NEUROSURGERY RESIDENCY PROGRAM
THE UNIVERSITY OF ILLINOIS AT CHICAGO

Department of Neurosurgery
912 South Wood Street
Chicago, IL 60612
312.996.4842
www.uic.edu/depts/mcns
Dear Applicant:

We welcome your interest in the Department of Neurosurgery at the University of Illinois at Chicago.

Selecting and being accepted at a residency program to match your desires and abilities is one of the most important milestones of your neurosurgical journey. In this brochure you will find information about the University of Illinois at Chicago and our Department, with its clinical, teaching and research facilities. Our educational mission aims at illuminating the path for knowledge and helping our trainees become active contributors to the science and practice of neurological surgery.

Our faculty, residents and staff are available to help you gain a thorough understanding of our program and allow you to determine how our environment will enable you to become a leading member of the neurosurgical community. We look forward to assisting you in your quest to join this exciting field.

Fady T. Charbel, MD
Professor and Head
The Neurosurgery Residency Program at the University of Illinois at Chicago is committed to providing the highest quality of clinical and academic training for future neurosurgeons. The Department of Neurosurgery has continued to grow steadily in case volume, faculty expertise and research. Our goal is to train motivated individuals for their future careers as academic and clinical neurosurgeons.

The neurosurgical residency at UIC is an RRC/ACGME accredited program, with seven postgraduate years of training. The program includes a 12 month surgical and fundamentals skills internship and 6 years of neurosurgery including a year of dedicated research time. The general structure of the program is outlined below:

**Internship (PGY1)**

The **PGY1** year consists of 3 - 6 months devoted to General Surgery rotations including exposure to general, vascular, oncologic, and trauma surgery as well as anesthesia and ENT rotations. Three months are spent on the Neurology Service and 3 - 6 months are dedicated to Neurosurgical Critical Care.

**Junior Residency (PGY2,3)**

The **PGY2** year consists of an additional 6 months with primary focus upon neurosurgical critical care, during which time the resident is also introduced to basic operative procedures. The remainder of the year (6 months) is devoted to neurosurgery rotations, including endovascular.

The **PGY3** year resident devotes the year to the general neurosurgery focusing upon spine surgery, peripheral nerve surgery, pain/functional procedures and basic cranial procedures including tumor. A 3 month pediatric neurosurgery rotation is incorporated into the year. Outpatient clinic experience in spine, tumor, pain/functional, and general neurosurgery clinics is interspersed throughout the junior years.
PROGRAM

Senior Residency (PGY4,6)

The PGY4 year resident gains increasing responsibility for operative procedures and access to a more complex case-mix, including complex spine and cranial surgery. The resident also takes on an active teaching role both in and out of the OR for the more junior residents.

The PGY6 year resident rotates at affiliated sites gaining more exposure to spine and cranial trauma and functional/radiosurgery procedures. The resident functions in an increasingly independent manner, serving as a prelude to the official Chief Resident year.

Research (PGY5)

The PGY5 year is dedicated to research. Each resident has the opportunity to pursue projects of interest in an area of clinical or basic research. The scientific resources of the Department of Neurosurgery, as well as the University of Illinois are available to the resident. In select circumstances, the opportunity to pursue training in a subspecialty field during this year will be supported.

Chief Residency (PGY7)

The Chief Resident year is spent running the neurosurgical service at UIC, gaining a full range of experience in cerebrovascular surgery, further exposure to microsurgery through complex cranial cases, and additional experience in complex spine surgery. The Chief resident performs a large and varied number of cases, while assuming a prominent teaching role for the residents and medical students on service.
CONFERENCE SCHEDULE

Monthly Grand Rounds
Monthly Morbidity and Mortality Conference
Monthly Skull Base Conference
Weekly Friday Academic Day Conference Schedule including:
  • Neuropathology Conference,
  • Neurosurgery General Topic Review – didactic and interactive sessions
  • Neuroanatomy laboratory/lecture series
  • Neuroradiology lecture series
Weekly Wednesday Alternating Schedule:
  • Journal Club
  • Neuroscience Research Breakfast Seminar,
  • Topics Conference
  • Resident Meeting
Weekly Neurovascular Conference
Daily Neuroradiology teaching rounds
Biannual hands-on operative technique and microsurgery workshops (cadaver and sawbone models)

Current Residents
Pelagia Kouloumeris, MD  (Chief)
John Shin, MD
Sebastian Herrera, MD
Michael Chan, MD
Troy Munson, MD
Obinna Emechebe-Kennedy, MD
P Hari Krishna, MD
Ziad Hage, MD

Residents and Fellows 2007-2008
The University established the Neuropsychiatric Institute, dedicated to the study of the neurosciences, in 1939. It was the first institute of its kind in the United States, and promoted many advances in the fields of Neurology, Neurosurgery, and Psychiatry. The Department of Neurosurgery has included such illustrious figures as Dr. Eric Oldberg (the first Department Head), Dr. Paul Bucy, and Dr. Percival Bailey.

