Viewpoint: Do-it-yourself biotech movement an 'unlikely biosecurity threat'

Contrary to alarmist headlines, the DIYbio movement is an unlikely biosecurity threat. The 'do-it-yourself' biology (DIYbio) community has had its share of sensationalist headlines exaggerating potential concerns and dangers associated with its work. The latest example came in a New York Times piece ("As D.I.Y. gene editing gains popularity, 'someone is going to get hurt'," May 18, 2018) that conflated work to construct a horsepox virus from synthetic DNA fragments (PLoS ONE 13, e0188453, 2018) with "sounding the alarm about genetic tinkering carried out in garages and living rooms."

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DIY bioterror also seems a long shot. If a rogue biohacker were to seek to create a pathogen from scratch using mail-order DNA fragments, for example, they would likely face a long, uphill struggle. Unlike David Evans' group at the University of Alberta who made the synthetic horsepox, a DIYbio hobbyist is unlikely to convince DNA synthesis companies like GeneArt to ship DNA flagged with "homology to a known pathogen" to their home address.

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A final aspect that seems to have escaped The New York Times journalists is the strong ethical, open, and transparent culture of DIYbio groups (e.g., see <u>https://diybio.org/codes/</u>) and their proactive attitude to addressing biosafety and biosecurity concerns.

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[I]t is disappointing that The New York Times sought to overhype [DIYbio's] risks rather than explore the movement's potential for low-resource innovation, public engagement, and education. **Read full, original post:** <u>DIYbio gets a poxy rap</u>