The 2017 Women in Neurosurgery Retreat in Snowbird, Utah

Uzma Samadani, MD, PhD, FAANS

By all possible benchmarks, 2017 was a huge year for women in many professions, but particularly so for neurosurgery. Karin Muraszko, MD, FAANS, has been joined by Linda Liau, MD, PhD, MBA, FAANS, and Susan Durham, MD, FAANS, in leading their respective neurosurgical departments and divisions. Shelly Timmons, MD, PhD, FAANS, assumed the role of AANS president-elect. And Women in Neurosurgery (WINS) held its first ever retreat in conjunction with the National Neurotrauma Symposium and AANS/CNS Section on Neurotrauma and Critical Care satellite meeting.

For two days in July, more than 50 female neurosurgeons and medical students, as well as those who support them, convened at Snowbird, Utah, to hear from leaders in the field, discuss mutual challenges, develop relationships with mentors and bond with their peers in both formal and informal venues. Prominent leaders and past presidents of WINS attended and presented, including Anne Stroink, MD, FAANS; Deborah Benzil, MD, FAANS; Dr. Timmons; Aruna Ganju, MD, FAANS; Eve Tsai, MD, PhD, FAANS; and Stacey Quintero-Wolfe, MD, FAANS.

Keynote speakers included Dr. Quintero-Wolfe, who talked about the progress that women have made in neurosurgery both academically and in private practice. Dr. Tsai discussed her philosophy for building an academic neurosurgical practice. Dr. Benzil spoke about the business aspects of neurosurgery and how to seek mentoring in financial and administrative aspects of career development. Dr. Ganju shared how surgeons might improve their own productivity and prolong their careers by avoiding disability caused by radiation, cautery smoke inhalation, prolonged standing and other occupational hazards. Dr. Timmons ended the retreat with a stimulating lecture and roundtable discussion on how surgeons can overcome unconscious bias.

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To drive home the metaphor of women reaching new heights, retreat participants attended a rock climbing clinic and took part in a white water rafting adventure. The evenings were rounded off with a s’mores roasting.

The retreat was principally sponsored by Medtronic, which donated $15,000 and, under the leadership of marketing director Katie Stamps, assisted with planning and organization. The Medtronic donation enabled free attendance by all, including medical students and neurosurgery residents. Additional sponsors included IronNeck, Nuvasive, Globus and Integra.

After the weekend, participants joined the AANS/CNS Section on Neurotrauma satellite meeting. There was a recognized need for future events tailored to the development of the growing population of female neurosurgeons. In 2017, WINS continued to be the fastest growing joint section of the AANS and the CNS. Plans are underway to rotate future WINS events through the various subspecialty section meetings.

In her book, *Grit: The Power of Passion and Perseverance*, Angela Duckworth, PhD, sets forth a thesis that is both hopeful and challenging. The book is driven in part by the notion that with perseverance, passion and deliberate effort an individual can achieve excellence. This idea of “grit” is at the center of the incredible task of training to be neurosurgeon. Each day in neurosurgical training brings new challenges, triumphs and failures. The best among us seem to find a way to rise above the tides of positives and negatives and find a capacity within to move forward, use failures as an opportunity for information and ultimately grow in neurosurgical practice.

Grit is at the foundation of the culture of neurosurgical training. In the book, culture is aptly described as a consensus among a group of people on how things are done. In neurosurgical training, the culture involves grittiness guiding practice with intense focus, feedback and reflection. This daily practice begins with the routine well-known to all neurosurgical residents – starting the work-day earlier than anyone else in the hospital with rounds with the chief, then going to the operating room for the majority of the day and ending the day with post-operative rounds. This routine of deliberate practice and focus echoes the sentiments valued in Dr. Duckworth’s book. Moreover, at the core of neurosurgical training culture are the values of building stamina and determination to finish the task at hand well. As trainees in neurosurgery, we try and we fail without concluding that we have bumped our heads against the ceiling of possibility. This internal drive, despite setbacks, defines the daily experience of the neurosurgical resident.

