

# CV Section News

Editor: Chris Fox, MD

Co-Editor: Will Stetler, MD

## CHAIRMAN'S MESSAGE



### Babu Welch, MD

I find myself in the enviable role of providing yet another report on the State of the Section as we approach our Annual Meeting for 2020. The fact that I am doing this is emblematic of the changes in our Cerebrovascular Section this year. As I mentioned in my report last year, while the Executive Committee of our Section continues to work diligently to execute our strategic plan, none of us could have expected a year like this. Despite the challenges of the year, the State of our Section remains strong and I expect this newsletter will provide you, our members, with a basis for that statement.

The overarching goal of our strategic plan has been to maintain and grow a stable, funded Section that will satisfy our mission to promote and assure advancement in the diagnosis and the surgical or endovascular management of cerebrovascular disease. In the next few paragraphs, I would like to provide you with an update on the more immediate components of the plan as well as a look toward the future of the Section. I will address our national meeting, the growth of our financial resources and a change in corporate relationships that is tied to both of the prior concepts. I will complete the update with a discussion surrounding the international opportunities that exist for the development of the endovascular neurosurgeon abroad and maintenance of the open surgical techniques at home.

From August 4-7, 2020 we will have two firsts for the Section. The first unified meeting of the Cerebrovascular Section and the Society of Neurointerventional Surgery and the first virtual meeting in the history of either organization. Last year we discussed that the clear benefits a unified meeting would include condensation of our annual meeting travel and a more focused venue for multispecialty collaboration. Kudos to Dr. Scott Simon and his team for condensing the meeting travel in spades!!! Scott has also ably represented us on the Steering Committee composed of SNIS and CV Section members. That committee has created a virtual meeting that is very likely to be the best attended meeting in our history and also, the most international. Details can be found in the Meeting Update below and on the website at [www.cvsection.org](http://www.cvsection.org). **Please represent the CV Section by registering and attending the meeting today.**

The Section remains very strong financially and our Treasurer, Dr. Adam Arthur, will detail this strength in the Treasurer's Report. I would like to particularly emphasize the fact that as our contributions to the CNS Foundation Mission Advancement Fund and Neurosurgical Research Education Foundation (NREF) grow, so too grow your opportunities to apply for projects to receive CV Section funding. This membership benefit will continue to become more available as you, your patients and your corporate donors consider a directed donation the CV Section through NREF or the CNS Foundation.

As I hope you can see, the leadership of the Section has been busy. Personally, I would like to thank the Executive Committee for the selfless commitment to our success. While I believe we enjoy every moment and are motivated to do more who really wants ... one more Zoom meeting. Responsible stewardship of the resources your help to provide continues to be our commitment. While the continued evolution of the Section and funding opportunities mentioned above are important I would like to highlight to you our continued challenge of relevance. While last year I emphasized your relevance as the surgeon, I would now like to draw your attention to your relevance as a doctor who treats stroke. As a surgeon we are "hands on" and hold the sacred responsibility to treat every patient at a time where their life has the potential to change immediately. As a doctor you have the unique opportunity to buttress your technical skill with your compassion.

I had the opportunity this year to lead the [multi-society \(CVS/SNIS/SVIN\) statement](#) that addressed the social and racial disparities accentuated by the events of this year. As a group, we and our parent societies, felt that it was important to acknowledge the American condition created by an international pandemic and ongoing discussions of race in the context of health. That condition has accentuated a major weakness of the diverse population that we hold dear. I am encouraged by the renewed discussion of disparities in the care of our stroke community. I hope that each of our members realizes that now, more than ever, the unprecedented opportunity that exists to address these issues through policy and by working with affected communities as the healthcare providers who serve them. Healthcare forces have the unique and ethics bound power to produce long-lasting community change.

Again, the state of the Section is strong. As we enter our new relationship with SNIS, please keep "top of mind" how very relevant the technically excellent and compassionate cerebrovascular neurosurgeon is. Reach out to your mentors and trainees and motivate them to do the same. I also encourage you to embrace our new virtual world. Consider new directions for education of not only residents and Fellows but patients. The educated patient will participate more effectively in their own care. Our specialty is enjoying successes that are the direct result of education, research and just plain hard work. I am encouraged and enthusiastic by what we have done this year. I appreciate the opportunity to serve you.

