

RSNA 2018
TOMORROW'S
RADIOLOGY TODAY

Daily Bulletin

THE OFFICIAL NEWSPAPER OF THE RSNA ANNUAL MEETING • ONLINE AT RSNA.ORG/BULLETIN

PRESIDENT'S LETTER

Welcome to RSNA 2018

Dear Colleagues,

It is my pleasure to welcome you to RSNA 2018, an exciting opportunity for all of us to experience "Tomorrow's Radiology Today."

The Board and many volunteers have developed an exceptional program. The prevalence of machine learning (ML) and artificial intelligence (AI) applications in health care is evident throughout the program. Special Interest Sessions on Monday will delve into diverse topics including implications of AI for radiology, as well as innovative approaches to precision medicine and the critical role of imaging in addiction treatment. I encourage you to also explore special programs such as the "Country Presents" sessions from The Nordic Countries and Australia and New Zealand to learn about issues our colleagues are tackling around the world.

The popular Fast 5 Session returns to the program featuring five speakers each giving a five-minute presentation on topics selected by popular vote. Don't miss this fast-paced session on Thursday afternoon in the Arie Crown Theater.

The Virtual Meeting has expanded in offerings and availability, allowing you to pack even more into your RSNA 2018 experience, including more than 200 learning opportunities, both live-streamed and on-demand. The program will be available until April 30, 2019.

Visit the Connections Center to learn more about RSNA, find help navigating the meeting, relax and recharge. The Discovery Theater is back with informative presentations and lively entertainment. Throughout the week the *Daily Bulletin* will keep you informed of happenings throughout McCormick Place. Access it online at RSNA.org/Bulletin or through the Meeting App to enjoy additional content.

The RSNA Technical Exhibits offer an exceptional opportunity to see the latest developments in imaging technology and network with exhibiting companies. The Machine Learning Showcase highlights the latest advances in ML and AI, including the finalists in RSNA's Pneumonia Detection ML Challenge. New to the Technical Exhibits is the 3D Printing and Advanced Visualization Showcase, where exhibits and daily presentations will bring you up to speed on this evolving technology. Interventional radiologists will want to visit the new IR Zone in the South Hall.

RSNA continues to lead the field of medical imaging research with the launch of three new online journals planned for 2019. Learn more about this expanded footprint for RSNA Publications by visiting booth #1011 in Publishers Row in the South Hall.

I am honored to preside over RSNA 2018 as the president of our Society. I wish you all a wonderful meeting experience.

Sincerely,
VIJAY M. RAO, MD
RSNA PRESIDENT

Q & A with RSNA President Vijay M. Rao, MD

RSNA President Vijay M. Rao, MD, will open RSNA 2018 with her President's Address, "How Emerging Technology Will Empower Tomorrow's Radiologists to Provide Better Patient Care." She will discuss how radiologists can harness the rapid advances in artificial intelligence (AI) and related technologies to improve the quality of care they provide to patients, as well as to increase their stature within the medical community and the personal and professional satisfaction they derive from their work. Below, Dr. Rao shares her thoughts about the changes ahead for today's radiologists.

Daily Bulletin: What are the most impactful technological developments affecting radiology today?

Vijay M. Rao, MD: AI and Machine Learning applications are already proving themselves extremely useful in radiology, and we've only begun to scratch the surface. These applications provide tools to make us more efficient, freeing up time for radiologists to become more visible and patient-centered. Technological innovations are driving toward making imaging faster, safer, quantitative, precise and affordable. Advances in imaging biomarkers combined with genomic information will allow us to make a more meaningful contribution to personalized medicine in the years to come.

DB: What new skills do radiologists need to develop in order to be successful in the future?



Rao

VMR: The time has come for radiologists to position themselves to provide leadership in driving this field to the next level. Radiologists will have to increase their knowledge of all aspects of diseases and data science.

As we continue our transition to a value-based practice model, radiologists need to embrace that approach to remain relevant. I

also believe that health services research will play a big role. To be successful, radiologists should investigate ways to add value and reduce waste in health care. These topics will continue to be critically important to our field into the future.

DB: What are you most excited about in this year's annual meeting program?

VMR: We have an outstanding program planned for RSNA 2018, with exciting new research in numerous subspecialties. The amount of high-quality research being conducted and presented is a reminder that radiology leads the way in health care innovation. There are new discoveries in AI and machine learning research every day. This field excites me because these technologies have the potential to expand our diagnostic and therapeutic capabilities in ways that were not possible a decade ago.

DB: How much do you think radiology will have changed 10 years from now?
VMR: It's difficult to predict the future of a specialty that advances at such a rapid pace, but I believe that over the next decade we will harness the potential of today's burgeoning AI technology to make radiologists more efficient and quantitative in their practices. By embracing these new developments in our field,

CONTINUED ON PAGE 9A

2018 RSNA Scientific Assembly and Annual Meeting Program Dedication

RSNA dedicates the 104th Scientific Assembly and Annual Meeting Program to the memory of two preeminent radiologists, William G. Bradley Jr., MD, PhD, and Alexander R. Margulis, MD.

William G. Bradley Jr. MD, PhD (1948-2017)

A distinguished professor emeritus and past chair of the Department of Radiology at the University of California San Diego (UCSD) School of Medicine, Dr. Bradley authored *Magnetic Resonance Imaging*, the first general text in the field of MRI, and published over 200 papers, 54 chapters and 20 additional textbooks.

Dr. Bradley was known for his exuberant personality as well as his solid body of work as a clinician, researcher and leader. As chair of the Department of Radiology at UCSD from 2002-2015, he is credited with building a formidable research program.

Highly recognized for his contributions particularly to MRI research and practice, Dr. Bradley was awarded the gold medals of the RSNA, the American College of Radiology (ACR), the International Society of Magnetic Resonance in Medicine (ISMRM), the American Roentgen Ray Society (ARRS) and the Association of University Radiologists (AUR).

A fervent leader in organized radiology, Dr. Bradley served as president of



Bradley



Margulis

Alexander R. Margulis, MD (1921-2018)

An internationally renowned educator, researcher and visionary in radiology, Dr. Margulis earned a reputation as a founding father of gastrointestinal radiology and touched the lives of countless radiologists and scientists throughout the world.

In 2012, RSNA honored Dr. Margulis by establishing the Alexander Margulis Award recognizing the best original scientific article published each year in *Radiology*.

Dr. Margulis served as chair of the University of California, San Francisco (UCSF) Department of Radiology for 26 years, from 1963 to 1989. He led the department to international prominence, establishing UCSF as a destination for physicians around the world to learn the latest imaging techniques and technology.

Following his retirement from UCSF, Dr. Margulis was named UCSF associate chancellor and then special consultant to the chancellor. In 2000, he became a clinical professor of radiology at The Weill

ISMRM and as a member and vice president of the ACR Board of Chancellors. Over the years he also volunteered for the boards of the ARRS, AUR, International Society for Strategic Studies in Radiology and Academy of Radiology Leadership and Management.

Dr. Bradley was trustee of the RSNA Research & Education (R&E) Foundation, chairman of RSNA's R&E Fund Development Committee, and co-chair of the Foundation's recent Inspire-Innovate-Invest Campaign.

Dr. Bradley died Nov. 20, 2017, in La Jolla, CA.

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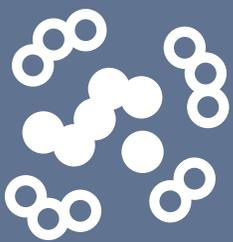
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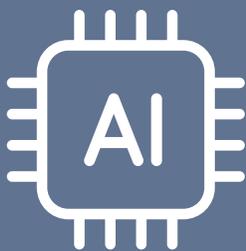


Three New RSNA Journals Coming in 2019!

Radiology



Imaging Cancer



Artificial Intelligence



Cardiothoracic Imaging

Submissions Now Open:

Radiology: Artificial Intelligence and Radiology: Cardiothoracic Imaging

Submissions Opening April 2019:

Radiology: Imaging Cancer

Visit [RSNA.org/Journals](https://www.rsna.org/Journals) for more information.

Meet the RSNA Journal Editors in-person at the **RSNA Publications booth 1011** in the Technical Exhibit South Hall A.

- Meet **Dr. Gary D. Luker**, Editor, *Radiology: Imaging Cancer*, Monday, 10 AM
- Meet **Dr. Charles E. Kahn**, Editor, *Radiology: Artificial Intelligence*, Monday, 2 PM
- Meet **Dr. Suhny Abbara**, Editor, *Radiology: Cardiothoracic Imaging*, Tuesday, 10 AM
- Meet **Dr. Jeffrey Klein**, Editor, *RadioGraphics*, Wednesday, 10 AM
- Meet **Dr. David Bluemke**, Editor *Radiology*, Wednesday, 11 AM

Sunday At a Glance



President's Address

Vijay M. Rao, MD

8:30-10:15

Arie Crown Theater

President's Address: How Emerging Technology Will Empower Tomorrow's Radiologists to Provide Better Patient Care

Rao

Dr. Rao will discuss how radiologists can harness the rapid advances in artificial intelligence (AI) and related technologies to improve the quality of care they provide to patients, as well as to increase their stature within the medical community and the personal and professional satisfaction they derive from their work.



Annual Oration in Diagnostic Radiology

Michael P. Recht, MD

8:30-10:15

Arie Crown Theater

Artificial Intelligence, Analytics, and Informatics: The Future is Here

Recht

Dr. Recht will discuss how radiologists and radiology departments can utilize recent advances in informatics, analytics/business intelligence and artificial intelligence/machine learning to allow radiologists to become more integrated into the clinical care team and more visible and "user-friendly" to referring physicians and our patients.

