

# THE Embolus

A publication of the Society of NeuroInterventional Surgery



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## Save the Date: SNIS 19th Annual Meeting

It's time to dust off your passport, because SNIS is getting ready for its first Annual Meeting hosted outside of the U.S.! The SNIS 19th Annual Meeting and Fellows Course is set for July 26-29, 2022, at the Westin Harbour Castle Hotel in Toronto, Ontario, Canada.

The meeting will once again be offered in a hybrid format, allowing for more participation by our colleagues around the world. This is also the first year we'll feature concurrent sessions and a new lunch format to optimize our learning opportunities. If you can attend in person, you'll be able to take advantage of a variety

of hotel amenities and opportunities for sightseeing.

As an internationally recognized forum for neurointerventional surgery, the SNIS Annual Meeting is our society's most anticipated event. Each year, in tandem with the growth and recognition of our meeting, is the expansion of our abstract submissions and presentations. As we continue to build this scientific platform, we look to you to share your institution's studies and findings.

Be sure to visit our website for the latest information on the Annual Meeting: <https://www.snisannualmeeting.org>.

### SNIS 19th Annual Meeting & Fellows Course

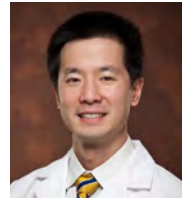


**July 25-29, 2022**  
Westin Harbour Castle Hotel  
Toronto, Ontario, Canada

Programming in conjunction with:







## Diversifying our Profession

During my tenure as president of SNIS, I am focusing on growing our influence on trainees, diversity and advocacy in a positive way. I would like to highlight a few initiatives that are working toward this goal.

The Young NeuroInterventional Surgery (YNIS) Committee, chaired by Daniel Heiferman, MD and Eric Smith, MD and the Mentorship Committee, chaired by James Milburn, MD are both dedicated to supporting the SNIS fellows and early career neurointerventionalists through mentorship programming, local initiatives and a fellowship database that can grow and leverage our connections.

In addition, the Diversity, Equity, and Inclusion (DEI) Committee, chaired by Jenny Tsai, MD will begin a

**#WeAreNeurointervention** social media campaign to showcase the diversity of our membership. The Black Affinity Group, led by Mesha Martinez, Julian Hardman and Jason Wilson, will collaborate with leaders from the Society of Vascular & Interventional Neurology (SVIN), the American Society of Black Neurosurgeons (ASBN) and industry partners to support current black neurointerventionalists and advocate for black and underrepresented minorities pursuing careers in this field.

Lastly, our Get Ahead of Stroke® campaign, which is singularly focused on improving access to stroke thrombectomy, is expanding its efforts to more states. We're also working to increase EMS understanding of revised stroke protocols in

states with recent policy changes, as well as educate consumers in those states about the importance of calling 911 when they suspect a stroke.

There are a variety of other active, ongoing projects including the Fellowship Match, led by Jenny Tsai, MD and an interdisciplinary task force and the SNIS Insights Webinar Series, led by SNIS Education Chair Peter Kan, MD and the Education Committee, which now regularly features collaboration with speakers from ESMINT and OCIN.

There is no shortage of opportunities for SNIS members to lend their expertise and hard work to help SNIS grow and thrive. Feel free to reach out to me if you would like to get more involved.



## Mentor Match

James Milburn, MD  
SNIS Mentorship Chair



The SNIS Mentor Match program is in full operation, with many mentor-mentee relationships already active. SNIS believes this will be a valuable tool to foster new relationships and share knowledge between our experienced members and early career neurointerventionalists, fellows and residents. We believe this program will connect our society in new ways across institutions and even countries. SNIS members are strongly encouraged to take advantage of this opportunity to mentor, become a mentee or both!

The program is available through SNIS Connect or directly at [connect.snisonline.org/mentoring](https://connect.snisonline.org/mentoring). You should see the "Mentor Match" option available in the main menu, and you can visit the page above for a basic

overview before getting started. Once you have signed up, be sure to search for a mentor or mentee in the directory. You can also visit the FAQ page for more detailed information about the program.