The Neuropsychiatric Institute, completely renovated in 1995, today houses the Neurosurgery administrative offices and research laboratories, as well as the departments of Neurology & Rehabilitation and Psychiatry. The building also includes state-of-the-art microsurgical and neuropathology laboratories, closed-circuit television connections to the hospital operating rooms, a neuroscience library, and a well-equipped auditorium (converted from an original operating room amphitheater). The interventional neuroradiologists also have offices in the building, as well as a reading room for review of imaging studies.

The Neurosurgery Department, in addition to serving the local community, attracts specialty cases including EC-IC bypass, complex aneurysms, skull base tumors, intractable epilepsy, pain management, and skull base and spinal cord tumors. Many community neurosurgeons throughout the midwest refer their patients to us for specialized care. Our faculty includes recognized experts in cerebrovascular surgery, neuroendovascular, neuro-oncology, spinal neurosurgery, peripheral nerve surgery, pediatrics, and pain management and movement disorders. The Department also collaborates with other services in the medical center to provide multi-disciplinary care for our patients, including stereotactic radiosurgery (Radiation Oncology), craniofacial surgery (The Craniofacial Center), pituitary and skull base tumors (ENT), stroke and critical care (Neurology).
FACULTY

Fady T. Charbel, MD
Professor and Head

Victor Aletich, MS, MD
Professor
*Neuroendovascular*

Sepideh Amin-Hanjani, MD
Assistant Professor
*Cerebrovascular*

Qasim Bashir, MD
Assistant Professor
*Neuroendovascular*

Manali Barua, MD
Assistant Professor
*Spine*

Herbert Engelhard, MD, Ph.D.
Associate Professor
*Neuro-Oncology*
FACULTY

Rajeev Deveshwar, MD
Assistant Professor
Neuroendovascular

Yogesh Gandhi, MD
Clinical Assistant Professor
Spine

Yoon Hahn, MD
Professor
Pediatric Neurosurgery

Tamir Hersonskey, MD
Assistant Professor
Epilepsy

G. Michael Lemole, MD
Assistant Professor
Skull Base

Roger Lichtenbaum, MD
Assistant Professor
Neuroendovascular, Spine
FACULTY

Demetrios Nikas, MD
Assistant Professor
Pediatric Neurosurgery

Soma Sinha Roy, MD
Assistant Professor
Neuroendovascular

Konstantin Slavin, MD
Assistant Professor
Stereotactic and Functional

James Stone, MD
Clinical Professor
Trauma

Neurosurgery Department 2008
The University of Illinois at Chicago is located on the west side of the city, near Chicago’s “Loop” and within easy reach of all of Chicago’s cultural, educational, and entertainment attractions. It is one of three campuses of the University of Illinois (the other two are in Springfield and Champaign-Urbana). The medical school at the University of Illinois is the largest in the United States, graduating nearly 1300 students each year. Research is a primary focus, with significant funding from the National Institutes of Health as well as from other sources. The University of Illinois Medical School is widely regarded as a leader in producing educators, medical practitioners, and scientific investigators.

The Medical Center includes a 500-bed hospital as well as more than 40 primary care and specialty clinics. Its state-of-the-art facilities include a newly built Outpatient Care Center, a 3-Tesla MRI, two angiographic suites, and a dedicated neurosurgical unit that includes a 22-bed Neurosurgical ICU and a step-down floor. The Medical Center is a major referral center, attracting cases from around the world as well as from the entire U.S. Midwest region.
Research is a major focus in the Department, for both faculty and residents. Well-trained, certified research personnel are also available to help support your efforts. Research is currently being done in a variety of areas, such as stroke, movement disorders and brain tumors. Our residents are actively involved in the ongoing departmental research projects. Collaboration with other Departments is also highly encouraged. Collaborations currently exist with Neurology, Radiology, Pathology, Anesthesiology, Engineering, Anatomy and Cell Biology, Applied Health Sciences, and the School of Public Health.

