

*Hybrid Event (in-person & virtual)*

# The Arizona Brain and Heart Symposium

*A Collaboration of Barrow Neurological Institute and Arizona Heart Rhythm Center*



**Oct. 21 & 22, 2022**

Hybrid Conference (in-person & virtual)

Friday, 1-5 p.m., Saturday, 8 a.m.-3:30 p.m.

Goldman Auditorium at Barrow Neurological Institute  
350 West Thomas Road, Phoenix, Arizona, 85013



**Barrow**  
Neurological Institute

**Petznick**  
Stroke Center



ARIZONA  
**HEART RHYTHM**  
CENTER

## Who Should Attend

The program has been designed to meet the educational goals of cardiologists and neurologists, including residents and fellows training both specialties, as well as internists, physicians, nurses, and other health care workers involved in the evaluation and treatment of patients with neurologic and cardiac disorders.

## Objectives

- Define the common conditions of brain-heart related disorders such as stroke, seizure, encephalopathy, arrhythmia
- Cite the updated recommendation on the diagnostic workup of the above mentioned conditions
- Manage medically in terms of stroke prevention, arrhythmia control, and seizure control
- Explain the options in interventional treatment of cardiac arrhythmia, rhythm control, and stroke prevention

## Designation

### **CONTINUING MEDICAL EDUCATION CREDIT INFORMATION**

#### **Accreditation**

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of American College of Surgeons and the Barrow Neurological Institute. The American College of Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

#### **AMA PRA Category 1 Credits™**

The American College of Surgeons designates this live activity for a maximum of **9.00 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.



AMERICAN COLLEGE OF SURGEONS  
DIVISION OF EDUCATION

CommonSpirit CNE Administration is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Register Here



[BarrowNeuro.org/BrainHeart](https://BarrowNeuro.org/BrainHeart)

[azheartrhythmcenter.com/brainheart](https://azheartrhythmcenter.com/brainheart)

For more information, please contact the Barrow Continuing Medical Education Office at [CME@BarrowNeuro.org](mailto:CME@BarrowNeuro.org) or contact the event committee [Maria.Sanchez6@DignityHealth.org](mailto:Maria.Sanchez6@DignityHealth.org)

## Disclosure Policy

It is the policy of St. Joseph's Hospital and Medical Center to ensure balance, independence, objectivity, and scientific rigor in all of its educational programs. All those in control of content will disclose all relevant relationships with commercial interests. Detailed disclosures will be made in the activity handout materials.

## Barrow Neurological Institute Faculty

### **Brad A. Racette, MD, FAAN**

Barrow Neurology Chair  
Movement Disorders

### **David Wang, DO, FAAN, FAHA**

Co-Director, Petznick Stroke Center  
Division of Vascular Neurology

### **Terry D. Fife, MD**

Director  
Balance Disorders and Vestibular Neurology  
Program

### **Justin Hoskin, MD**

Neurologist  
Balance Disorders and Vestibular Neurology  
Program

### **Supreet Kaur, MD**

Neurologist  
Division of Vascular Neurology

### **Daniel Gonzalez, MD**

Neurologist  
Division of Vascular Neurology

### **Andrew Ducruet, MD**

Neurosurgeon  
Division of Endovascular Neurosurgery

### **Richard Foster, MS, RVS, RVT, RDMS**

Neurosonology Supervisor  
Diagnostic Imaging  
Transcranial Doppler Ultrasonography

