Welcome to The Vanderbilt Neurosurgery Spring Newsletter!

Dear friends,

What an interesting time to be alive! For the last few months our department has had to embrace flexibility and adaptation. It’s often said that you don’t truly know how good a team is until faced with adversity, and I’m proud to report that the COVID-19 pandemic has proven our team’s value. Everyone from our residents to our nurses to our faculty and administrative support has jumped into the fray to take the best possible care of our patients and each other. Some of our adoptions and innovations have included:

- Virtual conferences and didactic experiences led by Dr. Naftel and our education team
- New protocols for the safe reuse of personal protective equipment by Dr. Wellons
- Revised service coverage schedules to maintain efficient patient care while avoiding unnecessary exposures of faculty and staff, led by chief residents Drs. Sivaganesan and Magarik
- New remote consult protocols to avoid exposure of our most vulnerable front-line junior residents led by PGY 3 Dr. Chotai
- “Dispatches” home to our residents’ families by the education team, sending updates about the safety and well-being of our trainees

There have been many challenges and disappointments as well. We have had to cancel much anticipated opportunities for away rotations and research presentations at national meetings. There will be no softball in Central Park this year. Our OR schedule has been limited to only urgent/emergent cases, meaning that the opportunity for our residents to have clinical exposure is reduced. Our medical student rotations have been suspended, creating new anxiety about next year’s match.

However, our neurosurgical team is nothing if not resilient. One of the benefits of our training is that it gives us tremendous perspective on life. We see the highest of highs and the lowest of lows, often within a single call shift. We have been fortunate to work in an institution that has approached this crisis with early readying of resources and thoughtful plans to keep us safe. At present we are slowly reopening our more elective services and I anticipate that we will soon see normalization of much of our clinical schedule, while we continue to incorporate new and exciting educational experiences that have arisen from this crisis, like virtual visiting professors and faculty led “how I do it” Zoom lectures. Many of us have roles in national neurosurgical organizations, and those positions are giving us the chance to lead the field in adapting to this new way of life right from our offices on 21st Avenue. We know there are more obstacles ahead, but we are confident that we have the team ready to tackle them as they arise.

More information is available on our website: https://www.vumc.org/neurosurgery/
It is hard to believe how quickly seven years passes. It seemed like yesterday that I donned a graduation gown, finished up with medical school, and headed off to start neurosurgery residency at Vanderbilt. I have so much to be thankful for during my time at Vanderbilt. I truly believe that I have had one of the best residency experiences in the country. One of the reasons I wanted to do my training at Vanderbilt was the educational approach the faculty took toward the residents. The faculty take considerable time and effort to craft a training and educational curriculum that is tailored to each resident. There is also a tremendous sense of camaraderie among the residents which is enormously beneficial to resident training.

During my time I have been fortunate enough to complete a two-year enfolded endovascular fellowship. During that time, I have been able to develop a skill set that very few neurosurgeons in the country acquire. During the next phase of my career I plan to expand that skill set in my practice. I have also been afforded the opportunity to develop a repertoire of skills in spine surgery due to the diversity and depth of practice patterns of our attending spine surgeons from deformity, tumor, trauma, to degenerative spine disease.

I am so grateful for my educational experience at Vanderbilt and to all of the people who have invested considerable time and energy into developing my career as a neurosurgeon. I have many fond memories in the operating room and have been a part of so many complex cases. I would also like to thank my wife Meaghan and my family for their love and support during residency. I plan to start the next chapter of my life practicing in Springfield, Missouri at Mercy Hospital as both a cerebrovascular and general neurosurgeon.
Neurosurgery residency is a profound period in one's life that is filled with fascinating contradictions. You begin the training as a full-fledged doctor however, you actually don't know the first thing about neurosurgery itself. It's a process of incredible growth, learning, and personal development... however you end up in your early- to mid-thirties and still haven't had a "real job". Meanwhile your non-medical friends have been in the workforce for almost 10 years. You make incredibly deep friendships during residency - forged in the fires of hospital life - and yet after training is over people tend to disperse to various corners of the country to start their new lives. It takes deliberate effort to maintain those bonds despite the geographical lottery. One on hand, you find yourself shouldering immense responsibility for the lives of others, but on the other hand the buck never truly stops with you. You spend countless hours obsessing over the minute details of patients' nutritional status/neurological state/physical functioning/goals... while often neglecting your own diet/mental health/physical fitness/other priorities.

