PRE-DOCTORAL (Ph.D.) TRAINING IN ENVIRONMENTAL GENOMICS

The Keck School of Medicine of the University of Southern California is seeking Ph.D. students in our training program in “Environmental Genomics,” supported by the National Institute of Environmental Health Sciences. The aim of this program is to provide multidisciplinary training in epidemiology, genetics, biostatistics, bioinformatics, and environmental health to future researchers aiming to study environmental and genetic risk factors of disease and other complex human traits. Applications from a broad range of disciplinary backgrounds will be considered, including epidemiology (e.g. cancer, respiratory disease, obesity, metabolic disease, neuroepidemiology, etc.), biostatistics (e.g. statistical genetics, spatial statistics, gene-environment interaction, etc.), and other fields (e.g. bioinformatics, exposure assessment, precision medicine, and data science).

This program funds USC tuition costs and provides students with a monthly stipend. The program also provides funds that support travel by students to relevant scientific conferences.

Students will gain hands-on experience conducting research in one of our ongoing research programs in environmental health, genetic epidemiology, cancer and chronic disease genetics, and/or the development of novel statistical methods and related software. The USC Health Sciences Campus is also home to several world-class research laboratories studying genetics and epigenetics of complex human diseases including cancers, neuro-developmental disorders, and psychiatric diseases.

In addition to individual mentorship in their research area, students will have the opportunity for advanced multidisciplinary training through coursework from the Department’s graduate programs in Epidemiology (with tracks in molecular epidemiology and environmental health) or Biostatistics (with tracks in statistical genetics, environmental biostatistics, bioinformatics, and data science), or from other departments at USC. Students will also have numerous opportunities for collaboration, attending seminars and workshops, and other enrichment activities.

Candidates must have already been accepted into a Ph.D. program in a relevant field (epidemiology, biostatistics, environmental health sciences, genetics, bioinformatics, molecular or computational biology, computer science etc.) and have a demonstrated interest in both environmental and genetic aspects of disease and/or the development of relevant methodology. Students will be expected to pursue a multidisciplinary approach to their training under the mentorship of one of the program’s senior faculty. We are particularly seeking students looking for training relevant to NIEHS's core mission related to the health effects of external environmental exposures along with host factors (e.g. genetics) that modify these effects.

Only U.S. citizens or permanent residents (green card holders) are eligible to be supported by this training grant. Applications from underrepresented minorities are particularly encouraged.

Interested students should submit a letter by July 1, 2019 outlining their background and training objectives (one page), a CV/resume with prior academic record, and names of three references. Address applications to Drs. Jim Gauderman and Rob McConnell at E-GT32@usc.edu.