SNIS 17th Annual Meeting
August 4-7, 2020

Coming to you virtually this year!

https://www.snisonline.org/meetings/snis-17th-annual-meeting/
Evolving Treatment Paradigm of Wide Neck Bifurcation Aneurysms

Josser Delgado, MD
Abbott Northwestern Hospital, Minneapolis, MN

Henry Woo, MD, FACS, FAANS
Northwell Health System, Manhasset, NY

FRED™ (Flow Re-direction Endoluminal Device) Pivotal Study Final Results

Cameron McDougall, MD
Johns Hopkins Medicine, Baltimore, MD

The WEB™ Aneurysm Embolization System is indicated for the embolization of intracranial wide neck bifurcation aneurysms. The WEB Aneurysm Embolization System is further indicated to embolize saccular intracranial wide neck bifurcation aneurysms located in the anterior middle cerebral artery (MCA) bifurcation, internal carotid artery (ICA) terminus, anterior communicating artery (AComm complex) and posterior (basilar apex) circulations, ranging in size from 3 mm to 10 mm in dome diameter, where the neck size is 4 mm or greater or the dome-to-neck ratio is less than 2.

The Flow Re-Direction Endoluminal Device (FRED™) System is indicated for use in the internal carotid artery from the petrous segment to the terminus for the endovascular treatment of adult patients (22 years of age or older) with wide-necked (neck width ≥ 4 mm or dome-to-neck ratio < 2) saccular or fusiform intracranial aneurysms arising from a parent vessel with a diameter ≥ 2.0 mm and ≤ 5.0 mm.

MicroVention™ and FRED™ are registered trademarks of MicroVention, Inc. and WEB™ is a registered trademark of Sequent Medical, Inc the United States and other jurisdictions. Refer to Instructions for Use, contraindications and warnings for additional information. © 2020 MicroVention, Inc.
Welcome to the 17th Annual Meeting! As you know, this is the first time our yearly convening will be 100% virtual. We invite you to lean in with all of us at SNIS and embrace this new way of gathering and learning. After all, ours is a field of innovators!

While the stage may have changed, our mission and our commitment to neurointervention remains the same. With our program this week, we have applied our best thinking to bring our attendees engagement opportunities throughout the meeting that will focus on all the things you expect from the SNIS Annual Meeting, including the advancements in our field that in the short and long term will help us save lives.

We have designed thought-provoking sessions, curated visionary abstracts, and organized a variety of discussion forums that will challenge our status quo. The annual Luminary Lecture (which is now the Grant Hieshima Luminary Lecture!) this year is being provided by Van Halbach, MD, FSNIS. Once again, we also will spotlight a patient through the Amy Walters Lecture, this year given by Todd Aho, MD. This endowed lectureship allows us to hear from one patient at each SNIS Annual Meeting & the ESMINT Annual Meeting to remind us why we entered this field of medicine.

Our new partners in scientific programming this year, which include the AANS/CNS Joint Cerebrovascular Section, led by Scott Simon, MD; the European Society of Minimally Invasive Neurological Therapy (ESMINT), led by Patrick Brouwer, MD; and the Australian & New Zealand Society of Neuroradiology (ANZSNR), led by Ronil Chandra, MD, have brought many ideas and endless energy to our meeting planning ... we are sure that the results won't disappoint! We are likewise grateful to our colleagues at the Society of Vascular & Interventional Neurology (SVIN) for contributing a session to our on-demand programming.

And for their enduring presence and partnership mentality, we pay special tribute to our loyal industry friends whose passion for our work is boundless and support of our cause makes so many things possible.

We encourage you to join the discussion around this year's meeting on Twitter and Instagram using #SNIS2020, including sharing insights from sessions and engaging with your peers online throughout the week of innovation. In between sessions, visit the Virtual Exhibit Hall to learn the latest issues and techniques in neurointervention.

Thank you for contributing to our field and its growth. We appreciate your dedication to the field and your support of the SNIS 17th Annual Meeting.

Sincerely,

Reade DeLeacy, MD  
Chair, 17th Annual Meeting

Sandra Narayanan, MD  
Chair, 17th Annual Meeting

Richard Klucznik, MD  
President
President
Richard P. Klucznik, MD
Houston, TX

President-Elect
William J. Mack, MD
Los Angeles, CA

Vice President
Michael Chen, MD
Chicago, IL

Treasurer
Michael Chen, MD
Chicago, IL

Secretary
Ansaar Rai, MD
Morgantown, WV

Education Chair
James Milburn, MD
New Orleans, LA

Member-at-Large – Neuroradiology
Ajit Puri, MD
Worcester, MA

Member-at-Large – Neurosurgery
Adnan Siddiqui, MD, PhD
Buffalo, NY

Member-at-Large – Neurology
Maxim Mokin, MD, PhD
Tampa, FL

First Past President
Adam S. Arthur, MD
Memphis, TN

Second Past President
Blaise W. Baxter, MD
Chattanooga, TN

Audit Committee Chair
Guilherme Dabus, MD
Miami, FL

Governance Committee Chair
J Mocco, MD
New York, NY

EX-OFFICIO MEMBERS
JNIS Editor
Felipe C. Albuquerque, MD
Phoenix, AZ

SNIS Foundation Chair
Sandra Narayanan, MD
Pittsburgh, PA

SNIS PSO Medical Director
Sameer Ansari, MD, PhD
Chicago, IL

17th Annual Meeting Program Committee
Reade De Leacy, MD, Chair
Sandra Narayanan, MD, Chair
Scott Simon, MD, CV Section Chair
Patrick Brouwer, MD, ESMINT Chair
Ronil Chandra, MD, ANZSNR Chair
Raphael Blanc, MD
Lucas Eljovich, MD
Brian Howard, MD
Babak Jahromi, MD
Anne-Christine Januel, MD
Johanna Fifi, MD
Matthew Gounis, PhD
Jonathan Grossberg, MD
Ferdinand Hui, MD
Ian Kaminsky, MD
Christopher Kellner, MD
James Milburn, MD
Santiago Ortega, MD
Joshua Osbun, MD
Aditya Pandey, MD
Lissa Peeling, MD
Jonathan Russin, MD
Sudhakar Satti, MD

17th Annual Meeting Abstract Review Committee
Mohammed Almekhlafi, MD
Hamed Asadi, MD
Ephraim Church, MD
Katuyca de Macedo Rodrigues, MD
Andrew Ducruet, MD
Jens Fiehler, MD
Andrew Grande, MD
Christoph Griessenauer, MD
Ashutosh Jadhav, MD, PhD
Mouhammad Jumaa, MD
Thabele Leslie-Mazwi, MD
Li-Mei Lin, MD
Nathan Manning, MD
Horia Marin, MD
Justin Mascitelli, MD
Scott Olson, MD
Maksim Shapiro, MD
Tomoyoshi Shigematsu, MD
Donatella Tampieri, MD
Stavropoula Tjoumakaris, MD
Collin Torok, MD
Opening Celebration
Please join us online for our Opening Celebration on Tuesday, August 4 at 4:00 pm.

