

A Holistic View: Are We Able to Prevent Another Disaster Like Coronavirus Pandemic?

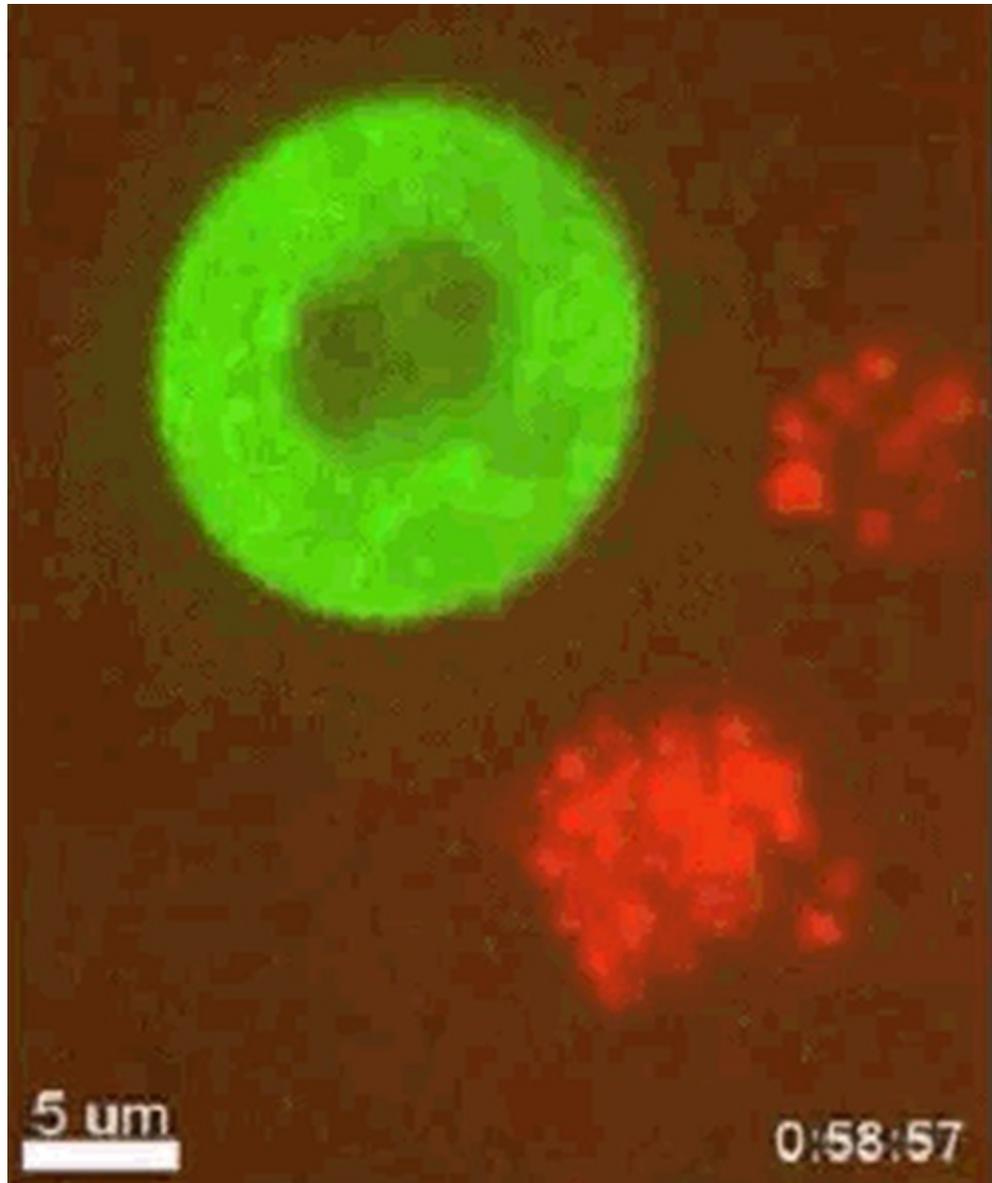
— Part 2: A Mysterious Virus — Where Did It Start?

May 27, 2020 | By Tong Gen and Wuxian, (Minghui.org)

(Continued from Part 1)

Part 2: A Mysterious Virus — Where Did It Start?

Scientists have found that virus, a lower form of life, is more complicated than what people normally think. For example, HIV-infected cells could circulate in the blood or interstitial fluid-like loaded weapons, and they actively shoot at cells that pass by. Below is a video on how HIV infected cells attack other cells.



After a cell infected with HIV (green), it attacks human cells (in red) actively and precisely like shooting a gun.

