### Wednesday, March 25
**Convention**

#### Day at a Glance

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#aium15

87
7:00 AM–8:00 AM

Just Images and Comprehensive Refresher Sessions

**Invasive Fetal Therapy: Current State of the Art**

Earn up to 1 AMA PRA Category 1 Credit™ (accepted by the ARDMS) or ARRT Category A Credit.

**Southern Hemisphere I**

Moderator: Timothy Crombleholme, MD

On completion of this session, participants will understand which fetal conditions are amenable to invasive therapy.

- **7:00 AM–7:15 AM**
  - Status of Fetal Cardiac Intervention
    - Wayne Tworetzky, MD

- **7:15 AM–7:30 AM**
  - Future of Prenatal Myelomeningocele Repair
    - Jose Peiro, MD

- **7:30 AM–7:45 AM**
  - Tracheal Balloon Occlusion for High-Risk Congenital Diaphragmatic Hernia
    - Anthony Johnson, DO

- **7:45 AM–8:00 AM**
  - Adjunctive Medical Treatment of Twin-Twin Transfusion Syndrome
    - Timothy Crombleholme, MD

**Just Images—Gynecology: Unknown Cases**

Earn up to 1 AMA PRA Category 1 Credit™ (accepted by the ARDMS) or ARRT Category A Credit.

**Southern Hemisphere I**

Moderator: Jodi Lerner, MD

This session will show unique unknown gynecologic cases.

- **7:00 AM–7:30 AM**
  - Case Presentation
    - Ramon Bataglia Araujo, MD

- **7:30 AM–8:00 AM**
  - Case Presentation
    - Margarita Revzin, MD, MS

\[\textbf{Problem-Oriented Symptom-Based Diagnostics in Pediatrics: The Role of Ultrasound}\]

Earn up to 1 AMA PRA Category 1 Credit™ (accepted by the ARDMS) or ARRT Category A Credit.

**Northern Hemisphere E 1-2**

Moderator: Harris L. Cohen, MD

The objective of this session is to review methods and thoughts in imaging for various pediatric symptoms, including vomiting, pelvic pain in adolescents, and abdominal pain in a child.

- **7:00 AM–7:20 AM**
  - Vomiting in the Neonate
    - Michael Riccabona, MD

- **7:20 AM–7:40 AM**
  - Upper Abdominal Pain in the Child
    - Harriet Patloul, MD

- **7:40 AM–8:00 AM**
  - Right Lower Quadrant/Pelvic Pain in the Adolescent
    - Sarah O’Hara, MD

**Rheumatologic Applications of Ultrasound: Rheumatoid Arthritis From A to Z**

Earn up to 1 AMA PRA Category 1 Credit™ (accepted by the ARDMS) or ARRT Category A Credit.

**Northern Hemisphere E 3-4**

 Moderator: Joseph Craig, MB, ChB

On completion of this session, participants will know when and how to use musculoskeletal ultrasound for rheumatologic disease such as rheumatoid arthritis.

- **7:00 AM–7:30 AM**
  - Clinical Considerations in Rheumatoid Arthritis
    - Minna Kohler, MD

- **7:30 AM–8:00 AM**
  - Ultrasound Techniques and Interventions in Rheumatoid Arthritis
    - Courtney Scher, DO

**7:30 AM–11:00 AM**

AIUM Committee Meeting

Board of Governors Meeting

Europe 8
Special Interest Sessions

Acute Care in Gynecology
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Northern Hemisphere D-E
Moderator: Rochelle Andreo, MD

This session will cover the following topics: (1) classifying common ovarian cysts you might see in the emergency room; (2) diagnosis and treatment of pelvic inflammatory disease and pelvic abscesses; and (3) ovarian and adnexal mass torsion.

8:15 AM–8:55 AM
Classifying Common Ovarian Cysts You Might See in the Emergency Room
Jodi Lerner, MD

8:55 AM–9:35 AM
Evaluation and Management of Pelvic Inflammatory Disease: The Role of Imaging
Rochelle Andreo, MD

9:35 AM–10:15 AM
Adnexal Torsion
William (Buzz) Brown III, MD

Basic Science and Preclinical Applications of Ultrasound Contrast
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Southern Hemisphere IV
Moderator: Andrej Lyshchik, MD

This session will cover the following areas: (1) molecular imaging with contrast-enhanced ultrasound (CEUS); (2) ultrasound acoustic angiography; (3) sonothrombolysis with microbubbles; (4) subharmonic CEUS; and (5) therapeutic applications of CEUS.

