VIVA Physicians is a not-for-profit organization dedicated to vascular education and research.

THE GLOBAL EDUCATION COURSES FOR VASCULAR MEDICINE AND INTERVENTION

VIVA AND THE VEINS RETURN LIVE TO WYNN LAS VEGAS

THE 19TH ANNUAL
Vascular Interventional Advances

VIVA 21
OCTOBER 4-7, 2021 • WYNN LAS VEGAS

THE 11TH ANNUAL
Venous Endovascular Interventional Strategies

THE VEINS AT VIVA
OCTOBER 3-4, 2021 • WYNN LAS VEGAS

VIVA Physicians is a not-for-profit organization dedicated to vascular education and research.

vivaphysicians.org
Now in its 19th year, VIVA continues to offer unparalleled endovascular education with a curriculum designed to engage practitioners across a variety of specialties. We are thrilled to return to Wynn Las Vegas once again to bring together our celebrated faculty of leading clinicians and researchers in interventional cardiology, interventional radiology, vascular medicine, and vascular surgery with the shared goal to present an impactful, transformative series of educational sessions.

VIVA21 will explore new and evolving therapies, best practices, and ongoing controversies to enhance your clinical perspective. Each session features multidisciplinary panels selected to foster a lively, interactive learning environment and provide a balanced look at the current state and future of endovascular care. In 2021 we are pleased to present:

• Great Debates, offering competing views from expert clinicians
• Groundbreaking research and trial data in the Late-Breaking Clinical Trials and Drinks and Data sessions
• International live cases from the U.S. and Germany
• Pre-courses focused on critical limb-threatening ischemia and aortic intervention
• Innovation sessions exploring tech development and the digitization of healthcare

Reflecting on the past year, VIVA and The VEiNS remain mindful of the ongoing effects of COVID-19. As in-person meetings and activities slowly resume, VIVA is committed, to the extent possible, to providing a safe environment to attendees, faculty, exhibitors and staff. Las Vegas is taking steps toward a full reopening, including monitoring community vaccination rates and declining infection rates. Though these metrics may modify social distancing requirements in the near future, we remain committed to following the recommended safety protocols outlined by Wynn and the state and local mandates at the time of the VIVA conference. This may require all attendees to be vaccinated, which will be communicated as we get closer to the conference.

Visit vivaphysicians.org to learn more and to register for VIVA and The VEiNS 2021. We look forward to seeing you in Las Vegas this fall.

Joshua Beckman, MD
VIVA Board President
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   Scholarship applications and Face-Off presentations are due August 2.

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NEW IN 2021

INNOVATION SESSIONS
Experts will explain the process of developing and bringing new devices to the market in the vascular space. Topics from intellectual property to commercialization from world experts with proven track records will explore what’s next in Digital Health, AI, and machine learning. Come ready to learn what to expect as the biggest tech companies continue to shape the future of healthcare. More on page 10.

15-MINUTE MENTORING
Early career clinicians—now is your chance to engage leaders and make connections. On Thursday, October 7, VIVA will host its first-ever 15-Minute Mentoring sessions. Members of VIVA’s Board of Directors and faculty will be available on a first-come, first-served basis to answer your burning questions about early career strategies and life in academics, research, or private practice. You have the floor!

Space is limited, so sign up early on-site at VIVA21.

TUITION RATE DEADLINES

Early Ends June 14
Prime June 15 - August 31
Standard September 1 - October 7

Industry registration will open on Monday, August 2.
See page 18 for complete registration & tuition information.
FACULTY

INTERVENTIONAL CARDIOLOGY
George Adams, MD, MHS, MBA
UNC REX Healthcare
Raleigh, North Carolina

Gary Ansel, MD
University of Toledo
Columbus, Ohio

Subhash Banerjee, MD
UT Southwestern Medical Center / VA North Texas Dallas, Texas

Charles Botti Jr, MD
OhioHealth Riverside Methodist Hospital
Columbus, Ohio

Joseph Campbell, MD
Cleveland Clinic
Cleveland, Ohio

Peter Fitzgerald, MD, PhD
Stanford University Medical Center
Stanford, California

Lawrence A. Garcia, MD
Steward St. Elizabeth’s Medical Center Boston, Massachusetts

Jay Giri, MD, MPH
Hospital of the University of Pennsylvania
Philadelphia, Pennsylvania

Prakash Krishnan, MD
Mount Sinai
New York, New York

Jun Li, MD
University Hospitals Cleveland Medical Center
Cleveland, Ohio

Sahil A. Parikh, MD
New York Presbyterian / Columbia University Irving Medical Center New York, New York

John Phillips, MD
OhioHealth Riverside Methodist Hospital
Columbus, Ohio

Kenneth Rosenfield, MD
Massachusetts General Hospital Boston, Massachusetts

Ravish Sachar, MD
UNC REX Healthcare
Raleigh, North Carolina

Eric A. Secemsky, MD, MSc
Beth Israel Deaconess Medical Center / Harvard Medical School Boston, Massachusetts

Mehdi Shishehbor, DO, MPH, PhD
University Hospitals Cleveland Medical Center
Cleveland, Ohio

Peter A. Soukas, MD
Cardiovascular Institute Providence, Rhode Island

INTERVENTIONAL RADIOLOGY
J. Fritz Angle, MD
University of Virginia Charlottesville, Virginia

Laura K. Findeiss, MD
Emory Healthcare Atlanta, Georgia

Mark J. Garcia, MD
EndoVascular Consultants Wilmington, Delaware

Andrew Holden, MBChB
Auckland Hospital Auckland, New Zealand

Sanjay Misra, MD
Mayo Clinic Rochester, Minnesota

Isabel Newton
VA San Diego Healthcare System / University of California San Diego San Diego, California

