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### Biography 講者介紹

Xiaoming Shi is the Professor and Director of the National Institute of Environmental Health (NIEH) of the Chinese Center for Disease Control and Prevention (China CDC), the recipient of the National Science Fund for Distinguished Young Scholars, and a member of the 13th and 14th National Committees of the Chinese People's Political Consultative Conference (CPPCC). He has long been engaged in research in geriatric epidemiology, environmental epidemiology, and chronic disease epidemiology. He has chaired over 10 national scientific research projects, including the Key Projects of the National Natural Science Foundation and the National Key Research and Development Program of China. Prof. Shi has published over 150 papers in peer-reviewed journals such as *BMJ*, *Nature Aging*, *Lancet Planet Health*, *Lancet Public Health*, *JACC*, and *Environ Health Persp*. He has received numerous distinctions and awards, including the Second Prize of the Chinese Medical Science and Technology Award (1/10), 20th Wu-Janssen Medical & Pharmaceutical Award, the National Talents Project, the National Outstanding Young and Middle-aged Expert with great achievements, and special government allowances from the State Council. He concurrently serves as a member of the Expert Committee on New Pollutant Control, a member of the United Nations Investment and Commercial Life Science and Human Health Committee (CCLH) of the China Association for Science and Technology, and the Chairman of the National Environmental Health Standards Committee.

施小明，醫學博士，研究員，博士生導師。中國疾病預防控制中心環境所所長，國家傑出青年科學基金獲得者，第十三屆全國政協委員。主要研究方向為老年流行病學、環境流行病學、慢性病流行病學。主持國家自然科學基金重點項目、國家重點研發計劃等10餘項科研項目。在*BMJ*、*Nature Aging*、*Lancet Planet Health*、*Lancet Public Health*、*JACC*、*EHP*等國際權威期刊發表SCI文章150餘篇。獲中華醫學科技獎二等獎（1/10）。入選國家百千萬人才工程，授予有突出貢獻中青年專家。獲第二十屆吳楊獎，獲國務院政府特殊津貼。受聘於新污染物治理專家委員會委員、中國科協聯合國資商生命科學與人類健康專委會（CCLH）委員、國家環境健康標準專業委員會主任委員等。

### Abstract 題目摘要

Reflections on environmental health and business architecture in China:  
Inspirations from the COVID-19 pandemic

我國環境健康工作與業務架構思考：基於新冠疫情的啟示

In recent years, to tackle outstanding environmental problems such as air, water, and soil pollution, the Chinese government has adopted a series of major measures. Especially since the 18th CPC National Congress, a comprehensive deployment has been carried out in terms of national strategic decision-making, laws, regulations, and action plans, and remarkable results have been achieved. China's air and water quality have been improving continuously. Environmental health work has been promoted all around, and a collaborative work pattern has been further formed between national and local departments. Environmental health monitoring, standards, and risk assessment systems have been established and gradually improved. Major progress has been made in the key areas of environmental health investigations, scientific research and talent development, discipline development, and foreign exchanges.



In the face of COVID-19's major challenges, the environmental health departments responded scientifically, gave full play to the professional guidance role of health protection and scientific disinfection, and strengthened the team's ability and emergency response mechanism. Meanwhile, flaws and weaknesses in environmental health work have emerged, such as insufficient attention to traditional environmental health problems, insufficient depth of scientific research, a lack of scientific and technological support, and insufficient application and transformational ability of achievements. The application, health risk prediction, and early warning technology of environmental risk factors have not yet been effectively implemented, and the disinfection and infection control institutions and teams are not perfect.

At present, the development of environmental health work has both challenges and opportunities. Overall, the situation of environmental pollution in China is still severe. The goal of carbon peak and carbon neutrality introduces new requirements, the task of new pollutant control remains difficult, and scientific and technological supports for the Healthy China and Beautiful China strategies is still in high demand. Therefore, it is suggested that we seize the opportunity of the reform of the national disease prevention and control system to strengthen the coordination mechanism at the national level dealing with environmental health issues in the future. We need to intensify the construction of environmental health monitoring and risk assessment technology system, environmental health and disinfection standard system, environmental health and disinfection work system. The early warning of environmental pathogen monitoring, environmental health risk factors, climate change, and health should also be reinforced. We will promote the implementation of National Human Biological Monitoring Projects (NHBP China) and the construction of key laboratories and platforms. We will further strengthen the construction of environmental health talents, the development of key disciplines, and cooperation and exchange at home and abroad.

近年來，針對突出的空氣污染、水污染和土壤污染等環境問題，我國政府採取了一系列重大舉措。特別是十八大以來，從國家戰略決策、法律、法規、行動計劃方面進行了總體部署，並取得了顯著成效。我國空氣質量持續向好，水環境質量不斷改善；環境健康工作全面推進，國家和地方工作部門協同共進的工作格局進一步形成；環境健康監測、標準和風險評估體系建成並逐步完善；環境健康專項調查、科研攻關及人才建設、學科發展、對外交流等重點工作取得重大進展。

面對新冠疫情的重大考驗，環境健康工作部門科學應對，充分發揮了健康防護和科學消毒的專業指導作用，隊伍能力和應急機制得到進一步加強。同時暴露出環境健康工作的短板弱項，如對傳統環境健康問題的關注度不夠、科研深度、科技支撐和成果應用轉化能力不足、環境危險因素健康風險預測預警技術應用尚未真正落地、消毒與感染控制機構和隊伍不健全等。

當前環境健康工作發展挑戰與機遇並存。總體上看，我國環境污染形勢仍然嚴峻，碳達峰碳中和目標提出新的工作要求，新污染物治理任務依然很重，健康中國和美麗中國戰略的科技支撐需求很大。據此，建議未來抓住國家疾病預防控制體系改革的契機，強化國家層面應對環境健康問題的協調機制；加強環境健康監測和風險評估技術體系、環境健康和消毒標準體系、環境衛生和消毒工作體系建設；強化環境病原體監測預警、環境危險因素健康風險預警、氣候變化與健康等職能；推進國家人體生物監測等重點項目實施、重點實驗室和平台建設；進一步加強環境健康人才隊伍建設、重點學科發展和國內外合作交流。