There is no doubt grit is among the most important traits in a successful neurosurgical trainee. Nevertheless, we see grit most clearly in our patients who face the most serious diseases with grace and strength. The perseverance and intrinsic strength of our patients in fighting illness informs our own practice of grit as neurosurgical trainees. Dr. Duckworth points out through her research that interest, purpose and practice are formative in building grit. In neurosurgical training, our patients are a clear reminder of our purpose, and taking care of them guides our daily practice and efforts. Guided by the purpose of providing exceptional care to patients, the neurosurgical trainee learns to push through failures, persevere and ultimately fall seven times and rise eight.
WINS Highlight: Shelly Timmons, MD, PhD

Alexandra Giantini Larsen, MS3, & Sharona Ben-Haim, MD

Shelly Timmons, MD, PhD

Dr. Shelly Timmons is a trailblazer for female neurosurgeons. Born and raised in a small farming community in West Central Illinois, she was fascinated early on by the brain and by the elegance of surgical procedures. By the time she reached her teenage years she was already determined in her ambitious goal to become a neurosurgeon. She went on to graduate as valedictorian of her local high school, and graduated from the University of Illinois with degrees in Honors Biology and Rhetoric. She obtained her medical degree from the University of Illinois College of Medicine and completed her neurosurgical training at the University of Tennessee, as well as a PhD in Anatomy and Neurobiology.

She began her career practicing neurological surgery with the Semmes-Murphey Clinic in Memphis, Tennessee as head of the Neurotrauma Division of the University of Tennessee Department of Neurosurgery, where she navigated the challenges of learning how to develop and run the hospital trauma service while establishing a successful research program. She became involved early in her career in resident training and education, serving as the Assistant Dean of Graduate Medical Education, amongst her many other roles. In 2010, she became the Director of Neurotrauma for the Geisinger Health System in Danville, PA where she was pivotal in the institution of a new ACGME accredited residency training program. In July 2016, Dr. Timmons was recruited to Penn State Milton S. Hershey Medical Center, where she first took on her current roles as a Professor of Neurosurgery, Vice Chair for Administration, and Director of Neurotrauma.

Throughout her career, she has navigated many challenges including successfully balancing her many competing interests in advancing her clinical program, maintaining a productive research agenda, teaching, and contributing to organized neurosurgery through her countless influential roles. “We all struggle with prioritizing our time and effort as neurosurgeons,” she states, and describes the importance through her journey of cultivating time management skills and making good judgments in prioritizing work-related tasks. Always maintaining a positive and optimistic disposition, even in the face of the most difficult and complex circumstances, Dr. Timmons has been successful at managing an extraordinary roster of leadership positions within organized neurosurgery including acting as President of both the Tennessee and Pennsylvania Neurosurgical Societies, Chair of the Women in Neurosurgery as well as Neurotrauma Section, Chair of the Washington Committee and Chair of the ACS Advisory Council for Neurological Surgery, amongst many others.

Dr. Timmons is currently the president-elect for the American Association of Neurological Surgeons (AANS), and is the first female neurosurgeon to hold this position. As a leader in organized neurosurgery, she believes that value in this role ultimately lies in cultivating the field for future generations of neurosurgeons. Her focus during her presidency will be “The Science of Practice,” with an emphasis on improving the collection and analysis of national neurosurgical information through large databases. “We need to improve our ability to leverage the data we derive from the daily practice of medicine,” she remarks, and believes that supporting and further developing our national registries will help define the clinical questions that need our attention, funding and support.