8:15 AM–8:45 AM
Ultrasound Acoustic Angiography
Paul Dayton, PhD

8:45 AM–9:10 AM
Sonothrombolysis
Christy Holland, PhD

9:10 AM–9:45 AM
Subharmonic Contrast-Enhanced Ultrasound
John Eisenbrey, PhD

9:45 AM–10:15 AM
Therapeutic Applications of Contrast-Enhanced Ultrasound
Charles Caskey, PhD

Hands-on Ultrasound in Pediatric Diagnosis and Therapy
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Atlantic Hall A: First Level
Moderator: Patrick Warren, MD

The objective of this session is to teach learners how to perform ultrasound-guided biopsy, joint injections, cyst aspiration, abscess drainage, and foreign body removal.

Hands-on Faculty: Michael Di Pietro, MD, Humberto Rosas, MD, Patrick Warren, MD

Noninvasive Prenatal Testing: What It Can and Cannot Do
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Northern Hemisphere C
Moderator: Mark Evans, MD

This session will cover current molecular technology and methods for noninvasive prenatal testing (NIPT), address the benefits and limitations of NIPT, and outline appropriate indications for the utility of NIPT in accordance with professional organizational guidelines.

8:15 AM–8:55 AM
What Noninvasive Prenatal Screening Can Do
Mathias Ehrich, MD

8:55 AM–9:35 AM
The Role of Biochemistry and Nuchal Translucency
David Krantz, MA

9:35 AM–10:15 AM
What Noninvasive Prenatal Screening Cannot Do
Mark Evans, MD

Pediatric Applications of High-Frequency Ultrasound
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Northern Hemisphere E 3-4
Moderator: Ronald Silverman, PhD

Learn about high-resolution imaging of neonates.

8:15 AM–9:55 AM
Pediatric Applications of High-Frequency Ultrasound
Roxana Ursea, MD

9:55 AM–10:00 AM
Pediatric Applications of High-Frequency Ultrasound
Daniel King-Wai Low, MD

10:00 AM–10:15 AM
Questions and Answers

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Renal Artery and Mesenteric Doppler Ultrasound

Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Southern Hemisphere II
Moderator: Margarita Revzin, MD, MS

The objectives of this session are to describe the Doppler examination technique, describe the diagnostic criteria for renovascular hypertension and chronic mesenteric ischemia and their mimics, discuss when to intervene and how, and finally describe the role of ultrasound after intervention.

8:15 AM–8:50 AM
Renal Vascular Hypertension
Stephanie Coquia, MD

8:50 AM–9:25 AM
Revascularization for Renovascular Hypertension
Murray Shames, MD

9:25 AM–9:55 AM
Mesenteric Ischemia
Margarita Revzin, MD, MS

9:55 AM–10:15 AM
Panel Discussion

Ultrasound in Undergraduate Medical Education: The Next Frontier

Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Southern Hemisphere V
Moderator: David Bahner, MD, RDMS

By the end of this session, participants will be able to (1) envision how the technological breakthrough of miniaturization and image quality has had and will have an effect on ultrasound practice in modern medicine; (2) understand the impact of this tool in helping the future clinician have the ability to use ultrasound to diagnose and treat common clinical problems (yet what is the quality of the education?); (3) describe areas in the medical education curriculum where ultrasound can be synchronized with existing goals and objectives in the preclinical and clinical experiences, specifically, anatomy, physiology, pathology, clinical rotations, procedural skills, and cadaveric simulations; (4) distinguish the essential elements in creating a hands-on experience with near-peers, peer-to-peer, faculty-to-peer, and other hands-on interactions for teaching ultrasound; (5) examine the impact ultrasound can have in austere environments across the world as well as the first world due to more research and interest in this topic area; (6) examine how interest groups at medical schools can be focal points to research and collaboration; and (7) determine the role of the medical student in this process of ultrasound.