Closing Celebration
Please join us online for our Closing Celebration on Friday, August 7 at 9:45 pm. Raise a glass with your colleagues from around the world as we celebrate the end of our first virtual meeting.

Lace up your running or walking shoes. The SNIS Foundation is holding its Fun Run virtually this year! You will be able to submit your run time and distance and all results will be displayed online. Just because the meeting is virtual doesn't mean that you can't contribute to the SNIS Foundation and get some exercise while you're at it! All participants will receive an event t-shirt and participation medal. All ages are welcome to participate and we especially encourage your families to join the fun! You can run anytime between July 1 and August 7. It's not too late to sign up!
You can register here: [https://snis.memberclicks.net/funrun20#/](https://snis.memberclicks.net/funrun20#/)

All registration fees will be donated to the SNIS Foundation. Cost per person: $40.00
Take your technique to the next level with the TriVecta™ Thrombectomy Platform

Aspiration, combination or both – next generation devices for any technique

AXS Infinity LS Plus Long Sheath

Trevo NXT ProVue Retriever

AXS Vecta 74 Intermediate Catheter

TriVecta Thrombectomy Platform

RX ONLY

See package insert for complete indications, contraindications, warnings and instructions for use.

Indications for use

AXS Infinity LS Plus Long Sheath: The AXS Infinity LS Plus Long Sheath is indicated for the introduction of interventional devices into the peripheral, coronary, and neurovasculature. AXS Vecta Intermediate Catheter: (1) The AXS Vecta Aspiration Catheter, as part of the AXS Vecta Aspiration System is indicated in the recanalization of patients with acute ischemic stroke secondary to intracranial large vessel occlusive disease (within the internal carotid, middle cerebral – M1 and M2 segments, basilar, and vertebral arteries) within 8 hours of symptom onset. Patients who are ineligible for intravenous tissue plasminogen activator (IV t-PA) or who failed IV t-PA therapy are candidates for treatment. (2) The AXS Vecta Intermediate Catheter is also indicated for use as a conduit for retrieval devices. Trevo NXT ProVue Retriever: (1) The Trevo Retriever is indicated for use to restore blood flow in the neurovasculature by removing thrombus for the treatment of acute ischemic stroke to reduce disability in patients with a persistent, proximal anterior circulation, large vessel occlusion, and smaller core infarcts who have first received intravenous tissue plasminogen activator (IV t-PA) or who fail IV t-PA therapy.

For Important Safety Information, please click the Learn More button.
Use Twitter to Communicate with Colleagues at SNIS 2020

Here are two ways you can use Twitter at the SNIS 17th Annual Meeting to enhance your meeting experience:

1. We recommend Twitter users include the hash tag #SNIS2020 in your tweets to identify content related to the SNIS Annual Meeting. Monitor Twitter for the hash tag to see any relevant posts, and use the hash tag in your own posts to help your SNIS colleagues find your tweets easily.

2. Follow SNIS on Twitter. SNIS staff will send occasional tweets using the account @SNISinfo. Sign up at Twitter to follow @SNISinfo and receive occasional tweets containing conference reminders and up-to-the-minute information.

To set up a free Twitter account, visit www.twitter.com.

Note: Twitter is an informal medium for quick, public, nonessential communication that can enhance information exchange and social networking. Twitter is a public forum and SNIS has no authority over, or responsibility for, Twitter content.

Virtual Platform

This year’s virtual Annual Meeting can be found online or on your mobile device. On your desktop, you can reach the meeting here: www.eventmobi.com/SNIS2020. If you would prefer to view the meeting on your mobile device, search for SNIS in your app store to download the app. You’ll have this week’s conference at your fingertips – literally! Among the many features that you will enjoy is the conference schedule by day and by speaker, information on exhibitors, and a place where you can store your contacts and share conference information. You’ll even have access to Twitter so you can see who is saying what about the SNIS Annual Meeting.

After downloading the app, please be sure to say “yes” when asked if you want to receive push notification as that will allow us to send you updates and last minute information during the meeting.

Exhibit/Sponsor Information

As you’re learning and exploring our virtual platform, be sure to visit our Virtual Exhibit Hall, either by clicking the icon on the main screen or the menu bar on the left of the meeting interface. With more than 20 exhibitors, you’ll have chance to learn about the latest in neurointervention, as well as projects and programs designed to support our patients. Each booth features resources, video and links that can help you in your work. If you’d like to ask a question or learn more about a particular program, you can contact the exhibitor by clicking the chat button in each booth.

SNIS also would like to thank our generous supporters, who created exciting sponsored symposia for our 17th Annual Meeting. There are six offerings this year, on a variety of innovative topics. To access the schedule of these presentations, click Sponsored Symposia on the meeting platform.

Satisfactory Completion: Learners must complete an evaluation form to receive a certificate of completion. Your chosen sessions, whether live or pre-recorded, must be participated in their entirety as partial credit of individual sessions is not available. If you are seeking continuing education credit for a specialty not listed below, it is your responsibility to contact your licensing/certification board to determine course eligibility for your licensing/certification requirement.

Physicians: In support of improving patient care, this activity has been planned and implemented by Amedco LLC and the Society of NeuroInterventional Surgery. Amedco LLC is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Credit Designation Statement: Amedco LLC designates the live activity for a maximum of 24.75 AMA PRA Category 1 Credits™ and the enduring material activity for 34.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
using fluoroscopy. If the cause cannot be determined, withdraw the device. Unrestrained moving or torquing the device against resistance may result in damage to the vessel or device. • Maintain a constant infusion of an appropriate flush solution. • If flow through the device becomes restricted, do not attempt to clear the lumen by infusion. Remove and replace the device.

Potential Adverse Events
Possible complications include, but are not limited to, the following: acute occlusion; air embolism; death; distal embolization; emboli; false aneurysm formation; hematoma or hemorrhage at puncture site; infection; intracranial hemorrhage; ischemia; neurological deficits including stroke; vessel spasm, thrombosis, dissection, or perforation.

