We are excited to share some information about post-graduate training opportunities in the Department of Neurology and Neurotherapeutics. UT Southwestern Medical Center at Dallas is a leader in patient care, biomedical research, and medical education. We offer a wide variety of exciting training opportunities for residents and fellows.

Our categorical 4-year residency program in adult neurology is accredited by the ACGME and recognized by the American Board of Psychiatry and Neurology. The division of child neurology offers a fully-accredited 3-year program in child neurology and a combined 5-year program in pediatrics and pediatric neurology based at Children’s Medical Center of Dallas.

We provide the highest quality training in general neurology, neurotherapeutics, and the major neurological subspecialties. Trainees receive extensive clinical experience in the inpatient and outpatient setting supervised by an active, energetic faculty with a wide range of clinical and research interests. Teaching conferences and electives supplement the basic curriculum and provide residents with a strong foundation in neuroscience and evidence-based neurology.

As directors of the neurology training programs, we maintain an absolute commitment to quality and integrity while encouraging innovation and flexibility. We aim to keep UT Southwestern at the forefront of neurology education and continue to train the future leaders in neurology.

Welcome to UT Southwestern Neurology

For more information
www.utsouthwestern.edu/neurologyresidency
www.utsouthwestern.edu/patientcare
neurologyresidency@utsouthwestern.edu
The University of Texas Southwestern Medical Center at Dallas campus is located a few minutes north of downtown Dallas and includes UT Southwestern Medical School, Graduate School of Biomedical Sciences, UT Southwestern School of Health Professions, four hospitals, numerous outpatient clinics and a large research complex. In addition to dedicated teaching and pioneering research, our neurologists provide outstanding care to patients from Texas and neighboring states. UT Southwestern is the major tertiary referral center for neurological disorders in the region and the only neurology residency program in North Texas.

Parkland and University Hospitals are both JCAHO-certified primary stroke centers. US News and World Report ranked UT Southwestern University hospitals in the top 30 for six specialties including neurology and neurosurgery. Children’s Medical Center was ranked for eight specialties including pediatric neurology.

The Dallas Veterans Affairs Medical Center (VAMC) is a 289-bed hospital located south of downtown Dallas. The Dallas VAMC serves a 30-county area with approximately 430,000 veterans. In addition to the hospital, the VAMC includes a 30-bed spinal cord injury unit and long-term care facilities. Residents provide inpatient neurology consultation and outpatient clinics for spinal cord injury, MS, epilepsy, sleep disorders and general neurology.

Texas Scottish Rite Hospital for Children (TSRH), located one mile south of UT Southwestern, is recognized internationally for clinical care and research in chronic neurological and orthopedic disorders. Neurology residents rotate at TSRH for a unique experience with rare chronic neurological problems. Each year, the Carell-Krusen neuromuscular symposium provides a forum for residents to present and to learn from national experts.

Residents rotate in several outpatient settings including the James W. Aston Ambulatory Care Center and child neurology clinics at Children’s Medical Center. The neuromuscular disorders section includes MDA-supported multidisciplinary specialty clinics for ALS, muscular dystrophy and myasthenia gravis. Clinics for multiple sclerosis, sleep disorders, and movement disorders provide neurology residents with additional specialized training. The Harold C. Simmons comprehensive cancer center at UT Southwestern is the only NCI-designated center in North Texas and includes a multidisciplinary neuro-oncology clinic.

Neurophysiology services (EEG, EMG, autonomic, sleep, and intraoperative monitoring studies) and neurosonology are provided by the neurology department for the entire UT Southwestern medical center campus. Full neurodiagnostic imaging support including MRI, CT, angiography, myelography, SPECT and PET is available at all the clinical centers. Several specialized MR scanners (including high field 7T and MR tensor imaging) are available for research applications.

UT Southwestern maintains close affiliations with several other affiliated hospitals in Dallas and Fort Worth, including the Institute for Exercise and Environmental Medicine (an international research center for exercise physiology and metabolic muscle disorders). The Neurology and Neurotherapeutics Department also coordinates the neurology residency training program based at Seton hospitals in Austin, Texas.
Dallas is many things — an affordable place to live, a convenient place to learn, and a great place to have fun. An extensive highway network and a growing light rail system (DART) lead to the medical center, making it easily accessible to a number of suburban areas. Two convenient airports provide easy connections throughout the USA and the world.

