



School of Medicine

Oregon Health & Science University

Oregon Health & Science University: An Overview

As the state's only academic health center, OHSU brings together patient care, research and education to educate the next generation of health care professionals and scientists to improve the health and well-being of Oregonians and beyond.

In 1887, the inaugural class of the University of Oregon Medical School (the precursor to OHSU) met in the school's lone building – a two-room converted grocery store in northwest Portland. From that small school, OHSU has grown into a world class teaching hospital and research center, drawing faculty, students, scientists and patients from across Oregon, the country and the world.

As a leader in research, OHSU earned about \$390 million in research funding in fiscal year 2010, with 94 percent of funding flowing into Oregon from out-of-state. Additionally, OHSU serves as a catalyst for the region's bioscience industry and is an incubator of discovery, averaging one new breakthrough or innovation every three days, with more than 4,100 research projects currently under way. OHSU disclosed 115 inventions in 2010, many of which have opened new markets and spin-off businesses, and created new opportunities.

With more than 2,700 students and trainees, OHSU provides leading and world-renowned educational services through its three schools, and is the only place in Oregon that grants doctoral degrees in medicine, dentistry and nursing. OHSU also partners with Oregon State University in a pharmacy education program.

As well as providing critical health care services, quality health care education, and cutting-edge research, OHSU is a key economic and social force in the Northwest. With an annual budget of more than \$2 billion and more than 13,000 employees, OHSU is Portland's largest and the state's fourth largest employer (excluding government) and drives more than \$3 billion in annual regional economic activity. OHSU also received about \$100 million in philanthropic support in 2011.

The School of Medicine: An Overview

The OHSU School of Medicine is a vibrant community of educators, students, scientists, clinicians and others working side-by-side to heal, teach, discover and serve. The school is proud of its uniquely collaborative and collegial environment. The faculty is comprised of about 1,850 physicians, scientists and other professionals, dedicated to preparing the next generation of health care professionals for the research, medical, ethical and humanistic responsibilities of their calling, while also providing outstanding care to patients from Oregon and elsewhere.

The School of Medicine faculty is widely recognized nationally and internationally for the pursuit of new knowledge in a breadth of investigative areas ranging from molecular biology of cancer and heart disease, behavioral neuroscience and issues of public health and policy. In fiscal year 2010, the School of Medicine received about \$246 million in research funding, representing 63 percent of the OHSU total.

The School of Medicine is divided into seven basic science and 20 clinical science departments. The school is also home to 22 free-standing centers and institutes, including the OHSU Knight Cancer Institute. The OHSU Faculty Practice Plan, the operational unit for clinical practice by members of the OHSU faculty, is a unit of the School of Medicine with the Dean as its president and clinical chairs as the members of its Board of Directors.

The school offers doctorates in medicine and philosophy (in the basic sciences), and master's degrees in science, clinical dietetics, public health and physician assistant studies. The school also offers a combined MD/PhD program, which allows a select group of students to dually prepare for careers in medicine and biomedical research, as well as an MD/MPH program. In addition, the school offers a Bachelor of Science degree in several allied health disciplines along with multiple professional certificate programs.

This is an era of exciting change for the School of Medicine. OHSU will shortly break ground on a new multi-institutional collaborative life science building in Portland's South Waterfront district. The building will feature innovative new research labs, interprofessional education space, simulation labs and provide the opportunity to potentially expand the MD class size, as well as reshape curricula to meet the needs of the 21st century.

MISSION STATEMENT FOR THE SCHOOL OF MEDICINE

- Provide programs to enhance human health, with emphasis on improving health and access to care for all Oregonians.
- Educate tomorrow's physicians, scientists and other health professionals and prepare them for a lifetime of learning, leadership, discovery and service.
- Develop new medical knowledge and technologies through basic, clinical and applied research.
- Translate discoveries into effective health care and quality delivery.

The Office of the Dean: An Overview

The goal of the School of Medicine Office of the Dean is to advance health care and its delivery through service and leadership to our students, faculty and region. The Office of the Dean is the central administrative unit for the School of Medicine. The Office of the Dean coordinates all administration of the School of Medicine and the Faculty Practice Plan. These activities include strategic planning, admissions, accreditation, medical curriculum development, faculty affairs, medical student affairs, alumni affairs, graduate studies, continuing medical education, graduate medical education, finance, leadership training, human resources, community engagement and partnerships, communications and more.

