

**RSNA® 2019**  
DECEMBER 1-6

# Associated Sciences

**RADIOLOGICAL SOCIETY  
OF NORTH AMERICA**  
105<sup>TH</sup> Scientific Assembly  
and Annual Meeting

*Meeting.RSNA.org*  
#RSNA19

Sponsoring Organizations

- AHRA: The Association for Medical Imaging Management
- American Institute of Architects–Academy of Architecture for Health (AIA-AAH)
- American Society of Radiologic Technologists (ASRT)
- Association of Educators in Imaging and Radiologic Sciences, Inc. (AEIRS)
- Association of Vascular and Interventional Radiographers (AVIR)
- Canadian Association of Medical Radiation Technologists (CAMRT)
- The College of Radiographers (CoR)
- International Society of Radiographers and Radiological Technologists (ISRRT)
- Radiology Business Management Association (RBMA)
- SMRT – Society for MR Radiographers & Technologists
- Society of Nuclear Medicine and Molecular Imaging - Technologist Section (SNMMI-TS)

Associated Sciences Consortium Chairs

- Patricia A. Miller, MD . . . . . 2017-Present
- Denise D. Collins, MD . . . . . 2014-2016
- Joy J. Renner, MA, RT(R) . . . . . 2010-2013
- Edward I. Bluth, MD . . . . . 2007-2009
- Jordan B. Renner, MD . . . . . 2004-2006
- Paul A. Larson, MD . . . . . 2001-2003
- Samuel L. Hissong, MD . . . . . 1998-2000
- Claire E. Bender, MD . . . . . 1995-1997
- Richard S. Colvin, MD . . . . . 1992-1994
- Arvin E. Robinson, MD . . . . . 1988-1991
- Thomas T. Thompson, MD . . . . . 1984-1987

Associated Sciences Consortium Coordinators

- Steven P. DeColle (CAMRT) . . . . . 2016-Present
- Susan Crowley,  
BAppSC(MI), MRT(R), MA Ed (CAMRT) . . . . . 2012-2015
- Morris A. Stein (AIA-AAH). . . . . 2009-2011
- Barbara A. Whitefield (ASRT) . . . . . 2006-2008
- Chet Szerlag (SROA) . . . . . 2003-2005
- JoAnn Belanger (ARIN, formerly ARNA) . . . . . 1999-2002
- Eugene D. Frank (AEIRS, formerly AERS) . . . . . 1996-1998
- Sue Weiss (SNMMI-TS) . . . . . 1993-1995
- Arlene McKenna Adler (AEIRS, formerly AERS) . . . 1990-1992
- Christopher E. Pickwick (AHRA) . . . . . 1987-1989
- Kathryn D. Canny (RBMA) . . . . . 1984-1986
- Marilyn Fay (ASRT) . . . . . 1982-1983
- James B. Conway (AHRA). . . . . 1980-1981



## AHRA: The Association for Medical Imaging Management

490-B Boston Post Road, Suite 200  
Sudbury, MA 01776  
1-800-334-AHRA (2472)  
1-978-443-7591  
1-978-443-8046 fax  
[www.ahra.org](http://www.ahra.org)



AHRA: The Association for Medical Imaging Management is the professional organization representing management at all levels of hospital imaging departments, freestanding imaging centers and group practices. Founded in 1973, AHRA's 5,000+ members reach across the country and around the world. AHRA offers a complete slate of professional development programs including a comprehensive selection of educational conferences and seminars, networking opportunities, award-winning publications and the Certified Radiology Administrator (CRA) credential.

Driven by members' needs, AHRA is dedicated to delivering products and services that enable medical imaging professionals to accomplish goals in areas such as leadership development, financial outcomes, quality of patient care and clinical outcomes, and workplace and patient safety. Members are provided dozens of ways to earn CE credit on topics as diverse as human resources, budgeting, and technology through multiple platforms including the AHRA Online Institute, AHRA's peer-reviewed *Radiology Management* journal, and the AHRA Annual Meeting.  
[www.ahra.org/annualmeeting](http://www.ahra.org/annualmeeting)

AHRA is a resource and catalyst for the development of professional leadership in medical imaging management.

## American Institute of Architects–Academy of Architecture for Health

1735 New York Ave  
NW Washington, DC 20006-5292  
1-202-626-7366  
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The American Institute of Architects–Academy of Architecture for Health (AIA-AAH) strives to improve the quality of the design, function and construction of healthcare facilities. The academy works toward these goals through the education of architects and clients, response to regulatory issues, production of technical information, and promotion of the value of architectural services and design excellence to the healthcare industry.

