

Emerging Viral Threats: Are We Prepared for Another Pandemic?

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Dear Editor,

We are writing to express our deep concern regarding the recent identification of emerging viral threat, particularly the bat coronavirus discovered in China. The question "*Are we prepared for another pandemic?*" undoubtedly echoes in everyone's mind whenever news of a new viral outbreak emerges. Irrespective of the fact that the outbreak of new viral strains occurs in some distant part of the world, it becomes a matter of global concern. Presently no disease is limited by the nation's boundary, thanks to international travel! We should look at the world as one nation of human beings when it comes to combating the viruses. The newly discovered bat coronavirus in China is truly disturbing. This virus has the potential to infect human cells via the ACE2 receptor—similar to SARS-CoV-2.¹ "Is this really an emerging viral threat?" Now that's the question for everyone in the medical fraternity to ponder upon. Is this really alarming or just a discovery of another virus with nothing to fear of?

Named as HKU5-CoV-2, its discovery has raised pandemic fears in China.² Although some strains of coronavirus have been present since many years in bats,³ the similarity of HKU5-CoV-2 with SARS CoV-2 has raised some serious questions. It targets the same human receptor as SARS CoV-2, angiotensin-converting enzyme (ACE2) and could potentially lead to human-to-human or even cross-species transmission, researchers have warned.^{1,2}

The Covid 19 pandemic has left an everlasting impression on everyone's mind due to its catastrophic consequences *viz.* overburdened healthcare system, economic disturbances, lockdowns and millions of lost lives.⁴ The emergence of yet another coronavirus should serve as a wake-up call to the world. With the ability to infect humans, it is a stark reminder that the zoonotic disease can spillover to the human population.⁵ To avoid such threats, what we need is a coordinated international response from scientists, public health officials, and policymakers. This will strengthen global preparedness and response strategies in case a pandemic does occur. Some key measures additionally can include enhanced surveillance and early detection, regulation of wildlife trade and investment in universal vaccines and antiviral therapies.

History tells us that pandemics aren't a question of "if" but "when". Only time can decide whether this new virus poses a threat to the mankind. But by taking smart, proactive steps now, we have the power to prevent another global crisis and protect public health.

References

1. Chen J, Zhang W, Li Y, Liu C, Dong T, Chen H, Wu C, Su J, Li B, Zhang W, Hu B, Jia J, Ma CB, Zhu Y, He X, Li A, Pan K, Lin H, Guo Z, Li C, Zhang L, Yan H, Zhou P, Peng W, Shi ZL. Bat-infecting merbecovirus HKU5-CoV lineage 2 can use human ACE2 as a cell entry receptor. *Cell*. 2025 Feb 12;S0092-8674(25)00144-8. doi: 10.1016/j.cell.2025.01.042. Epub ahead of print. PMID: 39970913.

2. Available from. <https://economictimes.indiatimes.com/news/international/global-trends/new-virus-in-china-hku5-cov-2-what-is-hku5-cov-2-the-new-bat-coronavirus-in-china-that-could-trigger-another-covid-19-pandemic/articleshow/118470495.cms?from=mdr>. Last accessed on 07.03.2025 at 10:19 am
3. Woo PC, Lau SK, Li KS, Poon RW, Wong BH, Tsoi HW, et al. Molecular diversity of coronaviruses in bats. *Virology* 2006 Jul;351(1):180-187. doi:10.1016/j.virol.2006.02.041. Published online 2 May 2006.
4. Available from. <https://www.britannica.com/topic/What-was-the-impact-of-COVID-19>. Last accessed on 07.03.2025 at 10:47 am.
5. Ellwanger JH, Chies JA. Zoonotic spillover: Understanding basic aspects for better prevention. *Genet Mol Biol* 2021 Jun;44(1)(Suppl 1):e20200355. doi:10.1590/1678-4685-GMB-2020-0355.