RSNA Outstanding Educator and Outstanding Researcher Awards Presented Today



10:15-10:35

RSNA Business Session
(Arie Crown Theater)

10:45-12:15

Scientific Paper Sessions

11:30-1:50

Machine Learning Theater Presentations
(North Building Hall B)

12:30-1:30

Scientific Poster, Quality Improvement Reports and Education Exhibit Presentations
(Learning Center)

1:30-6:00

Interventional Oncology Series: Lung, Kidney and Bone (Room S405AB)

2:00-3:00

First-Time Attendee Orientation
(Discovery Theater)

2:00-3:30

Educational Courses

4:00-5:45

Plenary Session (Arie Crown Theater)

Report of the RSNA Research & Education Foundation
N. Reed Dunnick, MD

Image Interpretation Session

View the full program and add sessions to My Agenda on the RSNA 2018 App or at Meeting.RSNA.org.

Daily Bulletin

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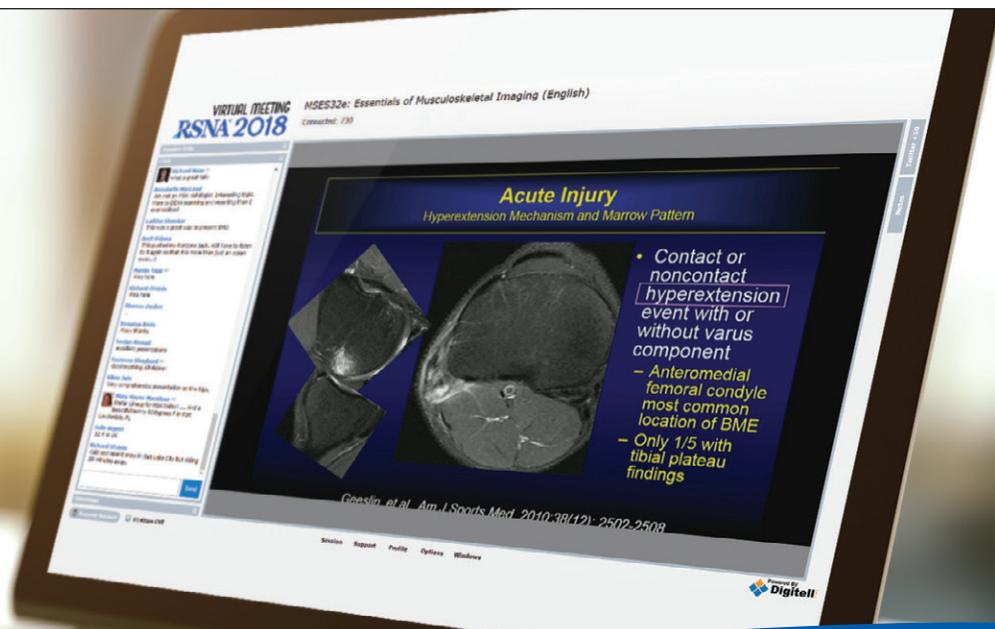
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VIRTUAL MEETING
RSNA 2018
TOMORROW'S
RADIOLOGY TODAY
NOVEMBER 24 - APRIL 30



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GREETINGS

Welcome to RSNA 2018 from
the RSNA Board of Directors



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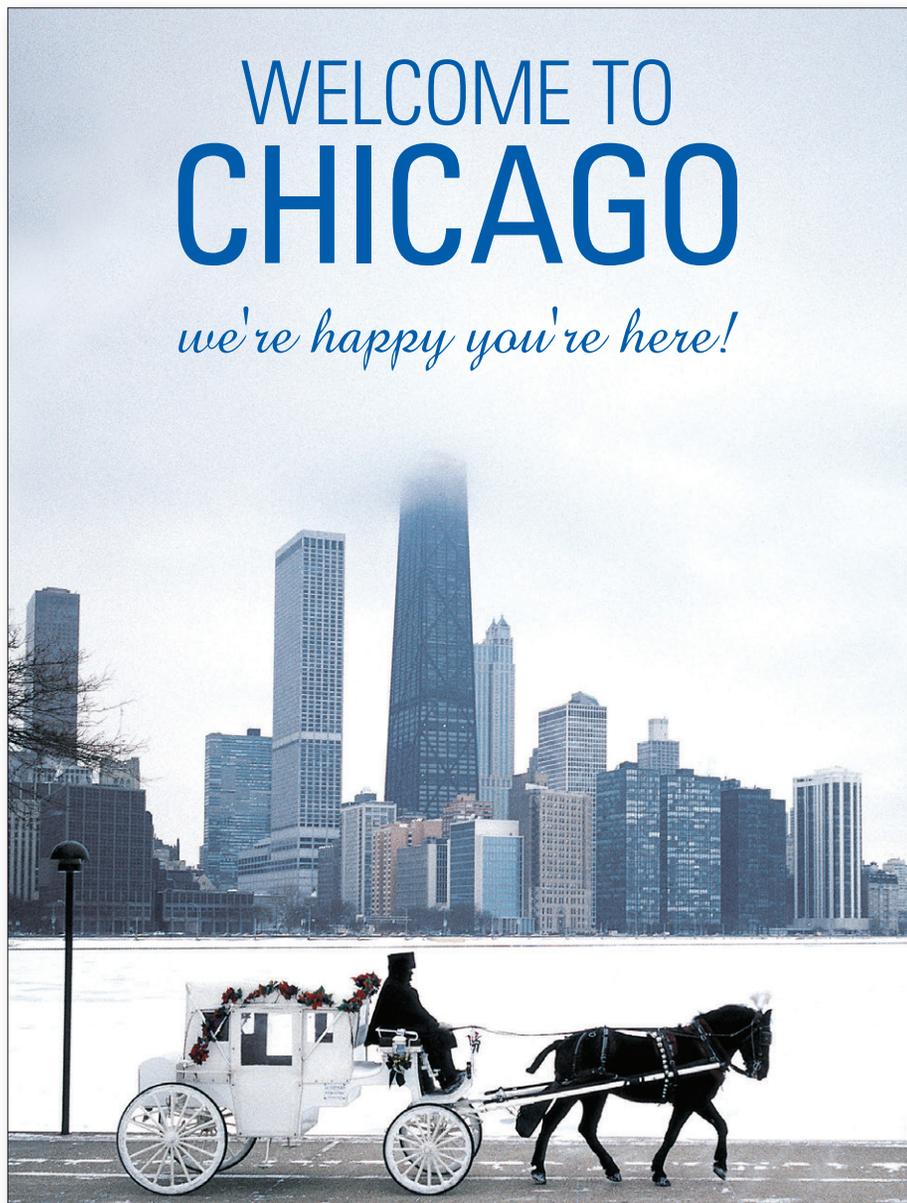


Vijay M. Rao, MD
President



Valerie P. Jackson, MD
*President-elect and Secretary-
Treasurer*

RSNA® 2018
TOMORROW'S
RADIOLOGY TODAY
NOVEMBER 25-30



WELCOME TO
CHICAGO
we're happy you're here!



OFFICE OF THE MAYOR
CITY OF CHICAGO

RAHM EMANUEL
MAYOR

November 25, 2018

Dear Friends:

As Mayor, and on behalf of the City of Chicago, I am pleased to offer warm greetings to all those gathered for the Radiological Society of North America's 104th Scientific Assembly & Annual Meeting.

Since its establishment, the Radiological Society of North America (RSNA) has worked to advance the knowledge and technology of radiology. Made up of radiologists, medical physicists, and other medical professionals from 136 countries across the world, the Society has more than 54,000 members. RSNA gives physicians the education needed to maintain certification, publishes two top peer-reviewed journals, and develops software solution, sponsors research, and conducts research to enhance education in developing nations. In addition, through their Research & Education Foundation, RSNA is funding young investigators to ensure that radiology will continue to grow and improve for generations to come.

This year's meeting brings more than 50,000 radiologists, radiation oncologists, medical physicists, radiologic technologists, and allied healthcare professionals to network, learn, and inspire. With a full schedule of plenary sessions, educational courses, keynote speakers, specialty courses, keynote speakers, the 2018 Machine Learning Showcase, and more than 650 exhibits, industry professionals will learn and discuss the skills and tools needed to move the radiology industry forward. I commend the Radiological Society of North America for their dedication to education and innovation in radiology.

It is my hope that after learning about and discussing what's new and changing, you will take the time to explore and take advantage of everything Chicago has to offer. An exciting variety of restaurants, nightlife, great universities and world-class museums accented by our iconic skyline, incredible lakefront, and historic neighborhoods make Chicago one of the world's greatest cities.

I hope you have an enjoyable event and submit my best wishes for much continued success.

Sincerely,

Rahm Emanuel
Mayor





Together, we are SEEDING THE FUTURE OF RADIOLOGY

For every \$1 granted by the R&E Foundation, 50 additional dollars in subsequent funding are awarded from other sources like the NIH.

We are responsible for the growth of radiology research and education. And we are growing strong.

Help seed the future of medical imaging.
Make a donation today.

RSNA.org/Foundation



Always Discover, Always Develop

Be an RSNA Member.

Radiologists look at problems and discover solutions. It's what we're good at.

But it takes discipline to keep focused. It takes foresight to understand the solutions to tomorrow's problems. It takes commitment to develop.

At RSNA, we're dedicated to helping radiologists do just that.

From the best CME in the industry to the world's leading annual meeting, your membership means something. We help you keep developing.

LEARN: free CME, online courses, and webinars and other critical education opportunities that keep you up-to-date with the latest advancements in the field.

EXPAND: free advance standard registration to the RSNA annual meeting, the most-important meeting of radiology professionals, industry leaders and researchers in the world.

ADVANCE: Subscriptions to publications *Radiology* and *RadioGraphics* and three journals launching in 2019: *Radiology: Artificial Intelligence*, *Radiology: Cardiothoracic Imaging* and *Radiology: Imaging Cancer*.

