

Main Shanghai Health Study Messages

As part of their ongoing individual product stewardship and corporate responsibility programs, a consortium of petroleum and chemical companies is sponsoring a scientifically rigorous, unique research project to further the current understanding of the human health effects of benzene.

The joint project's purpose is to gain a more refined understanding of the relationship between benzene exposure and potential cancer risks. The studies will utilize cutting edge, 21st century technologies to advance the understanding of disease potentially induced by benzene and identify potential prevention strategies.

This new approach to understanding the potential risks from benzene exposure could underpin future decisions on health-based air, water and occupational standards for benzene worldwide. While benzene is recognized as a human carcinogen, what is not understood is how benzene exposure may cause certain types of leukemia or other potentially related diseases, the interactions that may occur between benzene and genetic material, and the role biomarkers may play in adding to existing knowledge.

The study is a project of Fudan University Medical Center, the University of Colorado Health Sciences Center and Applied Health Sciences (an independent U.S. research firm). Other key participants in China include the Shanghai Municipal Center for Disease Prevention and Control and the Shanghai Institute for Public Health and Supervision. The research protocols were subjected to independent reviews by outside experts, including reviews on their consistency with international ethical standards and reviews by an expert scientific panel. The research protocols have been approved by independent review boards at Fudan University, the University of Colorado, and Applied Health Sciences.

A state-of-the-art clinical and molecular laboratory is being built on the Fudan Medical University campus. The lab will support the research project and the Shanghai medical community and will remain at Fudan once the project is completed. This sustainable technology transfer is an important aspect of project design.

The data from a wide range of benzene exposures in Shanghai, China provides a rare opportunity to conduct meaningful research about human exposure to benzene. This strong historical database combined with cooperation of local regulatory authorities and partnership with scientists in Shanghai form the basis for an exciting scientific collaboration. The joint Sino-U.S. benzene research and analysis is projected to take about five years; results will be published upon project conclusion.