



## Engineered bat virus stirs debate over risky research

Lab-made coronavirus related to SARS can infect human cells.

**Editors' note, March 2020:** We are aware that this story is being used as the basis for unverified theories that the novel coronavirus causing COVID-19 was engineered. There is no evidence that this is true; scientists believe that an animal is the most likely source of the coronavirus.

Declan Butler

12 November 2015

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An experiment that created a hybrid version of a bat coronavirus — one related to the virus that causes SARS (severe acute respiratory syndrome) — has triggered renewed debate over whether engineering lab variants of viruses with possible pandemic potential is worth the risks.

In an article published in *Nature Medicine*<sup>1</sup> on 9 November, scientists investigated a virus called SHC014, which is found in horseshoe bats in China. The researchers created a chimaeric virus, made up of a surface protein of SHC014 and the backbone of a SARS virus that had been adapted to grow in mice and to mimic human disease. The chimaera infected human airway cells — proving that the surface protein of SHC014 has the necessary structure to bind to a key receptor on the cells and to infect them. It also caused disease in mice, but did not kill them.

Although almost all coronaviruses isolated from bats have not been able to bind to the key human receptor, SHC014 is not the first that can do so. In 2013, researchers reported this ability for the first time in a different coronavirus isolated from the same bat population<sup>2</sup>.

The findings reinforce suspicions that bat coronaviruses capable of directly infecting humans (rather than first needing to evolve in

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# Coronavirus

There is no proof of who let the virus out but the fact is countries have been playing with infectious diseases for decades and have been preparing for such an event and it just so happens that they are planning to reset the world economy using this event.

**The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons ...entered into force 26 March 1975 when twenty-two governments had deposited their instruments of ratification. It commits the 183 states which are party to it as of August 2019 to prohibit the development, production, and stockpiling of biological and toxin weapons.**

The reality is that disease just doesn't start out of nowhere and especially a pandemic like this.

In liberia ebola broke out amongst the filth of cannibalism, a civil war and filth everywhere.

One Bible rule is cover your shit and they werent even able to do that much.

Here the risk was already reported in nature magazine. 'But other virologists question whether the information gleaned from the experiment justifies the potential risk. Although the extent of any risk is difficult to assess, Simon Wain-Hobson, a virologist at the Pasteur Institute in Paris, points out that the researchers have created a novel virus that "grows remarkably well" in human cells. "If the virus escaped, nobody could predict the trajectory," he says."

# A pneumonia outbreak associated with a new coronavirus of probable bat origin

Peng Zhou, Xing-Lou Yang, [...] Zheng-Li Shi [✉](#)

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## Abstract

Since the outbreak of severe acute respiratory syndrome (SARS) 18 years ago, a large number of SARS-related coronaviruses (SARSr-CoVs) have been discovered in their natural reservoir host, bats<sup>1,2,3,4</sup>. Previous studies have shown that some bat SARSr-CoVs have the potential to infect humans<sup>5,6,7</sup>. Here we report the identification and characterization of a new coronavirus (2019-nCoV), which caused an epidemic of acute respiratory syndrome in humans in Wuhan, China. The epidemic, which started on 12 December 2019, had caused 2,794 laboratory-confirmed infections including 80 deaths by 26 January 2020. Full-length genome sequences were obtained from five patients at an early stage of the outbreak. The sequences are almost identical and share 79.6% sequence identity to SARS-CoV. Furthermore, we show that 2019-nCoV is 96% identical at the whole-genome level to a bat coronavirus. Pairwise protein sequence analysis of seven conserved non-structural proteins domains show that this virus belongs to the species of SARSr-CoV. In addition, 2019-nCoV virus isolated from the bronchoalveolar lavage fluid of a critically ill patient could be neutralized by sera from several patients. **Notably**, we confirmed that 2019-nCoV uses the same cell entry receptor—angiotensin converting enzyme II (ACE2)—as SARS-CoV.

Shi the batwoman from the Wuhan lab reports on pneumonia related to possible bat origin.

