ISSUE
06
December 2022

The Society of Neurological Surgeons

SNS Executive Council

Message from the President

E. Sander Connollv. Jr.. MD

We all need to start by thanking the wonderful team at Henry Ford for hosting a superb meeting in Detroit this past spring. Steve Kalkanis and his department reminded us of exactly what we've been missing and have us looking forward with great anticipation to Dallas. Our local hosts, Jonathan White and Nadar Pouratian, have put together a wonderful program with our scientific program committee, led by Jonathan Miller. Their meeting theme will be "Next Generation Neurosurgery" and the program is built around sessions examining: 1) the development of neurosurgical educators, 2) the growth of our departments through collaboration, and 3) the expansion of neurosurgery through research and innovation.

The program will begin on Saturday morning and end early Monday afternoon to facilitate travel and avoid conflict with the growing number of competing commitments.

this issue

This shorter program was envisioned by the M3 committee, led by Warren Selman, Nate Selden and Sepi Amin-Hanjani, and we hope you'll find it a welcome advance and a great showcase for all the work our members are doing. Some highlights of successes from their ongoing endeavors include: 1) the establishment of the NSTP by Linda Liau and Costas Hadjipanayis with the generous support of the StacheStrong Foundation; 2) the society's reincorporation by Rich Byrne; 3) the diversification efforts undertaken by our membership committee guided by Randy Jensen and Mark Johnson; 4) the securing of a historic gift to support the Winn Prize, raising the award to 50,000$/y; 5) the establishment of guidelines for resident interviewing and site visits by our medical student committee led by Lola Chambless; 6) the return of the RUNN course under the coordinated leadership of Drs. Chiocca, Liau, Hayden-Gephart and Grant; 7) CAST's move to improve the process of fellowship transitions under the direction of Charlie Branch; 8) the establishment of a SNS-CNS educational session under with the help of Drs. Limbrick and Chambless;

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9) a coordinated DEI effort with our partner organizations led by Karin Mursasko with a focus on FLMA led by Deb Benzil; and 10) the construction of an improved online future sites application led by Lauren Oppe and Linda Liau. In addition to these and many more, I am particularly happy to report significant support for faculty interested in formal educational training through the American College of Surgeons and the Harvard-Macy Scholars Program and enhancements to our relationship with ARANS through a variety of programs and awards. These initiatives and many others owe much of their success to the immense and sustained work of your past and present Executive Council. I cannot thank them enough for their diligence and wisdom, and look forward to seeing everyone May 20-23, 2023.

Pictures from the 2022 SNS Annual meeting in Detroit, MI

Committee on Resident Education Update

Nicholas C. Bambakidis, MD

In 2022, the SNS hosted the following courses for residents:

- Virtual Senior Resident Course on April 23 and September 10
- Virtual Junior Resident Course on May 6, 2022
- Virtual Intern Boot Camp on July 8, 2022
- RUNN Course from October 29 – November 5, 2022

The Senior Resident course was offered primarily as a flipped classroom. The goal in providing this course as a flipped classroom is to devote most of our time together to discussion and Q and A while referencing the modules. Topics covered included: Finding the Right Job/Practice Building, Employment Models, Job Optimization/Contracts/Negotiations, Safe Provider, Personal Finance, Personal Legal (Wills, Estates, COI, and STARK), Medical Legal (Malpractice/NPDB and Expert Witness/PCC), and Side Hustles (Organizational Involvement and Entrepreneurship).

The Virtual Junior Resident Course is for all current PGY-1 residents, those who will become PGY-2 in July. Topics covered included: Leadership Skills and Effective Communication, Risk Management/Professionalism, Intra Operative Catastrophe Management, Wellness and Resilience, Moral Injury, Burn Out, Communication Strategies, Implicit Bias and Bystander Training, How to Use Social Media and Quality Improvement Project / Work Group.

The Intern Boot Camp is designed to assist incoming PGY1 neurosurgery residents to develop basic clinical skills, professionalism, and communication in an educationally designed, systematic and safe environment, in preparation for their first year of neurological residency. The course this year was comprised of Pearls for the Junior Resident, ICP Management, Informed Consent, Neurosurgical Emergencies, Difficult Communications and Hands-on Bedside Procedures. New for 2022, pre-recorded sessions from faculty were provided to attendees to view prior to the course to provide additional training and resources.

