

ISC News

ISSUE 1

**Wednesday
FEBRUARY 8, 2023**



**ASA Celebrates
25 Years of
Progress**

See The ASA at 25
on page 3.

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Patients With
Sickle Cell Disease** 3

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Edgar J. Kenton III
Lecturer** 5



Pre-Cons open ISC 2023

Four pre-conference symposia opened ISC 2023 Wednesday at the Kay Bailey Hutchison Convention Center Dallas. From top left clockwise: Wendy Dusenbury opens the State-of-the-Science Stroke Nursing Symposium; Lauren H. Sansing, MD, MS, FAHA, introduces speakers at Stroke in the Lab World: High-Dimensional Single-Cell Analyses to Unravel the Complexities of Cerebrovascular Disease and Brain Health; attendees listen in on speaker presentations; Cheryl Bushnell, MD, MHS, FAHA, receives the Kenton III Lecture commemorative plaque from Bruce Ovbiagele, MD, MSc, and Amytis Towfighi, MD, at the HEADS-UP Pre-Con and Mollie McDermott, MD, MS, moderates the Stroke in the Real World Symposium.

Improving stroke outcomes for women

Taking aim at the underlying causes of women at higher risk than men for poor outcomes from stroke is the focus of this year's Paola

De Rango Memorial Session on Stroke in Women: Social Factors Contributing to Sex Differences in Short- and Long-Term Post-Stroke Outcomes.

Adviye Ergul, MD, PhD, professor at the Medical University of South Carolina in Charleston and a VA senior research career scientist, will present preclinical research in her presentation, "Progress and Challenges in Preclinical Stroke Recovery Research." Dr. Ergul's research looks at the influence of sex, comorbid diseases and the need to think about vascular health to protect and repair neurons. "Therapeutic targets and

strategies for neurovascular protection and restoration after stroke need to be tested in both sexes and comorbid disease models," Dr. Ergul said. "The biggest challenge is the difficulty of modeling all the factors involved in stroke injury and recovery in preclinical models."

During the session, Tracy Madsen, MD, PhD, vice chair of research in emergency medicine and associate professor of emergency

UPCOMING SESSION

**2023 Paola De Rango
Memorial Session on Stroke
in Women: Social Factors
Contributing to Sex Differences
in Short- and Long-Term Post-
Stroke Outcomes**
9:15-10:15 a.m.
Wednesday, Feb. 8
Ballroom D1/D2

medicine and epidemiology at Brown University in Providence, Rhode Island, will present the clinically see **STROKE OUTCOMES**, page 12



Ergul



Madsen



Rexrode

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Mark your calendar

Don't miss our
learning studio
sessions at
#ISC23

Wednesday,
February 8

Maintaining Legacy and Exploring Distal Frontiers

12:45 – 1:15pm CST
Learning Studio I,
ISC Exhibit Hall



Thursday,
February 9

Cases in AF monitoring: Who, when and for how long?

12:45 – 1:15pm CST
Learning Studio II,
ISC Exhibit Hall



STROKE AF Results and discussion

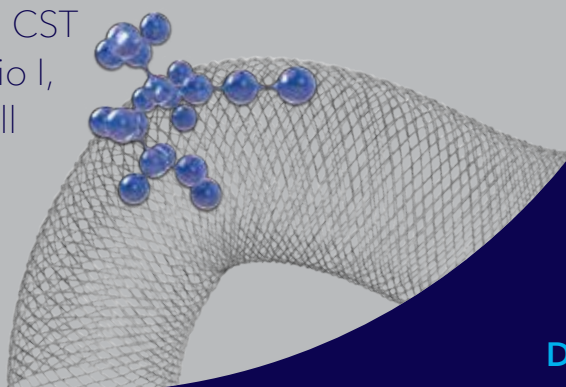
7 – 8:30pm CST
Omni Hotel



[Registration >](#)

Strength in Numbers: Largest multicenter experience with Pipeline™ Flex with Shield Technology™

1:30 – 2:00pm CST
Learning Studio I,
ISC Exhibit Hall



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Challenges abound in treating stroke in patients with sickle cell disease

A panel of experts will discuss critical issues in treating stroke patients with sickle cell disease in Wednesday's session, "From Bench to Bedside and Beyond: Sickle Cell Disease and Stroke Across the Lifespan and Research Spectrum."

Stroke is a common danger for people with sickle cell disease (SCD). The American Society of Hematology estimates that 24% of patients with SCD will have a stroke by age 45.

Andria Ford, MD, professor of neurology and radiology at Washington University School of Medicine in St. Louis, said some of the biggest challenges arise in preventing ischemic stroke, hemorrhagic stroke and the loss of cognitive ability due to silent cerebral infarcts.

More specifically, she said challenges are associated with coordinating tissue plasminogen activators and rapid blood transfusions for acute stroke in adults with SCD.

"The challenge is that rapid transfusion may need a pheresis catheter placed," Dr. Ford said. "But if IV thrombolytic has already been



Ford



Hyacinth



Jordan



Bello-Manga

administered, then there is a risk of bleeding with any puncture, especially in a non-compressible site. If IV thrombolytic is given prior to placing the transfusion catheter, one may need to consider the site of the catheter placement and placement by an interventional radiology team who can accurately guide that placement."

Hyacinth I. Hyacinth, MD, PhD, MPH, associate professor of neurology and rehabilitation medicine at the University of Cincinnati College of Medicine, said there's no ideal stroke model for SCD because of the nature of the pathology. Three models in use are:

- Middle cerebral artery occlusion (MCAO)
- Ischemia reperfusion
- Spontaneous cerebral microinfarcts

Each of these, Dr. Hyacinth said, presents its own set of challenges.

"The middle cerebral artery occlusion and ischemia reperfusion models are designed more for stroke treatment rather than prevention," he said. "They are useful for testing therapies or how therapies could limit injury severity. This is because they both fail to capture the cerebral micro and macro vasculopathy that characterizes increased stroke risk in SCD."

