Centers for Children's Environmental Health and Disease Prevention Research

In 1998, recognizing that exposure to hazardous environmental conditions can be particularly detrimental to the health of children, the NIEHS, the U.S. Environmental Protection Agency (EPA), and the Centers for Disease Control and Prevention initiated the Centers for Children's Environmental Health and Disease Prevention Research program. This highly successful program promotes the translation of basic research findings into applied intervention and prevention methods. In the past five years, researchers have discovered that

- blood and urine specimens from pregnant women show measurable levels of pesticides, which means that the fetus is exposed to these chemicals during early development;
- children in urban and rural environments are exposed to a complex mix of agricultural and household pesticides, environmental tobacco smoke, and polycyclic aromatic hydrocarbons that, in combination with social factors, can impact their early growth;
- exposures to lead in the urban environment can have life-long effects such as behavioral problems and criminal behavior in adulthood;
- exposure to polychlorinated biphenyls can affect cochlear function, which may cause hearing loss in early life;
- air pollution can cause inflammation in the lung, and its effects can be seen in school-age children as exacerbation of asthma symptoms and more days absent from school; and
- asthma symptoms in children can be reduced by reducing allergens from dust mites and cockroaches in the home.

The NIEHS and the EPA announce the continuation of funding for six centers and the start of one new center. There are also four existing centers. The research at these centers includes toxicological, epidemiological, exposure assessment, genetics, and community-based participatory methods to address pressing questions related to children's susceptibility and exposure to harmful environmental agents and their health consequences. There are close ties with community organizations that assist in the dissemination of research findings to the community. The program also includes opportunities to develop new and creative strategies to inform health care practitioners, policy makers, and the public about environmental health concerns relevant to children.

A new scientific management team has been assembled at the NIEHS to oversee this program. The scientific program administrators for this effort include Kim Gray, PhD (gray6@niehs.nih.gov); Cindy Lawler, PhD (lawler@niehs.nih.gov); and Shobha Srinivasan, PhD (sriniva2@niehs.nih.gov). The team leader is Gwen Collman, PhD (collman@niehs.nih.gov).

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	Location	Center Director	Focus Area	Population
New	Harvard University	Howard Hu, MD, PhD	Neurodevelopment and metals	Tar Creek, OK
Renewed	University of California, Berkeley	Brenda Eskenazi, PhD	Neurodevelopment, asthma, and pesticides	Salinas Valley, CA
	University of Southern California	Frank Gilliland, PhD	Asthma and air pollution	Los Angeles, CA
	The Johns Hopkins University	Peyton Eggleston, MD	Asthma, genetics, allergens, and air pollution	Baltimore, MD
	Mount Sinai School of Medicine	Mary Wolff, PhD	Neurodevelopment, obesity, and endocrine-disrupting chemicals	East Harlem, NY
	University of Washington	Elaine Faustman, PhD	Neurodevelopment and pesticides	Yakima Valley, WA
	Columbia University	Frederica Perera, PhD	Neurodevelopment, asthma, and the urban environment	Northern Manhattan, NY
Existing	Cincinnati Children's Hospital	Bruce Lanphear, MD, MPH	Prevalent neurotoxicants in the urban environment and neurobehavioral development	Cincinnati, OH
	University of Illinois at Urbana–Champaign	Susan Schantz, PhD	Mercury, polychlorinated biphenyls, and neurobehavioral development	Appleton, WI
	University of California, Davis	Isaac Pessah, PhD	Autism and the environment	Central California and Los Angeles, CA
	University of Medicine and Dentistry of New Jersey	George Lambert, MD	Autism and the environment	New Jersey