As Mentorship Chair, I am happy to facilitate the creation of relationships for mentees, and can be reached at [jmilburn@ochsner.org](mailto:jmilburn@ochsner.org). We are planning to hold a Mentor Match lunch event at the upcoming SNIS Annual Meeting in Toronto, which is another great reason to attend in person!

Please feel free to contact Anthony Portillo at [portillo@snisonline.org](mailto:portillo@snisonline.org) or Eddie Woods at [woods@snisonline.org](mailto:woods@snisonline.org) for any comments, suggestions or to receive technical assistance with the website.

# Journal of NeuroInterventional Surgery Update

Felipe C. Albuquerque, MD / Editor-in-Chief



The *Journal of NeuroInterventional Surgery (JNIS)* remains committed to the publication of the highest quality science impacting the practice of neurointervention. As we announced in our last issue, the Impact Factor is at an all-time high of 5.836. Another number I'm proud to share is the length of our rapid review process; the time from manuscript acceptance to online publication currently averages 20 days.

For those of you who wish to contribute to these fantastic metrics, keep in mind that scientific and clinical articles that prospectively analyze neurointerventional techniques and outcomes represent the core content of the JNIS. We also welcome the submission of manuscripts pertaining to the use of novel devices and the development of innovative endovascular techniques. Through our editorial content, the JNIS highlights and critiques social, economic, and work force-related issues that directly impact our patients and the practice of neurointervention.

Thank you to our authors, reviewers, and the editorial board for all that you do to ensure the excellence of JNIS.

Below are a few highlights from the February 2022 issue. To learn more, visit [www.jnis.bmj.com](http://www.jnis.bmj.com).

As the benefit of complete reperfusion (modified Thrombolysis in Cerebral Infarction (mTICI) 3) over near-complete reperfusion remains unclear, “**Is a picture-perfect thrombectomy necessary in acute ischemic stroke?**” compared clinical outcomes between mechanical thrombectomy (MT)-treated stroke patients with mTICI 2c versus 3. The retrospective study is from the Stroke Thrombectomy and Aneurysm Registry (STAR) and

included 33 centers. They found that complete and near-complete reperfusion after MT appear to confer comparable outcomes in patients with acute stroke.

“**POSITIVE: Perfusion imaging selection of ischemic stroke patients for endovascular therapy**” supports the already established practice of delayed thrombectomy for appropriately selected patients presenting within 0–12 hours selected by perfusion imaging from any vendor. The results of the POSITIVE trial are consistent with other thrombectomy trials. The statistically significant effect on functional improvement, despite the small number of patients, reinforces the robust benefits of thrombectomy.

Carotid artery stenting (CAS) is a procedure for stroke prevention, usually done from femoral artery access. Reports of CAS using radial artery access have adopted techniques similar to those used for transfemoral CAS. Initial experience with a simpler and lower profile technique for transradial carotid stenting is described in “**Stenting the carotid artery from radial access using a Simmons guide catheter.**” This study is a retrospective analysis of an initial 20 patients selected for transradial treatment using a 6 F Simmons 2 guide catheter compared with 35 patients treated with elective transfemoral CAS. All procedures were technically successful (no crossovers). No patient had a decline in National Institutes of Health Stroke Scale score or modified Rankin Scale score within 30 days. The study confirmed that transradial carotid stenting using the described lower profile technique provides another effective option for the treatment of carotid artery stenosis.

## JNIS Podcast Update

During the November 17, 2021, episode titled “COMPASS: intravenous alteplase and the efficacy of aspiration vs. stent retriever thrombectomy,” I discussed the COMPASS: a trial of aspiration thrombectomy versus stent retriever thrombectomy as first-line approach for large vessel occlusion, comparing patients with and without prior intravenous (IV) alteplase administration. I spoke with Maxim Mokin from the Department of Neurosurgery and Brain Repair at the University of South Florida about the post hoc analysis, which concludes that prior administration of IV alteplase may adversely affect the efficacy of aspiration, though it does not seem to influence the stent retriever-first approach to MT in patients with anterior circulation ELVO.