## American Society of Radiologic Technologists

15000 Central Ave SE  
Albuquerque, NM 87123-3909  
1-505-298-4500  
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[www.asrt.org](http://www.asrt.org)  
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The mission of the American Society of Radiologic Technologists (ASRT) is to advance and elevate the medical imaging and radiation therapy profession and to enhance the quality and safety of patient care. ASRT is the world's largest radiologic science organization and provides its members with the resources and tools they need to deliver excellent patient care.

ASRT monitors legislation and regulations that affect the profession; develops educational curricula; and promotes, establishes and defends professional and practice standards for medical imaging and radiation therapy professionals.

In addition, the association produces, reviews and tracks continuing education activities for radiologic technologists. It publishes two peer-reviewed journals, *Radiologic Technology* and *Radiation Therapist*, and a member newsmagazine, *ASRT Scanner*. It also offers three continuing education conferences each year: the Educational Symposium, which takes place ahead of the ASRT Annual Governance and House of Delegates Meeting; the Radiation Therapy Conference, held in conjunction with the annual meeting of the American Society for Radiation Oncology; and the ASRT@RSNA meeting, which is coordinated with the Radiological Society of North America meeting. ASRT offers more than 400 online educational courses that cover each discipline in medical imaging and radiation therapy, patient care and radiation safety principles.

ASRT is governed by an eight-member Board of Directors and a House of Delegates, and it has affiliate relationships with 54 state or local societies. State and local affiliate societies operate independently of the national organization, but ASRT provides them with assistance and guidance.



## Association of Educators in Imaging and Radiologic Sciences, Inc.

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Kingwood, TX 77339-4473  
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AEIRS' vision is to be the premier organization that fosters growth and advancement of educators to improve medical imaging and radiologic sciences education.

The mission of AEIRS is to strive to achieve excellence in all aspects of education leadership by facilitating the exchange of scholarly ideas, recognizing and sharing expertise, and encouraging research through educational conferences, publications, and collaborative networks.

Members receive the *Spectrum* newsletter twice a year, the *Radiologic Science & Education* journal which is a referred scholarly journal published three times a year. Members have opportunities to apply to be a primary speaker or poster presenter at a national annual meeting, access to past publications, and online educator resources.

Founded in 1967, AEIRS is incorporated and governed by an elected board of directors.

## Association of Vascular and Interventional Radiographers

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Toano, VA 23168  
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[www.avir.org](http://www.avir.org)  
[info@avir.org](mailto:info@avir.org)



The Association of Vascular and Interventional Radiographers (AVIR) is a national organization of radiologic technologists, nurses and allied healthcare professionals. AVIR's mission is to advance the professional education of its members and promote their profession throughout the medical community. AVIR offers extensive membership benefits and educational opportunities.

The AVIR annual meeting provides continuing education to member and nonmember attendees. Additional credits are offered only to members through the Directed Reading program.

The AVIR website, [www.avir.org](http://www.avir.org), provides a career center and forum for the exchange of ideas. The quarterly *Interventional Informer* newsletter keeps members up to date on AVIR programs and industry issues.

To provide venues for earning CE credits closer to home, AVIR has more than 20 local chapters across the U.S. that hold meetings and seminars.

Through various liaisons, AVIR participates in the advancement of industry standards and legislation, including the Consumer Assurance of Radiologic Excellence (CARE) bill. Active memberships are available to vascular or interventional radiographers who reside in the U.S. or Canada. Active members must be ARRT®-registered or the Canadian equivalent. Radiographers who reside outside of the U.S. or Canada can become international members. Associate memberships are available to nurses and corporate representatives, and student memberships are available. AVIR is on Facebook. The link to join is [www.facebook.com/groups/AVIR1](http://www.facebook.com/groups/AVIR1).

## Canadian Association of Medical Radiation Technologists

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The Canadian Association of Medical Radiation Technologists (CAMRT) is the national professional association and certifying body for radiological, nuclear medicine and magnetic resonance imaging technologists and radiation therapists. CAMRT provides leadership on standards for entry-level education and offers a suite of programs and services that advance the profession and the health of Canadians. These include certification, continuing professional development opportunities, publication of a journal, strengthening professional practice, best practice guidelines, as well as advocacy to promote the effective contribution of MRTs in Canadian health system discussions and decisions. Founded in 1942, the CAMRT today represents over 12,000 members. For further information, please visit the CAMRT website at [www.camrt.ca](http://www.camrt.ca).

