

CLINICAL DEPARTMENTS IN THE BIOLOGICAL SCIENCES

Faculty in the Division of the Biological Sciences participate in undergraduate and graduate medical education through the Pritzker School of Medicine, and maintain a vital clinical enterprise through the University of Chicago Medical Center. Twelve clinical departments offer a wide variety of educational and research opportunities to students and treatment options to patients. In addition, one of these departments, described in the section on the Basic Biological Sciences, offers graduate programs leading to the PhD degree: Radiology (Medical Physics). Brief descriptions of each of the clinical departments appear below. Additional details about our clinical departments can be found by visiting the Biological Sciences Division (<http://biologicalsciences.uchicago.edu>) and Pritzker School of Medicine (<http://pritzker.uchicago.edu>) websites.

DEPARTMENT OF ANESTHESIA AND CRITICAL CARE

The Department of Anesthesia and Critical Care offers clinical training and educational and research opportunities for qualified students at all levels. While one mission of the department is to provide high quality clinical anesthesia (including pain therapy, intensive care, and perioperative management), the Department of Anesthesia and Critical Care also maintains active research programs in neurobiology, echocardiography, patient safety, psychomotor pharmacology, clinical pharmacology (including herbal medications in conjunction with the TANG Center), and outcomes research. Educational opportunities for students occur at the undergraduate level, in graduate courses that are led by our faculty, during the course of the medical school curriculum, and at the post graduate level. We also provide pre doctoral and post doctoral positions in our laboratories and provide post residency clinical training in critical care, pain management, cardiothoracic anesthesia and pediatric anesthesia. Individuals seeking opportunities for research or study within the department are invited to call the Chairman of the Department of Anesthesia and Critical Care, Pritzker School of Medicine, 5841 South Maryland Avenue, MC 4028, Chicago, IL 60637, telephone: (773) 702-2545.

DEPARTMENT OF FAMILY MEDICINE

The Department of Family Medicine was established by Bernard Ewigman, MD MSPH, who was recruited as the Founding Chairman in 2002. Since that time, the Department has grown to include many clinical practices, over 70 faculty members, medical student education, a residency program, fellowship programs, and a practice based research network. The Department is based primarily at the University of Chicago, the NorthShore University Health System and in the communities served both on the south and north sides of the Chicagoland area. The Department is unique in its focus on community based practice, education in community based settings, and research and scholarship relevant to improving primary care in both urban and suburban practice and the health of the communities we serve.

DEPARTMENT OF MEDICINE

The Department of Medicine is comprised of nearly 300 full-time faculty members who provide clinical, translational, and basic research training for individuals at all levels, including College, undergraduate medical, graduate medical, and post-doctoral trainees. Because of the diverse interests of the faculty, the department is organized into sub-specialty sections with each represented by nationally recognized leaders in their field. The sections include cardiology, computational medicine, dermatology, endocrinology, emergency medicine, gastroenterology, geriatrics, general internal medicine, genetic medicine, hospital medicine, nephrology, infectious disease, hematology/oncology, pulmonary/critical care medicine and rheumatology.

The Department of Medicine has a long tradition of conducting original and rigorous biomedical and clinical research of fundamental significance in addition to providing a full range of outpatient, inpatient, and consultative services. Trainees can work with departmental faculty through participation in degree granting programs in the Pritzker School of Medicine or graduate programs, post-graduate residency and fellowship programs, or other specialty research programs.

Further information can be obtained from the appropriate degree granting entity or post-graduate training program. General questions can be directed to the Vice Chairs for Research: Dr. Yoav Gilad, Dr. Bana Jabri or Dr. Raghu Mirmira.

