

# MD/PhD Programs

The typical program of study includes the first two years of the medical school basic sciences curriculum, followed by three or more years of graduate school and thesis research, and then the final two years of clinical clerkships. However, M.D./Ph.D. program length varies considerably between schools. The current average time to graduation from start to finish in MSTPs is 7-8 years.

## **M.D./Ph.D. admissions**

The fraction of M.D./Ph.D. applicants is typically very small relative to those not pursuing a combined degree. At most schools, M.D./Ph.D. applicants must go through the normal medical application process. Applicants must also complete a separate M.D./Ph.D. application, which consists of MCAT scores, GPA, undergraduate institution, one or more essays, and additional letters of recommendation from those who can assess the applicant's potential for a career in research. Interview arrangements vary between programs, with some providing airfare, hotel accommodations, meals, and planned activities. M.D./Ph.D. applicants typically have many more interviews at each school than those pursuing the standard M.D. pathway. In addition, many unique factors come into play when making a decision on which program to attend. There is considerable variation among programs in virtually all aspects of the application process.

## **MSTP Programs**

Medical Scientist Training Programs (MSTP) are M.D./Ph.D. programs offered by a small number of United States medical schools with funding from the National Institutes of Health (NIH), to train physician scientists for biomedical research, particularly "translational" or "bench to bedside" research. Admission to MSTPs is highly competitive, with only about 200 positions available nationwide each year (compared to >22,000 MD-only and another ~8,000 DO positions). Candidates must have outstanding academic records and MCAT scores (average score 516); research experience is very helpful. MSTP awards cover tuition expenses, give travel and supply allowances, and provide an annual stipend (ranging from ~\$30,000 to over \$40,000). There are currently 50 individual MSTPs at 45 participating institutions. All top 20 medical schools, as ranked by the US News and Report, have an MSTP.

## **Non-MSTP MD/PhD and DO/PhD programs**

More than 60 allopathic (MD) and osteopathic (DO) schools without NIH MSTP grants maintain their own MD/PhD or DO/PhD programs, sometimes offering full or partial student financial support funded by the schools themselves.

Additionally, several medical schools allow for the PhD portion of an MD/PhD to be completed at an allied institution. The most famous of these is the Harvard-MIT program; the University of Colorado Medical School in Denver and CU Boulder have such a program (in addition to MD/PhDs that can be completed entirely at the medical school in Denver).

Further information is available at the Association of American Medical Colleges [AAMC MD-PhD Dual Degree Training](#) and at the [NIH NIGMS](#) websites.

# UW MD/PhD Program (MSTP)

The Medical Scientist Training Program (MSTP) at the University of Washington is designed for highly qualified candidates who wish to obtain both M.D. and Ph.D. degrees and to pursue careers in basic medical research. Selection for this program is national in scope and is not restricted to residents of Washington, Wyoming, Alaska, Montana, and Idaho. Applicants must be US citizens or currently hold permanent resident status.

About 10 MSTP trainees are accepted per year from ~500 applicants. Potential trainees are interviewed by a single MSTP committee for acceptance to both the School of Medicine and to the Graduate School for the Ph.D. degree. Each trainee is permitted a wide choice of research specializations from among numerous disciplines and interdisciplinary areas of biomedical research. The typical program is 7-8 years in duration and emphasizes continuity of both clinical and basic science exposure. Stipends start at \$33,300 and increase to \$41,200 in year 3, plus tuition waivers and health insurance are paid for.

Among the participating graduate departments are Biochemistry, Bioengineering, Biostatistics, Biological Structure, Epidemiology, Environmental Health, Genome Sciences, Global Health, Immunology, Microbiology, Pathology, Pharmacology, Physiology and Biophysics, and Zoology. The participating interdepartmental and affiliate programs are Neurobiology and Behavior, Molecular and Cellular Biology and the Fred Hutchinson Cancer Research Center.

## Medical Scientist Training Program Application

The Medical Scientist Training Program application is available to all qualified U.S. applicants. After the UW School of Medicine receives the AMCAS application, applicants must submit an MSTP preliminary application by visiting the MSTP website: <http://www.mstp.washington.edu/>

AMCAS applications must be submitted by the October 15th deadline. Applicants must list their interest in the UW MD/PhD program. All UW MSTP applications must be complete (including supplemental materials) by the day after the New Year holiday. Contact the MSTP office [mstp@uw.edu](mailto:mstp@uw.edu) with questions.

### UW MSTP Schedule and Curriculum Overview:

- Summer before medical school: First lab rotation
  - Academic year 1: Medical school year 1 with added courses on Genomic Dissection and Translational Research
  - Summer after year 1: Second lab rotation
  - Academic year 2, Fall: Medical school year 2 coursework
  - January-March of year 2: study for and take USMLE Step 1, then begin PhD studies
  - Years 3 to 6: PhD research. PhD awarded at the end of this period
  - Years 7 and 8: Medical school clerkships. MD awarded at the end of this period.
- Typical time in the program is 8 years