

Pathways to Becoming a Physician-Scientist

What impact does embryonic stem cell research have on individuals with Parkinson's disease? What combination of strategies can physicians use to induce neuronal regeneration in patients who have CNS lesions? As a physician-scientist-in-training, one can approach these questions from both clinical and basic science aspects. Research affords us the opportunity to both advance our knowledge of basic science and understand the importance of medical research in patient care.

There are several pathways for a medical student to become a physician-scientist. You can either go through the traditional MD/PhD training or, like most students, gain the basic science experience as a medical student or resident without acquiring another advanced degree. Upon completing clinical training (i.e. residency and fellowship), you can decide whether research is something you'd like to pursue, be it clinical, basic science or biomedical in nature.

Several career options are available to physician-scientists. First, you will have the opportunity to decide whether you want to focus on patient care, biomedical research, departmental administration or a combination thereof. Second, you will have the choice of your working environment, including academic institutions, private clinics, government, or biotech companies. As you can imagine, the career options for a physician-scientist are plentiful.

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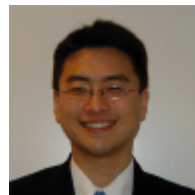
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American Medical Association - Medical Student Section (AMA-MSS)

Research Opportunities and Pathways for Medical Students



Information Pamphlet

Prepared by the
Committee on Scientific Issues
(CSI)

National and International Research Opportunities for Medical Students

National Institutes of Health (NIH):
www.training.nih.gov/student/index.asp

1) Summer Research Fellowship Program summary: Open to MS1s-MS3s. The goal of this program is to match the research interests of the student with a laboratory where those interests might be pursued in Bethesda, Baltimore, or Hamilton, MT. The program is a minimum of eight weeks, from late May to the end of August. Students in NIH summer research programs are supported by a stipend. Students are responsible for their own travel and housing expenses. Application due date: Summer 2006 opens November 2005, closes March 2006.

2) Clinical Research Training Program (CRPT) summary: The CRTP is a year-long program designed to attract the most creative, research-oriented medical and dental students to the intramural campus of the NIH in Bethesda, MD. Stipend around \$27,000/year, plus computer and conference travel allowance. Application due date: January 17, 2006.

3) Year-Off Program summary: Program is designed to provide research training at the NIH for students who are enrolled in graduate or medical degree programs and have permission from their institution to interrupt their current education, with the understanding that they will return to their degree granting institution within one year. Stipend levels depend on the individual's education and experience. Application due date: varies.

4) Howard Hughes Medical Institutes-NIH Research Scholars Program summary: The program consists of a year of basic, translational or applied biomedical research at the NIH in Bethesda, MD. Student must be in good standing, and does not have to be from a research-oriented school or have prior research experience. Annual compensation is \$25,000 with fully paid medical insurance, moving expense reimbursement, furnished on-campus housing allowance for conference travel, related books, and courses. Application due date: January 10, 2006.

Doris Duke Clinical Research Fellowship:
www.ddcf.org/page.asp?pageId=292

Summary: The Doris Duke Clinical Research Fellowship (CRF) program provides MS3s and MS4s with a one-year fellowship in clinical research that includes both didactic and research components. The program is designed to encourage medical students to pursue careers in clinical research at 10 different medical schools: Columbia, Harvard, Mount Sinai, UC-San Francisco, University of Iowa, UNC-Chapel Hill, University of Pennsylvania, UT-Southwestern at Dallas, Washington University in St. Louis, and Yale. There is a \$25,000 annual stipend. It begins in the summer. Application due date: January 2006.

Memorial Sloan-Kettering Cancer Center:
www.mskcc.org/mskcc/html/2637.cfm

Summary: Open to MS1s and MS2s. The program in New York City is designed to promote research in the area of oncology. Students must have already entered their first year of medical school prior to June 2006 and have not begun their third year of medical school as of June 2006. The 8-week program offers a \$5000 stipend. Application due date: February 2006.

AAMC - Fogarty International Center / Ellison Medical Foundation Fellowships:
www.aamc.org/students/medstudents/overseasfellowship/

Summary: Provides one-year clinical research training experience for MS3s. This is an opportunity for highly motivated individuals to experience mentored research training at top-ranked NIH-funded research centers in countries such as Bangladesh, Botswana, Brazil, South Africa, Thailand, and others. Application due date: January 7, 2006.

CDC Experience:
www.cdcfoundation.org/pages.html?page=67

Summary: A program designed for MS3s and MS4s to spend one full year at the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia to gain experience in epidemiologic analyses and research, design public health interventions, and assist in field investigations with CDC epidemiologists. A stipend is provided. Application due date: December 2006.

Other Helpful Websites and Hints:

American Medical Association Seed Research Grant (deadline: December 15):
www.ama-assn.org/ama/pub/category/7785.html

American College of Physicians, Student Research Opportunities:
http://www.acponline.org/srf/med_sr.htm

Also be sure to check your own institution's website as most medical schools offer their own summer research programs!