8:15 AM–8:40 AM
Envision How the Technological Breakthrough of Miniaturization and Image Quality Has Had and Will Have on Ultrasound Practice in Modern Medicine
Barry Knapp, MD, RDMS

8:40 AM–9:00 AM
Medical Education Curriculum Where Ultrasound Can Be Synchronized With Existing Goals and Objectives in Preclinical and Clinical Experiences
Richard Hoppmann, MD

9:00 AM–9:25 AM
Distinguishing the Essential Elements in Creating a Hands-on Experience With Near-Peer, Peer-to-Peer, Faculty-to-Peer, and other Hands on Interactions for Teaching Ultrasound
J. Christian Fox, MD, RDMS

9:25 AM–9:50 AM
Examine the Impact Ultrasound Can Have in Austere Environments Across the World as Well as the First World Due to More Research and Interest in This Topic Area
Luca Neeri, MD

9:50 AM–10:15 AM
Examine How Interest Groups at Medical Schools Can Be Focal Points for Research and Collaboration: What Is the Role of the Medical Student in This Ultrasound Process?
Jennifer Cotton

9:50 AM–10:15 AM
Examine How Interest Groups at Medical Schools Can Be Focal Points to Research and Collaboration: What Is the Role of the Medical Student in This Ultrasound Process?
Chanel Fishetti
Ultrasound of the Breast: Screening, BI-RADS, and Challenging Cases
Earn up to 2 AMA PRA Category 1 Credit™ (accepted by the ARDMS) or ARRT Category A Credit.
Northern Hemisphere E 1-2
Moderator: Susan Ackerman, MD

The session is designed to discuss the following areas: screening breast ultrasound: what you need to know; multimodality approach to problem solving for lesions; american College of Radiology Breast Imaging Reporting and Data System (BI-RADS) for breast ultrasound; and challenging breast ultrasound cases (audience participation).

8:15 AM–8:40 AM
Screening Breast Ultrasound: What You Need to Know
Stamatia Destounis, MD

8:40 AM–9:05 AM
Multimodality Approach to Problem-Solving Lesions
Madelene Lewis, MD

9:05 AM–9:30 AM
American College of Radiology Breast Imaging Reporting and Data System for Breast Ultrasound
Susan Ackerman, MD

9:30 AM–10:15 AM
Challenging Breast Cases (Audience Response)
Abid Irshad, MBBS

10:15 AM–10:45 AM
Refreshment Break in the Exhibit hall
Atlantic Hall B/C • First Level

10:45 AM–12:00 PM
Film Panel Session

Obstetric Film Panel: Interesting Prenatal Cases With Neonatal Follow-up
Earn up to 1.25 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Northern Hemisphere C
Moderator: Janice Byrne, MD

The objectives of this session are to: (1) evaluate new and challenging obstetric cases in ultrasound; (2) receive audience responses for diagnosis; (3) discuss differential diagnosis and management of challenging cases; and (4) describe the use of magnetic resonance imaging as an adjunct to ultrasound in managing difficult fetal cases.

Panelists: Timothy Canavan, MD, MSc , Joan Mastrobattista, MD, Mary O’Day, MD, Isabelle Wilkins, MD

10:45 AM–12:00 PM
Just Images Session

Elastography: Breast Images
Earn up to 1.25 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.
Northern Hemisphere E 3-4
Moderator: Richard Barr, MD, PhD

The learner will see a variety of cases showing both compression strain and shear wave elastography and how the use of elastography is contributing to the overall interpretation.

10:45 AM–11:10 AM
Case Presentation
Richard Barr, MD, PhD

11:10 AM–11:35 AM
Case Presentation
Kazutaka Nakashima, MD, PhD

11:35 AM–12:00 PM
Case Presentation
Yi-Hong Chou, MD
Basic Science and Instrumentation: Tissue Characterization
Earn up to 1.25 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Southern Hemisphere IV
Moderators: Peter Lewin, PhD, Andrzej Nowicki, PhD

10:45 AM–10:55 AM
2089818 Characterization of Solid Tumor Microstructure Using High-Frequency Quantitative Ultrasound
Aiguo Han,* William O'Brien Jr

10:55 AM–11:05 AM
2086603 Fast and Slow Wave Detection in Cancellous Bone In Vitro Using Band-Limited Deconvolution and Prony's Method
Keith Wear,* Yosshiki Nagatani, Katsunori Mrzuno, Mami Matsukawa