Stand Alone 6 F Guide Catheter
No long sheath required

.071" ID Engineered to Optimize Device Delivery
Dual microcatheter compatible

Rapid Primary Access with 5 F Select™ Catheter
No need for an over-the-wire exchange
POWERSFUL PARTNERSHIPS TO ADVANCE STROKE TREATMENT

Medtronic

POWERSFUL PARTNERSHIPS

iz.ai

A POWERFUL PARTNERSHIP FOR PRECISION PLANNING

Sim&Cure

PARTNERING TO ACCELERATE STROKE SYSTEMS OF CARE

Using your mobile device, you can conveniently:

- Review CT images
- Communicate via a HIPAA-compliant texting and calling platform
- Coordinate patient care, facilitate transfers and initiate treatment

To learn more visit medtronic.com/StrokePartners

* Sim&Cure 510(k) clearance K190049 and Sim&Size User Manual

Indications, contraindications, warnings, and instructions for use can be found on the product labeling supplied with each device. 9775 Tokoro Way Irvine, CA 92618, USA © 2020 Medtronic. All rights reserved. Medtronic, Medtronic, Inc. and Further, together are trademarks of Medtronic. Third party brands are trademarks of their respective owners. All other brands are trademarks of a Medtronic company. UGC/0000128. EN
29 years of neurovascular fellows education

SKILL NeuroElite™ fellows program

Gain experience and confidence while networking with your peers through this comprehensive educational program. The interactive and personalized curriculum provides a dynamic platform for the exchange of knowledge, with training sessions led by respected experts.

LEARN MORE
Would like to thank the generous supporters of the

AMY WALTERS PATIENT LECTURE
TUESDAY, AUGUST 4, 2020

11:00 am – 11:05 am  Welcome

**DIDACTIC SESSION** – Farther, Better, Faster: New Frontiers in Stroke Management  
*Moderated by Michael Chen, MD & William Mack, MD*

11:05 am – 11:15 am  Stroke Trials Update, Sunil Sheth, MD
11:15 am – 11:30 am  Prehospital Triage, Robin Novakovic, MD
11:30 am – 11:45 am  Imaging Triage for LVO: Delivering Fast & Efficient Stroke Care, Tudor Jovin, MD
11:45 am – 12:00 noon  Pushing the Limit: Mechanical Thrombectomy for Large Stroke & Low NIHSS, Timothy Phillips, MD

12:00 noon – 12:15 pm  Endovascular Treatment of Acute Cerebral Venous Thrombosis, Fazeel Siddiqui, MD
12:15 pm – 12:30 pm  Chronic Carotid Occlusion, Colin Derdeyn, MD
12:30 pm – 12:45 pm  Endovascular & Surgical Approaches to Refractory ICAD, David Langer, MD

**ABSTRACT PRESENTATIONS**  
*Moderated by Katyucia de Macedo Rodrigues, MD & Andrew Grande, MD*

12:45 pm – 1:30 pm  Abstract Presentations & Discussion

12:45 pm – 12:50 pm  DWI-FLAIR Mismatch Does Not Predict Time of Stroke Onset in DEFUSE 3 Patients, Diana Slawski, MD
12:50 pm – 12:55 pm  Favorable Venous Microperfusion Profile Correlates with Pial Arterial Collateral Status and Clinical Outcome in Acute Stroke Patients with Large Vessel Occlusion, Tobias Faizy, MD
12:55 pm – 1:00 pm  Results of the Stroke Thromboembolism Registry of Imaging and Pathology: A Multicenter International Study, Waleed Brinjikji, MD
1:00 pm – 1:05 pm  Prospective, Multi-centered, EMS-administered, Pre-hospital Validation Study of the Rapid Arterial Occlusion Evaluation (RACE) Scale for Detecting Large Vessel Occlusion Stroke in the United States Compared to the Original RACE Validation Study from Spain: A Subanalysis of the PREDICT Study, Aurora Cruz, MD
1:05 pm – 1:10 pm  Vascular Collateralization May Not Affect Blood Gas Changes in Peri-infarct Vasculature in Human Ischemic Stroke, Robert Spears, MD
1:10 pm – 1:15 pm  Histotripsy for Intracerebral Hemorrhage in a Porcine Model, Badih Junior Daou, MD
1:15 pm – 1:20 pm  Trends in Mortality and Morbidity after Treatment of Unruptured Intracranial Aneurysm in the United States, 2006-2016, Shahram Majidi, MD
1:20 pm – 1:25 pm  E-clips Experience in Wide-neck Bifurcation Aneurysms with Extremely Low Dome-to-neck and Aspect Ratios, Leif Soerensen, MD
1:25 pm – 1:30 pm  WEB Shape Modification during Follow-up: The Bicêtre Experience, Jildaz Caroff, MD
1:30 pm – 2:00 pm  Break

**DIDACTIC SESSION** – Neurointervention in a Changing World: Hot Topics 2020  
*Moderated by Jonathan Grossberg, MD & Ferdinand Hui, MD*

2:00 pm – 2:20 pm  So you Wanna Start a Startup? The Promise, Andy Tang
2:20 pm – 2:40 pm  What COVID Has Taught Us about the Healthcare System, David Chin, MD
2:40 pm – 3:00 pm  The Neurological Sequelae of COVID-19: Pathomechanisms, Neuroinflammation, and Angiitis, Carlos Pardo, MD
3:00 pm – 3:20 pm  Medicare for All: Is it Coming & What Would It Look Like?, Joshua Hirsch, MD, FSNIS
3:20 pm – 3:40 pm  FDA Engagement & Early Feasibility Studies with Neurological Devices, Carlos Peña, PhD
3:40 pm – 4:00 pm  Data: Who Owns It, Who Profits, and How to Protect It?, Megan Singleton, JD
4:00 pm – 6:00 pm  Opening Celebration
Wednesday, August 5, 2020

**DIDACTIC SESSION** – Joint CV Section Awards, Chair Address, Luessenhop Lecture & Dacey Lecture  
*Moderated by Scott Simon, MD & Babu Welch, MD*

11:00 am – 11:05 am  CV Section Awards, *Scott Simon, MD*

11:05 am – 11:10 am  Introduction of CV Section Chair, *Adnan Siddiqui, MD, PhD*

11:10 am – 11:35 am  CV Section Chair’s Address, *Babu Welch, MD*

11:35 am – 12:00 noon  Luessenhop Lecture – “Does Bypass Surgery have any Place in the Management of Brain Aneurysms and Skull Base Tumors in 2021?”, *Laligam Sekhar, MD*

12:00 noon – 12:45 pm  Ralph G. Dacey, Jr. Medal for Outstanding Cerebrovascular Research – “Stem Cells and Stroke Rehabilitation”, *Gary Steinberg, MD, PhD*

12:45 pm – 1:15 pm  Break

**DIDACTIC SESSION** – Innovations: AI & Futures  
*Moderated by Raphael Blanc, MD & Ferdinand Hui, MD*

1:15 pm – 1:25 pm  AI: Mechanics & A Look Forward, *Mathias Unberath, MD*

1:25 pm – 1:40 pm  Robotic Endovascular Surgery, *Vitor Mendes Pereira, MD*

1:40 pm – 1:55 pm  3D Printing, *Matthew Amans, MD*

1:55 pm – 2:05 pm  Machine Learning for Aneurysms, *Bruce Wasserman, MD*

2:05 pm – 2:15 pm  Discussion

**DIDACTIC SESSION** – Abstract Presentations  
*Moderated by Horia Marin, MD & Stavropoula Tjoumakaris, MD*

2:15 pm – 3:15 pm  Abstract Presentations & Discussion

  2:15 pm – 2:20 pm  Influence of Thrombectomy Volume on Non-physician Staff Burnout and Attrition in Neurointerventional Teams, *Patrick Brown, MD*