"Vanderbilt Neurosurgery has given me a priceless gift - the opportunity to master a craft of limitless potential"

Neurosurgery residency is indeed a crucible of contradictions. For me, it has been the most exhilarating and exhausting, formative and humbling, sobering yet empowering period of my life. At times I felt as though my identity was getting lost in the hustle and bustle of the daily grind, and yet my training was also what allowed me to return to my war-torn homeland, in the Northeast of Sri Lanka, armed with skills and impactful knowledge. I was able to teach general surgeons and residents at the Jaffna Teaching Hospital the basics of head and spine trauma management as well as co-directed a two-day Emergency Neurological Life Support (ENLS) course for 200+ nurses, medical students, residents, and attending physicians from across the region. There is no way to quantify how much that meant to me. Vanderbilt Neurosurgery has me given a priceless gift - the opportunity to master a craft of limitless potential - and I will be forever grateful for this.

In July I will be moving to New York City to pursue an orthopedic fellowship in minimally-invasive and complex spine surgery at the Hospital for Special Surgery and Memorial Sloan Kettering. Wherever I go, however, the Vanderbilt Neurosurgery flag will fly high. It is also during residency that I met my girlfriend and now fiancé! She has redefined the meaning of life for me and made me a better person and physician.
Walter Jermakowicz, MD  
Stereotactic & Functional Neurosurgery Fellow  
2019-2020 

I have officially come full circle. My interest in neurosurgery began 15 years ago when I shadowed Dr. Konrad as a first-year Vanderbilt medical student. I never could have imagined back then that, after a seven-year stint in Miami, I would be completing my neurosurgical training under his supervision. I’ve said it before and I’ll say it again, there is no fellowship better than this one, in any field of medicine! Thanks to the broad backgrounds of Drs. Englot, Konrad, and Shah, I was exposed to every facet of functional neurosurgery, allowed to hone my surgical skills, and given valuable lessons in clinical and laboratory research and the preparation of grants. Additionally, the ability to run my own clinics and operating rooms at Vandy and the VA has been a great transition to my independent practice. While it will forever be impossible for me to repay the functional neurosurgery group and neurosurgery department as a whole for what I have been given, I can only hope that as a clinician and scientist I continue your legacies by advancing the field of functional neurosurgery.

I am also forever grateful to my wife, daughter, mother, brother, and the rest of the family for being an unwavering pillar of support, without you who knows where I would be. The sheer number of my graduations that you’ve been subject to is daunting.

My goal is to contribute to the field of functional neurosurgery by expanding indications of neuromodulation. I believe that certain brainstem circuits have protective and restorative functions after neurologic injury that can be enhanced with low frequency neuromodulation, leading to improved recovery. This belief stems from over seven years of research on the protective effects of raphe nucleus deep brain stimulation in rodent models of neurotrauma and multiple sclerosis, implicating the serotonergic system in central control of inflammation. How exactly I will see this project to fruition, or where, I don’t know, but I can say with a degree of certainty that it will happen somewhere between Chicago and South Beach.

More information is available on our website: https://www.vumc.org/neurosurgery/
IN MEMORIAM

MATCH RESULTS 2020

Vanderbilt Neurosurgery had many bright and diverse medical students and residents interview with us during recruiting season. We are thrilled to introduce you to our newest residents and fellow joining our program on July 1, 2020.

Soren Jonzzon, MD was born and raised in Mountain View, California but has lived in 7 states across the United States. He graduated from Quinnipiac University in 2016 where he was a 4-year Division 1 hockey player and served as captain leading his team to the national championship. Soren has played hockey since he was four.

Michael Longo, MD is a graduate of the Albert Einstein College of Medicine and a lifelong New Yorker. He is interested in clinical outcomes-based research and hopes to contribute to the outstanding sports concussion research at Vanderbilt moving forward. His research interests include complex spine surgery, spine oncology, cerebrovascular, and sports concussion. He is also interested in global neurosurgery and seeks to build on prior international experiences in Uganda and Mongolia. Michael will join Vanderbilt as a Neurosurgery Resident in July.

