



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

*12<sup>th</sup> Annual*

# Neuroradiology in Clinical Practice 2019

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

**Including Stroke Mini-Symposium**

## Stroke Imaging And Intervention


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

**October 18 – 20, 2019**

Aria® Resort and Casino • Las Vegas, Nevada

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**SAM Session is Available At This Meeting**

 Educational  
Symposia



## ABOUT THE MEETING

This course is designed to address current topics in neuroimaging and the clinical management of neurological disease. Emphasis is placed on the role of imaging in pathology and trauma affecting the central nervous system. Imaging manifestation of disease, optimizing imaging techniques and the recent advanced applications of artificial intelligence (AI) and PET/MRI will be discussed. Additionally, a dedicated segment of the program focuses on the latest in stroke imaging including triage, management and treatment.

## TARGET AUDIENCE

This program is designed for practicing radiologists, neurologists and neurosurgeons that interpret or rely on imaging studies for the evaluation of neurological disorders. Radiologic technologists who perform these types of procedures will also find the program beneficial.

## 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 19.25 *AMA PRA Category 1 Credit(s)<sup>TM</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 advances in neuroimaging applications and interpretation.
- Evaluate intracranial tumors, vascular abnormalities and traumatic brain injury.
- Discuss the clinical and imaging manifestations of neurodegenerative disease.
- Recognize image characteristics of common neurovascular disease processes.
- Utilize CTA and MRA in neuroradiology applications.
- Describe the changing role of imaging in the management of spine disease.
- Apply state of the art stroke imaging protocols to clinical practice.
- Discuss the role of radiology in the treatment of acute stroke.

*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 by sending an e-mail to [cancel@edusymp.com](mailto:cancel@edusymp.com). There is a \$50 processing fee applied to all cancellations. Cancellations made in writing prior to **September 20, 2019** will be issued a refund for the amount of tuition paid less the \$50 processing fee. No refunds will be made on or after **September 20, 2019**.

## 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 **October 9, 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 issues logging into the meeting we will have support personnel available at (813) 806-1000. There will be a \$100 surcharge for anyone registering after **October 9, 2019**.

**Please note:** A minimum number of registrants is required to live webcast this course. If the minimum number is not met by **September 20, 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 Director:

Blake A. Johnson, M.D., FACR

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### Jalal B. Andre, M.D.

*Director of Neurological MRI, Harborview Medical Center  
Associate Member, Head Injury Prevention and  
Research Center  
Associate Medical Staff of Seattle Cancer Care Alliance  
Associate Professor of Radiology  
University of Washington  
Seattle, WA*

### Allan L. Brook, M.D., FSIR

*Professor of Radiology & Neurosurgery  
Albert Einstein College of Medicine  
Director, Interventional Neuroradiology  
Montefiore Medical Center  
Bronx, NY*

### Boris Chulpayev, M.D.

*Assistant Medical Director: Neurology  
Section Chief: Neurology  
White Plains Hospital  
White Plains, NY*

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

*Division of Neuroradiology  
Department of Radiology  
Senior Associate Consultant, Mayo Clinic  
Assistant Professor of Radiology  
Mayo Clinic College of Medicine  
Phoenix, AZ*

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

*Medical Director  
Center for Diagnostic Imaging  
Minneapolis, MN*

### 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*

### James G. Smirniotopoulos, M.D.

*Professorial Lecturer (Radiology)  
George Washington University  
Washington, DC  
Chief Editor, MedPix®  
National Library of Medicine  
Bethesda, MD*

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

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

# PROGRAM

## Friday, October 18, 2019

<b>7:00 – 8:00 AM</b>	<b>Registration and Continental Breakfast for Registrants</b>
8:00 – 8:40	AI in Medical Imaging <i>Lawrence N. Tanenbaum, M.D., FACR</i>
8:40 – 9:20	Differential Diagnosis of Basal Ganglia Abnormalities <i>Blake A. Johnson, M.D., FACR</i>
9:20 – 10:00	Imaging White Matter Disease <i>Jeffrey S. Ross, 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 – 11:10	Imaging Neurodegenerative Disorders <i>Wende N. Gibbs, M.D., M.A.</i>
11:10 – 11:45	PET/MR in Neurologic Disease <i>Lawrence N. Tanenbaum, M.D., FACR</i>
11:45 – 12:20 PM	Imaging the Phakomatoses <i>James G. Smirniotopoulos, M.D.</i>
12:20 – 12:30	Question and Answer Session <i>Faculty</i>
<b>12:30 – 1:30</b>	<b>Lunch on Your Own</b>
1:30 – 2:10	Gliomas and Tumor Markers <i>James G. Smirniotopoulos, M.D.</i>
2:10 – 2:50	MR Imaging of Skull Base Pathology <i>Wende N. Gibbs, M.D., M.A.</i>
2:50 – 3:30	CNS Trauma: Lessons from MRI <i>James G. Smirniotopoulos, M.D.</i>
<b>3:30 – 3:45</b>	<b>Coffee Break for Registrants</b>