Always Discover, Always Develop **RSNA.org/Membership**

8:30 AM - 4:30 PM CT | membership@rsna.org
1-877-RSNA-MEM (776-2636) | 1-630-571-7873 (outside the U.S. or Canada)

Chicago is RSNA's Kind of Town

By Jennifer Allyn

Whether this is your third or your thirtieth RSNA annual meeting, you probably have your favorite things to do, see and eat when you are in Chicago.

RSNA polled social media followers to learn more about how attendees spend their down time in Chicago. Some members make it a priority to get out into the city for architecture tours or to visit the world-famous museums. Others make reservations at trendy restaurants or trek to restaurants with local flavor.

No matter how you spend your free time during RSNA, you might find a new favorite among the recommendations from your fellow meeting attendees.

Eating Well in Chicago

Chicago offers a wide variety of hometown and ethnic dining options no matter what your budget or taste. Whether it is the latest food critic rave or a restaurant offering comfort food favorites, you are sure to find a meal that sates every appetite.

Fatima Mubarak, MD, associate professor and neuroradiologist at Aga Khan University in Karachi, Pakistan, likes to visit Sabri Nihari restaurant on Chicago's North Side, a family-friendly spot serving Pakistani fare. "I head to Sabri because it has traditional food with a Chicago twist," Dr. Mubarak said.

Chicago is known for its pizza and you will find restaurants serving up pies with traditional and modern ingredients.

Local radiologist Wahid Yaghmai, MD, vice chair for operations and professor of radiology at Northwestern University in Chicago, recommends several options, including Coalfire Pizza in West Town and Bonci in the West Loop.

"At Coalfire Pizza, be sure to try the honey and salami pizza, which is the perfect combination of savory, sweet and spicy," Dr. Yaghmai said. "Bonci makes Roman style pizza at this location, which is the only one outside of Rome. You order your pizza by weight and the ingredients change daily based on local availability and the season."

For a sample of deep-dish pizza, Dr. Yaghmai suggests Lou Malnati's in River North or the Gold Coast.

Cecil G. Wood III, MD, radiologist at Northwestern University in Chicago, recommends several unique and diverse restaurants, including Momotaro, a modern Japanese restaurant and Piccolo Sogno, offering rustic Italian fare, including squid ink seafood pasta and wood oven roasted branzino.

"Attendees should also consider Tanta Chicago, which offers a modern twist on Peruvian cuisine. I highly recommend the ceviche and roast chicken," Dr. Wood said.

"Those looking for Indonesian and Chinese food should try Imperial Lamian, which is known for their soup dumplings."

If you are looking for a relaxed breakfast or brunch location, both Dr. Yaghmai and Monica Arzanauskaite, MD, a consultant radiologist at Liverpool Heart and Chest Hospital in the United Kingdom, recommend the courtyard garden of 3 Arts Club Café, located in Restoration Hardware on Chicago's Gold Coast.

When you need a place to debrief at the end of the day, Dr. Yaghmai said The Loyalist in Fulton Market offers small plates and great cocktails, while Dr. Arzanauskaite recommends the Lockwood in the lobby of the Palmer House for drinks. Dr. Wood said that Cindy's, on south Michigan Avenue, offers one of the best views of the city while you enjoy rooftop dining and cocktails.

Several attendees recommended the food at Twin Anchors, a BBQ restaurant that has been a city staple since 1932. Another popular recommendation is the unique dining experience at Oriole in Chicago's West Loop, which offers an extended tasting menu option.

A restaurant currently the favorite of Chicago food critics is Pacific Standard Time in the River North neighborhood. If you are heading to the South Side, try Majani Vegan Restaurant, offering vegan cuisine using ingredients from local gardens. Those looking for a communal restaurant will enjoy the colonial beer hall at The Publican in Fulton Market, where you sit at large tables to enjoy beer, pork and oysters.

Out and About in Chicago

When it's time to take a break from sessions or stretch your legs and mind in a different direction, Chicago offers a variety of outlets.

Dr. Arzanauskaite highly recommends the walking tour available through the Chicago Architecture Center.

"Last year, I did the Art Deco Skyscraper tour in the Loop and I am hooked," Dr. Arzanauskaite said. "Read the tour descriptions well and select a tour that matches your tastes and expectations. Also, buy your tickets in advance because there may be fewer tour slots just before or after the meeting each day."

If the weather permits, Dr. Yaghmai also recommends the boat tour from the Chicago Architecture Center for a detailed history of Chicago and its skyscrapers. Navy Pier is

also a favorite spot for exceptional views of the city, unique sculptures and the Centennial Wheel, a 196-foot-tall Ferris wheel.

Chicago museums cover wide-ranging topics, whether your interest is science, culture or history. (See Sidebar on Chicago museums and special exhibits available during RSNA 2018 or visit choosechicago.org to locate other Chicago-based activities.)

Dr. Wood recommends a visit to the Art Institute of Chicago, including its modern wing, and the Museum of Science and Industry.

"If you still have a curious little kid in you, or if you brought your kids to the meeting, a great way to spend the day is to visit the Museum of Science and Industry," Dr. Wood said. "There are numerous interactive exhibits and if you're feeling in the holiday spirit, the museum displays decorated trees in its 'Christmas Around the World' exhibit."

If you're a fan of blues or jazz music, head to Kingston Mines, B.L.U.E.S or the Green Mill. Dr. Arzanauskaite recommends that first-time club visitors head to Buddy Guy's Legends, a classic blues club in downtown Chicago where Buddy Guy appears on stage some evenings.

Chicago is also home to The Second City, a comedy and improv theater that launched the careers of Dan Akroyd, Steven Colbert and Tina Fey, among many others.

Dr. Mubarak recommends visiting Water Tower Place on Michigan Avenue for more than 100 shops featuring uniquely Chicago items.

A walk through the Lincoln Park Zoo, which is free to visitors, can help clear your head after participating in numerous sessions. A newer and closer walk is the renovated Chicago Riverwalk in the Loop, which offers unique views of the city.

No matter how you spend your free time during the annual meeting, make sure you get out to enjoy some of what Chicago has to offer, even in cooler weather.

"Taking some time during the busy annual meeting to step away and enjoy a solitary walk through a museum or meet your colleagues and friends for dinner can increase your satisfaction of the myriad educational experiences available during RSNA," Dr. Yaghmai said.

Local hospitality experts will recommend restaurants and city attractions, make dining reservations and offer concierge services. Visit the Concierge Desk in the Grand Concourse, Level 3 lobby.

Places to Visit in Chicago

Along with special exhibits and activities at Chicago-area museums, RSNA 2018 attendees might consider exploring several unique neighborhoods that are close to McCormick Place. Here are a few highlights:

Neighborhoods

• Chinatown

A quick cab or rideshare drive down Cermak Avenue gets you within walking distance of more than 45 restaurants and unique gift shops.

• Greektown

A Near West Side community along South Halsted Street that includes lively Greek tavernas, restaurants and traditional pastry shops.

• Little Italy

If you are looking for Italian food and specialty shops, head to the far west side of Chicago along West Taylor Street.



Museums

ART INSTITUTE OF CHICAGO

www.artic.edu

Don't miss one of the oldest and largest art museums in the U.S., home to more than 300,000 works of art, including iconic pieces such as Georges Seurat's "A Sunday on La Grande Jatte," Pablo Picasso's "The Old Guitarist," Edward Hopper's "Nighthawks" and Grant Wood's "American Gothic."

CHICAGO HISTORY MUSEUM

www.chicagohistory.org

Founded in 1856, the Chicago History Museum is the city's oldest cultural institution and home to millions of historical objects, images and documents.

- Special Exhibit – "Amplified: Chicago Blues"

MUSEUM OF CONTEMPORARY ART CHICAGO

www.mcachicago.org

One of the world's largest contemporary art venues, housing thousands of objects of post-World War II visual art.

FIELD MUSEUM

www.fieldmuseum.org

Natural history museum open since 1894 that is home to more than 40 million natural exhibits, cultural artifacts and specimens, including Máximo, the titanosaur towering over one of the main entrance halls.

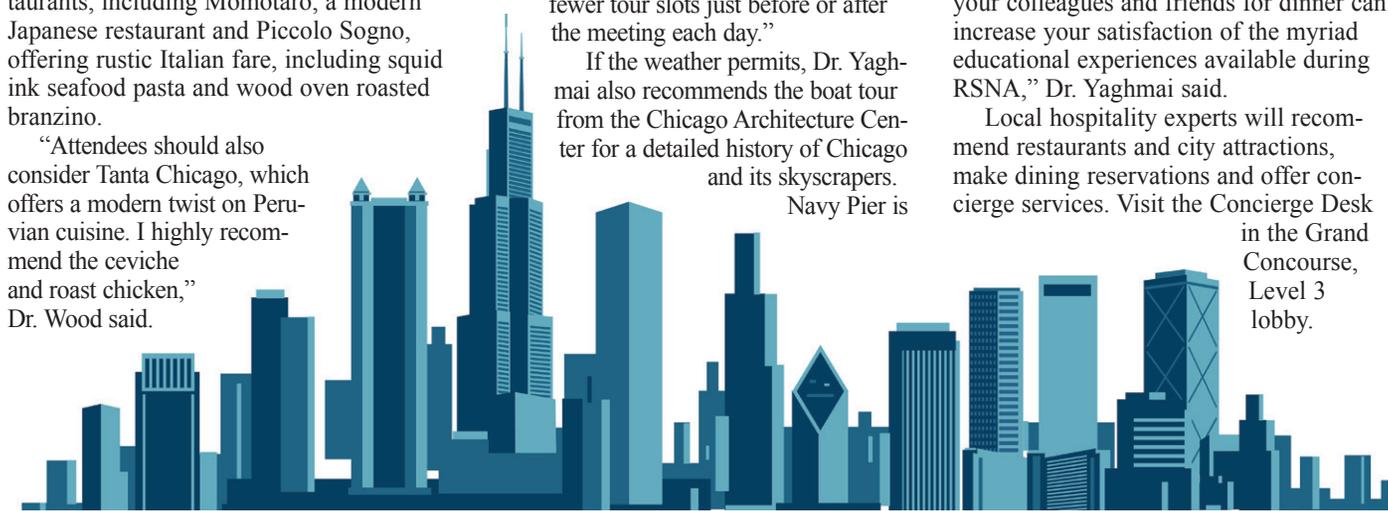
- Special Exhibit – "Egypt 3D: Secrets of the Mummies"

MUSEUM OF SCIENCE & INDUSTRY

www.msichicago.org

One of the world's largest science museums with over 400,000 square feet of hands-on exhibits including a full-size replica coal mine, the German submarine U-505 captured during World War II, a 3,500-square-foot model railroad, the command module of Apollo 8 and the first diesel-powered streamlined stainless-steel passenger train.