Venous sinus stenting (VSS) is a safe, effective, and increasingly popular treatment option for selected patients with idiopathic intracranial hypertension (IIH). Serious complications associated with VSS are rarely reported, but they do happen on occasion. On December 13, 2021, I interviewed Dr. Kyle Fargen from the Department of Neurosurgery at Wake Forest University about “Major complications of dural venous sinus stenting for idiopathic intracranial hypertension.” In this podcast, we discussed a case series in which serious complications after VSS were identified retrospectively from multicenter databases.

Listen to these episodes and others on [SoundCloud](#), [Spotify](#), or [Apple Podcasts](#).



## SNIS Committee Spotlight:

# Young NeuroInterventional Surgery (YNIS) Committee

The Young NeuroInterventional Surgery (YNIS) Committee was created six years ago to understand the needs of SNIS fellows and early career neurointerventionalists and then develop programming and initiatives targeted to their interests.

In its early years, the main goal was to develop a plan for a fellowship match process and create website content for prospective neurointerventionalists. The current YNIS Committee is working to expand from the previous iteration, and under the leadership of Dan Heiferman, MD, and Eric Smith, MD, several new initiatives have been started.

“First and foremost, our committee grew to include those from diverse backgrounds and specialties,” said Smith. “Our presence on social media has blossomed into an active source of disseminating



Dan Heiferman, MD



Eric Smith, MD

information and educational content, and we are working closely with the SNIS Mentorship program to actively promote neurointervention and encourage networking opportunities.”

This initiative has already gained some traction; the mentorship committee had a virtual meet and greet with more than 50 people in January.

“We’ve expanded the size of the YNIS Committee to broaden leadership opportunities to fellows in SNIS,” said Heiferman.

“We’re also working with the DEI Committee to provide fellow insight and assistance, as well as with the SNIS Board to develop fellow and resident-level educational content and to formalize the fellowship application process.”

So far, YNIS has received approval from the SNIS Board to move forward with piloting their Institutional Chapters program with the goal of developing grassroots involvement and interest in neurointervention and the SNIS at a local level.

“We have lofty goals and have already achieved so much in a short time. While there is still much to be accomplished, the support of the SNIS Board has been very encouraging,” said Smith.

If you are not already doing so, follow us on Twitter (@YNIScommittee) and Instagram (@ynis\_info).



## SNIS Foundation Update Blaise Baxter, MD, FSNIS / Foundation Chair

2021 was a wonderful year for the SNIS Foundation. We celebrated our 10th anniversary and continued our commitment to advancing the neurointervention community alongside individual veteran and novice practitioners who are making their own contributions to this evolving field. Together, we are making a real impact for patients across the United States.

In 2022, we’re looking forward to many new opportunities. SNIS is excited to announce it will host its’ first-ever Foundation Donors Reception at this year’s annual meeting! We are eager to celebrate those who make our work possible.

Research continues to evolve throughout the neurointerventional community. To aid in this endeavor, SNIS distributes research grants to physicians making strides in their field. Dr. Nina Moore received support from the SNIS

Foundation/Joe Niekro Foundation Research Grant to start her evaluation of fluid dynamics in arteriovenous malformations.

She hopes to provide the necessary groundwork to develop clinically relevant predictive mathematical modeling tools of arteriovenous malformations and aneurysms. Given the variability of each person’s cerebrovascular anatomy and the potential catastrophic risk of a rupture from an aneurysm or AVM, her work will help determine risk of rupture and best treatment strategy.

The grant has allowed Moore and her team to develop a life-size 3D-printed brain AVM. Through the model, her team is making a flow phantom to qualify fluid flow velocities from preoperative imaging techniques. This flow information will then be used within computational fluid dynamics and fluid structure interaction models for more accurate parameterization.

In addition, the Foundation is continuing its “movement challenges.” They are a great way to support its mission to improve patient care, as well as the research and educational goals of the neurointerventional community. These challenges will be quarterly, so make sure to lace up those shoes or fill your tires with air! Whether you walk, run, hike, or bike, we want you to keep moving and support wellness in our community. Participation requires a \$50 entry fee that supports the Foundation’s General Fund.

