MD/PhD Programs

Why do both?

- You want to combine research and patient care
- You can do clinical research with MD alone, but PhD training will help with getting grant funding for translational research
- You want to graduate without debt. Most MD/PhD programs provide full tuition waivers and stipends

How do I get into an MD/PhD program?

- Highly competitive!
- Many medical schools have MD/PhD programs, but each has only a few positions relative to the number of medical students (<5%)
- Must have stellar MCAT scores, GPA, and preferably undergraduate research experience
- Start with same application process (AMCAS), indicate MD/PhD preference, provide additional information in secondary
- Additional or separate interviews some schools provide travel funds
- In some cases you must be admitted to both MD and PhD programs

How does it work?

Programs vary, but most commonly MD/PhD students do this:

- First 2 years of medical school ("basic science") curriculum; take Step 1
- Rotations in research labs during this period
- Choose PhD research advisor and project towards end of 2nd year
- Work on research and write PhD thesis for 3-4 years
- Complete last 2 years of medical school curriculum:
 - Required and elective clinical rotations, Step 2 board exam
 - Choose medical specialty; apply for residency, interview, match
- Residency takes 3-5 years, depending on specialty
- MD/PhDs frequently do a 1-2 year fellowship after residency that includes a research project

MSTP Programs

- Medical Scientist Training Programs (funded by NIH grants)
- 50 programs with total of ~200 positions/yr., including ones at all top 20 medical schools
- Take US residents from all states no in-state preference
- Provide \$30-40,000/year stipends plus tuition, travel, supplies
- Not all MD/PhD programs are MSTPs
- Many medical schools have non-MSTP programs with varying degrees of financial support from sources other than US government

Example: UW MSTP Program

- ~10 MD/PhD students admitted/year (from ~500 applicants)
- Not restricted to WWAMI states
- After the UW School of Medicine receives AMCAS application, applicants submit an MSTP application by visiting: http://www.mstp.washington.edu/
- Applicants interviewed by a single MSTP committee for both the School of Medicine and the Graduate School (PhD program)
- Stipends start at ~\$33,000 and increase to ~\$41,000 in year 3, plus tuition waivers and health insurance
- Wide choice of research areas. Participating departments: Biochemistry, Bioengineering, Biostatistics, Biological Structure, Epidemiology, Environmental Health, Genome Sciences, Global Health, Immunology, Microbiology, Pathology, Pharmacology, Physiology and Biophysics, and Zoology. Neurobiology and Behavior, Molecular and Cellular Biology and the Fred Hutchinson Cancer Research Center

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 /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

Questions?

 For questions about the UW program, contact the MSTP office <u>mstp@uw.edu</u>