He will graduate from UCSF School of Medicine in May and will join Vanderbilt as a Neurosurgery Resident in July. Currently, Soren's clinical and research interests include cerebrovascular, pediatrics, and sport-related concussion.

He enjoys coaching youth hockey, cooking, especially barbecue, and traveling around the U.S. and internationally.

Iyan Younus, MD grew up in Vancouver, Canada before moving at the age of 12 to Cameron, TX. He completed his undergraduate degree in Biomedical Sciences and Neuroscience at Texas A&M University, graduating summa cum laude in 2016. Iyan received his medical degree from Weill Cornell Medical College in New York. At Cornell, Iyan has been passionate about expanding mentorship opportunities and facilitating career preparation for students. He was a student leader for the Health Professions Recruitment and Exposure Program, an organization that provides mentorship and academic opportunities to underrepresented New York City high school students. Iyan is currently interested in epilepsy, brain tumor surgery, and minimally invasive approaches to the skull base. He will join Vanderbilt as a Neurosurgery Resident in July.

Iyan enjoys spending time with his family and friends and has two siblings in high school. Iyan is an avid sports fan, especially football and basketball. He also enjoys travelling and has been to 48/50 states.

Jeremy Wetzel, MD graduated with a BA from the University of Texas and completed medical school at the University of Texas in Houston where he was inducted as an AOA medical honor society member and received the Distinguished student in the Neurosciences Award. Dr. Wetzel is currently completing his Neurosurgery Residency at Emory University School of Medicine where he is involved in several research projects. Clinically he enjoys all aspects of pediatric neurosurgery and has a particular interest in neuroendoscopy and peripheral nerve surgery. He will join Vanderbilt as the first Pediatric Neurosurgery Fellow in July.

Cooking and playing with his Rhodesian Ridgebacks are among his favorite activities outside of work.
Dr. George S. Allen, MD, PhD
William F. Meacham Professor & Chairman of Neurological Surgery
1984 – 2009

As told by Lola Chambless, MD

We were having a discussion about chairmen one day for some reason. However, I expect he meant leadership in general. “Kyle, a good chairman always hires people smarter than him. A poor or insecure chairman always hires people not as smart as him, or he hires lackeys.”

One day we were talking about seamlessly moving through life. He said, “Now Kyle, I think that one of the reasons for my success is that I NEVER associate with hotheads or jackasses.”

As told by Kyle Weaver, MD

Dr. Allen was a master surgeon. His last second coaching just before allowing the chief to put the clip on the aneurysm was always accompanied by, “Pete, now, Finesse and elegance, finesse and elegance, ....” as most of us would gingerly advance that 7mm or 10mm straight clip across the neck of the aneurysm.” (He was not a fan of fenestrated or “fancy” clips. One pass typically was his motto).

Another phrase that I remember dearly in faculty meetings and it continues to guide me as I become more involved in leadership activities.... “Cream always rises to the top.” What does that mean? It means that when we are challenged as a group, there are certain people you can count on to step up to the job and show their potential. It paid off many times over the years when we faced a lot of crisis in the department or wondered about how residents would perform over the years. Usually he was right.

As told by Pete Konrad, MD

The Katie Test

During his 25 tenure as chair, Dr. Allen added 13 full-time faculty, 14 residents and four post-doctoral researchers. He also oversaw the creation of five sub-specialty programs and graduated 45 residents. Dr. Allen was known as a generous mentor and an exacting teacher. Every resident completing the program had to pass “the Katie test.” As Dr. Allen stated, “I asked myself if my daughter Katie were to ever need a neurosurgeon, would I recommend one of my residents. If I wouldn’t let a resident take care of my daughter, I wouldn’t let him graduate.”

From current Chairman
Reid Thompson, MD

There was only one George Allen. He was sharp, observant, creative and inventive. He was a tough taskmaster with a heart of gold. His patients adored him, and he taught us, his faculty and residents, to treat patients as if they were family.

