

FALLING WALLS CIRCLE

PLENARY TABLE “PRECISION PREVENTION IN HEALTH: THE POWER OF GENOMICS”

As we are living through the 4th industrial revolution, the congruence of technological advances in genomics and the digital revolution has the potential to transform healthcare. This Falling Walls Circle Plenary Table explores the opportunities to couple genomics at scale with promising developments. Leveraging the power of genomics provides a huge opportunity to use genetics to reduce existing structural health disparities while enabling precise treatment and prevention for a plethora of diseases.

Panelists: [Nicola Blackwood](#) (Genomics England, UK), [Nancy Cox](#) (Vanderbilt University Medical Center, US), [David Crosby](#) (Cancer Research UK, UK), [Segun Fatumo](#) (London School of Hygiene and Tropical Medicine, UK), [Mark McCarthy](#) (Genentech, US), and moderator [Eleftheria Zeggini](#) (Helmholtz Munich, DE).

KEY TAKEAWAYS

- 1. Set genomics on the political and public agenda.** While precision prevention emerges as a significant goal, the pressure on global health systems and the challenge of allocating budgets for genomics amid competing priorities remains high. "It is difficult and risky for politicians to take money from where it is needed right now and to move it upstream to things like genome sequencing and its future applications", says Nicola Blackwood. To change that, the experts urge to put genomics on both the political and public agenda. Nancy Cox adds: "Genomics is a huge opportunity to use genetics to reduce existing structural health disparities all around the world".
- 2. Science and healthcare providers need to collaborate on a global scale.** Discoveries in genetic research under clinical settings need to be leveraged while ensuring global access to genetic data from a wide range of populations and longitudinal genomic phenotype datasets. Similarly, integrating different clinic data with genetic data and thus merging large-scale data across medical institutions is identified as a significant opportunity to drive new insights and treatments. This includes not only education, but also setting up a consent process to collect and use individual genetic data as well as establishing genetic counselling to properly inform patients about potential undiagnosed health risks.
- 3. Integrate genomics at the base.** Genomics can take a central role in precision prevention and healthcare transformation if we integrate it, first and foremost into public healthcare. "We need to teach the public about the research and possible benefits", Nicola Blackwood says. She hopes that this will motivate policy makers to rework the public health care systems and open it up for new insights and treatments.

This event is supported by Helmholtz Munich.