Parag J. Patel, MS, MD
Medical College of Wisconsin Milwaukee, Wisconsin

Constantino Peña, MD
Miami Cardiac & Vascular Institute Miami, Florida

Alex Powell, MD
Miami Cardiac & Vascular Institute Miami, Florida

Mahmood Razavi, MD
St Joseph Heart & Vascular Center Orange, California

John Rundback, MD
Advanced Interventional & Vascular Services, LLP Teaneck, New Jersey

Gloria M. Salazar, MD
Massachusetts General Hospital / Harvard Medical School Boston, Massachusetts

Allison Tan, MD
Thomas Jefferson University Philadelphia, Pennsylvania

Suresh Vedantham, MD
Washington University in St. Louis Saint Louis, Missouri

Bret N. Wiechmann, MD
Vascular & Interventional Physicians Gainesville, Florida

VASCULAR MEDICINE
J. Michael Bacharach, MD
North Central Heart Institute Sioux Falls, South Dakota

Geoffrey Barnes, MD, MSc
University of Michigan Ann Arbor, Michigan

Marc Bonaca, MD, MPH
University of Colorado Aurora, Colorado

Marianne Brodmann, MD
Medical University Graz Graz, Austria

Scott Cameron, MD
Cleveland Clinic Cleveland, Ohio

Bruce H. Gray, DO
Prisma Health System Greenville, South Carolina

Michael R. Jaff, DO
Harvard Medical School Maple Grove, Minnesota

Daniella Kadian-Dodov, MD
Icahn School of Medicine at Mount Sinai New York, New York

Nicholas Leeper, MD
Stanford University Medical Center Stanford, California

Suman Wasan, MD
UNC REX Healthcare Raleigh, North Carolina

Thomas Zeller, MD, PhD
Universitäts-Herzzentrum Freiburg-Bad Krozingen Bad Krozingen, Germany
VASCULAR SURGERY

Ali Azizzadeh, MD
Cedars-Sinai Smidt Heart Institute
Los Angeles, California

Trissa Babrowski, MD
University of Chicago Medical Center
Chicago, Illinois

Daniela Branzan, MD
University Hospital Leipzig
Leipzig, Germany

Frank Caputo, MD
Cleveland Clinic
Cleveland, Ohio

Koen R. Deloose, MD
az Sint-Blasius
Dendermonde, Belgium

Brian DeRubertis, MD
UCLA-Ronald Reagan Medical Center
Los Angeles, California

Matthew Eagleton, MD
Massachusetts General Hospital
Boston, Massachusetts

Caitlin Hicks, MD
Johns Hopkins University School of Medicine
Baltimore, Maryland

Angela Kokkosis, MD
Stony Brook University Hospital
Stony Brook, New York

Jason T. Lee, MD
Stanford University Medical Center
Stanford, California

Miguel Montero-Baker, MD
Baylor College of Medicine
Houston, Texas

Gustavo S. Oderich, MD
McGovern Medical School at UTHealth
Houston, Texas

Jean Panneton, MD
EVMS Division of Vascular Surgery
Norfolk, Virginia

Elina Quiroga, MD
University of Washington
Seattle, Washington

Darren B. Schneider, MD
University of Pennsylvania, Perelman School of Medicine
Philadelphia, Pennsylvania

Sherene Shalhub, MD, MPH
University of Washington
Seattle, Washington

Christopher J. Smolock, MD
Cleveland Clinic
Cleveland, Ohio

Benjamin Starnes, MD
University of Washington
Seattle, Washington

Karen Woo, MD, PhD
UCLA Division of Vascular Surgery
Los Angeles, California

ANGIOLOGY

Dierk Scheinert, MD
University Hospital Leipzig
Leipzig, Germany

Andréj Schmidt, MD
University Hospital Leipzig
Leipzig, Germany

Dierk Scheinert, MD
University Hospital Leipzig
Leipzig, Germany

ANGIOLOGY

Dierk Scheinert, MD
University Hospital Leipzig
Leipzig, Germany

2021 KEYNOTE SPEAKER

Lee A. Fleisher, MD
Chief Medical Officer, Director
The Center for Clinical Standards and Quality
Baltimore, Maryland

INNOVATIONS SPEAKERS

Todd Brinton, MD
Edwards Lifesciences
Irvine, California

Louis A. Cannon, MD
Cardiac & Vascular Research Center of Northern Michigan
Charlevoix, Michigan

Jerry Bartholomew, MD
Vascular Medicine
Cleveland Clinic
Cleveland, Ohio

Venita Chandra, MD
Vascular Surgery
Stanford University Medical Center
Stanford, California

Yoshimitsu Soga, MD, PhD
Interventional Cardiology
Kokura Memorial Hospital
Fukuoka, Japan

2021 AWARD RECIPIENTS

LIVE AWARD
James F. Benenati, MD
Interventional Radiology
Miami Cardiac & Vascular Institute
Miami, Florida

ATLAS AWARD
Jerry Bartholomew, MD
Vascular Medicine
Cleveland Clinic
Cleveland, Ohio

VCA AWARD
Venita Chandra, MD
Vascular Surgery
Stanford University Medical Center
Stanford, California

2021 AWARD RECIPIENTS

ATLAS AWARD
Jerry Bartholomew, MD
Vascular Medicine
Cleveland Clinic
Cleveland, Ohio

VCA AWARD
Venita Chandra, MD
Vascular Surgery
Stanford University Medical Center
Stanford, California

Yoshimitsu Soga, MD, PhD
Interventional Cardiology
Kokura Memorial Hospital
Fukuoka, Japan

Read about our distinguished award recipients at vivaphysicians.org/awards.

VIVA IS MULTIDISCIPLINARY

• Representation from all stakeholders in PVD care
• Productive discourse and debate between specialties
• Leaders at the forefront of endovascular care and technology offering unique viewpoints
CME 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 the University at Buffalo Jacobs School of Medicine and Biomedical Sciences and VIVA Physicians. The University at Buffalo Jacobs School of Medicine and Biomedical Sciences is accredited by the ACCME to provide continuing medical education for physicians.

