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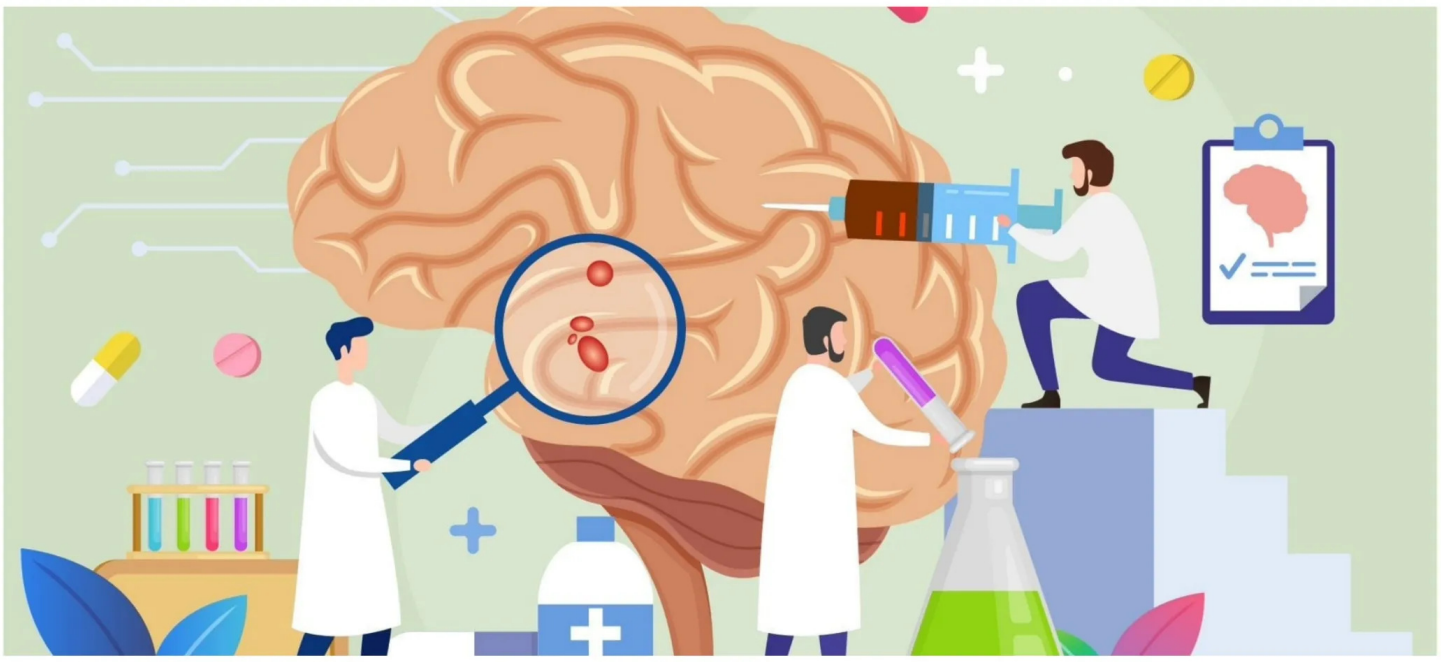
Youth Columnists

Interview with neurologist Dr. Charles Wang

by Victoria Li



The day that I engaged in the transformative experience of dissecting a human brain while donned in a yellow surgical gown remains the pivotal moment that sparked my fascination with neuroscience. The laboratory was filled with excitement and curiosity at the striking organ suspended in the solution, and the intricacies of the various tissues and cortexes that held the basis of human function were exposed.

This dissection experience was not purely a technical exercise, but sparked my interest in the world of neuroscience.

As the neurologist assisted in the precise unveiling of each layer of tissue, I was awe-stricken at the sheer sophistication of the brain, and the infinite possibility that it held. Despite learning of the brain and its various functions previously in a classroom, this specific experience became almost a narrative. As each section of the brain was unfolded revealing its harmonious shape, I imagined the physical memories and emotions that underscore the intricacy of human cognition, with each connection holding a significant importance. This dissection experience was not purely a technical exercise, but sparked my interest in the world of neuroscience.

The more I delved into this particular subject, the more I became captivated by the immense possibilities and limitless questions that still remain undiscovered. I was able to personally interview Dr. Charles Ce Wang, who specializes in neurology in Skokie, IL. Listening to his passionate narrative, I was captivated by his genuine fascination with the field he had studied for decades – our discussion ranged from the intricacies of diagnosis to the ever-evolving nature of neuroscience that required continuous research to explore. Little did I know that this conversation would not only expand my knowledge of the field, but also kindle a newfound sense of excitement for the field of neurology.

What inspired you to become a doctor, and more specifically how did you find your pathway into neurology and this career field?

It started when I entered medical school, many many years ago. I wasn't quite sure what I wanted to do back then, actually, because that was back in China. And, the system in China is quite different from the medical system [in America]. Medicine was usually not the top choice for them forty years ago, and what I loved about medicine was that my dad was actually a vet. He would talk to me about cells, life, and topics like that. But, I sort of gradually and progressively preferred human beings (laughs) than animals. That's how I entered medicine.

For neurology, because in med school, we learn a lot of things about anatomy and physiology. So when you go through that path, you also learn about the central nervous system. It's exquisite. You learn so much about the brain. Our language, our thinking, our motion, our behavior, our visual system – everything is controlled by the brain. So, instead of treating other systems, such as the cardiovascular system, you always think you can cure something. But, the neuro system, for me, is much more advanced.