**SECRETARY'S MESSAGE**

Midway through 2020, the AANS/CNS Joint Section on Cerebrovascular Surgery remains engaged in the issues concerning cerebrovascular surgery and, combined with member engagement, aims to provide value.

This has been a year of tremendous change, but the section remains strong. We continue committed to existing programs supporting research and education and have made many contributions to ensure investing in our future remains a priority. The COVID-19 pandemic made it clear that caring for patients with stroke and cerebrovascular diseases is an essential service and very much needed during these times. I will not go into the possible correlation between COVID and stroke itself – we again see how much our work is necessary.

We as a group bring enormous resilience to the table, the Section and Neurosurgery at large are working diligently to advocate for our practices with lawmakers and regulatory agencies. The time is now to hold our first annual meeting in collaboration with SNIS – aiming for a larger platform and bringing our surgical viewpoint to the table. COVID derailed the best-laid plans for an extraordinary meeting, but I would invite you to take advantage of the virtual offering we put together instead.

The section is open to members representing all cerebrovascular specialists, from interested medical students to emeritus. We seek to offer value all members, ranging from trainees who benefit from the fellows' course during the upcoming meeting, to the now known CAST training pathway for individuals, to the established practitioners who are looking to individually visit a center of excellence for a particular disease or procedure and want to find a way to take time out of their busy practices to do so.

The section created a traveling fellowship for established practitioners who are looking to visit a luminary in the field individually. This is now entering its third iteration, and we hope that this allows our members who apply to find a way to take time out of their busy practices to learn new skills. The application is administered through NREF and will open again in September. The program continues to be graciously supported by our industry partners from Medtronic and Microvention. At our next meeting, we will also hear reports from Drs. Grande and Gould who were awarded this round of awards.

At the same time, new and exciting opportunities lie ahead. The section continues to represent us as the only group of practitioners who can provide comprehensive cerebrovascular care, bringing expertise ranging from radiosurgery to clipping of aneurysms to the table, and if nothing else we know that detractors pointing out any of these modalities are niches and bound to disappear will likely be proven wrong within a short while. At the same time, we need to try and collaborate with the right partners and are currently exploring options to make our annual meeting better and aligned with future developments in the field going forward. It bears remembering that our members bring tremendous value to our patients and also to health systems and stroke centers. Being aware of this value is essential when advocating for

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our stance.

As before, I again want to emphasize the culture of giving in our section. I encourage all of you to contribute – we have created a natural pathway that allows anyone to give money towards CV section activities using the charitable donation process through the CNS foundation or NREF foundation – both designated and earmarked for CV section activities. Robust giving will allow us to create the funds for more research and training activities for tomorrow, which will directly influence the future of our profession and specialty.



Clemens M. Schirmer, MD, PhD, FAANS, FACS, FAHA

## TREASURER'S REPORT

**Adam Arthur, MD, MPH**



With your support the Section continues to do well from a financial perspective. We have over \$1 million dollars in assets under management. In addition, we are continuing to grow Honor Your Mentor funds through the NREF. Finally, we have undertaken a new project through the CNS Foundation. The CNS has generously matched our donation to the foundation. We hope to be able to announce a new international initiative for this fund in the near future.

We have funded two more traveling fellowships this year with the support of Medtronic and Microvention. This year both of these physicians have elected to visit the Barrow Neurologic Institute to gain new exposure and skills to bring back to their centers.

The Section is committed to supporting you and your patients. Please consider making a donation to the Charles Drake or Selman fund through the NREF or the Cerebrovascular Fund through the CNS Foundation. We are grateful for your continued support.

## MEETING UPDATES

Joint CV Section Members,

COVID-19 meant cancellation of the annual meeting that was supposed to be held in San Diego this week. Undeterred we are ploughing ahead with a virtual meeting; we have almost 1000 people registered! There will be the same breadth and depth of scientific content you have come to expect from our previous annual meetings.

An exciting new addition to this year's meeting is Sessions with Sages. On Wednesday, August 5, from 4-6 PM EST, this new collaboration between the AANS/CNS CV Section and the SNIS will pair one microvascular and one endovascular sage with groups of 3-5 attendees to discuss complicated cerebrovascular cases. Each attendee is invited to submit their own cases and will be assigned two sessions, each lasting approximately 45 minutes.

