

## Position Announcement: Post-Doctoral Research Fellow

The Channing Division of Network Medicine at the Harvard Medical School and Brigham & Women's Hospital in Boston is seeking applicants for a post-doctoral position in environmental epidemiology. The qualified applicant will have the opportunity to participate in the design and analysis of studies on environmental risk factors for adverse child development. Opportunities include work with a large multidisciplinary team of researchers and access to rich longitudinal datasets from two birth cohort studies. Research activities include, but are not limited to the following areas:

- Exposure to organochlorines (PCBs, pesticides, etc.) and neurotoxic metals and adverse neurobehavioral outcomes in childhood and adolescence.
- Exposure to plasticizers (phthalates, bisphenol A) and adverse neurobehavioral outcomes in infancy, childhood, and adolescence.
- Exposure to organochlorines, metals, and plasticizers and risk of adverse reproductive and pubertal development.

Applicants should hold a doctoral degree in epidemiology, environmental health, or a related field, or a medical degree with experience in the conduct and analysis of epidemiologic studies. Applications will be considered from doctoral students who are close to completing their degree requirements.

**To apply:** Interested individuals should send a cover letter, a curriculum vitae, and a brief summary of research interests and experience to:

Susan Korrick, M.D., M.P.H.  
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Boston, MA 02115  
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(Brigham & Women's Hospital is an EEO, AA, VEVRAA Employer)

## Detailed Research Activities Description:

This Post-Doctoral Research Fellowship will focus on studies of the children's health effects of exposure to organochlorines (including polychlorinated biphenyls [PCBs] and organochlorine pesticides [e.g., DDT and its metabolites]) and neurotoxic metals (including lead, mercury, manganese, and arsenic). A spectrum of hypothesized organochlorine health effects will be assessed ranging from growth and pubertal development to neurocognitive and behavioral changes from infancy through adolescence.

The fellowship will benefit from data available for an established birth cohort of 788 children born to mothers residing in communities adjacent to a PCB- and metal-contaminated harbor and Superfund site (New Bedford Harbor, Massachusetts) from 1993-1998. Extensive information is available on these children including measures of *in utero* exposures and longitudinal growth and developmental assessments.

Fellowship responsibilities will include the design, implementation, interpretation, and writing reports of analyses of a number of New Bedford study hypotheses relating early life organochlorine and metal exposures with subsequent child development. Data are currently available for the following analyses assessing associations of prenatal organochlorines and metals with New Bedford 8-year-olds' general cognition (e.g., IQ) and New Bedford 15-year-olds': (1) memory and learning skills; (2) school achievement, including in relation to psychometric testing of memory and learning; (3) executive function; (4) attention and impulse control; (5) behavior, including risk taking behaviors; and (6) growth, including pubertal maturation. Important issues to address in these analyses include elucidation of potential non-linearities in dose-response relationships and development of models for assessment of potential effect modification by a number of sociodemographic factors. In addition, the analyses will require familiarization with the child development literature vis-à-vis organochlorine and metal toxicities as well as standardized psychometric test properties and their interpretation.

The scope of fellowship activities will also include collaboration with Dr. Korrick and others working on the New Bedford study to develop statistical methods directly applicable to New Bedford analyses including methods for exposure measurement error correction and optimizing modeling approaches for assessment of multiple simultaneous correlated exposure and outcome measures.

Fellow participation in formal didactic activities, where appropriate, will be encouraged. These include relevant course offerings in biological and quantitative sciences available through Harvard T.H. Chan School of Public Health (HSPH), Harvard Medical School (HMS), and Harvard University curricula. In addition, a number of weekly or monthly seminar series will be open for fellow participation. Examples include the following: (1) Channing Chronic Disease seminar in which findings from a range of epidemiologic studies, including environmental epidemiology studies and respiratory genetics are presented; (2) EER (Exposure, Epidemiology and Risk) seminars covering a wide range of environmental epidemiology topics; (3) EER Peer Series seminars for pre- and post-doctoral trainees in environmental epidemiology to review their work with each other; (4) Harvard-NIOSH Educational Research Center (ERC) seminars in which trainees in occupational and environmental epidemiology and exposure assessment present their research findings; (5) HSPH Department of Epidemiology seminar series; (6) HSPH Neuroepidemiology seminars (monthly); (7) HSPH Neurostatistics working group; (8) HSPH Environmental Statistics working group (monthly or bimonthly); (9) HSPH Statistical Methods in Epidemiology seminar series (monthly); and (10) Harvard-NIEHS Center Grant Organochlorines Core seminar series (monthly) and Metals Core seminar series (monthly).