And although the spontaneous cerebral microinfarcts model allows for the gradual development of cerebral micro and macro vasculopathy — including the development of cortical/cerebral microinfarcts — Dr. Hyacinth said that it's also not perfect.

"The limitation is it does not make a good model for clinical

UPCOMING SESSION

From Bench to Bedside and Beyond: Sickle Cell Disease and Stroke Risk Across the Lifespan and Research Spectrum

9:15-10:45 a.m.

Wednesday, Feb. 8

Room C155/C156

stroke," he said. "However, because it captures the cerebral micro and macro vascular abnormalities that lead to the development of clinical stroke in SCD, it provides the most reasonable model for testing stroke prevention therapies."

Some of the therapies that could be tested with this model include antiadhesion molecules (crizanlizumab and natalizumab) and disease-modifying drugs, such as voxelotor and hydroxyurea, Dr. Hyacinth said.

"This model also allows for longitudinal treatment and follow-up to examine the evolution of the disease, which could uncover key disease mechanisms and new targets for therapy," he said.

Lori Jordan, MD, PhD, associate professor of pediatrics,

see **SICKLE CELL**, page 11

The ASA at 25

Power. Speed. Agility. For a 25-year-old athlete, those qualities are key to a winning performance.

As it turns out, they're also vital as a 25-year-old organization works to turn the tide on stroke — in an era that may be among the most pivotal in the field's history.

"The rapid change in stroke care now is similar to what was seen 20

or more years ago around heart attacks in cardiology," said

neurologist Mitchell

Elkind, MD, MS, FAHA,

the American Heart Association's chief clinical science officer and a past chairman of the American Stroke



Elkind

Association's National Advisory Committee.

The American Stroke Association, launched in 1998 as a division of the American Heart Association, is driven by people power.

Speed is an ever-present priority in the ASA's work — from teaching the public to recognize strokes F.A.S.T. and call for help, to comprehensive systems-of-care initiatives that can shave off hours, minutes and seconds between when a stroke starts and when patients receive the therapies most likely to help them.

Decades of stroke focus

This year's International Stroke Conference is a culmination of nearly 70 years of AHA interest in stroke, beginning with the organization's leading role in developing the first Princeton Conference on cerebrovascular disease in 1954



— organized and chaired by Irving Wright, MD, the AHA's 1952-53 president.

Within a decade, the AHA had formed an ad hoc coordinating committee for a nationwide stroke program, with Wright as chairman.

By 1970, the committee had evolved into the Council on Cerebrovascular Disease (later the AHA's Stroke Council), and the journal *Stroke* was

see **25TH ANNIVERSARY**, page 6



Wright



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Awardees honored at #ISC23

The ISC Main Event Sessions will feature lectures by recipients of the William M. Feinberg, David G. Sherman and Thomas Willis awards.

Among other ISC award sessions:

- The Edgar J. Kenton III Lecture was presented during the HEADS-UP Pre-Conference Symposium on Tuesday.
- The newly renamed Ralph L. Sacco Outstanding Stroke Research Mentor Award will be presented during the Main Event Session on Thursday.
- Six recipients will receive abstract-based awards in the concurrent sessions in which they present their abstracts. The ISC awards honor investigators for their stroke-related research. Abstract-based awards also provide funding for junior investigators to attend ISC.

ISC Pre-Conference Symposium I: Room D167 / D174

HEADS-UP: Health Equity and Actionable Disparities in Stroke: Understanding and Problem-Solving



9:40-9:55 a.m. Tuesday
Edgar J. Kenton III Lecture
Cheryl Bushnell, MD, MHS, FAHA
Wake Forest University School of Medicine
Winston Salem, North Carolina
"Achieving BP Goals and Addressing Inequities in BP Management After Stroke: It All Starts With Stakeholder Engagement"

This award recognizes lifetime contributions to the investigation, management, mentorship and community service in the field of race-ethnic stroke disparities or related disciplines.

Opening Main Event Hall E



11:31-11:46 a.m. Wednesday
Thomas Willis Lecture
Zinaida S. Vexler, PhD
University California San Francisco
Weill Institute for Neurosciences
San Francisco, California
"Immune-Neurovascular Interactions in Experimental Perinatal and Childhood Stroke"

The award recognizes contributions to the investigation and management of stroke basic science.

Main Event Hall E



11:02-11:17 a.m. Thursday
David G. Sherman Lecture
George Howard, DrPH
University of Alabama at Birmingham
School of Public Health
Birmingham, Alabama
"Reducing the Disparities in Stroke. Have We Been Aiming at the Right Targets?"

The award recognizes lifetime contributions to investigation, management, mentorship and community service in the stroke field.



11:25-11:40 a.m. Thursday
Ralph L. Sacco Outstanding Stroke Research Mentor Lecture
Cheryl Bushnell, MD, MHS, FAHA
Wake Forest University School of Medicine
Winston Salem, North Carolina
"Stroke Research and Academic Learning Health Systems: Mentoring Challenges and Opportunities"

The annual award recognizes the outstanding achievements in the mentoring of future generations of researchers in the field of cerebrovascular disease.

Closing Main Event Hall E



11:02-11:17 a.m. Friday
William M. Feinberg Award for Excellence in Clinical Stroke
José Biller, MD, FACP, FAAN, FANA, FAHA
Loyola University Chicago Stritch School of Medicine
Loyola University Health System
Maywood, Illinois

"Identifying Stroke Mimics, Chameleons and Beyond: A Visual Overview"
The award recognizes significant contributions to the investigation and management of clinical research in stroke.

ISC Abstract-Based Awards

7:30 a.m. Wednesday

Translational Basic Science Oral Abstracts I Room C140 / C142

Stroke Basic Science Award **Daniela Renedo, MD, New Haven, Connecticut**

Single-Cell Immune Landscape of Human Clot Retrieved at Mechanical Thrombectomy Association With Stroke Origin (15)

The award encourages investigators to undertake or continue stroke research in basic or translational science that's laboratory-based.

