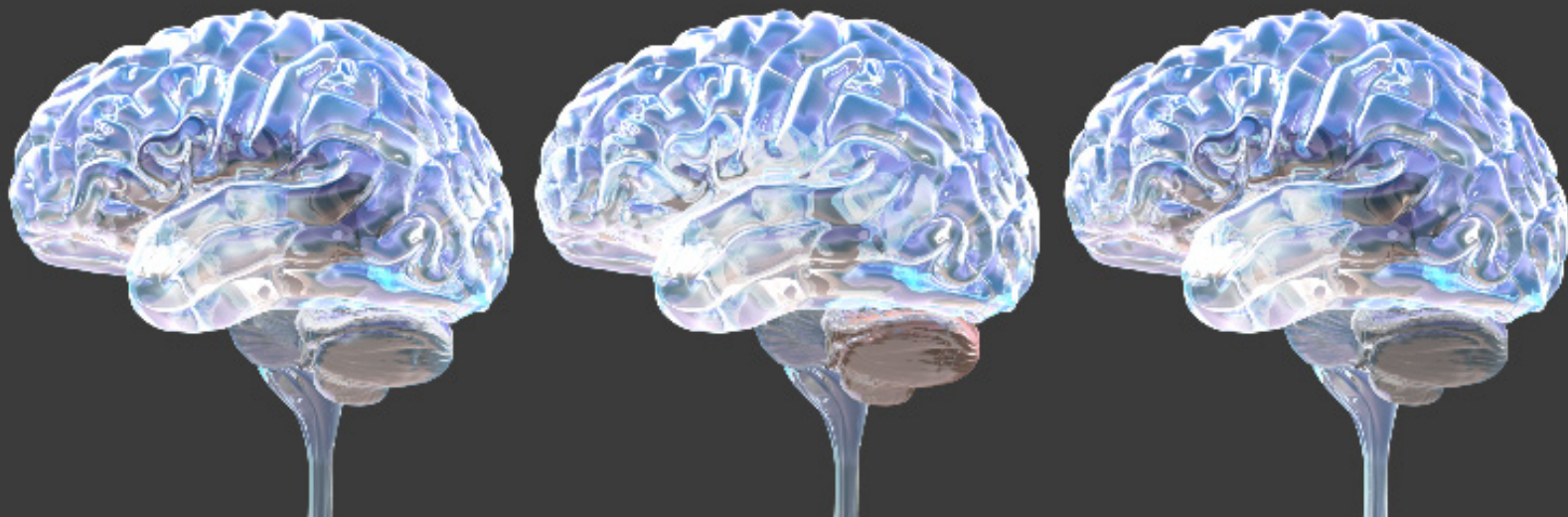


# NEUROSURGERY



## Cleveland Clinic Neurosurgery Alumni Connection

FALL 2018



From the Desk of Michael Steinmetz, MD  
Chairman, Department of Neurosurgery

We had yet another very successful academic year. The highlight was the graduation of 3 remarkable residents. Nina, Emily and Louis left big shoes to fill, but the current chief residents have hit the ground running. Nina is completing her endovascular fellowship here at CC, while Emily and Louis have ventured out into practice. The academic achievements of our residents continues to shine. Alex Witek and Bryan Lee were both recognized with research awards at the Annual Neurological Institute Trainee Research Day. The entire group represented the department well with numerous national podium presentations and high-impact publications. The neurosurgical faculty have mirrored these successes serving on multiple national/international committees, invited presentations, and scientific contribution. The latest US News and World Report ranking for Cleveland Clinic Neurosurgery moved from the 6th position up to the 4th.

Thank you to all who attended our Alumni reception in New Orleans this past spring. Andrew Healy has yet again done a fantastic job organizing a warm social event. It was great seeing old and new friends. Andrew is already planning for next year's event, stay tuned for details.

I could not be more proud of our Department as we continue to grow and succeed. This has been a challenging year; we have been asked to increase our clinical output. The group has come together and answered the call. This is a testament to the commitment and teamwork of this outstanding group of people.

