

本集内容

World's largest body-scanning project to understand why diseases occur

世界规模最大人体扫描项目帮助了解疾病成因

文字稿

Fergus Walsh, BBC Medical Editor, UK Biobank volunteer

Mapping the ageing human body. It's nearly a decade since I last had these images of my brain, heart and other organs taken. Now, over five hours in multiple different scanners, it's all being repeated. Why?

弗格斯·沃尔什 BBC 医疗事务报道员 英国生物样本库志愿者

为在逐渐衰老的人体绘制导图。距离上一次我接受脑部、心脏和其它器官的全面扫描已有近十年了。现在，在接下来的五小时中，我将重复做上次做过的各种身体扫描。这是为什么？

Fergus Walsh, BBC Medical Editor, UK Biobank volunteer

"The repeat imaging of thousands of volunteers will enable researchers to see subtle changes in the body that develop over the years. These may give early warning of conditions like heart disease and dementia long before there are any symptoms."

弗格斯·沃尔什 BBC 医疗事务报道员 英国生物样本库志愿者

“对成千上万名志愿者重复进行身体扫描可以让研究人员观察到在过去几年内他们身体中发生的微小变化。这可能会对多种疾病的发病给出早期预警信号，包括心脏病、失智症，而且可能早在出现任何症状前就给出预警信号。”

The entire genetic code of every UK Biobank volunteer has been sequenced, so scientists can analyse DNA alongside images of the brain and body.

每位英国生物样本库中志愿者的基因编码都已被测序，这样科学家就可以在分析大脑与身体扫描图像的同时分析脱氧核糖核酸

Professor Naomi Allen, Chief Scientist, UK Biobank

"Well, I think our real interest is being able to look at changes in the structure and function of the brain over time as that may give us ideas as to what are the determinants of early cognitive impairment and early biomarkers of dementia, so I think that is one of the most exciting aspects of this study."

娜奥米·艾伦教授 英国生物样本库 首席科学家

“我们特别感兴趣的是能够观察大脑的结构和功能在一段时间中的变化，这可能让我们了解到认知障碍初期的决定性因素以及失智症的早期生物标记是什么，所以我觉得这是这项研究最激动人心的方面之一。”

All five hundred thousand volunteers had baseline health, lifestyle and cognitive assessments when they joined over a decade ago. Repeat testing helps scientists track any decline. To date, over seven thousand research papers have been published using the data.

所有五十万名志愿者都接受了健康情况、生活方式和认知能力的基准线评估，以在十多年前参与这个项目。重复检测帮助科学家追踪任何指标的衰退情况。迄今为止，已有超过 7000 份公开发表的研究报告使用了这个样本库的数据。

Professor Paul Elliott, Epidemiologist, Imperial College London

"UK Biobank is the gold standard internationally for this type of study. It brings together blood samples, scans, a linkage through the NHS (UK's National Health Service) to people's health records with their consent. So it gives an extraordinarily deep understanding of the causes of disease, which then can lead to better prevention and also treatments."

保罗·艾略特教授 伦敦帝国理工学院 流行病学专家

“英国生物样本库是国际上这类研究的标杆。它汇集了血液样本、身体扫描、并在征得了志愿者的许可后把他们在英国国家医疗服务体系中的健康记录相关联。这些信息让研究人员对疾病成因有了极其深入的理解，进而可以引领我们更好地预防和治疗疾病。”

With every year that passes and volunteers like me get older, UK Biobank will yield ever more information on how to combat the diseases of ageing.

年复一年，像我这样的志愿者逐渐变老，英国生物样本库也将不断产出更多可以帮助我们对抗老年疾病的信息。

视频链接

<https://www.bbc.co.uk/learningenglish/chinese/features/lingohack/ep-230629>