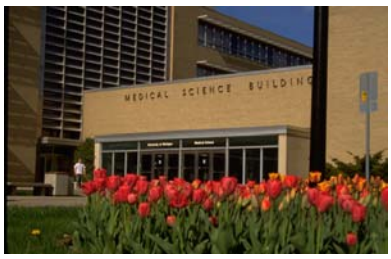
The University of Michigan Medical School



The Medical School has 25 academic departments, 19 clinical and 6 basic science, as well as the Unit for Laboratory Animal Medicine and Department of Medical Education. Teaching, research and clinical care often cross traditional departmental boundaries, particularly in the School's impressive community of interdisciplinary research centers and institutes. The proximity and close relationship between the University Hospitals and the Medical School has fostered opportunities for collaboration between clinicians and basic scientists for more than 100 years.

The Medical School has consistently maintained national prominence in the teaching, service and research missions central to its success. The School has been a leader in the translation of discoveries made in the laboratory into improvements in patient care. Examples of such "bench to bedside" achievements at Michigan include pioneering research in testing the polio vaccine to recent discoveries including novel uses of imaging techniques in the detection and treatment of diseases; advances in tissue engineering through the creation of artificial tissue, organs and bone; and the innovative treatment of non-Hodgkin's lymphoma through the use of radiolabeled monoclonal antibodies.

In 1999, the Medical School celebrated its Sesquicentennial anniversary by honoring the distinguished tradition of scholarship and service at the University of Michigan. The Sesquicentennial Celebration brought alumni and friends back to the Medical School to help celebrate the influential impact that it has had on its faculty and graduates over the past 150 years.

University of Michigan Health System

The University of Michigan Health System comprises the Medical School, the University Hospitals and Health Centers, M-Care HMO, and the Michigan Health Corporation. The University of Michigan established the first University-owned teaching hospital in the nation when it opened University Hospital in 1869. The establishment of this hospital introduced a legacy of providing health care, programs of education and research, and referral support for other health care providers and institutions in Michigan.

Today, there are three hospitals as well as extensive outpatient and ambulatory clinics continuing the tradition of excellence at the University of Michigan Health System. As a teaching resource, the Hospitals are used for the training of students each year in the

techniques of modern clinical medicine, including physicians in residency training in all medical and surgical specialties. The Hospitals serve as the core teaching facility for the U-M Medical School and provide the basic clinical experience for medical students.

The University

The University of Michigan, one of the world's most distinguished academic institutions, is an international resource for scholarship and service. At the Ann Arbor campus, nearly 3,800 faculty and 36,600 students study, teach and conduct research in a modern environment. The University also has campuses in Flint and Dearborn.

The quality of the academic programs at the University of Michigan places it among the top 10 colleges and universities nationwide. The University's academic excellence is renowned throughout the world on both graduate and undergraduate levels and in a wide variety of degree programs. Students at the University represent richly diverse social, ethnic and economic backgrounds; geographically, they originate from all 50 states and almost 100 foreign countries. The University is proud of its diverse community and is committed to sustaining its leadership as a premier center for the pursuit of knowledge.

The Faculty

Over 1,600 faculty at the University of Michigan Medical School work in three main faculty tracks: Instructional Track, Primary Research Track, and Clinical Track. Faculty lead research efforts in a broad scope of basic science and clinical science areas including pioneering work in neuroscience investigation, cancer, bioengineering, geriatric medicine, and molecular genetics, to name just a few. Medical School faculty participate in the education of medical students, graduate students, residents and post-doctoral fellows, as well as undergraduate students at the University of Michigan.

In addition to their work in research and education, faculty in clinical departments provide inpatient and outpatient care at the University Hospitals and Health Centers, where more than one million outpatient visits are conducted each year. The unique combination of medical expertise and direct application of basic science bench research by Medical School faculty within a clinical setting offers patients at the Hospitals the highest quality of care possible.

M.D. Program

The Medical School draws from its outstanding faculty, and exceptional, diverse student body to deliver rigorous and challenging educational programs. The School offers a well-rounded preparation for clinical practice in all of the medical specialties, including primary care fields. In 1999, 671 medical school students were enrolled in the M.D. program at the Medical School.

