

# Neurosurgery

## Chair

- Matthew A. Howard

**Faculty:** <https://medicine.uiowa.edu/neurosurgery/profile/>

**Website:** <https://medicine.uiowa.edu/neurosurgery/>

The Department of Neurosurgery provides an experience oriented toward patient care and basic research concerning diseases and the physiology of the nervous system. Students develop awareness of neurosurgery's role in treating head and spine trauma, vascular disorders, brain and spinal cord tumors, pain and peripheral nerve abnormalities, degenerative spine pathology, and surgical treatment of epilepsy and movement disorders.

Clinical courses are designed around patient-centered discussions interwoven with operating room experiences. Lectures and conferences are scheduled on specific topics.

## Faculty

Neurosurgery faculty strengths are centered in the physiology of spinal cord trauma, epilepsy, auditory brain function and pain, primary brain tumor genetics, central nervous system tissue culture, spinal column biomechanics, and movement disorders. The department has expertise in clinical management across the spectrum of central nervous system diseases.

## MD Training

The department provides third- and fourth-year MD students with access to special expertise in selected topics of investigation regarding the central nervous system and to a clinical course through special arrangements with the faculty.

## Facilities

Multiple, fully equipped laboratory space is available to support scientific research of the central nervous system. Faculty and technical assistance is available in all laboratories.

## Courses

Neurosurgery courses are open only to MD and qualified associated health sciences students.

## Neurosurgery Courses

**NSG:8401 Subinternship in Neurosurgery** **4 s.h.**

Advanced clinical clerkship in neurological surgery; emphasis on diagnosis and operative management of surgical neurological disease.

**NSG:8497 Research in Neurological Surgery** **arr.**

Laboratory investigation of spinal cord injury, spinal column biomechanics and instrumentation, electrophysiology of pain, epilepsy and hearing, molecular genetics and physiology of brain tumors.

**NSG:8498 Neurosurgery On Campus** **arr.**

Clinical clerkship; individually arranged by student with departmental approval.

**NSG:8499 Neurosurgery Off Campus** **arr.**

Arranged by student with department approval.