The RUNN Course is targeted to PGY-3 and PGY-4 residents, offers intensive exposure to some of the best neuroscience in the country, and it does it in an environment conducive to learning. We were lucky to be able to host this course for the first time in 3 years as in 2022 as it was cancelled in 2021 due to a storm which caused damage to the campus and power outages and COVID-19 in 2020.

Please save the following dates for the SNS Resident Courses in 2023!

Intern Boot Camp

- **Friday, July 7 - Saturday, July 8:** Houston, TX and Portland, OR
- **Friday, July 14 - Saturday, July 15:** Atlanta, GA and Chicago, IL
- **Friday, July 21 - Saturday, July 22:** Boston, MA and Philadelphia, PA
- Course content is for all incoming PGY-1 residents (those who will start internship in July).

Junior Resident Course

- **Friday, March 31:** Virtual Course from 12:00 - 4:00pm Eastern Time
- Course content is for all current PGY-1 residents (those who will become PGY-2 in July).

RUNN Course

- **Saturday, October 21 - Saturday, October 28:** Woods Hole, MA
- Course content is for PGY-3 and PGY-4 residents; this course offers intensive exposure to neuroscience.

Senior Resident Courses

- **Saturday, March 4**: Virtual Course from 9:00am - 12:00pm Eastern Time
- **Saturday, September 23:** Virtual Course from 9:00am - 12:00pm Eastern Time
- Course content is for all current PGY-4 - PGY-7 residents. Residents are encouraged to be in attendance for both courses as different content is presented at each session.

A separate email communication will be sent to all Program Directors, Chairs and Administrators once registration for each course is open. Please check the SNS Website for the latest details.

May 20-22, 2023 marks the 114th Annual Meeting of the SNS and will be hosted by UT Southwestern in Dallas, TX. Presided by Dr. Sander Connolly, the theme of the scientific program will be **"Next Generation Neurosurgery"**, which is fitting to occur in Dallas, a city with a magnificent history of ground-breaking innovations in science, commerce, and energy.

Building upon the excellent discussions that occurred during the 2022 SNS Meeting in Detroit, we are planning an exciting and interactive agenda:

Saturday: Training the Next Generation – Designed for residency program directors and educational leaders, topics will center on training goals and evaluations, including assessments of residency applicants and trainees. Dr. Robert Harbaugh and Corey Parker, MPA will provide valuable inputs from the RRC and ACGME. The afternoon session will include discussions of curriculum design, challenges facing smaller residency programs, resident research, diversity, and active teaching in neurosurgery, among other topics of interest to neurosurgical educators.

Sunday: Facilitating the Next Generation – The local program hosted by UT Southwestern by Dr. Nader Pouratian (Department Chair) and Dr. Jonathan White (Local Program Host), will feature the institution's vision of the future of integrated neurosurgery, including how to navigate the changing landscape of healthcare. The Winn Prize Lecture and Presidential Address will be additional highlights.

On Sunday afternoon, the focus will turn to the professional development of neurosurgery program faculty and department leadership, including support of the academic mission, service lines, financial considerations, and collaboration development. The afternoon session will also include a discussion of the history of Pediatric Neurosurgery.

Monday: Becoming the Next Generation – Diving further into the "Next Generation" theme, the final day will focus on the future of neurosurgery, including robotics, virtual reality, technical innovations, global neurosurgery, healthcare advocacy, and the future of the academic mission. The session will include several high-profile keynote speeches.

Along with President Connolly and the members of the Scientific Program Committee, Dr. Julie Pilitsis and Dr. David Limbrick, we are striving to design a program that engages attendees as we contemplate how to prepare for the future of our field. We look forward to seeing you in Dallas!

SNS ON TWITTER

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SNS M3 Task Force Interim Report

Nathan R. Selden, MD, PhD

In October of 2021, then SNS President, Dr. Warren Selman, began work behind the scenes to launch the SNS M3 Task Force on Membership, Meetings, and Money. For over a decade, the SNS has undertaken strategic planning to coincide with the turnover of the SNS Secretary position, which historically resulted in a strategic planning cadence of every 5 years. The M3 Task Force process is different in two ways:

- The SNS M3 Task force is specifically focused on 3 high priority areas that require major short-term decision-making in order to meet challenges that were raised or accelerated by the COVID-19 pandemic.
- The SNS M3 Task force planning process coincides with an historic shift from 5-year to 3-year Secretary (and Treasurer) terms of office. Going forward, the SNS Executive Council anticipates that strategic plan updates will alternate with a full strategic planning process every 6 years, again, coinciding with SNS Secretary turnovers.