  2:20 pm – 2:25 pm  Drivers of Variation in 90-day Episode Payments after Mechanical Thrombectomy for Acute Ischemic Stroke, *Badih Junior Daou, MD*

  2:25 pm – 2:30 pm  Trends of Ruptured and Unruptured Aneurysms Treatment in the US in Post-ISAT Era: A National Inpatient Sample Analysis, *Mohamed Salem, MD*

  2:30 pm – 2:35 pm  The SMART Registry: Final Results on the Utility of the Penumbra SMART COIL System for Treatment of Intracranial Aneurysms And Malformations, *Alejandro Spiotta, MD*

  2:35 pm – 2:40 pm  Intravascular High Frequency Optical Coherence Tomography Guided WEB Aneurysm Embolization, *Matthew Gounis, PhD*

  2:40 pm – 2:45 pm  COMFORT - Colombian Multicenter Flow-Divertor Observational Reconstruction Trial. Local Experience in the Endovascular Treatment of Intracranial Aneurysms with FRED Stent, *Boris Leonardo Pabon Guerrero, MD*

  2:45 pm – 2:50 pm  Surpass Embolization of Intracranial Aneurysms at Two High Volume Comprehensive Stroke Centers: Unexpectedly High Rate of Neurologic Complications, *Sudipta Roychowdhury, MD*

  2:50 pm – 2:55 pm  Repeat Flow Diversion for Previously Failed Flow Diversion: Multicenter Experience, *Mohamed Salem, MD*

  2:55 pm – 3:00 pm  Seizure Prophylaxis in Unruptured Aneurysm Repair: A Randomized Controlled Trial, *Badih Junior Daou, MD*

  3:00 pm – 3:05 pm  Safety and Efficacy of Cangrelor Use in Neurovascular Intervention: A Multicenter Experience, *Ricardo Hanel, MD*

  3:05 pm – 3:10 pm  Endoluminal Biopsy for Molecular Classification of Human Brain Arteriovenous Malformations, *Ethan Winkler, MD*

  3:10 pm – 3:15 pm  Increased Contrast Enhancement of the Parent Vessel of Unruptured Intracranial Aneurysms in 7T MR Imaging, *Edgar Samaniego, MD*
Optional Programming

Getting Your First Grant
Moderated by Michael Levitt, MD & Maxim Mokin, MD, PhD
4:00 pm – 4:20 pm  Why Apply for a Grant?, Peter Kan, MD
4:20 pm – 4:40 pm  Choosing the Appropriate Agency and Grant Type, Kevin Sheth, MD
4:40 pm – 5:00 pm  Common Mistakes in Grant Proposals, Matthew Gounis, PhD
5:00 pm – 5:30 pm  Discussion/Q&A

Session with the Sages
Moderated by Scott Simon, MD & Babu Welch, MD
4:00 pm – 6:00 pm  Session with the Sages

Thursday, August 6, 2020

DIDACTIC SESSION – Luminary Lecture
Moderated by Michael Chen, MD & William Mack, MD
11:00 am – 11:15 am  SNIS President’s Address, Richard Klucznik, MD
11:15 am – 11:30 am  Amy Walters Patient Lecture, Todd Aho, MD
11:30 am – 12:00 noon  “Management of Dural Fistulae: Lessons Learned over 30 Years”, Van Halbach, MD, FSNIS

12:00 noon – 12:15 pm  Induction of SNIS Fellows

DIDACTIC SESSION – Late Breaking Abstract Presentations
Moderated by Reade De Leacy, MD, Sandra Narayanan, MD & Scott Simon, MD
12:15 pm – 1:15 pm  Abstract Presentations & Discussion
12:15 pm – 12:22 pm  Racial Disparities in Acute Stroke Thrombectomy Management and Outcomes in the United States: Evidence from the NVQI-QOD Registry, Vineeth Thirunavu, MD
12:22 pm – 12:29 pm  Bridging Therapy Increases Hemorrhagic Complications without Improving Functional Outcomes in Atrial Fibrillation Associated Stroke, Feras Akbik, MD
12:29 pm – 12:36 pm  Ischemic Stroke Associated with Covid-19 and Racial Outcome Disparity in North America, Adam Dmytriw, MD
12:36 pm – 12:43 pm  Sex Differences in Acute Stroke Thrombectomy Management and Outcomes in the United States: Evidence from the NVQI-QOD Registry, Vineeth Thirunavu, MD
12:43 pm – 12:50 pm  Unruptured Arteriovenous Malformation Intervention Rate is Inversely Correlated with Ruptured AVM Discharge Incidence, David McCarthy, MD
12:50 pm – 12:57 pm  Increased Intracranial and Systemic VCAM1 Relates to Hypertension and Reduced Percent Change in NIHSS after Mechanical Thrombectomy, Benton Maglinger, MD
12:57 pm – 1:04 pm  Results of Hybrid Study, Prospective Randomized Multicenter Study of Hydrogel Coil vs Bare Platinum Coil for Intracranial Aneurysms, Nobuyuki Sakai, MD
1:04 pm – 1:11 pm  Motor Neuroprosthesis Implanted using Cerebral Venography Improves Activities of Daily Living in Severe Paralysis, Peter Mitchell, MD
1:15 pm – 1:45 pm  Break
Thursday, August 6, 2020, cont.

**DIDACTIC SESSION** – Current Perspectives in the Treatment of Complex AV Shunting Lesions
*Moderated by Patrick Brouwer, MD & Babak Jahromi, MD*

1:45 pm – 2:00 pm Embolic Agents for the Treatment of AVMs and DAVFs, *Christophe Cognard, MD*
2:00 pm – 2:15 pm Curative AVM Embolization: Transarterial & Transvenous Strategies, *Rene Chapot, MD*
2:15 pm – 2:30 pm Utilizing a Hybrid Room for Complicated dAVF Treatment, *Min Park, MD*
2:30 pm – 2:45 pm Combined Embolization & Surgical Resection of AVMs in My Practice, *Joshua Osbun, MD*
2:45 pm – 3:00 pm Surgical Resection of Higher Grade & Deep-Seated AVMs, *Michael Lawton, MD*
3:00 pm – 3:15 pm Discussion

**SNIS Neurovascular Symposium**
*Moderated by Fern Cudlip, MSN, FNP, CNRN, ANVP, FNCS, Abbigayle Doerr, APN, Alyssa Karow, FNP-BC & Susana Skukalek, DNP, NP-C*