- Special Exhibit – "The Science Behind Pixar"
- Special Exhibit – "Christmas Around the World"



Get More *Daily Bulletin* Online

Stay connected to all things RSNA 2018 through the print and online versions of the *Daily Bulletin*, the official newspaper of the annual meeting. The digital *Daily Bulletin* is available on the RSNA 2018 meeting app and online at RSNA.org/Bulletin. Look for articles available ahead of print, exclusive online articles, video interviews with presenters and interactive quizzes and polls. On Friday a special online-only edition of *Daily Bulletin* will cover meeting highlights from Thursday.

Get alerts on *Daily Bulletin* stories through social media at #RSNA18 on Facebook ([Facebook.com/RSNAfans](https://www.facebook.com/RSNAfans)), Instagram (RSNAgram) or Twitter (@RSNA).

#RSNA18

Be Social and Join the Conversation



RSNA 2018
TOMORROW'S
RADIOLOGY TODAY

Sunday's

American Association of
Physicists in Medicine

Physics Quiz

Which pulse sequence category is preferable when imaging heart valves?

[Answer on page 12A.]

WHAT'S THE BIG IDEA? *YOU TELL US.*

Be a Presenter at RSNA 2019!

We're looking for radiology thought leaders to provide:

- Scientific Presentations
- Applied Science
- Education Exhibits
- Quality Improvement Reports

EARN RECOGNITION

Kuo York Chynn Neuroradiology Research Award: \$3,000

The top scientific paper as selected by the Scientific Program Committee will earn this prestigious award.

The RSNA Trainee Research Prize: \$1,000

Up to 48 medical students, residents or fellows who submit expanded abstracts of their 2018 RSNA scientific presentation may receive a \$1,000 prize and certificate.

VISIT RSNA.ORG/ABSTRACTS FOR COMPLETE GUIDELINES.

Submit Online

beginning January 2019 at RSNA.org/Abstracts
through Wednesday, April 10, 2019 NOON CT.

Questions?

Call 1-877-776-2227 (within U.S.)
or 1-630-590-7774 (outside U.S.)

Includes courses in joint sponsorship with the
American Association of Physicists in Medicine.

The RSNA Connections Center: Your Source for Information and Entertainment

Located in the Lakeside Center East, on Level 3, the RSNA Connections Center is the place to learn more about RSNA, experience popular entertainment or enjoy a break from the meeting. Whether you have questions about your membership, are looking to make a donation to support Research & Education (R&E) grants or need a place to charge your phone, the Connections Center has you covered.

Digital Support

RSNA technology experts are available to provide one-on-one digital help with Meeting Central, the RSNA Meeting App or the Virtual Meeting.



Information Desk

Visit RSNA staff at the Information Desk for answers to all your questions about RSNA 2018.

Membership & Resources

Get answers to all your membership questions, including how to make the most of your membership benefits, journal subscriptions, Career Connect, the RSNA Online Learning Center, *Radiology-Info.org*[®], *Radiology Cares*[®] and *Image Wisely*[®].

You can also select your assigned ribbon(s) at the self-serve ribbon wall. Staff onsite can assist with your ribbon selection.

Learn more about RSNA services including RSNA's international programs

such as the the Derek Harwood-Nash International Fellowship and the Introduction to Research for International Young Academics.

R&E Foundation Donor Suite



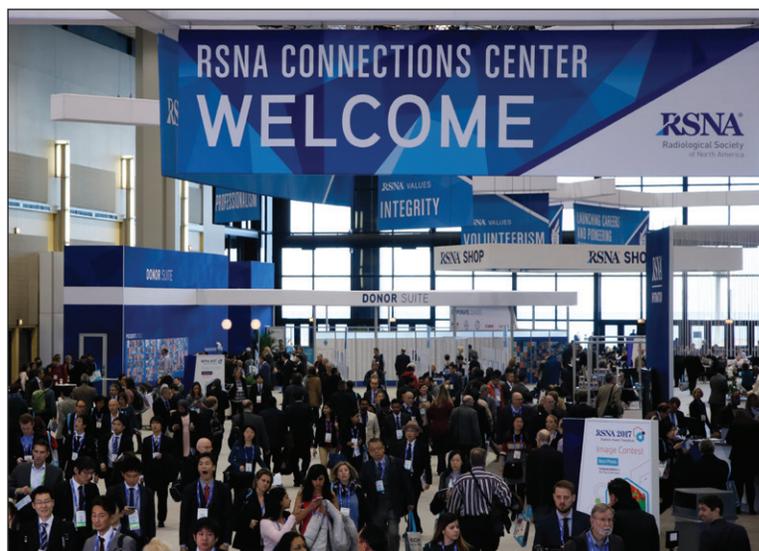
The Research and Education (R&E) Foundation Donors Suite offers light refreshments, computers, a coat room and comfortable furniture exclusively for donors who contribute \$300 or more to the Foundation.

Stop by to learn more about R&E Foundation activities, including the new R&E

Education Grants. Read about current grant and award recipients, as well as individual, private practice and corporate donors who provide funding for grants.

RSNA Shop

If you're looking for RSNA-branded merchandise to take home, the RSNA Shop is your go-to resource. This year, you'll find holiday ornaments, water bottles, scarves, ties, luggage tags, T-shirts and fleece pullovers, along with the popular plush animals.



Discovery Theater Features Live Entertainment, RSNA Programming

Located within the Connections Center, Discovery Theater features unique discussions and presentations about RSNA programs and research from the field, along with special musical and performance acts. Enjoy casual seating options where you can relax and recharge, both your body and your phone, while listening to music, watching a presentation or networking with colleagues.

The highly-anticipated Diagnosis Live™ Resident Competition will be held on Monday at 2 p.m. Fourteen residency programs will go head-to-head for the ultimate residency program bragging rights.

Visit Meeting Central at Meeting.RSNA.org for the full schedule and to add events to My Agenda.



Discovery Theater Events Include:

SUNDAY, NOV. 25

- Navigating RSNA/Chicago (en français), 9 a.m.
- Navigating RSNA/Chicago (en español), 9:35 a.m.
- Navigating RSNA/Chicago (em português) 10:10 a.m.
- The Craig Russo Latin Jazz Project (jazz ensemble), 11:45 a.m. – 1:30 p.m.
- First-Time Attendee Orientation, 2– 3 p.m.
- Navigating RSNA on a Dime, 3:15 p.m.

MONDAY, NOV. 26

- RSNA is Publishing More! Three New Journals Launching in 2019, 9 a.m.
- *RadioGraphics* Features for Readers, 9:35 a.m.
- RSNA Artificial Intelligence and Machine Learning Initiatives, 10:10 a.m.
- Doc Mintz's Vat of Chocolate (jazz ensemble), 12 – 1 p.m.
- How to Make Radiology More Patient-Centered, 3:30 p.m.

TUESDAY, NOV. 27

- Pay it Forward: An R&E Education Scholar Grant Case Study, 9:35 a.m.
- Sean Bott (mentalists and comedic entertainer), 12 – 1 p.m.
- Who Put a Gorilla in My Lung CT and Why? Medical Image Perception Research at RSNA, 1:45 a.m.
- ABR Online Longitudinal Assessment (OLA): A Better Way to Assess Your Knowledge, 2 p.m.
- Chicago Kingsnakes (Chicago blues band), 3:30 – 4:30 p.m.

WEDNESDAY, NOV. 28

- 3D Printing in Radiology: What We Have Learned and Where We are Going, 9:35 a.m.
- RSNA Research and Workshops, 10:15 a.m.
- Kaleidoscope Eyes (Beatles tribute band), 12 – 1:30 p.m.

THURSDAY, NOV. 29

- RSNA Diagnosis Live™ Demonstration, 10:30 a.m.
- The Ron Burgundys (1960-80s tribute band), 12 – 1:30 p.m.

RSNA's 5k Fun Run to Support Radiology Research



Join your colleagues and walk, run or jog during the 2018 5k Fun Run, kicking off at DuSable Harbor Tuesday, Nov. 27, at 6:30 a.m.

The annual 5k Fun Run benefits the RSNA Research & Education (R&E) Foundation through the fully tax-deductible \$40 registration donation. Runners will receive a commemorative T-shirt while supplies last.

Register at the Fun Run desk (Grand Concourse, level 2.5 of McCormick

Place) Sunday and Monday between 7:30 a.m. and 5 p.m. Pre-registered runners should visit the desk to pick up their bibs and T-shirts.

Last year, 766 registrants supported the R&E Foundation through the 5k Fun Run.

This year's Fun Run is sponsored by Konica Minolta Healthcare.



Investigate the Future of Radiology in the Technical Exhibit Halls

Visit with more than 700 leading manufacturers, suppliers and innovators of medical information and technology and discover the latest medical imaging products and support services designed to streamline operations and enhance patient care. Shop and compare equipment supplies, devices and software in two halls.