### upcoming events

The Department of Neurosurgery proudly presents:

#### Ed Benzel Annual Lecture

February 8, 2019, Bunts Auditorium



#### Douglas Brockmeyer M.D.

Chief of Pediatric Neurosurgery  
Marion L. Walker Endowed Chair in Neurosurgery  
Primary Children's Medical Center  
University of Utah  
Salt Lake City, Utah

Douglas L. Brockmeyer, MD is involved in all aspects of pediatric neurosurgery. He specializes in in Pediatric Neurosurgery, Spine Procedures, Skull Base Surgery, Brain Tumors, Neuro Trauma and Chiari and Vascular Malformation. Dr. Brockmeyer currently serves as Division Chief of the Pediatric Neurosurgery Program, while he also serves as Principal Investigator on a variety of research projects involving the biomechanical and genetic aspects of craniocervical disorders.

#### Ed Benzel Annual Lecture 2018

#### Kenneth A. Follett, MD, PhD

(inaugural lecturer - February 9, 2018)





**James S. Harrop, MD** (CC Alumni 2003)

Professor  
Chief, Division of Spine and Peripheral Nerve Surgery  
Neurosurgery Director of Delaware Valley SCI Center  
Neurosurgery Director for Adult Reconstructive Spine  
Jefferson University Hospitals

I arrived in Cleveland in June of 2002 to begin my year as a Cleveland Clinic (CC) spine fellow. I traveled with my wife Elyse and son Matthew (4yo) and daughter Casey (2yo). I had just completed my neurosurgery residency at Thomas Jefferson University a few days before and was excited about starting anew and growing both academically and clinically. I had heard much about the Cleveland area, prior to my arrival, and was pleased that there was no snow on the ground and the river was not actively on fire. As with all new experiences, the opportunity to learn, often presents itself early. Such a learning opportunity, in this case a negative opportunity, presented early - as the moving truck arrived with our possessions. I received a recommendation for the moving company from my good friend and colleague Ashwini Sharan (thank you very much, Ash). The moving company held my belongings hostage. They demanded more payment than originally been agreed upon. As you can imagine, with two young children screaming, an empty house, and no clean clothes I politely expressed my views on the topic and we arrived at a détente. Cooler minds prevailed. This was due to the calm interactions of my wife and my newer gentler self. Presently, Elyse is still my wife (21 years), my children have continued to mature into young productive adults in the midst of their college education. It seems like only a short while ago they were riding tricycles in the driveway in Cleveland Heights (see photo). We had a great year in Cleveland with visits to the fabulous Cleveland Metroparks Zoo (see photo), Children's Museum, watching the Cleveland Indians and so many other great activities. As an aside, I think Ed Benzol, his wife Mary, and his mother were the only fans going to the Cleveland Cavalier games in 2001. This period was an all-time low for the Cavs.

It was an interesting time in medicine, in that previously the standard orthopedic and neurosurgery spine fellowship programs were specialty oriented. At this time, orthopedic spine surgeons and neurosurgeons restricted post-graduate training to fellows in their native specialty. The Cleveland Clinic spine leadership (Iain Kalfas, Ed Benzol, Gordon Bell, Robert McLain and Isador Leiberman) decided to merge the orthopedic and neurosurgery spine fellowship programs. This, at the time, was very innovating thinking in that there were no other combined spine fellowships. The Cleveland Clinic training program evolved such that there were two neurosurgery fellows and two orthopedic fellows. The rotations in that era were set up to pair a neurosurgery fellow and orthopedic fellow for a six-month rotation. My team consisted of Branko Prpa, an orthopaedic surgery graduate from the Mayo clinic and myself. The other pair was Brett Babat (Ortho) from Brown University and Jean-Valéry Coumans (Neuro) from Georgetown University. For more information about these prior spine fellows see links below:

- Prpa - <https://www.youtube.com/watch?v=qoCbnEbXAP0> or <http://www.prpaspinesurgery.com/>
- Babat - <http://www.tnspinesurgeon.com/about-dr-babat/>
- Coumans - <https://www.massgeneral.org/doctors/doctor.aspx?id=17470>

We became great friends during this concentrated year, and I still interact with them about patients or talk to them at meetings about our great experiences at Cleveland Clinic. I routinely hear from Branko Prpa and he updates me on his family, life in the Wisconsin wilderness, and the state of spine care in rural Wisconsin.