## Bat Coronaviruses in China

Yi Fan,<sup>1,2</sup> Kai Zhao,<sup>1,2</sup> Zheng-Li Shi,<sup>1,2</sup> and Peng Zhou<sup>1,2,\*</sup>


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**Abstract** Go to: 

During the past two decades, three zoonotic coronaviruses have been identified as the cause of large-scale disease outbreaks—Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Swine Acute Diarrhea Syndrome (SADS). SARS and MERS emerged in 2003 and 2012, respectively, and caused a worldwide pandemic that claimed thousands of human lives, while SADS struck the swine industry in 2017. They have common characteristics, such as they are all highly pathogenic to humans or livestock, their agents originated from bats, and two of them originated in China. Thus, it is highly likely that future SARS- or MERS-like coronavirus outbreaks will originate from bats, and there is an increased probability that this will occur in China. Therefore, the investigation of bat coronaviruses becomes an urgent issue for the detection of early warning signs, which in turn minimizes the impact of such future outbreaks in China. The purpose of the review is to summarize the current knowledge on viral diversity, reservoir hosts, and the geographical distributions of bat coronaviruses in China, and eventually we aim to predict virus hotspots and their cross-species transmission potential.

**Keywords:** coronavirus, bat, epidemiology, cross-species, zoonosis

**1. Introduction** Go to: 

Fifteen years after the first highly pathogenic human coronavirus caused the severe acute respiratory syndrome coronavirus (SARS-CoV) outbreak, another severe acute diarrhea syndrome coronavirus

‘By March, the wild-virus theory was still the most likely explanation of the origin of SARS-CoV-2—but it was starting to look a little ragged around the edges. For one thing, the Wuhan Institute of Virology, not far from the animal markets in downtown Wuhan, houses the world's largest collection of coronaviruses from wild bats, including at least one virus that bears a resemblance to SARS-CoV-2. What's more, Wuhan Institute of Virology scientists have for the past five years been engaged in so-called "gain of function" (GOF) research, which is designed to enhance certain properties of viruses for the purpose of anticipating future pandemics. Gain-of-function techniques have been used to turn viruses into human pathogens capable of causing a global pandemic.’

**COVID-19 is an emerging, rapidly evolving situation.**

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October 16, 2014

### Statement on Funding Pause on Certain Types of Gain-of-Function Research



The White House Office of Science and Technology Policy announced today that the U.S. government will undertake a deliberative process to assess the risks and benefits of certain gain-of-function (GOF) experiments with influenza, SARS, and MERS viruses in order to develop a new Federal policy regarding the funding of this research. During this deliberative process, U.S. government agencies will institute a pause on the funding of any new studies involving these experiments. For purposes of the deliberative process and this funding pause, "GOF studies" refers to scientific research that increases the ability of any of these infectious agents to cause disease by enhancing its pathogenicity or by increasing its transmissibility among mammals by respiratory droplets.

NIH has funded such studies because they help define the fundamental nature of human-pathogen interactions, enable the assessment of the pandemic potential of emerging

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## Why Would the US Have Funded the Controversial Wuhan Lab?

According to *Newsweek*, funding for the WIV occurred in two phases. The first took place from 2014 to 2019, through a \$3.7 million project for collecting and studying bat coronaviruses. This work was largely led by Dr. Zhengli Shi, known to many as “batwoman” for her years investigating caves in search of new bat viruses. The second phase began shortly after, with another \$3.7 million. Unlike the first, this project appears to have included work on “gain-of-function”: research that investigates how a virus can gain the ability to infect a new type of animal. By Justin Fendos  
May 13, 2020

The following scenario is from the Rockefeller foundation 2010, the year Gill Gates joined the foundation as well as Dr Fauci being part of Gate’s team. It is part of 4 scenarios and takes 2012 as the date of the imagined pandemic. Fauci was aware of the viral trial and money going from his organisation for research but said the virus was from natural occurrence. Of course, he would say that! Fauci is Jesuit taught.

# Scenario Narratives LOCK STEP

A world of tighter top-down government control and more authoritarian leadership, with limited innovation and growing citizen pushback



In 2012, the pandemic that the world had been anticipating for years finally hit. Unlike 2009’s H1N1, this new influenza strain — originating from wild geese — was extremely virulent and deadly. Even the most pandemic-prepared nations were quickly overwhelmed when the virus streaked around the world, infecting nearly 20 percent of the global population and killing 8 million in just seven months, the majority of them healthy young adults. **The pandemic also had a deadly effect on economies: international mobility of both people and goods screeched to a halt, debilitating industries like tourism and breaking global supply chains. Even locally, normally bustling shops and office buildings sat empty for months, devoid of both employees and customers.**

The pandemic blanketed the planet — though disproportionate numbers died in Africa, Southeast Asia, and Central America, where the virus spread like wildfire in the absence of official containment protocols. But even in developed countries, containment was a challenge. The United States’s initial policy of “strongly discouraging” citizens from flying proved deadly in its leniency, accelerating the spread of the virus not just within the U.S. but across borders. . The **Chinese government’s quick imposition and enforcement of mandatory quarantine for all citizens, as well as its instant and near-hermetic sealing off of all borders, saved millions of lives, stopping the spread of the virus far earlier than in**

**other countries and enabling a swifter post-pandemic recovery.**

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**China's manufacturing activity rises at fastest pace in nearly a decade, survey shows**

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FILE PHOTO: A factory of Shaanxi Heavy Duty Automobile Co in Xian, Shaanxi province, China © Reuters

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The results of a private business survey reveal that China's manufacturing sector continues to rebound from the coronavirus pandemic, recording the strongest expansion since January 2011.