The University at Buffalo Jacobs School of Medicine and Biomedical Sciences designates this live activity for a maximum of 21.3 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity. Note that multiple sessions will run concurrently each day.

TARGET AUDIENCE

VIVA is designed for physicians specializing in interventional cardiology; interventional and neurologic radiology; vascular medicine; vascular, neurologic, and cardiothoracic surgery; podiatry; fellows and residents; and allied health professionals (including nurses, vascular clinic staff, endovascular operating room staff, cath lab and angiography suite staff, nurse practitioners, vascular technologists, and physician assistants).

OBJECTIVES

At the conclusion of the course, the targeted learners should be able to:

• Understand the current indications, risks, complications, and outcomes for hemodialysis vascular access as well as medical, interventional, and surgical therapies for peripheral arterial and venous diseases.
• Incorporate advanced medical, endovascular, and surgical techniques and approaches into their own practices to improve the care and outcomes of patients.
• Implement high-quality guidelines-based programs to improve the early identification and care of patients with non-cardiac vascular conditions.
• Increase knowledge in critical decision-making and the comprehensive spectrum of care for patients with stroke, intracranial and extracranial carotid, and artery disease.
• Improve the delivery of balanced and scientifically valid vascular care in accordance with expert opinion and practice.
• Apply a strategic multidisciplinary and team-based approach to the treatment of vascular disease.
• Gain and then disseminate the most current knowledge base regarding vascular care as learned from experts in the field, exposure to live cases, and data from late-breaking clinical trials.

MONDAY PRE-COURSES

• Aortic: 3.5
• CLTI: 3.5

WEDNESDAY

• Global Theater: 6.25
• Spotlight Theater: 3.9

TUESDAY

• Global Theater: 6.3
• Spotlight Theater: 3

THURSDAY

• Global Theater: 5.25
• Spotlight Theater: 3.9

DISCLAIMERS

MEDICAL CONFIDENTIALITY
Because live case demonstrations will be presented, you are reminded that any patient information you may receive as a part of this continuing medical education (CME) program is considered confidential. Confidential patient information includes all information that could be used to identify the individual patient. By participating in this CME program, you agree to maintain the confidentiality of all patient information and not release that information to any third party.

MEDICAL JUDGMENT DISCLAIMER
The information provided at this meeting is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a physician relative to diagnostic and treatment options of a specific patient’s medical condition.

UNLABELED PRODUCTS AND/OR PROCEDURES
VIVA faculty may discuss information about pharmaceutical agents and/or devices and/or procedures that are outside of U.S. Food and Drug Administration–approved labeling. This information is intended solely for CME and is not intended to promote off-label use of these medications, devices, and procedures. If you have questions, contact the medical affairs department of the manufacturer for the most recent prescribing information.

FACULTY DISCLOSURES
The University at Buffalo Jacobs School of Medicine and Biomedical Sciences, in accordance with ACCME accreditation requirements, requires faculty to disclose any financial interest or other relationship with the manufacture(s) of any commercial product(s) and/or provider(s) of commercial services discussed during this educational activity and with any commercial supporters of the activity.
**MONDAY, OCTOBER 4 • PRE-COURSES**

### STRATEGIES & CASE MANAGEMENT  
1:30 - 2:45pm

- The Cost of CLTI and Vascular Care: How Many Amputations Occur Each Year, and What Is the Cost of CLTI to the Patient and Society?
- Risk Stratification Using WiFi and GLASS (Global Limb Anatomic Staging System) Scores: How Do These Apply to Decision-Making?
- Case Planning: Angiosomes, Angiographosomes, and Target Artery Path. What Are the Preprocedural and Intraprocedural Considerations?
- Is There a Role for Endovascular Therapy in Rutherford 6 Patients? How Should I Approach These Patients?

#### CLTI KEYNOTE

**The Importance of the “Toe and Flow” Concept, Models for Team Care, Standardizing Wound Management, and Best Practices for Long-Term Care**

Miguel Montero-Baker, MD

### DISRUPTERS & EMERGING TECHNOLOGY  
3:25 - 4:25pm

- Specialty Balloons and Intravascular Lithotripsy for BTK Application: How to Apply These for Optimal Angioplasty
- Current and Future BTK Stent Technology
- Tacks and Other Novel Scaffolds for BTK Application
- Drug-Coated Balloons BTK: What Is the Evidence for Paclitaxel? What Is the Status of Limus-Based DCB?
- Perfusion Monitoring: Will New Technologies Impact Our Definitions of Procedural Success?

#### “NO OPTION” OPTIONS

4:25 - 5:40pm

- Targeted Revascularization of Vascular Compartments in the Foot
- Deep Venous Arterialization: Case Selection, Outcomes, and Managing Complications
- Deep Venous Arterialization: Tips and Techniques
- Stem Cell and Cytokine-Based Therapies: Will These Change Our Management of CLTI in the Next 5 years?
- Sympathectomy and Spinal Cord Stimulators: What Are the Applications in Advanced CLTI?
- My Best CLTI Case of the Year and What I Learned

### AORTIC

#### FEVAR/CHIMPS/BRANCHED TEVAR  
1:30 - 2:45pm

- FEVAR Planning Made Easy: How I Do It
- CHIMPS Has a Role in Your Practice and These Are the Situations to Employ It
- Iliac Branch Devices Should Be the Norm, Not Coiling and Covering the Internal Iliac Artery
- Branched TEVAR: Progress and Remaining Challenges
- Rescuing Failed F/BEVAR: How I Do It
- The Need for Regionalization of Care for Complex Aortic Pathology