Yeah I think that's what makes neurology so enticing. There is so much research that goes into it, which makes it so exciting and complicated.

Exactly. And one more thing to relate this to my dad, who passed recently. He had a stroke when he was 50, so that's another reason I wanted to become a neurologist.

Wow, I'm so sorry. But that's extremely interesting and thank you for the thoughtful answer. My next question is: what's the most difficult part about your job, and what cases have you seen that really sparked your passion into this field even more?

Neurology is very special in a way in that you always need to use logic and your thinking process. In contrast to other fields, it feels more straightforward and physical. In neurology, there are always similar presentations. You know, a lot of symptoms seem very similar. But, we need to go through your history taking and physical exams, and then the first thing you need to ask yourself is, "Where is the region, rather than what is the problem."

For neurology, it is always where is the problem? It's all about location. It's the most important part. And then, you think, what are the differentials? It's always very difficult if you don't have the system training, and any other specialty will probably be confused with a neurological problem. Probably most of the time they have no idea how to treat it.

Yeah, for sure.

So the difficult cases are... Wow, there are so many difficult cases. You know neurology, you see a lot of rare neurological disorders. Some of them have very difficult treatments. For example, Huntington Disease or Areolas. I see a lot of neurodegenerative diseases and neurological problems. A lot of these diseases require a lot of research, and fortunately for many cases, we have more research and a lot of these diseases are now possible to treat these days.

That makes sense. Have you participated in any research personally?

Not lately. I had done a lot of research in the past, but not lately.

I know that neurology is a very time consuming field, especially as a doctor. How do you find work-life balance between career and life?

It often is very difficult, and the problem is always that I don't have time to do anything but go to sleep after I finish work. But, you know, you always need to find balance. Burnout in medical areas is very common, and many many many physicians feel it. I'd even say more than 50% feel burnout in their career. So, to take care of yourself, it's important to take vacations and spend time with family. You need to have some hobbies or a form of exercise. I run and walk, and I used to play badminton. I like to listen to music, I like to travel, and I love photography. I actually have a lot of hobbies (laughs).

And that is so important. Especially with a mom as a doctor I know just how important that is.

Indeed.

I just have a few more questions. I know patient care is extremely important in your field. How do you prioritize and promote patient care, and include them into decision making processes with diagnosis?

First, I think physicians have to learn how to multitask. For neurological disease, you always take history and physical exams to form differential diagnosis. For inpatient consults, we always see new patients first, we then follow up after. So with new patients, we really need to see and understand them first.

When patients call for consultations, it's important to remember neurologists are not primary care physicians or hospitalists. So when they call, we always need to understand how urgent their situation is. You eventually learn to recognize neurological emergencies – so we always treat emergency patients first. Chronic cases always hold second, and often, they can wait for a few hours.

That makes sense. Have you participated in any research personally?

For myself, I think if I could change anything, I probably would have more research incorporated into my practice. I think it might be a little too late for me to say that (laughs).

I can definitely see that! I think research is one of the most fascinating parts of this type of medicine.

Right, exactly.

As technology evolves and becomes more involved in medicine, how do you think neurology will expand in the future? Or just medicine as a whole?

Very good question, especially as technology is always driving the advancement of medicine in every area of medicine, actually. I would say the biggest part of this advancement would be AI. There are so many more developments, machines, and interfaces. But, I think AI will definitely be incorporated for sure. For example, with stroke and cervical myelopathy, and patients with paraplegia or hemiplegia who are unable to walk even after therapy. So perhaps technology is able to assist them to walk in the future, so it is definitely a very exciting area to watch out for.

Oh definitely. However, do you think there is any downside to technology becoming more incorporated into the medical field?

I wouldn't say so for neurology, however, it also depends on which downsides you are referring to.

"Firstly, medicine is about taking care of human beings."

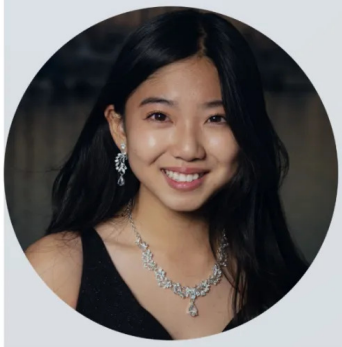
I know there are a lot of ethical concerns when it comes to technological involvement. Is that relevant to this specific field?

Yeah, certainly. Firstly, medicine is about taking care of human beings. So when we talk to machines, no matter how advanced, it is really not the same as what is real life. You can't imitate empathy with patients. Human beings are emotional animals, and we need to take care of our patients with these feelings. It is really all about empathy. Machines will never be as good as humans do.

That concludes all the questions I have. Thank you very much for joining me for the interview!

Dr. Charles Wang graduated from Tongji Medical University in 1986. He went to Harvard Medical School for research fellowship 1992-1997. He was in internship in internal medicine at University of Missouri, then Neurology residence at University of Illinois at Chicago and clinical fellowship at UIC too. Board certified in APBN in Neurology, ABPN in Clinical Neurophysiology and ABEM

Dr Wang currently is an Attending Neurologist and director of intraoperative neuromonitoring section at Northshore University Health system and a Senior Clinician Eductator at Prizker School of Medicine, University of Chicago.



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