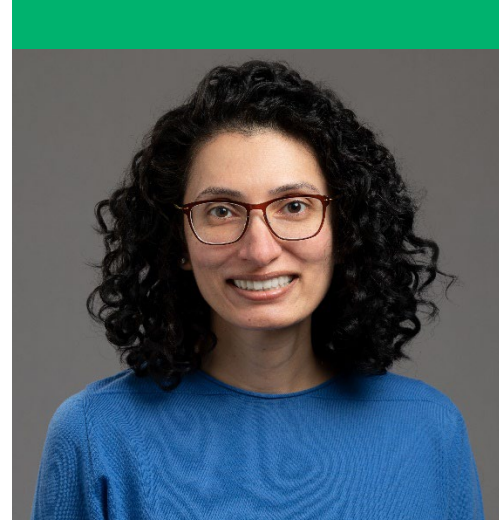


Neepa Patel, MD

The Richard G. Cole Faculty Scholar

Advancement of Medicine

In 2023, we continued our work seeking neurosurgical advancements in the treatment of movement disorders, specifically deep brain stimulation, or DBS, and MRI-guided focused ultrasound, or MRgFUS. Our center is focused on education and research in outcomes related to these two interventions, specifically with strategies to improve patient experience and reduce neurological complications associated with the surgery. Our primary focus of the past year has been to recruit and evaluate patients for the prospective study for awake-versus-asleep DBS surgery. Our work is well underway.



Research

Over the past year, we have seen significant developments in all areas. We have created a DBS support group for patients who have undergone surgery. We have created a patient network for patients who are interested in neurosurgical procedures, where a patient who is considering surgery is paired with a patient who has completed surgery to help provide direct support. We updated and published two patient education books related to deep brain stimulation and focused ultrasound. Both books are handed out for free to patients who are seeking consults for surgery and will soon be available through Amazon to reach a larger audience.

Clinical Advancements

We changed the workflow and decision-making processes within our clinical program to improve surgery outcomes and improve patient selection for procedure. Our new fast-track Focused Ultrasound Program, which ensures patients traveling from afar can schedule all their evaluations on the same day, has been well received. Also, we launched a monthly patient-centered lecture series for those considering surgical interventions for movement disorders.



Publication Highlights

- “Magnetic resonance-guided focused ultrasound without anesthesiologist support,” *Stereotactic and Functional Neurosurgery Journal*. (Accepted)
- “NKX2-1 related disorders,” *GeneReviews*®

Invited Seminars, Lectures, and Presentations

- “Deep brain stimulation in context: Selecting the right patient and the right time,” American Academy of Neurology Annual Meeting; Boston, MA.
- “Interventional therapies for movement disorders,” Rush Movement Disorders CME Course. Section chair and speaker.
- “Treatment induced psychogenic movement disorders,” “Retrospective comparison of functional and quality of life outcomes in DBS patients implanted via awake or asleep surgery: The RUMC experience,” “Dual globus pallidus interus and subthalamic nucleus deep brain stimulation for medically refractory craniocervical dystonia: A case report.” Posters presented at: Movement Disorders Society Congress; August 2023; Copenhagen, Denmark.
- “Randomized trial of telegentic counseling for gene testing in Huntington’s disease,” “Real-world outcomes in USA using DBS systems with directionality and multiple independent current control.” Posters presented at: American Academy of Neurology; April 2023; Boston, MA

The Year Ahead: 2024 and Beyond

I will prioritize community outreach and education. I am mentoring a community pilates studio to develop a Parkinson’s disease-specific program to address balance impairment as well as apathy and depression. We have submitted a grant application. I am focusing on improving education in the community related to surgical therapies for tremors and Parkinson’s disease.

With Gratitude

Thank you for your generosity, which has helped my group improve quality of life for patients with movement disorders such as Parkinson’s disease, essential tremors and dystonia by innovating and



advancing the role of surgical therapies. Your support helps to facilitate the national and international presence of our group in the neurology community and within the field of movement disorders.