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MRN: 18 BEIJING 138

Date/DTG: Jan 19, 2018 / 190739Z JAN 18

From: AMEMBASSY BEIJING

Action: WASHDC, SECSTATE ROUTINE

E.O.: 13526

TAGS: SHLH, ETRD, ECON, PGOV, CN

Captions: SENSITIVE Reference: 17 WUHAN 48

Subject: China Opens First Bio Safety Level 4 Laboratory

1. (SBU) **Summary and Comment:** The Chinese Academy of Sciences (CAS) has recently established what is reportedly China's first Biosafety Level 4 (BSL-4) laboratory in Wuhan. This state-of-the-art facility is designed for prevention and control research on diseases that require the highest level of biosafety and biosecurity containment. Ultimately, scientists hope the lab will contribute to the development of new antiviral drugs and vaccines, but its current productivity is limited by a shortage of the highly trained technicians and investigators required to safely operate a BSL-4 laboratory and a lack of clarity in related Chinese government policies and guidelines.

(b) (5)

(b) (5) End Summary and Comment.

China Investing in Infectious Disease Control

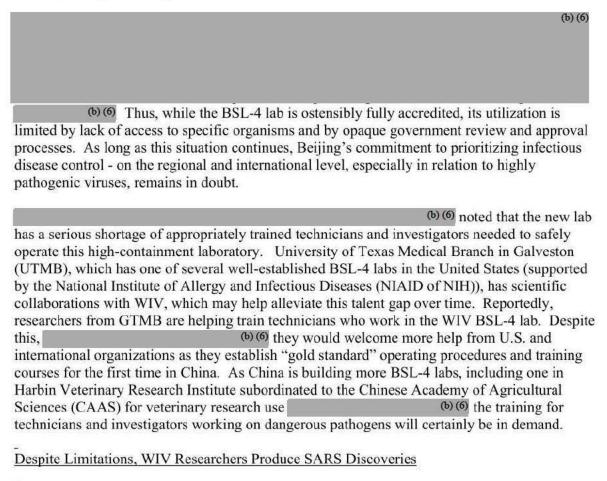
2. (U) Between November 2002 and July 2003, China faced an outbreak of Severe Acute Respiratory Syndrome (SARS), which, according to the World Health Organization, resulting in 8,098 cases and leading to 774 deaths reported in 37 countries. A majority of cases occurred in China, where the fatality rate was 9.6%. This incident convinced China to prioritize international cooperation for infectious disease control. An aspect of this prioritization was China's work with the Jean Merieux BSL-4 Laboratory in Lyon, France, to build China's first high containment laboratory at Wuhan's Institute of Virology (WIV), an institute under the auspices of the Chinese Academy of Sciences (CAS). Construction took 11 years and \$44 million USD, and construction on the facility was completed on January 31, 2015. Following

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two years of effort, which is not unusual for such facilities, the WIV lab was accredited in February 2017 by the China National Accreditation Service for Conformity Assessment. It occupies four floors and consists of over 32,000 square feet. WIV leadership now considers the lab operational and ready for research on class-four pathogens (P4), among which are the most virulent viruses that pose a high risk of aerosolized person-to-person transmission.

Unclear Guidelines on Virus Access and a Lack of Trained Talent Impede Research

3. (SBU) In addition to accreditation, the lab must also receive permission from the National Health and Family Planning Commission (NHFPC) to initiate research on specific highly contagious pathogens. According to some WIV scientists, it is unclear how NHFPC determines what viruses can or cannot be studied in the new laboratory. To date, WIV has obtained permission for research on three viruses: Ebola virus, Nipah virus, and Xinjiang hemorrhagic fever virus (a strain of Crimean Congo hemorrhagic fever found in China's Xinjiang Province). Despite this permission, however, the Chinese government has not allowed the WIV to import Ebola viruses for study in the BSL-4 lab. Therefore, WIV scientists are frustrated and have pointed out that they won't be able to conduct research project with Ebola viruses at the new BSL-4 lab despite of the permission.



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(SBU) The ability of WIV scientists	to undertake productive research despite limitations on
the use of the new BSL-4 facility is dem	nonstrated by a recent publication on the origins of
SARS. Over a five-year study,	(b) (6) (and their research team) widely sampled
bats in Yunnan province with funding st	upport from NIAID/NIH, USAID, and several Chinese
funding agencies. The study results wer	re published in PLoS Pathogens online on Nov. 30, 2017
N DO	te coronaviruses isolated from horseshoe bats in a single he pandemic SARS-coronavirus genome that caused the
- NO CLO AL TO DE LA TRANSPORTE DE	suggest that the highly pathogenic SARS-coronavirus importantly, the researchers also showed that various
SARS-like coronaviruses can interact w	ith ACE2, the human receptor identified for SARS-
coronavirus. This finding strongly sugge	ests that SARS-like coronaviruses from bats can be
transmitted to humans to cause SARS-li	ke disease. From a public health perspective, this
makes the continued surveillance of SA	RS-like coronaviruses in bats and study of the animal-
human interface critical to future emerg	ing coronavirus outbreak prediction and prevention. (6) (5)
(b) (5) WIV scientists are allo	owed to study the SARS-like coronaviruses isolated
from bats while they are precluded from	studying human-disease causing SARS coronavirus in
their new BSL-4 lab until permission fo	r such work is granted by the NHFCP.

 Hu B, Zeng L-P, Yang X-L, Ge X-Y, Zhang W, Li B, et al. (2017) Discovery of a rich gene pool of bat SARS-related coronaviruses provides new insights into the origin of SARS coronavirus. PLoS Pathog 13(11): e1006698. https://doi.org/10.1371/journal.ppat.1006698

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