



**JOIN US IN  
LAS VEGAS**  
OR VIA WEBCAST

36<sup>th</sup> Annual

# Magnetic Resonance Imaging 2019:

## National Symposium

**SAM Sessions are Available at this Meeting**

**APRIL 23 - 27, 2019**

Wynn® Las Vegas  
Las Vegas, Nevada

27.0 AMA PRA Category 1 Credit(s)<sup>TM</sup>

**INCLUDING 3 MAJOR SYMPOSIA**

- **MRI of the Head & Spine** • April 23-25, 2019  
12.25 AMA PRA Category 1 Credit(s)<sup>TM</sup>
- **Musculoskeletal MRI** • April 24-26, 2019  
12.5 AMA PRA Category 1 Credit(s)<sup>TM</sup>
- **MRI of the Body & Heart** • April 26-27, 2019  
6.75 AMA PRA Category 1 Credit(s)<sup>TM</sup>

**ESI** Educational  
Symposia



## ABOUT THE MEETING

This symposium offers a practical teaching course for those who order, perform or interpret magnetic resonance imaging studies. The program is organized in such a way to allow registrants to attend all or just a portion of the meeting. Three focused segments provide a comprehensive yet practical review and update on the clinical applications of MRI. The meeting begins by focusing on the head and spine, moves into the musculoskeletal system and concludes with cardiovascular and body applications. New this year is a focused session on Artificial Intelligence and Cultural Change in Diagnostic Imaging. This special session is designed to help you improve your practice and the overall patient experience.

## TARGET AUDIENCE

This CME activity is designed to educate diagnostic imaging physicians who supervise and interpret MRI/MRA studies. It should also be useful for referring physicians who order these studies so that they might gain a greater appreciation of the strengths and limitations of clinically relevant MRI exams. Technologists performing these types of imaging exams should also gain benefit from this symposium.

## SCIENTIFIC SPONSOR

Educational Symposia

## ACCREDITATION

**Physicians:** Educational Symposia is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Educational Symposia designates this live activity for a maximum of 27.0 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Technologists:** This program has been submitted to the ASRT. The number of A CE credits will be available approximately 30 days prior to the meeting. Please visit [www.edusymp.com](http://www.edusymp.com) or call (813) 806-1000 regarding the availability of Category A CE credit.

**Self-Assessment Modules (SAMs):** Educational Symposia has been granted Deemed Status by the American Board of Radiology (ABR). This allows Educational Symposia to develop and implement SAMs that satisfy ABR Part II MOC requirements.

## EDUCATIONAL OBJECTIVES

Attendees should, at the completion of this course, be able to:

- Discuss the expanding role of MRI in medical imaging.
- Implement state-of-the-art MRI protocols.
- Utilize MRI to evaluate neurological, musculoskeletal, body and breast pathology.
- Optimize MRI protocols and techniques.

*No special educational preparation is required for this CME activity.*

## COURSE ORGANIZATION

This program is planned and organized by Educational Symposia, a leader in continuing medical education since 1975.

## ACKNOWLEDGEMENT

Educational Symposia appreciates our corporate supporters and exhibitors. A list of industry supporters will be provided and acknowledged at the meeting.

## CANCELLATIONS

Cancellations must be received in writing. A \$50 processing fee will be applied to all cancellations. Refunds requested in writing prior to March 22, 2019 will be issued for the amount of tuition paid less the \$50 processing fee. No refunds will be made on or after that date.

## REGISTRATION INFORMATION

**Tuition for live conference** includes all course materials, an electronic color course syllabus (printed color syllabus available for \$95, advanced purchase only), daily continental breakfasts and coffee breaks. Early registration is strongly suggested. There will be a \$100 surcharge for anyone registering after **April 12, 2019**. Minimum and maximum attendance levels have been established for this meeting. If your registration cannot be accepted, you will be issued a full tuition refund.

**Tuition for live webcast** includes participation for one registrant. Each registrant must sign-in on a separate computer to receive credit. Prior to the meeting we will send you further information about the log in process. We will also send you an electronic color course syllabus via email. If you have any questions or problems logging into the meeting we will have support personnel available at (800) 338-5901. There will be a \$100 surcharge for anyone registering after **April 12, 2019**.

**Please note:** A minimum number of registrants is required to live webcast this course. If the minimum number is not met by **March 22, 2019** the live webcast activity may be cancelled and a full refund issued.

## WEBCAST REQUIREMENTS

Visit the Help Center at [www.edusymp.com/site/help](http://www.edusymp.com/site/help) to review the computer and internet requirements for viewing live webcast meetings.

