

Neuroscience Medical Student Scholars Program University of Cincinnati College of Medicine

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Neuroscience MSSP Goal:

The Neuroscience Medical Student Scholars Program (MSSP) is a four-year enrichment track designed to prepare future clinician-scientists and academic leaders in the neurosciences through immersive research, clinical exposure and clinical development beginning in the first year of medical school.

The program is designed to:

- Deepen students' understanding of neurological disease through hands-on clinical and scholarly experiences
- Foster meaningful, long-term mentorship relationships
- Support research productivity and academic presentation opportunities
- Develop leadership skills and promote service within the broader neuroscience community

Background:

Breakthroughs in molecular biology and neuroscience are rapidly transforming our understanding of brain function, neurological disease, and recovery from injury. These advances are also reshaping the practice of neurology, neurosurgery, and rehabilitation.

In response to these exciting changes, the Neuroscience Medical Student Scholars Program (MSSP) was created as a four-year longitudinal enrichment experience for students with a strong interest in the clinical neurosciences. MSSP offers structured research, clinical immersion, mentorship, leadership training, and didactic learning throughout the medical school curriculum.

The MSSP encompasses four distinct clinical neuroscience specialties:

- Adult Neurology
- Child Neurology
- Neurosurgery
- Physical Medicine & Rehabilitation (PM&R)

Each applicant must select one specialty upon applying. This specialty determines the student's assigned mentors, summer research focus, and M4 elective. Students may not change specialties after acceptance.

Mentoring:

Mentorship is a cornerstone of the Neuroscience Medical Student Scholars Program (MSSP), offering students structured guidance, meaningful professional relationships, and continuity across all four years of medical school.

Upon entry into the program, each student is matched with a faculty mentor—a clinical or basic neuroscientist aligned with their selected specialty—who will serve as both academic advisor and research supervisor. Faculty mentors are carefully selected for their experience in education and their strong record of student mentorship. Importantly, each faculty mentor leads an established research project, and students are matched to these projects through a structured interview and ranking process. Once matched, the student joins the faculty member's existing project team and contributes directly to ongoing scholarly work.

This model ensures that every student engages in a high-quality, funded, and focused research experience with a clear scope and timeline. Students benefit from immediate integration into active research environments, allowing them to learn research methodology, clinical relevance, and academic communication while contributing to meaningful outcomes. The project match is final, as funding is specific to the assigned mentor and research initiative.

Students also receive support from a resident mentor who provides informal guidance on clinical shadowing, specialty exposure, and career questions. In addition, each M1 student is paired with a second-year peer mentor who helps them plan their summer research experience and navigate early program expectations.

Mentorship evolves throughout the program. In M2, students may continue working with their faculty and resident mentors, particularly if their research project extends into the academic year. They also become mentees to M3 students who help orient them to clerkships. Simultaneously, M2 students begin mentoring incoming M1s by introducing them to MSSP and guiding them in research preparation. In M3, students continue serving as mentors, now supporting M2 students through the clinical transition and academic planning. Faculty and resident mentorship may also continue as needed for scholarly or career development.

Advising:

Each student meets annually with Dr. Starla Wise, the MSSP Director, for advising and program review. These meetings are mandatory during the M1, M2, and M3 years and optional during M4, depending on the student's career goals.

Community Engagement and Monthly Events

The Neuroscience MSSP fosters a sense of community and professional identity through optional monthly events throughout medical school. These sessions are designed to support informal learning, peer connection, and mentorship outside the traditional curriculum.

Typical offerings include:

- Leadership development workshops (counted toward leadership hours)
- Q&A panels with M4 neuroscience students
- Neuroscience-themed movie nights or game nights
- Networking mixers and social gatherings

Attendance is not mandatory but highly encouraged. These events help students build relationships across all four years of the program and strengthen their connection to the neuroscience community at UC.

Program Administration and Coordination:

Dr. Starla Wise serves as the Neurosciences MSSP Program Director.

Enrollment:

10-15 students are accepted per year. Candidates will be selected for the program based on their interest in the neurosciences, prior exposures to the neurosciences, personal statement and interview.

Graduation

Students who complete the program will be recognized at graduation in Spring 2029. All MSSP activities must be completed, documented in MedOneStop, and verified by MSSP leadership.

Graduation Requirements

To graduate from the Neuroscience MSSP, students must complete and log a minimum of 235 total hours of activity across the four years of medical school. These hours can be completed at any time but must be properly documented in MedOneStop and verified by MSSP leadership.

Breakdown of Required Hours:

- Clinical Experience – 10 hours minimum
- Didactic Activities – 15 hours minimum
- Scholarship / Research – 200 hours minimum
- Mentorship, Leadership, and Service – 10 hours minimum (not required to be neuroscience-related)

In addition to the above:

- Students must complete an AI or ICE in neurology or a neuroscience-related field during the M4 year.