NEW 3D Printing & Advanced Visualization Showcase

Sponsored by TeraRecon

The new 3D Printing & Advanced Visualization Showcase offers attendees the opportunity to see and interact with the latest products in 3D printing, advanced visualization, holography and virtual reality. The 3D Showcase Theater offers daily presentations. Check Meeting.RSNA.org or the RSNA 2018 Meeting App for times. The RSNA's 3D Printing Special Interest Group will present the latest research in 3D printing for medical applications on Sunday to Wednesday from 2 p.m. to 3 p.m. The showcase is located in the South Hall A.

NEW IR Zone

Located in the South Hall adjacent to the First-Time Exhibitor Pavilion, the IR Zone features companies focused on the latest product advancements in interventional radiology.

Machine Learning Showcase

Sponsored by Arterys and Google Cloud

The Machine Learning Showcase returns as

an expanded centerpiece of the North Hall. Interact with more than 80 companies offering information and innovations in machine learning and artificial intelligence software and products. Presentations will take place each day from 11 a.m. to 2 p.m. The showcase is located in the North Hall B.

First-Time Exhibitor Pavilion

First-time exhibitors demonstrating new products and services will be featured in a showcase area inside the South Hall A. Other first-time exhibitors located throughout the exhibit halls will be identified with a First-Time Exhibitor logo.

Start-up Showcase

Visit the Start-up Showcase in the South Hall A to explore the latest in medical imaging and connect with emerging companies positioned to bring new products and services to market.

Vendor Workshops

Vendors provide hands-on tutorials of commercial software systems in a classroom setting in both North Hall B and South Hall A.

International Pavilions

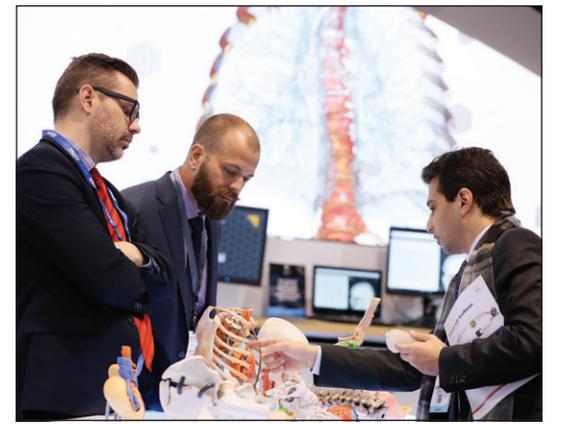
Exhibitors from several countries are on display at RSNA 2018. This year, China, France, Germany, Korea and Canada (Ontario) have dedicated pavilions to showcase technology and services from their countries.

Publisher's Row

Visit top medical publishers and the RSNA Publications booth to learn more about the RSNA journal-related products and services and meet the editors, located in the South Hall A.

Meet the Editors:

- Gary D. Luker, MD, Editor, *Radiology: Imaging Cancer*, Monday, 10 a.m.
- Charles E. Kahn, MD, Editor, *Radiology: Artificial Intelligence*, Monday, 2 p.m.
- Suhny Abbara, MD, Editor, *Radiology: Cardiothoracic Imaging*, Tuesday, 10 a.m.
- Jeffrey S. Klein, MD, Editor, *RadioGraphics*, Wednesday, 10 a.m.
- David A. Bluemke, MD, PhD, Editor, *Radiology*, Wednesday, 11 a.m.



Bistro RSNA

Technical Exhibits, North Hall B & South Hall A

With an extensive gourmet menu and ample seating, Bistro RSNA is a convenient option to sit down to a comfortable lunch and network with colleagues. For more information, visit bistroticket.com/rsna or stop by the Bistro Desk, Grand Concourse, Level 3.

Lunch

Sunday, Nov. 25, to Wednesday, Nov. 28, 11 a.m. to 2:30 p.m.

Brunch

Thursday, Nov. 29
10:30 a.m. to 1:30 p.m.

Technical Exhibit Hours

Halls A & B, South and North Buildings
Sunday–Wednesday 10:00 a.m.–5:00 p.m.
Thursday 10:00 a.m.–2:00 p.m.

Q & A: RSNA President Vijay M. Rao, MD

CONTINUED FROM PAGE 1A

we can truly become patient-centered and thrive as the value-based health care model evolves.

Dr. Rao has served on the RSNA Board of Directors since 2011. She is the David C. Levin Professor and Chair of Radiology at Sidney Kimmel Medical College of Thomas Jefferson University and senior vice president and chair of Enterprise Radiology and Imaging at Jefferson Health in Philadelphia.

Recognized as one of the leading experts on imaging of the head and neck, Dr. Rao has served as president of the American Society of Head and Neck Radiology, the Association of Program Directors in Radiology (APDR) and the American Association for Women Radiologists (AAWR). She serves as a trustee of the RSNA R&E Foundation and is also a member of the board of the Academy for Radiology & Biomedical Imaging Research and the Pennsylvania Radiologic Society.

Dr. Rao received the APDR Achievement Award and the Distinguished Radiologist Award from the American Association of Radiologists of Indian Origin. She was awarded gold medals by the Association of University Radiologists and the Asian Oceanic Society of Radiology. She received the AAWR Marie Curie Award. She has been presented honorary membership in the Israel Society of Radiology and the French Society of Radiology (SFR) and she was also awarded the SFR medal of honor.

Explore Thousands of Posters, Exhibits in the Learning Center

Located in Lakeside Center East, Level 3, the Learning Center houses thousands of education exhibits and scientific posters covering a range of subspecialties. Scientific posters will be displayed within each learning community. During the lunch hour, authors will be present for Poster Discussions. Visit Meeting Central for days/times.



Artificial Intelligence (AI) Community

The AI Community will feature demonstrations, proffered posters and exhibits highlighting the applications of machine learning and AI for medical imaging, including how these emerging tools and methodologies may improve diagnostic care.

Crowds Cure Cancer: Help Annotate Data from the Cancer Imaging Archive

Participate in this crowd-sourcing initiative to generate valuable data on deep learning, radiomics and radiogenomics and accelerate quantitative imaging research. Images are provided by the National Cancer Institute's Cancer Imaging Archive (TCIA). Because many cases lack the tumor-location labels that computer scientists need to jump-start their

research, participants will be asked to anonymously review cases and visually mark tumor locations. TCIA will share this data to accelerate cancer research. Attendees who complete the project will receive an RSNA ribbon. The Crowds Cure Cancer booth will be open all day throughout the week.

NCI Image Perception Lab

Researchers supported by the National Cancer Institute (NCI) will conduct studies on radiologic image perception at RSNA 2018. Attendees can learn about this important area of research, and if they wish, participate in the studies as volunteers.

Deep Learning Classroom

NVIDIA Deep Learning Institute presents a weeklong RSNA Deep Learning Classroom, to include nearly two-dozen 90-minute courses, including introductory courses and specialty topics. This is a hands-on opportunity for practicing radiologists to understand how AI is clinically relevant to radiology and for those with an understanding of the technology to discover deeper insights. Bring your laptop to work with machine learning tools, write algorithms and improve your understanding of this growing technology.

Ask the Expert: Media Production Tips and Tricks

Attendees looking for assistance with graphic arts for presentations or publications can visit the Learning Center and speak with a graphic media expert. An expert will be on hand to answer questions on topics such as preparing images for publication, working in a PowerPoint template and adding videos to a presentation.

CME Learning Checkpoint

This interactive activity will allow attendees to study award-winning hard-copy exhibits from RSNA 2017 and take the corresponding quiz on their mobile devices or laptops. Attendees receive 0.5 AMA PRA Category 1 Credit™ for each completed quiz.

Quality Improvement (QI) Reports Walk

Join experts in QI in radiology as they walk through the QI reports highlighting examples of great work and sound methodology. Wear your walking shoes and come prepared for an interactive session. Those interested in leading and publishing QI projects will find this especially valuable. The QI report walk will be held Monday, Nov. 26, at 3 p.m., in the Quality Improvement Reports section.

2018 Outstanding Educator, Researcher Honored Today

RSNA will honor David M. Yousem, MD, MBA, and Carolyn C. Meltzer, MD, during the RSNA 2018 Opening Session beginning at 8:30 a.m. in the Arie Crown Theater.

Outstanding Educator

World-renowned neuroradiologist, David M. Yousem, MD, MBA, is a respected educator, mentor, author and researcher whose visionary approach to teaching has led to a new generation of technology-driven education models.

Dr. Yousem is a professor and former director of neuroradiology at the Johns Hopkins Medical Institution, Baltimore, MD.

He also serves as vice chair of program development for the Russell H. Morgan Department of Radiology and Radiological Sciences and as associate dean of professional development at the Johns Hopkins University School of Medicine.

After earning his medical degree in 1983 at the University of Michigan, Dr. Yousem completed his residency and radiology fellowship at Johns Hopkins Hospital. He then completed a neuroradiology fellowship at the University of Pennsylvania, Philadelphia, where he began his career as an assistant professor of radiology under the tutelage of Robert I. Grossman, MD, director of neuroradiology. After reaching full professor of radiology at the University of Pennsylvania, he became the director of neuroradiology at the Johns Hopkins Hospital later that year.

Dr. Yousem earned his Business of Medicine MBA from the Johns Hopkins University in 2003, and was named associate dean



Yousem

of professional development in 2012.

An early adopter of the revolutionary audience response system (ARS), Dr. Yousem was the first course director of the popular case-based, interactive RSNA Neuroradiology Course in 2003. He also pioneered the ARS system at American Society of Neuroradiology (ASNR) meetings in 2007.

Using a 2008 RSNA Research & Education (R&E) Foundation Educational

Scholar Grant, Dr. Yousem developed an online Business of Radiology Lecture Series that is still widely used by radiology residency programs to fulfill ACGME requirements. He is the first author and editor along with Norman J. Beauchamp Jr., MD, of *Radiology Business Practice: How to Succeed*.