## 4 EASY WAYS TO REGISTER

We Accept



**INTERNET**  
[www.edusymp.com](http://www.edusymp.com)

**MAIL** Check payable to:  
Educational Symposia  
5620 West Sligh Avenue  
Tampa, Florida 33634-4490

**FAX**  
(813) 806-1001

**PHONE**  
(813) 806-1000

Reduce your mail clutter or just add email announcements. Please visit the "Mailing List" section of our website at [www.edusymp.com](http://www.edusymp.com).

**Disclaimer:** Educational Symposia (ESI) as planner and presenter of this meeting, and Professional Travel as the official travel agency for this meeting, claim no liability for the acts of any suppliers or the safety of any attendees while in transit to, from, or during this event or any optional activities. The total amount of liability, if any, for the meeting organizers is limited to a refund of the registration fee, and Professional Travel's responsibility is limited to that of an agent.



**Special Note for the Disabled:** Educational Symposia wishes to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently from other individuals because of the absence of auxiliary aids and services. If you need any auxiliary aids or services identified in the Americans with Disabilities Act, please contact our office at (813) 806-1000.

# FACULTY

## Program Co-Directors:

Scott D. Flamm, M.D., M.B.A.

John D. Reeder, M.D., FACR

Lawrence N. Tanenbaum, M.D., FACR

---

### John V. Crues, III, M.D.

*Medical and MRI Fellowship Director  
RadNet, Inc.*

*Board, Nulogix  
Los Angeles, CA*

### Scott D. Flamm, M.D., M.B.A.

*Professor of Radiology  
Cleveland Clinic Lerner College of Medicine of Case*

*Western Reserve University  
Head, Cardiovascular Imaging  
Imaging, and Heart & Vascular Institutes Cleveland Clinic  
Cleveland, OH*

### Wende N. Gibbs, M.D., M.A.

*Assistant Professor, Neuroradiology  
Director of Spine Imaging and Intervention  
University of Southern California, Keck School of Medicine  
Los Angeles, CA*

### John L. Go, M.D., FACR

*Director of Head and Neck Imaging  
Keck School of Medicine  
University of Southern California  
Los Angeles, CA*

### Charles P. Ho, M.D., Ph.D.

*Professor of Radiology  
University of Colorado School of Medicine  
Denver, CO  
Director of Imaging Research  
Steadman Philippon Research Institute  
Vail, CO*

### Debra M. Ikeda, M.D.

*Director, Breast Imaging Section  
Professor of Radiology  
Department of Radiology  
Stanford University School of Medicine  
Palo Alto, CA*

### Blake A. Johnson, M.D., FACR

*Medical Director  
Center for Diagnostic Imaging  
Minneapolis, MN*

### Courtney C. Moreno, M.D.

*Associate Professor of Radiology  
Emory University School of Medicine  
Atlanta, GA*

### William B. Morrison, M.D.

*Consultant for Philadelphia Eagles, Phillies,  
Flyers and Sixers  
Professor of Radiology  
Director, Musculoskeletal Radiology Division Department  
of Radiology  
Thomas Jefferson University  
Philadelphia, PA*

### Lawrence R. Muroff, M.D., FACR

*CEO & President  
Imaging Consultants, Inc.  
Tampa, FL  
Clinical Professor of Radiology  
University of Florida and University of South Florida  
Colleges of Medicine  
Tampa, FL*

### John D. Reeder, M.D., FACR

*Director of Imaging  
Proscan Imaging Maryland  
Columbia, MD*

### Jeffrey S. Ross, M.D.

*Consultant, Mayo Clinic Arizona  
Neuroradiology Division  
Department of Radiology  
Professor of Radiology, Mayo Clinic College of Medicine  
Editor-in-Chief, American Journal of Neuroradiology  
Phoenix, AZ*

### Lawrence N. Tanenbaum, M.D., FACR

*Vice President and Medical Director East Region  
Director of CT, MR and Advanced Imaging  
RadNet, Inc.  
New York, NY*

# PROGRAM

## TUESDAY, APRIL 23, 2019

### 12:00 – 1:00 PM Registration, Including MRI of the Head and Spine

**Moderator: Lawrence N. Tanenbaum, M.D., FACR**

1:00 – 1:40 MR Contrast Agents  
Safety Update  
*Lawrence N. Tanenbaum, M.D., FACR*