**DIDACTIC SESSION**
3:15 pm – 3:45 pm Clinical Localization & LVO Scales for Advanced Practice Providers, *Anne Alexandrov, PhD, RN, CCRN, ANVP-BC, NVRN-BC, FAAN*
3:45 pm – 4:15 pm Intervention for Acute Ischemic Stroke, *Bryan Fill, APN*
4:15 pm – 4:45 pm Hemorrhagic Stroke: SAH/ICH, *Brian Howard, MD*
4:45 pm – 5:15 pm Advanced Neurovascular Training for the Advanced Practice Provider, *Wendy Dusenbury, DNP, APRN, FNP-BC, AGACNP-BC, ANVP-BC*
5:15 pm – 5:45 pm Difficult Case Review/Hot Topics, *Nathan Manning, MD*
5:45 pm – 6:30 pm Panel Discussion on APP Roles in Stroke Care
5:45 pm – 5:55 pm Mobile Stroke Unit, *Anne Alexandrov, PhD, RN, CCRN, ANVP-BC, NVRN-BC, FAAN*
5:55 pm – 6:05 pm Neurointervention, *Bryan Fill, APN*
6:05 pm – 6:15 pm Telestroke, *Wendy Dusenbury, DNP, APRN, FNP-BC, AGACNP-BC, ANVP-BC*
6:15 pm – 6:25 pm Intracranial Hemorrhage, *Brian Howard, MD*

**Optional Programming**

**Women in Neurointervention Dinner**
*Moderated by Sandra Narayanan, MD & Paula Eboli, MD*

6:00 pm – 8:00 pm Women in Health Science: How to Find the Holes in the Leaky Pipeline
Speaker: *Sarah Blair, MD*
Panelists: *Ronit Agid, MD, Michele Johnson, MD, Robin Novakovic, MD, Stacey Wolfe, MD*
### Friday, August 7, 2020

4:00 pm – 5:00 pm  
**SNIS Business Meeting (SNIS Members Only)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:00 pm – 5:10 pm</td>
<td><strong>Tipping the Scales – Lessons to Resolve Equipoise in Modern Aneurysm Treatment</strong></td>
</tr>
<tr>
<td></td>
<td><em>Moderated by Ronil Chandra, MD, Jonathan Russin, MD &amp; Sudhakar Satti, MD</em></td>
</tr>
<tr>
<td>5:00 pm – 5:10 pm</td>
<td>Making Good Decisions: Strategies for Wide-Necked Aneurysms, Babu Welch, MD</td>
</tr>
<tr>
<td>5:10 pm – 5:20 pm</td>
<td>To WEB or Not to WEB...What's the Data?, Jeremy Fields, MD</td>
</tr>
<tr>
<td>5:20 pm – 5:25 pm</td>
<td>Discussion</td>
</tr>
<tr>
<td>5:25 pm – 5:50 pm</td>
<td>Unruptured Wide-Necked Aneurysms – When to Punt?</td>
</tr>
<tr>
<td>5:25 pm – 5:35 pm</td>
<td>What I Send for Endovascular Treatment, Sepideh Amin-Hanjani, MD</td>
</tr>
<tr>
<td>5:35 pm – 5:45 pm</td>
<td>Stent Coil or Punt to Clipping, Winston Chong, MD</td>
</tr>
<tr>
<td>5:45 pm – 5:50 pm</td>
<td>Discussion</td>
</tr>
</tbody>
</table>

**DIDACTIC SESSION**  
**Managing Wide-Necked Aneurysms: Has the Game Changed?**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:50 pm – 6:00 pm</td>
<td>Aneurysms That I Coiled That I Should Have Clipped, J Mocco, MD</td>
</tr>
<tr>
<td>6:00 pm – 6:10 pm</td>
<td>Aneurysms Where Flow Diversion Didn't Work: Predictors of Treatment Failure, Hal Rice, MD</td>
</tr>
<tr>
<td>6:10 pm – 6:15 pm</td>
<td>Discussion</td>
</tr>
</tbody>
</table>

**Improved Durability: Understanding Treatment Failures**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:15 pm – 6:25 pm</td>
<td>Intraoperative Complications during Endovascular Treatment: Getting Into, and Sometimes Out of, Trouble, Hamed Asadi, MD</td>
</tr>
<tr>
<td>6:25 pm – 6:35 pm</td>
<td>Intraoperative Complications during Clipping: Getting Into, and Sometimes Out of, Trouble, Michael Lawton, MD</td>
</tr>
<tr>
<td>6:35 pm – 6:45 pm</td>
<td>I Wouldn't Try to do That with a Catheter Again..., Mario Martinez-Galdamez, MD</td>
</tr>
<tr>
<td>6:45 pm – 6:55 pm</td>
<td>I Wouldn’t Try to do That in the OR Again..., Amir Dehdashti, MD</td>
</tr>
<tr>
<td>6:55 pm – 7:00 pm</td>
<td>Discussion</td>
</tr>
</tbody>
</table>

**Aneurysm Treatment: Worst of the Worst from the Best of the Best**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 pm – 8:15 pm</td>
<td>Abstract Presentations &amp; Discussion</td>
</tr>
<tr>
<td>7:00 pm – 7:05 pm</td>
<td>Dual Antiplatelet Therapy after Carotid Artery Stenting: Trends and Outcomes in a Large National Database, Michael Jin, MD</td>
</tr>
<tr>
<td>7:05 pm – 7:10 pm</td>
<td>Volumetric and Spatial Assessment of Cerebral Infarct and Penumbra Tissue for Multiple Computed Tomography Perfusion Software in Acute Ischemic Stroke Patients, Ryan Rava, MD</td>
</tr>
<tr>
<td>7:10 pm – 7:15 pm</td>
<td>Four or More Thrombectomy Passes, TPA Use, and High Initial Stress Glucose Ratio are Independently Associated with Malignant Cerebral Edema after Mechanical Thrombectomy: A Single-center, Retrospective Study, Gregory Cannarsa, MD</td>
</tr>
<tr>
<td>7:15 pm – 7:20 pm</td>
<td>Outcomes of Rescue Endovascular Treatment of Acute Ischemic Stroke in Patients with Underlying Intracranial Atherosclerosis-Insights from Star Registry, Sami Al Kasab, MD</td>
</tr>
<tr>
<td>7:20 pm – 7:25 pm</td>
<td>Real World Evidence for Acute Stroke Thrombectomy in the United States from the NeuroVascular Quality Initiative-Quality Outcomes Database, Sameer Ansari, MD, PhD</td>
</tr>
<tr>
<td>7:25 pm – 7:30 pm</td>
<td>Favorable Venous Microvascular Profile is Associated with Smaller Ischemic Lesion Growth and Smaller Final Core Infarction Volume in Patients with Acute Ischemic Stroke Due to Large Vessel Occlusion, Tobias Faizy, MD</td>
</tr>
<tr>
<td>7:30 pm – 7:35 pm</td>
<td>The Intrasaccular Seal® Device: Improved Flexibility and Healing, Matthew Gounis, PhD</td>
</tr>
</tbody>
</table>
**Friday, August 7, 2020, cont.**

