The primary goal of the Nephrology Fellowship Program at The University of Texas Medical School at Houston is to prepare accomplished subspecialists in nephrology with a specific emphasis on training of the academic nephrologist. The fellowship program is either a two (clinical track) or three (academic track) year program with four to five positions per year. The program is fully accredited by the Accreditation Council for Graduate Medical Education and meets the requirements for certification in Nephrology by the American Board of Internal Medicine. Trainees acquire the knowledge and procedural skills necessary to deliver superb care to patients with a wide array of kidney disorders and hypertension. They also receive training in the design, conduct and analysis of clinical or basic research from a group of prominent renal investigators.

The Program is located in the prestigious Texas Medical Center in downtown Houston. One of the largest medical facilities of its kind in the world, the Texas Medical Center consists of fifty-four academic/research institutes and hospitals, providing unsurpassed opportunities for clinical and research training. Because of its reputation and unique features as a patient care, biomedical research and education “city,” the Texas Medical Center has also attracted an impressive list of resident and visiting scientists with which trainees can interact and study. Given the proximity of the various institutions on campus, attendance at conferences or informal discussions at other institutions is extremely easy.

**Facilities**

Trainees care for patients in four adult hospitals, three of which have nephrology outpatient clinics, three outpatient dialysis clinics, and several cutting edge clinical and basic science research facilities

**MEMORIAL HERMANN HOSPITAL.**

A 804-bed general hospital adjacent to the UT Medical School, Memorial Hermann serves as the primary teaching hospital for McGovern Medical School. It is a major quaternary referral center in Southwest, with active subspecialty programs representing all major disciplines in adult medicine and surgery, solid organ transplantation, and OB/GYN. It also functions as a Level 1 trauma center, with a very active life-flight program and shock trauma ICU. All major medical services, an emergency room, trauma center, and intensive care units are present, and it offers state of the art clinical laboratories and imaging facilities and a progressive Interventional Radiology department. It offers an excellent learning opportunity in all facets of nephrology including inpatient/outpatient consultations, dialysis, transplantation, and critical care medicine.

Nephrology faculty and trainees also provide consultations for patients hospitalized on other services at Memorial Hermann Hospital. There is an extremely active continuous renal replacement therapy program. In addition, there is an excellent solid organ transplantation service performing > 100 kidney transplantations each year. Care of the renal transplant
recipient is provided by a team of physicians including the nephrology fellow, the staff nephrologist, transplant surgeon, and surgical housestaff.

**THE UNIVERSITY OF TEXAS M.D. ANDERSON CANCER CENTER.**
The world renowned M.D. Anderson Cancer Center (MDACC), located within the Texas Medical Center, is a 631-bed facility that provides care for cancer patients. The mix of kidney diseases ranges from simple toxin-mediated renal disease to rare, or previously unrecognized, paraneoplastic renal syndromes. Extremely dramatic fluid, electrolyte, and acid-base problems are also encountered, as are common instances of obstructive uropathy. MDACC has a busy emergency room, multiple outpatient clinics, medical and surgical intensive care units, and active medical and surgical services from which consultations are derived. The hospital offers a full array of clinical laboratory and imaging facilities, interventional radiology, nutritional support services, and social services. Renal biopsy specimens obtained at MDACC are processed and evaluated by the Pathology Department at Memorial Hermann Hospital. Fellows are assigned on a monthly basis two to three times per year. The consult team is composed of the full time U.T. nephrology or MDA nephrology faculty member and the fellow who evaluates and presents all patients on a daily basis to the Attending nephrologist. Patients requiring outpatient follow-up after discharge are followed in the outpatient renal clinics at MDACC.

**LYNDON BAINES JOHNSON HOSPITAL.** Lyndon B. Johnson (LBJ) General Hospital is a 328-bed, acute care facility, operated by the Harris County Hospital District and staffed solely by the faculty of the University of Texas – McGovern Medical School. It serves as one of two county hospitals providing care to indigent people in Harris County, and is located approximately 12 miles from the Texas Medical Center. It has a busy emergency room and intensive care unit, and active medical, surgical and obstetrical services from which consultations are derived. LBJ General Hospital offers full clinical laboratories and imaging facilities, Interventional Radiology, nutritional support services, and social services. Renal biopsy specimens obtained at LBJ General Hospital are processed and evaluated by the Pathology Department at Memorial Hermann Hospital. The fellow, under the supervision of a full time faculty Attending, coordinates the consulting team of rotating internal medicine residents and medical students, and meets daily with the Attending nephrologist to evaluate and discuss new patients and all follow-up patients. Patients requiring outpatient follow-up after discharge are referred to the outpatient renal clinics at LBJ General Hospital. The mix of disease on this rotation is quite diverse. Given the patient population, in many circumstances, the trainee will see late or severe manifestations of common diseases because of inadequate, or lack of, previous treatment.
**KINDRED HOSPITAL** is a long-term acute care facility located just off campus. The Division provides acute dialytic services and consultations.