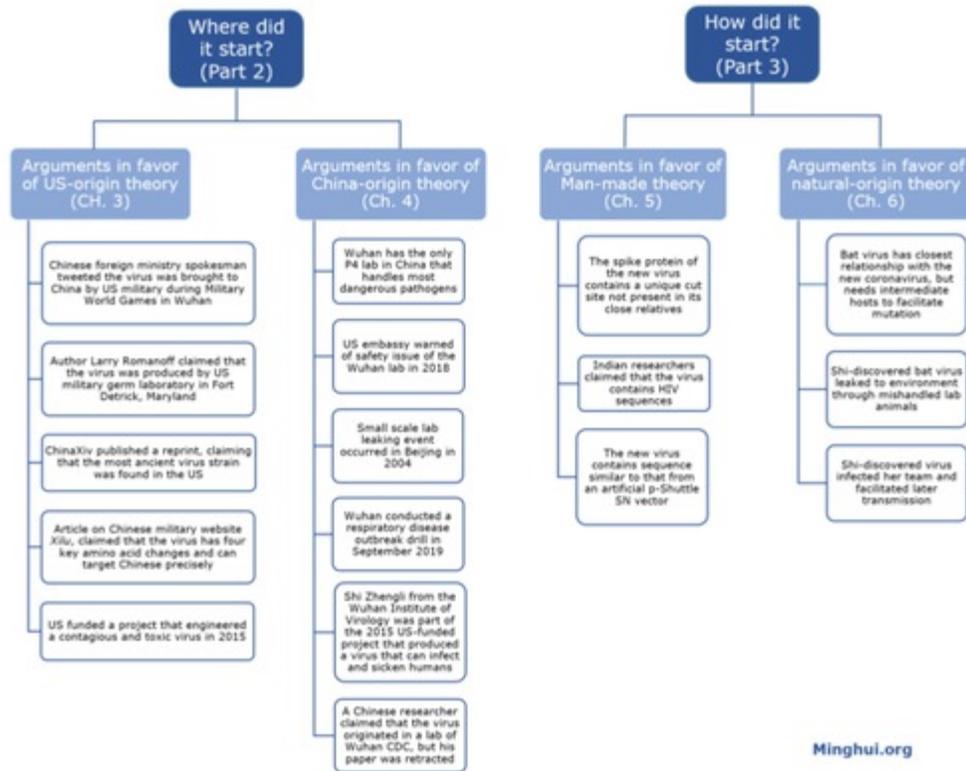
The novel coronavirus is even more complicated than a typical virus or its close relative, the 2003 SARS. For instance, the coronavirus is found to be much more “intelligent” than SARS: 1) It is dozens of times more capable of infecting humans than SARS. 2) It has a longer

incubation period than SARS. 3) It remains latent upon encountering medicine but would reactivate at a later time just like HIV.4) In addition to attacking the lungs and other organs like SARS, the coronavirus also damages the immune system in a way that resembles HIV.

There are many more puzzles about the coronavirus that scientists are eager to find answers to. To this end, many have been trying to pinpoint the origin of the coronavirus so as to better understand it and eventually find a cure to it.

Several theories have been circulated. One type of theory concerns where the virus started and the other examines how the virus started. As shown in the following image, we cover where the virus started in Part 2 and examine arguments in favor of the competing US-origin (Chapter 3) and China-origin (Chapter 4) theories. Part 3 looks into how the virus started and presents arguments in favor of man-made theory (Chapter 5) and natural-origin theory (Chapter 6).

Theories about the Origin of the Coronavirus



Chapter 3. US-origin Theory

As discussed in part 1, the Chinese Communist Party has blocked every possible channel for the information to be brought to the general public during the early phase of the outbreak. After the CCP couldn't hide the epidemic anymore, it shifted the narrative and attempted to blame the US for starting the virus. The tactics used included a social media disinformation campaign and propaganda articles run by the state-run media. Below are a few examples.

1. Chinese foreign ministry spokesman Zhao Lijian accused the US military of bringing the virus to Wuhan during the Military World Games.

On March 12, 2020, China's Foreign Ministry spokesman Zhao Lijian said on Twitter, "When did patient zero begin in US? How many people are infected? What are the names of the hospitals? It might be US army who brought the epidemic to Wuhan. Be transparent! Make public your data! US owes us an explanation!"

He included in his post a video of Dr. Robert Redfield, director of the Center for Disease Control and Prevention, saying that some flu deaths in the U.S. were later confirmed to be actually coronavirus deaths.

The U.S. State Department summoned Cui Tiankai, the Chinese ambassador to the United States, on March 13 to protest against Zhao's conspiracy theory suggesting the U. S. military might have brought the coronavirus to Wuhan.

David Stilwell, the assistant secretary of state for the Bureau of East Asian and Pacific Affairs, issued a "stern representation" of the US government's position on the matter to Cui. A State Department spokesman said, "China

is seeking to deflect criticism for its role in starting a global pandemic and not telling the world.”