1:40 – 2:15 MR Imaging of Hydrocephalus  
*Wende N. Gibbs, M.D., M.A.*

2:15 – 2:45 Intracranial Metastatic Disease  
*Blake A. Johnson, M.D., FACR*

2:45 – 3:00 Question and Answer Session  
*Faculty*

**3:00 – 3:15 Coffee Break for Registrants**

3:15 – 3:55 Patient Centric MR Imaging  
*Lawrence N. Tanenbaum, M.D., FACR*

3:55 – 4:25 Imaging in Headache  
*Jeffrey S. Ross, M.D.*

4:25 – 5:00 MR of Intracranial Hemorrhage  
*Blake A. Johnson, M.D., FACR*

5:00 – 5:15 Question and Answer Session  
*Faculty*

**5:15 End of Session**

## WEDNESDAY, APRIL 24, 2019

**7:30 – 8:00 AM Continental Breakfast for Registrants**

8:00 – 8:40 Temporal Bone Anatomy  
*John L. Go, M.D., FACR*

8:40 – 9:15 Imaging Evaluations of CNS Infections  
*Blake A. Johnson, M.D., FACR*

9:15 – 9:50 Tumors of the Temporal Bone  
*John L. Go, M.D., FACR*

9:50 – 10:00 Question and Answer Session  
*Faculty*

**10:00 – 10:15 Coffee Break for Registrants**

10:15 – 10:40 White Matter Diseases  
*Jeffrey S. Ross, M.D.*

10:40 – 11:15 Imaging of Neurodegenerative Disorders  
*Wende N. Gibbs, M.D., M.A.*

11:15 – 11:45 Diagnostic Pitfalls in Neuroimaging  
*Blake A. Johnson, M.D., FACR*

11:45 – 12:00 PM Question and Answer Session  
*Faculty*

**12:00 – 1:00 Lunch On Your Own**

## WEDNESDAY, APRIL 24, 2019 (Continued)

### 12:00 – 1:00 Registration for Musculoskeletal MRI

1:00 – 1:35 Cervical Vertebral Junction: The Basics and Congenital Anomalies  
*Jeffrey S. Ross, M.D.*

### SAM Session

1:35 – 2:10 Back Pain Imaging and Intervention  
*Wende N. Gibbs, M.D., M.A.*

2:10 – 2:45 Vascular Spine Disease  
*Jeffrey S. Ross, M.D.*

2:45 – 3:20 Inflammatory/Demyelinating Process of the Spinal Cord  
*John L. Go, M.D., FACR*

3:20 – 3:30 Question and Answer Session  
*Faculty*

**3:30 End of Session**

## THURSDAY, APRIL 25, 2019

**7:30 – 8:00 AM Continental Breakfast for Registrants**

8:00 – 8:35 Spine Trauma  
*Wende N. Gibbs, M.D., M.A.*

8:35 – 9:10 Spine Nomenclature for the Degenerative Spine  
*John L. Go, M.D., FACR*

9:10 – 9:45 MRI of the Cervical Spine - MSK Perspective  
*William B. Morrison, M.D.*

9:45 – 10:00 Question and Answer Session  
*Faculty*

**10:00 – 10:15 Coffee Break for Registrants**

### 10:00 MRI of Head & Spine - End of Session

### Non Accredited Session

10:15 – 11:00 Artificial Intelligence in Healthcare  
*Lawrence N. Tanenbaum, M.D., FACR*

11:00 – 11:45 Culture Change a Necessity for Survival  
*Lawrence R. Muroff, M.D., FACR*

11:45 – 12:15 PM Technology Updates from the Vendors  
*Vendors*

**12:15 – 1:30 Lunch On Your Own**

**Moderator: John D. Reeder, M.D., FACR**

1:30 – 2:00 Update on MRI of the Knee  
*John V. Crues, III, M.D.*

2:00 – 2:30 MRI of Knee Cartilage and Marrow  
*William B. Morrison, M.D.*

THURSDAY, APRIL 25, 2019 (Continued)

2:30 – 3:00	MRI of the Knee: Pitfalls <i>John D. Reeder, M.D., FACR</i>
3:00 – 3:15	Question and Answer Session <i>Faculty</i>
<b>3:15 – 3:30</b>	<b>Coffee Break for Registrants</b>
3:30 – 4:00	Imaging of Shoulder Instability <i>William B. Morrison, M.D.</i>
4:00 – 4:30	Sports Injuries of the Shoulder <i>John D. Reeder, M.D., FACR</i>
4:30 – 5:00	The Impact of MRI in Understanding Pathophysiology and Treatment of Musculoskeletal Diseases <i>John V. Crues, III, M.D.</i>
5:00 – 5:15	Question and Answer Session <i>Faculty</i>
<b>5:15</b>	<b>End of Session</b>