As told by Lola Chambless, MD
It is hard to believe that seven years have passed since Kim and I moved to Nashville. There is some weird symmetry that necessitates reflection when your time in practice surpasses the length of time that you spent in training. In some ways it seems like it flew by and in others it is surprising how much has happened. As a resident I learned to expect the unexpected. The way things are when you start are not the way things will be when you finish however core values, mission, and motivations remain the same.

Although I expected that epilepsy would be a clinical interest after training, I could have never predicted that caring for children with cerebral palsy and spasticity/dystonia would interest me. I now find my practice growing in unexpected ways in the care of these children performing more rhizotomies and Baclofen pumps than I imagined would be possible. What a great group of patients to care for! The majority of these children are born prematurely and develop cerebral palsy. Others are born with malformations of their brain or rarely suffer trauma that leads to these neurologic manifestations. These children entered a world they were not ready for and are at the greatest physiologic disadvantage from day one. Too, their parents are faced with challenges from the beginning. How could you not love helping this group?

Measurement of success is different for each patient/family. For some children, we are able to help them walk better, for other children, we are able to ease the challenges of their care for their parents. In general terms, relative success rates are much higher in CP/spasticity/dystonia than in epilepsy surgery, which is comforting to sensitive surgeons who do not like the idea of “surgical failures” encountered in epilepsy. While in epilepsy surgery, we find satisfaction in making only 50-80% of our patients’ seizure free which for a baseball player would be amazing but as a surgeon these types of success rates are disappointing. In the neurosurgical care of spasticity and dystonia we can be successful more than 90% of the time.

This clinical interest was a surprise but did not happen by accident or chance. I was fortunate enough to be surrounded by other talented and caring pediatric subspecialists (Drs. Lawrence, Riordan, and Martin) who have similar interests in caring for these complex children. Similarly, I am very fortunate to work with a neurosurgical team who share the same mission and styles that allow us to work well together and complement one another. By subspecializing we have each been able to go deeper into our subspecialties while pushing the envelope on the care we provide. This would not have been possible without the leadership of Drs. Thompson and Wellons and the partnership of Dr. Bonfield.

Seven years ago, Kim and I moved to town without children, but we now have a 5 year-old and 2.5 year-old who are the reason the sun rises and sets. Learning to ride bikes, climb walls, read books, throw a ball is so basic, fundamental and amazing yet in reflection at the hospital how do you not think about the children you care for who can’t do these things. Time at work serving our children gives me greater appreciation for my family at home and in turn they drive a greater appreciation of all that we can do at work as we look forward this unrelenting synergy carrying us forward.
This past January, I was able to accompany Dr. Chris Bonfield to Peru on an annual mission trip geared towards providing surgical options for the most complex craniofacial deformities in Peru. The organization supporting the trip, Komedyplast, has been conducting a craniofacial surgical mission in Lima, Peru annually for the last 15 years (komedyplast.org) and this marked the 5th year that a VUMC neurosurgery resident has joined the surgical team. I was eager to participate given my interests in pediatric neurosurgery and especially craniofacial surgery, however I had never been on a mission trip before, so I had no idea what to expect... The experience far exceeded my expectations. On the first day, we spent several hours in “clinic” (i.e. a large classroom) seeing numerous patients with craniofacial syndromes and anomalies. The day was extraordinarily high impact, being able to see such a large volume of these patients at one time both pre-op and those returning for follow-up.

Nearly the full spectrum of pathology was on display and it was fascinating to hear the assessments made by the plastic surgeons. Although ultimately, we arrived at decisions for surgery together, the thought processes for the plastic surgeon and neurosurgeon do not always intersect and understanding how they evaluate each patient complements the neurosurgical thought process. There are more children in need than can be scheduled in a single week and thus it is also valuable to see how the patients are triaged, especially since the decision is often between this week or next year.

Over the course of the week, we were able to do at least five really large cases including fronto-orbital advancements and facial bipartitions as well as a handful of smaller cases. Participating in these cases in close succession solidified a number of the principal maneuvers in craniofacial surgery (understanding the “triple point!”) as well as the key technical skills to make the operations successful. I learned not only from Dr. Bonfield, but also from the plastic surgeons who are experts in the field.