Continuous engagement with the MSSP is expected until all program requirements are met and verified.

Activity Categories and Examples

Clinical Experience:

- Shadowing in neuroscience clinics or hospital settings (10 hours minimum)
- Completion of a 4-week M4 clinical elective, AI, or ICE in neuroscience or a related specialty

Didactic Activities (15 hours minimum):

- UC Neuroscience Grand Rounds (CPC sessions highly recommended)
- Resident noon conferences or seminars
- Journal Clubs
- Tumor Board
- Subspecialty Meetings/Journal Clubs

- Brain Cutting sessions
- SIGN or other interest group events
- Regional/national neuroscience conferences
- MSSP group meetings with Dr. John Quinlin
- Neuroscience Field Trips (at least 3 recommended in M1–M2)
 - Neurocritical Care Unit tour
 - Gait Lab introduction
 - EMU tour
 - EMG introduction
 - Angiography Suite tour

Scholarship (200 hours minimum):

- Summer research project
- Research 101 course
- Presentation at Fall Research Symposium or academic meeting

Mentorship, Leadership, and Service – Does not need to be related to Neuroscience (10 hours minimum):

- Mentoring M1/M2 students (beginning M2)
- Leadership roles, committee service
- Leadership development lecture attendance
- Volunteering in or outside of neuroscience/medicine

Evaluation and Feedback

To ensure a high-quality experience, MSSP participation is monitored through both structured documentation and formal review. Students are required to log all MSSP-related activities in MedOneStop throughout all four years, including:

- Didactic sessions attended
- Clinical exposures
- Research hours
- Leadership, service, and mentorship activities

The Office of Medical Education conducts periodic evaluations to assess the program's educational value. Additionally, feedback is gathered annually from students, faculty mentors, and resident mentors. This input is reviewed by MSSP leadership to inform ongoing curriculum improvements and program enhancements.

Required Activities and Experiences (Sample Year-by-Year Timeline)

M1 Year:

- Complete ~200 hours of summer research
- Attend the Research 101 course
- Attend at least 5 Grand Rounds, didactic sessions, or field trips
- Log 5 hours of clinical shadowing
- Attend at least 2 leadership sessions
- Ensure all hours are documented in MedOneStop before August 2026
- Attend required check-in meeting with Dr. Wise

M2 Year:

- Attend at least 5 Grand Rounds, didactic sessions, or field trips
- Log at least 5 additional clinical shadowing hours
- Present summer research at the Fall Research Symposium
- Begin mentoring an M1 MSSP student
- Ensure all hours are documented in MedOneStop before August 2027
- Attend required check-in meeting with Dr. Wise

M3 Year:

- Attend at least 5 Grand Rounds or didactic sessions during the Neuroscience Clerkship
- Complete the Neuroscience Clerkship
- Continue mentoring M2 MSSP students
- Ensure all hours are documented in MedOneStop before August 2028
- Attend required check-in meeting with Dr. Wise

M4 Year:

- Complete a 4-week neuroscience elective (AI or ICE)
- Attend at least 2 Grand Rounds or didactic sessions
- Submit final MedOneStop documentation by **February 1, 2029**

Application Process

Applications must be submitted through MedOneStop under the “Extracurricular” tab labeled “Medical Student Scholars Program (MSSP)”.

A complete application includes:

1. Current CV
2. Personal Statement (400 words or fewer)
 - *Prompt:* Participating in the MSSP is above and beyond your normal coursework. **Describe how you will meet this challenge and what strategies you will use to ensure your success.**
3. Specialty Selection (choose one):
 - Adult Neurology
 - Child Neurology
 - Neurosurgery
 - PM&R

Note: This selection determines your mentor and research focus. Changes are not permitted after admission to the program.

To apply, visit: www.medonestop.uc.edu. Once logged in, the application can be found under the **Extracurricular** tab named Medical Student Scholars Program (MSSP)

Research Project Selection

Each MSSP applicant will participate in 1–3 interviews with prospective research mentors and project teams. This structured matching process is designed to align student interests and skills with active research opportunities, while also considering mentor availability and project needs.

After interviews, both students and mentors will submit ranked preferences. A match process will determine final project assignments and program admission.

Once matched, students are notified of their faculty mentor and project and have three calendar to formally accept or decline. Acceptance finalizes both MSSP participation and project commitment.

Please note: Each faculty mentor's funding is tied to their specific research project. For this reason, students may not switch mentors or projects after accepting their match.

Most summer stipends average around **\$2,000**. Funding varies by specialty:

- **Adult Neurology:** ~\$2,000
- **Child Neurology:** ~\$4,000
- **PM&R:** ~\$2,000
- **Neurosurgery:** Variable (inquire during interviews)

Students should approach interviews professionally, clearly communicating their goals, availability, and interest in neuroscience scholarship.