I began my rotation on the CC neurosurgery service with Drs. Kalfas and Benzol. The house staff team was exceptionally insightful, helpful and immediately made me feel at home and a member of the team. Jim Evans was the chief resident and Michael Steinmetz and Jürgen Harms were the junior residents on the service. As we rounded, it became evident to me that

they were meticulous and very patient centric. They, in fact, insisted on writing the notes – which was OK with me. To this day, I still interact with these prior CC residents.

Jim Evans was an impressive young surgeon with great technical skills, knowledge and compassion for his patients. After he completed his residency, he did a skull base fellowship with Laligam N. Sekhar in Fairfax Virginia. We presently see each other often in that he was recruited to Thomas Jefferson University by David Andrews and is now the Division Director of the Neurological Surgery Oncology Division. This neuro-oncology group has grown to four surgeons and two neuro-oncologists (all in the Neurosurgery Department) over the last 17 years. Jim has developed a large clinical practice that focuses on benign skull base tumors. He is the premier neuro-oncologist in the Philadelphia region, being an accomplished clinician and academician. When Jim started at Jefferson, I remember watching him resect large tumors through the nose with endoscopes – operations that often go on for hours. I thought, “that is never going to work”, since prior to medicine, I worked in Newport, RI, as a marine construction worker and recall the philosophy of “it never works when you try and patch a hole in a boat from the inside.” In other words, trying to close a skull defect and prevent a cerebrospinal leak through the nose is difficult. His perseverance and innovation, over the years, has helped lead this field to where I am amazed daily with the clinical results he achieves. When I was a resident, these patients would have been previously treated with bicoronal craniotomies resulting in anosmia (loss of smell) and staying in the hospital for 10-14 days. Now, they are going home post-op day two with gross total resection of the tumors and no incisions. Furthermore, he demonstrated how one, in fact, can indeed “patch a hole in a boat from the inside.”

Mike Steinmetz was one of the first residents I met in Cleveland. He was very friendly and I soon discovered he was also intelligent, dedicated, hardworking and technically gifted. Over the years, we have become great friends, due to our common interest in spinal disorders and multiple shared committee responsibilities (Congress of

Neurological Surgeons and AO North American Spine Association executive boards). I like to believe some of my time at CC helped develop and evolve his interest in spinal diseases. Clearly, I was able to help him with knowledge about spinal complications and their treatments 😊. Mike went from residency to a spine fellowship with two former spine fellows (Greg Trost, fellowship with Ian Kalfas at CC and Dan Resnick fellowship with Ed Benzel in New Mexico). Mike then came back to CC and eventually took a short hiatus to be Chairman of MetroHealth Neurosurgery Department. While at MetroHealth, he reunited with Tim Moore (CC orthopedic resident), who I was also fortunate to work with on my six-month orthopedic spine fellowship rotation.

After leaving my fellowship, I interviewed at several opportunities and decided to return to Thomas Jefferson University Hospital in Philadelphia. This was a complex decision since most hospitals in the US had a contentious relationship between the orthopedic and neurosurgery spine surgeons. There were many reasons for this tension, but one of the main driving forces was the use of instrumentation in treating spinal diseases – Ortho vs Neuro. I had an extremely positive experience from my training at the Cleveland Clinic combined Ortho-Neuro Spine Fellowship where orthopedic and neurosurgeons worked together in harmony to promote quality patient care. Gordon Bell, CC orthopedic attending, was a prior graduate of Jefferson’s spine fellowship.