The DFW metroplex is noted for numerous museums and galleries including the Dallas Museum of Art, Nasher Sculpture Center and the Kimbell Art Gallery. World-class performing arts can be found at the Meyerson Symphony Center, Bass Performance Hall, Music Hall, and Winspear Opera House. More casual entertainment venues include Victory Park, American Airlines Center, the historic West End, and an eclectic music scene in Deep Ellum.

**Lifestyle.** The Dallas area abounds with parks, tennis courts, golf courses, jogging and cycling trails, and lakes for water sports and sailing. The area is home to two world class zoos and a large amusement park complex. Fans of professional sports can follow America’s football team, the Dallas Cowboys, the American League baseball champion Texas Rangers, and the World basketball Champion Dallas Mavericks, Stars hockey, and FC Dallas MLS soccer. Cowboys stadium in Arlington is the home to many events including the 2011 SuperBowl.

Whether you are married with children or single with a pet, Dallas has an area of town that will suit your needs. Within two miles of the medical center is Uptown Dallas, featuring apartments and condominiums occupied by the city’s many young professionals. Uptown boasts outstanding restaurants with patios, shops, parks and bustling nightlife. Some trainees prefer to purchase affordable homes outside the main urban area in nearby suburbs including Irving, Las Colinas, Coppell, Plano, Carrollton or Lewisville. These are excellent areas to raise a family with outstanding public education and safe environments. Best of all, these communities are within 20 minutes of UT Southwestern. If commuting is not your thing, a number of nice apartment complexes have grown up just across the street from the medical center. Dallas is a city built to meet your needs!
Residents spend their first year as an integrated member of the UT Southwestern internal medicine residency program. The PGY1 year includes nine months of internal medicine services (general medicine, cardiology, and intensive care), one month of elective and one month of emergency medicine. The internal medicine program is outstanding, and residents quickly gain a firm foundation in general internal medicine and acute care. The PGY1 residents have a weekly continuity clinic in the department of neurology.

The final month of the PGY-1 year is a dedicated “Introduction to Neurology”. This unique experience is devoted to education without major clinical responsibilities. Residents receive focused instruction in basic neuroscience, neuroradiology, and common neurological procedures as well as hands-on demonstration and practice of the neurological examination. The remainder of the month consists of clinical rotations in subspecialty and general outpatient neurology with one-on-one interaction with faculty and senior neurology residents.

The focus of the PGY2 year is direct care of hospitalized patients with neurologic disease. Residents spend approximately eight months on the neurology inpatient and consult services at the teaching hospitals. During these rotations, residents develop diagnostic skills and become familiar with management of acute neurologic issues under the supervision of senior residents and attending faculty. The year is rounded out with rotations in the neurocritical care service, epilepsy monitoring unit and neuropathology.

Outpatient training continues with weekly neurology continuity clinics where residents follow patients with a wide variety of disorders throughout the entire four years of training. This longitudinal perspective on disease patterns and management benefits both the house staff and patients.

PGY3 residents have a more diverse experience including three months with child neurology at Children’s Medical Center and Texas Scottish Rite hospitals. Subspecialty rotations with neuromuscular, movement disorders, and electroencephalography are scheduled, and elective rotations are available in a host of other areas. PGY3 residents also participate in consultation services for psychiatry and inpatient neurology.

Electives
Residents may choose from a wide variety of clinical and research electives. Some electives are essential to the training of a well-rounded neurologist such as multiple sclerosis, sleep medicine, and neuroradiology. Other electives may be coordinated exclusively to meet the career goals or interests of one resident. Popular and unique electives at UT Southwestern include neurosonology, neuro-oncology, neuro-ophthalmology, and neuro-otology.

PGY4 residents supervise the neurology inpatient or consult services at the affiliated hospitals for half the year. The senior resident on service fills a major teaching and organizational role and is essential to the education of medical students, interns, rotating residents from other programs, and junior neurology residents.