7:42 a.m. Wednesday

Translational Basic Science Oral Abstracts I Room C140 / C142

Mordecai Y. T. Globus New Investigator Award in Stroke **Shun-Ming Ting, MSc, Houston, Texas**

Retinoid X Receptors (RXR) Play Essential Roles in Improving Post-Ischemic Stroke Recovery in Aged Brain by Restoring Age-Associated Dysfunctions of Microglia/Macrophages (16)

The award recognizes Dr. Mordecai Y.T. Globus' major contributions to research in cerebrovascular disease and his outstanding contributions to the elucidation of the role of neurotransmitters in ischemia and trauma; the interactions among multiple neurotransmitters; mechanisms of hypothermic neuroprotection; and the role of oxygen radical mechanisms and nitric oxide in brain injury.

3:30 p.m. Wednesday

Brain Health Oral Abstracts I Room D163 / D165 / D170 / D172

Vascular Cognitive Impairment Award **Kyle Kern, MD, Bethesda, Maryland**

Intensive Blood Pressure Treatment Remodels Brain Perivascular Spaces: A Secondary Analysis of the SPRINT MIND Trial (55)

The award encourages investigators to undertake or continue research or clinical work in the field of vascular cognitive impairment and submit an abstract to the International Stroke Conference.

7:30 a.m. Thursday

Cerebrovascular Systems of Care Oral Abstracts Ballroom C1 / C2

Stroke Care in Emergency Medicine Award **Brian Mac Grory, MD, Durham, North Carolina**

Endovascular Thrombectomy in Patients With Acute Ischemic Stroke and Recent Use of Oral Vitamin K-Antagonists: The Get With The Guidelines-Stroke Program (67)

The award encourages investigators to undertake or continue research in the emergent phase of acute stroke treatment and submit an abstract to the International Stroke Conference.

9:15 a.m. Friday

Clinical Rehabilitation and Recovery Oral Abstracts Room C140 / C142

Stroke Rehabilitation Award **Kent P. Simmonds, DO, Dallas, Texas**

Racial Disparities in the Treatment of Post-Stroke Complications Among Acute Stroke Patients (146)

The award encourages investigators to undertake or continue research and/or clinical work in the field of stroke rehabilitation and submit an abstract to the International Stroke Conference.

11:17 a.m. Friday

Closing Main Event Hall E

Robert G. Siekert New Investigator Award in Stroke **Eva Mistry, MD, Cincinnati, Ohio**

Blood Pressure After Endovascular Stroke Treatment (BEST)-II: A Randomized Clinical (LB18)

In recognition of Dr. Robert G. Siekert, founding chair of the American Heart Association's International Conference on Stroke and Cerebral Circulation, the award encourages new investigators to undertake or continue stroke-related research. ●



Submit ISC 2024 award nominations

AHA Members: Submit your nominations for the ISC 2024 Feinberg, Sherman, Willis, Kenton III and Sacco Outstanding Stroke Research Mentor awards.

Nomination Period Opened:
Monday, Feb. 6, 2023

Nomination Period Closes:
Wednesday, Aug. 2, 2023

Visit strokeconference.org/awardsandlectures for more information.

Q&A :

Dr. Cheryl Bushnell

**'People perish from lack of knowledge'**

On Tuesday, Cheryl Bushnell, MD, MHS, FAHA, delivered the Edgar J. Kenton III Lecture.

Dr. Bushnell is professor of neurology and stroke division chief in the Department of Neurology at Wake Forest University Health Sciences in Winston-Salem, North Carolina. She shares insights into her research, its connection to social determinants of health and Dr. Kenton's legacy. *ISC News* recently sat down with Dr. Bushnell to elaborate on each.

Q What is the primary message in your presentation?

Dr. Bushnell: My primary focus is to discuss the negative trends of hypertension, the most modifiable risk factor for stroke, and how this impacts people of color, especially African Americans and women. My studies have addressed this issue thus far, how we need adequate data to understand the issue of access to optimal post-acute and secondary prevention care and describe how patient-centered strategies that are vetted and approved by stakeholders are the best approach to positively impact hypertension control and thus reduce recurrent stroke and major adverse cardiovascular events.

Q How does your research correlate to this topic? Can you provide details of your research?

Dr. Bushnell: I have been involved with research in models of transitional care, and we have adapted this model to secondary prevention focused on blood pressure management. We have a comparative effectiveness trial funded by the Patient Centered Outcomes Research Institute, called TEAMS-BP (Telehealth-Enhanced Assessment and Management after Stroke-Blood Pressure), that is comparing two different evidence-based strategies of BP management to determine which is more effective at lowering systolic BP to below the target of 130 mm Hg. <https://www.pcori.org/research-results/2021/comparing-two-ways-control-blood-pressure-after-stroke>

We have three main populations of stroke survivors in our study: African Americans, those over age 75 and those with physical and/or cognitive disabilities to determine which is more effective for BP control and patient activation. All of these groups are at high risk for poor outcomes, especially African Americans, who have a higher risk for stroke than white people with the same increase in BP.

Q Why is your topic important at this time? Is there a new update, guideline or discovery that makes this timely?

Dr. Bushnell: Trends in hypertension control are concerning, especially with Black and Hispanic people bearing the burden of worse control and already being at higher risk for stroke. The update was published in *Circulation* in 2022 and was based on a workshop led by the National Heart, Lung, and Blood Institute and CDC. They studied the trends of BP, and there has been a significant drop in the proportion of individuals in the U.S. whose BP is controlled. They also emphasize several strategies that could be deployed to address these trends. [Commodore-Mensah, et al. *Am J Hypertension* 2022;35:232-242]

Q What specifically are you referring to about the "past" that we must learn from today?

Dr. Bushnell: We know that structural racism and social determinants of health (SDOH) negatively impact our ability to manage primary and secondary prevention as well as stroke recovery/rehabilitation. So, we need to have adequate data to understand the communities where access to care is suboptimal and use that data to develop strategies to increase access and implement effective interventions for these individuals.