#### DISSECTION

3:25 - 4:25pm

- Branched TEVAR: Will Carotid Subclavian Transposition and Bypass Become Obsolete?
- Is TEVAR a Safe Strategy in Genetically Triggered Aortopathies?
- Acute TBAD: Do Alternative Strategies vs Central Aortic Repair Make Sense?
- Managing Branch Vessels in Chronic Dissections
- False Lumen Obliteration Techniques

#### MISCELLANEOUS AORTIC

4:25 - 5:40pm

- Failure of SAC Regressions and Implications on Mortality
- Update on Adjunctive Proximal Fixation: Results of Endoanchors
- Minimizing Radiation Exposure During Complex Aortic Repair
- Blunt Aortic Injury: Lessons Learned
- Visceral Aneurysms: Indications and Timing of Intervention
- Lumbar Drains With Extensive Aortic Coverage

### VIVA IS INNOVATIVE

- Disruptive Technology: Applications for new and emerging technologies that will change the field of PVD
- Innovation Summit: How to turn novel ideas into reality, and how new technology is changing the future of healthcare
TUESDAY, OCTOBER 5

**COVID CONUNDRUMS: THE GLOBAL IMPACT ON VASCULAR CARE**

- VIVA Returns Live! Changes in the Vascular Space Since We Last Met
- Vascular Considerations in COVID and COVID-Recovered Patients
- COVID Impact: A Vascular Industry Perspective
- The Effects of COVID on Research and Education
- Looking Forward as a Vascular Field After COVID

**LATE-BREAKING CLINICAL TRIALS**

**COVID CONUNDRUMS: THE GLOBAL IMPACT ON VASCULAR CARE**

8:00 - 9:15am

**CLTI-BTK**

- When Is Surgical Bypass the Way to Go?
- Alternative and Unique Access Techniques for the CLTI Patient
- BTA Endo: When Are They Truly Needed and How Do I Do Them?
- CLTI Cases: Heavy Calcium, Dissection/Scaffolding, and Deep Venous ArterIALIZATION

**WOUND CARE MANAGEMENT**

2:15 - 3:15pm

- What’s the Etiology of This Wound and How Do I Treat It?
- Algorithms for Initial Wound Assessment and Wound Care
- Can We Heal All Wounds? How to Recognize the Unsalvageable Foot
- My Puzzling Wound Cases

**FEMOROPOPLITEAL**

4:00 - 5:00pm

- How I Perform Endo Interventions for Long Femoropopliteal Disease
- Recurrent Fem-Pop Cases: What to Do With Repeat Failures
- How to Manage Severe Calcium in Fem-Pop Interventions
- Fem-Pop Cases

**COVID CONUNDRUMS: THE GLOBAL IMPACT ON VASCULAR CARE**

9:15 - 10:10am

**LIVE CASE DEMONSTRATIONS**

OhioHealth Riverside Methodist Hospital
Live Case Site Operators: Charles Botti Jr, MD; John Phillips, MD
Columbus, Ohio

**LATE-BREAKING CLINICAL TRIALS**

1:15 - 2:10pm

**LIVE CASE DEMONSTRATIONS**

Stanford University Hospital
Live Case Site Operator: Venita Chandra, MD
Stanford, California

**LIVE and ATLAS Awards**

3:05 - 3:25pm

LIVE Award: A Leader In Vascular Education
James F. Benenati, MD

ATLAS Award: A Teacher, Leader, And Scholar
Jerry Bartholomew, MD

Read about our distinguished award recipients at vivaphysicians.org/awards.

**VIVA21 Keynote**

4:00 - 4:45pm

Lee A. Fleisher, MD

The Healthcare Ecosystem Post Pandemic: A CMS Perspective

**VIVA IS TRANSFORMATIVE**

- Debates and discussions featuring all vascular specialties to expand your perspective
- Challenging live case presentations
- Practice-changing data in the Late-Breaking Clinical Trials and Drinks and Data sessions

Please visit vivaphysicians.org for updated program information.
WEDNESDAY, OCTOBER 6

GLOBAL THEATER

LINC AT VIVA
8:05 - 9:15am

LATE-BREAKING CLINICAL TRIALS
9:15 - 10:10am

LIVE CASE DEMONSTRATIONS
10:45am - 12:00pm
University Hospital Leipzig
Live Case Site Operator: Andrej Schmidt, MD
Leipzig, Germany

LATE-BREAKING CLINICAL TRIALS
1:15 - 2:10pm

LIVE CASE DEMONSTRATIONS
2:10 - 3:10pm
Advanced Interventional & Vascular Services
Live Case Site Operator: John Rundback, MD
Teaneck, New Jersey

AORTOILIAC
8:10 - 9:15am
• Aortoiliac Reconstruction: Best Techniques and Available Data
• Management of Heavy Calcium in Aortoiliac Disease
• Crossing Techniques for Aortoiliac Occlusion
• Aortoiliac Case Presentations

COMPLICATIONS
11:00am - 12:00pm
• Access-Related Complications: How to Avoid Them, How to Manage Them
• Strategies to Prevent and Treat Vessel Perforations
• Complication Cases: External Iliac Perforation, Distal Embolization, Foreign Body Retrieval, and My Worst Complication

CAROTID-BRACHIOCEPHALIC
2:15 - 3:15pm
• Subclavian Interventions: Tips and Tricks
• TCAR: Why We Have Adopted This, and Our Advice
• Transfemoral or Transradial CAS: Strategies to Maximize Embolic Protection
• Case Presentations: Innominate, Transfemoral, and TCAR

AV DIALYSIS
4:10 - 5:00pm
• Building an EndoAVF Practice: Lessons Learned
• EndoAVF Creation: Techniques and Pitfalls
• Surgical AVF Access Remains the Standard
• DCB for AV Access Maintenance
• Stent Grafts for AV Access Salvage

GREAT DEBATES
4:00 - 5:00pm
• CFA: Surgery Is the Gold Standard!
• CFA: Endo Is Frontline and May Be the New Gold Standard
• Femoropopliteal Interventions: Strategies That Leave Nothing Behind Are Best!
• Femoropopliteal Interventions: Strategies Including Vessel Scaffolding Provide the Best Results!
• We’ve Examined the Data, It’s Time to Accept PTX and Move On!
• Hold On… PTX Is a Major Issue and Its Use Should be Minimized!

