

KEY FEATURES OF TECHNOLOGY PLATFORMS FOR R&D TO RAPIDLY RESPOND TO NEW OUTBREAKS

Webinar, Thursday 02 February 2023
13:00-15:00 GMT (UK) / 14:00-16:00 CET
(Geneva) / 15:00-17:00 SAST (South Africa)

Co-hosted by: Pandemic Sciences Institute, University of Oxford; NDM Centre for Global Health Research, The University of Oxford; Afrigen, South Africa; Friends of the Independent Panel

Moderated panel discussion, asking presenters to lay out the specific characteristics that could make the platform suitable for rapid response R&D for epidemic outbreaks, and possible challenges and opportunities that might be faced (7-8' per speaker), followed by moderated discussion regarding essential / desirable characteristics.

Panellists:

Prof. Petro Terblanche (Afrigen, South Africa)
Prof. Sarah Gilbert (Pandemic Sciences Institute, University of Oxford)
Dr. Gladys Macharia (CEPI)
Dr. Fabrizio Chiodo (Italian National Research Institute)
Prof. Gary Kobinger (Infectious Disease Research Centre)
Dr. José Castillo (Univercells)
Achal Prabhala (AccessBSA)



Moderators: Andrew Farlow (NDM Centre for Global Health Research), Els Torreele (Friends of the Independent Panel)

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Epidemics and pandemics are unlike other health crises and present unique health innovation challenges. Epidemics are unpredictable, in terms of both pathogen and geographic spread. When an outbreak occurs with a new or emerging pathogen, research activities become an integral part of the response. This includes clinical trials to assess novel technologies where the outbreak is actively spreading, with results quickly shared to inform evidence-based control strategies and policies. Because rapid response is critical, adapting existing technology platforms offers the best opportunity to create new health tools during epidemic outbreaks involving pathogens for which no adequate tools are available. However, recent experiences with Covid-19, mpox, and Ebola illustrate that our current health innovation ecosystem is not fit-for-purpose to deliver needed medical innovations equitably where and when needed and exacerbates dependencies that stand in the way of building resilience.

One example of an approach that promotes equity and regional resilience is the WHO-initiated mRNA vaccine technology transfer hub in South Africa. Its network of vaccine manufacturers in 15 countries will share the platform technology established by Afrigen with the support of the research community, to enable local production of Covid-19 vaccines and facilitate follow-on innovation to adapt the technology to other disease targets. With the aim of spearheading transformational change needed to confront future epidemics,

former members and current supporters of The Independent Panel for Pandemic Preparedness and Response have started to lay out some of the elements of a framework for future “pre-negotiated systems for a global health commons approach to mobilize pandemic tools”. As laid out in a recent Lancet Comment, one of the essential building blocks towards operationalizing this is a network of regional R&D hubs, built around ready-to-adapt existing technology platforms which allow researchers freedom to operate to rapidly develop diagnostics, vaccines, and treatments that can stop outbreaks where and when they occur.

The workshop aims to learn lessons from the mRNA Hub experience, and to explore which other platform technologies would lend themselves for rapid response R&D for epidemic tools, and that can be shared as part of regional R&D hubs. In particular, it seeks to identify what are desirable characteristics for technology platforms to support such an approach: versatility, ease of adaptation to novel pathogens, speed and ease of production, established regulatory pathways, flexible IP arrangements that allow pre-negotiated freedom to operate, easy technology transfer, etc. The outcome of these discussions will inform policy discussions towards a new framework for pandemic R&D, including a Bellagio convening entitled “Advancing a new approach to pandemic tools as common goods”, convened by the former Independent Panel co-chair Rt Hon Helen Clark at the Rockefeller Bellagio Centre in February 2023.