

The UK Superfund Research Center supports biomedical and environmental science research to improve health by preventing exposures to environmental pollutants and promoting healthful lifestyles.

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The University of Kentucky Superfund Research Center (UK-SRC) supports both biomedical and environmental science research on reducing the health and environmental impacts related to chlorinated organic compounds found at Superfund sites across the country. UK-SRC biomedical research focuses on potential roles for nutritional components in mitigating negative human health effects related to chemical exposures. UK-SRC environmental research examines potential uses of nanotechnology for detecting and remediating such sites.

100 µg/L

1,000 µg/L

Led by Bernhard Hennig, Ph.D., researchers at the University of Kentucky Superfund Research Center want to discover:

- Better ways to remediate groundwater contaminated with harmful chlorinated organics through membrane-based pollutant degradation systems
- New pollutant capture/sensing systems using biology-inspired materials for sensitive and inexpensive monitoring and removal of PCBs from contaminated sites
- How certain plant-based bioactive food components with antioxidant and anti-inflammatory properties can lessen the cardiovascular toxicity of PCBs
- If PCB exposure affects fat cell functioning in ways that contribute to obesity, diabetes and cardiovascular disease
- Molecular mechanisms involved in postnatal complications following perinatal PCB exposure, and how diet and exercise can be used as health interventions to minimize these impacts

UK-SRC investigators and trainees translate research findings for academic audiences, federal and state policymakers and regulators, and impacted communities.



National Institute of Environmental Health Sciences

This research is funded through the National Institutes of Health (NIH) Superfund Research Program (SRP). NIH-SRP enables university based scientists, engineers, and public health workers, along with community members, to lessen the environmental health effects of hazardous waste sites across the nation.

Contaminant plume at the Paducah