FRIDAY, APRIL 26, 2019

<b>7:30 – 8:00 AM</b>	<b>Continental Breakfast for Registrants</b>
8:00 – 8:30	Approach to MRI of the Hip <i>William B. Morrison, M.D.</i>
8:30 – 9:00	Experiences/Update in Sports MRI of the Hip <i>Charles P. Ho, M.D., Ph.D.</i>
9:00 – 9:30	Sports Injuries of the Wrist <i>John D. Reeder, M.D., FACR</i>
9:30 – 10:00	Experiences/Update in Sports MRI of the Ankle and Foot <i>Charles P. Ho, M.D., Ph.D.</i>
10:00 – 10:15	Question and Answer Session <i>Faculty</i>
<b>10:15 – 10:30</b>	<b>Coffee Break for Registrants</b>
10:30 – 11:00	Experiences/Update in Sports MRI of the Elbow <i>Charles P. Ho, M.D., Ph.D.</i>
11:00 – 11:30	Musculoskeletal Tumors: Imaging Pitfalls <i>John D. Reeder, M.D., FACR</i>
11:30 – 12:00 PM	MRI in Rheumatological Disorders <i>John V. Crues, III, M.D.</i>
12:00 – 12:30	Quantitative MRI of Tissue Health <i>Charles P. Ho, M.D., Ph.D.</i>
12:30 – 12:45	Question and Answer Session <i>Faculty</i>

<b>12:45</b>	<b>Musculoskeletal MRI - End of Session</b>
--------------	---

<b>12:45 – 1:45</b>	<b>Lunch on Your Own</b>
---------------------	--------------------------

FRIDAY, APRIL 26, 2019 (Continued)

<b>12:45 – 1:45</b>	<b>Registration Body &amp; Heart Session</b>
<b>Moderator: Scott D. Flamm, M.D., M.B.A.</b>	
1:45 – 2:30	Practical Cardiac MRI: Left Ventricular and Valvular Function <i>Scott D. Flamm, M.D., M.B.A.</i>
2:30 – 3:05	MR Screening for Hepatocellular Carcinoma <i>Courtney C. Moreno, M.D.</i>
3:05 – 3:40	MRI in Ischemic Heart Disease: Myocardial Viability <i>Scott D. Flamm, M.D., M.B.A.</i>
3:40 – 4:15	MR Evaluation of Biliary Disease <i>Courtney C. Moreno, M.D.</i>
4:15 – 4:30	Question and Answer Session <i>Faculty</i>
<b>4:30</b>	<b>End of Session</b>

SATURDAY, APRIL 27, 2019

<b>7:30 – 8:00 AM</b>	<b>Continental Breakfast for Registrants</b>
8:00 – 8:40	MRI and Imaging of Augmented and Reconstructed Breast <i>Debra M. Ikeda, M.D.</i>
8:40 – 9:20	MRI/MRA in Congenital Heart Disease <i>Scott D. Flamm, M.D., M.B.A.</i>
9:20 – 10:00	MR Staging of Rectal Cancer <i>Courtney C. Moreno, M.D.</i>
10:00 – 10:15	Question and Answer Session <i>Faculty</i>
<b>10:15 – 10:30</b>	<b>Coffee Break for Registrants</b>
10:30 – 11:05	MRI Guided Breast Biopsy <i>Debra M. Ikeda, M.D.</i>

<b>SAM Session</b>	
11:05 – 11:40	MRA of Thoracic Aortic Disease <i>Scott D. Flamm, M.D., M.B.A.</i>
11:40 – 12:15 PM	Imaging Correlation of MRI Findings <i>Debra M. Ikeda, M.D.</i>
12:15 – 12:30	Question and Answer Session <i>Faculty</i>

<b>12:30</b>	<b>Body &amp; Heart - End of Session</b>
<b>12:30</b>	<b>End of Course</b>

SPACE IS LIMITED - RESERVE TODAY:

Visit [edusymp.com](http://edusymp.com) and search **NS19** to visit the accommodations page for additional hotel information.  
Call Reservations at: (866) 770-7555 and provide Group Code: **BESIO419** to receive the group discount.