SPOTLIGHT THEATER

VIVA RECEPTION
Join your colleagues at the VIVA Reception following the conclusion of all sessions on Wednesday, October 6. We will convene on the ground floor of the new conference space to enjoy food, drinks, and entertainment. Admission to the reception is included in your course registration, and guest tickets may be purchased on-site for an additional fee.

Vascular Career Advancement (VCA) Awards
3:10 - 3:25pm
Venita Chandra, MD
Yoshimitsu Soga, MD, PhD
Read about our distinguished award recipients at vivaphysicians.org/awards.

Join your colleagues at the VIVA Reception following the conclusion of all sessions on Wednesday, October 6. We will convene on the ground floor of the new conference space to enjoy food, drinks, and entertainment. Admission to the reception is included in your course registration, and guest tickets may be purchased on-site for an additional fee.
Please visit vivaphysicians.org for updated program information.

THURSDAY, OCTOBER 7

CAROTID, AORTIC, VENOUS
8:05 - 9:40am
- CEA Is Best for Carotid Disease
- TCAR Is Best for Carotid Disease
- TFCAS Is Best for Carotid Disease
- How and When I Treat DVT: All My Tips and Tricks
- Proximal, Symptomatic DVT Can and Should be Treated With Interventional Therapy, Sometimes in a Single Session
- Medical Therapy Is the Best Treatment for Symptomatic DVT
- How I Perform EVAR for Ruptured AAA
- EVAR: How Far Should We Go or Not Go Outside of the IFUs?

FACE-OFF WINNER’S CIRCLE
9:40 - 10:00am

INNOVATIONS—PART 1
10:35am - 12:00pm
- Turning a Novel Idea Into a Successful Device: The Shockwave Story
- I Think I Have a Great Device Idea: A 52-Point Vetting Process for Guaranteed Success
- How Do I Raise Money for My Idea? Winning Elevator Pitches and Lessons in Dilution
- How Long Does It Take to Get an Idea Off the Ground? How Do You Build a Team for Your Device?
- What’s My Exit Strategy? What Are Strategics Looking for With Innovation in 2021?

INNOVATIONS—PART 2
1:15 - 2:20pm
- The Digitization of Medicine and the Future of Digital Healthcare: How Facebook, Google, Amazon, Microsoft, and Apple Will Change Everything in Healthcare by 2025
- How Do I Incorporate Digital Health Into My Practice Right Now? What Tools Exist Today?
- Why Doctors Aren’t the Focus of Most Digital Health Tech Companies: The Future of Assessing Health Risk Scores with Big Data

DRINKS AND DATA
2:20 - 3:30pm
- VIVA21 concludes with a review of some of the most clinically relevant trial data and celebratory refreshments.

VASCULAR MEDICINE WE NEED TO KNOW
8:00 - 9:10am
- Is Atherosclerosis Really the Same Disease in CLTI as CAD? Implications for Treatment
- Is CAS a CAD Risk Equivalent?
- Fibromuscular Dysplasia: All You Need to Know
- Submassive PE: Is Medical Therapy Best?
- Submassive PE and Thrombolytic Therapy: Ultrasound-Assisted or Catheter Alone? How Much and for How Long?
- Supervised Exercise for Claudicants: Let’s Maximize This!
- State-of-the-Art Medical Therapy for PAD

EMBOLIZATION: UNDERSTANDING THE TOOLKIT
9:10 - 10:00am
- When to Use Vascular Plugs, NCBA, and Onyx™
- When to Use Coils and How Each Coil Is Different
- ETOH, Particles, Beads, and the Rest

VENOUS AND PULMONARY EMBOLIZATION
10:45 - 11:50am
- Is Maximized Medical Therapy the Preferred Treatment? How Can We Do It Best?
- Strategies for Acute Iliofemoral DVT Single-Session Mechanical
- Strategies for Acute Iliofemoral DVT Thrombolysis With Mechanical Assist
- PE Management: What Happens 3-6 Months Down the Road?
- Submassive Acute PE Single-Session Mechanical
- Submassive Acute PE Overnight Lysis Without Mechanical Assist
- CTEPH Interventional Therapy

IVC, FILTERS, DVT
1:25 - 2:25pm
- AUC for IVC Filters
- Late Removal of Retrievable Filters: Indicated, or Disaster Waiting to Happen?
- The Impact of New Devices: Is Post-Thrombotic Syndrome Being Improved?
- Case Presentations: Complex IVC Reconstruction, Iliofemoral DVT Management in Pregnancy, and Complex IVC Filter Retrieval
PHYSICIANS-IN-TRAINING SCHOLARSHIP PROGRAM
A limited number of scholarships to attend VIVA and The VEINS are available for qualifying fellows and residents. Scholarships include registration costs, roundtrip economy airfare, and up to 5 nights’ hotel room/tax (for arrival on either Saturday, October 2, for The VEINS or Sunday, October 3, for VIVA; departures should be after 6:00pm on October 7). Physicians in training must submit their scholarship application and a presentation for the Face-Off Competition by the August 2 deadline. Scholarship recipients must attend the full course, including required fellows sessions and events.

WHO CAN APPLY
- U.S. physicians in training who can attend the entirety of the course
- All current 1st- and 2nd-year fellows in endovascular medicine; interventional cardiology and interventional radiology; vascular surgery; neurology; and cardiology
- All residents in PG 1-5 vascular surgery or interventional radiology

Visit vivaphysicians.org/physicians-in-training for complete guidelines and application.

