

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES  
Division of Extramural Research and Training  
Cellular, Organs and Systems Pathobiology Branch

**NATIONAL ADVISORY ENVIRONMENTAL HEALTH SCIENCES COUNCIL**  
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Concept Clearance

Global Environmental and Occupational Health: Collaborative Research  
and Training Hubs (GEOHealth)

**Introduction**

The International Training and Research in Environmental and Occupational Health (ITREOH) program trains foreign health scientists, clinicians, epidemiologists, toxicologists, engineers, industrial hygienists, chemists, and allied health workers from developing countries and emerging democracies in both general environmental health and occupational health. The ITREOH program began in 1995 with the release of RFA-TW-95-003, and was developed collaboratively between the NIH Fogarty International Center (FIC), NIEHS, and the National Institute for Occupational Safety and Health (NIOSH) of the Centers for Disease Control and Prevention (CDC). During the first five years, the major emphasis of the program was on epidemiology, risk assessment and surveillance. Subsequent funding announcements placed emphases on prevention and intervention research to reduce risks in the participating collaborating countries, and in-country infrastructure development, including human capacity for research (including clinical research), research implementation, bettering public health, information dissemination, and mitigation of adverse consequences of environmental exposures and evaluation of success. Current funding totals \$2.4M/year for 16 ITREOH awards. NIEHS contributes \$600,000 per year towards the ITREOH program. Current awards end in 2012.

**Research Goals and Scope**

The GEOHealth program replaces and builds upon FIC's longstanding program on International Training and Research in Environmental and Occupational Health (D43). GEOHealth awards (U2R Cooperative Agreements or R24 Resource Grants) will concentrate investments in a smaller number of leading institutions in the developing world, in partnership with leading US institutions, to build Regional Hubs for collaborative research, training, curriculum development and policy support in Environmental and Occupational Health. The GEOHealth initiative focuses on the growing burden of non communicable diseases, including implementation science, especially support for environmental and occupational health practice and policy. The goal is developing human capital through development of research hubs.

GeoHealth Hubs will participate in collaborative research and training for priority environmental and occupational health needs with several core science areas, including epidemiology, biostatistics, genetics, environmental science, toxicology, industrial hygiene and systems science. Focal environmental and occupational health topics for each group will be selected by applicants drawing from an array of options that build upon preexisting strengths within the network and aim to fill priority public health needs in the region. These may include up to three areas from a list including but not limited to: Indoor and outdoor air quality, water quality, workplace safety, agricultural health, climate change, built environments and lifestyle.

### **Structure**

A GEOHealth Hub Award will comprise paired consortium awards led by one US and by one Low and Middle Income Country (LMIC) Hub institution. Other US institutions will participate by subcontract to the US institution, but with a shared focus for institutional research capacity building at the shared LMIC Hub institution. Host country partner institutions may participate as well in the network as additional “spokes” around the Hub. Total cost of each consortium will be no greater than \$600k. Active links to multiple US partners and leverage of existing international investments are key elements in the sustainability strategy.

### **Eligibility**

US and LMIC Institutions in bi-national consortia. Fully funded Hubs will be located in LMICs with Gross Domestic Product less than \$1 Trillion. LMICs with a GDP greater than \$1T (Brazil, Russia, India, China) may be part of a consortium but must demonstrate commitment to the Hub and will receive reduced International Hub award. Awards will be prioritized for funding within a region.

### **Potential Partners**

FIC, NIEHS, CDC-NIOSH, NCI, USAID, EPA, NICHD