**Deluxe Resort Guestroom** .....\$229/nt.  
Each additional person over double occupancy is \$50.00 per night.  
**ROOM PREFERENCE:** King/Two Doubles (Charge of \$30 per room per night for two doubles accommodations) upon availability.  
Group room rates may be available three (3) days prior and after meeting, subject to availability and confirmation by the hotel.  
**HOTEL CUT-OFF DATE:** May 22, 2019  
**HOTEL TAX:** 13.38%  
**RESORT FEE:** \$39 plus 13.38% tax

**DEPOSIT POLICY:** Credit cards will be charged first night room and tax charges at time of reservation.  
**CANCELLATION POLICY:** All cancellations, arrival and departure date changes must be made 72 hours or more prior to scheduled arrival date/time to avoid penalties. Check in time is: 3:00 PM; check out time is: 12:00 PM.  
**HOTEL:** 3131 Las Vegas Blvd, South Las Vegas, Nevada 89109  
**PHONE:** (866) 237-7555

Meeting Registration Form:

36<sup>th</sup> Annual Magnetic Resonance Imaging 2019: National Symposium  
April 23 - 27, 2019 • Wynn® Las Vegas • Las Vegas, Nevada

NS19

50% OFF FULL TUITION FOR FELLOWS & RESIDENTS • 1<sup>ST</sup> 10 ACTIVE DUTY MILITARY PERSONNEL FREE

REGISTER ONLINE: WWW.EDUSYMP.COM		TUITION: LIVE MEETING		TUITION: LIVE WEBCAST		
Attendance is limited; therefore, early registration is strongly suggested.		Check Meeting Registration below: INCLUDES ELECTRONIC COLOR SYLLABUS		Please check your selection below: INCLUDES ELECTRONIC COLOR SYLLABUS		
		On or Before 4/12/19	After 4/12/19	On or Before 4/12/19	After 4/12/19	
<input type="checkbox"/> Physicians <input type="checkbox"/> Scientists <input type="checkbox"/> Company Personnel	ALL THREE SYMPOSIA (April 23 - 27, 2019)	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,395	<input type="checkbox"/> ADD Printed Color Syllabus \$95  Advanced Purchase Only	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,395
	MRI OF THE HEAD AND SPINE (April 23 - 25, 2019)	<input type="checkbox"/> \$850	<input type="checkbox"/> \$950		<input type="checkbox"/> \$850	<input type="checkbox"/> \$950
	MUSCULOSKELETAL MRI (April 24 - 26, 2019)	<input type="checkbox"/> \$850	<input type="checkbox"/> \$950		<input type="checkbox"/> \$850	<input type="checkbox"/> \$950
	MRI OF THE BODY AND HEART (April 26 - 27, 2019)	<input type="checkbox"/> \$850	<input type="checkbox"/> \$950		<input type="checkbox"/> \$850	<input type="checkbox"/> \$950
<input type="checkbox"/> Full Time Military* <input type="checkbox"/> VA Physicians* <input type="checkbox"/> P.A./R.A. <input type="checkbox"/> Retired Physicians <input type="checkbox"/> Technologists	ALL THREE SYMPOSIA (April 23 - 27, 2019)	<input type="checkbox"/> \$895	<input type="checkbox"/> \$995	<input type="checkbox"/> ADD Printed Color Syllabus \$95  Advanced Purchase Only	<input type="checkbox"/> \$895	<input type="checkbox"/> \$995
	MRI OF THE HEAD AND SPINE (April 23 - 25, 2019)	<input type="checkbox"/> \$495	<input type="checkbox"/> \$595		<input type="checkbox"/> \$495	<input type="checkbox"/> \$595
	MUSCULOSKELETAL MRI (April 24 - 26, 2019)	<input type="checkbox"/> \$495	<input type="checkbox"/> \$595		<input type="checkbox"/> \$495	<input type="checkbox"/> \$595
	MRI OF THE BODY AND HEART (April 26 - 27, 2019)	<input type="checkbox"/> \$495	<input type="checkbox"/> \$595		<input type="checkbox"/> \$495	<input type="checkbox"/> \$595

\*MUST ENCLOSE OR FAX LETTER FROM YOUR DIRECTOR CERTIFYING STATUS.

Name	<input type="checkbox"/> M.D. <input type="checkbox"/> D.O. <input type="checkbox"/> Ph.D. <input type="checkbox"/> R.T. <input type="checkbox"/> P.A./R.A. <input type="checkbox"/> RDMS <input type="checkbox"/> Other	
Company / Hospital	Specialty	
Group Practice Name		
Address	City / State / Zip / Country	
Phone	Email (REQUIRED FOR ELECTRONIC SYLLABUS)	
Card Number	Exp. Date	Security Code
Billing Address	City / State / Zip / Country	
Cardholder Signature		