Paolo Vineis

PV is the Chair of Environmental Epidemiology at Imperial College, London and Visiting Professor at the Italian Institute of Technology, Genova. His work is on environmental risks of disease including climate change. PV has been in 2020, 2021 and 2022 in the top 20 most cited Imperial College scientists with nearly 120,000 citations. He has more than 1,100 publications (many as leading author; H-index>160) in journals such as Nature, Science, Lancet, Lancet Oncology, and is a member of various international scientific and ethics committees (including the Committee of the US National Academy of Sciences on 21st Century Risk Assessment) and vice-chair of the Ethics Committee at the International Agency for Research on Cancer (IARC, WHO). He has also published several books including "Health without borders: epidemics in the era of globalization". Springer, 2017, and has engaged in policy-making as Vice-President of the High Council of Health (Consiglio Superiore di Sanita', advisor to the Health Minister) in Italy, and as a member of Cancer Prevention Europe (affiliated with Cancer Mission Europe). In 2020 he became an advisor of the Piedmont Region for COVID-19 and has contributed to the development of mathematical models and containment policies (see Saltelli et al, Nature 2020). In 2018 he has been knighted by the Italian President of the Republic.

His latest research activities focus on investigating biomarkers from -omic platforms (including metabolomics and epigenetics) in large epidemiological studies. Overall, the main breakthroughs have been (a) the demonstration of a number of molecular alterations (miRNA, metabolomics) associated with exposure to air pollution, able to predict disease outcomes according to the concept of "meet-in-the-middle"; (b) the development of biomarkers of smoking, including the first demonstration of a methylation signature, and mutational fingerprints; (c) the development for application in epidemiological studies of "biological clocks" based on DNA methylation and metabolomics to measure biological ageing; (d) the successful promotion of the interaction between social sciences and life sciences in a large consortium on health inequalities and ageing, that applied on a large scale omic technologies to social inequalities in health. He is also active in the field of climate change and health, with original research conducted in Bangladesh that demonstrated an increased risk of hypertension in relation to salinity in drinking water due to sea level rise. A number of the research projects he has led are international in scope and collaborative in nature. He has coordinated the European Commission FP7-funded Exposomics project and the Horizon 2020-funded project Lifepath. The Lifepath project, which includes numerous studies including EPIC and MCCS, aims to understand the impact of socio-economic differences on healthy aging with an approach that considers the relative importance of effects on life; this consortium alone has resulted in over 50 publications. Currently he is co-PI of the NIHR Centre for non-communicable diseases in LMIC at Imperial College.