In 1990 the University of Michigan Medical School began a process of review that culminated two years later with the adoption of a completely new curriculum for the M.D. degree, MD21. The MD21 curriculum incorporates instruction in small groups, student-centered exercises, multi-disciplinary conferences, early introduction to patients, and increased experiences in ambulatory and primary care. Of particular note is the development of significant opportunities to participate in community-based learning preceptorships as part of the curriculum.

The Medical School is consistently ranked among the leading medical schools in the United States, whether measured by the quality of its instructional programs, its research accomplishments or the impact of its graduates.

Graduate Programs

The Medical School, through the Program in Biomedical Sciences (PIBS) and the Horace Rackham School of Graduate Studies, offers Ph.D. and masters degree programs in the basic sciences. PIBS encompasses eleven different departments and interdisciplinary programs. PIBS coordinates the admission process and oversees the first year of Ph.D. studies in the following programs: Biological Chemistry, Biophysics, Cell, Developmental and Neural Biology, Cellular and Molecular Biology, Human Genetics, Immunology, Microbiology and Immunology, Neuroscience, Pathology, Pharmacology, and Physiology.

PIBS students benefit not only from the flexibility of a broad range of program choices, but also from the focused and individualized training environments within each discipline. Students who are certain of their choice of specialty can concentrate immediately within any one field, while those still exploring more than one area can devise a study plan that includes several programs, without delaying progress toward a degree. PIBS staff members and representatives of the individual Ph.D. programs help students match courses with training interests to ensure minimal disruption during the first year of study. By the end of the first year, students select a research advisor and decide on a program of study. For more information about the PIBS program, visit http://www.med.umich.edu/pibs/.

Medical Scientist Training Program

The Medical Scientist Training Program (MSTP) was established in 1979 to facilitate the education of superior, dedicated students in a combined M.D./Ph.D. program. The University of Michigan is home to one of only 38 such NIH-funded programs in the nation. The MSTP is designed for students with significant research experience and the potential and commitment for academic careers in basic research and clinical investigation. With 85 graduates since its inception and 70 current students, the program continues to enjoy the positive support of the faculty and administration of the graduate and medical schools. For more information about the MSTP program, visit http://www.med.umich.edu/medschool/mstp/.

Residency Programs

The Health System offers 65 ACGME accredited residency and fellowship programs providing a variety of educational training opportunities ranging from primary care to subspecialty medicine. There are approximately 850 residents and fellows enrolled in these training programs, the majority of whom are selected through the National Resident Match Program.. Residency programs offer the opportunity to learn from hospitalized patients in the University Hospitals, Veteran's Administration Medical Center, and affiliated hospitals as well as ambulatory patients in hospital and community based clinics. Residency education is coordinated through the Office of Graduate Medical Education. For a list of residency programs, visit http://www.med.umich.edu/medschool/gme/residents/.

Robert Wood Johnson Clinical Scholars Program

The Medical School is one of seven sites selected for a Clinical Scholars Program by the Robert Wood Johnson Foundation of Princeton, New Jersey. This program helps young physicians committed to clinical medicine broaden their skills and obtain training in non-biological sciences that are important to medical care systems. Carefully selected young physicians pursue a two-year program of graduate level study and research in such priority interdisciplinary areas as health care delivery and financing, clinical decision making, biomedical ethics, medical history and health-care policy. For more information on the Clinical Scholars Program, visit http://www.med.umich.edu/csp/.

Continuing Medical Education

The Medical School offers extensive opportunities for the pursuit of continuing medical education. Programs are run by individual departments and offer up-to-date training on

clinical and research discoveries impacting patient care. Many courses are held on-site, with a goal of providing access and exposure to state-of-the-art research and clinical care. For information on CME, visit http://cme.med.umich.edu/.