**Departmental Facilities:**
- State-of-the-Art Animal Angiography Suite
- Microsurgery Laboratory
- Neuro-Transplant Immunology Laboratory
- Over 4,000 sq ft of dedicated basic research space
- Access to 3T MR with functional imaging capability and 9T research MR at UIC MR Center

**Research Faculty:**
- Patrick Rouche, PhD
- Meide Zhao, PhD
- Xiaohong Zhou, PhD

**Collaborating Faculty:**
- Philip B. Gorelick, MD, MPH
- Prashant Banerjee, PhD
- Ray Evenhouse, MS
- Keith Thulborn, MD, PhD
Sample List of Current Clinical Trials:
- VERiTAS: Vertibrobasilar Flow Evaluation and Risk of Transient Ischemic Attack and Stroke. NIH funded study to evaluate blood flow and risk of recurrent ischemic events
- IDE Trial: Cervical Spinal Cord Stimulation for the Prevention of Cerebral Vasospasm - Pilot study conducted in subarachnoid hemorrhage patients
- Carotid Occlusion Surgery Study (COSS/RECON): NIH funded multi-center randomized trial assessing EC-IC bypass in stroke patients
- ANS Migraine Study: Peripheral nerve stimulation for management of chronic migraine headaches
- Novocure GBM Study: International multi-center trial comparing standard of care to a new treatment method in recurrent or progressive glioblastoma multiforme patients
- Acitva, Dystonia Therapy (HUD): Effectiveness of brain stimulation in dystonia patients
- Cognitive Outcomes from Carotid Revascularization: Study of cognitive functioning following carotid endarterectomy and stenting
- Baseline Blood Flow Study: Evaluating blood flow in healthy volunteers to determine normal baseline flow rates, using quantitative MRA (NOVA)
- ELANA: FDA Trial for (Excimer Laser Assisted Nonocclusive Anastomosis) in EC-IC Bypass
- Facial Pain Model: A prospective study of the natural history of facial pain syndromes

Sample List of Current Basic Research:
- Carotid Aneurysm Models in Swine
- Blood Vessel Clot Analysis in Rats Using Spectroscopy
- Dynamic Electrophysiological Profile of the Rat Cerebral Cortex in Response to Focal Stimulation
- Evaluation of Blood Flow in Canine Carotid Artery Stenosis Model
Chicago is one of the most livable big cities in America, spanning 228 square miles with a population of nearly 3 million. The city is divided by quarters, into north, south, and west sides, with Lake Michigan forming the border to the east. From its famous Magnificent Mile to the towering skyscrapers along 29 miles of lakefront property, coupled with its cultural and ethnic diversity, it is easy to see why so many are happy to call the “windy city” their home.

For the sports enthusiast, you can catch the Bulls at the United Center, which is also home to the NHL’s Chicago Blackhawks. Southsiders watch the Chicago White Sox at U.S. Cellular Field, while the northsiders travel to Wrigley Field to follow the Chicago Cubs. No matter what their records, Chicago sports clubs has some of the country’s most loyal and animated fans.

Chicago is known as the cultural and artistic giant of the Midwest, home to the world renowned Lyrica Opera of Chicago, the Chicago Symphony Orchestra, Ballet Chicago, the Steppenwolf and Goodman theater companies, and hundreds of art galleries and other various entertainment venues. Downtown is home to three of Chicago’s most beloved museums: the Field Museum of Natural History, the Shedd Aquarium, and the Adler Planetarium. Other internationally recognized institutions include the Museum of Contemporary Art, the Museum of Science and Industry, and the Art Institute of Chicago. The city’s architecture is an art exhibit in itself, ranked with New York and Hong Kong as one of the Big Three world skylines.
INFORMATION

Chairman
Fady T. Charbel, MD, FACS
Professor and Head

Residency Program Director
Sepideh Amin-Hanjani, MD, FACS
Assistant Professor

Residency Program Coordinator
Betsy Lopez
email: blopez@uic.edu

Department of Neurosurgery (M/C 799)
University of Illinois at Chicago
912 South Wood Street
Chicago, Illinois 60612
Main Office Phone: (312) 996-4842
Fax: (312) 996-9018
http://www.uic.edu/depts/mcns/