## The College of Radiographers

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London SE1 2EW United Kingdom  
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[www.sor.org](http://www.sor.org)



The College of Radiographers (CoR) is the educational subsidiary of the Society of Radiographers, the professional association for all members of the radiography workforce in

the UK. Founded in 1920, the Society of Radiographers has developed an international reputation for the progressive professionalism within clinical imaging and radiation therapy. The Society of Radiographers and the College of Radiographers are two separate companies operating together to provide service and support for those involved in radiography. They comprise the professional body and trade association for radiographers and associated professionals and practitioners.

CoR collaborates closely with radiology and medical physics partners in promoting and developing the highest standards of imaging and radiation therapy practice and has close links with other health care professionals and with radiography bodies worldwide.

CoR promotes and supports professional development for all members, encourages the development and publication of research work in radiography, and is the primary contact for government health departments in the UK for policy and professional practice guidance. Their publications include the international peer-reviewed journal *Radiography*, the monthly professional practice and CPD resource *Imaging and Therapy Practice*, the monthly news magazine *Synergy News*, and *Imaging and Oncology*, an annual collection of leading-edge articles.

Each member is provided with an e-portfolio, CPD NOW, to enable them to meet and manage their continuing professional development (CPD) requirements. They offer a broad range of continuing education resources, including seminars and conferences, e-learning programs, and professional guidance publications.

## International Society of Radiographers and Radiological Technologists

207 Providence Square, Mill Street  
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**ISRRT**  
INTERNATIONAL  
SOCIETY OF  
RADIOGRAPHERS  
& RADIOLOGICAL  
TECHNOLOGISTS

The International Society of Radiographers and Radiological Technologists (ISRRT) is an organization comprising national radiographic societies from more than 80 countries representing more than 400,000 radiographers and radiologic technologists. ISRRT was formed in 1962 to act as a link between radiographers and radiologic technologists throughout the world.

The society is dedicated to improving the standards of practice in radiation medicine technology. It is a non-political, not-for-profit organization, and is not a trade union. It is a

registered charitable body set up to support the development of radiation medicine technology worldwide.

ISRRT is recognized as the international representative of radiation medicine technology and is proud to be a nongovernmental organization (NGO) in Official Relations with the World Health Organization (WHO). Through this official relationship as an NGO with WHO, ISRRT also has association with the United Nations and works with other international organizations such as the International Society of Radiology (ISR) and the European Society of Radiology (ESR), and has official observer status with the International Atomic Energy Authority (IAEA). The society is divided into three regions: The Americas, Europe/Africa, and Asia/Australia. The society encourages the exchange of information and assists developing countries in forming their own professional societies. It hosts a world congress every 2 years.

ISRRT is administered by a board of management, which is elected by individual council members representing their national societies.

## Radiology Business Management Association

9990 Fairfax Boulevard, Suite 430  
Fairfax, VA 22030  
1-888-224-7262  
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The Radiology Business Management Association (RBMA) is the ultimate resource for radiology business management professionals—providing unparalleled access to specialized data and late-breaking legislative changes. A professional community connecting radiology business professionals nationwide, RBMA offers access to specific industry education through face-to-face meetings, online courses, and webinars. RBMA keeps members on top of federal regulations and breaking legislative news through *The Washington Insider* and timely eAlerts. The bimonthly *RBMA Bulletin* provides pertinent industry articles on leadership, financial management, governance, human resources, information management, operations, quality, compliance and risk management, and marketing and business development. In addition, members can quickly and easily find immediate actionable feedback and solutions by connecting with colleagues through online forums.

In 2020, RBMA will host a joint seminar with the ACR again—the ACR-RBMA Practice Leaders Forum will be held Jan. 17-19, 2020, at the Hilton La Jolla Torrey Pines in La Jolla, CA.; PaRADigm 2020 will be held April 5-8, 2020, at The Diplomat Beach Resort in Hollywood, FL.; and SPARK, RBMA's marketing seminar, will be held June 7-10, 2020, at The Brown Hotel in Louisville, KY. Check our website for current programming.

## SMRT – Society for MR Radiographers & Technologists

2300 Clayton Road, Suite 620  
Concord, CA 94520  
1-925-825-SMRT (7678)  
1-510-841-2340 fax  
[www.smrt.org](http://www.smrt.org)



The Society for MR Radiographers & Technologists (SMRT), a section of the International Society for Magnetic Resonance in Medicine (ISMRM) was established in 1991. The Society for MR Radiographers & Technologists (SMRT) strives to be the leading resource for the global MR radiographer and technologist community by providing education, professional advice, and support for magnetic resonance (MR) technologists and radiographers globally. The mission of the SMRT is to advance global education in the field of magnetic resonance. As an organization, we are committed to promoting communication and the dissemination of cutting-edge MR developments.