## Friday, October 18, 2019 (Continued)

3:45 – 4:20	Imaging in Headache <i>Jeffrey S. Ross, M.D.</i>
4:20 – 4:50	Imaging the “Found Down” Patient <i>James G. Smirniotopoulos, M.D.</i>
4:50 – 5:00	Question and Answer Session <i>Faculty</i>
<b>5:00</b>	<b>End of Session</b>

## Saturday, October 19, 2019

<b>7:30 – 8:00 AM</b>	<b>Continental Breakfast for Registrants</b>
8:00 – 8:30	Degenerative Disc Disease: Pathophysiology and Nomenclature <i>Jeffrey S. Ross, M.D.</i>
8:30 – 9:00	The Radiologist’s Role in Neck and Back Pain Management <i>Blake A. Johnson, M.D., FACR</i>
9:00 – 9:30	Advanced Imaging of the Spine <i>Lawrence N. Tanenbaum, M.D., FACR</i>
9:30 – 9:45	Question and Answer Session <i>Faculty</i>
<b>9:45 – 10:00</b>	<b>Coffee Break for Registrants</b>
10:00 – 10:30	Spine Infection and Mimics <i>Wende N. Gibbs, M.D., M.A.</i>
10:30 – 11:00	Regenerative Medicine: A Primer for Radiologists <i>Blake A. Johnson, M.D., FACR</i>
<b>SAM SESSION</b>	
11:00 – 11:30	Spine Oncology: Imaging and Interpretation <i>Wende N. Gibbs, M.D., M.A.</i>
11:30 – 12:00	MRI of Spine Trauma <i>Jeffrey S. Ross, M.D.</i>
<b>12:00 – 1:00</b>	<b>Lunch on Your Own</b>

Saturday, October 19, 2019 (Continued)

STROKE IMAGING AND INTERVENTION	
1:00 – 1:30	Acute Stroke Imaging and Therapy: Neuroradiology in the Leadership Role <i>Allan L. Brook, M.D., FSIR</i>
1:30 – 2:10	CT of Acute Stroke <i>Lawrence N. Tanenbaum, M.D., FACR</i>
2:10 – 2:50	Stroke Neurology: Differentials and Clinical Diagnosis <i>Boris Chulpayev, M.D.</i>
2:50 – 3:20	Brain Aneurysms: Basics and Treatment Options <i>Allan L. Brook, M.D., FSIR</i>
3:20 – 3:30	Coffee Break
3:30 – 4:10	Stroke Thrombectomy: Data, Literature, and Guidelines Review <i>Allan L. Brook, M.D., FSIR</i>
4:10 – 4:45	Emergency Stroke Triage <i>Jalal B. Andre, M.D.</i>
4:45 – 5:20	Practical Tips for Opening the Occlusion: How I Do It <i>Allan L. Brook, M.D., FSIR</i>
5:20 – 5:30	Question and Answer Session <i>Faculty</i>
5:30	End of Session

SUNDAY, OCTOBER 20, 2019

7:30 – 8:00 AM	Continental Breakfast for Registrants
8:00 – 8:40	MR Angiography Techniques: Imaging Options and Physics <i>Jalal B. Andre, M.D.</i>
8:40 – 9:20	Stroke Epidemiology and Risk Factor Management <i>Boris Chulpayev, M.D.</i>
9:20 – 10:00	Rapid Protocols in Acute Ischemic Stroke <i>Jalal B. Andre, M.D.</i>
10:00 – 10:15	Question and Answer Session <i>Faculty</i>
10:15 – 10:30	Coffee Break for Registrants
10:30 – 11:10	Acute Management of Stroke <i>Boris Chulpayev, M.D.</i>
11:10 – 11:50	Evaluation of Vasospasm and Delayed Ischemia <i>Jalal B. Andre, M.D.</i>
11:50 – 12:00	Question and Answer Session <i>Faculty</i>
12:00	End of Program