The remainder of the year is reserved for electives. Elective time is designed to be flexible to meet the individual needs of residents as they embark on academic or private practice careers. Residents with academic interests may devote any amount of their elective time to a clinical or basic science project under the supervision of a member of the medical center faculty.
After completing two years of pediatric residency training at an accredited program, the pediatric neurology resident enters the three-year ACGME-accredited Child Neurology Residency Program. The first year consists of about nine months of adult neurology at our affiliated adult neurology institutions (similar to the adult neurology resident PGY2 year) and three months of pediatric neurology services at Children’s Medical Center. The second and third year of the program comprise 12-15 months of pediatric neurology service, three months of subspecialty rotations with adult neurology faculty, and the remainder of the time in approved neurology electives. These electives provide sufficient flexibility as to be tailored to each resident’s particular interests, including clinical or basic neuroscience research.

The Neurodevelopmental Disorders (NDD) residency under the direction of Dr. Patricia Evans is an independent 4-year ACGME-accredited program. The NDD resident follows a similar curriculum as core child neurology but focuses on the evaluation and management of children with neurogenetic syndromes or developmental disorders, such as autism.

Our exceptional Child Neurology faculty includes specialists in pediatric epilepsy and clinical neurophysiology, neurobehavioral neurology, neurometabolism and neurogenetics, pediatric stroke, neonatal neurology, neuromuscular disorders, and pediatric headache.

The child neurology match is currently through the National Residency Match Program (NRMP). This is for a 3-year child neurology residency. Joint interviews are set up with the Pediatrics residency at UTSW for highly competitive applicants. Applicants interested in completing the two required preliminary years of pediatrics residency training at UTSW must also submit an application to the pediatric residency program through ERAS and the NRMP.

Teaching Conferences

Daily attending rounds are conducted on all the hospital teaching services. A comprehensive neurology didactic lecture series presented 3 times per week covers the breadth of clinical neurology and related topics. Grand Rounds, held at noon every Wednesday, features visiting lecturers or local presenters. All residents present a clinical pathological conference and an independent research presentation. Every Friday, residents meet for lunch at Unwin conference and then attend Rosenberg rounds (a time to challenge the senior neurology professors with tough cases). Numerous other journal clubs, subspecialty and research conferences are available to residents throughout the week.

Residency Program Tracks

Our program endorses flexible residency training and offers up to six months of time during the PGY3 and PGY4 years for electives and/or research endeavors. Residents may elect to follow a training pathway (track) according to their career goals.

For residents with basic science research interests, a research track schedule allows 6–9 months of basic or clinical research during residency. The goal of the research track is to position the resident to enter a clinician-scientist career after graduation and to compete successfully for early career development grants (such as K awards from NIH).

A vascular/hospitalist track, for residents interested in acute care neurology, includes additional rotations in neurocritical care, inpatient consultation, neurosonology, neuroradiology, neurosurgery and neurointerventional experiences.

Residents with a goal of community-based private practice can follow a training track that includes an emphasis on a varied outpatient experience (including rotations with neurology faculty in community practice in Dallas and Austin).
Fellowships

Nearly all of our graduating residents decide to pursue additional training, and our graduates are highly successful in obtaining competitive fellowships at UT Southwestern and elsewhere. UT Southwestern offers fellowship training in many clinical subspecialties. Laboratory-based research fellowships are available for those pursuing clinician-scientist careers.

Clinical Neurophysiology. One-year ACGME-accredited program with training in neurophysiology (EEG/EMG) and clinical training in epilepsy and neuromuscular disorders. Additional exposure to evoked potentials, intra-operative monitoring, Botox, autonomic testing and sleep studies is also provided. Up to five fellowship positions are available each year. Training can be focused on either pediatric or adult clinical neurophysiology.

Epilepsy-EEG Fellowship. This program offers specialized training in epilepsy, electroencephalography, and sleep. Training takes place in epilepsy clinics and in the active epilepsy monitoring units (EMU) at Parkland and Children's hospitals. Invasive EEG, SPECT, MR spectroscopy, and intraoperative mapping are routinely used in patient evaluations.

Movement Disorders Fellowship. The one-year movement disorders fellowship provides training in clinical patient care and research in movement disorders. Fellows become proficient in comprehensive management including chemodenervation and deep brain stimulation.