Q What steps can we take today in learning from the past?

Dr. Bushnell: The NHLBI/CDC workshop has specific "Big Ideas" that could make a significant impact on BP management, including:

- Develop patient-centered hypertension care.
- Simplify hypertension treatment.
- Support self-measured BP monitoring with clinical support.
- Implement telehealth for hypertension management.
- Incentivize team-based care.
- Enhance community-clinical linkages.
- Use performance and quality metrics to enhance accountability.
- Enhance access to high-quality health care and explore new health care delivery options.
- Develop tailored public health messaging on the importance of hypertension control. [Commodore-Mensah, et al. *Am J Hypertension* 2022;35:232-242]

Also, listening to stakeholders is extremely important, not only for understanding their lived experiences, but also to learn what messages and framing are necessary to engage with patients who have hypertension and/or stroke to build trust.

Q How does your lecture align with Dr. Kenton's legacy/work?

Dr. Bushnell: Dr. Kenton developed a Stroke Prevention Intervention Research Program at the Morehouse School of Medicine, so I'm sure he was avidly interested in BP management. He was also passionate about bridging race-ethnic inequities in stroke. I also feel an emphasis on patient-centeredness, stakeholder engagement and acknowledging and addressing SDOH is something he would agree is important if we are going to make improvements in stroke prevention.

Q What is the takeaway of your lecture?

Dr. Bushnell: The main takeaway from my lecture is hypertension control is decreasing, and this may actually get worse before it gets better due to the COVID pandemic and its impact on communities of color. As a result, we will likely see an increase in strokes. The most important pillar of secondary prevention is BP control, and we need to tailor our therapy to our patients, regardless of race-ethnicity, increase stakeholder engagement and therefore trust between stroke survivor and provider, and between communities and health systems. Think about how you as a provider can encourage your stroke patients to self-monitor their BP and other aspects of stroke recovery and empower them to increase their knowledge about the importance of BP on stroke prevention and prevention of other chronic diseases (such as kidney disease). Consider this quote from one of our caregiver stakeholders: "People perish from lack of knowledge."•

25TH ANNIVERSARY

continued from page 3

launched. In 1993, while stroke was already part of the AHA's mission statement, the organization added it to its motto ("Fighting Heart Disease and Stroke").

In the mid-1990s, the AHA's leadership in stroke science was unmistakable, said Stroke Council chair Patrick Lyden, MD, FAHA. Dr. Lyden was one of the investigators in the National Institute of Neurological Disorders and Stroke rt-PA Stroke Study Group — and helped draft the protocol and main results of a landmark 1995 trial that established intravenous recombinant tissue plasminogen activator as a vital treatment for ischemic stroke.

"Two years before the ASA was created, the AHA strongly endorsed



the use of intravenous tPA in appropriately selected patients with acute ischemic stroke," Dr. Lyden said. "This was a bold and controversial position, but it was based on hard science that has since been replicated many times."

Subsequent publications on thrombolytic therapies "provide the medical community with the best, most informative updates on using this landmark therapy," said Dr. Lyden, a professor of physiology and neuroscience and neurology at the University of Southern California's Keck School of Medicine.

When the AHA's Stroke Division was renamed the American Stroke Association, a Division of the American Heart Association, in 1999, then-AHA



president Dr. Valentin Fuster wrote in *Stroke*, "The new name demonstrates that the AHA's passion in the fight against death and disability from stroke is as strong as its fight against death and disability from heart disease."

A future of possibilities

Back in the 1950s, the impetus for that first Princeton Conference came from medical activist and philanthropist Mary Lasker, who provided \$25,000 in funding for the event with the aim of setting a national stroke agenda. Lasker's parents both had strokes and — as she recalled to neurologist James Toole, MD — a friend who had recently suffered a stroke was told there was no treatment besides bed rest.

Today, researchers press on at the vanguard of stroke discovery. They include investigators who have contributed to the more than 3,000 stroke-related research projects funded by the AHA/ASA since 1998, and the variety of stroke experts assembled today for the International Stroke Conference.

"Here I have made lifelong working collaborations and friendships," said Dr. Lyden, who has been an ASA member attending ISC since 1985. "The ASA provides the hub that brings together all spokes of stroke care and research."

For more information about the ASA's 25th anniversary, see <https://isc.hub.heart.org/isc-23/article/22684502/the-asa-at-25> •

I AM DETERMINATION

One in four stroke patients will have another stroke. Collaboration between neurology and cardiology health care professionals on a thorough work-up can help to identify the underlying cause of their patient's stroke and previously unknown risk factors. Make preventing recurrent stroke your superpower.

Stop by Booth #301 to learn more.
stroke.org/heartofstroke

Join us!
 Quality Mini Lecture Series at ISC on
Getting to the Heart of Stroke:
Deepening the Collaboration Between
Neurology and Cardiology
 Alex Schneider, MD | HCA Healthcare
Getting to the Heart of Stroke
 February 9, 2023 • 1:15 – 1:25 PM
 Exhibition Hall at Headquarters

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Stroke simultaneous publications from ISC 2023

Ideal Foundational Requirements for Stroke Program Development and Growth: A Scientific Statement From the American Heart Association

https://www.ahajournals.org/doi/10.1161/STR.0000000000000424?utm_campaign=sciencenews22-23&utm_source=science-news&utm_medium=phd-link&utm_content=phd-02-07-23

Tenecteplase Treatment and Thrombus Characteristics Associated With Early Reperfusion: An EXTEND-IA TNK Trials Analysis

<https://www.ahajournals.org/doi/10.1161/STROKEAHA.122.041061>

Rapid Activation of Neuroinflammation in Stroke: Plasma and Extracellular Vesicles Obtained on a Mobile Stroke Unit