The Caixin/Markit manufacturing Purchasing Managers' Index (PMI), which gives an independent outlook of the country's manufacturing sector, ticked up to 52.6 in July from 51.2 in June, with readings above 50 showing growth. The figures, released on Monday, were around 1.3 points higher than analysts polled by Reuters had predicted.

The private survey data is consistent with the official PMI released by China's National Bureau of Statistics (NBS) last week. According to the agency, the index rose to 51.1 in July from 50.9 in June, hitting its highest level since March.

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The Caixin manufacturing PMI focuses on smaller and private companies, while the results released by the NBS mostly

China's government was not the only one that took extreme measures to protect its citizens from risk and exposure. During the pandemic, national leaders around the world flexed their authority and imposed airtight rules and restrictions, from the mandatory wearing of face masks to body-temperature checks at the entries to communal spaces like train stations and supermarkets. **Even after the pandemic faded, this more authoritarian control and oversight of citizens and their activities stuck and even intensified. In order to protect themselves from the spread of increasingly global problems — from pandemics and transnational terrorism to environmental crises and rising poverty — leaders around the world took a firmer grip on power.**

**At first, the notion of a more controlled world gained wide acceptance and approval. Citizens willingly gave up some of their sovereignty — and their privacy — to more paternalistic states in exchange for greater safety and stability.** Citizens were more tolerant, and even eager, for top-down direction and oversight, and national leaders had more latitude to impose order in the ways they saw fit. In developed countries, this heightened oversight took many forms: biometric IDs for all citizens, for example, and tighter regulation of key industries whose stability was deemed vital to national interests. In many

developed countries, enforced cooperation with a suite of new regulations and agreements slowly but steadily restored both order and, importantly, economic growth.

Across the developing world, however, the story was different — and much more variable. Top-down authority took different forms in different countries, hinging largely on the capacity, caliber, and intentions of their leaders, citizens' overall economic status and quality of life increased. **In India, for example, air quality drastically improved after 2016, when the government outlawed high-emitting vehicles.** In Ghana, the introduction of ambitious government programs to improve basic infrastructure and ensure the availability of clean water for all her people led to a sharp decline in water-borne diseases. But more authoritarian leadership worked less well — and in some cases tragically — in countries run by irresponsible elites who used their increased power to pursue their own interests at the expense of their citizens.

There were other downsides, as the rise of virulent nationalism created new hazards: spectators at the 2018 World Cup, for example,

wore bulletproof vests that sported a patch of their national flag. Strong technology regulations stifled innovation, kept costs high, and curbed adoption. In the developing world, access to “approved” technologies increased but beyond that remained limited: the locus of technology innovation was largely in the developed world, leaving many developing countries on the receiving end of technologies that others consider “best” for them. Some governments found this patronizing and refused to distribute computers and other technologies that they scoffed at as “second hand.” Meanwhile, developing countries with more resources and better capacity began to innovate internally to fill these gaps on their own.

Meanwhile, in the developed world, the presence of so many top-down rules and norms greatly inhibited entrepreneurial activity. Scientists and innovators were often told by governments what research lines to pursue and were guided mostly toward projects that would make money (e.g., market-driven product development) or were “sure bets” (e.g., fundamental research), leaving more risky or innovative research areas largely untapped. Well-off countries and monopolistic companies with big research and development budgets still made significant advances, but the IP behind their breakthroughs remained locked behind strict national or corporate protection. Russia and India imposed stringent domestic standards for supervising and certifying encryption-related products and their suppliers — a category that in reality meant all IT innovations. The U.S. and EU struck back with retaliatory national standards, throwing a wrench in the development and diffusion of technology globally.

Especially in the developing world, acting in one’s national self-interest often meant seeking practical alliances that fit with those

“IT IS POSSIBLE TO DISCIPLINE AND  
CONTROL SOME SOCIETIES FOR SOME  
TIME, BUT NOT THE WHOLE WORLD  
ALL THE TIME.”

– GK Bhat, TARU Leading Edge, India