Working with Dr. Selman and the SNS Officers, in December 2021 I empaneled and charged 3 individual work groups on Membership (categories and size), Meetings (structure and content), and Money (alternative revenue sources). The M3 Task Force, itself, operated on two levels: an executive committee made up of myself and the three task force chairs, plus the overall membership of all work groups. The Membership work group was chaired by SNS Membership Committee Chair, Dr. Randy Jensen, and its broad representation within the SNS was supplemented by representation from the American Society of Black Neurosurgeons and Women in Neurosurgery. The Meetings work group was chaired by past-SNS Annual Meeting Program Chair, Dr. Sepi Amin-Hanjani, and included representation from the Association of Residency Administrators in Neurological Surgery (ARANS). The Money work group was chaired by SNS Treasurer, Dr. Rich Byrne, and included representation of current and past leaders of the SNS.

The work groups worked diligently from January through June 2022, meeting about every 6 to 8 weeks. Over the summer, the work groups and M3 Task Force leadership developed detailed surveys for SNS members, residency PDs and PAs, and other stakeholders to better understand priorities and preferences in all areas of SNS mission activity.

These surveys were launched on August 22nd, 2022, and the response in each category was excellent. Survey input was analyzed by each work group, the M3 Task Force, and ultimately the SNS Officers and Executive Council in order to hone and prioritize ideas and reach final recommendations.

Here, for each work group, are some of the key recommendations:

- Membership
  - The SNS should tie Active membership size to roughly twice the number of ACGME-accredited residency programs, with an initial increase from 220 to 250 permanent, Active members.
  - The SNS should create a Positional member category, to enable engagement with the SNS by academic department chairs, PDs, and Associate PDs who are not yet SNS members. Positional members can be considered for permanent membership at any time according to the usual pathway, but must relinquish their positional membership if they no longer hold the qualifying position.
  - The SNS should, and has already begun to, revise its membership nomination and election processes to better encourage diversity of specialty, region, representative gender and race, and educational interests and skills brought to the mission of the society.

Continued key recommendations:

- Meeting
  - The SNS should shorten the Annual Meeting, to end on Monday afternoon at a time tailored to time zone and travel considerations, with less formal social events on Saturday and Sunday.
  - The SNS should revise the Sunday morning program to better integrate it into the overall meeting, while also enhancing the role of the local host in planning content in various portions of the meeting.
  - The SNS should enhance recognition of our PA partners in ARANS and residency PDs during the Saturday AM joint meeting session.
  - The SNS should explore holding a session based on submitted educational science abstracts.
  - The SNS should explore hybrid options to expand access to key portions of the Annual Meeting as well as virtual access to other special content during the year.
- Money
  - The SNS should revise dues payment levels (including introducing dues for Positional members), with input including that from the member survey.
  - The SNS should float the Annual Meeting registration fee based on the local cost structure for the meeting.
  - The SNS should explore corporate sponsorship of the annual meeting and/or other infrastructure (such as our website), in a manner compliant with our regulatory imperatives as the neurosurgery PD society and following our history of high standards of conflict-of-interest management, as in the case of the SNS Boot Camp and Junior Resident Courses.

Thank you to all those who filled out surveys and gave other input during the M3 Task Force process. Here is what to look for as we finalize the work:

- In March, you will receive notice of proposed changes to the SNS Bylaws to enable various of the M3 Task Force recommendations (these bylaws changes are separate from and subsequent to the recent bylaws rewrite designed to comply with Illinois corporate governance requirements).
- At the Annual Meeting, in May, I will give a final report on the M3 process, which wraps up at that time, and – in the Annual Business Meeting – you will have a chance to vote on the necessary Bylaws changes.
- Various SNS committees and the SNS Executive Council will take steps over the next year to implement various other recommendations when final.

In the meantime, please give feedback on any of the recommendations or other advice you think is important regarding the SNS mission, governance, or funding. I can be reached through email at: seldenn@ohsu.edu.

Have a wonderful Holiday season and see you in Dallas this coming May!