### Clinical Programs

#### Clinical Rotations

Clinical activities involve both inpatients and outpatients. During the first year, fellows typically spend two to three months on the Memorial Hermann Hospital consultation service, one month on the Memorial Hermann Hospital Transplant service, two months on the M.D. Anderson consultation service and two months on the LBJ Hospital consultation service. Three elective months are dedicated to research training. Under the supervision of nephrology faculty, nephrology trainees are responsible for writing all acute dialysis and CRRT prescriptions, initial evaluation and continued follow-up of all consults. Nephrology fellows gain considerable experience in the performance of procedures, including internal jugular and femoral vein dialysis catheter insertion, peritoneal dialysis catheter insertion, and the renal biopsy. Renal replacement therapy at each institution includes intermittent hemodialysis, CRRT and peritoneal dialysis.

#### Outpatient Dialysis Centers

The Division faculty and fellows serve three hemodialysis units comprising about 400 patients at sites in Houston. This also includes a large (nearly 100 patients) population of peritoneal dialysis patients.

#### Outpatient Clinics

General nephrology clinics are conducted weekly at the University of Texas Physicians outpatient facility and the LBJ Hospital. All first and second year fellows attend one of these clinics. All new patients are first seen by nephrology trainees who are responsible for making the initial assessment. The nephrology trainee, in conjunction with the nephrology faculty, is responsible for formulating a differential diagnosis, diagnostic plan, and for implementing therapy, if needed.

#### Conferences

- **Fellows Introductory Series:** Lectures in the first two months geared to provide important didactic information on core topics.

- **Renal Grand Rounds:** Held on Mondays at noon from September – June. This is a clinical conference that includes a core course in renal pathology, radiology and urology along with series of clinical talks on renal related subject matter. Lead by renal faculty as well as invited guests.

- **Nephrology Clinical Conferences:** Interactive conferences that meet every Tuesday at noon from September – June. They will alternate between clinical case presentations, journal club, morbidity and mortality conference, and quality improvement. Renal faculty will be present and assist with journal article selection and will incorporate statistic and
epidemiological lectures during the conference. The purpose of these conferences is to stimulate discussion on topics relevant to the current clinical practice of nephrology.

- **Renal Pathology Conference**: Meets once monthly from September-June. This conference is lead by the UT Renal Pathologist.

- **Acid/Base/Physiology**: Meets every Wednesday at 1pm. To be attended by the renal fellows at MHH as well as residents and students on the MHH Renal Consult Service. This series includes case based discussion and didactics in a ‘chalk talk’ format.

- **Board Review**: Monthly meeting among fellows, led by the chief fellow. Content will include board type questions for review and discussion.

- **Renal Clinical Conferences**: Held weekly/bimonthly throughout the year. Presentation by faculty members to fellows with topics covering ACGME required topics over the course of the two year fellowship.

- **MDACC Renal Rounds**: Meets weekly on Fridays with MDA faculty and fellows assigned to the MDA service.

- **Transplant Biopsy Conference**: Meets monthly on Fridays, Lead by renal pathology and transplant nephrology.

- **Internal Medicine Grand Rounds**: Thursday at noon, Weekly didactic lecture by faculty or visiting Professors on a wide range of topics, many relevant to nephrologists

**Research Programs**

Fellows in the 3 year academic track program complete the 12 months of patient care described above and then enter a 2 year period of intensive research training in basic or clinical research. The overall goal of this training is to foster the trainee’s development into an independent investigator in the areas of nephrology and/or hypertension, one who is equipped to enhance the basic understanding of the problem they are studying and to translate this knowledge back to the clinical arena. The Program intends for its graduates to contribute to a new generation of academic nephrologists and renal investigators equipped to address the challenging problems in renal diseases and hypertension.