These challenges are designed to bolster scientific research and discovery around treatment options for neurovascular conditions, ensuring the most effective treatment solutions for patients. And remember, you don’t have to be a member to join the fun—your whole family can participate, and everyone will receive a medal!

Thank you for your continued support of the SNIS Foundation.

# Highlighting Diversity in Neurointervention

The Diversity, Equity, and Inclusion (DEI) Committee led by Jenny Tsai, MD has been hard at work finding new ways to represent and promote diversity within SNIS membership and neurointervention—whether that means inviting more international, underrepresented minority and female speakers to be featured in all SNIS educational endeavors or ensuring that each SNIS committee is well-represented with diverse members.

...to further their advocacy for DEI, the committee is launching a social media and print campaign in spring 2022 titled **#WeAreNeurointervention** to showcase the diversity within SNIS membership.

To assist the committee in supporting equitable and inclusive professional growth of all its members—regardless of their demographic, professional, and personal differences—they conducted a survey in 2021, and found that:

- There was an increase in female neurointerventionalists early in their career among respondents, but still a lower percentage than in medicine in general.
- More than 50% of respondents perceive issues in equity and inclusion.
- There is a low number of Black neurointerventionalists.
- The majority (78%) of respondents support DEI initiatives as a priority for SNIS.



**#WeAreNeurointervention**

**TAIWANESE-CANADIAN.  
MIXED-MEDIA ARTIST.  
NEUROINTERVENTIONALIST.**

Society of NeuroInterventional Surgery  
**SNIS**

*Jenny Tsai, MD | Interventional Neurologist  
Spectrum Health West Michigan | Grand Rapids, MI*



**#WeAreNeurointervention**

**FATHER.  
AIR FORCE RESERVIST.  
NEUROINTERVENTIONALIST.**

Society of NeuroInterventional Surgery  
**SNIS**

*Jason Wilson MD, MBA, MHCD | Endovascular Neurosurgeon  
Methodist Hospital | San Antonio, TX*

These findings create opportunities for the DEI committee to foster a greater balance in our industry’s demographic by providing equitable and inclusive entry to neurointerventional training and practice. In addition, we should strive for more outreach to underrepresented minorities and provide them mentorship in our field. Gaps still remain in current understanding of DEI issues in neurointervention, and further studies are needed to connect those dots.

In the meantime, to further their advocacy for DEI, the committee is launching a social media and print campaign in spring 2022 titled **#WeAreNeurointervention**

to showcase the diversity within SNIS membership. Once data are available, they will track social media metrics to evaluate the campaign’s efforts.

Other committee goals for the upcoming year include bolstering the visibility of DEI issues; enhancing outreach, mentorship, and fellowship entry opportunities for candidates; and increasing the number of female neurointerventionalists. The committee also plans to organize a structure for growth in Black neurointerventionalist representation, as well as initiate an infrastructure for community outreach programs.

# Get Ahead of Stroke® Update

In 2021, the Get Ahead of Stroke® campaign changed triage, transport, and treatment policies in two states. This has resulted in potentially better outcomes for hundreds of thousands of stroke patients. After our policy change victories in Ohio and North Carolina, the Get Ahead of Stroke® team is gearing up for a successful 2022. We look forward to working with more legislators this year to update stroke triage and transport protocols to ensure that all patients get to appropriate treatment as soon as possible. A few highlights of our recent progress with states include:

**Pennsylvania:** Following the Bureau of EMS Services' adoption of SNIS's recommendations within Pennsylvania's Basic Life Support (BLS) protocols, the campaign team continued stakeholder engagement. Sen. Devlin Robinson's team shared that the Emergency Room Physicians Organization is supportive of our efforts and wants to discuss the proposed bill language to ensure alignment. We also met with Rep. Marci Mustello and Sen. July Ward and engaged with additional stakeholders like Rep. Bridget Kosierowski and Rep. Donna Bullock to discuss the proposed legislation.