Neuro-Critical Care Fellowship. The two-year UCNS-accredited fellowship accepts two fellows each year. Parkland Hospital’s level 1 trauma center and Neurocritical Care Unit offer a rich experience in neurotrauma and acute stroke management. The neuro ICU at Zale-Lipsky University hospital manages patients with complex vascular, oncological and immunological disorders.

Neuroimmunology/Multiple Sclerosis Fellowship. This one year fellowship provides intensive training on the multidisciplinary management of MS and related disorders, with exposure to neuroradiology, neurourology, neuro-ophthalmology, basic neuroimmunology, and management of depression, chronic fatigue, and pain. Fellows regularly participate in clinical research and teaching activities.

Neuromuscular Medicine Fellowship. The one-year ACGME-accredited program focuses on clinical, electrophysiological, and histological evaluation of neuromuscular disorders. Fellows attend the ALS, myasthenia, MDA, and peripheral neuropathy clinics as well as daily EMG/NCS sessions. There is ample opportunity for research projects. Up to two fellows each year.

Neuro-Oncology Fellowship. One-year fellowship focused on the medical and surgical management of tumors of the nervous system. Clinical and bench research are integrated into the fellowship year.

Pediatric Neuromuscular Fellowship. The year focuses on clinical evaluation and management of children with neuromuscular disease, including outpatient clinics, electrodagnostic studies, and neuropathological sessions each week. Clinics are multi-disciplinary so the trainee gains experience in managing and treating the complications of muscle weakness, such as restrictive lung disease, malnutrition, and mobility needs.

Sleep Medicine Fellowship. One-year fellowship on polysomnography and management of sleep disorders. The multidisciplinary program is directed by neurology. In addition to sleep-disordered breathing, there is ample exposure to neurological sleep disorders.

Stroke Fellowship. The ACGME-accredited vascular neurology fellowship provides clinical expertise in the mechanisms, pathophysiology and treatment strategies for cerebrovascular disease. In addition, fellows participate in transcranial Doppler, carotid ultrasound and numerous clinical research studies.
UT Southwestern by the Numbers

**UT Southwestern Neurology**
- 60 full-time clinical faculty (45 adult, 15 child neurology)
- 16 members of American Neurological Association
- 29 adult neurology residents
- 10 child neurology residents
- 96 percent first-time board pass rate (past 7 years)

**Hospital Neurology Services**
- 20 bed dedicated neurology unit
- 11 bed epilepsy monitoring unit (over 40 epilepsy surgeries per year)
- 8 bed pediatric epilepsy monitoring unit
- 2 acute stroke units (5 beds each)
- 2 neurocritical care units

**UTSW Medical Center**
- 5 Nobel laureates
- 18 members of National Academy of Sciences
- 21 members of Institute of Medicine
- UTSW is a top 20 medical school in both research and primary care categories*
- 400 million dollars in research funding
- 2014 opening of new 900-bed Parkland hospital

**Dallas, Texas**
- 9th largest city in the United States
- 6% below national average for cost of living
- 76°/55° average high and low temperature in Dallas
- 62 miles of running and biking trails and 17 lakes
- #1 most restaurants per capita of any US city

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**Mobile Curriculum**
The Neurology and Neurotherapeutics Department and the Residency Program are committed to creating a dynamic and progressive environment for our residents and fellows. Our latest initiative is the development of mobile training tools optimized for portable devices such as the Apple iPad. Neurology residents are provided iPads to enable access and dissemination of this content. Technical support and development are provided through the Neurology Information Services group.

**The mobile curriculum includes:**
- Videos of didactic lectures pertaining to subjects in neurology.
- Important current literature and journal articles pertaining to new advances in the field. This content may be delivered via PDF files or RSS feeds.
- Internal discussion boards where residents and faculty can discuss various topics in neurology.
- Commercial and customized electronic apps to facilitate patient care and teaching, including neuroanatomical references, treatment algorithms, and scoring systems related to disease prognosis (NIH stroke scale, etc).
- Standardized test materials such as practice test questions and answers.
**Neurology Faculty**

**Chair**
Mark Goldberg, MD

**Vice-Chairs**
Steven Vernino, MD, PhD
Gil Wolfe, MD

**Cognitive & Memory Disorders**
Rogers Rosenberg, MD
Ramon Diaz-Arrastia, MD, PhD
John Hart, Jr, MD
Mary Quiceno, MD
Myron Weiner, MD
Kyle Womack, MD