Research

The research environment at the Medical School is a vigorous one, enhanced by $227.4 million in research funds in the fiscal year 2001, and by the presence of world-renowned investigators working at the forefront of their respective fields. A tradition of collaboration between the basic science researchers and their clinical colleagues is especially noteworthy. In addition, the School has a strong tradition of clinical research including the highest funded single Clinical Research Center in the nation and a newly established Center for Clinical Therapeutics. The Medical School's biomedical research environment is also enriched by the prestigious Howard Hughes Medical Institute, whose research programs address areas of molecular genetics.

Throughout the past decade, the Medical School has ranked nationally in the top tier institutions in federally funded research. In fiscal year 2001, the National Institutes of Health ranked the Medical School ninth among all institutions and second among public schools in federally funded research, and seventh in the actual number of grants awarded. The University of Michigan as a whole ranked third among public institutions nationally during this time as a recipient of research funds. In generating approximately 70 percent of the University's total NIH research funding, the Medical School has maintained a key position of scientific leadership within and beyond the University's scientific community in the pursuit of discovery, in the translation of pioneering breakthroughs to the clinical setting, and in the dissemination of new knowledge to the public at large.

Medical School Alumni

Michigan Medical School alumni are having an impact on the national and international world of medicine and the biomedical sciences. They are at the forefront of research advancements, practicing in the leading medical centers around the world, and training tomorrow's doctors and researchers. Medical School alumni include Nobel Prize winners, a former U.S. Surgeon General, leaders of Fortune 500 companies, America's family health care providers, and faculty at leading educational and research institutions around the world. The University of Michigan Medical School is second in the nation in the number of alumni who are faculty members at academic institutions across the country.

Private Support

The Medical School relies upon the generosity and commitment of many alumni and friends to support its missions of research, service and education. Every year the Medical School and the Health System is tremendously gratified to receive more than $30 million in private gifts from individuals, corporations and foundations. Such private gifts, which fund endowed scholarships, professorships, research projects, new programs and new buildings, figure importantly in the School's ability to maintain its stature in the world of medicine.

Diversity

The Medical School has been committed to diversity for more than 100 years. The first woman to graduate from the Medical School was Amanda Sanford in 1871 and William Henry Fitzbutler was the first African-American graduate in 1872.

More recently, the Medical School's commitment to diversity is reflected in its student body. Under-represented minorities comprise 15% of the current medical student body, while women represent 41%. The Medical School ranks 5th in the nation in the number of minority physicians it graduates each year. The graduate programs also actively recruit exceptional minority and women candidates. As a result, under-represented minorities make up about 10% of the graduate student body, and 41% of the graduate students are women. Currently, efforts are in progress to increase the diversity of faculty and residents at the Medical School.

Facilities

Together, the Medical School and the three University Hospitals constitute the Medical Center campus located on 84 acres of land in more than 30 buildings just north of the University's main campus. The Medical School occupies over 2 million gross square feet of research and education space, 45% of which has been activated since 1985. Clinical care is provided in the adjacent University Hospitals and clinics housed in 20 buildings and over 3.3 million gross square feet.

Recent additions to the Health System facilities include the East Ann Arbor Health Center, which answers a community need for outpatient care in an off-campus setting, and a trio of state-of-the-art biomedical research structures featuring unique configurations to foster investigative collaboration and shared access to common equipment. The Comprehensive Cancer and Geriatrics Center, which opened in June of 1997, houses both the Comprehensive Cancer Center and the Geriatrics Center, and was designed with a great deal of input from patients, families and staff. It continues the patient-focused, multidisciplinary care that both Centers of Excellence have pioneered in their respective fields. The clinical and research floors bring scientists and physicians

together to collaborate in new ways, delivering the latest advances from laboratories to the clinical setting even more rapidly.

Taubman Medical Library

The Taubman Medical Library, one of the largest medical libraries in the country, serves the School of Nursing, College of Pharmacy, and the Health System at the University of Michigan. The Library receives over 3,300 periodicals and offers search services for more than 100 databases for faculty, staff and students.

