Reply to "But Nature Started It': Examining Taubenberger and Morens' View on Influenza A Virus and Dual-Use Research of Concern"

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e thank Nicholas Evans for his comments (1). There has been much recent discussion of how best to balance the public health needs of mitigating the impact of emerging infectious diseases with the concerns of biosafety and biosecurity that dual-use research entails (2-4). In our recent article (5), we sought to inform this discussion from the perspective of the dynamic nature of influenza viruses themselves. Our goal was to describe how influenza virus evolution, with regard to alterations in virulence, host switching, antigenic drift, and development of antiviral resistance, etc., could be examined metaphorically through the lens of the promulgated dual-use rules (6). Further, it was our contention that a better understanding of the variable and everchanging genotypic and phenotypic properties of influenza A viruses in nature would be helpful as a platform to better inform future policy decisions aimed at balancing important public health and biosafety/biosecurity concerns.

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Published 20 August 2013

Citation Taubenberger JK, Morens DM. 2013. Reply to "But nature started it': examining Taubenberger and Morens' view on influenza A virus and dual-use research of concern." mBio 4(4):e00579-13. doi:10.1128/mBio.00579-13.

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