**Critical Care Neurology**
Wengui Yu, MD, PhD
Christiana Hall, MD
Cyrus Dastur, MD
Eugene Gu, MD

**Epilepsy**
Paul Van Ness, MD
Mark Agostini, MD
Puneet Gupta, MD
Pradeep Modur, MD

**General Neurology**
Deborah Friedman, MD
Ellen Marder, MD
Craig Powell, MD, PhD
Joseph Vaughan, MD
Worthy Warnack, MD

**Movement Disorders**
Richard Dewey, MD
Shilpa Chitnis, MD, PhD
Matthew Goldberg, PhD
Pravin Khemani, MD
Padraig O’Suilleabhain, MD

**Multiple Sclerosis**
Elliott Frohman, MD, PhD
Angela Bates, MD
Adithi Courneya, DO
Petra Craven, PhD
Donna Graves, MD
Ben Greenberg, MD
Nancy Morrison, PhD
Olaf Sune, MD, PhD

**Neuromuscular**
Gil Wolfe, MD
Stephen Cannon, MD, PhD
Jeffrey Elliott, MD
Ronald Haller, MD
Susan Iannaccone, MD
Srikanth Muppudi, MD
Sharon Nations, MD
Mike Singer, MD, PhD
Jaya Tripathi, MD
Steven Vernino, MD, PhD

**Neuro-Oncology**
Elizabeth Maher, MD, PhD
Robert Bachoo, MD, PhD
Amy Habib, MD
James Battiste, MD, PhD

**Pediatric Neurology**
Susan Iannaccone, MD
Jose Aceves, MD
Mauricio Delgado-Ayala, MD
Michael Dowling, MD, PhD
Fares Kokash, MD
Juan Pascual, MD
Steve Spazagana, MD
William Zinsner, MD

**Pediatric Epilepsy**
Mark Arnold, MD
Muna Khan, MD
Saadat Khan, MD
Rana Said, MD
Deepta Sris, MD

**Neurobehavioral Child Neurology**
Patricia Evans, MD
Sailaja Golla, MD

**Sleep Medicine**
Jeff Ornstedt, MD
Greg Carter, MD, PhD
Ryan Hays, MD
Pradeep Mudur, MD

**Strokes/Vascular Neurology**
Mark Johnson, MD
Mark Goldberg, MD
Tina Hodics, MD
Jessica Lee, MD
Roberta Novakovic, MD

**Neurosurgery**
Duke Samson, MD
Samuel Barnett, MD
Joseph Brophy, MD
Ira Denton, MD
Christopher Madden, MD
Bruce Mickey, MD
Howard Morgan, MD
Kevin Morrill, MD
Babu Welch, MD

**Interventional Neuroradiology**
Phillip Paridy, MD
Roberta Novakovic, MD
Lee Pride, MD
Babu Welch, MD

**Internal Medicine Year 1**
Claudia Perez, MD
Meredith Bryan, MD
Zack Mahdavi, MD
Ugo Chukwuvake
Aashoo Pande Mentreddt, MD
William Renthal, MD
PhD
Oliver Sun-Ping, MD
Yuan Xing, MD

**Class of 2012**

**Chief Residents**
Lauren Phillips, MD
Lina Shah, MD
Lydia Sharp, MD

**Class of 2013**

Astra Akkar, MD*
Matthew Anderson, MD
Marisa Dieppa, MD
Justin Jordan, MD
Hamid Kadiwala, MD
Svetlana Miocinovic, MD, PhD
Jose Munoz, MD*
Digiyaeva Navalkale, MBBS
Andrew Nik, MD

**Class of 2014**

Chirantan Banerjee, MD, PhD
Hai Chen, MD, PhD
Lauren Dingle, MD*
Simon Kayyal, MD*
Andrea Lowden, MD*
Bardia Nourbakhsh, MD
Sima Parikh, MD*
Julio Rojas-Martinez, MD, PhD
Kartavya Sharma, MBBS
Vibhash Sharma, MBBS
Franzy Shu, MD

* Child neurology resident