# **Medical Scientist Training Program**

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The University of Illinois College of Medicine offers a select number of students the opportunity to work toward both the MD and PhD degrees in an integrated fashion, in the Medical Scientist Training Program (MSTP). The objective of the program is to train students for careers in academic medicine and research. Students admitted to this highly competitive program participate in the medical school curriculum and pursue original doctoral research projects in the laboratories of the university's graduate faculty. Students take seven to eight years to complete both degrees; four years for MD degree and three to four years for the PhD degree.

## **Program Overview**

The first two years of the program are used to complete Phase 1 of the medical school curriculum (M-1 and M-2 years). Students enter "at large," that is, without an affiliation to a particular graduate department. During this time, they are encouraged to explore research opportunities in any academic department of the College of Medicine and selected graduate departments throughout the university. After admission to the MSTP, students complete three rotations in laboratories working with various potential advisors before a choice is made. The choice of a permanent thesis advisor and graduate department takes place at the end of the Phase 1 curriculum. Students then step out of the medical school curriculum and begin the graduate phase of their training.

Students in the graduate phase (G1–G4 years) of the program work side-by-side with other PhD students and meet all department-specific requirements for the PhD degree. Students' research accomplishments result in original publications and in presentations at national biomedical science meetings. For the PhD phase of the program, students may associate with one of the basic science PhD programs of the College of Medicine through the GEMS (Bio) (see descriptions in this section), with the Graduate Program in Neuroscience, the Department of Bioengineering, or with one of many program-approved departments across the university. During the PhD studies, MSTP students keep their clinical skills and patient interviewing skills sharp by participating in the Clinical Connections program. Upon successfully defending their thesis, students complete their graduate training and return to medical school.

In the final two years of the program (Phase 2 and Phase 3 of the medical school curriculum), MD/PhD candidates rejoin other medical students to complete their medical school training and requirements. Phase 2 includes the following required clerkship rotations: medicine, surgery, pediatrics, obstetrics and gynecology, neurology, and psychiatry. While Phase 3 allows for a focus on career goals with required medical school electives and training.

### **Program Highlights**

In an effort to help students find a mentor and lab in which to work, a series of lunchtime seminars designed for Phase 1 MSTP students provides an overview of opportunities for research. In addition, an ongoing series of dinner seminars is presented to MSTP students in all stages of the program by faculty and invited physician-scientists from various academic health science centers. These seminars enhance the students' general knowledge and help to develop new approaches toward the investigation of problems in biomedical research. A series of student Grand Rounds seminars presents topics in new frontiers in understanding and/or treatment of important clinical problems, with particular emphasis on the interface between basic science and medicine. Each presentation is given by a pair of students who divide the discussion between clinical aspects and latest research findings of a medical condition of their choosing. These seminar series, along with the annual research day and other gatherings with faculty, serve to bring together trainees and preceptors and expose the students to the area of research being explored at UIC and the faculty doing the research. The department also offers strong student advising that students receive from the program leadership via individual, cohort and house advising sessions. The MSTP students are divided into advising houses in order to promote vertical learning and advising opportunities for students.

Graduates of the program have routinely gained admission to the most competitive residency programs at many of the premier academic institutions in the country, including the ever-growing number of physician-scientist residency programs.

## **Admission Requirements**

Applicants to the Medical Scientist Training Program (MSTP) must apply to the UIC College of Medicine via AMCAS by the stated deadline and meet all of the admission requirements of University of Illinois College of Medicine.

The AMCAS application includes a check box for choosing MD/PhD programs. Applicants who check the box, on their AMCAS application will receive two additional essays prompts to complete. Completed applications are verified by AMCAS and routed to the specific medical schools where the applicant is applying. Upon receipt of a verified application, the University of Illinois College of Medicine Admissions Office will send a supplemental application. Once the supplemental application and related fees are returned to the University of Illinois College of Medicine and the CASPer exam<sup>a</sup> completed, the application for MSTP and the College of Medicine will be complete and eligible for full review.

MD/PhD applications will be reviewed by the MSTP's admissions committee. The MCAT examination is accepted in lieu of the GRE examination. Application to the program is normally made at the time of application to the College of Medicine. However, candidates will also be considered from University of Illinois College of Medicine students in Phase 1 of their medical training.

Criteria for admission to the program include academic excellence, prior research experience, potential for independent and creative research, and commitment to a career in academic medicine. Laboratory work concentrating in biology, chemistry, physics, biophysics, bioengineering, or behavioral sciences is helpful in preparing for study in the Medical Scientist Training Program. The admissions policy is flexible enough to accommodate those students who have already identified the field in which they wish to carry out research as well as those who are still undecided about their areas of research specialization. Admission to the Medical Scientist Training Program is open to U.S. citizens or permanent residents.

a CASPer Exam is a situational judgement exam required by UIC College of Medicine for admission.

## **Degree Requirements**

Students in the program complete requirements of the College of Medicine for the MD degree and requirements of their chosen research department for the PhD degree. They must complete and submit their PhD dissertation and complete its defense before returning to the medical curriculum for Phase 2 and Phase 3. The PhD and MD degrees are conferred at the Medical School graduation.