CLINICAL NEUROSCIENCE SCHOLAR ACADEMY

Clinical Neuroscience Scholar Academy is a one-week program designed to introduce motivated college students to the breadth, depth, and human impact of modern neurosciences. Through structured shadowing, interactions with residents and advanced practice providers, and small-group teaching, participants gain firsthand exposure to the clinical, surgical, diagnostic, and scientific foundations that shape contemporary care for patients with neurological disease.

Purpose

The program aims to:

- Inspire early interest in neurology, neurosurgery, neuroradiology, neuropathology, and anesthesia
- Provide authentic clinical exposure across multiple subspecialties
- Introduce students to the multidisciplinary ecosystem that supports patient care
- Cultivate curiosity, professionalism, and foundational clinical reasoning skills
- Offer mentorship and career guidance from physicians, residents, and scientists

Program Components

1. Neurosurgery in the Operating Room

Students observe live neurosurgical procedures, gaining insight into:

- Surgical anatomy and operative decision-making
- Microsurgical and minimally invasive techniques
- Team dynamics in the OR, including anesthesia, nursing, and intraoperative imaging
- The precision and planning required for complex cranial and spinal operations
- Interactions with anesthesia to understand principles of airway management and peri-operative physiology

2. Neurosurgery Outpatient Clinic

Participants shadow neurosurgeons in clinic to understand:

- How surgical candidacy is evaluated
- Pre-operative counseling and shared decision-making
- Post-operative follow-up and long-term patient care
- The human side of neurosurgical practice

3. Neurology Clinic

Students rotate through general and subspecialty neurology clinics, observing:

- Neurological examination techniques
- Diagnostic reasoning in disorders such as epilepsy, movement disorders, stroke, and neuro-oncology
- Longitudinal management of chronic neurological disease

4. Neuroradiology

Through guided sessions with neuroradiologists, students learn:

- Fundamentals of CT, MRI, and advanced neuroimaging
- How imaging informs diagnosis, surgical planning, and treatment monitoring
- Case-based interpretation of common and rare neurological conditions

5. Neuropathology

In the pathology suite, participants explore:

- Gross and microscopic examination of brain and spinal specimens
- Tumor classification, inflammatory and degenerative processes
- How tissue diagnosis integrates with imaging and clinical findings

6. Clinical neuroscience research

- molecular profiling, advanced imaging, and intraoperative sampling drive personalized treatment strategies for brain tumors.
- Neurotechnology & Therapeutic Innovation: How robotics and device-based therapies (focused ultrasound and laser interstitial therapy) are developed and brought into clinical practice.

Educational Enhancements

- Debriefs with faculty and residents
- Career panels and Q&A sessions
- Small group discussion and reflections on experience

Outcome

By the end of the week, students leave with:

- A multidimensional understanding of clinical neurosciences
- Exposure to real patient care across the full diagnostic and treatment pathway
- Mentorship connections with clinicians and trainees
- Greater clarity about potential careers in neurology, neurosurgery, radiology, or neuroscience research

Time: July 20-24, 2026

Schedule:

Day	**Morning**	**Noon**	**Afternoon**
Monday **July 20, 2026**	Neurosurgery Didactic	Lunch with Resident Panel	Neurosurgery Clinic (General)
Tuesday **July 21, 2026**	Neurosurgery OR		

Wednesday July 22, 2026	Neurosurgery Clinic (Spine)	Neuroradiology Conference	Neurology clinic
Thursday July 23, 2026	Neurosurgery Clinic (Oncology)	Lunch Seminar: Career in Medicine	Neuropathology conference
Friday July 24, 2026	Anesthesia	Brain Tumor Conference	Career discussion and Debrief

FACULTY

Neurosurgery Didactic: Department of Neurosurgery (grand rounds, spine conference, vascular conference, and oncology conference)
General Neurosurgery Clinic: Prak Sampath, MD
Neurosurgery Operative Experience: Clark Chen, MD PhD
Spine Neurosurgery Clinic: Adetokunbo Oyelese, MD
Neuroradiology: Glenn Tung, MD
Career in Medicine: Clark Chen, MD PhD
Neuropathology: Michael Pusnoni, MD
Anesthesia: Alexander Cohen MD
Career discussion and debrief: Clark Chen, MD PhD

Additional information is available under the College Students section, at https://neurosurgery.med.brown.edu/education

Students interested in the **Clinical Neuroscience Scholar Academy** are invited to submit a brief application that helps us understand their interests, background, and motivation for participating. The application includes three components:

- **One-Paragraph Personal Statement** A concise paragraph (150–200 words) describing your interest in clinical neurosciences, what you hope to gain from the program, and how this experience aligns with your academic or career goals.
- **Curriculum Vitae (CV)** A current CV outlining academic history, relevant coursework, extracurricular involvement, research experience (if any), volunteer activities, and other experiences that reflect your curiosity and commitment to learning.
- **Two Letters of Reference** Two letters from professors, mentors, supervisors, or advisors who can comment on your character, work ethic, and potential to benefit from an immersive clinical experience. Letters may be submitted directly by the referees.

Submission and Deadline

All application materials should be submitted electronically as a single PDF packet (with letters sent separately if needed). **Applications are due by:** Friday, May 29, 2026.

Please submit your application to Elisabeth Pellegrino, the program administrator, at: Elisabeth.Pellegrino@brownhealth.org. Applicants will be notified of decisions approximately 3 weeks after the deadline.