to create the ACR Innovation Fund, which supports untested and unique activities that further the ACR's strategic plan.

Along with these initiatives, the ACR has made steady investments in core activities that are valued by the membership. Through our advocacy efforts, the voice of radiologists is represented in legislative and regulatory affairs affecting our industry. Most recently, the ACR advocacy team was instrumental in rolling back the multiple procedure payment reduction from 25 percent to 5 percent, returning approximately $352 million to radiologists over ten years. Approximately 70 percent of the ACR's annual budget goes toward quality and safety, advocacy, education, and member services. The other 30 percent is directed to grant-funded scientific research to advance the practice of radiology and radiation oncology with federal, state, and industry partners contributing to our efforts.

Through a variety of targeted investments, the ACR has built a financial foundation that positions us well to be responsive to members' needs and to changes occurring in our profession. Our commitment to fiscal responsibility, appropriate use of resources, and the alignment of our spending with our core purpose and strategic plan allows us to remain true to our members. The ACR is investing in radiology for the benefit of our patients and our profession. B

Anjali Malik, MD, and her team: (from left) Amber Colandreo, RDMS, Melissa Price, RDMS, RVT, and Sima Immerman, RDMS

# Q: How do you increase public awareness of radiology?

**Anjali Malik, MD, breast imaging and intervention specialist at Washington Radiology Associates, Washington, D.C. area**
@AnjaliMalikMD

When I chose to pursue radiology, my mentors tried to dissuade me, warning I would sit in a dark room and never see patients. Shattering this stereotype requires a four-pronged approach. Radiologists must raise our profile with patients, providers, the public, and policymakers.

For patients, be visible and available. At my group, we interact with our patients, which allows for clinical discussions and establishes a relationship that distinguishes us from technologists.

For referring providers, raise the bar on being the doctor's doctor. Instead of relying on passive reports, personally relay results and help develop treatment plans. My colleagues appreciate direct communication, and it demonstrates radiologists' vital role in healthcare.

For the public, promote radiologists as experts. Many see surgery as the solution to problems interventional radiologists could treat with minimal invasion. I use platforms like Twitter and LinkedIn to educate and advocate through campaigns that highlight the impact of our field. Locally, I deliver seminars on breast health and imaging.

For policymakers, emphasize radiologists' importance through the Radiology Advocacy Network and RADPAC (the ACR's political action committee). I have joined advocacy efforts regarding coverage for 3-D mammography and CT colonography, breast-density reporting legislation, and protection of access to screening.

For radiologists hoping to shatter stereotypes, showing up is half the battle. We must leave our isolation and meet the needs of patients and providers, while shining a light on the importance of our work to the public and policymakers.

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