**DIDACTIC SESSION – Abstract Presentations**  
*Moderated by Ephraim Church, MD & Thabele Leslie-Mazwi, MD*

- 7:35 pm – 7:40 pm  
  Outcomes of Endovascular Treatment of Vein of Galen Aneurysmal Malformation in Neonates, *Kiril Orlov, MD*

- 7:40 pm – 7:45 pm  
  Long-term Clinical and Radiographic Follow-up of Pure Arterial Malformations, *Waleed Brinjikji, MD*

- 7:45 pm – 7:50 pm  
  Cerebral Aneurysm Treatment Trends In National Inpatient Sample 2007-2016: Endovascular Therapies Favored Over Surgery, *Alice Wang, MD*

- 7:50 pm – 7:55 pm  
  How Low Is Enough? - Defining the Threshold with Venous Gradient Pressure for Venous Sinus Stenting in Intracranial Hypertension Patients with Venous Sinus Stenosis, *Victor Lopez-Rivera, MD*

- 7:55 pm – 8:00 pm  
  Computational Fluid Dynamics Analysis to Compare Flow Diversion Efficacy of Evolve and Pipeline Devices, *Chandler Sadasivan, MD*

- 8:00 pm – 8:05 pm  
  Intraarterial Clot Localization in Patients with Acute Ischemic Stroke Affects the Venous Microperfusion Profile, *Tobias Djamshed Faizy, MD*

- 8:05 pm – 8:10 pm  
  Hybrid Human Brain Model for Research in Large Vessel Occlusion Stroke, *Luis Savastano, MD*

- 8:10 pm – 8:15 pm  
  Changes in Leukocyte Distribution in Intracranial vs. Systemic Blood Collected during Mechanical Thrombectomy, *Benton Maglinger, MD*

- 8:15 pm – 8:30 pm  
  Break

**DIDACTIC SESSION – Case-Based Discussions & Complications**  
*Moderated by Christoph Griessenauer, MD & Jenny Tsai, MD*

- 8:30 pm – 8:55 pm  
  Combined Treatment Strategies for Aneurysms, *Guilherme Dabus, MD*

- 8:55 pm – 9:20 pm  
  Stroke – Agony & Ecstasy, *Aaron Grossman, MD*

- 9:20 pm – 9:45 pm  
  AVMs & AVFs – Endovascular Decision Making, *Stacey Wolfe, MD*

- 9:45 pm – 11:00 pm  
  Closing Celebration
Take thrombectomy to the next level with the Trevo NXT™ ProVue Retriever

- New TriGlide Delivery Wire optimized for smooth retrieval
- Four new sizes, one compatible 162cm length microcatheter
- Same proven stent

Endovascular therapy with the device should start within 6 hours of symptom onset.

1. The Trevo Retriever is indicated for use to restore blood flow in the neurovasculature by removing thrombus for the treatment of acute ischemic stroke to reduce disability in patients with a persistent, proximal anterior circulation, large vessel occlusion, and smaller core infarcts who have first received intravenous tissue plasminogen activator (IV t-PA).

2. The Trevo Retriever is intended to restore blood flow in the neurovasculature by removing thrombus in patients experiencing ischemic stroke within 8 hours of symptom onset. Patients who are ineligible for intravenous tissue plasminogen activator (IV t-PA) or who fail IV t-PA therapy are candidates for treatment.

3. The Trevo Retriever is indicated for use to restore blood flow in the neurovasculature by removing thrombus for the treatment of acute ischemic stroke to reduce disability in patients with a persistent, proximal anterior circulation, large vessel occlusion of the internal carotid artery (ICA) or middle cerebral artery (MCA)-M1 segments with smaller core infarcts (0-50 cc for age <80 years, 0-20 cc for age ≥80 years). Endovascular therapy with the device should start within 6-24 hours of time last seen well in patients who are ineligible for intravenous tissue plasminogen activator (IV t-PA) or who fail IV t-PA therapy.

For Important Safety Information, please click the Learn More button.

Trevo NXT ProVue Retriever
RX ONLY
See package insert for complete indications, contraindications, warnings and instructions for use.

Intended use/indications for use
1. The Trevo Retriever is indicated for use to restore blood flow in the neurovasculature by removing thrombus for the treatment of acute ischemic stroke to reduce disability in patients with a persistent, proximal anterior circulation, large vessel occlusion, and smaller core infarcts who have first received intravenous tissue plasminogen activator (IV t-PA).
Clinical Utility of the Eclipse 2L: The Evolution of Dual Lumen Balloons

Dr. Mario Martínez-Galdámez
Director, Interventional Neuroradiology
Hospital Clinico Universitario de Valladolid, Spain
These sessions will be available on-demand from August 10 until November 30.
All of the live sessions will also be recorded and available on-demand from August 10 until November 30.

Neuroanatomy Master Class – Simplifying Spinal Vascular Anatomy (45 minutes)
Essentials of Spinal Cord Vascular Anatomy, Ronil Chandra, MD
Spinal Vascular Malformation Anatomy and Natural History, Bradley Gross, MD

Neuroanatomy Master Class – Pediatrics & Embryology (45 minutes)
Anatomical Considerations during Pediatric Neurointerventional Procedures, Adam Rennie, MD
Case Review: Persistent Embryological Variants & How They Impacted Treatment, George Teitelbaum, MD

Neuroanatomy Master Class – Beware the Dangerous Collaterals! (45 minutes)
Dangerous EC-IC Collaterals at the Skull Base, Kittipong Srivatanakul, MD
Dangerous Collaterals in the Cervical Spine, Felipe Albuquerque, MD

Neuroanatomy Master Class – How I Use Anatomy to Plan Treatment (45 minutes)
Case Review: Anatomical Features I Consider Prior to Intracranial Stenting for Intracranial Atherosclerotic Disease, Timo Krings, MD
Case Review: Anatomical Features I Consider Prior to Flow Diversion for Unruptured Aneurysms, Laetitia de Villiers, MD

Spinal Interventional Armamentarium for the Practicing Neurointerventionalist (90 minutes)
Vertebral Body Augmentation, Allan Brook, MD
Microsurgical Treatment of Spinal AVM and dAVF, Aditya Pandey, MD
Spinal Vascular Malformations, Ian Kaminsky, MD
Spinal Tumor Embolization, Joseph Gemmete, MD