FELLOWS SESSIONS & EVENTS

MONDAY, NOVEMBER 4
Fellows & Residents Reception
5:40 - 7:00pm
Join us on the Cristal Terrace for a reception with program supporters and VIVA faculty.

TUESDAY, OCTOBER 5
How to Find the Right First Job and Set Yourself Up for Success
7:00 - 7:55am
- How Do You Identify Available Jobs?
- Key Considerations for a First Private Practice Job
- Key Considerations for a First Academic Job
- Negotiating Your First Contract

THURSDAY, OCTOBER 7
How to Have a Successful First Year
7:05 - 7:55am
- How to Approach Your First Year in Practice
- How to Collaborate in the Treatment of Vascular Disease
- Three Things I Wish I’d Done Differently in My First Year of Practice

Face-Off Winner’s Circle
9:40 - 10:00am
The top Face-Off participants will present their work from the main stage. All fellows & residents must be present in the event their name is called.

15-MINUTE MENTORING
Sign up for 15-Minute Mentoring at VIVA21! Members of VIVA’s Board of Directors and faculty will be available to answer questions about early career strategies, life in academics, research, private practice, and more. Check on-site for sign up details.
It is with great pleasure and enthusiasm that I take on the role of Course Director for The VEINS (Venous Endovascular Interventional Strategies) at VIVA 2021. This is the 11th year of this innovative and multidisciplinary global educational meeting for venous specialists.

With the support and leadership of my Co-Course Directors, Drs. Raghu Kolluri and Peter Schneider, and the 2021-22 Scientific Committee, we have designed a robust program to debate controversial topics, dive into current practice trends, and explore what’s next in venous disease care. As always, attendees should take advantage of continuous opportunities to ask questions and interact with experts in interventional cardiology, interventional radiology, vascular medicine, and vascular surgery.

I especially look forward to the keynote address and discussion with internationally recognized researcher and epidemiologist, Dr. Mary Cushman, about the impact of 2020 on medical care. Additionally, this year’s VEINS Award winner, Dr. Mark Meissner, will join Dr. Kolluri and me in a roundtable discussion about venous education and the future of venous care.

We are excited to return to Wynn Las Vegas live in October and hope you will take part in this unique program.

Maureen P. Kohi, MD
The VEINS Course Director
FACULTY

INTERVENTIONAL CARDIOLOGY
Riyaz Bashir, MD
Temple University Hospital
Philadelphia, Pennsylvania

Jeff Carr, MD
Tyler Cardiac and Endovascular Center
Tyler, Texas

Tony Das, MD
Connected Cardiovascular Care Associates
Dallas, Texas

Jay Mathews, MD
Manatee Memorial Hospital / Bradenton Cardiology Center
Bradenton, Florida

Mitchell Silver, DO
OhioHealth Riverside Methodist Hospital
Columbus, Ohio

INTERVENTIONAL RADIOLOGY
Kush R. Desai, MD
Northwestern University Feinberg School of Medicine
Chicago, Illinois

Mark J. Garcia, MD
EndoVascular Consultants
Wilmington, Delaware

Mona Gupta, MD
Northwestern University Feinberg School of Medicine
Chicago, Illinois

John A. Kaufman, MD
Oregon Health and Science University
Portland, Oregon

Minhaj S. Khaja, MD, MBA
University of Virginia Health Charlottesville, Virginia

Mahmood Razavi, MD
St Joseph Heart & Vascular Center Orange, California

Deepak Sudheendra, MD
Hospital of the University of Pennsylvania
Philadelphia, Pennsylvania

Suresh Vedantham, MD
Washington University in St. Louis
St. Louis, Missouri

Ronald S. Winokur, MD
Thomas Jefferson University
Philadelphia, Pennsylvania

VAScular MEDICINE
Teresa Carman, MD
University Hospitals Cleveland Medical Center
Cleveland, Ohio

Michael R. Jaff, DO
Harvard Medical School
Maple Grove, Minnesota

Yogen Kanthi, MD
National Heart, Lung, and Blood Institute
Bethesda, Maryland

Thom Rooke, MD
Mayo Clinic
Rochester, Minnesota

Aditya Sharma, MBBS
University of Virginia
Charlottesville, Virginia

Suman Wasan, MD
UNC REX Healthcare Raleigh, North Carolina

ANGIOLOGY
Tim Sebastian, MD
University Hospital Zurich
Zurich, Switzerland

2021 KEYNOTE SPEAKER
Mary Cushman, MD
Epidemiology
University of Vermont Larner College of Medicine
Colchester, Vermont

2021 AWARD RECIPIENT
The VEINS Award
Mark H. Meissner, MD
Vascular Surgery
University of Washington School of Medicine
Seattle, Washington

VAScular SURGERY
Steve Elias, MD
Englewood Hospital and Medical Center
Englewood, New Jersey

Manj Gohel, MD
Cambridge University Hospitals
Cambridge, England

Lowell S. Kabnick, MD
Atlantic Health Morristown Medical Center
Far Hills, New Jersey

Erin Murphy, MD
Sanger Heart & Vascular Institute - Atrium Health
Charlotte, North Carolina

Andrea Obi, MD
University of Michigan
Ann Arbor, Michigan

Julianne Stoughton, MD
Massachusetts General Hospital
Boston, Massachusetts
TARGET AUDIENCE
The VEINS is designed for physicians specializing in interventional cardiology; interventional and neurologic radiology; vascular medicine; vascular surgery; podiatry; as well as fellows and residents; and allied health professionals (including nurses, nurse practitioners, technologists, and physician assistants) interested in the diagnosis, management, and treatment of venous disease.

OBJECTIVES
Upon completion of The VEINS, learners should be able to:
• Understand medical, endovascular and surgical therapies for superficial and chronic venous disease.
• Discuss the role of imaging for diagnosis of venous disease and used during intervention.
• Appreciate the currently available therapeutic options and review the novel data in the management of superficial and deep vein disease.