Updates from SNS Medical Student Committee

Lola B. Chambless, MD

This year the committee has split into several working groups each tackling different challenges facing medical students and neurosurgical educators. Dr. Ketan Bulsara led our communications working group and created the first SNS mailing list for medical students interested in neurosurgery and other future match applicants. This communication channel will allow us to update our applicants on key changes in the application process and offer them important educational and mentorship opportunities. Please make sure your mentees are signed up here:

https://www.societyns.org/sign-up-for-important-communications

Dr. Krystal Tomei is leading an effort to understand the specific challenges faced by medical students coming from schools without associated neurosurgery residency programs. This effort has included a stakeholder analysis and research effort aimed to clarify the match outcomes for this group, and the results of those analyses will be used to pilot new models of mentorship for students and guidance for medical school deans who may be advising them. We hope this will "even the playing field" by providing schools and students with accurate information about the neurosurgery match.

Our webinar series got underway over the summer with town halls for Program Directors, Coordinators, and applicants where we reviewed SNS guidelines and advice around the use of the new ERAS Supplemental Application and preference signals. These were very well-attended and helped to answer a lot of questions in a rapidly changing environment. Dr. Ellen Air will carry our webinar effort forward with upcoming sessions in early 2023 focused on how to approach Sub-I applications, how to make a rank list, and more. Ultimately, we intend to address these sorts of questions with the appropriate timing year round with offerings focused on specific questions students face at key decision points in the residency application process.

Last but not least, we continue to analyze data about the successes and failures of our current match system with the goal of increased equity, transparency, and affordability. We are closely monitoring issues like use of the standardized letter format, interview release dates, wait-listing, in person vs. virtual interviews, preference signaling, and costs. We anticipate making data-driven changes to some of these aspects of our process for the next match cycle and look forward to continued innovation towards a more efficient and effective neurosurgery match.

Neurosurgeon-Scientist Training Program (NSTP)

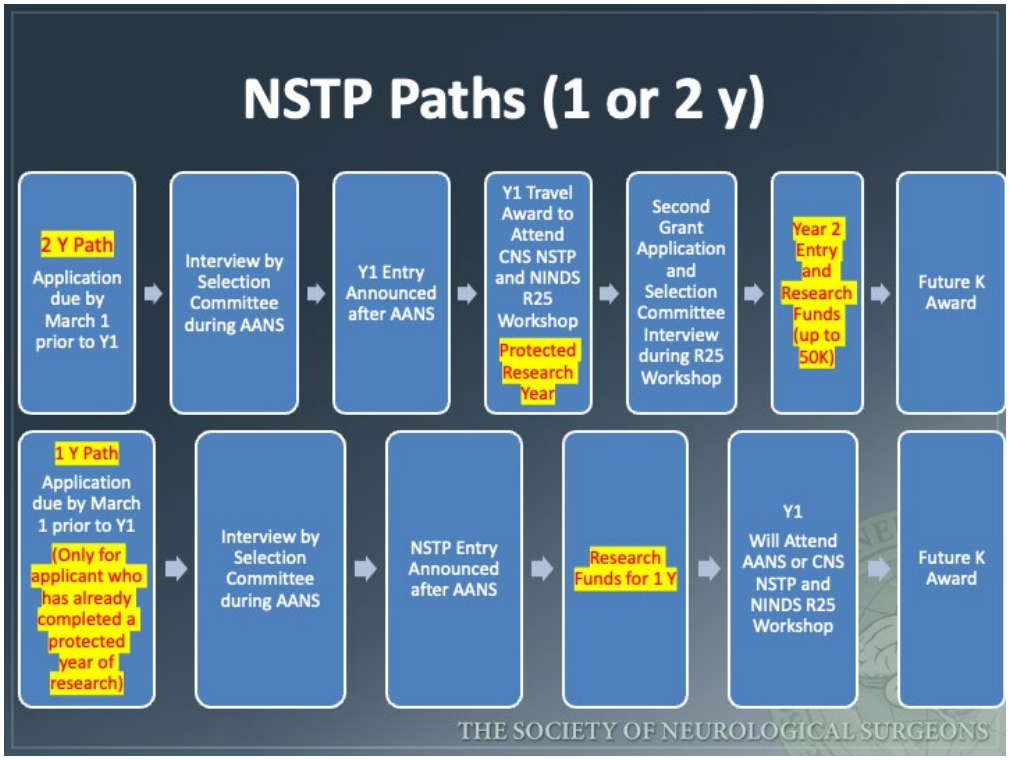
Costas G. Hadjipanayis, MD, PhD, and Linda M. Liau, MD, PhD, MBA

The Society of Neurological Surgeons has established a Neurosurgeon-Scientist Training Program (NSTP) to increase the pool of neurosurgery residents conducting research and to enhance their success rate in becoming independent neurosurgeon-scientists. The NSTP will serve as a formal mentored research program (1 or 2 years) for those neurosurgery residents who are beginning a protected research year or who have already completed their protected research year.

