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### Biography 講者介紹

Yu Gao Ph.D, professor and master's supervisor in the Department of Environmental Health, School of Public Health, Shanghai Jiao Tong University, and Adjunct Professor in the Chinese University of Hong Kong. Dr. Gao had received her undergraduate degree from Beijing University, School of Public Health, and Ph.D degree from Shanghai Second Medical University. Her areas of specialization include exposures to environmental pollutants in early life stages and child growth and development. She also involves in the causal inference research, molecular epidemiology and risk assessment to explore the causal relationship and risk prediction for the effects of environmental pollutants on health outcomes. She is the principal investigator on two national natural Science Foundation of China, and has published about 50 research articles in the influential journals such as *JAMA Environ Health Perspect.*, *Environ Int.*, *Environ Sci Technol.*, and *Environ Res.*

高宇，上海交通大學公共衛生學院環境與健康系教授和碩士生導師，香港中文大學客座教授。本科畢業於北京大學公共衛生學院，博士畢業於上海第二醫科大學。她的研究主要關注生命早期環境污染物暴露與子代健康，此外還致力於採用因果推論，健康風險評估，以及分子流行病學等研究手段，應用於環境暴露與健康效應方面研究。她主持兩項國家自然科學基金和3項上海市自然科學基金，在 *JAMA network*，*Environmental health perspective*，*Environmental International* 等一區雜誌發表論文約50篇。

### Abstract 題目摘要

Maternal environmental exposures and Child Health Outcomes:  
Laizhou Wan Birth Cohort (LWBC)

母親孕期環境污染物暴露與兒童健康：基於萊州灣出生佇列

The Laizhou Wan Birth Cohort (LWBC) was a prospective birth cohort study conducted between September 2010 and December 2013 to assess the effects of environmental exposures on the health of parents and their children living in the south coast of Laizhou Wan (Bay), Shandong Province, in East China. In total, 773 mother-infant pairs met the eligibility criteria and participated in the study, and their children were followed-up at birth, 1, 2, 5 and 7 years old. Multiple environmental pollutants such as polybrominated diphenyl ethers (PBDE), heavy metals, pesticides (including organophosphates and pyrethroids), phenols, and per- and polyfluoroalkyl substances (PFAS) were measured in pregnant women. The ubiquitous exposure to PFAS in pregnant women has been found in LWBC, especially with very high level for perfluorooctanoic acid (PFOA), and moreover, PFAS can transfer across the placenta during pregnancy, making them a potential threat to fetuses during the most sensitive early stages of life. In this report, we take prenatal exposure to PFAS and child health outcomes as an example to introduce our cohort and the main findings.

萊州灣出生佇列(LWBC)是於2010到2013年在山東省萊州灣地區開展的前瞻性研究，旨在評估生命早期環境暴露對母子健康的影響。我們從母親孕晚期開始招募，總共招募773對母嬰，對兒童在分娩、1歲、2歲、5歲和7歲時進行了隨訪。檢測了孕婦體內多種環境污染物的水平，如多溴二苯醚、重金屬、殺蟲劑、酚類以及全氟和多氟烷基物質(PFAS)。其中發現孕婦普遍暴露於PFAS，尤其是全氟辛酸(PFOA)含量很高，而且PFAS可通過胎盤轉移到胎兒體內，對胎兒構成威脅，並可持續影響兒童生長發育。在本報告中，我們主要圍繞PFAS等污染物為代表，介紹我們的佇列情況及主要發現。