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 the University at Buffalo Jacobs School of Medicine and Biomedical Sciences and VIVA Physicians.
The University at Buffalo Jacobs School of Medicine and Biomedical Sciences is accredited by the ACCME to provide continuing medical education for physicians.

CERTIFICATION
The University at Buffalo Jacobs School of Medicine and Biomedical Sciences designates this live activity for a maximum of 13.75 AMA PRA Category 1 Credits™.
Physicians should claim only the credit commensurate with the extent of their participation in the activity.
SUNDAY, OCTOBER 3

THE BASICS 8:00 - 9:00am
- How to Make Physiological Sense of Reflux vs Obstruction: Where We Are and Where We Need to Be
- To Glue or Not to Glue: Positives and Pitfalls
- Mechanico-Chemical Ablation: Who Is a Good Candidate?
- Venous Insufficiency Test Interpretation: When and What to Intervene On
- Foam Sclerotherapy: How Does It Compare to Other Choices?
- Should IVUS Be the Standard for Managing Post-Thrombotic Syndrome?

PHARMACOTHERAPY IN VTE 9:00 - 10:00am
- DOAC Use in Obese Populations: Is It Supported by the Evidence?
- DOAC Use in Antiphospholipid Syndrome: When Is It Okay?
- Managing PE in the Outpatient Setting: How to Avoid Hospitalization
- Low-Dose DOAC for VTE: Selecting Appropriate Patients
- COVID-Associated VTE: Anticoagulation Selection and Duration
- Antithrombotic Therapy Following Venous Stenting: Is There Consensus?

THE VEINS Award 10:30 - 11:15am
Venous Educator, Innovator, and National Statesman
Mark H. Meissner, MD
The 2021 VEINS Award ceremony will include a roundtable discussion with Drs. Mark H. Meissner, Maureen P. Kohi, and Raghu Kolluri on venous education and the future of venous care.
Read about our distinguished award recipients at vivaphysicians.org/awards.

DEEP VEIN DISEASE—PART 1 11:15am - 12:15pm
- Visualization of Deep Veins: Cross-Sectional Imaging vs US and the Use of IVUS
- Treatment Options in Acute Iliofemoral DVT
- Treatment of Acute Iliofemoral DVT in Pregnancy
- Treatment of Iliocaval DVT: Tips and Tricks
- Taped Live Case: Complex Iliocaval DVT
- Open Vein Hypothesis: Is the Debate Settled?

PULMONARY EMBOLISM 1:30 - 2:30pm
- PE Risk Stratification in 2021
- Debate: Thrombolysis Is the Best Catheter-Based Therapy for Acute PE
- Debate: Thrombectomy Is the Best Catheter-Based Therapy for Acute PE
- Debate: Anticoagulation Is the Best Therapy for Acute PE
- Residual Pulmonary Obstruction: Does It Explain the Post-PE Syndrome?
- Balloon Angioplasty for CTEPH

SUPERFICIAL VENOUS DISEASE—PART 1 2:30 - 3:30pm
- Available Sclerosants and What Doses Are Best
- Microphlebectomy vs Sclerotherapy
- The Role of Compression Therapy in Recalcitrant Ulcers and Severe Venous Disease: From Static to Dynamic Compression
- Pathologic Perforators: When and How to Treat Them
- Future Use for Cyanoacrylate
- Taped Live Case: Perforator Treatment

DEEP VEIN DISEASE—PART 2 4:00 - 5:00pm
- Evaluation of Patients with Post-Thrombotic Syndrome
- Non-Thrombotic vs Post-Thrombotic Venous Occlusive Disease
- Venous Stents: The Good, the Bad, and the Ugly
- Techniques to Cross Difficult Lesions
- What to Do When a Venous Stent Occludes
- Optimizing Outcomes by Managing Poor Inflow

TAPED CASES: EXTREME VENOUS 5:00 - 5:30pm

THE VEINS RECEPTION
Join your colleagues for a welcome reception following the conclusion of the main session on Sunday, October 3. We will enjoy food and drinks on the Cristal Terrace from 5:30-6:30pm.
MONDAY, OCTOBER 4

BLUE SKY BREAKFAST:  
THE VEINS INNOVATION SUMMIT  
7:00 - 7:55am
Join us for breakfast and catch a glimpse of the next chapter of technology in venous care.

DEEP VEIN DISEASE—PART 3  
8:00 - 9:00am
- IVC Filters: Removal Techniques
- IVC Filters and Acute PE: Updates From the SIR 2020 Guidelines
- What to Do With an Occluded IVC
- New Venous Valve Technology on the Horizon
- Management of Superior Vena Cava Syndrome
- Venous TOS (Paget-Schroetter Disease)

SUPERFICIAL VENOUS DISEASE—PART 2  
9:00 - 10:00am
- What Constitutes a Well-Rounded Vein Center?
- Is Vein Center Accreditation Important?
- Appropriate Use Criteria in Venous Disease
- Practice Growth: Educating Your Patients and Colleagues
- Should Training Be Standardized Across Specialties?
- Managing Payor Struggles

KEYNOTE PLENARY SESSION  
Mary Cushman, MD  
10:30 - 11:15am
This keynote address and discussion will shed new light on the lasting impact of 2020 on medical care.

