# Virologists warn of new bat coronavirus HKU5-CoV-2



Virologists have raised alarms regarding a newly identified bat coronavirus in China known as HKU5-CoV-2, recommending its monitoring due to its potential to infect human cells similarly to Covid-19. This pathogen was discovered and studied by scientists at the Wuhan Institute of Virology, an institution that has been the focus of scrutiny since the onset of the Covid-19 pandemic.

The findings, which have been published in the scientific journal Cell, indicate that HKU5-CoV-2 shares a critical characteristic with Sars-CoV-2; specifically, both viruses utilise the ACE2 receptor protein to enter human and animal cells. This connection is significant as HKU5-CoV-2 is classified as a merbecovirus, a lineage that is distinct from Sars-CoV-2 yet it was not previously known for exploiting the ACE2 pathway. Notably, merbecoviruses include the Middle East Respiratory Syndrome (Mers), a virus that, despite its lower infectiousness—having infected approximately 2,600 individuals since its discovery in 2012—boasts a much higher mortality rate, affecting one in three confirmed cases.

Prof Edward Holmes, an evolutionary biologist and virologist at the University of Sydney, underscored the implications of the presence of the ACE2 receptor in a merbecovirus. He stated, “The presence of the ACE2 receptor moves HKU5-CoV-2 from being a curious bat virus, to one we have to watch very, very carefully, because it has got the properties that would enable it to emerge in humans.” Although he noted that to date, no evidence has confirmed HKU5-CoV-2's ability to infect humans—stemming from laboratory tests rather than empirical data—he highlighted the ongoing risk of viral emergence.

In a parallel study published last year, which Prof Holmes co-authored, a virus closely related to HKU5 was among 36 novel pathogens identified in animals such as raccoon dogs, mink, and guinea pigs within Chinese fur farms. This adds to concerns regarding human contact with such wildlife. “We’re certainly at risk of exposure, because we have something similar causing pneumonia in mink already and people come into more frequent contact with farmed wildlife than with bats,” he remarked, indicating the current phase is one of cautious observation.

The Chinese research team, headed by renowned virologist Shi Zheng-Li, observed that HKU5-CoV-2 does not appear to be as proficient in using the ACE2 receptor as Sars-CoV-2. Additionally, they reported the identification of monoclonal antibodies and antiviral treatments potentially effective against HKU5-CoV-2, prompting a notable boost in shares for Pfizer, Moderna, and Novavax, according to Bloomberg.

As this situation develops, the scientific community remains vigilant, watching for further insights into this newly discovered pathogen and its implications for public health.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://kffhealthnews.org/morning-breakout/concerns-grow-over-new-bat-coronavirus-identified-in-china/> - This article corroborates the discovery of the HKU5-CoV-2 virus in China and its potential to infect humans, similar to SARS-CoV-2, by targeting the ACE2 receptor.
* <https://www.business-standard.com/health/new-bat-virus-hku5-cov-2-sparks-pandemic-fears-is-it-the-next-covid-19-nc-125022400499_1.html> - It supports the information about HKU5-CoV-2 being identified in bats and its ability to enter human cells via the ACE2 receptor, similar to SARS-CoV-2.
* <https://www.noahwire.com> - This is the original source article discussing the HKU5-CoV-2 virus and its implications for public health, though it does not provide additional external validation.
* <https://www.cell.com/cell/home> - This is the website of the scientific journal Cell, where the findings about HKU5-CoV-2 were published, though the specific article is not directly linked.
* <https://www.bloomberg.com/news/articles/2025-02-24/what-do-we-know-about-the-bat-borne-hku5-cov-2-virus> - This article provides details about the HKU5-CoV-2 virus, including its classification and potential for human transmission, aligning with the concerns raised by virologists.