<https://www.ahajournals.org/doi/10.1161/STROKEAHA.122.041422>

Smoking-Cessation Pharmacotherapy After Stroke and Transient Ischemic Attack: A Get With The Guidelines-Stroke Analysis

<https://www.ahajournals.org/doi/10.1161/STROKEAHA.122.041532>

Examining the Association Between Hospital-Documented Atrial Fibrillation and Central Retinal Artery Occlusion

<https://www.ahajournals.org/doi/10.1161/STROKEAHA.122.042292>

Endovascular Therapy or Medical Management Alone for Isolated Posterior Cerebral Artery Occlusion: A Multicenter Study

<https://www.ahajournals.org/doi/10.1161/STROKEAHA.122.042283>

Associations Between Long-Term Air Pollutant Exposure and 30-Day All-Cause Hospital Readmissions in U.S. Stroke Patients

<https://www.ahajournals.org/doi/10.1161/STROKEAHA.122.042265>

Visit <https://www.ahajournals.org/journal/str> for more.

Visit **HeadQuarters** in Booth 708

American Stroke Association

Stroke is the No. 2 cause of death worldwide and a leading cause of disability. The American Stroke Association is a relentless force for a healthier world with fewer strokes. We team with millions of volunteers to prevent, treat and beat stroke by funding innovative research, fighting for stronger public health policies and providing lifesaving tools and information. stroke.org

PICK UP FREE RESOURCES

Get With The Guidelines®-Stroke and Target: StrokeSM

Get With The Guidelines-Stroke is the American Heart Association's in-hospital quality improvement program focused on improving stroke care by providing medical teams with tools and resources to increase adherence to the latest scientific treatment guidelines. Target: Stroke is a Get With The Guidelines-Stroke initiative that aims to improve acute ischemic stroke care by reducing door-to-treatment times for patients eligible for intravenous thrombolysis and endovascular therapy. heart.org/gwtgstroke

Quality Improvement Research

The American Heart Association's suite of Quality Improvement programs promote excellence in prospective and retrospective research. A key component of these quality programs, such as Get With The Guidelines, is the collection of data that participating hospitals can use for their own quality improvement efforts. Additionally, there is the opportunity for scientific research from our National Level Database. The AHA offers a cloud-based research data analysis platform, the Precision Medicine Platform, with secure, private workspaces equipped with tools for data analysis, machine learning and artificial intelligence. Stop by to learn more about this innovative opportunity. heart.org/qualityresearch

Research

The AHA currently funds more than 1,379 projects across the U.S. In FY 2020-21, the AHA invested \$135.8 million to fund 598 new proposals. Follow us on Twitter [@AHA_Research](https://twitter.com/AHA_Research) or visit professional.heart.org/research.

Health Care Certification

People know and trust our Heart-Check mark. Due to collaborative efforts with leading U.S. credentialing bodies, participating hospitals can display the symbol to identify their achievement of disease specific certifications in stroke, cardiovascular care and wellness/prevention. Stop by to learn how your hospital or health care facility/agency can earn and display the Heart-Check mark so that your community knows your commitment to quality care and to their care. Check out the Heart-Check mark and the quality that it brings. heart.org/certification

Professional Membership

Learn how the AHA/ASA Professional Membership can advance and enhance your career. You will engage through networking with experts, online courses, research funding, advocacy, mentoring, and so much more. You will soon see how membership is valuable at every stage of your career. **JOIN OR RENEW YOUR MEMBERSHIP ON SITE AND RECEIVE A FREE GIFT (WHILE SUPPLIES LAST).**

Lifelong Learning

This is your source for the latest in Stroke Continuing Education. Find the AHA online educational activities or claim CE for ISC 2023 at learn.heart.org.

Scientific Journals

Immediate impact. Global influence.

Access the 13 AHA scientific journals' content via AHAjournals.org. Print copies of *Stroke* will be available in the booth. Scan the QR code here for the AHA Journals' Publishing Guide and Overview and quickly review publishing requirements and policies. Also learn about special features available in each journal. For the AHA's scientific statements and clinical practice guidelines, visit professional.heart.org/statements.

GIVEAWAYS WHILE SUPPLIES LAST



Patient Health

Preview the latest educational resources for professionals and your patients in the areas of emotional support, atrial fibrillation, hypertension and more. Encourage your patients and their family members to join the Support Network at stroke.org/supportnetwork to connect with other patients, share experiences and help others on their health journeys.

Professional Heart Daily

Visit professional.heart.org, the leading online resource for heart and stroke clinicians and scientists. Every day, Professional Heart Daily gives you the latest cardiovascular news – providing science and clinical guidance you can trust.



Patient Support

Encourage your patients and their family members to join the AHA's Support Network at heart.org/supportnetwork to connect with other patients, share experiences and help others on their health journeys.

Vascular Health Programs

Legs and feet could hold a clue to heart health. Peripheral artery disease is largely overlooked – together we can change that. Review the Peripheral Artery Disease (PAD) National Action Plan: *A road map for a coordinated, enduring approach to PAD care.* Download a full copy of the plan: heart.org/PADActionPlant

AHA International

The American Heart Association is actively working in more than 100 countries and with 200 cardiovascular societies and organizations around the world to educate and inform, implement programs, advocate for policy change, and strengthen health care systems to help improve and save lives. Discover more about our international work in stroke center certification and health care quality improvement, advocacy and science advancement. international.heart.org



Claim your CE

To complete your ISC 2023 conference evaluation and claim your CE credits for the live conference, select "Your Activities in Progress" at learn.heart.org.

CE credit for the ISC 2023 can't be claimed after Aug. 10, 2023, and participants are strongly encouraged to claim CE credit within 30 days of the live event.

In-person attendees

An AHA Certificate of Attendance is available at the registration counters in the Hall F Lobby or the Certificate of Attendance Counter in Hall D/E Lobby in the Kay Bailey Hutchison Convention Center.

Virtual attendees

Request an AHA Certificate of Attendance by choosing the Programming Tab at the top navigation bar on the event platform, then choosing "Certificate of Attendance."