# Aria® Resort & Casino

## SPACE IS LIMITED - RESERVE TODAY:

Visit [edusymp.com](http://edusymp.com) and search **NRC19** to visit the accommodations page for additional hotel information.  
Call Reservations at: 866-359-7757 or 702-590-7757 and identify yourself as a registrant of “**NRC19**” or provide group code: **SEDU1019AR** to receive the group discount.



**Group Room Rates Start At..... \$229.00/nt** (plus tax)  
(single/double occupancy)

Cost for additional person over double occupancy is \$50 for 3rd and 4th person.

**ROOM PREFERENCE:** Run of the House Room (King bed/Two queen beds) - Non-smoking

**HOTEL CUT-OFF DATE:** September 16, 2019  
(group rates 3 days prior/post – space available basis)

**HOTEL TAX:** 13.38%

**RESORT FEE:** 39.00 per room, per day applies (plus tax).

**DEPOSIT POLICY:** One (1) night's room rate plus tax will be charged 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: 11:00 AM.

**HOTEL:** 3730 Las Vegas Blvd  
Las Vegas, Nevada 89109  
**PHONE:** (702) 590-7111

## Meeting Registration Form:

**12<sup>th</sup> Annual Neuroradiology in Clinical Practice 2019**  
October 18 – 20, 2019 • Aria® Resort and Casino • Las Vegas, Nevada

**NRC19**

REGISTER ONLINE: <a href="http://WWW.EDUSYMP.COM">WWW.EDUSYMP.COM</a> Attendance is limited; therefore, early registration is strongly suggested.		TUITION: LIVE MEETING		TUITION: LIVE WEBCAST	
		Check Meeting Registration below: INCLUDES ELECTRONIC COLOR SYLLABUS		Please check your selection below: INCLUDES ELECTRONIC COLOR SYLLABUS	
		On or Before 10/9/19	After 10/9/19	On or Before 10/9/19	After 10/9/19
<input type="checkbox"/> Physicians	<b>Neuroradiology in Clinical Practice</b> (October 18 – 20, 2019)	<input type="checkbox"/> \$1,150	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,150	<input type="checkbox"/> \$1,250
<input type="checkbox"/> Scientists					
<input type="checkbox"/> Company Personnel	<b>Stroke Mini-Symposium (Only)</b> (October 19 – 20, 2019)	<input type="checkbox"/> \$495	<input type="checkbox"/> \$595	<input type="checkbox"/> \$495	<input type="checkbox"/> \$595
<input type="checkbox"/> Fellows / Residents*	<b>Neuroradiology in Clinical Practice</b> (October 18 – 20, 2019)	<input type="checkbox"/> \$575	<input type="checkbox"/> \$675	<input type="checkbox"/> \$575	<input type="checkbox"/> \$675
	<b>Stroke Mini-Symposium (Only)</b> (October 19 – 20, 2019)	<input type="checkbox"/> \$248	<input type="checkbox"/> \$348	<input type="checkbox"/> \$248	<input type="checkbox"/> \$348
<input type="checkbox"/> Full Time Military*	<b>Neuroradiology in Clinical Practice</b> (October 18 – 20, 2019)	<input type="checkbox"/> \$875	<input type="checkbox"/> \$975	<input type="checkbox"/> \$875	<input type="checkbox"/> \$975
<input type="checkbox"/> VA Physicians*					
<input type="checkbox"/> P.A./R.A.					
<input type="checkbox"/> Retired Physicians	<b>Stroke Mini-Symposium (Only)</b> (October 19 – 20, 2019)	<input type="checkbox"/> \$375	<input type="checkbox"/> \$475	<input type="checkbox"/> \$375	<input type="checkbox"/> \$475
<input type="checkbox"/> Technologists					
<b>1<sup>st</sup> 10 Active Duty Military Personnel*</b> <b>ATTEND FOR FREE</b>		<b>*MUST ENCLOSE OR FAX LETTER FROM YOUR DIRECTOR CERTIFYING STATUS.</b>			

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	
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