**Massachusetts:** This spring, the Joint Committee of Public Health is drafting legislation that combines all six of the proposed stroke-related bills into one. The initial version shared with us retains our language specific to triage and transport protocols for stroke, including ELVO. We continue to engage with Rep. Decker's Chief of Staff Kathleen Hornby and Sen. Jo Comerford's Legislative Director Brian Rosman about the need to keep the proposed stroke legislation moving forward due to its potential for saving lives and reducing disability.

**Michigan:** We're working with Gov. Gretchen Whitmer's office to draft a potential proclamation in honor of Stroke Awareness Month this May. We're also

engaging the Michigan Department of Health and Human Services to meet with Dr. Tsai and Emily Schwarzkopf, the policy director of MDHHS, to further efforts in the state.

**Georgia:** As we begin our efforts in Georgia, our first priority will be to initiate conversations with appropriate agency staff at the Department of Public Health (DPH) to determine the best path to improve the state's triage and transport protocol for stroke patients. Prospective legislative champions include Rep. James Beverly, Rep. Sharon Cooper, and Rep. Lee Hawkins.

On the heels of inclusion of language in the FY22 federal omnibus endorsing updated stroke systems of care, we're happy to share that new National Model EMS Clinical Guidelines (Version 3.0) have been published by the National Association of State EMS Officials (NASEMSO). Thank you to Don Frei, who spoke to NEMSAC last month about the importance of updating stroke protocols.

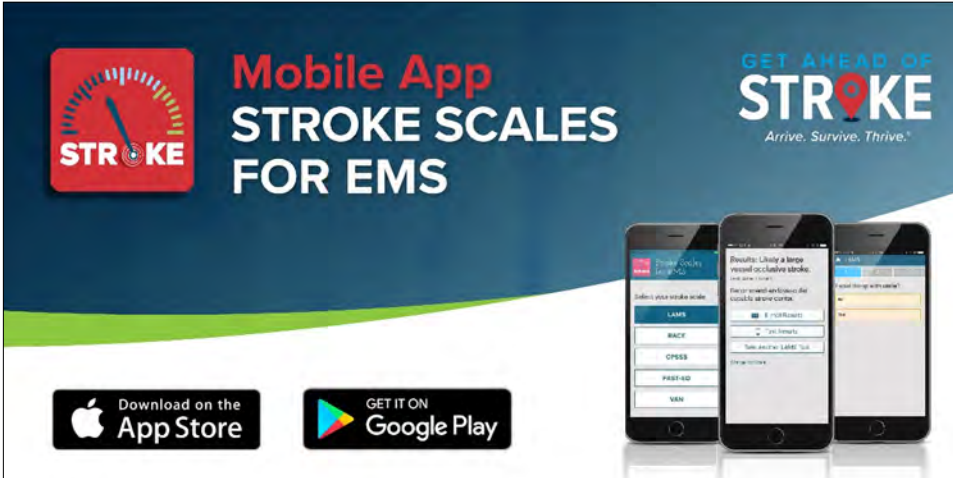
While not binding, these guidelines will

help steer all states and localities toward triage, transport and treatment protocols that best meet the needs of stroke patients. We're hopeful that they will infuse urgency and support into current state efforts and jumpstart protocol updates across the country.

In order to build a system, all pieces have to work together. That's why the campaign team is also expanding its efforts in other ways; a new phase of the campaign is underway and includes increasing EMS understanding of revised stroke protocols and triage and educating consumers about the importance of calling 911 for stroke symptoms.

Do you know an organization that might be a great nonprofit partner for our work? Contact Marie Williams Denslow at [williams@snisonline.org](mailto:williams@snisonline.org). In addition, please email Marie if you are interested in supporting the campaign in your state.

To stay up to date with the campaign, sign up for the Get Ahead of Stroke® newsletter at [www.getaheadofstroke.org/join-us](http://www.getaheadofstroke.org/join-us).



Our **Stroke Scales for EMS** mobile app has been downloaded by more than 9% of the current EMS workforce—that's 23.8K total downloads! Share the app to help first responders better identify the signs of a severe stroke and get patients to the appropriate care quickly.