ACADEMIC PROGRAMS

The School of Medicine offers a breadth of education programs and degrees as part of its goal to shape the future of health care by educating the next generation of physicians, scientists, physician assistants, policy makers, nutritionists and other health professionals.

The specific degree programs offered by the School of Medicine are listed below followed by a discussion of the overall educational program categories.

- Advanced Paramedic (AAS)
- Behavioral Neuroscience (PhD)
- Biochemistry and Molecular Biology (PhD)
- Biochemistry and Molecular Biology (MS, PhD)
- Biomedical Engineering (MS, PhD)
- Biomedical Informatics (Certificate, MBI, MS, PhD)
- Cancer Biology (MS, PhD)
- Cell and Developmental Biology (PhD)
- Clinical Laboratory Science (BS)
- Clinical Research (through Human Investigations Program) (MCR, Certificate)
- Combined Medicine, Doctor of Philosophy (MD/PhD)
- Combined Medicine, Master of Public Health (MD/MPH)
- Computer Science and Engineering (MS, PhD)
- Dietetics and Nutrition (Certificate, coordinated MS, MCD, MSCN)
- Electrical Engineering (MS, PhD)
- Environmental Science and Engineering (MS, PhD) Fellowships and Residencies (GME)
- Health Care Management (Certificate, MS, MBA)
- Medical Physics Program (PhD)
- Medicine (MD)
- Molecular and Medical Genetics (PhD)
- Molecular Microbiology and Immunology (PhD)
- Neuroscience (PhD)
- Physician Assistant (MPAS)
- Physiology and Pharmacology (PhD)
- Radiation Therapy (BS)

MEDICAL EDUCATION

The School of Medicine is consistently recognized in national academic rankings and studies for its medical education programs. In the 2012 edition of *U.S. News & World Report's* best medical schools, the School of Medicine ranked second in family medicine training, third in primary care training, fifth in rural medicine training, and sixth in physician assistant training. Additionally, the *Annals of Internal Medicine* recognized the School of Medicine as one of the best in the nation for training the most needed physicians. The 2010 study, "The Social Mission of Medical Education: Ranking the Schools," developed a metric to evaluate if medical schools are meeting society's health care goals. The authors defined this as producing an adequate number of primary care physicians, adequate distribution of physicians to underserved areas and a sufficient number of minority physicians. OHSU was ranked 11th out of 133 U.S. medical schools.

The medical education program also plays an essential role in Oregon's workforce and is, thus, highly focused on retention. In-state retention in both the MD and Graduate Medical Education (GME) programs are among the highest nationwide, according to the Association for American Medical Colleges. Currently, one-third of all licensed physicians in Oregon received all or part of their training at OHSU.

The school is also committed to working with the state to help reverse Oregon's physician shortages, particularly in rural areas, through creative partnerships. In addition to our Rural Scholars Program that is focused on students who are inclined to practice in rural settings, all our MD candidate students are required to participate in a Rural Clerkship experience. Similarly, our Physician Assistant program is uniquely focused on rural areas and two GME training programs offer new physicians the chance to experience the rewards of practicing in smaller Oregon towns. The OHSU Cascades East Family Medicine Residency Program in Klamath Falls allows residents to complete their entire three-year program in a rural area. The General Surgery Residency Program at OHSU partners with the Three Rivers Hospital in Grants Pass to support a one-year Rural Surgery residency rotation for surgeons interested in rural practice.

Undergraduate Medical Education

The goal of the School of Medicine curriculum is to present a four-year continuum that balances an understanding of the scientific basis of medicine with early clinical experience; offers progressive patient care responsibilities for students; and permits students to individualize their educational programs as well as to enhance their independent learning and problem solving skills. The medical sciences are presented in an interdisciplinary format focusing initially on the scientific principles of medicine and ultimately progressing to disease processes and the clinical management and care of patients.

The School of Medicine has developed and implemented an innovative, nationally recognized curriculum that brings medical students closer to patients earlier than do most other schools' programs, and prepares them to be lifelong learners. Students begin working with patients their first week of school. The curriculum focuses on learning through problem solving, and seeks to better address societal and behavioral issues in health care. While OHSU hospital and clinics and

the Portland Veterans Affairs Medical Center are the major clinical teaching facilities for an OHSU medical education, the school partners with many other community hospitals and health systems statewide in the medical education program.