LATE-STAGE VENOUS DISEASE  
11:15am - 12:15pm
- C-TRACT: An Update
- EVRA: Hot Topic
- VLU: Cost Analysis in a 7-Country Assessment
- VIEW VLU Results
- Meeting Unmet Needs in Chronic Venous Insufficiency
- Spectrum Trial Update

PELVIC VENOUS DISEASE  
1:30 - 2:30pm
- One Size Does Not Fit All: New Classification System
- Clinical Differences in Presentation by Age and Physiopathology
- Coils, Sclerotherapy, or Both? What Is the Evidence?
- State-of-the-Art Management of Nutcracker Syndrome
- What Is the Available Evidence for Stenting in the Setting of Obstruction and Reflux?
- Future Directions in Research: RTC, Registry, or New Technologies

DIALYSIS AND CENTRAL VEIN  
2:30 - 3:30pm
- Non-Invasive Imaging for Dialysis Access
- Overview of Novel Approaches to AV Access
- Challenges in AV Access: Central Venous Obstruction
- Therapies and Devices to Optimize AVF Maturation
- Updates in Drug-Coated Balloons for Dysfunctional AVF
- Effect of Iliocaval Occlusion on Exercise Tolerance

POTPOURRI  
4:00 - 5:00pm
- Not All Swelling Is Venous: Diagnosing Lymphedema and Lipedema
- Managing the Swollen Limb: Compression for Non-Venous Causes
- COVID Toes and Other Common Findings of the Feet
- COVID and Pro-Thrombotic Biomarkers: The State of the Science
- Preventing VTE After Hip and Knee Surgery: Is Aspirin Enough?
- The Role of Endovenous Therapies in Post-Thrombotic Syndrome and Refluxing Saphenous Veins

M&M  
5:00 - 5:30pm
- My “Partner’s” Worst Complication
- My Biggest Save
VIRTUAL VIVA

PLAN • ACCESS • INTERACT

The Virtual VIVA app allows attendees to plan their conference experience using the in-app agenda, watch live and recorded sessions, and much more. Access to Virtual VIVA is included in tuition for in-person attendees.

• REVIEW PRESENTATION SLIDES
• RECEIVE UP-TO-THE-MINUTE ALERTS AND REMINDERS
• SUBMIT QUESTIONS TO FACULTY
• CLAIM CME CREDITS

VIRTUAL ATTENDEES

Physicians who choose to attend virtually can use the Virtual VIVA app to watch live sessions, access presentation slides, and interact with faculty during the conference. At the end of the conference, all recorded sessions and presentation slides will remain accessible for review.

Note that CME credits are available for sessions attended live, either in person or virtually. Participants may not claim CME credit for watching recorded sessions after the live broadcast.

DISCLAIMERS

SOCIAL MEDIA DISCLAIMER
VIVA Physicians, Inc. (VPI) accepts comments and discussions via our social media outlets related to vascular education. VPI does not solicit nor endorse any comment that may be posted, and comments, likes, or follows do not necessarily express the opinion or views of VPI. VPI will remove any information, discussion, comment, and material that we deem to be inappropriate and/or which violates our policy to protect patient identities. All commentary with a promotional purpose for a service, device, or technology will be removed immediately. VPI assumes no liability for information posted or presented by others, and only endorses comments and postings provided directly by VPI. Any posting or live streaming of entire sessions or live cases and use of any VIVA course content, branding, or logos for commercial use is strictly prohibited. If you wish to report any violation of the above, please contact marketing@vivaphysicians.org.

AUDIO, VIDEO RECORDING, AND PHOTOGRAPHY POLICY
VIVA encourages and promotes the exchange and accessibility of educational content from the conference. All videos and slides are available at no charge to attendees through Virtual VIVA. Photography, audio, and video recordings with handheld devices are permitted for social, personal, or educational purposes, if not disruptive. However, any posting or live streaming of entire sessions or live cases and use of any VIVA course content for commercial purposes is strictly prohibited.
# REGISTRATION

## TUITION RATES

Register early to secure tuition discounts! Tuition fees include all course materials, attendance to all sessions, and access to the Virtual VIVA app. Payment in full is required to confirm your registration.

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## CANCELLATION POLICY

To cancel your registration, please email registration@vivaphysicians.org by Tuesday, August 31, 2021. Cancellations by this date will incur a 15% administrative fee. Refunds are not available within 48 hours of registration to allow for credit card settlement. Once registration is canceled in your online account, refunds will be settled within 7 days.

No refunds will be given after Tuesday, August 31, 2021. Refunds or credits will not be given for failure to attend, late arrival, unattended events, or early departure. VIVA is not responsible for airfare, hotel, or other costs incurred by participants in the event of registration cancellation for any reason.

Note that for registrants attending the event virtually, tuition is nonrefundable and cancellations will not be accepted.

## COVID-19 POLICY

In the event that VIVA and/or The VEINS are canceled in their entirety due to COVID-19, 100% of registration fees will be refunded.

In the event that VIVA and/or The VEINS are amended to be held virtually due to COVID-19, in-person registrations will be transferred to virtual-only registrations and the difference will be refunded.

Vaccinations MAY be required to attend the meetings in person. Please visit our website for updated safety protocols prior to registering.
ON-SITE REGISTRATION AND CHECK-IN HOURS
All times are listed in Pacific Daylight Time.

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EXHIBIT HOURS
The VEINS

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ACCOMMODATIONS

Wynn Las Vegas
3131 Las Vegas Boulevard South
Las Vegas, Nevada 89109

After registering for the conference you will receive a confirmation email with a link to the hotel booking page. Note that industry registration will open later than usual, beginning on August 2.

VIVA has reserved a block of rooms at the discounted rate of $274 per night plus tax (currently 13.38%). This rate includes the resort fee, which provides access to the fitness center, internet access for up to 4 devices, boarding pass printing, daily newspapers, and more. A nonrefundable deposit of the first night’s room and tax will be required to confirm all reservations.

Reservations are accepted on a first-come, first-served basis and will be accepted until September 2 at 5:00pm PT, or until the room block fills, whichever occurs first. The room block will fill up quickly, so registering for the conference and making your hotel reservation should be completed as soon as possible.

A charge of $50 per person per night will apply to each guest over double occupancy.
THE GLOBAL EDUCATION COURSES FOR VASCULAR MEDICINE AND INTERVENTION

REGISTER ONLINE TODAY: vivaphysicians.org/register