NOTE: For the ISC 2023 live event, CE credit claim is limited to participation on Feb. 8-10, 2023, only.

Scan the QR code for more CE information.



ISC 2023 Exhibitors

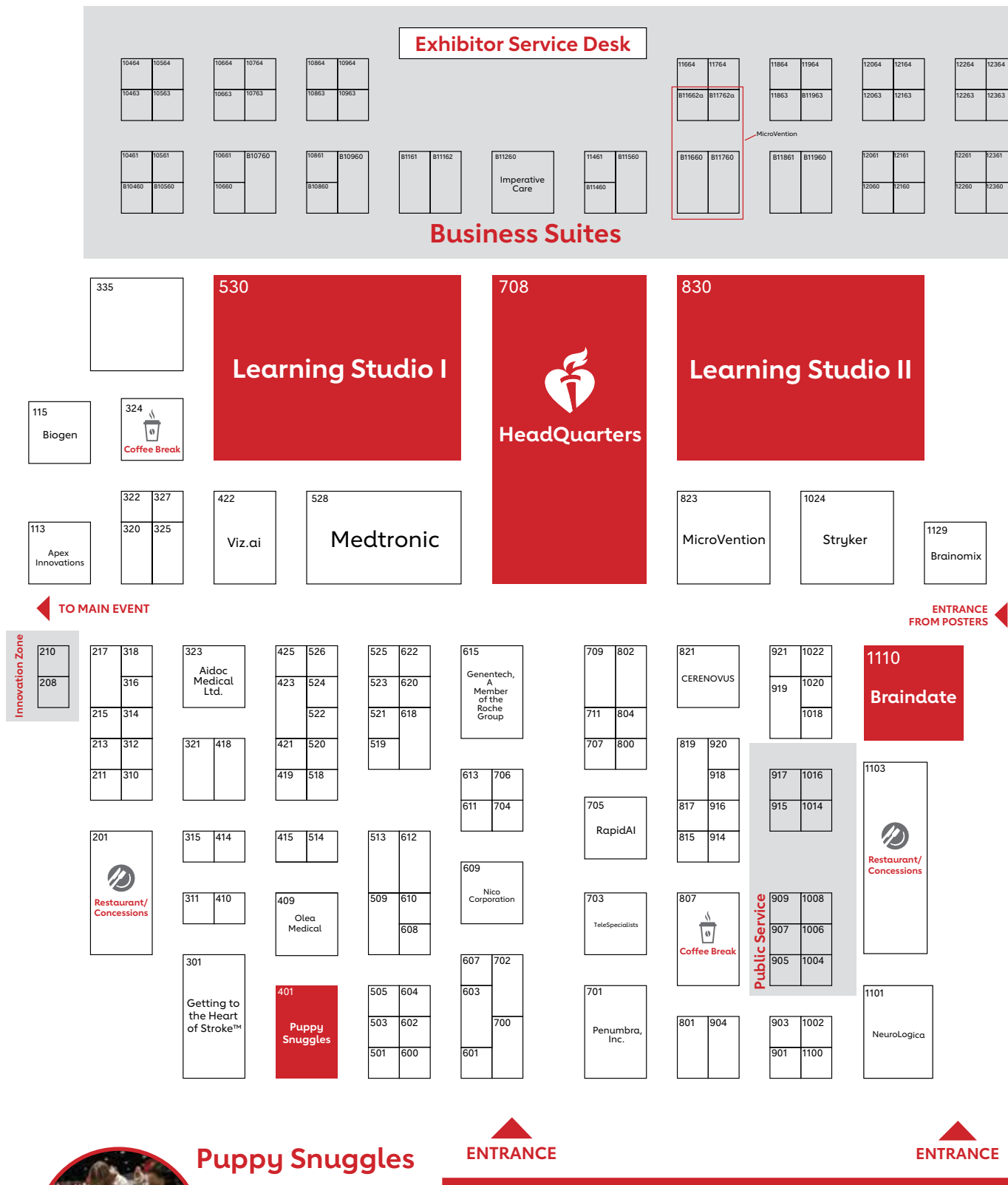
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Access TeleCare 903	Genentech, A Member of the	Philips 325
Accreditation Commission for	Roche Group 615	Pulsara 800
Health Care 909	Genomadix Inc. 520	Q'Apel Medical, Inc. 801
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Science & Technology Hall Map



Learning Studios

Booth 530 and 830

Learn about the latest advances in stroke practices, services and technologies.



AHA/ASA HeadQuarters

Booth 708

Learn more about AHA/ASA initiatives, education, membership and publications.



Braindate at ISC

Booth 1110

Stop by the Braindate Lounge to participate in the new crowd-sourced peer-to-peer learning experience. YOU pick the topics — the best way to brainstorm, solve challenges and share expertise while creating meaningful connections. See what's trending and book your Braindate online at <https://isc23.braindate.com>. (for professional attendees only)



Puppy Snuggles

Booth 401

Need a break? Nothing beats a cuddle with a warm and fuzzy puppy. Snuggles lower blood pressure and help you relax.



Stroke Central

Learning Studio II, Booth 830

AHA/ASA Stroke Central is a mixed-use space for ISC attendees to learn, network and relax. Various programming from the Early Career & FIT Program, Women in Science & Medicine, AHA/ASA Science and Stroke Council is scheduled for Wednesday and Thursday.

Visit the Science & Technology Hall

9 a.m.-5 p.m.

Wednesday and Thursday



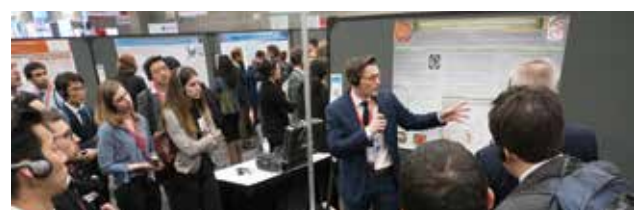
Poster Tours, Sessions kick off today

ISC 2023 offers two types of poster sessions: professor-led poster tours and one-on-one individual Q&A poster presentations.