### **Andrew Kalkowski, RN**

Emergency Stroke Treatment Unit

## St. Joseph's Hospital and Medical Center Faculty

### **Kevin Brady, MD**

Cardiothoracic Surgeon  
Heart and Vascular Institute

### **Pallavi Bellamkonda, MD**

Cardiologist  
Heart and Vascular Institute

### **Hursh Naik, MD**

Cardiologist  
Heart and Vascular Institute

### **Rajakrishnan Vijayakrishnan, MD**

Cardiologist  
Norton Thoracic Institute

## Arizona Heart Rhythm Center Faculty

### **Vijendra Swarup, MD, FACC, FHRS**

Medical Director

### **Robert Lemery, MD, FACC, FHRS**

Electrophysiologist

### **Sudarone Thihalolipavan, MD**

Electrophysiologist

### **Gali Gannett, PA**

Physician Assistant

## Guest Faculty

### **Saibal Kar, MD**

Director of Structural Heart Disease and  
Research at HCA Healthcare

### **Dhanunjaya R. Lakkireddy, MD, FHRS**

Executive Medical Director  
Kansas City Heart Rhythm Institute

### **Vivek Reddy, MD, FACC, FHRS**

Medical Director  
Mount Sinai Cardiac Arrhythmia Services

### **Kalyanam Shivkumar, MD, FACC, FHRS**

Medical Director  
UCLA Cardiac Arrhythmia Center

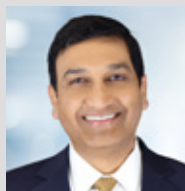
### **M. Edip Gurol, MD, MSc**

Vascular Neurologist  
Director, High Hemorrhage Risk Stroke  
Prevention Clinic  
Massachusetts General Hospital | Harvard  
Medical School

### **Roderick Tung, MD**

Cardiovascular Center at Banner – University  
Medical Center Phoenix and Division Chief of  
Cardiology at the University of Arizona College  
of Medicine – Phoenix

## Course Directors



**Vijendra Swarup, MD, FACC, FHRS**

Medical Director  
Arizona Heart Rhythm Center



**David Wang, DO, FAAN, FAHA**

Co-Director  
Division of Vascular Neurology  
Barrow Neurological Institute



**Robert Lemery, MD, FACC, FHRS**

Electrophysiologist  
Arizona Heart Rhythm Center

# AGENDA Oct. 21 & 22, 2022 (Pacific Daylight Time)

## Friday, Oct. 21, 2022

**1 p.m. Registration and Vendor Exhibit**

**1:25 p.m. Welcome & Introduction to Brain-Heart**

*David Wang, DO, Vijendra Swarup, MD, Robert Lemery, MD*

1:30 p.m. Brain Health 2022

*David Wang, DO*

1:40 p.m. Cardiology and Cardiac Electrophysiology in 2022

*Vijendra Swarup, MD*

1:50 p.m. Brain-Heart: Brief Historical Perspectives and New Frontiers

*Robert Lemery, MD*

### **Session I: Autonomic Neuromodulation to Treat Cardiac Arrhythmias**

**Moderators: David Wang, DO, Vijendra Swarup, MD, Robert Lemery, MD**

2 p.m. Cardio Neural Ablation for Vasovagal Syncope

*Roderick Tung, MD*

2:20 p.m. Renal Denervation for the Treatment of Hypertension and Atrial Fibrillation

*Vivek Reddy, MD (Online Speaker)*

2:40 p.m. Cardiac Sympathetic Denervation for the Treatment of VT

*Keynote Speaker: Kalyanam Shivkumar, MD (Online Speaker)*

3 p.m. Panel Discussion, Q&A

**3:15 p.m. Coffee Break**

### **Session II: LIVE CASES Interventional Cardiology and Stroke Prevention**

**Moderators: Vivek Reddy, MD, Hursh Naik, MD, Robert Lemery, MD, David Wang, DO, Vijendra Swarup, MD**

3:30 p.m. PFO Closure

*Hursh Naik, MD*

LAA Occlusion

*Vijendra Swarup, MD*

4:15 p.m. Panel Discussion, Q&A

### **Session III: Neuro Toxins**

**Moderators: David Wang, DO, Vijendra Swarup, MD, Robert Lemery, MD**

4:30 p.m. The Impact of Air Pollution on Brain and Heart Health

*Brad Racette, MD*

4:50 p.m. Panel Discussion, Q&A

**5 p.m. Session Adjourns**

**6 p.m. Cocktails and Dinner** (*Location to be determined*)

## Saturday, Oct. 22, 2022

**8 a.m. Light Breakfast and Coffee**

### **Session IV: An Introduction to Heart-Brain Interactions**

**Moderators: David Wang, DO, Robert Lemery, MD, Vijendra Swarup, MD**

8:30 a.m. The Brain's in Charge: Basic Understanding of the Sympathetic and Parasympathetic Nervous System