### Membership Benefits Include:

**Unlimited Learning:** Earn as many CE credits as you want per year through our Home Studies courses

**Credit Tracking:** We track and transfer your SMRT credits to the AART

**Discounted Registration Rates:** Save on annual meetings, regional meetings and ISMRM workshops

**Networking Opportunities:** Interact with the global MR Community through SMRT Chapters and/or ISMRM Study Groups and Chapters

**Career Support:** Get and keep the job you want

**Financial Support:** Become eligible for scholarships and grants

**Access to Industry News:** Stay current with the leading industry MR journals: *Journal of Magnetic Resonance Imaging (JMRI)* and *Magnetic Resonance in Medicine (MRM)*

**Discounts on Purchases:** Receive automatic membership in the Member Affinity Discount Program for savings on goods and services

The SMRT is recognized by the American Registry of Radiologic Technologists (ARRT) as a Recognized Continuing Education Evaluation Mechanism (RCEEM), and acts as an accrediting body. Many SMRT educational programs are recognized as Continuing Professional Development (CPD) activities for the Australian Institute of Radiography (AIR), the New Zealand Institute of Medical Radiation Technology (NZIMRT), and the UK College of Radiographers (CPD Now). From entry-level students to all MR technologists/radiographers currently working in the field of MR, the SMRT is an invaluable resource for all MR professionals. As a member of the SMRT, you will have the opportunity to contribute to the challenging field of one of the most operator-dependent imaging modalities used in medicine today. Members join together to voice their opinions in matters that are important to the MR profession. Please visit the SMRT website for additional membership info at [www.smrt.org](http://www.smrt.org).

## Society of Nuclear Medicine and Molecular Imaging - Technologists Section

1850 Samuel Morse Dr.  
Reston, VA 20190-5316  
1-703-708-9000  
1-703-708-9015 fax  
[www.snmmti.org](http://www.snmmti.org)



Established in the 1970s, the Society of Nuclear Medicine and Molecular Imaging - Technologists Section (SNMMI-TS) is designed to meet the needs of the nuclear medicine and molecular imaging technologist. The SNMMI-TS is constantly striving to make a difference in the way technologists and related professionals receive academic and continuing education as well as information concerning new procedures, technologies, and equipment. Research has been a vital part of SNMMI-TS activities for many years, as has monitoring federal regulations and influencing decisions that affect the practice of nuclear medicine.

In addition to providing discussion forums and publishing newsletters, books and the *Journal of Nuclear Medicine Technology (JNMT)*, a quarterly, peer-reviewed journal, SNMMI-TS also sponsors international meetings and workshops designed to increase the competencies of nuclear medicine practitioners and to promote new scientific advances. The activities of the SNMMI-TS National Council of Representatives, volunteer committee members, and staff focus on improving the quality of care for the patients served by technologists around the world.