DEPARTMENT OF NEUROLOGICAL SURGERY

The Department of Neurological Surgery at the University of Chicago Medicine specializes in the evaluation and treatment of both pediatric and adult neurosurgical disorders, offering world-renowned programs in neurovascular surgery, neuro-oncology, epilepsy, spinal surgery, pediatric neurosurgery, and functional and stereotactic neurosurgery. Divided into subspecialty programs to highlight specific areas of expertise, the department is committed to advancing academic neurosurgery through rigorous clinical training and cutting-edge research. Training programs provide comprehensive clinical and basic science research opportunities within one of Chicago's top academic medical centers. Ongoing investigations focus on brain tumors, epilepsy, congenital CNS anomalies, and neurovascular diseases, supported by state-of-the-art neurosurgical

technologies to ensure the most effective treatments for neurological conditions. Please contact the department at neurosurgery.uchicago.edu.

DEPARTMENT OF NEUROLOGY

The Department of Neurology offers clinical training and research opportunities in the study of the nervous system and in neurological disorders. The department has a number of educational programs directed towards medical students, graduate students, residents and post residency fellows. These programs offer instruction in basic and translational research and in clinical neurology as well as the subspecialties of neurology that include pediatric neurology, neuroimmunology, neurovirology, clinical neurophysiology and sleep disorders, stroke, movement disorders and cognitive disorders. The department does not admit students nor offer a degree program. Nevertheless, opportunities are available for students who have been admitted to a Ph.D. program to pursue research under the direction of several of the department's faculty who direct laboratory research programs in basic neuroscience and/or neurological disease research. Post doctoral and post residency positions are also available. Candidates for graduate and post graduate study are invited to visit the faculty and explore opportunities for research. Please contact the department at (773) 702-7860

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

The Department of Obstetrics and Gynecology is located in the Chicago Lying-in Hospital in Hyde Park, which is an integral part of the University of Chicago Medical Center complex. The department is dedicated to the health care of women and has an outpatient clinic adjacent to the hospital. The faculty care for women with high risk pregnancies, gynecologic malignancies, those requiring complex gynecologic and pelvic reconstructive surgery as well as minimal invasive surgery, reproductive health and complex contraception, and problems of reproductive endocrinology & infertility, including assisted reproductive technologies.

The educational activities of the department are multi-faceted and include medical students, residents and fellows under the supervision of the faculty. We have recently established an affiliation with an excellent community-based academic institution in Evanston, NorthShore University Health System. This led to a major expansion of our clinical and research activities which are carried out within the department at both sites and encompass basic translational laboratory investigation, clinical trials and population-based epidemiology. We encourage students, interns, and residents to participate in these scientific endeavors and a large number pursue careers in academic medicine.

Our Departmental activities take place in the outpatient setting, the labor and delivery suite, the operating rooms, the inpatient wards, and in our laboratories. Research opportunities are available in all the subspecialty areas as well as genetics. Subspecialty fellowships are also available in Family Planning, Maternal-Fetal Medicine and Urogynecology and Pelvic Reconstructive Surgery. For more information, please call (773) 702-6726.

DEPARTMENT OF PATHOLOGY

Please see the listing under <http://pathology.uchicago.edu/>

DEPARTMENT OF PEDIATRICS

The Department of Pediatrics offers instruction and research in normal and abnormal growth and development of infants and children and in the prevention, diagnosis and treatment of illness in children. All educational activities are integrated with research and scholarly endeavors to advance knowledge in the field of child healthcare. The Department of Pediatrics has clinical and research facilities at the University of Chicago Medicine Comer Children's Hospital; at La Rabida Children's Hospital and Research Center (children's chronic diseases); at the University of Chicago Friend Family Health Center at 55th and Cottage Grove Avenue; and at ambulatory clinical facilities at pediatric offices located in the southern suburbs and northwest Indiana.

Comprising over 100 faculty and research associates, the department conducts extensive research programs in a wide range of disciplines related to child health, growth, development and public policy. Research is conducted at all of the sites mentioned above. Postdoctoral fellows, both M.D.s and Ph.D.s, as well as undergraduate medical students conduct research and receive research education guided by departmental faculty.

Candidates for graduate and post graduate study are invited to visit with the various faculty to explore a wide range of opportunities. Contact the office of the department chair at the University of Chicago Medicine Comer Children's Hospital, 5721 South Maryland Avenue, MC8000, Suite K160, Chicago, IL 60637, or call (773) 702-6205.

DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL NEUROSCIENCE

Full time faculty in the Department of Psychiatry and Behavioral Neuroscience teach and deliver inpatient, outpatient, and consultation services in mood disorders, anxiety disorders, personality disorders, eating disorders, addictive disorders, and schizophrenia. Primary and affiliated teaching and clinical institutions besides the University of Chicago Medical Center include Evanston Hospital and Chicago Lakeshore Hospital. Assessments include psychiatric diagnostic evaluation, psychological testing, neuropsychological testing, and other structured evaluations. Interventions may include a broad range of individual, family, and group therapies, including cognitive behavioral, psychodynamic, and psychopharmacologic treatments. Electroconvulsive

therapy is available. Specialties in the Child and Adolescent Section include attention deficit hyperactivity disorder, disruptive behavior disorders, developmental disorders, and behavioral and learning difficulties. Major research efforts across the Department are in molecular pharmacology, behavioral psychopharmacology, behavioral and molecular genetics, affective neuroscience and neuroimaging, and psychopharmacology.

The department does not offer any degrees, but elective opportunities are available for degree candidates from other programs. Major educational opportunities for medical students, graduate students, interns, residents, fellows, other physicians and clinical psychologists are linked to through <http://psychiatry.uchicago.edu/>.

For more information, please contact the Psychiatry Office of Education at (773) 702-0529 or the Chair of Psychiatry at (773) 834-7008, further contact information available at <http://psychiatry.uchicago.edu/>.

DEPARTMENT OF RADIATION AND CELLULAR ONCOLOGY

The Department of Radiation and Cellular Oncology currently provides clinical radiation oncology services at four practice locations: the University of Chicago's Center for Advanced Medicine (DCAM), the Outpatient Care Center (OCC) at the University of Illinois at Chicago, the University of Chicago Comprehensive Cancer Center at Silver Cross, and at Sherman Hospital. Approximately 1900 patients per year are treated at these facilities. State of the art clinical facilities include 8 image-guided linear accelerator treatment systems, stereotactic radiosurgery/stereotactic body radiotherapy, high dose-rate brachytherapy, and multislice wide-bore CT scanners.

The department conducts basic and translational research in cancer biology, radiation treatment physics and radiation biology. The department stresses a basic science approach to radiation oncology and state of the art investigation of molecular aspects of cancer through joint research programs with faculty members in the Division of the Biological Sciences. In addition a broad spectrum of clinical research is supported, including internal and multi-institutional treatment protocols and outcomes analysis.

The Department of Radiation and Cellular Oncology, in conjunction with the Department of Radiology, offers programs leading to the Ph.D. degree in medical physics. For more information, refer to the Committee in Medical Physics listing.

DEPARTMENT OF RADIOLOGY

Please see the Graduate Program in Medical Physics listing under Basic Biological Sciences.

DEPARTMENT OF SURGERY

The Department of Surgery has a very active research program spanning the basic, translational, and clinical sciences. While traditionally surgery has focused on the excision of diseased tissues and repair of injury, it is now equally concerned with specific interventions that facilitate tissue regeneration, supplement the body through the transplantation of organs and the implantation of synthetic materials and tissues developed in vitro, and target particular diseased cells or modulate the behavior of normal cells.

Research in the Department of Surgery is organized into several focus areas including transplantation immunology and inflammation, carcinogenesis and metastasis, tissue regeneration and engineering, and cardiothoracic and vascular research. Each of these areas encompasses multiple clinical specialties within the department.

Specific current research programs include studies of the immune response to synthetic materials, mechanisms of immune tolerance in transplantation, crosstalk between the intestinal microbiome and the intestinal epithelium, molecular therapeutic strategies in brain cancer, tumorigenesis and metastasis in prostate and ovarian cancer, and signaling mechanisms in heart failure.

Faculty members of the Department of Surgery teach in a number of courses in the College and are members of a variety of graduate programs in the Biological Sciences Division. They are also extensively involved in the Medical Scientist Training Program (M.D.-Ph.D). Undergraduate, graduate and medical students interested in participating in research within the department should contact individual investigators.

