

**HIGH-RISK VIROLOGY RESEARCH AT  
THE CHINESE ACADEMY OF  
MEDICAL SCIENCES AND  
PEKING UNION MEDICAL COLLEGE**

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## Executive Summary

1. The Chinese Academy of Medical Sciences (CAMS) operates a full-spectrum, nationwide infrastructure of Biosafety Level 3 and 4 (BSL3/4) laboratories, hospitals and educational facilities. CAMS is one of China's largest and most strategically consequential networks that has not been adequately analysed.
2. CAMS merged with the Peking Union Medical College (PUMC) to operate as a single institution in 1957. CAMS-PUMC is under the National Health Commission, a cabinet-level executive department of the State Council which is responsible for formulating national health policies.
3. CAMS-PUMC leads a cluster of 19 medical institutes, including the Institute of Animal Laboratory Sciences in Beijing which engages in high-risk pathogen research using animal models to identify direct infection pathways to humans.
4. CAMS also runs the Institute of Medical Biology (IMB) with a BSL4 lab in Kunming, Yunnan province. The lab's flagship virology project, "Kunming National High-level Biosafety Research Centre for Non-Human Primates", serves as a national centre of excellence for the management and governance of high-security laboratories.
5. The IMB has developed a new COVID-19 vaccine that appears to be based on human and non-human primate samples. Its factory will produce between 500 million and one billion doses annually. It is at the vanguard of China's efforts to address the COVID-19 pandemic through mass vaccination.
6. Some Chinese scientists at IMB have been educated and trained in the United States. The IMB has collaborated in high-risk virology research with Dr James LeDuc, director of the Galveston BSL4 Lab, University of Texas Medical Branch. However, LeDuc's access to the IMB's BSL4 lab in Kunming was revoked in June/July 2019.

7. CAMS/PUMC is now a world leader in the development of synthetic viruses in the lab, including SARS-CoV-2 viruses. This marks a major development in that CAMS/PUMC has the independent capability to engineer a range of viruses for various applications after learning from the West.
  
8. The significance of CAMS and its institutes like the IMB is that they are rapidly developing China into a “great virology power”. In a COVID-19 global pandemic world and its aftermath, China is steadily emerging as a comprehensive great power with an independent ability to conduct cutting-edge virology research.