Choose from 10 professor-led Poster Tours 6-7 p.m. today in Hall F. Expert moderators will lead these tours, which are organized by category; they provide a short presentation and Q&A with each of the poster authors in that section. To take part, simply view the Wednesday Moderated Poster Sessions in the Online Program Planner or on the Mobile Meeting Guide App. Decide which section/category of posters you would like to attend. Then, at 5:55 p.m., arrive at the correspondingly numbered "Section" sign for your selected section/category. Headsets will be available for ease of listening to the presenters.

During the regular Poster Sessions, poster presenters will be at their posters for informal Q&As with attendees 7-7:30 p.m. today in Hall F. These one-on-one posters are not a part of the professor-led Poster Tours. To see the posters featured in today's regular Poster Sessions, view the Poster Sessions in the online Program Planner or on the Mobile Meeting Guide App.

Posters also will be available for viewing in the Poster Hall (Hall F) 8 a.m. to 7:30 p.m. today and Thursday. See Thursday's ISC News for details on Thursday's professor-led Poster Tours and regular Poster Sessions.



Poster Hall Hours

8 a.m.-7:30 p.m.
Wednesday and Thursday
Level 2, Hall F

Professor-Led Poster Tours

6-7 p.m.
Posters WMP1- WMP120

1. Acute Treatment: Systemic Thrombolysis and Cerebroprotection Moderated Poster Tour
2. Translational Basic Science Moderated Poster Tour I
3. Cerebrovascular Nursing Moderated Poster Tour
4. Clinical Rehabilitation and Recovery Moderated Poster Tour
5. Health Services, Quality Improvement and Patient-Centered Outcomes Moderated Poster Tour I
6. Imaging Moderated Poster Tour I
7. In-Hospital Care: From the ICU to Discharge Moderated Poster Tour
8. Large Vessel Disease From Arteries to Veins (Non-Acute Treatment) Moderated Poster Tour
9. Neuroendovascular Moderated Poster Tour I
10. Risk Factors and Prevention Moderated Poster Tour I

Regular Poster Sessions

7-7:30 p.m.
Posters WP1- WP247

These posters are not included in the 6 p.m. professor-led Poster Tour sessions.

- Acute Treatment: Systemic Thrombolysis and Cerebroprotection Posters I
- Aneurysms and Vascular Malformations Posters
- Cerebrovascular Nursing Posters I
- Cerebrovascular Systems of Care Posters I
- Clinical Rehabilitation and Recovery Posters
- Health Services, Quality Improvement, and Patient-Centered Outcomes Posters I
- Imaging Posters I
- Intracerebral Hemorrhage Posters I
- Large Vessel Disease from Arteries to Veins (Non-Acute Treatment) Posters
- Neuroendovascular Posters I
- Risk Factors and Prevention Posters I
- Translational Basic Science Posters I
- Late-Breaking Science Posters

ISC 2023 Abstract Categories: Wednesday

- Acute Treatment: Systemic Thrombolysis and Cerebroprotection
- Advanced Practice Providers and Therapists
- Aneurysms and Vascular Malformations
- Brain Health
- Cerebrovascular Manifestations of COVID-19
- Cerebrovascular Nursing
- Cerebrovascular Systems of Care
- Clinical Rehabilitation and Recovery
- Health Services, Quality Improvement and Patient-Centered Outcomes
- Imaging
- In-Hospital Care: From the ICU to Discharge
- Intracerebral Hemorrhage
- Large Vessel Disease From Arteries to Veins (Non-Acute Treatment)
- Neuroendovascular
- Pediatric Cerebrovascular Disease
- Risk Factors and Prevention
- Translational Basic Science
- Late-Breaking Science

SICKLE CELL

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neurology and radiology at Vanderbilt University Medical Center in Nashville, said the majority of people with SCD are in low- and middle-income countries and regions. Reaching and treating these patients has challenges.

Halima Bello-Manga, hematologist and assistant professor at Barau Dikko Teaching Hospital and Kaduna State University in Nigeria, said one of the big hurdles is the lack of expertise in transcranial doppler (TCD) ultrasound screening and stroke detection in these regions. She said her university has taken steps to correct this problem.

“To address this, we have conducted a

workshop on performing TCD examinations and stroke detection,” she said. “We trained nurses and community health extension workers to complete TCDs because they are more readily available at the community level where the care for SCD patients is not very adequate.”

Other hurdles include poor SCD education among parents, caregivers and health care professionals and the cost of hydroxyurea for children at risk of developing stroke.

“To address (the lack of education), we have developed educational materials in the local language and also give talks on the radio,” Dr. Bello-Manga said. “We also convinced the state government to provide free hydroxyurea to at-risk children.” •

NIHSS Survey

Take a minute and provide feedback to inform the redesign of the National Institutes of Health Stroke Scale (NIHSS).



The American Heart Association thanks the following supporters of ISC 2023:

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The AHA also thanks the following companies for their support of ISC 2023. Their support was provided through educational grants.

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*This study was funded by Stryker through an unrestricted research grant.

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Don't miss today's industry events

Learning Studios Wednesday, Feb. 8



10-10:30 a.m.
Racial and Ethnic Disparities in the Utilization of Thrombectomy for Acute Stroke
Learning Studio I
Supporter: Cerenovus

12:45-1:15 p.m.
Maintaining Legacy and Exploring Distal Frontiers
Learning Studio I
Supporter: Medtronic, Inc.