Dr. Timmons has been an inspirational role-model, mentor and teacher throughout her career and offers the advice: “If you feel passionate about something and you love it, just do it, and you will figure out your path along the way.” She advises trainees and neurosurgeons early in their careers to seek out a variety of diverse mentors and role models and strive to selectively emulate their best traits. In order to achieve your goals, she encourages, “be involved with things that really matter to you,” and emphasizes that collaboration over competition is the key to continuing to move our field forward.
In a conservative country like India, hearing of an experience like Prof. Kanaka’s is not surprising. Fortunately, the situation is improving for the better. While there has been a gradual increase of women who enter into the neurosurgical field over the past two decades, there continues to be a few special barriers that keep Indian female physicians away from the surgical fields in general – especially from neurosurgery. The first is the prevalence of the thought that surgery is not a field for women and the accompanying discouragement faced before joining the field, particularly from other medical professionals. The second barrier is the common belief that female neurosurgeons do not cherish a good family life. Even to date, arranged marriage is prevalent and men do not prefer female surgeons because in this society the responsibility of family care falls entirely on women. Third, women are a minority in the neurosurgical field. Female neurosurgeons, including those who are a part of residency programs in India, constitute around 2.5 percent of all neurosurgeons. There is limited support for these candidates to continue their studies when they are demoralized or encounter hardship. Other basic challenges, like the physical demands of the job, overcoming the overwhelming male predominance and difficulties around pregnancy and child rearing, are common, as in other countries.

In my experience, neurosurgical residency was the hardest period to pass through, but once completed I realized that there are a lot of opportunities waiting. I found that the actual learning and growing as a surgeon happens after the completion of residency. The severity of adversity also diminishes to an extent. These days, many of the senior female neurosurgeons are performing major operations and even heading units or departments. One of our notable female neurosurgeons is currently successfully running a 100-bed hospital in a major city. Recently, we have banded together and formed a female neurosurgeon forum to encourage mutual support. A survey conducted amongst us in September 2017 revealed that almost 70 percent receive or received support during their residency program, that the dropout rate during residency decreased among women compared to male colleagues and that a majority of female neurosurgeons report having a satisfying personal and professional life. This survey shows that there is a positive trend for women joining the field of neurosurgery in India. With the increase in the number of female faculty members and with the advent and spirit of a supportive women’s forum I expect the intensity of the adversity we have faced in the past to significantly improve for future generations.

I was failed five times in general surgery because of gender discrimination.

- Prof. T. S. Kanaka, the first Asian Female Neurosurgeon from Tamilnadu, India (1963)
Upcoming Events

2018 AANS Annual Scientific Meeting Highlights

**WINS General Meeting**
Sunday, April 29, 11:00 a.m.-1:00 p.m.
New Orleans Marriott - Balcony M
All are welcome

**Louise Eisenhardt Breakfast**
Monday, April 30, 7:30-9 a.m.
New Orleans Marriott - Mardi Gras Ballroom Salon DE
Angela Duckworth, PhD, is this year’s Louise Eisenhardt Lecturer. She is the founder and CEO of Character Lab, a nonprofit whose mission is to advance the science and practice of character development. Her first book, *Grit: The Power of Passion and Perseverance*, is a #1 New York Times best seller.

**Neurosurgery Faculty Development**
Sunday, April 29, 12:30-4:30 p.m.
Convention Center, Rooms 260-261
Directed by Stacey Wolfe, MD, FAANS, and Chris Neal, MD, FAANS

**Luncheon Mentorship Program**
Tuesday, May 1, 1:15-2:15 p.m.
Booth #2046 at the Convention Center Exhibit Hall
Junior faculty are paired with more senior faculty for discussions covering topics such as leadership development, grant writing, clinical research, program or curriculum development. If you would like to participate, email Maryam Rahman at mrahman@ufl.edu.
AANS/CNS Women in Neurosurgery Speakers

Leadership/Mentorship
Aviva Abosch, MD, PhD, FAANS
Deborah L. Benzil, MD, FAANS
Aruna Ganju, MD, FAANS
Isabelle M. Germano, MD, FAANS
Odette Harris, MD, MPH, FAANS
Linda Liau, MD, PhD, MBA, FAANS
Karim Muraszko, MD, FAANS
Susan Pannullo, MD, FAANS
Ann M. Parr, MD, PhD, FAANS
Maryam Rahman, MD, FAANS
Martina Stippler, MD, FAANS
Ann Stroink, MD, FAANS
Shelly Timmons, MD, PhD, FAANS
Beverly Walters, MD
Stacey Wolfe, MD, FAANS
Sarah Woodrow, MD, FAANS
Ellen Air, MD, PhD, FAANS

