Innovations in Cerebrovascular Care 2019

June 27–28, 2019
InterContinental Hotel and Bank of America Conference Center
Cleveland, OH

Register Today! www.ccfcme.org/IICC19
Overview
Care of cerebrovascular conditions continues to advance at a rapid pace. The Cleveland Clinic Innovations in Cerebrovascular Care 2019 meeting aims to focus on clinical care and technological advances in the field, as well as provide a multidisciplinary discussion around some of the greatest challenges practitioners from the neurosciences and other fields face in caring for these complex patients.

Who Should Attend?
This educational activity is intended for emergency medicine physicians, neurointensivists, neurointerventionalists, neurologists, neuroradiologists, neurosurgeons, primary care physicians, nurses, physician assistants who treat cerebrovascular patients.

Learning Objectives
After completing this educational activity, participants will be able to do the following:
• Critically review the clinical innovations in stroke care, including expanded use of mechanical thrombectomy, treatment of cerebral vasculitis, and rehabilitation approaches.
• Summarize the technical advances in neurologic critical care and define the issues involving ethical use of technologies.
• Describe the techniques and innovations in endovascular surgery including new devices for aneurysm treatment and minimally invasive therapy for intracerebral hemorrhage.
• Critically analyze the innovations in imaging technologies, including MRI and 3D images, and describe their use in cerebrovascular care.

Cleveland Clinic Course Director

M. Shazam Hussain, MD, FRCP(C), FAHA*
Director, Cerebrovascular Center
Staff, Vascular Neurology and Endovascular Surgical Neuroradiology
Associate Professor, Cleveland Clinic Lerner College of Medicine

Cleveland Clinic Co-Directors

Mark Bain, MD, MS, FAANS*
Head of Cerebrovascular Neurosurgery and Endovascular Surgical Neuroradiology
Staff, Department of Neurosurgery and Cerebrovascular Center
Assistant Professor, Cleveland Clinic Lerner College of Medicine Department of Surgery

Andrew Russman, DO*
Head, Cleveland Clinic Stroke Program
Medical Director, Comprehensive Stroke Center
Staff, Vascular Neurology

Joao Gomes, MD, FAHA*
Head, Neurointensive Care Unit
Staff, Cerebrovascular Center

Ken Uchino, MD, FAHA, FANA*
Director, Vascular Neurology Fellowship
Head, Research and Education, Cerebrovascular Center
Staff, Vascular Neurologist
Associate Professor, Cleveland Clinic Lerner College of Medicine
Guest Speakers

Blaise Baxter MD, FRCPC
Chair and Associate Professor of Radiology
University of Tennessee College of Medicine
Chattanooga, TN

Joseph Broderick, MD
Professor of Neurology
Director, University of Cincinnati Gardner
Neuroscience Institute
Cincinnati, OH

Daniel Hanley, Jr., MD
Division Director, Brain Injury Outcomes
Professor of Neurology
Johns Hopkins
Baltimore, MD

Michael E. Kelly MD, PhD
Professor and Head of Neurosurgery
Saskatchewan Clinical Stroke Research Chair
Royal University Hospital, Saskatoon, Canada
University of Saskatchewan
Saskatoon, Saskatchewan, Canada

G. Abbas Kharal, MD, MPH
Department of Neurology
Massachusetts General Hospital
Harvard Medical School
Boston, MA

Jared Knopman, MD
Assistant Professor of Neurological Surgery
Neurosurgeon and Interventional Neuroradiologist
Department of Neurological Surgery
New York-Presbyterian Hospital/Weill Cornell Medical Center
New York, NY

Eric Peterson, MD, MS
Associate Professor of Clinical Neurological Surgery
Director of Endovascular Neurosurgery, University of Miami
Hospital and Jackson Memorial Hospital
University of Miami Health Systems
Miami, FL

Ansaar Rai, MD
Professor and Vice Chair, Clinical Operations
Radiology and Department of Neuroscience
J.W. Ruby Memorial Hospital
West Virginia University
Morgantown, WV

Carla Sevin, MD
Director, The ICU Recovery Center at Vanderbilt
Medical Director, Pulmonary Patient Care Center
Assistant Professor of Medicine
Division of Allergy, Pulmonary, & Critical Care Medicine
Vanderbilt University School of Medicine
Nashville, TN

Cleveland Clinic Faculty

Christine Ahrens, PharmD, RPh
Jessica Biedny, PharmD, RPh
Dhimant Dani, MD
Brad Douglas, MSN, ACNP-BC*
Fred Frost, MD
Zeshaun Khawaja, MD
John Lee, MD
Andre Machado, MD, PhD
Thomas Masaryk, MD

Nina Moore, MD
Ela Plow, PhD
Peter Rasmussen, MD
Tina Resser, MSN, ACNP-BC, FNP-BC, CNRN*
Christopher Smolock, MD
Jayshree Sundararajan, MD
Gabor Toth, MD
Dolora Wisco, MD