Pediatric Thrombectomy and Beyond: Big Problems in Small Patients (150 minutes)
International Pediatric Stroke Organization – A Call to Neurointerventionalists, Heather Fullerton, MD
Update on Pediatric Acute Ischemic Stroke Clinical Trials
    PETITE, Sarah Lee, MD
    PASTRYL, Catherine Amlie-Lefond, MD
When does a Pediatric Brain Tumor Need Embolization, Frederick Boop, MD
Techniques of Brain Tumor Embolization, Adam Rennie, MD
Case Presentations & Roundtable Discussion of Pediatric Brain Aneurysms,
Panel:
Lucas Elijovich, MD, Jonathan Grossberg, MD, Todd Abruzzo, MD, Alejandro Berenstein, MD, FSNIS & Anthony Wang, MD

Translational Developments in Acute Ischemic Stroke Intervention (60 minutes)
ESCAPE NA-1, The Revival of Neuroprotection, Mayank Goyal, MD
Improving Reperfusion Therapies in the Era of Mechanical Thrombectomy, Italo Linfante, MD
Therapeutic Hypothermia, Patrick Lyden, MD

Perspectives in Neurointerventional Practice (90 minutes)
History of the Multidisciplinary Nature of Neurointerventional Surgery, Christopher Dowd, MD
The Benefits of a Multidisciplinary Environment for Neurointerventional Training, Lucas Elijovich, MD
Certification in Neurointerventional Surgery: An Update, Johanna Fifi, MD
Neurointerventional Surgery: Who are We?, Adam Arthur, MD
Hybrid Surgical and Neuroendovascular Techniques, Adnan Siddiqui, MD, PhD
Easy Synchronized Secure Stroke Care

With Viz we treat more patients faster and they do better. -Dr. Donald Frei

Viz ASPECTS
Simplified ASPECTS Scoring

Viz LVO
A.I. Powered Detection of Suspected LVOs

Viz CTP
Automated CTP Analysis

Viz ICH
A.I. Powdered Detection of Suspected ICH

Industry Leading Data Protection
KANEKA MEDICAL PRODUCTS

i-ED COIL
Detachable Coil

USA Distributor
KANEKA PHARMA AMERICA LLC
546 Fifth Avenue, 21st Floor, New York, NY 10036 USA
CONTACT Tel. 800-526-3522 FAX. 212-705-4350
The Wallaby Avenir™ Coil System is intended for the endovascular embolization of intracranial aneurysms and other neurovascular abnormalities such as arteriovenous fistulae. The Wallaby Avenir™ Coil System is also intended for arterial and venous embolization in the peripheral vasculature.

Caution: Federal law (USA) restricts this device for sale by or on order of a physician. Rx only. See Instructions for Use for a complete list of precautions, and contraindications.

The pORTAL™ Steerable Hydrophilic Guidewire and pORTAL™ EXT Extension Wire is intended for use in the neurovasculature. The wire can be steered to facilitate the selective placement of diagnostic or therapeutic catheters. This device is not intended for use in the peripheral or coronary arteries.

Caution: Federal law (USA) restricts this device for sale by or on the order of a physician.

Optimal torque & trackability
- ASACOR technology for max. torque transmission
- Dock-extendable
- Atraumatic tip provides enhanced safety
- Refined hydrophilic coating for lower vessel friction
- Seamless transition zones for advanced navigability
- Minimized “whip effect” and more kink resistance due to proprietary core alloy

Classic coiling - cleverly refined
- Available in 10 and 18 sizes for framing, filling and finishing
- Complex coils with excellent framing capabilities and reduced first loop diameter to minimize coil herniation during deployment
- Ultra-soft finishing coils available in both Complex and Helical shapes for high packing density
- Pusher-integrated, instant detachment for fast, reliable detachment without any accessories
Neuroform Atlas® Stent System
The only PMA approved stent indicated for the posterior circulation

When outcomes matter most

- Clinically proven: 76.7%
  Primary efficacy endpoint
- Safe: 4.3%
  Primary safety endpoint
- Durable: 7.8%
  Retreatment rate

Results of ATLAS posterior PMA cohort at 1 year.

Don’t miss our webinar to learn more about the largest study of its class:

EVENT DETAILS/REGISTER
Neuroform Atlas Stent System

RX ONLY

See package insert for complete indications, contraindications, warnings and instructions for use.

Indications for use
The Neuroform Atlas Stent System is indicated for use with neurovascular embolization coils in the anterior and posterior circulation of the neurovasculature for the endovascular treatment of patients ≥ 18 years of age with saccular wide-necked neck width ≤ 4 mm or a dome-to-neck ratio of < 2 intracranial aneurysms arising from a parent vessel with a diameter of ≥ 2.0 mm and ≤ 4.5 mm.

Contraindications
• Patients in whom the parent vessel size does not fall within the indicated range.
• Patients in whom antiplatelet and/or anticoagulation therapy (e.g., aspirin and clopidogrel) is contraindicated.
• Patients who have not received anti-platelet agents prior to stent implantation.
• Patients with an active bacterial infection.
• Patients in whom angiography demonstrates the anatomy is not appropriate for endovascular treatment due to conditions such as:
  - Severe intracranial vessel tortuosity or stenosis;
  - Intracranial vasospasm not responsive to medical therapy.
• Patients in whom a pre-existing stent is in place in the parent artery at the target intracranial aneurysm location.

Potential adverse events
The potential adverse events listed below, as well as others, may be associated with the use of the Neuroform Atlas Stent System or with the procedure:
• Aplasia
• Allergic reaction to Nitinol metal and medications
• Aneurysm perforation/rupture, leak or contrast extravasation
• Blindness
• Cardiac arrhythmia

Stryker Corporation or its affiliates own, use, or have applied for the following trademarks or service marks: Neuroform, Atlas, Stryker. All other trademarks are trademarks of their respective owners or holders.

Copyright © 2020 Stryker
AP003006 v1.0 | Page 2 of 2

For single use only. Do not reuse, reprocess or resterilize. Reuse, reprocessing or resterilization may compromise the structural integrity of the device and/or lead to device failure which, in turn, may result in patient injury, illness or death. Reuse, reprocessing or resterilization may also create a risk of contamination of the device and/or cause patient infection or cross-infection, including, but not limited to, the transmission of infectious diseases from one patient to another. Contamination of the device may lead to injury, illness or death of the patient.

After use, dispose of product and packaging in accordance with hospital, administrative and/or local government policy.

This device should only be used by physicians who have received appropriate training in interventional neuroradiology or interventional radiology and preclinical training on the use of this device as established by Stryker Neurovascular.

The Neuroform Atlas stent may create local field inhomogeneity and susceptibility artifacts during magnetic resonance angiography (MRA), which may degrade the diagnostic quality to assess effective intracranial aneurysm occlusion.