12:45-1:15 p.m.
Technological Advances in Rehabilitation Lead to Improved Outcomes
Learning Studio II
Supporter: Encompass Health

1:30-2 p.m.
What Is the True Impact of AI? Latest World Data Across Major Stroke Networks
Learning Studio I
Supporter: Viz.ai

1:30-2 p.m.
Left Atrial Appendage Closure and the Heart-Brain Impact
Learning Studio II
Supporter: Boston Scientific

2:15-2:45 p.m.
The Next Frontiers in Mobile Stroke Unit Practice and Implementation
Learning Studio I
Supporter: NeuroLogica

Stroke Central Programming, Wednesday, Feb. 8



9:15-9:45 a.m.
FIT & Early Career | Tips for Success: Starting Your Research Career and Getting Published
Learning Studio II

10-10:30 a.m.
FIT & Early Career | Pathway to Leadership: Becoming a Stroke Director
Learning Studio II

2:15-3 p.m.
Nursing Presentation | What You Know — and Don't: Omissions in Patient-Centered Care Beyond the Metrics
Learning Studio I

3:30-4:30 p.m.
Neurocritical Care Presentation | Topics in Neurocritical Care of Cerebrovascular Disease
Learning Studio II

3:30-4:30 p.m.
Council Reception
Learning Studio I

Satellite Events Wednesday, Feb. 8



7-8:30 p.m.
Society for Cardiovascular Angiography and Interventions
Omni Dallas Hotel
Dallas Ballroom, B

7-8:30 p.m.
Sponsor: Voxmedia
Supporter: AstraZeneca
Omni Dallas Hotel
Dallas Ballroom, A

7-8:30 p.m.
Medtronic, Inc.
Omni Dallas Hotel
Dallas EFG

Be sure to pick up the Thursday issue of ISC News for Learning Studios, Stroke Central programming and satellite events tomorrow.

STROKE OUTCOMES

continued from page 1

focused presentation, “Sex and Gender Differences in Short- and Long-Term Outcomes After Stroke: An Overview.”

Dr. Madsen will outline factors that impede a woman's recovery following a stroke, including “the ability to live independently (or need for assistance with daily activities), death following stroke and outcomes that are particularly critical to patients, such as quality of life,” she said.

“A major challenge to understanding this topic is that biologic sex intersects with social determinants such as gender and race,” Dr. Madsen said. “All of these constructs have a role in outcome after stroke and must be included in work aimed to understand poor outcome in women following stroke.”

Session moderator Kathryn M. Rexrode, MD, MPH, chief of women's health in the Department of Medicine at Brigham and Women's Hospital in Boston, echoed Dr. Madsen's claim. The increased likelihood of women living alone in their later years (outliving their partners) has a negative impact on the ability to call for emergency help, she said. Biological and clinical mechanisms also impact stroke severity in women.

“Most strokes occur in older women who have a larger number of underlying health conditions, and more strokes in women are due to atrial fibrillation, which tends to be

a risk factor for more severe stroke,” Dr. Rexrode said. “Further research is needed about whether some female-specific risk factors, such as history of early age at menopause and certain pregnancy complications (such as preeclampsia) may affect stroke outcomes. However, data are currently limited.”

Although factors such as age and pre-stroke functional status and comorbidities likely explain a large proportion of the differences in post-stroke outcomes between women and men, the bottom line is women as a group still have worse post-stroke outcomes, Dr. Madsen said.

“This is a population health issue,” she said. “Next steps should focus on interventions aimed specifically at improving outcomes in women.”

The topic aligns closely with Dr. De Rango's legacy. As a vascular surgeon for more than two decades, she was an international leader in research that influenced guidelines on stroke prevention, particularly in patients with carotid stenosis.

In the years before her death, she focused on the impact and management of carotid stenosis in women and was a pioneer in examining what factors were different in women.

“Dr. Paola De Rango dedicated her life's work to understanding stroke in women with the goal of improving prevention and outcomes,” Dr. Madsen said. “This session is directly relevant as it will illuminate next steps in improving outcomes for women.” •

Call for Science

ISC24, Nursing Symposium 2024 and HEADS-UP 2024

Session Ideas

Suggested Session Submitter opened: Monday, Feb. 6, 2023

Suggested Session Submitter closes: Monday, March 20, 2023

Abstracts

Submission opens: Wednesday, May 31, 2023

Submission closes: Tuesday, Aug. 22, 2023

Late-Breaking Science and Ongoing Clinical Trials Abstracts

Submission opens: Wednesday, Oct. 4, 2023

Submission closes: Wednesday, Nov. 1, 2023

The link to submit abstracts and/or session ideas can be found at strokeconference.org/submitscience on the applicable date above.

Start planning now for ISC 2024, Feb. 7-9 in Phoenix, Arizona!



The Brain-Heart Team Approach:

SECONDARY PREVENTION AFTER A PRESUMED PFO-MEDIATED STROKE

WEDNESDAY, FEBRUARY 8, 2023

7:00 – 8:30 PM

OMNI DALLAS HOTEL | ROOM DALLAS B

COMPLIMENTARY DINNER SYMPOSIUM

OVERVIEW

The session will present actionable insights for neurologists and cardiologists about how to build a team around and select appropriate patients for patent foramen ovale (PFO) closure after a cryptogenic stroke.

LEARNING OBJECTIVES

At the conclusion of this activity participants will be able to demonstrate the ability to:

- Describe the epidemiology and burden of cryptogenic ischemic stroke
- List competencies and resources necessary to constitute a Brain-Heart team
- Perform the complete evaluation of ischemic stroke patients to determine stroke mechanism
- Describe key clinical trial data regarding the safety and efficacy of FDA-approved devices for PFO closure to prevent secondary stroke
- Suspect PFO in patients with cryptogenic stroke and ensure appropriate team-based evaluation
- Deploy shared decision-making principles with cryptogenic stroke patients with PFO to determine the patients preferred secondary stroke prevention strategies

ACCREDITATION STATEMENT

The Society for Cardiovascular Angiography and Interventions (SCAI) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

CREDIT DESIGNATION

SCAI designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

ACKNOWLEDGEMENT OF COMMERCIAL SUPPORT

This activity is supported through unrestricted educational grants from Abbott and W.L. Gore & Associates.

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