



Department of Neurological Surgery Spine Neurosurgery Fellowship

Description, Curriculum and Application Process

Mission

The mission of the OHSU Spine Neurosurgery fellowship is to comprehensively train compassionate neurosurgeons to provide the highest quality spinal surgery care and to advance discovery and the science of practice in all aspects of the spine.

Vision

The vision of the OHSU Spine Neurosurgery fellowship program is to provide comprehensive and rigorous training in all aspects of Spine Surgery, including teaching and research methodologies, such that fellows graduate fully prepared for an independent academic spine career, equipped with the skills to provide high-quality care to patients and advance the field through innovation.

Accreditation

The OHSU Spine Neurosurgery fellowship is accredited by the Society of Neurological Surgeons' Committee on Advanced Subspecialty Training (CAST). The fellowship is accredited for and trains one fellow per year at the fellowship site of Oregon Health & Sciences University.

Evaluation

The fellow is evaluated through a variety of methods:

- The fellow is exposed to a variety of cases during the one-year fellowship and operates with neurological surgery and orthopedic spine faculty regularly. In addition to surgical skills, the fellow participates in the faculty outpatient clinics. Frequent meetings (weekly or more) are part of the educational process with disease and case discussions.
- As the fellow progresses throughout the fellowship, autonomy is increased although the attending faculty are always available via phone or pager.
- The fellow is supported by grants and departmental funds and the fellow has the opportunity to go to at least one main specialty conference as appropriate. There is administrative and clinical support, as needed, for the fellows.
- There is opportunity for biannual evaluation of interactions with other providers and staff.

Supervision

Fellows are supervised on a graduated scale through the fellowship, with direct supervision provided at the beginning of the training. More indirect supervision is provided as the trainee progresses through

the fellowship and demonstrates mastery of skills. Fellows will primarily be supervised by four faculty, Josiah Orina, W.H. Andrew Ryu, James Wright, and Christina Wright, but will work regularly with other spine faculty in the department and with the Orthopedics spine faculty. There are also 9 APPs who work closely with the fellows. Supervision is either direct or immediately available, depending on the experience of the fellow.

The faculty provide back up for each other as needed.

Communication between the faculty and the fellow is regular, through direct face-to-face discussion, phone, email, or text. Fellows work closely with the Neurosurgery Chief residents as well, for surgery scheduling, clinical assignments, and teaching opportunities.

Independence of the fellow is based on the experiences and skills of the fellow during the year.

Types of Surgical Cases

The OHSU Spine Neurosurgery fellowship is accredited by the Society of Neurological Surgeons' Committee on Advanced Subspecialty Training (CAST) and meets all CAST requirements for cases. This includes at least 150 cases across the categories listed below:

- **CVJ**
 - Anterior odontoid screw fixation
 - Occipitocervical fusion
 - C1-2 posterior fusion
- **Subaxial Cervical**
 - ACDF
 - Corpectomy & Fusion
 - Cervical arthroplasty
 - MIS and open posterior discectomy/foraminotomy
 - Posterolateral fusion
 - Laminoplasty
- **Thoracic Spine**
 - Anterior transthoracic discectomy
 - Laminectomy
 - Transpedicular decompression
 - Costotransversectomy
- **Lumbosacral**
 - Lumbar arthroplasty
 - MIS and open posterior decompression
 - ALIF, OLIF, LLIF, TLIF

Spine Neurosurgery Fellowship

- Posterolateral fusion
- SI joint fusion
- **Spinal Trauma**
 - Closed reduction of dislocation
 - Open reduction of dislocation
 - Percutaneous instrumentation for fracture stabilization
- **Spinal Oncology**
 - Corpectomy for tumor
 - En-bloc tumor resection
 - Resection extradural tumor
 - Resection intradural intramedullary tumor
 - Resection of intradural extramedullary tumor
 - Combined extradural-intradural lesion
- **Deformity**
 - Cervical deformity correction
 - Thoracolumbar deformity correction
 - Three-column osteotomies
 - High grade spondylolisthesis correction

Institutional numbers from current and previous years have met or exceeded all CAST accreditation requirements.

Didactics and Research:

Faculty from Neurosurgery and Orthopedics Spine are involved in this fellowship training. Fellows are involved in the day-to-day operations of the Spine Neurosurgery service and have ample opportunity for clinical research, manuscript and chapter preparation.

Fellows function as valued members of the Spine Neurosurgery team, participating in both the outpatient clinics and in the operating room. They are expected to attend and participate in daily teaching and educational conferences in the Department of Neurological Surgery during their tenure here, including Neurological Surgery Grand Rounds, Morbidity and Mortality Conference, Spine Indications Conference, Spine Oncology Board, and Thursday Resident Spine Teaching Conferences. This exposure will provide a breadth of experience in spine neurosurgery while allowing fellows to develop as educators.

Extensive clinical, investigational, registry, and large database research opportunities are available within the spine program. Fellows are expected to submit at least one abstract to a national spine meeting and to produce at least one peer-reviewed publication from research conducted during the fellowship year.

Training Goals and Objectives

The Neurosurgical Spine Division team is comprised of 8 board-certified/board-eligible spine surgeons, 9 advanced practice providers, and a chief and senior resident. As OHSU is the only academic health center in Oregon, the corresponding high clinical volume, case diversity, and surgeon sub-specialty expertise within the Spine Division creates an ideal training environment, preparing fellows for an independent academic career in spine surgery. The clinical service is extremely busy and productive across two sites: University Hospital with its associated outpatient surgery center and OHSU Hillsboro Medical Center, a community hospital with a spine focus. Nearly 800 spine surgeries for tumors, adolescent and adult spinal deformity, trauma, and degenerative conditions are performed each year, providing the fellow with a substantial range of teaching and learning opportunities across diverse clinical settings. Fellows will work with each spine neurosurgeon and will have the opportunity to rotate with the OHSU Orthopedic Spine surgeons as well, providing a well-rounded experience.

Fellows will become proficient in the following conditions and techniques:

1. Degenerative spinal conditions
2. Adolescent and adult spinal deformity
3. Spine oncology
4. Spine trauma
5. Minimally invasive and motion-preserving techniques
6. Anterior, posterior, lateral, and combined approaches to the spine

Recommended Reading

Rothman-Simeon: The Spine, 7th Edition

Spine Surgery: Tricks of the Trade, 3rd Edition

Program Contact

INSTITUTION:	Oregon Health & Science University
FELLOWSHIP TITLE:	Spine Neurosurgery
DIRECTOR:	Josiah Orina, MD
FACULTY	Josiah Orina, MD W.H. Andrew Ryu, MD James Wright, MD Christina Wright, MD Donald Ross, MD David Mazur-Hart, MD

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Program Information

DATE PROGRAM BEGAN:	2024
NUMBER OF GRADUATES:	0
ACCREDITATION:	CAST, 2024 - present
FELLOWSHIP DURATION:	One year, mid-July to mid-July
PREREQUISITE TRAINING:	Successful completion of ACGME-accredited (or equivalent) Residency Program in Neurological Surgery

Application Process

SUBMIT THE FOLLOWING TO THE PROGRAM DIRECTOR AND COORDINATOR:

1. Current CV
2. One (1) Letter of Recommendation from the candidate's Residency Program Director
3. Two (2) Letters of Recommendation from attending faculty
4. **Upon review, the program will contact the candidate to schedule an interview