*planning committee members
**Wednesday, June 26, 2019 (Optional)**

**Registration/Continental Breakfast/Exhibits**
8:30 am - 9:00 am

**Advanced Simulation Scenarios**
8:00 am - 11:30 am
Advanced Simulation Scenarios Covering Patients With Common Cerebrovascular Disorders and a Hands on Workshop featuring:
- External ventricular drain placement
- Transcranial Doppler ultrasound
- Non-invasive intracranial pressure assessment
- Point of care ultrasound to evaluate preload
- Left ventricular systolic function
- Fluid responsiveness

*Workshop spaces are limited*

**Lunch**
11:30 am - 1:30 pm

**Hands on Workshop**
1:30 pm - 4:00 pm

**Adjourn**
4:00 pm

**Thursday, June 27, 2019**

**Registration/Continental Breakfast/Exhibits**
7:00 am

**Welcome and Introduction**
8:00 am
Shazam Hussain

**Session I: Mechanical Thrombectomy for Emergent Large Vessel Occlusions**
8:10 am
Expanding Indications in ELVO: Mild Strokes and Large Core Infarcts
Gabor Toth

**8:25 am**
Improving Access – Radial artery approach to Stroke Intervention
Eric Peterson

**8:40 am**
Improving Access – Optimizing Stroke Systems of Care
Blaise Baxter

**8:55 am**
Mobile Stroke Units Improving Outcomes
Andrew Russman

**9:10 am**
Complex ELVO Cases Discussion
Gabor Toth, Eric Peterson, Blaise Baxter
Shazam Hussain, Zeshaun Khawaja

**10:00 am**
Refreshment Break/Exhibits

**Session II: Unusual Causes of Strokes**
Moderators: Andrew Russman, Abbas Kharal

**10:30 am**
Primary Central Nervous System Vasculitis
Aabbas Kharal

**10:50 am**
Cerebral Amyloid Angiopathy
Ken Uchino

**11:10 am**
Cerebrovascular Disease in the Setting of Endocarditis
Dolora Wisco

**11:30 am**
Complex Stroke Cases: Panel Discussion
Abbas Kharal, Ken Uchino, Andrew Russman, Dolora Wisco

**12:15 pm**
Lunch/Exhibits

**Session III: New Approaches in Treatment of Hemorrhagic Stroke**
Moderators: Peter Rasmussen, Tina Resser

**1:00 pm**
MISTIE III: Where Do We Go From Here?
Daniel Hanley

**1:20 pm**
Minimally-Invasive Treatment for Intracerebral Hemorrhage
Mark Bain

**1:40 pm**
Hyperacute and Acute Blood Pressure Management
Jessica Biedny

**2:00 pm**
Ultra Early Hemostasis: A Rebirth for Factor VII?
Joseph Broderick

**2:20 pm**
Anticoagulant Reversal in Intracerebral Hemorrhage
Christine Ahrens

**2:40 pm**
Controversies in Intracerebral Hemorrhage Management: Case Panel Discussion
Joao Gomes, Andrew Russman, Joseph Broderick, Christine Ahrens, Mark Bain, Daniel Hanley

**3:00 pm**
Refreshment Break/Exhibits

**Session IV: New Approaches to Stroke Recovery**
Moderators: John Lee, Joao Gomes

**3:30 pm**
Deep Brain Stimulation
Andre Machado

**3:50 pm**
New Technology For Stroke Recovery
Ela Plow

**4:10 pm**
Post ICU Syndrome
Carla Sevin

**4:30 pm**
Panel Discussion
Andrew Machado, Ela Plow, Carla Sevin

**4:45 pm**
2019 Honorary Lecture: Innovations in Stroke Rehabilitation
Fred Frost

**5:15 pm**
Adjourn

**6:30 pm**
Reception at Glidden House
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<tr>
<th>Time</th>
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<tr>
<td>7:00 am</td>
<td>Registration/Continental Breakfast/Exhibits</td>
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<td>7:55 am</td>
<td>Welcome and Introduction</td>
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<td></td>
<td>Shazam Hussain</td>
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<td><strong>Session V: Novel Endovascular Therapies</strong></td>
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<td>Moderators: Mark Bain, Thomas Masaryk</td>
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<tr>
<td>8:00 am</td>
<td>Novel Approaches to Chronic Subdural Hemorrhage Management</td>
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<td>Jared Knopman</td>
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<td>8:20 am</td>
<td>New Aneurysm Technology</td>
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<td>Ansaar Rai</td>
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<td>8:40 am</td>
<td>Round Table Discussion: Endovascular Treatment of Wide Necked Bifurcation Aneurysms</td>
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<td>Mark Bain, Gabor Toth, Ansaar Rai, Thomas Masaryk, Eric Peterson</td>
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<td>9:25 am</td>
<td>“When and How to Treat - Lessons I Have Learned”</td>
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<td>Mark Bain, Shazam Hussain, Jared Knopman, Thomas Masaryk, Blaise Baxter</td>
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<td>Refreshment Break/ Exhibits</td>
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<td><strong>Session VI: Management of Asymptomatic Lesions</strong></td>
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<td>Moderators: Bradley Douglas, Nina Moore</td>
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<td>10:30 am</td>
<td>Asymptomatic Carotid Disease</td>
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<td>Christopher Smolock</td>
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<td>10:50 am</td>
<td>Asymptomatic Aneurysm</td>
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<td>Michael Kelly</td>
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<td>11:10 am</td>
<td>Asymptomatic AVMs</td>
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<td>Nina Moore</td>
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<td>11:30 am</td>
<td>To Treat or Not to Treat: Case Panel Discussion</td>
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<td>Mark Bain, Andrew Russman, Nina Moore, Christopher Smolock, Michael Kelly</td>
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<td>12:00 pm</td>
<td>Lunch/Exhibits</td>
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<td><strong>Session VII: Debate</strong></td>
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<td>Moderator: Ken Uchino</td>
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<td>1:00 pm</td>
<td>Primary Thrombectomy versus Combined Thrombolysis/Thrombectomy for ELVO Treatment</td>
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<td>Joseph Broderick vs. Shazam Hussain</td>
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<td>2:00 pm</td>
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*A five-minute question and answer period is included in each speaker’s allotted time*
Innovations in Cerebrovascular Care 2019