## PROGRAMS

AMA PRA Category 1 Credits™: 1.25

ARRT Category A+ Credit: 1.50

### Monday, Dec. 2, 2019

#### SPPH21

##### 1:30—2:45 PM

###### Basic Physics Lecture for the RT: Radiation Safety Refresher Course

Scott J. Emerson, MS, *Moderator*

Rebecca M. Marsh, PhD

## REFRESHER COURSES

AMA PRA Category 1 Credits™: 1.50

ARRT Category A+ Credit: 1.75

### Monday, Dec. 2, 2019

#### MSAS21

##### 8:30—10:00 AM

###### Globally Competent Professionals in the Workforce

Dmitris Katsifarakis, MSc, *Moderator*

Sharon Wartenbee, RT, *Moderator*

###### A: Global Competencies for a Global Workforce

Robert Walker, PhD

###### B: Impact of Global Health

Casey Neville, RT

#### MSAS22

##### 10:30 AM—12:00 PM

###### Changing and Developing Roles to Streamline Care:

###### Creating an Effective Team (Interactive Session)

Charlotte Beardmore, MBA, *Moderator*

Catherine Gunn, BSc, MBA, RT, *Moderator*

###### A: Radiologist Assistant: The Bridge in Radiology

Thomas W. Carrington, BS, RRA

###### B: Journeys of a Reporting Radiographer: Teamwork to Achieve Excellent Patient Care

Tracy O'Regan, BSc, MSc

#### MSAS23

##### 1:30—3:00 PM

###### Providing Radiology Services for Global Health (Interactive Session)

Craig St George, ARRT, RT, *Moderator*

###### A: Army Radiology: 20+ Years of Peacekeeping and Wartime Radiology

John J. Beall III, FAHRA

###### B: Bringing Radiology to the Underserved: Medical Imaging in Global Health

Melissa Culp, MEd

#### MSAS24

##### 3:30—5:00 PM

###### You Get What You Measure: Fixing How We Assess Radiologist Productivity (Interactive Session)

Patricia Kroken, *Moderator*

Corbin Wilson

Kurt A. Schoppe, MD

### Tuesday, Dec. 3, 2019

#### MSAS31

##### 8:30—10:00 AM

###### Regulatory and Compliance Standards in Radiology (Interactive Session)

Nancy McDonald, MS, *Moderator*

Anzi Zhao, MS

#### MSAS32

##### 10:30 AM—12:00 PM

###### Emerging Imaging Trends (Interactive Session)

Kristen Welch, RT, *Moderator*

Joseph Joslin, *Moderator*

###### A: Advanced Combination Imaging Procedures

Osmanuddin Ahmed, MD

###### B: Integrated 3D Imaging: The Future of Cardiac Imaging

Joseph Vettukattil, MD, MBBS

###### C: Neuroimaging in the Era of AI: Past, Present, and Future

Narayan Viswanadhan, MD



**MSAS33****1:30–3:00 PM****The Importance of the Patient Voice in Informing 'Patient-centered' Service Development (Interactive Session)**Charlotte Beardmore, MBA, *Moderator*Catherine Gunn, MBA, RT, *Moderator***A: Guiding Principles for Patient, Public, and Practitioner Partnerships within Radiography**

Leslie Robinson, PhD

**B: Engaging Patients to Inform Service Development**

Julie Schmittiel, BS, RN

**MSAS34****3:30–5:00 PM****Reality Check: The Continuing Collision of Health, Technology, and Design (Interactive Session)**Morris A. Stein, BArch, *Moderator*

William A. Undie, PhD, RT

Morris A. Stein, BArch

Carlos L. Amato

**Disclosure Statements**

Osmanuddin Ahmed, MD

Speaker, C.R. Bard Inc

Speaker, Cardiva Medical

Speaker, Penumbra Inc

Advisory Board, AbbVie Inc

Advisory Board, BTG International Ltd

Joseph Scott Joslin, BS, RT(R)(MR)

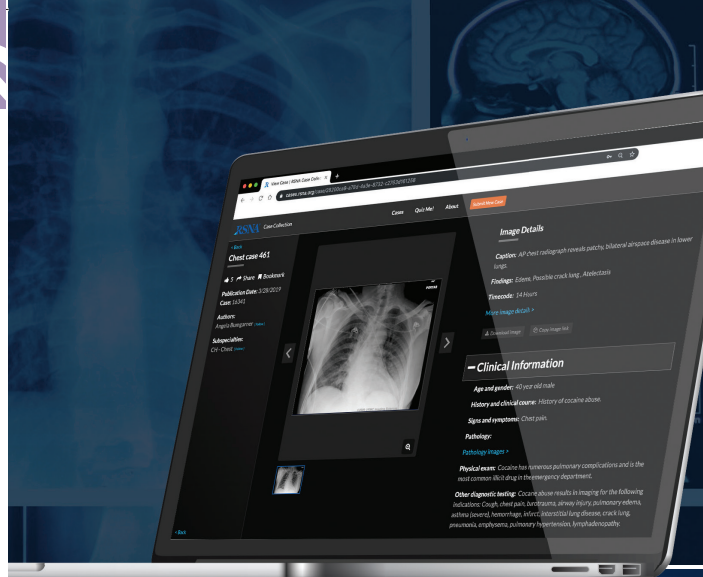
MRI Product Sales Executive, Siemens Healthineers

Joseph Vettukattil, MD, MBBS

Proctor/Patent Holder, Occlutech AFR Device

Kristen Welch, RT

Employee, Siemens Healthineers

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# The Driving Force Behind AI. **And the Leading Place to Learn it All.**

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## Visit the AI Showcase

**AI is here.** RSNA 2019 is your chance to experience it all. From the exciting hands-on learning experiences to the latest AI imaging products and solutions from over 100 companies—you simply can't miss this opportunity to see all AI, all in one place. Whether it's visiting the RSNA AI Deep Learning Lab or engaging in captivating RSNA AI Theater Presentations and hands-on workshops—visit the AI Showcase in the North Building, Level 2 to find out what AI means for you from the experts leading the conversation—RSNA.

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