I very much enjoyed operating and learning from the entire team while there. The multidisciplinary discussions and close collaboration with the plastic surgeons on the trip contribute to a real immersive educational experience that expands on our craniofacial experience while at Vanderbilt Children’s. In addition, I enjoyed seeing how their hospital is run and chatting with the home residents about their system and culture of education.

Finally, it was great to spend the nights exploring Lima and getting to know the Peruvian culture. It is a wonderful city and I hope I will be able to return some day. I found this trip to be highly impactful and valuable. We are lucky to have this opportunity to participate with a great organization.

Learn more about this mission driven organization @ Komedyplast.org
We are a unique class of neurosurgery residency applicants. Eight in total, we represent an eclectic group, eager to take the next steps toward our careers as neurosurgeons. With the emergence of the COVID-19 pandemic, we understand that this application cycle is unprecedented, but we remain optimistic in the face of uncertainty.

Being such a large group, collaboration is the name of our game. We have coordinated amongst ourselves about future career goals and geographic interests to maximize our chances of success. But now, there exists a potential shift of the status quo for the application process as the possibility of rotation cancelation looms. So, what happens now? Our medical education and preparation for intern year has undoubtedly been disrupted. We have been pulled from the clinical environment at a time when we need to learn from our patients the most. Our away rotations are up in the air. We, as many others, are unsure what to expect going forward. This pandemic situation calls us to reflect on our paths thus far. Will we be ready? The elimination of away rotations will likely disadvantage students from smaller medical schools without home neurosurgery departments; how can we advocate for these applicants as a community? What does the application process look like going forward? If the interview season will be virtual, how will we know our best fit never setting foot on the campus? What should we do while we wait?

In the midst of these new hurdles, with meticulous plans and schedules of our individual application timelines toppling like dominos, we have turned to each other for support and encouragement. There has been a positive national sentiment creating cohesion among neurosurgery applicants across the country. We have played a role in the new “Future Neurosurgeons” listserv and contributed valuable survey data to understand medical student opinions and perspectives surrounding changes to the upcoming application cycle. As we have seen within the larger medical community, the unique stressors and anxieties we are experiencing are connecting us.

Despite the changes to come, we are hopeful about the future. We will be neurosurgeons. Even during this irresolute time, the prospect thrills us, unites us, and grounds us among the ever-changing terrain. Whatever obstacles are presented to us, we know we have the support of our outstanding faculty, mentors, and residents. We are fortunate to have begun our journey here at Vanderbilt, and we look forward to joining the neurosurgical community next year.
**STAYING CONNECTED TO VANDERBILT NEUROSURGERY**

Our hope is that the quality of education received during your time in the Vanderbilt Neurosurgery Residency Program has been invaluable to your current success, and that you wear this connection to Vanderbilt with pride. You are our legacy.

As such, we want you to be involved in the current and future of our program. Your support is vital to the success of training future neurosurgeons. There are many ways to offer support as you may see fit.

One of our most recent endeavors to enrich the opportunity in the program is through creating a dedicated space for a neuroanatomy lab. This space will ideally have its own set-up for a microscope, endoscope, drill, suction and irrigation. This lab will allow neurosurgery residents to practice microsurgical cranial and spinal dissections. Practicing everything from basic to complex neurosurgery approaches in the lab is crucial for trainees to gain confidence and mastery, and also improve patient safety and outcomes in the operating room.

We also want to give back to our alumni. The Neurosurgery faculty here at Vanderbilt are committed to assisting you prepare for the ABNS oral board exam and are available for review sessions. Please contact Pam Lane at pamela.lane@vumc.org to make arrangements for your visit.

There are many other ways to stay connected and we offer a few suggestions below:

- Visit, speak at Grand Rounds, and meet with current residents
- Mentor a current resident
- Submit an article to this newsletter
- Attend the annual Alumni Reception
- Monetary donation to support resident education
  - For more information on how to make a donation please follow this link: [https://www.vumc.org/neurosurgery/41670](https://www.vumc.org/neurosurgery/41670)

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**FACULTY UPDATE**

We are pleased to announce two new faculty additions joining the Department of Neurosurgery this summer

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**Michael Dewan, MD, MSCI** grew up in Austin, Texas and attended college at the University of Notre Dame where he graduated with a Bachelor of Science in 2007. He received his MD from Yale Medical School in 2012 where he was awarded the Frank Parker Prize and named a Farr Scholar. He completed neurosurgical training at Vanderbilt in 2019. During residency, Dr. Dewan obtained a Master of Science in Clinical Investigation and completed the Paul Farmer Global Surgery Fellowship within the Department of Global Health and Social Medicine at Harvard.