The initial offering for fifty participants filled almost immediately and we expanded to 78. Even so there are still 34 people on the waiting list. We are hopeful this type of personal interaction will form a key component of future meetings.

See everyone online!

Scott Simon

Annual Meeting Scientific Program Co-Chair

## Annual Meeting of the Society of NeuroInterventional Surgery in conjunction with the AANS/CNS Cerebrovascular Section

**Main Meeting Website:** <https://www.srisociety.org/meetings/snis-17th-annual-meeting/>

**Meeting Dates:** August 4-7, 2020

**Location:** Virtual

**Venue:** Virtual

**Scientific Program:** [View Here](#)

**Abstract Center:** [Click Here](#)

**Registration:** [Click Here](#)

## WEBSITE UPDATE

Christoph Griessenauer, MD

In July 2020, the new AANS/CNS CV section website was launched. The new site is characterized by a refreshed, contemporary look while the original functionality is maintained. The new design allows for a more visually appealing integration of our news items, social media channels, and multimedia content such as surgical videos. The home page allows for submission of news items who will be then reviewed and considered for publication by the CV section Members-at-Large. The new website is housed and administered by the AANS. A very special thanks for the great work on the new website update goes to Jon Mau and his team at the AANS who made this a smooth and seamless transition. Please visit us at [www.cvsection.org](http://www.cvsection.org).



NEWS PATIENTS MEMBERS MEETINGS EDUCATION RESEARCH AWARDS & GRANTS ABOUT US



### Section News

Submit a News Item



#### Ralph G. Dacey, Jr. Medal for Outstanding Cerebrovascular Research

The purpose of this award is to highlight the importance of cerebrovascular research to our specialty, foster scientific investigation in the areas of stroke and cerebrovascular disease, and recognize neurological surgeons who have made novel,

### Twitter



CV Section (@cvsection) · July  
 Superior midline view of Anterior, Middle, and Posterior Cranial Fosseae. In the center you can appreciate the sphenoid sinus. <https://www.aans.org> <https://www.aans.org>  
 #neurosurgicalpics #neuroanatomy

## TECHNOLOGY FORUM

### Delivering Cerebrovascular Care During the COVID-19 Pandemic

Will Stetler, MD and John Parish, MD  
Carolina Neurosurgery & Spine Associates

#### Brief background COVID

In lieu of the usual technology update in this portion of the newsletter, the editors thought that a brief review of COVID-19's impact on neurovascular care was appropriate. Indeed, COVID-19 has had far reaching effects on all aspects of medicine but has had a particularly strong effect on cerebrovascular care.[1] Even mainstream media outlets have reported on the impact COVID-19 has had on stroke patients, particularly young patients.[2,3]

COVID-19 is a viral illness caused by severe acute respiratory syndrome coronavirus-2, first identified in Wuhan, China in December of 2019. Over the last 7 months, the virus has spread to encompass a global pandemic. While most cases are mild, severe cases can occur in up to 19% of cases.[4] Moreover, in severe cases, patients are more likely to develop and even present with neurologic symptoms including ischemic stroke, hemorrhagic stroke, and seizure.[5,6] As more is learned about the virus, it has become increasingly clear that patients with COVID-19 often have a hyper-coagulable state. It is thought that this hypercoagulable state arises from a systemic inflammatory condition that leads to creation of reactive oxygen species (via NOX2 pathway), and ultimately increases platelet activation and clotting activation. In early stages, coagulation parameters themselves may not be abnormal (normal PT, PTT), but inflammatory markers are often elevated (D-Dimer).[7] As a result, the hypercoagulable state has been hypothesized to lead to increased risks of acute ischemic stroke, cerebral venous sinus thrombosis, and a variety of other pro-thrombotic pathologies (acute coronary syndrome, venous thromboembolism, etc). [8,9]

#### Stroke volume

Interestingly, despite the association with COVID-19 and acute ischemic stroke (AIS), many centers have actually experienced a *decline* in patients presenting with strokes.[10,11] A similar phenomenon has been reported in the cardiac literature as well regarding ST elevation myocardial infarction volume.[12,13] While the exact cause for an overall decline in volume can only be speculative, it is clear that patients are presenting in a delayed fashion for many pathologic conditions during the COVID pandemic, including acute ischemic stroke[14] and subarachnoid hemorrhage.[11,15] It is hypothesized that patients are delaying care secondary to fear of engaging the healthcare system during the pandemic.