I therefore met with the orthopedic surgeons (Todd Albert, Alex Vaccaro and Alan Hillibrand), as well as the hospital leadership. After 1-2 years of the hospital not having a neurosurgery spine fellowship trained surgeon, these individuals who I knew well from my residency at Jefferson were very supportive of my return to Jefferson as the Division Chief of the Division of Peripheral Nerve and Spine Surgery. In order to establish a cohesive working environment we designed a co-management program for the care of spine trauma patients, along with trauma surgeons. In addition, we met daily to go over all new admissions and discuss difficult

or interesting cases. Over the last 17 years, the spine division grew from a division of one (me) to six neurosurgery spine fellowship trained faculty (including CC Alumnus Srini Prasad and Ashwini Sharan) doing over 2000 cases annually. Recently, we have added Shervin Nafaji who was a prior CC medical spine fellow.

The most positive aspect of this combined management paradigm was interaction and collaboration with my orthopedic colleagues. I soon became involved and noted the benefit of these organizations to education and patient care. I am involved with numerous societies (some say too many) and am presently on the executive board of several: Vice President of the Congress of Neurological Surgeons, Secretary of the Cervical Spine Research Society, Treasurer of Lumbar Spine Society, Chair of AO North America Spine Association Research Committee and on the AO International and North American Executive Boards, Member-at-Large of AANS/ CNS Spine Section and also the Pennsylvania Neurosurgery Society. Through these societies, I have been able to interact with many of my CC colleagues. They have taught me the importance of working together with all our colleagues to improve patient care.

Ashwini Sharan and I became great friends during residency in that we had similar interests in research, improving patient care and education. We both noted the academic status of CC and its philosophy to educate with the underlying theme of excellent patient care. Ash was interested in spine, in addition to functional neurosurgery, and designed a combined spine/functional fellowship under the guidance of Ali Rezai. Upon completion of his fellowship, he also returned to Jefferson and has developed an extremely busy clinical practice. He is an established leader in the functional community. Additionally, he has dedicated significant energy to improving the field of neurosurgery and is the current President of the Congress of Neurological Surgeons.

One of the lessons I learned from my Cleveland Clinic year was the importance of documenting your success, as well as equally or more importantly to acknowledge your failures. When I returned to Jefferson, there was no spine research program and no ongoing clinical trials. I have had immense support here at Jefferson due to gifted researchers, residents, fellows, and attendings. With these individual's efforts, we have published over 300-peer review articles and have presented our work around the world. One area we have specific knowledge about is spine trauma due to referral patterns, the hospital commitment of resources, and being the longest active regional spinal cord injury center. Our research team has continued to grow and we have been a high volume recruitment centers for innovations in spinal cord injury and spine trauma studies. Presently, we are involved in 25-30 active trials funded through three Department of Defense grants, National Institute of Neurological Disorders and Stroke grant, Patient-Centered Outcomes Research Institute grant, patient benevolence, and industry funding.

Currently, I am continuing my educational growth, which was ingrained through the CC altruistic and forward thinking philosophy. One avenue is through the continued education of medical students, residents and fellows, but also by expanding my foundation of knowledge through classes towards a Master's Degree in Quality Improvement. The single greatest gift I learned during my year in Cleveland was the emphasis on a patient centric approach to patient care that is delivered by a committed team. I think fondly of all the assistance I was given by Martha Tobin, Christine Moore, Lisa Ferrara, Rebecca, Ann, Rita, CC operating room staff, clinical staff, administration, residents, fellows, and attendings. I thank them from the bottom of my heart for their dedication to education and patient care.

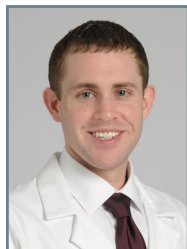






## Neurological Institute Trainee Research Day

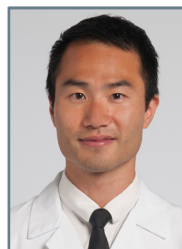
The Neurological Institute hosted 84 posters and 10 platform presentations on May 24, 2018. Congratulations to the two Neurosurgery Resident Award winners, with each resident receiving a certificate and \$500:



**Alex Witek, MD - PGY-6**

(supervisor, Mark Bain, MD):

"Time-Resolved (4D) Magnetic Resonance Angiography prior to Catheter Angiography Leads to Lower Radiation and Contrast Doses for Diagnosis of Spinal Dural Arteriovenous Fistulae"



**Bryan Lee, MD - PGY-6**

(supervisor, Edward Benzel, MD):