Safety Information Magnetic Resonance Resonance Conditional
Non-clinical testing and analysis have demonstrated that the Neuroform Atlas Stent is MR Conditional alone, or when overlapped with a second stent, and adjacent to a Stryker Neurovascular coil mass. A patient with the Neuroform Atlas Stent can be safely scanned immediately after placement of this implant, under the following conditions:
• Static magnetic field of 1.5 and 3.0 Tesla
• Maximum spatial gradient field up to 2500 Gauss/cm (25 Tesla/m)
• Maximum MR system reported whole body averaged specific absorption rate of 2 W/kg (Normal Operating Mode) and head averaged specific absorption rate of 3.2 W/kg.

Under the scan conditions defined above, the Neuroform Atlas Stent is expected to produce a maximum temperature rise of ≤ 4 °C after 15 minutes of continuous scanning. The Neuroform Atlas Stent System is designed to produce a maximum temperature rise of ≤ 4 °C after 15 minutes of continuous scanning. The Neuroform Atlas Stent System is designed to produce a maximum temperature rise of ≤ 4 °C after 15 minutes of continuous scanning. The Neuroform Atlas Stent System is designed to produce a maximum temperature rise of ≤ 4 °C after 15 minutes of continuous scanning.

In non-clinical testing, the image artifact caused by the device extends approximately 2 mm from the device.

See package insert for complete indications, contraindications, warnings and instructions for use.

Learn more at our virtual booth

imperativecare.com

For complete product information, including indications, contraindications, warnings, precautions and adverse events, visit bit.ly/2gXOQ2f

The first Large Distal Platform
A single .088” intracranial access catheter that combines the flexibility of a distal access catheter with the support of a long sheath
SurgicalPreview®, a cloud-based computational platform, provides comprehensive cerebral aneurysm management—automating the entire workflow from initial assessment to growth monitoring and treatment planning.

RapidAI.com/SurgicalPreview
SNIS Would Like to Thank the Generous Supporters of its 17th Annual Meeting

**Platinum Sponsors**
- Cerenovus
- Medtronic
- MicroVention
- Penumbra, Inc.
- Stryker

**Emerald Sponsors**
- Balt
- Kaneka Pharma America LLC

**Gold Sponsor**
- Imperative Care

**Exhibitors/Sponsors**
- Aneurysm & AVM Foundation
- Asahi Intecc USA
- Biomodex Corp.
- Endophys Holdings, LLC
- Endovascular Today
- Get Ahead of Stroke
- Joe Niekro Foundation
- Journal of Neurointerventional Surgery
- NeuroNews
- NVQI-QOD
- Phenox Inc.
- Philips Healthcare
- Q'apel Medical
- RapidAI
- Rapid Medical Inc.
- Siemens Healthineers
- Silk Road Medical
- Viz.ai
- Zeiss
SEE YOU NEXT YEAR!

SNIS 18th Annual Meeting and Fellows Course

July 26-30, 2021
The Broadmoor
Colorado Springs, Colorado

snisonline.org
Experience the REAL® Immersive System
An advanced rehabilitation technology using virtual reality designed to empower patients to fully engage in therapy

Indication for Use
The REAL Immersive System is an immersive virtual reality and display system that interactively displays and tracks upper extremity rehabilitation exercises for adult patients using a combination of virtual environments and full presence tracked avatars for visual feedback. These rehabilitation exercises are intended to be conducted in a seated position in a clinical environment and prescribed and supervised by a medical professional trained in rehabilitation therapy.

Contraindications
There are no known contraindications.

Warnings
• If a patient complains of motion sickness, dizziness, headache, eye strain, or fatigue when using the device, stop use of device immediately.
• Use caution when using this device if a patient has a history of vestibular issues or motion sickness.

Precautions
• Ensure a safe environment for the patient while performing activities with the device (e.g., remove any surrounding obstacles and ensure that the patient is unlikely to trip or fall).
• As this device is to be used for upper body rehabilitation, we recommend that the patient remain seated to avoid a fall.
• Be aware of the patient’s limitations in range of motion and avoid device or program use that could lead to excessive gestures that could injure a patient.
• Extended use of a head-mounted display can cause discomfort or eye strain.
• Incorrect placement of the sensors on the patient may result in the avatar appearing incorrectly or distorted on the headset and tablet.
• Damage (mechanical and electrical) may result if the tablet, headset, sensors, router, router battery, and/or sensor charger are dropped or struck against another object.
• Device is not intended for continued use if dropped from higher than 1 meter.
• Do not touch the router and patient at the same time.
• Device is not intended for continued use if dropped from higher than 1 meter.
• Do not touch the router and patient at the same time.
• During use, the surface of the equipment will not exceed 47°C.
• Sensors will transmit inaccurate position data if used near metal including, but not limited to, wheelchairs, walkers, and utility carts.
• Headset tracking can be lost or compromised if large objects obscure the headset.

Potential Adverse Effects/Events
• To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
• At no time should liquid products be allowed near any device component.
• No modification of this equipment is allowed.
• Use accessories, transducers, and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
• Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the REAL Immersive System, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
• Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Product availability varies by country. Rx only. Prior to use, please see User Manual for complete information, product indications, warnings, precautions, and potential adverse events. The product is intended to be used in a clinical environment and prescribed and supervised by a medical professional trained in rehabilitation therapy. A medical professional must be present at all times to provide direct supervision of the use of the product.

Copyright ©2020 Penumbra, Inc. All rights reserved. The REAL Hero logo, REAL, and TherapyView are registered trademarks or trademarks of Penumbra, Inc. in the USA and other countries. All other trademarks are the property of their respective owners. 18841, Rev. A 07/20 USA

www.realsystem.com | @REALSystemVR
Take aspiration to the next level with the AXS Vecta® 74 Intermediate Catheter

- Deliver unmatched aspiration power with the extra-large .074in catheter
- Robust design for use with the Trevo NXT ProVue Retriever

**Indications for use as a conduit**
The AXS Vecta Intermediate Catheter is indicated for use in facilitating the insertion and guidance of appropriately sized interventional devices into a selected blood vessel in the peripheral and neurovascular systems. The AXS Vecta Intermediate Catheter is also indicated for use as a conduit for retrieval devices.

**Indications for use as a revascularization device**
The AXS Vecta Intermediate Catheter, as part of the AXS Vecta Aspiration System, is indicated in the revascularization of patients with acute ischemic stroke secondary to intracranial large vessel occlusive disease (within the internal carotid, middle cerebral – M1 and M2 segments, basilar, and vertebral arteries) within 8 hours of symptom onset.

Patients who are ineligible for intravenous tissue plasminogen activator (IV t-PA) or who failed IV t-PA therapy are candidates for treatment.

For Important Safety Information, please click the Learn More button.

**AXS Vecta 71/74 Intermediate Catheter**
RX ONLY
See package insert for complete indications, contraindications, warnings and instructions for use.

**LEARN MORE**