Despite the decline in overall ischemic stroke volume, many centers have identified an increase in the number of young, otherwise healthy patients presenting with AIS who were found to have

COVID-19.[16] This knowledge has reached to the level of the press and has been highlighted recently in both the New York Times and the Washington Post.[2,3] While the hypercoagulable nature of COVID clearly is causing cerebrovascular complications in otherwise healthy infected individuals, it is equally frightening that having pre-existing cerebrovascular pathology is an independent risk factor for having severe a COVID infectious course.[6]

#### Outcomes of COVID stroke patients

Ischemic stroke occurred in up to 6% of patients diagnosed with COVID-19.[5,8,17] COVID positive stroke patients were older, had increased cardiovascular comorbidities, and had more severe pulmonary disease. Mortality rates for COVID positive patients with ischemic stroke have been reported as high as 54.5%.[17] A propensity score matched analysis showed higher risk of severe disability (median mRS 4 vs 2,  $P < 0.001$ ) and mortality (OR 4.3 [95% CI, 2.22-83]) in COVID-19 positive patients.[18] This does not appear to be related to delayed presentation as outcomes have been shown to be unchanged despite delays in presentation noted during COVID pandemic.[14]

#### Maintaining Provider Safety and Allocations of Resources

Given the urgent and emergent nature of neuro-interventional procedures and high risk of severe COVID positive patients presenting with neurological disease, best practices were developed to maintain provider safety and optimize utilization of resources. The best practices were developed from lessons learned across healthcare systems and experts around the world. [19–24] These best practices articles included pre-hospital management, personal protective equipment recommendations and resource utilization, airway preparation, as well as intraoperative and post-operative management guidelines. Many facilities developed criteria for prioritization of non-elective urgent/emergent cases and minimizing or eliminating any procedures deemed elective. The dissemination of best practices from institutions affected by high influx of COVID positive patients provided a vital template to reduce exposure while optimizing clinical care across the USA and the rest of the world.

#### Future directions

As we continue on in the COVID-19 pandemic practices continue to evolve. Lessons learned during this pandemic must be shared and preparations in the event of future similar situations must be prioritized. Though there has been much disruption to clinical research and practices, opportunities have been realized in virtual access allowing for improved communication and cooperative innovation for advancement of delivering cerebrovascular care during and after the COVID-19 pandemic.



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## OPPORTUNITIES FOR FUNDING

**AANS FELLOWSHIP/GRANTS**

<http://www.aans.org/Grants%20and%20Fellowships.aspx>

**CNS FELLOWSHIP/GRANTS**

<https://www.cns.org/grants-awards/grants-awards-and-fellowships>

**AMERICAN HEART ASSOCIATION**

[http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities\\_UCM\\_316909\\_SubHomePage.jsp](http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities_UCM_316909_SubHomePage.jsp)

**BRAIN ANEURYSM FOUNDATION**

<http://www.bafound.org/applying-research-grant>

**THE ANEURYSM AND AVM FOUNDATION**

[http://www.taafonline.org/pr\\_grants.html](http://www.taafonline.org/pr_grants.html)

**JOE NIEKRO FOUNDATION**

<http://www.joeniekrofoundation.com/research-grants/joe-niekro-research-grant/>

**JOINT AANS/CNS CV SECTION**

<http://www.cvsection.org/research/awards-and-grants-217>

**BE BRAVE FOR LIFE (BENIGN BRAIN TUMORS OR CEREBROVASCULAR DISEASE)**

<https://bebrave.life/micro-grants/>

**THE BEE FOUNDATION**

<http://www.thebeefoundation.org/brain-aneurysm-research-grant/>

**2021 Calendar****February 10-12, 2021**

International Stroke Conference  
Denver, Colorado

**April 17-21, 2021**

AANS Annual Meeting  
Vancouver, British Columbia, Canada

**May 30 - June 1, 2021**

World AVM Congress  
New York, New York (Mt. Sinai)

**June 27-30, 2021**

Annual C3 Conference  
Jackson Hole, Wyoming

**August 29 - September 1, 2021**

Annual WFNS Meeting  
Bogota, Colombia

**October 16-20, 2021**

CNS Annual Meeting  
Austin, Texas