Learning Resource Center

The Learning Resource Center (LRC) is a focus of activity for the support of the curriculum for the M.D. degree. The LRC serves as a resource for faculty and students interested in learning about, exploring and developing computer-based technologies used in medical education. State-of-the-art equipment and professional consultation offer faculty an opportunity to learn about the use of technology in education and to upgrade their current teaching materials to a digital format or create new computer-based materials.

A fully equipped (medical instruments and videotaping/monitoring capacity) educational area with patient exam rooms and demonstration areas are ideal for teaching students clinical skills. LRC staff also provide comprehensive support for all activities in classrooms, lecture halls, and auditoria throughout the Medical Center.

Research Centers & Institutes

The Medical School has more than 24 interdisciplinary research centers and institutes combining research and clinical care in an academic setting. The School also has 29 interdisciplinary programs projects involving interdepartmental collaboration, frequently spanning the basic science and clinical communities. There are 17 NIH-funded centers, including two regentially designated "Centers of Excellence:" the Comprehensive Cancer Center and the Geriatrics Center.

Key Personnel

Dean, University of Michigan Medical School, Allen Lichter, M.D.
Executive Vice President and Chief Executive Officer, University of Michigan Health System, Gilbert Omenn, M.D., Ph.D.
Executive Director, University of Michigan Hospitals, Larry Warren
Executive Associate Dean, James Woolliscroft, M.D.
Senior Associate Dean, Lloyd Jacobs, M.D.
Associate Dean for Clinical Affairs, John Billi, M.D.
Associate Dean for Clinical Affairs and Executive Medical Director, Faculty Group Practice, David Spahlinger, M.D.
Assistant Dean, Veterans Administration, Daniel Hinshaw, M.D.
Associate Dean for Faculty Affairs, David Bloom, M.D.
Assistant Dean for Faculty Affairs, Jayne Thorson, Ph.D.
Associate Dean for Medical Education, Joseph Fantone, M.D.
Assistant Dean for Medical Education, Casey B. White
Associate Dean for Research and Graduate Studies, Steve Goldstein, Ph.D.
Associate Dean for Student Programs, Rachel Glick, M.D.
Assistant Dean for Medical Student Career Counseling, Brian Zink, M.D.
Assistant Dean for Diversity and Career Development, David Gordon, M.D.
Assistant Dean for Admissions, Joyce Wahr, M.D.
Director, Program in Biomedical Sciences (PIBS), David Engelke, Ph.D.
Chief Financial Officer, William Elger
Facilities Officer, Horace Bomar
Director, Medical Center Alumni and Development, James Thomas

Medical School Department Chairs

Anesthesiology, Kevin Tremper, M.D., Ph.D.
Biological Chemistry, Jack Dixon, Ph.D.
Cell & Developmental Biology, Michael Welsh Ph.D. (Acting)
Dermatology, John Voorhees, M.D.
Emergency Medicine, William Barsan, M.D.
Family Medicine, Thomas Schwenk, M.D.
Human Genetics, Thomas Gelehrter, M.D.
Internal Medicine, Larry McMahon, M.D. (Acting)
Medical Education, Roland Hiss, M.D.
Microbiology & Immunology, Michael Savageau, Ph.D.
Neurology, Sid Gilman, M.D.
Neurosurgery, Julian Hoff, M.D.
Obstetrics/Gynecology, Timothy Johnson, M.D.
Ophthalmalogy, Paul Lichter, M.D.
Orthopedic Surgery, Robert Hensinger, M.D.
Otolaryngology, Gregory Wolf, M.D.

Pathology, Peter Ward, M.D.
Pediatrics & Communicable Diseases, Jean Robillard, M.D.
Pharmacology, Paul Hollenberg, Ph.D.
Psychiatry, John Greden, M.D.
Physical Medicine & Rehabilitation, James Leonard, M.D.
Physiology, John Williams, M.D., Ph.D.
Radiology, N. Reed Dunnick, M.D.
Radiation Oncology, Theodore Lawrence, M.D., Ph.D.
Surgery, Lazar Greenfield, M.D.
Unit for Laboratory Animal Medicine, Howard Rush, D.V.M.
Urology, James Montie, M.D.

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