Education
Judy Huang, MD, FAANS
Sepideh Amin-Hanjani, MD, FAANS
Linda Liau, MD, PhD, MBA, FAANS
Karin Muraszko, MD, FAANS
Ann Stroink, MD, FAANS
Shelly Timmons, MD, PhD, FAANS
Beverly Walters, MD
Stacey Wolfe, MD, FAANS
Sarah Woodrow, MD, FAANS
Ellen Air, MD, PhD, FAANS

Research/Innovation
Aviva Abosch, MD, PhD, FAANS
Sepideh Amin-Hanjani, MD, FAANS
Isabelle Germano, MD, FAANS
Ann Parr, MD, PhD, FAANS
Shenandoah Robinson, MD, FAANS
Uzma Samadani, MD, PhD, FAANS
Eve Tsai, MD, PhD, FAANS
Marjorie Wang, MD, MPH, FAANS
Sarah Woodrow, MD, FAANS

Pediatrics
Holly Gilmer, MD, FAANS
Cathy Mazzola, MD, FAANS
Karin Muraszko, MD, FAANS
Lauren Schwartz, MD, FAANS
Shenandoah Robinson, MD, FAANS

Epilepsy
Aviva Abosch, MD, PhD, FAANS
Ellen Air, MD, PhD, FAANS
Alexandra Golby, MD, FAANS
Kristen Riley, MD, FAANS
Shenandoah Robinson, MD, FAANS

Pain/Functional
Ellen Air, MD, PhD, FAANS
Aviva Abosch, MD, PhD, FAANS
Sharona Ben-Haim, MD
Darlene Lobel, MD
Julie Pilitsis, MD, PhD, FAANS
Jennifer Sweet, MD

Spine
Aruna Ganju, MD, FAANS
Laura Paré, MD
Ann Parr, MD, PhD, FAANS
Karin Swartz, MD, FAANS
Eve Tsai, MD, PhD, FAANS
Marjorie Wang, MD, MPH, FAANS
Sarah Woodrow, MD, FAANS

Trauma
Odette Harris, MD, MPH, FAANS
Shenandoah Robinson, MD, FAANS
Uzma Samadani, MD, PhD, FAANS
Martina Stippler, MD, FAANS
Roxanne Todor, MD, FAANS
Shelly Timmons, MD, PhD, FAANS
Eve Tsai, MD, PhD, FAANS
Jamie Ullman, MD, FAANS
Sharon Webb, MD, FAANS
Stacey Wolfe, MD, FAANS
Sarah Woodrow, MD, FAANS

Cerebrovascular
Sepidah Amin-Hanjani, MD, FAANS
Judy Huang, MD, FAANS
Stacey Wolfe, MD, FAANS
Sharon Webb, MD, FAANS

Tumor
Deborah Benzil, MD, FAANS
Veronica Chiang, MD, FAANS
Isabelle Germano, MD, FAANS
Roberta Glick, MD, FAANS
Alexandra Golby, MD, FAANS
Linda Liau, MD, PhD, MBA, FAANS
Karim Muraszko, MD, FAANS
Susan Pannullo, MD, FAANS
Gail Rosseau, MD, FAANS
Eve Tsai, MD, PhD, FAANS
Maryam Rahman, MD, FAANS
Spine Summit 2018
The Psychology of Leadership
Friday, March 16, 2018
Orlando

Thank you for Attending!
WINS presented a fantastic opportunity to learn how personality type influences leadership skills at Spine Summit 2018 in Orlando. Attendees to The Psychology of Leadership completed a personality evaluation before receiving guidance into becoming a more effective leader. For those who joined us – thank you! For those who were unable to make it – you won’t want to miss it next time!