

Adult & Pediatric Comprehensive Spine Fellowship



Department of Orthopedic Surgery
Department of Neurological Surgery
Columbia University Irving Medical Center

Department of Neurological Surgery
Weill Cornell Medicine

Recruitment Interviews 2023

Welcome to Och Spine

The Departments of Orthopedic Surgery and Neurological Surgery at Columbia University College of Physicians and Surgeons, and the Department of Neurological Surgery at Weill Cornell Medical College, have earned reputations among the leading academic departments in the nation. Our rich tradition in both surgical disciplines dates back to 1866 and 1909, respectively, when the New York Orthopaedic Dispensary and Neurological Institute of New York were founded. Created through the partnership of world-renowned spine specialists from two leading medical schools, NewYork-Presbyterian Och Spine is a preeminent center for quality patient care, research, and education.

The training of residents and fellows is one of our most important missions—and we are very proud that many of today's leading spine surgeons throughout the United States and abroad have trained here at NYP Och Spine. The excellence of our training programs reflects the dedication of our faculty members, who combine their commitment to educating future leaders in the field of orthopedic and neurological surgery and their recognized expertise as clinicians and scientists. Residents receive an enormous advantage by being trained in one of the nation's leading academic medical centers—Columbia University Irving Medical Center (CUIMC), which is routinely ranked as a top five hospital in the nation by U.S. News & World Report and continues to be recognized as one of the best hospitals in New York City.

Our one-year spine fellowship program, which participates with the North American Spine Society and in the San Francisco Matching Program, has a total of four fellows—who spend a majority of their time within the NYP Och Spine Hospital at CUIMC with one fellow rotating quarterly to NYP/Weill Cornell Medical Center.

The fellowship is designed to provide surgeons with a comprehensive training in the treatment of all spinal diseases and conditions of the cervical, thoracic and lumbar spine: both degenerative and deformity; trauma and tumor; pediatric and adult. Those completing the fellowship will be adept at performing every type of surgical case from complex scoliosis and kyphosis corrections with three-column osteotomies, to cervical, lumbar degenerative and minimally invasive surgery (MIS).

We invite you to learn more about our outstanding fellowship program and we encourage you to ask questions and discuss the program with our current fellows.

We look forward to meeting and interviewing you today!



Ronald A. Lehman, Jr., MD

Director, Adult & Pediatric Comprehensive Spine Fellowship
Professor of Orthopedic Surgery
Chief of Spine Surgery
Chief Reconstructive, Robotic, & Minimally Invasive Surgery
Director, ~~Clinical~~ Spine Research



Lawrence G. Lenke, MD

Professor of Orthopedic Surgery
Chief, Division of Spinal Surgery
Director, Spinal Deformity Surgery
Co-Director, Adult & Pediatric Comprehensive Spinal Surgery Fellowship
Surgeon-in-Chief, NewYork-Presbyterian Och Spine Hospital



K. Daniel Riew, MD

Professor of Orthopedic Surgery
Co-Director, Adult & Pediatric Comprehensive Spine Fellowship
Weill Cornell Medicine



William N. Levine, MD, FAOA

Frank E. Stinchfield Professor & Chair, Department of Orthopedic Surgery
Chief, Shoulder Service
Co-Director, Center for Shoulder, Elbow, & Sports Medicine
Head Team Physician, Columbia University Athletics
Editor-in-Chief, Journal of the American Academy of Orthopedic Surgeons (JAAOS)
Past-President, American Shoulder & Elbow Surgeons



Paul C. McCormick, MD, MPH, FAANS

Herbert & Linda Gallen Professor of Neurological Surgery
Director, The Spine Hospital at The Neurological Institute of New York

Fellowship Program Overview



What sets us apart from other programs is our commitment to treating each patient as a person. We take a personalized approach to problem solving, diagnosing and treating each patient's spinal issue. While our volume is high, our patients feel like they are the only one. Columbia Orthopedics and Neurosurgery at the Daniel & Jane Och Spine Hospital at NewYork-Presbyterian/Allen—now joined by colleagues at Weill Cornell Neurological Surgery—are proud to have such a dedicated team.

