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**From:** LeDuc, James W.  
**Sent:** Tuesday, January 21, 2020 4:34 PM  
**To:** Benjamin Rusek (BRusek@nas.edu); Dave Franz (davidrf Franz@gmail.com); Yuan Zhiming; George F GAO; Mifang Liang; Shi, Pei yong  
**Subject:** Op Ed in Houston Chronicle  
**Attachments:** Chinese Response to New Virus\_Le Duc 21Jan revised.docx

Ben, Dave, Zhiming, George, Mifang and Pei-Yong

The attached, slightly modified to include mention of the new case in Washington State, is scheduled to appear in Wednesday 22 Jan's Houston Chronicle. Note mention of the NASEM/CAS collaborations.

Just FYI,

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## **Chinese Response to New Virus: Good News/Bad News**

By James W. Le Duc

Fast action and open communications by China is helping the world prepare for another potentially devastating infectious disease outbreak. While the situation is rapidly evolving, there is good news that may not make the headlines. Many will recall the dark days in the spring of 2003 when Asia and the world were threatened by the appearance of a new virus disease, Severe Acute Respiratory Syndrome, or SARS, which first appeared in southern China and quickly spread to other countries around the world, ultimately causing over 8000 cases with nearly 10% of those ending in death. SARS was caused by a novel coronavirus then unknown to medical science. There was no known cure, no diagnostic tests and little understanding of where it came from or how it was spread, although person-to-person transmission was obvious as health care workers treating the first cases were themselves among the early victims. Initially, China was reluctant to share information or alert the international community of the magnitude of the epidemic, leading to international criticism and a dangerous global health situation. Fortunately, China reversed its position, opened to collaborations with the WHO, U.S. and others, and the epidemic was eventually controlled.

Today, with another novel coronavirus discovered in China, the start is very different. In quick measure, Chinese health officials recognized that a new disease had emerged, quickly isolated patients, and instituted an impressive set of interventions in attempts to limit disease spread and characterize the new pathogen. Importantly, they have been transparent in sharing their findings with the world, thus allowing other nations to take precautions and be on the lookout for the new disease. Already, the genome of the new virus was sequenced and posted for easy access by international experts, allowing rapid exploration of possible treatments, development of diagnostics and epidemiological investigations.

China's ability to respond quickly and efficiently to this new threat is the result of nearly two decades of investments and collaborations to improve public health in China. The Chinese Centers for Disease Control incorporates many of the strengths of our own CDC, but is designed to meet the needs of a 1.4 billion plus population. In addition, China has invested in building a robust scientific capacity and partnered with containment laboratories such as ours to incorporate best practices when studying dangerous pathogens.

The current outbreak demonstrates a welcome openness to health information sharing with the global community. To diagnose an outbreak early requires astute healthcare providers able to recognize when something new or unusual is occurring; however, clinical recognition alone is meaningless if there is no capacity to investigate cases or characterize the disease-causing agent.

For the last few years, our National Academy of Science, Engineering and Medicine has worked with the Chinese Academy of Sciences to build relationships and share information on emerging diseases and advancements in vaccines and treatments. In Galveston, we welcomed leading Chinese health officials to collaborate on biocontainment facility design, biosafety training and laboratory operations. This dialogue, along with U.S.-based educational opportunities for Chinese students, benefit us all.

China's response to the new coronavirus demonstrates their investments in physical laboratories and scientific collaborations over the past decade are paying dividends, not only to China, but the entire world. Control of a new disease efficiently transmitted person-to-person is nearly impossible as we witnessed during the 2009 novel influenza pandemic and much must still be done together during this quickly evolving situation.

The outbreak is still in the early stages, but it is now clear that the new virus may be transmitted person-to-person, although the efficiency of such transmission remains in question. A few hundred patients have been identified, deaths occurred and the disease has spread from the epicenter in Wuhan to major cities in China and other Asian countries. Our CDC is now screening travelers arriving from Wuhan at U.S. airports, and the WHO is set to consider a global emergency response. With millions about to travel for the Chinese New Year, avoiding a global catastrophe must be the current goal.

The good news is that, at a time when US-China relations are being tested on many fronts, relations within the public health and scientific research arenas remain open and positive, which lays a solid foundation for curtailing this latest threat.

*James Le Duc, PhD, is the Director of the Galveston National Laboratory at the University of Texas Medical Branch and a professor in UTMB's Department of Microbiology and Immunology.*

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