Julian Gewirtz, a Harvard scholar, said of Zhao, “This small cadre of high-volume Chinese officials don’t seem to realize that peddling conspiracy theories is totally self-defeating for China, at a moment when it wants to be seen as a positive contributor around the world,” according to a New York Times article on March 13 titled “China Spins Tale That the U.S. Army Started the Coronavirus Epidemic.”

2. Author Larry Romanoff claims that the virus was manufactured by US military lab in Fort Detrick, Maryland.

Larry Romanoff, a self-proclaimed “retired management consultant and businessman,” published an article on the fact-checking website “Global Research” on March 4, 2020, claiming that the US military lab in Fort Detrick, Maryland, could be the place where the virus was manufactured.

Romanoff didn’t provide any evidence in his article, but drew his conclusion based on the fact that the Fort Detrick

lab was shut down last year due to “an absence of safeguards to prevent pathogen leakages.”

According to an earlier New York Times report, titled “Deadly Germ Research Is Shut Down at Army Lab Over Safety Concerns,” the lab’s decades-old steam sterilization system to treat wastewater was ruined during a severe storm in May 2018. Although the lab implemented a new system using chemicals to decontaminate its wastes, an inspection by the CDC in June 2019 found several issues, which cost them the registration to continue operation. But the lab’s spokeswoman confirmed that there were “no leaks of dangerous material outside the laboratory.”

Romanoff’s article was later removed from “Global Research.”

3. ChinaXiv published a preprint, claiming most ancient virus strains were found in the US.

On February 19, 2020, ChinaXiv published a preprint from Yu Wenbin and others (later updated on February 21), titled “Decoding the evolution and transmissions of the novel pneumonia coronavirus (SARS-CoV-2) using whole genomic data.”

Yu and his team studied 93 genome sequences of coronavirus collected from both Wuhan and other countries between December 24, 2019, and January 5, 2020. They found that a sequence sample collected from a patient in Washington State presented the earliest form of coronavirus. In contrast, the samples collected from Wuhan presented later mutations of the virus.

Based on this, many Netizens claimed the virus was not from China, but probably from the U.S.

A closer examination, however, indicated that the Washington State patient in Yu's study traveled back to Seattle from Wuhan on January 15, which in turn supported the fact that the outbreak started in Wuhan.

But why didn't Yu and his team find ancestral types of the virus in Wuhan samples? One reason is that most of the patients' samples were not submitted for whole-genome sequencing. Another is that, the Chinese officials gave secret orders to destroy early samples in early January 2020, as described in Part 1.

4. Article on Xilu website on January 26, 2020, titled "Four Key Amino Acids on Wuhan Virus Substituted, Can Precisely Attack Chinese."

Xilu, one of the major military websites in China, published an article on January 26, 2020, claiming four key amino acids had been replaced in the coronavirus, enabling it to accurately attack Chinese. It thus declared the coronavirus a gene weapon by the United States.

The Xilu article cited a publication on Science China from Hao Pei and others from the Center for Biosafety Mega-Science in January 2020 but distorted its findings.

In Hao's article, titled "Evolution of the novel coronavirus from the ongoing Wuhan outbreak and modeling of its spike protein for risk of human transmission," it discussed the mutation on the spike protein of the coronavirus, but it didn't mention anything about the virus' attacking Chinese. As the virus has now spread to nearly 200 countries around the world, it's clear that the virus afflicts people from all ethnicities, not only Chinese.

5. US funded a project that engineered a contagious and pathogenic virus in 2015.

One article titled "The US Made a Novel Coronavirus Five Years Ago, Can Cause Contagious Pneumonia in Human"

began to appear on Chinese social media on February 1, 2020.

The article claims that a new type of coronavirus was produced in the U.S. five years ago, which could cause infectious pneumonia in humans. It refers to a Nature Medicine paper published in January 2015 by Ralph Baric and his colleagues at the University of North Carolina. The paper was titled “A SARS-like cluster of circulating bat coronaviruses shows potential for human emergence.”

Baric and his team engineered a virus, named SHC014-MA15, that was a recombinant of the non-toxic, human transmissible bat virus SHC014-CoV and toxic, mouse-adapted SARS-MA15. They found that this man-made virus carried potential capacity to be used as a backbone for the generation of a more advanced version that can both cause severe disease and spread between humans.

The aforementioned article on Chinese social media cited Baric's paper as evidence that the current coronavirus was manufactured in the U.S., but detailed examination revealed that Shi Zhengli, a principal scientist of Wuhan Institute of Virology, was also one of the authors of the Baric's paper. After the U.S. later halted funding to Baric's

research due to ethical concerns, Shi and her team nevertheless continued the study in Wuhan.