Dr. Yousem is the founder and editor of the popular *Case Review Series* and has authored or co-authored some of the most referenced textbooks in radiology, including *Neuroradiology: The Requisites*.

Among his many honors, Dr. Yousem has received the *Radiology* Editor's Recognition Award with Special Distinction and was awarded the gold medal from the Turkish Radiology Society and the Pernambuco Brazil Radiological Society. He was honored to hoist the national flag in Ahmedabad India on Republic Day 2017. He received the 2018 Exceptional Mentor Award from American Medical Women's Association.

Outstanding Researcher

An internationally recognized neuroradiologist and nuclear physician with a special interest in late-life neuropsychiatric disorders, Carolyn C. Meltzer, MD, has significantly influenced the field with her research work.

Dr. Meltzer is the William P. Timmie professor and chair of radiology and imaging sciences and associate dean for research at Emory University School of Medicine, Atlanta. She also serves as director of the Innovation Catalyst Program for the Georgia Clinical and Translational Science Alliance. She established the Emory Center for Systems Imaging to broadly support the advance of imaging capabilities in basic and translational research.

Having maintained 22 years of National Institutes of Health (NIH) funding as principal or co-investigator for research into the study and detection of aging-related brain conditions and diseases and the development and validation of imaging technology, Dr. Meltzer has published more than 200 papers.

Dr. Meltzer is an advocate for thoughtful professional development and has individually mentored more than 60 pre- and post-doctoral trainees and junior faculty. She is a highly sought-after national and international lecturer on brain disorders and clinical neuroscience as well as novel research program development and biomedical research advocacy.



Meltzer

After receiving her medical degree from The Johns Hopkins School of Medicine, Baltimore, MD, Dr. Meltzer completed her fellowship at The Johns Hopkins Hospital. She began her career at the University of Pittsburgh, PA, and was named medical director of the PET Facility in 1998 and chief of neuroradiology and vice chair of research in the Department of Radiology in 2002.

Dr. Meltzer is a former president of both the American Society of Neuroradiology and

the Academy for Radiology and Biomedical Imaging Research. She has served on the advisory council for the National Institute for Biomedical Imaging and Bioengineering, the American College of Radiology's board of chancellors and the executive committee of the International Society of Strategic Studies in Radiology.

At RSNA, Dr. Meltzer currently serves as third vice president and on the board of trustees for the RSNA Research & Education (R&E) Foundation. She is also a member of the R&E Foundation's Evaluation Committee and serves as a board liaison to the R&E Public Relations Committee. She is a former chair of the Quantitative Imaging Biomarkers Alliance (QIBA) Task Force and of the Research Development Committee.

Her numerous accolades include the Outstanding Contributions in Research Award from the American Society of Neuroradiology in 2016 and the 2018 gold medal from the Association of University Radiologists.

The RSNA 2018 Virtual Meeting

Experience Tomorrow's Radiology Today From Anywhere

- The RSNA 2018 Virtual Meeting allows attendees to access a wide array of educational programming, scientific presentations, educational exhibits, digital scientific posters and more both during and after the meeting.
- With more than 200 live-streamed and on-demand courses, you can maximize your meeting experience when and where you want on the device of your choice. RSNA 2018 registered attendees and medical professionals around the globe can participate in the Virtual Meeting.
- The Virtual Meeting is available 24 hours a day beginning at 8 a.m. Central Time (CT) on Saturday, Nov. 24, with sessions beginning that afternoon. Live programming will run simultaneous to the annual meeting. Access to Virtual Meeting programming will remain on demand through April 30, 2019, at 4 p.m. (CT).
- The RSNA 2018 Virtual Meeting offers CME credit for all live-viewed and Cases of the Day with a course evaluation for live sessions or submission of a correct diagnoses for Cases of the Day. Select on-demand sessions offer CME upon course evaluation.
- Engage with other professionals around the world by accessing the Virtual Community,

the live chat capability that allows you to discuss course content during live sessions at RSNA 2018.

- Flexible pricing allows you to attend the Virtual Meeting in conjunction with the Live Meeting or as a stand-alone option. Retired RSNA members receive free access to the Virtual Meeting.
- Visit RSNA.org/Virtual to learn more.



Sunday's Physics Tip

Protocol optimization should be based on image quality first. While low dose is very important, the image must have sufficient quality for confident diagnosis.

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RSNA South #3343B

- Korean Pavilion -

Presentation
AI 215-SD-TUB1/ Station #1
11/27/Tue 12:45 - 13:15

Presenters from Both Sides of the Atlantic Tackle Sports Imaging

By Richard Dargan

For the first time at the RSNA Annual Meeting, musculoskeletal (MSK) imaging experts from Europe and the U.S. will join to present a day-long symposium on sports imaging, a key component of the fast-growing realm of sports medicine. The symposium is sponsored by RSNA and the European Society of Radiology.

Imaging plays a vital role in assessing sports-related injuries and guiding treatment, including surgery. The practice has assumed a higher profile amid a surge in two broadly-defined categories of sports-related injuries: acute, traumatic injuries and chronic, overuse injuries. The spike is particularly noticeable among children and teens.

In response, moderators Laura Bancroft, MD, FACR, chief of musculoskeletal imaging at Florida Hospital in Orlando, and Andrew Grainger, MRCP, consultant musculoskeletal radiologist at Leeds Teaching Hospitals, U.K., have brought together experts from both sides of the Atlantic to share expertise on sports injuries.

Popular sports in Europe, like rugby and soccer, result in some different injury patterns than those stemming from U.S. sports like baseball and football. Just as the type of injury varies, so does the range of techniques in which specialists are experienced.

"In Europe, radiologists have a longer-standing expertise in musculoskeletal sonography, which is extremely useful in various clinical scenarios," said Dr. Bancroft, who is also a clinical professor of radiology at Florida State University College of Medicine. "U.S. radiologists



Bancroft



Grainger

tend to use relatively more MRI, which is complementary to sonography and is a great overall tool for evaluating musculoskeletal injuries. Newer, better and faster MRI sequences are constantly being developed to evaluate cartilage and joint pathology."

Symposium Covers Four Topics

The symposium is structured around four topic areas: Upper extremity sports injuries, lower extremity sports injuries, musculoskeletal (MSK) intervention procedures and postoperative imaging of sports injuries. Presentations will be given by parallel expert MSK radiologists from the U.S. and Europe.

Early sessions focus on upper extremity sports injuries, beginning with Lynne S. Steinbach, MD, professor emerita of clinical radiology and orthopedic surgery, University of California in San Francisco, who will present a session on shoulder injuries to the throwing athlete.

For the session on lower-extremity injuries, Theodore T. Miller, MD, professor of radiology at Weill Cornell Medicine of Cornell University in New York City, will discuss sports-related injuries of the knee and what orthopedic surgeons want to know from imaging reports.

"If an orthopedic surgeon is referring a patient for an MRI with suspected anterior cruciate ligament tear, interpreting radi-

ologists must recognize other potential associated injury patterns and specifically address them in their reports," Dr. Bancroft said.

In the afternoon, Philippe A. Peetrons, MD, head of medical imaging at Iris Sud Hospital in Brussels, Belgium, will discuss the benefits and pitfalls of diagnostic and therapeutic injections in athletes.

Dr. Bancroft will close with a discussion on postoperative shoulder MRI after instability surgery, while Claudia Weidekamm, MD, head of musculoskeletal radiology at the University Hospital of Vienna, will discuss ACL reconstruction and cartilage repair.

Each session will be followed by an interactive case discussion, with involvement of RSNA members throughout the world. "This course is designed for radiologists with different levels of expertise, from those who routinely read musculoskeletal images to trainees with developing experience," Dr. Bancroft said.

RSNA/ESR Sports Imaging Symposium

The RSNA/ESR Sports Imaging Symposium will be held Wednesday, Nov. 28, 8:30-5:00, Room: E352. An Interactive Case Discussion will follow each session.



Upper Extremity Sports Injuries (MSSR41)

Lynne S. Steinbach, MD
Christian W. Pfirrmann, MD, MBA

Lower Extremity Sports Injuries (MSSR42)

Theodore T. Miller, MD
Andrew J. Grainger, MRCP

Musculoskeletal Interventional Procedures (MSSR43)

Philippe A. Peetrons, MD
Jon A. Jacobson, MD

Postoperative Imaging of Sports Injuries (MSSR44)

Laura W. Bancroft, MD
Claudia Weidekamm, MD

Add these and all RSNA 2018 sessions to My Agenda at Meeting.RSNA.org.

Look for an article on, "Shoulder Injuries in the Throwing Athlete," in Thursday's *Daily Bulletin*.

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Radiologists Take Larger Role in Imaging Addiction

By Mike Bassett

While imaging has played a role in understanding the behaviors of addiction, it has mainly been performed by researchers in psychiatry and psychology who study addiction, according to researcher Jody L. Tanabe, MD. Yet, it is becoming increasingly important for radiologists to understand the science of imaging as it relates to studying addiction, said Dr. Tanabe, a professor in the departments of radiology and psychiatry at the University of Colorado School of Medicine in Denver. That is one of her goals in moderating a Special Interest Session at RSNA 2018, “Imaging Cognition 2018: Addiction,” which

will be co-moderated by David B. Hackney, MD, of Beth Israel Deaconess Medical Center and also assistant dean of faculty and professor of radiology at Harvard Medical School.

In the first of four presentations, Diana M. Martinez, MD, an associate professor of psychiatry at the Columbia University, will give a brief overview of the problem of addiction as understood today, and will follow that with a discussion about the role of PET as a tool in investigating addiction.

“Dr. Martinez is an expert on the role of dopamine receptor system in the brain

and how it contributes to drug use,” Dr. Tanabe said.

In addition to talking about the relationship between dopamine receptors and drug addiction, Dr. Martinez will also discuss the correlation between striatal dopamine signaling, drug-related behaviors and treatment response, the status of dopamine imaging across different drugs, and the theory behind addiction as a habitual behavior and its imaging correlates.

