

**HIGH-RISK PATHOGEN RESEARCH
NETWORKS IN CHINA: HISTORICAL
ORIGINS, CURRENT DYNAMICS
AND NEAR-TERM DIRECTIONS**

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EAI Background Brief No. 1569

Executive Summary

1. Following the 2003 SARS pandemic, the Chinese leadership made it a top national priority for the country to be adequately prepared for the next major outbreak by building more advanced public health-relevant scientific infrastructure.
2. In China, the Wuhan Institute of Virology (WIV) and Harbin Veterinary Research Institute (HVRI) have become more pathogen-specific and specialised with the WIV being increasingly driven by work on coronaviruses and the HVRI focusing heavily on avian influenza viruses.
3. WIV and HVRI are amongst the most well-known in the world in their respective fields in terms of research output, international partnerships and deep integration into China's larger public health ecosystem (civilian and military).
4. WIV's formal domestic links include the Chinese Academy of Sciences, Chinese Communist Party (CCP - which has representation on the WIV Board of Directors), provincial and city governments, and various other bodies.
5. HVRI has established itself as the 'go-to' institute for animal pathogens that pose critical threats to livestock and/or humans. It has quickly developed internationally recognised expertise in Avian influenza viruses and is officially under the supervision of the Chinese Academy of Agricultural Sciences.
6. In May 2020, China's National Development and Reform Commission (NDRC) issued a plan for every Chinese province to have at least one Biosafety Level 3 (BSL3) lab. The NDRC cited the recent COVID-19 outbreak as the key driver of this new initiative. If executed in line with NDRC directives, it will fundamentally alter the scale, scope and structure of high-risk pathogen research in China.
7. Available evidence suggests that China now possesses world-class expertise and is capable of training its own future generations of virologists onshore without sending them to the West as was the case with previous generations.

8. However, key Chinese labs at institutes such as the WIV and HVRI will likely seek to maintain strategic relationships with specific Western lab groups. This is driven by the desire to remain close to cutting edge developments outside of China, ensure that China's own ecosystem remains competitive and identify virological sub-fields where China can be a world leader.
9. Chinese virologists are unlikely to have open and free access to research and educational opportunities in key Western countries, in the United States in particular, as in the past. This will likely have the effect of driving domestic Chinese virological research down a new and unique pathway.
10. Chinese virology labs could be characterised by the military and CCP control at the management level and in other key scientific positions. They may seek to leverage all of China's recent pandemic experiences to position themselves as world leaders.
11. With such developments, nominally civilian labs will likely be treated as strategic national assets as opposed to purely public health/clinical assets.