Our program is unique in that fellows train with spine surgeons from both the departments of orthopedic and neurological surgery. The overall case-load profile is 40% deformity, 55% degenerative (cervical and lumbar), and 5% tumor/fracture. Cervical cases make up 40% of patients, while 60% are thoracic/lumbar in nature, with a minimally invasive (MIS) exposure for many pathologies as well. Age distribution equates to 90% adult and 10% pediatric.

The attendings are covered by four fellows, one chief/senior resident and multiple physician assistants (PAs) and nurse practitioners (NPs). Spine PAs provide 24/7 care coverage on the patient floors.

Fellows' Responsibilities

The fellows are responsible for covering the cases being performed in the operating room and seeing patients in the office with the attendings. The department includes seven renowned research centers and clinical and basic science research projects are numerous with the ability to participate in prospective outcomes studies, biomechanics and basic science projects. The fellows are encouraged to participate and obliged to complete at least two projects/papers. The educational process for the fellows includes a core curriculum of lectures, teaching case conferences and journal clubs. Formal teaching conferences for the fellows are held weekly on a variety of didactic topics, case presentations and interactive discussions and complex deformity conference.

Goals and Objectives Overview

The goals and objectives of the fellowship are to educate fellows through one-year of training in the art and science of spine surgery. The primary objective is to teach fellows to become skilled, competent, caring, and technically proficient physicians and surgeons. These goals are attained through a carefully created educational program, becoming proficient in the physical examination and diagnosis of patients, and progressively increasing responsibility and autonomy in the non-operative and operative management of patients.

Fellowship Goals and Objectives

- Gain proficiency in the diagnosis, evaluation and treatment of adult and pediatric patients with various spinal disorders with emphasis on maximal restoration of function and preservation of further disability.
- Gain confidence and competency in performing spine & neurologic history and physical examination and formulating and executing a treatment plan for patients in outpatient, inpatient and consultation settings.
- Develop a proficiency of technical skills in the operating room in the surgical management of spinal disorders and demonstrate increasing autonomy from one year to the next. At the conclusion of the fellowship, the fellow will be expected to be able to practice spinal surgery competently and independently.
- Develop leadership skills needed to lead a multidisciplinary team of allied health care workers including health care extenders, physical therapists, occupational therapists, social workers, nurse practitioners and nutritionists, and to understand their role and contribution to patient care.
- Become proficient in writing prescriptions for therapeutic exercises, modalities, prostheses, orthoses, and durable medical equipment.
- Develop interpersonal skills needed to effectively engage patients and family members to enhance communication and education.
- Develop competency in management of the spinal inpatients including administration, quality improvement and leadership through the use of effective verbal and written communication skills.
- Gain experience and proficiency in direct supervision and teaching of fellow residents and medical students.
- Master the skills needed to independently research scholarly sources for the purposes of presenting the topic to be of educational value to other medical staff and to enhance patient care.
- Develop a sense of personal responsibility to patients and a commitment to providing excellent clinical care with proper and ethical professional behavior.
- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health as it is related to the field of spinal surgery.
- Acquire medical knowledge about established and evolving biomedical, clinical, cognitive sciences and demonstrate the competent application of this knowledge to patient care.
- Demonstrate practice-based learning and improvement that involves investigation and evaluation of patient care, appraisal and assimilation of scientific evidence and improvements in patient care.
- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.
- Demonstrate professionalism as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
- Demonstrate system-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and ability to effectively call on system resources to provide care that is of optimal value.

Spinal Surgery at Columbia, Cornell, and NYP

In 1911, Columbia professor and orthopedic surgeon Russell A. Hibbs performed the first spinal fusion surgery for paralytic scoliosis. Since then, the spine experts at Columbia Orthopedics and Neurosurgery have continued to develop and apply innovative therapies backed by the latest clinical and basic science research to treat and heal disorders of the cervical, thoracic, and lumbar spine. The expansion of the NYP Och Spine program to include world-renowned colleagues in neurological spine surgery from Weill Cornell Medical College brings an even greater depth of knowledge and experience to the fellowship training experience.