In another presentation, John D. Port, MD, PhD, a professor of radiology at the Mayo Clinic in Rochester, MN, will discuss the role of MR spectroscopy (MRS) findings in craving and alcohol.

He will review how the reward system homeostasis is disrupted in addiction using alcoholism as an example. Through a review of MRS studies of alcoholism, the session will explore the metabolic abnormalities in craving.

In her presentation, Dr. Tanabe will also discuss functional MRI and the role it plays in looking at craving and how craving promotes substance abuse disorder.

“Quite a bit is known about the reward system and how drugs usurp the reward system in the brain. There is similarity between the reward system and brain

circuitry of craving,” Dr. Tanabe said, adding that craving is a core aspect of substance abuse.

Dr. Tanabe’s talk will focus on how, in the future, imaging might even be used in the clinic to target areas for neuromodulatory treatment — such as deep brain stimulation or transcranial magnetic stimulation — “to treat or to alter the circuits and hopefully have an effect on addiction, and to do so by possibly reducing craving.”

Dr. Tanabe pointed to movement disorders such as Parkinson’s disease as an analogy to the potential role imaging can play when it comes to addiction. While radiologists play only a small role in the diagnosis of Par-



Tanabe

kinson’s disease, she noted that imaging is now a clinical standard used to treat a subset of those patients through methods such as deep brain stimulation.

“One take-away is that if we can map the circuit underlying motivated behaviors in addiction, then we are one step closer to modulating that maladaptive behavior,” Dr. Tanabe said.

“We know a lot about the molecular basis for substance abuse,” she added. “But I want the audience to get excited

about the fact that it is really important for radiologists to understand how we might possibly use imaging in the future to treat substance abuse.”

One take-away is that if we can map the circuit underlying motivated behaviors in addiction, then we are one step closer to modulating that maladaptive behavior.

Jody L. Tanabe, MD

Addiction Focus of RSNA Special Interest Session

The RSNA 2018 Special Interest Session, “Imaging Cognition 2018: Addiction,” will be held

MONDAY, NOV. 26TH 4:30-6 P.M. | SPS122 | E353C

Session Moderators: David B. Hackney, MD and Jody L. Tanabe, MD

- Addiction in America 2018
Diana M. Martinez, MD
- PET as a Tool in Investigating Addiction
Diana M. Martinez, MD
- fMRI in Addiction
Jody L. Tanabe, MD
- MRS in Craving with a Focus on Alcoholism
John D. Port, MD, PhD
- Panel Discussion
David B. Hackney, MD
Jody L. Tanabe, MD

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Physics Quiz

Answer

[Question on page 6A.]

A Spoiled gradient will generally show less artifact when imaging implants if rapid imaging is required (such as in the heart).

Plug Into RSNA Technology and Resources

From building your meeting schedule to charging your mobile device, RSNA offers the technology and onsite expertise to maximize your RSNA 2018 experience.

Online Resources



Meeting Central

Optimized for tablets and mobile devices, the Meeting Central site at Meeting.RSNA.org is an essential resource for navigating RSNA 2018. Explore a host of valuable information, including:

- **RSNA Meeting Program** — Browse the listings of educational courses, scientific presentations and more. Search for courses, sessions and events by keyword, title or name of presenter, using helpful filters by day, session type and sub-specialty.
- **Technical exhibitors list** — Learn about the companies unveiling the latest equipment and technology. Search the exhibitor listing by product category or name to add companies to your agenda. You can also schedule an appointment with select exhibitors noted with the Featured Exhibitor icon.
- **Virtual Meeting program** — Browse virtual sessions available live

or on demand either onsite or virtually from anywhere across the globe.

- **My Agenda** — Build your calendar and stay organized with a handy schedule personalized to your needs — and access Credit Eval. Please note courses are seated on a first-come, first-served basis and adding a session to My Agenda does not reserve a seat.

RSNA 2018 Meeting App

Download the RSNA 2018 Meeting App for iPhone, iPad and Android smartphones to access and explore the Meeting Program even when you are offline. Browse the technical exhibitor list, access maps to navigate McCormick Place and customize your daily meeting schedule with My Agenda.

Available via the App Store and Google Play, the RSNA 2018 Meeting App is sponsored by Google Cloud.



Digital Support

Visit the Digital Support team in the Connections Center, Lakeside Center East, to receive one-on-one digital help with Meeting Central,

Virtual Meeting, My Agenda, Credit Eval and Diagnosis Live or the RSNA 2018 Meeting App. RSNA staff will also assist with any mobile connectivity issues, along with iOS or Android questions.

Internet Stations

Computers will be available at Internet Stations throughout McCormick Place for use in accessing Meeting Central and Credit Eval.

Free Wifi

Free wireless connectivity is available throughout McCormick Place. Note: These wireless networks are not secure and should not be used for sending sensitive information.

Charging Stations

Charge your laptop, phone or other mobile device at one of the Charging Stations located throughout McCormick Place.



2018 RSNA Scientific Assembly and Annual Meeting Program Dedication

CONTINUED FROM PAGE 1A

Cornell Medical College in New York, where he taught until the time of his passing.

Dr. Margulis was a co-founder of the Society of Abdominal Radiology, the International Society of Magnetic Resonance in Medicine and the International Society for Strategic Studies in Radiology. He served as president of the Association of

University Radiologists, the Society of Chairmen of Academic Radiology Departments and the California Academy of Medicine.

Dr. Margulis presented the RSNA Annual Oration in Diagnostic Radiology in 1971 and was honored with an RSNA Gold Medal in 1983. He received the 1989 J. Allyn Taylor International Prize in Medicine. The

American College Radiology awarded him the 2013 Radiology Leadership Institute Leadership Luminary Award. In 2014, he was appointed to the rank of Chevalier of the French Legion of Honor by the President of France.

Dr. Margulis died Sept. 7, in New York.

New RSNA Diagnosis Live™ Sessions

RSNA's Diagnosis Live™ continues to transform radiology education — and the annual meeting experience — as we know it. Check out this year's roster of popular, expert-moderated Diagnosis Live™ sessions featuring a series of interactive case studies to challenge your diagnostic skills. Play along by studying images on your mobile device and selecting a response. Get immediate feedback, and see how you compare to your peers. iPads and Android tablets work best, but you can also use smartphones or laptops.

Session highlights include:

Sunday

- Imaging of Musculoskeletal Injuries (An Interactive Session) 2-3:30 p.m. | RC108 | E451B
- Interventional Course (Interactive Session) 2-3:30 p.m. | RC114 | S403A

Monday

- You Take the Red Pill — You Stay in Wonderland and I Show You How Deep the Rabbit Hole Goes (Case-based Competition) 7:15-8:15 a.m. | SPDL20 | E451B
- Resident Competition 2-3 p.m. | DT26 | Discovery Theater

- Chest and Abdomen (Case-Based Competition) 4:30-6 p.m. | SPDL21 | E451B

Tuesday

- The RAD Files: The Truth is Out There (Case-Based Competition) 7:15-8:15 a.m. | SPDL30 | Room: E451B

Wednesday

- Keeping Radiology Weird: Spot Diagnoses from the Pacific Northwest (Case-Based Competition) 7:15-8:15 a.m. | SPDL40 | E451B
- Neuro and MSK (Case-Based Competition) 4:30-6 p.m. | SPDL41 | E451B

Thursday

- Neuro Nightmares: Headscratchers from Overnight (Case-Based Competition) 7:15-8:15 a.m. | SPDL50 | E451B
- Peds, IR, Potpourri (Case-Based Competition) 3-4 p.m. | SPDL51 | E451B

Friday

- Pediatric Sonography (Interactive Session) 8:30-10 a.m. | RC813 | E353B



Continuing Education Credits Available

RSNA is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education (CME) for physicians.

RSNA designates this live activity for a maximum of 99.25 *AMA PRA Category 1 Credits*™. Physicians should claim only credit commensurate with the extent of their participation in the activity. Attendees can evaluate CME courses and claim credit electronically. As the meeting approaches, RSNA will send information on how to claim CME instantly from the courses attendees take.

The Commission on Accreditation of Medical Physics Education Programs (CAMPEP) has approved the direct transfer of *AMA PRA Category 1 Credits*™ to Medical Physics Education Programs (MPCEP) on a credit-for-credit basis for medical physicists. RSNA is an American Registry of Radiologic Technologists (ARRT)-approved Recognized Continuing Education Evaluation Mechanism Plus (RCEEM+) and will provide Category A+/A continuing education credits for radiologic technologists and radiologist assistants.

Credit Eval for Course Evaluations and CME Credits

Click My Agenda to access Credit Eval to evaluate RSNA 2018 courses and claim credits online via your laptop or mobile device, or at any Internet Station in McCormick Place.

You can begin your evaluations as early as 10 minutes after courses start, claim your credits onsite and leave the annual meeting with printed certificates. You will also receive a link via email to print your certificate at home and credits earned by RSNA members will be automatically added to the member's RSNA CME Repository. After the meeting, you may evaluate courses and claim credit through the evaluation deadline, which is one week after the end of RSNA 2018.

Assistance is available at the Digital Support desk in the Connections Center.

Self-Assessment Modules (SAMs)

This year, 34 courses offered by RSNA have been approved for Self-Assessment Modules (SAMs).

These RSNA courses have been qualified by the American Board of Radiology (ABR) in meeting the criteria for self-assessment toward the purpose of fulfilling requirements in the ABR Maintenance of Certification (MOC) program. Each RSNA in-person SAM is available for up to 1.50 SAM credits and 1.50 *AMA PRA Category 1 Credits*™.

Note: All courses designated for SAM credit at RSNA 2018 will require attendees to use their personal devices to complete the required test questions during the live session. To claim SAM credit, attendees must complete the required test questions during the live session and evaluate and claim CME for the SAM course. All SAM course credit from RSNA 2018 must be claimed before June 1, 2019.

