

Pandemic preparedness: the need for historical epistemology in research alliances

In their Comment published in *The Lancet Microbe*, Lin-Fa Wang and colleagues¹ offer a compelling case for a paradigmatic reorientation of pandemic research, urging institutional integration, pre-approved protocols, and end-to-end collaborations. However, the Comment appears to underestimate a pivotal axis of preparedness—the epistemological utility of historical medical experience.

Across centuries, pandemics have not only been instances of biological crises but also functioned as epistemic ruptures—moments when the inadequacies of prevailing models were laid bare.² The omission of historical perspective in pandemic preparedness risks repeating structural blind spots. For example, early modern public health evolved to incorporate robust anticipatory mechanisms such as the establishment of quarantine protocols and plague hospitals and the implementation of maritime health certificates. These measures were not founded upon molecular virology but rather on empirical observation, administrative memory, and civic negotiation.³ These practices are early exemplars of integrated governance, the very ideal Wang and colleagues justly promote.

Moreover, the Comment rightly advocates mucosal immunology and innate immune stimulation but does not acknowledge that the understanding of the mucosal barrier as a site of pathogenic ingress dates back at least to 19th century bacteriology.⁴ The failure to prioritise mucosal-targeted vaccines reflects not only a biomedical lag but also a disregard for long-established physiological insight.

Finally, Wang and colleagues' treatment of vaccine hesitancy would benefit from a more historically grounded analysis. The genealogies of vaccine

hesitancy, from smallpox vaccination resistance in colonial India to anti-vaccination leagues in Victorian England, show that biomedical innovation alone is insufficient without anthropological literacy.⁵

Pandemic alliances should transcend technical readiness and also embed historical epistemology to break the cycle of unpreparedness cloaked as novelty.

We declare no competing interests.

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