11:05 AM–11:15 AM
2084792 Investigation of the Effects of Myocardial Anisotropy for Shear Wave Elastography Using Acoustic Radiation Force and Harmonic Vibration
Matthew Urban,* Bo Qiang, Ivan Nenadic, Shigao Chen, James Greenleaf

11:15 AM–11:25 AM
2083648 Robust and Ultrafast Detection of Shear Wave Motion Using Coded Excitation
Pengfei Song,* Matthew Urban, Armando Manuca, James Greenleaf, Shigao Chen

11:25 AM–11:35 AM
2089030 Do Ultrasound Scanners Adequately Present the "Image Contrast Frequency" to the User?
Thaddeus Wilson,* James Zagzebski, Harris L. Cohen

11:35 AM–11:45 AM
2088809 Clinical Validation of the Statistical Analysis of Radiofrequency Ultrasound Signals in Differentiation of Breast Lesions
Andrzej Nowicki,* Katarzyna Dobruch-Sobczak, Hanna Plotrzowska-Wroblewska, Jerzy Liniewski, Barbara Gamblin, Katarzyna Roszkowska, Eryk Chrapowicki

Contrast-Enhanced Ultrasound: Part 2
Earn up to 1.25 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Southern Hemisphere V
Moderators: David Cosgrove, MA, MSc, FRCP, FRCR, Paul Dayton, PhD

10:45 AM–11:00 AM
Anchor Speaker: David Cosgrove, MA, MSc, FRCP, FRCR

11:00 AM–11:07 AM
2083783 The Two Faces of Noninvasive Diagnosis of Liver Disease Severity: Correlation Between Liver Stiffness and Hepatic Mean Arrival Times
Teresa Abbattista,* Francesco Ridolfi

11:07 AM–11:14 AM
2090095 Differential Diagnosis Between Benign and Malignant Gallbladder Diseases With Contrast-Enhanced Ultrasound
Liping Liu,* Yulang Zhao, Yang Zhang, Jingjing Liu

11:14 AM–11:21 AM
2090059 Subharmonic and Endoscopic Contrast Imaging of Pancreatic Masses
Flemming Forsberg,* Maria Stanczak, David Loren, Traci Fox, Thomas Kowalski, All Siddiqui, Cynthia Miller, Ji-Bin Liu, John Eisenbery

11:21 AM–11:28 AM
2091090 Study on Intrahepatic Hemodynamic Changes Before and After Surgery by Contrast-Enhanced Ultrasound in Patients With Portal Hypertension
Shaoshan Tang

11:28 AM–11:35 AM
2085396 Contrast-Enhanced Ultrasound as a Biopsy Guidance Tool for Small Liver Tumors
Dirk Becker,* Axel Wahlender, Andreas Pohlmann

11:35 AM–11:42 AM
2084977 Positron Emission Tomographically/Computed Tomographically Guided Contrast-Enhanced Ultrasound of Colorectal Metastasis and Subsequent Fusion-Guided Microwave Ablation
Michael McNeill

11:42 AM–11:49 AM
2077383 Focal Solitary Necrotic Nodule of Fatty Liver: Characterization Using Conventional and Contrast-Enhanced Ultrasoundography
Li-Ping Liu,* Xiao-Ling Yu, Ping Liang, Zhan-Bo Wang, Xin Li
11:49 AM–11:56 AM
2090697 Contrast-Enhanced Sonography in Patients With Indeterminate Positron Emission Tomographic Findings
Orlando Catalano,* Vittoria Nunziata, Sergio Setola, Fabio Sandomenico, Antonella Petrillo

12:00 PM–1:00 PM
Lunch in the Exhibit Hall
Atlantic Hall B/C • First Level

1:00 PM–3:00 PM
Special Interest Sessions

ALARA (as Low as Reasonably Achievable): Do I Meet the Standards?
Earn up to 2 AMA PRA Category 1 CreditsTM (accepted by the ARDMS) or ARRT Category A Credits.
Southern Hemisphere I
Moderator: Jacques Abramowicz, MD
The objectives of this session are to: (1) define risks of ultrasound; (2) explain how power is altered by various settings on the ultrasound scan; and (3) educate on how to keep ultrasound safe.