The primary goal of this new program is to improve human health by providing participants with the skills, mentorship, education, and experience needed to successfully compete for individual research funding (e.g., NIH K award and R01 grants). Additional research by clinician-scientist neurosurgeons is critical to the fundamental discovery that advances new methods of care and new cures. Awardees have access to neurosurgeon-scientist mentors through a national network organization and will participate in the Annual NINDS R25 workshop.

A selection committee will interview applicants prior to entry into the NSTP during the AANS meeting. Resident applicants beginning their protected year of research in Year 1 will be provided a travel stipend to attend the CNS and NINDS R25 Workshop. All awardees will be eligible for research funding after they have completed a mentored, protected research training year. Residents going back to their clinical rotations after a protected research year are still eligible for entry into the NSTP. Important funding of the NSTP will be provided by the brain tumor nonprofit StacheStrong and the AANS/CNS Sections including the American Society of Stereotactic and Functional Neurosurgery (ASSFN) and Cerebrovascular.

The request for proposals (RFP) will be launched in January 2023. Interview of applicants will be completed during the annual AANS meeting in Los Angeles and award winners will be announced in May 2023. For any questions please email at hadjipanayiscg2@upmc.ed.



NEW 2022 MEMBER PROFILE HIGHLIGHTS

- **Ellen L. Air, MD, PhD** is Neurosurgery Residency Program Director and Vice-Chair for Operations, Co-Director of Functional Neurosurgery, and Interim Neurology Division Head for Movement Disorders at Henry Ford Health in Detroit. In addition, she is Clinical Associate Professor at Wayne State University School of Medicine. She serves on the executive boards of CNS, ASSFN and Joint Section for Women in Neurosurgery.

- **Adam S. Arthur, MD, MPH** is the James T. Robertson Endowed Professor and Chair of Neurosurgery at the University of Tennessee Health Sciences Center and a member of the Semmes Murphey Clinic. He has a strong interest in treating both ischemic and hemorrhagic stroke, teaching residents and fellows, and researching ways to improve outcomes for patients. He is active in clinical research, currently leading seven international multicenter studies. He led the WEB-IT study of the woven endobridge for the treatment of cerebral aneurysms and was instrumental in gaining approval for this device in the U.S. and teaching others how to use it safely. Dr. Arthur is the Past-President of the Society for Neurointerventional Surgery and Past Chair of the AANS Scientific Program Committee. He currently serves as the Chair Elect of the AANS/CNS Cerebrovascular Section and is the Chair of the NREF Education Committee.

- **Erica F. Bisson, MD** is a clinician scholar; she has spent her career focusing on strengthening her academic and clinical practice specializing in the diagnosis and treatment of complex spinal disorders. Dr. Bisson's research has been directed towards defining quality and value in spine care. Her focus is on collaboration among institutions using data from registries to compare surgical treatments and evaluate factors that can predict a better quality of life and recovery after surgery. To enhance her ability to design and implement clinical trials, she obtained a Master of Public Health in 2013, with a particular emphasis on research comparing the effectiveness of various treatments. Over the past 5 years, she has taken on a variety of committee roles in national neurosurgery organizations, including the Editorial Board of the Journal of Neurosurgery, Spine, the Executive Committee for the American Association of Neurological Surgeons (AANS)/Congress of Neurological Surgeons (CNS) Disorders of Spine and Peripheral Nerves (DSPN) section, the CNS Spine Council, and which will culminate in chairing the Section for the DSPN.

- **Mohamad Bydon, MD** is a neurosurgeon at Mayo Clinic in Rochester, Minnesota and the Charles B. and Ann L. Johnson Professor of Neurosurgery. He is a Professor of Neurologic Surgery, Orthopedic Surgery, and Health Services Research. Dr. Bydon serves as executive medical director of Academic Affairs for Mayo Clinic International, and he is medical director of the Mayo Clinic Enterprise Neurosurgical Registry. Dr. Bydon has a busy surgical practice and his expertise is complex spine surgery, spinal oncology and minimally invasive spine surgery. He is Principal Investigator in the Mayo Clinic Neuro-Informatics Laboratory. He is frequently invited to give presentations on his research both nationally and internationally and has authored over 400 peer-reviewed manuscripts in addition to numerous book chapters and abstracts. He is editor-in-chief of the *International Journal of Neuroscience*. In addition, he serves on the editorial boards for the *Journal of Neurosurgery Spine*, *World Neurosurgery*, and *Mayo Clinic Proceedings*.