The Education and Student Affairs office is responsible for the management of the MD program. The office is housed within the Office of the Dean and has 18 staff, two associate deans and one assistant dean. The areas of oversight include admissions, student records and scheduling, curriculum and facilities management, student affairs services, standardized patient center and oversight for the entire curriculum and regional education programs.

The most recent MD class size is 124 entering students. The applicant pool averages 4,800 of which about 480 are Oregon residents. A typical class is about 70 percent Oregon residents and the students come from 80 different universities and colleges. Generally, each class has two MD/PhD students and six MD/MPH students.

Graduate Medical Education

Graduate Medical Education (GME) is a central mission of OHSU. Graduate training programs are offered in virtually all fields of medicine, as well as oral/maxillofacial surgery. There are 73 GME programs at OHSU accredited by the Accreditation Council for Graduate Medical Education (ACGME). They range from one to seven years in duration. Approximately 800 residents and fellows are training at OHSU at any given time.

OHSU Hospital and the Portland Veterans Affairs Medical Center are the major GME clinical teaching facilities of OHSU. House officers participate in the care of patients in these hospitals under the supervision of OHSU faculty and gain additional experience in community hospitals, which have affiliated teaching programs under the direction of the School of Medicine. OHSU house officers also rotate to all seven of the major hospitals in Portland (OHSU, Portland Veterans Affairs Medical Center, Emanuel, Good Samaritan, Providence Portland Medical Center, Providence St. Vincent Medical Center and Kaiser Permanente). The OHSU GME program was awarded a five-year accreditation renewal in July 2011.

Continuing Medical Education

Lifelong learning is essential to maintain a qualified, up-to-date physician workforce. In 2010, about 20,500 professionals participated in courses offered by the School of Medicine Division of Continuing Medical Education. No other Oregon entity provides this type of learning experience for physicians. The Division is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide this continuing educational resource for physicians. In July 2011, the OHSU Division of CME received Accreditation with Commendation from the ACCME. This is the highest level of accreditation and gives the program six years until our next ACCME review, rather than four.

Nearly 100 activities are offered each year to address the educational needs of generalist and specialist physicians and other health care practitioners. Programs are developed and led by OHSU faculty and range from the five-day Primary Care Review to the individualized Physician

Re-Entry Program. There are computer-based activities, didactic courses and others featuring simulation labs, small group learning or one-on-one training. The full spectrum of medical disciplines is represented. The content of activities focuses on the body of knowledge and skills generally recognized and accepted by the health profession as within the basic medical sciences, the discipline of clinical medicine, and the provision of health care to the public. Information provided is scientifically balanced, evidence-based and free of bias.

GRADUATE STUDIES EDUCATION

Graduate research programs have expanded tremendously at OHSU in the past decade. There are nearly 700 students enrolled in 31 PhD and Master's degree programs. Many of these programs are highly ranked in their fields including Neuroscience, Physiology and Pharmacology and Behavioral Neuroscience.

Of particular note, the Biomedical Informatics program, which drives innovation in biomedicine by bringing together clinical informatics, computational biology and health information management, was recently awarded a \$5.8 million grant to support the education of 150 additional students over three years and build a national dissemination resource for health information technology curricula.

Throughout all programs, graduate students are taught and mentored by over 400 members of the Graduate Faculty with appointments in academic and research units within the medical school and university. Students are funded through independent awards as well as through 16 training grants. The three largest graduate programs receive eight to ten applications for every opening.

Graduates from our programs work in industry and academia, and some of our graduates are now in postdoctoral fellowships in prestigious universities worldwide including Harvard, Vanderbilt, Duke, University of Washington, the Max Plank Institute, University of Edinburgh, Institute for Science and Technology in Austria and University of Zurich.

Physician Assistant Program

The Physician Assistant (PA) Program was established in 1995 with the mission of preparing physician assistants to provide primary care services to rural and urban medically underserved communities. The PA Program is a 26-month, full-time course of study leading to a Master of Physician Assistant Studies degree. The didactic phase of the Program is 12 months; the clinical phase lasts 14 months.

The program enjoys a strong applicant pool from across the country. The most recent class consisted of 38 students from an applicant pool of 915. Half the class is from Oregon and Washington, with the remainder from states throughout the country. Entering students bring experience as emergency medical technicians (EMT), paramedics, certified nursing assistants (CNA), medical assistants, phlebotomists and naturopaths to name a few.