The 2015 Nature Medicine paper



Letter | Published: 09 November 2015

A SARS-like cluster of circulating bat coronaviruses shows potential for human emergence

Vineet D Menachery , Boyd L Yount Jr, Kari Debbink, Sudhakar Agnihothram, Lisa E Gralinski, Jessica A Plante, Rachel L Graham, Trevor Scobey, Xing-Yi Ge, Eric F Donaldson, Scott H Randell, Antonio Lanzavecchia, Wayne A Marasco, Zhengli-Li Shi & Ralph S Baric 

Nature Medicine **21**, 1508–1513(2015) | [Cite this article](#)

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Chapter 4. China-origin Theory

To shirk responsibilities, the CCP broke the naming convention for the past pandemics and worked with the WHO to call the new coronavirus COVID-19, instead of Wuhan Virus.

Common sense tells us that wherever there is an outbreak, there would be a source of the virus and patient zero. As the patient zero travels, it would lead to infection along the

way. If patient zero stays in one city, that place would have an outbreak of the disease.

After the novel coronavirus broke out, some people suspect that the virus may have originated in Wuhan based on the following arguments.

1. Wuhan has the only P4 lab in China that handles the most dangerous pathogens.

Whether it was coincidental or not, the only Biosafety Level 4 (BSL-4) lab, the highest safety level lab, in China that handles highly infectious pathogens such as SARS and other coronaviruses, is located in the epicenter of the outbreak, Wuhan.

The BSL-4 lab in Wuhan Institute of Virology was established in 2015 and approved in August 2017 as a Highly Pathogenic Microorganism Lab. The lab certificate was issued on November 27, 2018.

2. US embassy warned of the safety issue of the Wuhan lab in 2018

It was even more concerning that when two science diplomats from the US embassy visited the lab in 2018,

they found “inadequate safety at the lab, which was conducting risky studies on coronaviruses from bats.” Their findings further triggered people to question whether it was possible for the virus to have been leaked from the lab.

3. Small scale lab leaking events in Beijing in 2004

In fact, shortly after the SARS outbreak in 2003, there was a leak accident in China CDC BSL-3 lab in Beijing in April 2004. After the SARS virus was inactivated, one lab staff brought the virus into a regular lab for research. Because the inactivation was not complete, the virus spread to two other lab members.

4. Respiratory disease outbreak drill in Wuhan in September 2019

Wuhan authorities held an emergency rescue drill at Wuhan Tianhe Airport on September 18, 2019, to practice how to respond to a contagious respiratory disease outbreak.

The event took place only months before the coronavirus outbreak, fueling suspicions that Wuhan authorities may have already known about the imminent outbreak beforehand.

5. Shi Zhengli from the Wuhan Institute of Virology part of a 2015 study that produced a virus that can infect and sicken humans.

The 2015 Nature Medicine paper mentioned above had Shi Zhengli as one of the coauthors, and she continued the research even after her coauthors in the U.S stopped research due to the funding issue. Some people questioned whether the new coronavirus came from Shi's research.

By comparing the SHC014-MA15 strain that was reported in Shi's Nature Medicine paper with the new coronavirus, people have found several similarities, including, 1) both of the viruses came from bats; 2) both of them are SARS-like coronavirus, with the mushroom-like spike protein on the surface; 3) both viruses' spike proteins interact with the ACE2 receptor on the human cell to mediate its entry; 4) last but not least, both viruses target the host's lungs and respiratory system, although the new virus was later found to target almost every organ of the human body.

Of note, the interaction between the novel coronavirus' spike protein with the receptors on human cells is like opening a lock with a key. The specific 3-D configuration of the spike protein, usually called the S-protein, has to be precisely complementary to the receptor protein on the

surface of the human cell, for it to open the lock and enter the cell.

In other words, the sequence and configuration of the S-protein of the new virus is one of the key factors to determine its origin.

If the new coronavirus is indeed a derivative strain from the SHC014-MA15 virus, then its key component, the S-protein, should remain the same. But so far, no such evidence has been reported by any lab.

6. A Chinese researcher claims that the virus originated from a lab in Wuhan

Another argument of the lab leak theory is based on a study published on a non-peer reviewed website called ResearchGate, by Xiao Botao from Guangzhou's South China University of Technology in February 2020.

Xiao suspected that the virus was leaked from the Wuhan Center for Disease Control and Prevention (Wuhan CDC). He reasoned that the Wuhan CDC is only 280 meters (less than 300 yards) from the wet seafood market. The CDC studies hundreds of bat coronaviruses, but with minimal

protection, and its staff members have reportedly been attacked by bats or exposed to bat urine before.

But just as many scientists started looking into the leaking event he described, Xiao withdrew the paper, because it “was not supported by direct proofs,” according to his interview with the Wall Street Journal.

(To be continued)

<https://en.minghui.org/html/articles/2020/5/27/185233.html>