- **Joseph D. Ciacci, MD** is the Chief of Neurosurgery at VA San Diego Health System and Professor of Neurological Surgery at UC San Diego. He has dedicated his career to Medical Education, serving 10 years as Residency Program Director, and as Academic Community Director at UC San Diego School of Medicine. Dr. Ciacci's Research focuses on Stem Cell Transplantation with active projects in the lab and in the clinic. Dr. Ciacci has developed an international reputation in spinal cord injury research. He is a Principal Investigator, and a clinical trial expert in the Sanford Stem Cell Consortium leading the effort on several studies including a first in man stem cell trail for spinal cord injury. Dr. Ciacci proudly serves our country as a Commander in the US Navy Reserve Medical Corps.

NEW 2022 MEMBER PROFILE HIGHLIGHTS

- **David J. Daniels, MD, PhD** is a pediatric neurosurgeon and medicinal chemist at Mayo Clinic in Rochester MN. He is a clinician-scientist with a research focus in neuro-oncology and has a 50% research appointment. The majority of his clinical practice centers on treating children with brain tumors. David's research interests revolve around the integration of neuro-oncology with neurosurgery. This includes developing new tools to improve surgical resection and decrease surgical morbidity for brain tumor surgery, and the development of novel drugs and delivery mechanisms for molecularly targeted therapies. He has several NIH grants and oversees the NIH T32 training grant for neuro-oncology at Mayo Clinic. Nationally, he is Co-Chair of the Pediatric Neurosurgical Research Section. Dr. Daniels is very involved with education across the Mayo Clinic enterprise. He is the program director for the neurosurgery residency program at Mayo Clinic Rochester and the Vice Chair of Education for the Department. He is a program member for their MD/PhD program and a member of the Molecular Pharmacology Department. He has mentored numerous residents, MD/PhD students and graduate students. Training the next generation of neurosurgeon-scientists is one of David's major goals.

- **Gavin P. Dunn, MD, PhD** leads the program in Brain Tumor Immunology and Immunotherapy at Massachusetts General Hospital. His practice centers on the management of patients with primary and metastatic brain cancers as well as general neurosurgical conditions. He has a comprehensive background employing technological adjuncts such as awake surgery, cortical mapping, laser ablation, fluorescence-guided surgery, and stereotactic radiosurgery. He is a fellow and member of the American Association of Neurological Surgeons (AANS), member of the Congress of Neurological Surgeons (CNS) and Society for Immunotherapy of Cancer (SITC), and prior member of the Board of Directors of the Society for Neuro-Oncology (SNO). Dr. Dunn's active research program focuses on understanding the immune response to brain tumors and the fundamental basis of CNS immunobiology in order to improve the lives of patients with brain cancers. His work on the Brain Tumor Immunity cycle involves preclinical models as well as translational work and has resulted in the development of novel personalized cancer vaccine clinical studies. He has been funded by the NIH, Damon Runyon Cancer Research Foundation, and Cancer Research Institute as a Llooyd J. Old STAR scholar. He is a co-chair of a clinical trial through the Alliance for Clinical Trials in Neuro-Oncology focused on recurrent glioblastoma. Dr. Dunn is also an officer in the United States Navy Reserves Medical Corps and is the current Neurosurgery Specialty Leader for Navy Reserve Medicine.

- **Gregory J. Murad, MD** is a Clinical Professor. He was honored as the recipient of the highest resident Board score award in 2006, the Tom Ellis Resident Research award in 2006, and the Charles P. "Chuck" Shank award in 2007. Dr. Murad is active in numerous neurosurgical organizations. He is the past president of the Florida Neurosurgical Society and continues to hold a seat on the board. He is a Florida delegate to the Council of State Neurosurgical Societies, is the Chair of the Southeast quadrant, and a member of the executive committee as the publication's subcommittee Chair. He also is involved with national neurosurgical education efforts in the area of traumatic brain injury as a lecturer at AANS and CNS meetings, and an instructor in EVD placement at the SNS Intern Boot camp, the AANS Top Gun competition, and numerous advanced practice provider courses. He is the past winner of the Samuel Hassenbusch Young Neurosurgeon award, the UF Faculty Mentor of the year, and is a 12-time winner of the UF exemplary teacher award. Dr. Murad has served as an ad hoc reviewer for Neurosurgery, BMC Neurology, World Neurosurgery, and the New England Journal of Medicine. He is a member of the American Association of Neurological Surgeons, Congress of Neurologic Surgeons, the AANS/ CNS Joint Section on Neurotrauma and Critical Care, and the Florida Neurosurgical society.