Our world class physicians specialize in surgical and non-surgical treatment of spinal deformities, acute injuries, and degenerative conditions of the spine. Using the most sophisticated diagnostic tools, in-depth clinical experience backed by the latest research, and advanced surgical techniques, our specialists create personalized treatment plans for patients suffering from all manner of spine conditions—from the routine, to complex spinal reconstruction.

NewYork-Presbyterian Och Spine Hospital

The Columbia spine team is based in a new, state-of-the-art facility—the NewYork-Presbyterian Och Spine Hospital. This facility, located within NewYork-Presbyterian Allen Hospital, is one of the most advanced centers for spine care in the world, featuring dedicated operating rooms purpose-built for spinal surgery, the latest intra-operative navigation technologies, robotically assisted surgery, state-of-the-art diagnostic testing equipment, and an in-patient nursing unit specifically designed for the care and treatment of spine patients. The dedicated clinical teams at the NYP Och Spine Hospital have a singular focus on providing the best spine care in the world for our patients.



Faculty Orthopedic Spine



Lawrence G. Lenke, MD

*Professor of Orthopedic Surgery, Columbia University Irving Medical Center
Chief, Division of Spinal Surgery; Director, Spinal Deformity Surgery
Co-Director, Adult and Pediatric Comprehensive Spine Fellowship
Surgeon-in-Chief, NewYork-Presbyterian Och Spine Hospital*



Marc D. Dyrszka, MD

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Ronald A. Lehman, Jr., MD

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Joseph M. Lombardi, MD

*Assistant Professor of Orthopedic Surgery, Columbia University Irving Medical Center
Assistant Attending Physician, NewYork-Presbyterian Hospital*

Faculty Orthopedic Spine



K. Daniel Riew, MD

Professor of Orthopedic Surgery

Director, Cervical Spine Surgery

Co-Director, Adult & Pediatric Comprehensive Spine Fellowship

Weill Cornell Medicine



Zeeshan M. Sardar, MD

Assistant Professor of Orthopedic Surgery, Columbia University Medical Center

Assistant Attending Physician, NewYork-Presbyterian Hospital



Mark Weidenbaum, MD

Professor of Orthopedic Surgery, Columbia University Medical Center

Vice Chair for Clinical Affairs, Department of Orthopedic Surgery

Chief of Quality & Safety, NewYork-Presbyterian Och Spine Hospital

Faculty Neurological Spine

**Paul C. McCormick, MD, MPH, FAANS**

*Herbert & Linda Gallen Professor of Neurological Surgery,
Columbia University Medical Center*

Director, The Spine Hospital at the Neurological Institute of New York

**Dean Chou, MD**

Professor of Neurological Surgery, Columbia University Medical Center

Chief of the Spine Division

Vice Chair of Neurosurgery

**Peter D. Angevine, MD, MPH**

Associate Professor of Neurological Surgery, Columbia University Medical Center

Associate Attending Physician, NewYork-Presbyterian Hospital

**Christopher E. Mandigo, MD, FAANS**

Assistant Professor of Neurological Surgery, Columbia University Medical Center

Assistant Attending Physician, NewYork-Presbyterian Hospital

**Andrew K Chan, MD**

Assistant Professor of Neurological Surgery, Columbia University Medical Center

Co-Director of Minimally Invasive Scoliosis Surgery

Director of Neurosurgical Spine Research

Graduate Staff Salaries 2022 – 2023

Graduate Staff Level 1	\$75,694
Graduate Staff Level 2	\$83,783
Graduate Staff Level 3	\$90,651
Graduate Staff Level 4	\$93,199
Graduate Staff Level 5	\$96,365
Graduate Staff Level 6	\$98,095
Graduate Staff Level 7	\$101,052

NewYork-Presbyterian
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Department of Neurological Surgery

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