1:00 PM–1:25 PM
The Physics
J. Brian Fowlkes, PhD

1:25 PM–1:50 PM
The Visible Effects of Ultrasound
Gail ter Haar, MA, DSc, MSc, PhD

1:50 PM–2:15 PM
The International Guidelines
David Evans, PhD, DSc

2:15 PM–2:40 PM
The Clinical View
Jacques Abramowicz, MD

2:40 PM–3:00 PM
Questions and Answers

Fetal Ultrasound and Magnetic Resonance Imaging: Collision Course or Superhighway?
Earn up to 2 AMA PRA Category 1 CreditsTM (accepted by the ARDMS) or ARRT Category A Credits.
Northern Hemisphere C
Moderators: Christopher Cassady, MD, FRANZCR, Wesley Lee, MD
The objectives of this session are to: (1) evaluate challenging obstetric cases in which magnetic resonance imaging (MRI) and prenatal ultrasound are used in case diagnoses; (2) discuss a stepwise approach in evaluation of challenging fetal cases; (3) discuss imaging clues and pitfalls in common fetal abnormalities and when to refer a patient for fetal MRI; and (4) describe pros and cons of the use of MRI as an adjunct to ultrasound in managing difficult fetal cases.

1:00 PM–1:30 PM
Brain Abnormalities
Beth Kline-Fath, MD

1:30 PM–2:00 PM
Fetal Magnetic Resonance Imaging: Beyond SNC
Herman Muñoz, MD

2:00 PM–2:30 PM
Accreta, Neck, and Congenital Diaphragmatic Hernia
Christopher Cassady, MD, FRANZCR, Wesley Lee, MD

2:30 PM–3:00 PM
Fetal Abdomen/Pelvis
Diane Twickler, MD

Musculoskeletal Ultrasound: Transition From Adult to Pediatrics
Earn up to 2 AMA PRA Category 1 CreditsTM (accepted by the ARDMS) or ARRT Category A Credits.
Southern Hemisphere II
Moderator: Michael Di Pietro, MD
The objective of this session is to teach adult musculoskeletal techniques that can be applied in children to identify anatomy and pathology.

1:00 PM–1:10 PM
“Adult Musculoskeletal Ultrasound” in a Pediatric World
Michael Di Pietro, MD

1:10 PM–2:00 PM
Elbow and Ankle: Reflecting on Anatomy and Function
J. Antonio Bouffard, MD

2:00 PM–2:50 PM
Sports-Related Pediatric Extremity Pathology
Andrew Zbojniewicz, MD

2:50 PM–3:00 PM
Questions and Answers
Transcranial and Duplex Doppler Interpretation and Operating Room Applications
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Moderator: Michele H. Johnson, MD

After this session, participants will be able to describe and discuss the indications for and interpretation of carotid and transcranial Doppler ultrasound studies.

Panelists: John Biebea, MD, MBA, Joshua Cruz, RDMS, RVT, Michele H. Johnson, MD, Salvatore LaRusso, Med, RDMS, RT(R), Leslie Scoult, MD

Ultrasound Evaluation of Vascular Emergencies
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Moderator: Srikar Adhikari, MD, MS

This session will review the role of ultrasound evaluation in a variety of vascular emergencies.

1:00 PM–1:35 PM
Sonographic Findings of Vascular Emergencies
John Pellerito, MD

1:35 PM–2:10 PM
Point-of-Care Vascular Ultrasound in Emergency and Critical Care
Michael Blaivas, MD

2:10 PM–2:45 PM
Vascular Scanning Techniques: Pearls and Pitfalls
M. Robert De Jong, RDMS, RDMS, RVT

2:45 PM–3:00 PM
Panel Discussion

Ultrasound of the Gallbladder and Biliary Tract
Earn up to 2 AMA PRA Category 1 Credits™ (accepted by the ARDMS) or ARRT Category A Credits.

Southern Hemisphere IV
Moderator: Shweta Bhatt, MD

This session will cover the following topics: basic gallbladder imaging; advanced gallbladder imaging; and benign and malignant diseases of the bile ducts.

1:00 PM–1:35 PM
Basic Gallbladder Imaging
Sanjiv Bajaj, MD

1:35 PM–2:10 PM
Advanced Gallbladder Imaging
Kathryn Robinson, MD

2:10 PM–2:45 PM
Benign and Malignant Diseases of the Bile Ducts
Shweta Bhatt, MD

2:45 PM–3:00 PM
Questions and Answers