NEW 2022 MEMBER PROFILE HIGHLIGHTS

- **Brian V. Nahed, MD** is the Program Director of the Neurosurgery Residency Program at MGH and Harvard Medical School and Associate Professor of Neurosurgery. He specializes in Neurosurgical Oncology and specifically n brain tumors of the eloquent cortex (language and motor areas of the brain) which require awake surgery, language and motor mapping, and subcortical stimulation. Dr. Nahed also specializes in intraoperative technology and minimally invasive procedures to treat brain tumors aggressively and safely. As the Director of the MGH Neurosurgery Residency Program, Dr Nahed is committed to neurosurgical education and innovation. He has developed novel programming on surgical education and evaluation. He serves on the Executive Committee of the Congress of Neurological Surgeons and the CNS/AANS Executive Committee on Brain Tumors. He serves as Co-Chair of the CNS Leadership Institute where he has developed leadership programming for neurosurgeons. He is an active member of the American Association of Neurological Surgeons, the Council State Neurological Societies. Dr. Nahed serves as a neurotrauma consultant for the National Football League (NFL).

- **Michael C. Park, MD, PhD** is a board-certified neurosurgeon who received his M.D. and Ph.D. from the School of Medicine and the Department of Molecular and Integrative Physiology at the University of Kansas (KU) in Kansas City, KS, after having received a Bachelor of Science in Biology from KU in Lawrence, KS, and dual bachelor's in science and bachelor's in arts in Electrical Engineering and Economics, respectively, from Cornell University in Ithaca, NY. r. Park has extensive experience with neuromodulation known as deep brain stimulation. This surgical therapy for brain conditions, such as Parkinson's disease, essential tremor, dystonia, OCD, and epilepsy, modulates brain activity to treat the symptoms. He also utilizes neuromodulation such as spinal cord stimulation and intrathecal drug delivery to treat cancer and chronic pain. In addition, working with epilepsy specialists, Dr. Park performs procedures such as surgical placement of depth and grid electrodes in the brain to identify abnormal epileptic brain areas and offer treatments, which include resection, response neural stimulator (NeuroPace) placement, laser ablation, deep brain stimulation and vagal nerve stimulation. If patients are unable to have surgery, Dr. Park is able to treat some of the conditions using Gamma Knife Radiosurgery as well. Dr. Park is currently the Associate Professor, MnDRIVE Neuromodulation Scholar, Director of Stereotactic and Functional Neurosurgery, Vice Chair of Quality and Safety and Neurosurgery Residency Program Director in the Departments of Neurosurgery and Neurology at the University of Minnesota School of Medicine.

- **Curtis J. Rozzelle, MD** is a professor with tenure and director of the residency training program due to the support of his family and his faculty colleagues. His academic interests evolved to focus on surgical site infections, hydrocephalus, epilepsy surgery, and occult spinal dysraphism. He returned to UAB as an Assistant Professor of Neurosurgery in September 2008 under the mentorship of Dr. Oakes and department chair, James M. Markert, Jr. MD. To date he's produced more than 100 peer-reviewed papers and 8 book chapters. Along the way he has served as an investigator with the Hydrocephalus Clinical Research Network, president of the Neurosurgical Society of Alabama, and Southeast Regional Director on the Board of the American Association of Neurological Surgeons. It has been his honor to contribute to the residency or fellowship training of 18 practicing pediatric neurosurgeons. Dr. Rozzelle and his wife, Liz, actively support Birmingham's Audubon Society, Botanical Gardens, and College Choice Foundation while raising their two teenage sons.