For more information about SAMs, visit the Information Desk in the Learning Center or contact eval@rsna.org

Name Badge

Your badge contains beacon technology to verify your attendance, simplify the CME process and permit RSNA to gather aggregate data. RSNA will never share, rent or sell your personally identifiable information. Visit registration for assistance with your name badge.

No Photos, Recordings During Sessions

No photography or video recording is permitted in meeting rooms. Please silence your phones during sessions.

RSNA Photography

RSNA will be taking photographs and recording video throughout McCormick Place. By registering, you acknowledge the possibility of being photographed or filmed and give RSNA consent to use your image for promotional purposes. Email privacy@rsna.org with questions.

Country Presents Sessions Feature Australia, New Zealand and The Nordic Countries

By Mike Bassett

This year RSNA honors two multinational radiology associations with its “Country Presents” series: The Royal Australian and New Zealand College of Radiologists (RANZCR), and the Nordic Society of Medical Radiology, which comprises the societies of medical radiology in Denmark, Finland, Iceland, Norway and Sweden.

Australia and New Zealand Look at the Expanding Role of Interventional Radiology

The RSNA 2018 session, “Australia and New Zealand Present: Clinical Radiology and Radiation Oncology,” held on Monday, Nov. 26, will be highlighted by a discussion on the close relationship between radiation oncology and interventional oncology.

“The treatment of malignant disease has for many years been managed by a combination of surgery, chemotherapy and radiation oncology, but interventional oncology has rapidly expanded over the past few decades and many now consider this discipline to represent a ‘fourth pillar of oncology,’” said John Slavotinek, MBBS, Dean, Faculty of Clinical Radiology, RANZCR.

“Interventional oncology uses image guidance to deliver appropriate and minimally invasive therapies to oncology patients and with radiation oncology, shares imaging guidance as an integral part of patient treatment,” he said, adding that since radiology and radiation oncology also represent sister disciplines, “close integra-

tion and collaboration between the two are important.”

The presentation, “Radiation Oncology and Interventional Oncology: A Marriage Made in Heaven,” will be given by Lizbeth Kenny, MD, senior radiation oncologist at the Royal Brisbane and Women’s Hospital, Queensland, Australia.

Another presentation will look specifically at interventional radiology in Australia and New Zealand.

The regulatory and health care environments in Australia and New Zealand have facilitated the conduct of leading-edge research in the area of interventional radiology, Dr. Slavotinek said. This presentation, “A Journey in Vascular Interventional Research: Lessons Learnt and Future Prospects,” will highlight the contributions made by the two countries to the development of interventional radiology, particularly as they relate to “first in man” trials.

Other presentations will include discussions on the role of iron in neurodegeneration, and education, training and reform initiatives in Australia and New Zealand radiology.

The Nordic Countries Focus on Education and Training

The RSNA 2018 session “The Nordic Countries Present: Radiology the Scandinavian Way, Future Potentials,” held on Tuesday, Nov. 27, will focus on how current and future radiologists are being educated and trained.

According to Birthe H. Bech, MD, president of the Nordic Society of Medical Radiology, a radiologist shortage in the Nordic countries (which mirrors shortages elsewhere in Europe) has led to an increased focus on the importance of educating and training. For example, Dr. Bech said, “we are introducing simulation training here and we think it will give us a great opportunity to educate more radiologists.”

One of the presentations, “Education of Future Radiologists with Simulation-Based Training: Is This the Way to Go?” will look at the present status of simulation training in ultrasound and how a simulation-based curriculum could be structured and implemented.

In another presentation, “Healthcare and Radiology in the Nordic Countries,”

Marianna Gardarsdottir, MD, will provide a broad look at medical education, training and healthcare in the Nordic Countries, while in the presentation, “Future Challenges in Nordic Education in Emergency Radiology,” Seppo K. Koskinen, MD, PhD, will focus more specifically on the status of and future challenges related to emergency radiology training.

Ilse Vejborg, MD, will speak on, “Mammography Screening in Denmark: Implementation of a Population Based Service Cancer Screening Program, Quality Assurance, Results, and Future Potentials.”

“This will have a particular focus on quality assurance, which is very important in mammography screening,” said Dr. Bech, who will wrap up “The Nordic Countries Present” session with a look at next year’s Nordic Congress in Radiology, which will be held May 22–24, 2019, in Copenhagen.



AUSTRALIA AND NEW ZEALAND PRESENT

Monday, November 26
10:30 AM–12:00 PM | Room E351

AUSTRALIA AND NEW ZEALAND PRESENT: CLINICAL RADIOLOGY AND RADIATION ONCOLOGY
Don't miss this opportunity to learn about the latest radiology products and innovation from Down Under!

PLUS:

SPECIAL RECOGNITION FOR AUSTRALIAN AND NEW ZEALAND ATTENDEES!
Receive a special ribbon for your badge at this session with closing remarks by RSNA President Vijay M. Rao, MD.

RADIOLOGY INNOVATION IN AUSTRALIA AND NEW ZEALAND
Be sure to visit companies from Australia and New Zealand exhibiting throughout the North and South Halls. It's a great opportunity to learn about radiology practices and advances from these countries!



THE NORDIC COUNTRIES PRESENT

Tuesday, November 27
10:30 AM–12:00 PM | Room E353C

RADIOLOGY THE SCANDINAVIAN WAY, FUTURE POTENTIALS
Come to discover innovations in radiology from Denmark, Finland, Iceland, Norway and Sweden.

DON'T FORGET:

SPECIAL RECOGNITION FOR ATTENDEES FROM THE NORDIC COUNTRIES!
Receive a special ribbon for your badge at this session with closing remarks by RSNA President Vijay M. Rao, MD.

LEARN EVEN MORE ABOUT RADIOLOGY IN THE NORDIC COUNTRIES
Visit the Nordic Society of Medical Radiology at Booth #1012 as well as many exhibiting companies from this region, all located throughout the North and South Halls.



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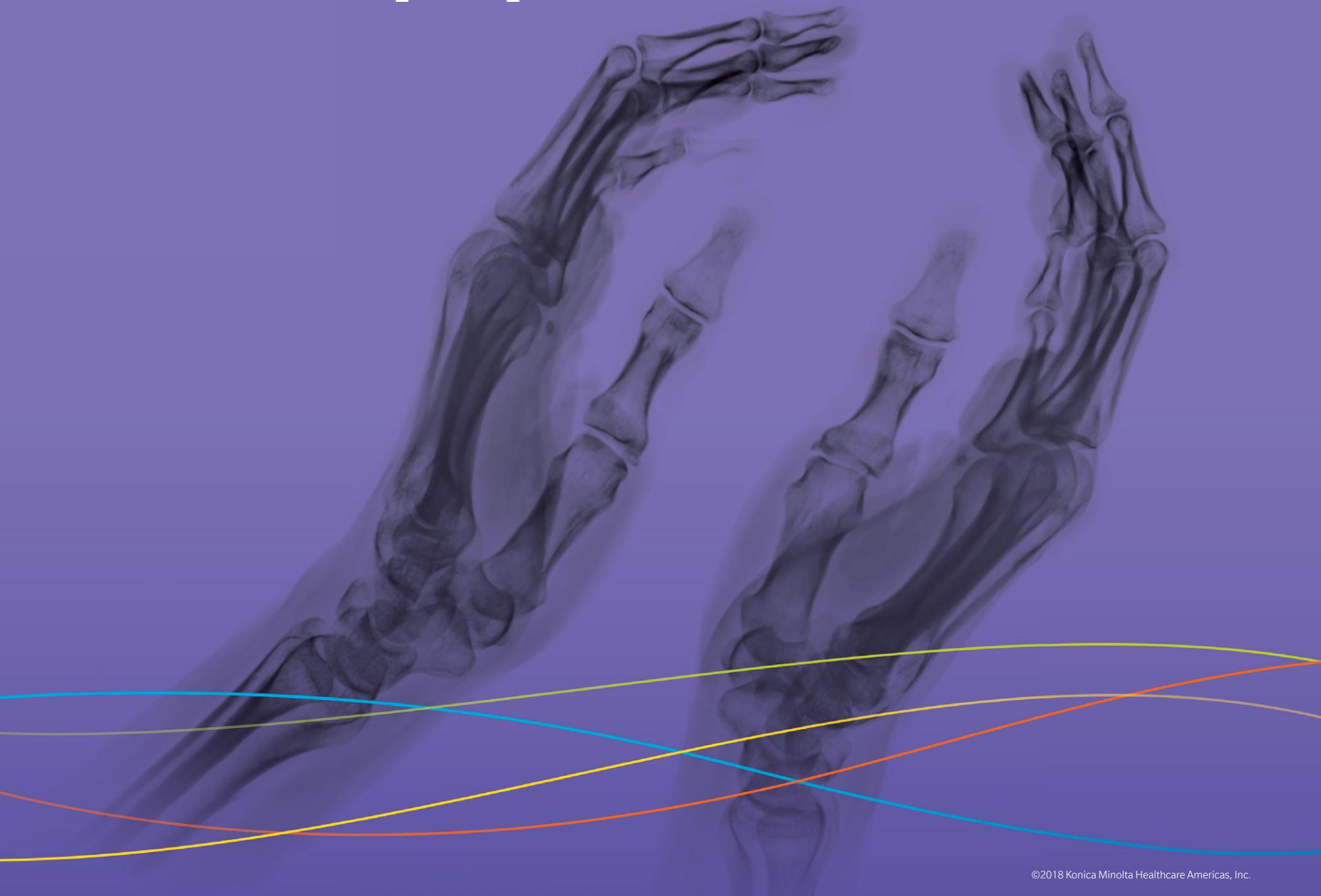
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Booth #2529



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Cause for applause



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