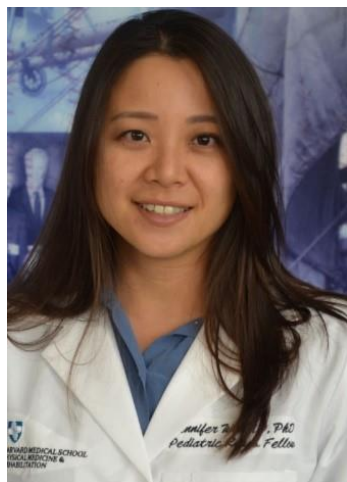


# Spotlight on Spaulding Science

News from the Schoen Adams Research Institute at Spaulding Rehabilitation



## Spotlight Profile: Jennifer Wu, MD, PhD

Dr. Jennifer Wu describes her academic journey as a series of “lucky accidents,” propelling her from art to engineering to medicine. Throughout her experience as a pediatric fellow at Spaulding Rehabilitation, she has drawn on her multifaceted experience to begin forging a career aimed at improving the lives of vulnerable children. Initially picturing herself as an art major as an undergraduate at Washington University, Dr. Wu wound up in the engineering school, where a part-time job drawing diagrams for a neurosurgical team exposed her to the wonders of biomedical research. Her physician mentors in the Movement Disorders Lab encouraged her to apply to an MD/PhD program upon graduation, and she dutifully complied. “I’m easy influenced by peer pressure and advertisement,” she jokes drily. “I didn’t really understand it would be the next decade or so of my life.”

For that next life phase, Dr. Wu landed at the University of California Irvine, working in an interdisciplinary stroke lab focused on neurorehabilitation, where robotics engineers, occupational and physical therapists, and cognitive scientists frequently worked side by side. “I think it was really that experience that made me want to be a rehab doctor,” reflects Dr. Wu, “because I like that sort of collaborative environment of everybody bringing in their own background to figure out a problem together.” That sentiment stuck with her as she shifted her focus from adults to children, recognizing the power of a multipronged, evidence-based approach in tackling the complexities and long-term implications of pediatric diagnoses. “When I was applying to fellowship programs, I knew that my end goal was to be more an academic clinician, someone who spends a significant amount of time doing research and trying to push the field forward,” she says.

With its mix of clinical and research training and access to a resource-rich biomedical community that is second to none, Spaulding’s Pediatric Rehabilitation Medicine Fellowship was the best of all worlds for Dr. Wu to do just that. Not only did it begin to expose her to some of the most interesting and challenging cases in pediatric medicine, but she was also able to explore her passion for how we might better understand and improve our care of children recovering from major illness or injury. The sheer breadth of expertise at her disposal, from across the Mass General Brigham system, Harvard Medical School, and Children’s Hospital, was invaluable. “Spaulding made a very specific schedule for me during training to allow me to start to build those scientific partnerships in Boston,” says Dr. Wu. “And that was a big part of my decision to stay because I had begun to grow those roots and felt like this was a place where I could build the beginnings of the career I want to have.”

Now as Pediatric Rehabilitation’s first hire to focus primarily on research, Dr. Wu is embarking on novel retrospective studies to look at outcomes in children and adolescents recovering from conditions like stroke and brain tumors. Building on her neurorehabilitation expertise, her goal is to get a baseline understanding of this population to ultimately uncover the best ways to personalize treatment and incorporate the latest technological advances into clinical care. She recognizes this type of work will take time and resources, but believes it will be an investment that pays off because much of this field remains uncharted territory. “What’s both really exciting and a little bit scary about doing research in pedi rehab is that it’s a relatively untapped mine of information,” says Dr. Wu. “Not a whole lot of rigorous scientific research has been done even in the pedi population at large, so I think there’s an opportunity for us to learn a lot about these kids. But in some ways it does feel like we’re Lewis and Clark trying to figure out where we’re going.”

As she continues her career journey, Dr. Wu still leans on her varied experiences and her love of collaboration to follow wherever the path might lead her. And she has never lost sight of the meaning behind her mission: the success of the patients under her care. Her most recent excursion had her circling back to her love for art, writing and illustrating—with the input of her colleagues—[a new age-appropriate book](#) to help children with spinal cord injury learn about and manage their condition. Filling a much-needed gap on the market, she hopes to develop a series of books for other conditions and for the unique situations that these children face like returning to school after a long inpatient stay. Be it through research, care, or education, the goal is always empowerment on the road to recovery. “Regardless of how potentially tragic their stories sound to the outside world, I’ve yet to meet a kid who didn’t really want to work super hard in order to get better,” says Dr. Wu. “In general, there’s just something inside of most children that drives them to want to improve and get back to school and out on the playground, having fun with their friends. So that’s always really rewarding to help kids get to that point.”