# Impacts of the Protecting Medicare and American Farmers from Sequester Cuts Act

Joshua Hirsch, MD, FSNIS / SNIS Health, Policy & Economics Chair



Many physicians across the U.S. heaved a collective sigh of relief in December when Congress passed the Protecting Medicare and American Farmers from Sequester Cuts Act. Before this intervention, doctors were anticipating Medicare payment cuts of 9.75% in January 2022. The impact of these cuts could have been extremely detrimental, as physician practices across the nation are still recovering from the financial impact of COVID-19.

That's why SNIS members participated in a coalition that lobbied aggressively for these changes. The new legislation adds a 3% increase across the board to the Medicare Conversion Factor for calendar year 2022. In addition, it pushed the statutory pay-as-you-go scorecards into 2023 and slowed sequestration payment restrictions required by the 2011 Budget Control Act.

This ruling has a massive impact on the quality of care we can provide to our patients. The potential Medicare cuts were particularly dangerous because they could have led to a diminution in beneficiary access. For neurointerventionalists who are already suffering from challenges associated with the pandemic, forestalling these cuts was crucial. Our health care facilities need to remain open to serve the populations most in need, including providing access to life-saving care for individuals experiencing strokes, aneurysms, and other deadly conditions.

Unfortunately, this legislative correction provides only one additional year of 3% support before SNIS members and other providers must once again take up this challenge. Moreover, certain add-on codes that are supported by Centers for Medicare and Medicaid Services and could impact the conversion factor adversely had their implementation postponed for three

years. At the end of 2022, two of those three years will have run out. At the same time, SNIS leadership is focused on other challenges impacting our members like clinical labor pricing and recent controversial administrative changes to the legislative solution for surprise billing.

If you would like more information on the Protecting Medicare and American Farmers from Sequester Cuts Act or to learn about how our leadership is working to optimize care for our patients, contact me at [JAHIRSCH@mgh.harvard.edu](mailto:JAHIRSCH@mgh.harvard.edu).



## SNIS Insights: Online Webinar Series

Since April 2020, more than 14,000 have viewed the highly popular bi-weekly SNIS Insights: Online Webinar Series. In 2022, the webinars offer an intriguing look into techniques and valuable learning opportunities. CME credit is available upon registered participation in a live webinar.

Through partnering with the Oriental Conference of Interventional Neuroradiology (OCIN) and the European Society of Minimally Invasive Neurological Therapy (ESMINT), SNIS Insights is starting a new international webinar program this year that will cover a variety of topics, such as:

- Challenges in Flow Diversion: Posterior Circulation and Ruptured Aneurysms
- Carotid Artery Disease: Indication and Choices
- Controversies and Challenges in Stroke Intervention: A Case Panel
- Endovascular Treatments for Intracranial Tumors

In addition, on the first Thursday of every month, SNIS Insights hosts the *Journal of NeuroInterventional Surgery (JNIS)* Journal Club with JNIS Social Media Assistant Editor Reade De Leacy, MD. Each month, Dr. De Leacy hosts a panel of discussants and one to two authors to take an in-depth look at recent articles published in JNIS and provide viewers with relevant and practical insights from the studies.

Members can register for upcoming webinars or view recordings of previous sessions by going to [snisonline.org/insights](https://snisonline.org/insights).

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## Calendar of Events

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& Fellows Course**  
July 25–29, 2022  
**Westin Harbour Castle Hotel**  
Toronto, Ontario, Canada

WFITN Course in Functional  
Neurovascular Anatomy  
May 23-27 2022  
Northwestern University,  
Feinberg School of Medicine  
Chicago, IL

LINNC Paris  
May 30-June 1, 2022  
Carrousel du Louvre  
Paris, France

WFITN  
August 21-25, 2022  
Kyoto International Conference Center  
Kyoto, Japan

ESMINT Congress  
September 7-9, 2022  
Acropolis Convention Center  
Nice, France

Disease Education Forum  
October 17–18, 2022  
Hopital FOCH  
Suresnes, France

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## The Embolus

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