*Justin Hoskin, MD*

8:45 a.m. The Heart's in Charge: The Concept of the Little Brain on the Heart: The Intrinsic Cardiac Nervous System (ICNS)

*Robert Lemery, MD*

9 a.m. Autonomic Imbalance and Dysautonomias: Primary Neurologic Disorders Affecting Day-to-Day Regulation of Blood Pressure

*Terry Fife, MD*

9:15 a.m. Cardiac Syncope: Primary Cardiac Causes of Loss of Consciousness: Bradycardia, Tachycardia and Other

*Sudarone Thihalolipavan, MD*

9:30 a.m. Panel Discussion, Q&A

**9:45 a.m. Coffee Break**

**Session V: LIVE CASES (1 Live and 1 Pre-Recorded) from the Arizona Heart Rhythm Center**  
**Moderators: Dhanunjaya Lakkireddy, MD, Sabil Kar, MD, Robert Lemery, MD, Sudarone Thihalolipavan, MD**

10 a.m. Live from the EP Lab. Introduction of patient cases  
*Vijendra Swarup, MD, Sudarone Thihalolipavan, MD*

10:20 a.m. Individualized Stroke Prevention in Atrial Fibrillation: The Crossroads of Neurology and Cardiology  
*Keynote Speaker: M. Edip Gurol, MD, MSc*

10:40 a.m. The Role of MitraClip in the Treatment of Mitral Regurgitation in Patients with Atrial Fibrillation.  
*Sabil Kar, MD*

11 a.m. Live from the EP Lab. Progress of Clinical Cases Being Performed  
*Vijendra Swarup, MD, Sudarone Thihalolipavan, MD*

11:20 a.m. Ablation of Atrial Fibrillation: Realistic Expectations for the Referring Physician  
*Dhanunjaya Lakkireddy, MD*

11:40 a.m. Live From the EP Lab. Wrap-Up and Patient Outcomes  
Panel Discussion, Q&A

**Noon Lunch / Vendors in Marley Lobby / Session Broadcast in Sonntag**

12:15 p.m. Loop Recorder/Implants  
*Gali Gannett, PA*

12:30 p.m. The Magic of Transcranial Doppler  
*Richard Foster*

12:45 p.m. Mobile Stroke Unit's Case Study  
*Andrew Kalkowski, RN*

**Session VI: Stroke Therapies and Prevention**

**Moderators: David Wang, DO, Robert Lemery, MD, Vijendra Swarup, MD**

1 p.m. Antithrombotics for Stroke Prevention: What are the Current Guidelines?  
*Daniel Gonzalez, MD*

1:15 p.m. Embolic Stroke of Unknown Source: How Do We Manage?  
*Supreet Kaur, MD*

1:30 p.m. Interventional Neuroradiology: What Can Endovascular Therapy Do?  
*Andrew Ducruet, MD*

1:45 p.m. Panel Discussion, Q&A

**2 p.m. Coffee Break**

**Session VII: Covid-19, CHF, and Autonomic Regulation**

**Moderators: Pallavi Bellamkonda MD, David Wang, DO, Vijendra Swarup, MD, Robert Lemery, MD**

2:15 p.m. Covid-19, Autonomics, and Long Covid  
*Dhanunjaya Lakkireddy, MD*

2:30 p.m. Neuro Humoral Treatment of CHF  
*Rajakrishnan Vijayakrishnan, MD*

2:45 p.m. LVAD, Other Bridge to Permanent Devices and Cardiac Transplantation  
*Kevin Brady, MD*

3 p.m. Panel Discussion, Q&A

**3:15 p.m. Meeting Overview and Conclusions of Brain-Heart 2022**

*David Wang, DO, Vijendra Swarup, MD, Robert Lemery, MD*

**3:30 p.m. Meeting Adjourns**