"The Effect of C2-C3 Disc Angle on Postoperative Adverse Events in Cervical Spondylotic Myelopathy"

## James Gardner Annual Visiting Professor Lecture Series – May 4, 2018

E. Antonio (Nino) Chiocca, MD, PhD





## Neurosurgery 2018 Graduation and Awards presentation - June 9, 2018



Academic Award  
Nina Moore, MD



Program Director's Award  
Bryan Lee, MD



Anesthesia Award  
Nina Moore, MD



Teacher of the Year, Faculty  
Edward Benzel, MD



Teacher of the Year, Resident  
Alex Witek, MD

Not Picutred:  
Humanitarian (Juan Palomo) Award  
Pranay Soni, MD

# awards

## Harvey Cushing's gravesite - June 9, 2018



Chief Residents  
Nina Moore, Louis Ross, and Emily Bennett



Drs. Barnett, Moore, Benzel, Ross, Steinmetz, Bennett, and Schlenk



**Andrew T. Healy, MD**  
CCF Neurosurgery Alumni 2016  
Cleveland Clinic Alumni Association Specialty Director  
Neurological Surgery  
Member, Centennial Legacy Society

### Cleveland Clinic Neurosurgery Alumni Reception

We had another great turnout at the AANS Alumni Reception at Dickie Brennan's in New Orleans! We discussed the direction of the Neurosurgery Department and also the Alumni-driven Centennial Legacy Society campaign. The most important information I picked up that evening was hearing that the AANS is hosting The Benzel Symposium: State-of-the-art in Complex Spine Surgery. This two-day event will be held April 11-12, 2019 at the San Diego Convention Center prior to the 2019 AANS Annual Scientific Meeting in San Diego. This impressive and well-deserved recognition will surely be met with a large turnout from the 100+ Cleveland Clinic Alumni that have trained under Dr Benzel over the past 19 years. Dr Steinmetz and I will plan a fitting reception for us in San Diego and am happy to hear any suggestions. My email is [Andrew.Healy@cnsa.com](mailto:Andrew.Healy@cnsa.com). Look forward to seeing you all in San Diego.



### Stay Connected!

We encourage our alumni to stay connected with former colleagues, mentors, associates and friends. You can receive news updates about your training specialty and view events on the digital calendar including CME course information.

### CME Online

For CME information on all medical specialties, visit the Center for Continuing Education's website, [ccfcme.org](http://ccfcme.org), a leader in online CME with a worldwide outreach and record-setting CME numbers. On the site you can:

- Claim credit for CME activities
- View your transcript
- Reprint certificates
- Create an account in minutes! New profile: [ccfcme.org/newprofile](http://ccfcme.org/newprofile)
- Login: [ccfcme.org/cmelogin](http://ccfcme.org/cmelogin)

You can earn CME credit by reading articles from Cleveland Clinic Journal of Medicine, either online or in print. Visit <http://ccjm.org/> for a current issue of Cleveland Clinic Journal of Medicine and more information.

### Alumni Profile

Please click on <https://alumni.clevelandclinic.org/join> to update your alumni profile.

### Feedback

Feedback for our newsletter is always welcome, as are your suggestions for future content. We would like the Alumni Update column to feature updates about marriages, births, promotions, retirements, vacations, hobbies, etc that you would like to share. Photos are especially welcomed! Please send your announcements or photos to Christine Moore at [moorec2@ccf.org](mailto:moorec2@ccf.org).

Cleveland Clinic is a nonprofit, multispecialty academic medical center integrating clinical and hospital care with research and education for better patient care. More than 3,500 staff physicians and researchers in 140 medical specialties provide services through 27 clinical and special expertise institutes. Cleveland Clinic comprises a main campus, nine regional hospitals and more than 150 outpatient locations, with 18 family health centers and three health and wellness centers in northern Ohio, as well as medical facilities in Florida, Nevada, Toronto and Abu Dhabi. Cleveland Clinic is currently ranked as the No. 2 hospital in the country by U.S. News & World Report. [clevelandclinic.org](http://clevelandclinic.org)

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