Postdoctoral Fellowships in Environmental Health Sciences
Funded by NIEHS grant T32-ES11564

Faculty mentors participating in our NIEHS T32-ES11564 environmental health sciences training grant are invited to submit nominations for post-doctoral fellowships. Nominees who are or will be carrying out a research project with a defined focus in environmental health sciences research (as defined on the attached pages) will be a priority. Stipend levels for the selected candidates are set by NIH based on years of experience. We are budgeted for positions with up to two years previous experience. Therefore candidates with more than one year experience will be considered only on an exceptional basis. Teams of mentors (basic and clinical scientists or basic and population-based scientists) that emphasize the importance of multidisciplinary training and translation of basic science findings to the patient and/or community are encouraged. Postdoctoral trainees will enter with a variety of different backgrounds and may or may not matriculate into one of the MS graduate programs. Postdoctoral fellows currently supported by the training grant are invited to apply for a reappointment, but appointments are not expected to extend beyond two years. In addition to traditional PhD scientists, physician scientists also may be nominated for postdoctoral training.

The NIH training grant program stipulates that trainees must be a citizen or noncitizen national of the United States or have been lawfully admitted for permanent residence at the time of appointment. A noncitizen national is a person who, although not a citizen of the United States, owes permanent allegiance to the United States. They are generally persons born in lands which are not States, but which are under U.S. sovereignty, jurisdiction, or administration (e.g., American Samoa). Individuals on temporary or student visas are not eligible.

These fellowship appointments are made for one year with reappointment based on satisfactory progress. The fellowships provide:

1) Annual stipend based on years of prior experience (see above)
2) Payment of tuition and fees (postdoctoral trainees are required to complete the course “Scientific Writing” in the fall semester and the course “Molecular Toxicology” in the Spring Semester. Postdoctoral trainees also are expected to complete training in the responsible conduct of research; some may wish to enroll in a degree program)
3) Annual research-related travel up to $600

Letters of nomination are requested as positions become available. It should include:

1) Nominee’s curriculum vitae, including degrees and previous research experience
2) A description of the research project and an outline of how the research is related to environmental health sciences
3) A description of how the nominee’s research is or will be funded
4) Description of the mentor’s training record
5) Projected postdoctoral training completion date
6) A description of the nominee’s career goals
7) Postdoctoral fellows presently supported by the training grant and requesting reappointment should provide up to a one page summary of their progress, including courses taken, manuscripts published and submitted, abstracts presented or submitted, and grant proposals funded or submitted. Please also include the NIH or PMCID number for manuscripts.

a. Program Training (NIEHS Environmental Health Sciences Training Program)

Postdoctoral trainees will enter with a variety of different backgrounds and may or may not matriculate into one of the MS graduate programs. In addition to traditional PhD scientists, we plan to target physician scientists for postdoctoral training. Each degree program has a limited set of required courses with substantial flexibility in elective courses to individualize a program designed to match trainee needs and interests. Trainees are expected to present the results of their research at national and/or regional scientific meetings at least annually.

Trainee coursework must be approved both by the faculty mentor and the program director. An increasing number of courses are being cross-listed by departments within and across the Schools of Medicine, Dentistry, Public Health and Information Sciences, and the College of Arts and Sciences as a consequence of the recognition of the importance of interdisciplinary collaboration.

Faculty mentors will nominate either existing postdoctoral fellows (for example those already matriculated into the Clinical Chemistry and Toxicology Translational Sciences Program), or from trainees to be recruited. All postdoctoral trainees will take the courses in Responsible Conduct of Research: Survival Skills and Research Ethics, Scientific Writing, Molecular Toxicology, and Seminar. The first two courses incorporate grantsmanship skills and project/laboratory management skills into the required curriculum of post-doctoral trainees.

Postdoctoral trainees will be expected to produce a competitive K23 application or competitive research grant before completing their traineeship. The mentoring process will be aimed at that result. In addition to the formal course work, trainees will be expected to participate actively in the seminars, lecture series, Grand Rounds, journal clubs and other research meetings held each week.

All trainees attend departmental seminars, research conferences and journal clubs and are required to make at least one seminar presentation each year. Following these presentations, trainees receive written evaluations that are discussed with them by members of the training faculty.

*NIEHS definition of environmental health sciences focus

All trainee research projects supported by the training grants should have a defined focus in the environmental health sciences, and be responsive to the mission of the NIEHS,
which is distinguished from that of other Institutes by its support of research programs seeking to understand how environmental exposures alter biologic processes and affect the risk of either disease development or the distribution of disease in populations. Examples of environmental exposures relevant to the mission of the NIEHS include industrial chemicals or manufacturing by-products, metals, pesticides, herbicides, air pollutants and other inhaled toxicants, particulates or fibers, fungal or bacterially derived toxins due to ambient exposures. Agents considered to belong to the mission area of other NIH Institutes include: alcohol, chemotherapeutic agents, ionizing radiation, drugs of abuse, pharmaceuticals, smoking (except second-hand smoke), and infectious or parasitic agents, except when these are disease co-factors with an environmental toxicant exposure to produce the biological effect. Training in ecology, ecologic or microbial biotransformation, ecologic biodegradation and remediation, ecological monitoring, wildlife and fisheries biology or studies of sentinel species, geochemistry and other ecologically based environmental studies is supported by the training component of the Superfund Basic Research Program, and will no longer be supported by the NIEHS National Research Service Awards (T32) Program. Training in veterinary medicine where the endpoint is animal health or in food science is also not responsive to the NIEHS NRSA Program. Training in exposure assessment should concentrate on exposure biology, which is at the interface of exposures and human health, and research centered on biomarkers as indicators of body burden, pathophysiological changes, or inception/progression of disease, rather than environmental measurement of ambient contact or point of exposure.