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### Biography 講者介紹

Dr. An Pan is a professor at the School of Public Health, Tongji Medical College, Huazhong University of Science and Technology. His research mainly focuses on the determinants and consequences of obesity and chronic metabolic diseases, like type 2 diabetes and cardiovascular disease. He has published over 360 papers with citations over 22000 and an H-index of 79, including papers on *NEJM*, *JAMA*, *BMJ*, and *Lancet Diabetes & Endocrinol*. Dr. Pan has been supported by the NSFC regular and key projects, National key Research & Development project, and are establishing cohort studies for type 2 diabetes and gestational diabetes mellitus to investigate their causes and consequences. Dr. Pan currently serves as an associate editor for the *Am J Clin Nutr*, and on the editorial board for several international and Chinese journals. Dr. Pan is also the vice chair for the Nutritional Epidemiology Council of the Chinese Nutrition Society, and member of the Epidemiology Council of the Chinese Preventive Medicine Association. He was a commissioner for the Lancet Commission on Obesity and the lead author for the *Lancet Obesity in China Series*. He is currently a commissioner for the Lancet Commission on Diagnostic Criteria of Clinical Obesity and EAT-Lancet 2.0 Commission.

潘安，華中科技大學同濟醫學院公共衛生學院教授，博導，院長。擔任營養學領域權威期刊 *Am J Clin Nutr* 雜誌副主編，*Chin Med J*、*China CDC Weekly*、中華流行病學雜誌、中華預防醫學雜誌、中華疾病控制雜誌等多個國內外期刊編委，中國營養學會營養流行病分會和基礎營養分會副主委，中華預防醫學會流行病學分會委員，*Lancet Commission on Obesity*、*Lancet Commission on Diagnostic Criteria of Clinical Obesity*、EAT-Lancet 2.0 等多個柳葉刀委員會委員，*Lancet Diabetes & Endocrinol* 雜誌國際顧問委員會成員。

主要從事慢性病流行病學和營養流行病學研究工作，先後主持國家基金委重點和面上項目、科技部重點研發計劃課題、湖北省傑青等科研項目，發表SCI論文360多篇，其中第一作者或者通訊作者文章（含共同）160餘篇，包括 *N Engl J Med*、*JAMA*（4篇）、*BMJ*（2篇）等。論文總被引用次數>22000次，H-index為79。連續5年入選科睿唯安的全球高被引科學家。獲霍英東教育基金會高等學校青年科學獎、樹蘭醫學青年獎等榮譽。

## Abstract 題目摘要

### Lifestyle and cardiometabolic diseases: new results of an old topic 生活方式與代謝性心血管疾病防控：老話題、新進展

It has been widely accepted that healthy lifestyles are related to better health outcomes. In the past 15 years, our group has also contributed to the field by showing that individual lifestyle factor (e.g. red meat and sugar-sweetened beverage intakes, smoking) was associated with diabetes and cardiovascular disease in various cohorts. However, there are some challenges and advances in the field. First, many previous studies using only baseline data while lifestyle factors could change over time; second, health behaviors cannot be fully separated but are interrelated, and thus integrated effect should be considered; third, the underlying mechanisms are still unknown. In this presentation, I will use some examples to show that: 1) repeated measures of body weight are important to understand its dynamic changes with mortality risk (*BMJ* 2019; *Int J Obes* 2021; *JAMA Netw Open* 2022); 2) healthy lifestyle score was inversely associated with diabetes, cardiovascular disease and mortality in different cohorts (*Diabetologia* 2020; *J Epidemiol Community Health* 2020; *Engineering* 2022; *Mayo Clin Proc* 2023), as well as life expectancy (*Circulation* 2018; *J Gerontol* 2020); 3) among people with diabetes, we further reported that healthy lifestyle score was inversely related to macrovascular and microvascular outcomes (*PLoS Med* 2023; *Atherosclerosis* 2023), and some protein biomarkers or metabolites could partly explain the association but the exact mechanisms are still needed. Finally, I will also discuss about healthy inequity issue and whether healthy lifestyles could help alleviate the issue (*BMJ* 2021; *Age Ageing* 2022).

健康生活方式可以促進健康，這是大家都基本接受的概念。我們課題組也長期從事營養膳食和環境暴露與代謝性心血管疾病的關聯。但是該領域仍存在一些客觀問題極需各院落實：

1. 既往很多研究僅關注了單次生活方式，以肥胖為例，成年後體重不是一成不變的，我們利用中國、美國、新加坡等佇列研究共同探討成年後不同生命時期的體重變化與死亡的關聯。
2. 我們深入研究了整體生活方式評分與代謝性心血管疾病的關聯，包括在一般人群、糖尿病前期人群、高血壓人群等。
3. 在糖尿病患者中，健康生活方式可以顯著降低發生心血管病和微血管併發症的風險，且一些蛋白生物標誌物和代謝物發揮部分仲介作用。
4. 最後，我們將用實例來討論健康不公平的問題，中美英三國的佇列數據也證實了健康不公平現象的存在，同時，生活方式在健康不公平中的作用非常有限。