Wednesday, June 26

Fees include: continental breakfast, refreshment breaks, and lunch.

**OPTIONAL Advanced Simulation Scenarios and Hands on Workshop**
8:30 AM-4:00 PM
Additional registration fee for workshop.
WORKSHOP SPACES ARE LIMITED.

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<th>Non Physician</th>
<th>Resident/Fellow*</th>
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<tr>
<td>Fees</td>
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Thursday June 27– Friday, June 28

Fees include: Syllabus, continental breakfasts, refreshment breaks, lunches and Thursday evening reception.

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<th>Early Bird May 10, 2019</th>
<th>After May 10, 2019</th>
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<tr>
<td>Physician</td>
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<tr>
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<td>Resident/Fellow*</td>
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*Letter from program director is required to receive the discounted fee. Cleveland Clinic employee fees and registration are available online only.

Registration and Cancellation

Preregistrations are accepted online until 5:00 pm (EST), June 20, 2019. To register after this date, please do so onsite. In case of cancellation, a full refund will be made if cancelled by June 10, 2019. After June 10, 2019, a $50 cancellation fee will be deducted from your refund. Written notification of your cancellation is required in order to process your refund. **NO REFUNDS WILL BE ISSUED AFTER JUNE 19, 2019.**

For questions about registration, call 216.448.8710 or email cmeregistration@ccf.org

General Information

Location
InterContinental Hotel and Bank of America Conference Center
9801 Carnegie Avenue Cleveland, OH 44106
Phone: 216.707.4100 or 877.707.8999
www.intercontinentalcleveland.com

Hotel Accommodations

Hotel reservations are separate from the course registration and are the responsibility of the participant. A block of rooms have been reserved at the InterContinental Hotel for a rate of $159 plus tax. Please call 216.707.4100 to make your reservation

The cut-off date for the special rate is May 27, 2019.

Parking

Parking is available in the 100th Street Visitor’s Parking Garage at prevailing rates. Valet parking at the hotel is available for an additional charge.

Accreditation

The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Cleveland Clinic Foundation Center for Continuing Education designates

- **Innovations in Cerebrovascular Care 2019 live activity for a maximum of 12.25 AMA PRA Category 1 Credits™.**

- **OPTIONAL Advanced Simulation Scenarios and Hands on Workshop live activity for a maximum of 5 AMA PRA Category 1 Credits™.**

Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Participants claiming CME credit from this activity may submit the credit hours to the American Osteopathic Association for Category 2 credit.

The Ohio Board of Nursing will accept at face value the number of contact hours awarded for an educational activity that has been approved for CE by a nationally accredited system of CE approval. Nurses are able to obtain CE that has been approved or provided by a nationally recognized accreditation system of continuing education.

Examples include:

- The American Nurses Credentialing Center (ANCC)
- The Accreditation Council for Continuing Medical Education (ACCME)
- The International Association for Continuing Education and Training (IACET)

Faculty Disclosure Statement

The Cleveland Clinic Foundation Center for Continuing Education has implemented a policy to comply with the current Accreditation Council for Continuing Medical Education Standards for Commercial Support requiring resolution of all faculty conflicts of interest. Faculty declaring a relevant commercial interest will be identified in the activity syllabus.

Information

For further information about this activity, contact Shana Spade at:
Phone: 800.223.2273 x49380
Email: spades@ccf.org

Americans with Disabilities Act

The Cleveland Clinic Foundation Center for Continuing Education fully intends to comply with the legal requirements of the Americans with Disabilities Act. If you need assistance, please notify us at least two weeks prior to the activity.

Cleveland Clinic Center for Continuing Education reserves the right to cancel or postpone an activity at our sole discretion. In the unlikely event that this occurs, any registration fee(s) paid will be refunded. Be advised that Cleveland Clinic is not responsible for related costs including airline tickets, hotel costs, or any similar fee penalties incurred as a result of any trip cancellations or changes.