- **Daniel M. Sciubba, MD, MBA** is Chair of Neurosurgery at the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, the Senior Vice President of Neurosurgery at Northwell Health, and Co-Director of the Institute for Neurology and Neurosurgery at Northwell Health. A national leader in spinal neurosurgery, Dr. Sciubba has a particular focus on spine tumors and spinal deformity. He is recognized for his work in complex en bloc surgery for rare tumors such as chordoma, in which a tumor is removed in its entirety in order to reduce the risk of cancer spread. A widely recognized researcher, Dr. Sciubba has authored more than 600 peer-reviewed papers and has edited three medical texts. His research includes mining big data to improve clinical outcomes and using animal models to determine the optimal treatment protocol for individuals based on characteristics of tumor and patient. In 2015, he was inducted into the Miller-Coulson Academy of Clinical Excellence, the highest clinical distinction at Johns Hopkins University. He has been consistently recognized by Expertscape as among the top five spine surgeons and spinal oncology clinicians in the world.

NEW 2022MEMBER PROFILE HIGHLIGHTS

- **Raymond F. Sekula Jr., MD** is Professor of Neurological Surgery at The Neurological Institute at Columbia University. Prior to Columbia, Dr. Sekula was Professor and Residency Program Director at the University of Pittsburgh, Department of Neurological Surgery, where he spent ten years. Dr. Sekula has been recognized with numerous honors, including, the Young Investigator Award from the American Association of Neurological Surgeons, the Allen Humphrey Excellence in Mentoring Award at the University of Pittsburgh School of Medicine, a UPMC Champion of Nursing Award, the Young Investigator Award from the Congress of Neurological Surgeons, Department of Neurosurgery Annual Faculty Teaching Award twice, and the University of Pittsburgh School of Medicine Faculty Teaching Award. His clinical practice is devoted to cranial nerve disorders, skull base disorders, and minimally invasive brain surgery. During his career, he has performed more than 2,000 microvascular decompression surgeries and more than 5,000 surgeries in all. His preclinical interests involve the further elucidation of the etiopathogenesis of trigeminal neuralgia. He is currently Principal Investigator of an R01 mechanistic study concerning the role of sodium and GABA channelopathies in the development and maintenance of trigeminal neuralgia from the National Institutes of Health. He has served in a variety of roles for the AANS and CNS. He is married to Anne Blose, and they have three children, William, John, and Jane.

- **Henry H. Woo, MD** is vice president of neurosurgery for Northwell Health's central region and director of cerebrovascular surgery at North Shore University Hospital. An internationally recognized cerebrovascular neurosurgeon and interventional neuroradiologist, he has expertise in both open surgery and endovascular neurosurgery, giving him the ability to choose the most appropriate approach for each patient's blood vessel disorder of the brain or spinal cord. He treats brain aneurysms, arteriovenous malformations, and other cerebrovascular diseases, including acute stroke. Dr. Woo has helped develop and refine many of the tools and approaches used today in the treatment of cerebrovascular disease, having led, or participated in more than 50 clinical trials. He was instrumental in the first study of an embolization device for uncoilable aneurysms, an innovation that has made possible a less-invasive form of treatment for many kinds of aneurysms. He also played an important role in trials of stent-assisted coiling for aneurysms, and angioplasty and stenting for intracranial atherosclerotic disease, among other advances. Dr. Woo is a member of numerous professional organizations, and other leading journals in the field. He has been repeatedly featured in "New York" magazine's Best Doctors issue and Castle Connolly's Top Doctors of the New York metro area and Long Island. Dr. Woo is associate director of the neurosurgery residency program at North Shore University Hospital, where he established a Committee of Subspecialty Training-accredited fellowship. He shares his philosophy with his students, stressing the need to first absorb the breadth of data on cerebrovascular treatments and then develop an individualized approach to each specific patient, and the responsibility to be unflagging in the effort to develop and improve the field.

- **Gabriel Zada, MD** is a neurosurgeon-scientist and Professor of Neurological Surgery, Otolaryngology and Internal Medicine at the Keck School of Medicine of USC in Los Angeles, CA. He is the Director of the USC Brain Tumor Center and Co-Director of the USC Pituitary Center and USC Radiosurgery Center. He is an NIH-R01 funded research scientist whose laboratory at the USC Zilkha Neurogenetic Institute focuses on brain tumor genomics and medical device development. Dr. Zada serves as Associate Program Director of the LAC+USC Neurosurgery Residency Program. His clinical expertise is in minimally invasive and endoscopic cranial and skull base tumor surgery. Dr. Zada is a Visiting Associate at Caltech. He has authored over 250 peer reviewed publications. He also serves on the Editorial Board of The Journal of Neurosurgery, Neurosurgery and The Journal of Neuro-Oncology. Dr. Zada is blessed for his wonderful wife Raquel and daughter Harper.