Dr. Dewan will complete a Pediatric Neurosurgery Fellowship at the Hospital for Sick Children in Toronto and then will join the Vanderbilt Pediatric Neurosurgery team.

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**Sarah Bick, MD.** received her MD from Vanderbilt Medical School in 2013 where she was an AOA medical honor society member. She is completing residency in the Department of Neurosurgery at Massachusetts General Hospital. During her subspecialty years, Dr. Bick completed an enfolded fellowship in Functional Neurosurgery. Dr. Bick has been involved with multiple research projects and published numerous papers on epilepsy, deep brain stimulation, and the neurophysiology underlying cognition and psychiatric disorders.

After Dr. Bick completes residency she will join the Vanderbilt Stereotactic and Functional team.
CHAIRMAN’S CORNER

One of our best family vacations was a trip down the Salmon River in Idaho. We spent days on the river, exhilarating in navigating class IV rapids, luxuriating in floating the calm stretches; following the current. Pulling into an eddy for a rest in the afternoon, jumping into the cold water for a swim. Searching each evening for a sand bar that would serve as our resting place for the night. And all the while the river continued to flow...in a timeless state of travel. To me the river is an apt metaphor for the passage of time.

In reading this wonderful newsletter I am reminded about the passage of time and of how we are successfully navigating the rapids of change in our current time. One of the important themes in our department is leadership. To me time is an important part of leadership: leaders need to be able to manage time – and to make time. I am so proud that as a department, with the rapid change of a global pandemic – we have found ways to continue to make time for education with new formats of virtual learning. Credit our wonderful educational leaders: Lola Chambless, Rohan Chitale, Rob Naftel, and Pam Lane!

The river of time is ethereal and as it flows, is marked by times of transition. This year we lost Dr. Allen – who fearlessly lead our department for a quarter century. And as we mourn his loss – and celebrate his legacy - we look ahead in time to transitions that represent renewal. This year we celebrate eight vibrant Vanderbilt medical students bonded together and facing an uncertain time – as they look to match in Neurosurgery; learning in real time how best to navigate a time of rapid change. Our two graduating chief residents Ahilan Sivaganesan and Jordan Magarik have travelled 7 years in time – and speak eloquently about their own transitions during their time here. How is it that 7 years has gone by – and having finished something so extraordinary – learning how to safely operate on the human brain – that at this moment in time - they are just beginning? Additionally, our graduating functional fellow, Walter Jermakowicz, is transitioning from training to practice that will undoubtedly be a time of exciting opportunities as he crafts his path in neurosurgery. We mark time in the spring by welcoming our newest residents to the department: Soren Jonzzon, Michael Longo, and Iyan Younus – three exceptional people from very diverse backgrounds. In addition, as we look ahead in time, we welcome our first Pediatric Neurosurgery fellow Jeremy Wetzel who joins us from Emory where he is completing his residency. I am especially proud to welcome Sarah Bick and Michael Dewan to the faculty. I am so excited to see how their time here unfolds. I am exhilarated about the energy, brilliance and diversity of ideas they bring to the department.

This year has already brought extraordinary challenge. Yet, I want to convey that – as always – the Vanderbilt Neurosurgery residency program continues to thrive and to innovate. We are successfully navigating these waters because of the devotion, innovation and energy of our entire team. Thanks to our exceptional program manager Pam Lane and wonderful senior administrative assistant Sally Winkle for putting this newsletter together – a snapshot in time of the department in 2020.

Please stay connected and be well.

Reid Thompson, MD
Chairman, Department of Neurological Surgery

FUTURE ARTICLES AND TOPICS
We welcome your suggestions for topics and your participation in submitting articles and noteworthy events for our upcoming Newsletters. Our intention is to provide relevant information to our residency program community.
Please email Pam Lane at pamela.lane@vumc.org