

Australian researchers see virus design manipulation



After millions of people around the world have suffered from COVID-19, a research team believes the quick evolution of the coronavirus and its unique ability to infect humans are either "a remarkable coincidence or a sign of human intervention." (Associated ... more >

By Bill Gertz - *The Washington Times* - Thursday, May 21, 2020

A forthcoming Australian scientific study concludes that the coronavirus causing the global pandemic contains unique properties suggesting it was

Five scientists who conducted the study discovered an unusual ability of the SARS-CoV-2 virus, as the pathogen behind COVID-19 is called, to easily infect humans.

The scientists said there is no sign so far that the virus can be found in other animals, including bats or the exotic wildlife sold for fresh meat at a market in the Chinese city of Wuhan, where the virus was first identified and where China maintains a major laboratory studying such viruses.

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The preliminary report of the study, which is now being peer-reviewed, is based on computer modeling of the virus' ability to infect various animals, including humans. It was published May 13 on the Cornell University website arXiv.org, which is used for discussion of pre-publication papers.

Nikolai Petrovsky, the lead researcher, said his team suspects human manipulation in Wuhan because of the unmatched ability of the virus' protruding spike to infect human cells.

The virus' binding strength for human cells "far exceeds" similar properties for infecting other animals, he said in a statement on the forthcoming report.

“This, plus the fact that no corresponding virus has been found to exist in nature, leads to the possibility that COVID-19 is a human-created virus,” said Mr. Petrovsky, a professor at the College of Medicine and Public Health at Flinders University in Adelaide, Australia.

“It is therefore entirely plausible that the virus was created in the biosecurity facility in Wuhan by selection on cells expressing human ACE2, a laboratory that was known to be cultivating exotic bat coronaviruses at the time.”

ACE2 is the acronym for angiotensin-converting enzyme 2, which is on cell surfaces. The enzyme is the entry point the coronavirus uses to infect organisms and spread.

Human lung cells contain ACE2 receptors that have been shown to be key targets of the SARS-CoV-2.

A laboratory-treated coronavirus also could have escaped the facility through an accidental infection of a staff member who then visited the Wuhan wild animal market, Mr. Petrovsky said. Other potential sources include inappropriate disposal of medical waste at a Wuhan laboratory or transmission from a cat or other animal that came into contact with infected waste.

Mr. Petrovsky said the research team believes the quick evolution of the coronavirus and its unique ability to infect humans are either “a remarkable coincidence or a sign of human intervention.”

Chinese Foreign Ministry spokeswoman Hua Chunying denied again this month that the Wuhan Institute of Virology, which houses China’s high-

security laboratory studying pathogens, was the source of the outbreak. The head of the Wuhan laboratory has also said she is convinced after a review that her lab played no role in the virus' spread.

Another Chinese Foreign Ministry official, Zhao Lijian, suggested that the U.S. Army brought the virus to China. President Trump and other top officials angrily denied that accusation.

The Australian study contradicts other scientists' assertions that there is no evidence the virus originated in a Chinese laboratory or that it is the result of laboratory bioengineering.

Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases and a key adviser to Mr. Trump on the pandemic, has dismissed any suggestion that the virus came from a Chinese laboratory.

"If you look at the evolution of the virus in bats and what's out there now, [the scientific evidence] is very, very strongly leaning toward this could not have been artificially or deliberately manipulated," he told National Geographic this month.

"Everything about the stepwise evolution over time strongly indicates that [this virus] evolved in nature and then jumped species."

'Highly adapted' pathogen

The forthcoming study, however, concludes that the binding energy of the virus' "spike" protein — the crownlike protrusions surrounding the surface of the round microbe — is highest for humans and greater than all other species tested, including bats, which have been widely targeted as the

likely original source.

“This indicates that SARS-CoV-2 is a highly adapted human pathogen,” the Australian report said.

The team analyzed spike protein binding of the virus on a range of other animals, including pangolins, civets, mice, hamsters, cats, dogs, snakes, horses, tigers and cows.

“Overall, the data indicates that SARS-CoV-2 is uniquely adapted to infect humans, raising important questions as to whether it arose in nature by a rare chance event or whether its origins might lie elsewhere,” the report said.

Jonathan J. Couey, a research assistant professor of neurobiology at the University of Pittsburgh, said he agrees with the Australian findings.

“Understanding the exact origin of this virus is vital to ensure that all scientific and medical data are interpreted correctly by policymakers and health care professionals alike,” Mr. Couey said.

However, he said, debate on the laboratory origin of the virus has been stymied by scientists opposed to even considering the possibility.

“Several scientists with obvious conflicts of interest have been permitted to go on the record denying that it would be possible to generate such a virus in a laboratory and stating specifically that the sequence of SARS-CoV-2 would never have been chosen by any ‘gene jockey,’” he said in an email.

“Both of these denials are not genuine scientific rebuttals, but rather semantic pseudo-denials formulated by some of those most closely tied to the funding of these [gain of function] research lines.”

“Gain-of-function research” is laboratory work to increase the ability of pathogens to cause disease. It is carried out to study pandemics and how to respond to them.

U.S. investigation

Research institutions and U.S. intelligence agencies are investigating the origin of the virus, which has now infected nearly 5 million people worldwide and is blamed for at least 323,000 deaths. The 106,000 new cases of infections recorded Tuesday was the most in a single day since the outbreak began, World Health Organization officials said in Geneva.

U.S. intelligence agencies say they agree with a “wide scientific consensus” that the virus was not man-made or genetically modified, according to an April 30 statement by the Office of the Director of National Intelligence. But public and private researchers have said it is impossible to dismiss the possibility of an accidental leak from the Wuhan laboratory of what became the COVID-19 strain.

The spy agencies are studying emerging information and intelligence “to determine whether the outbreak began through contact with infected animals, or if it was the result of an accident at a laboratory in Wuhan,” the ODNI said in an unusual public statement.

Knowing the origin of the virus could prove critical to finding vaccines and treatments and responding to future outbreaks, researchers say.

The Australian study is the second scientific paper to suggest laboratory manipulation played a part.

A group of Indian scientists published a paper on Jan. 31 that found the new coronavirus contained four insertions to the spike protein that are unique to SARS-CoV-2 and not found in other coronaviruses. The features, they said, are similar to those found in the virus known as HIV.

Those scientists concluded that similar structures are “unlikely to be fortuitous in nature.”

The Indian paper was withdrawn under pressure from China, but the scientists involved refused to repudiate their research and promised to publish their findings eventually.

Mr. Petrovsky, who is also research director for Vaxine Pty Ltd., a biotechnology company based in Bedford Park, South Australia, said the source of the virus remains a vitally important question.

“While COVID-19 has close similarities to SARS and other bat viruses, no natural virus matching to COVID-19 has been found in nature despite an intensive search to find its origins,” he said. “This raises the very legitimate question of whether the COVID-19 virus might be the result of human intervention.”

Like other scientists who studied the virus, the Australian team did not find easily recognizable artificial gene inserts that would signal virus

engineering. Mr. Petrovsky said there are ways to manipulate viruses without such inserts.

For example, laboratory technicians could take a bat coronavirus that is not infectious to humans and force its evolution by culturing the virus with cells that have the human receptor.

That process was used to culture SARS coronaviruses in laboratories.

The result would be that “you can force the bat virus to adapt to infect human cells via mutations in its spike protein,” Mr. Petrovsky said.

Laboratory development of viruses also can create other random mutations.

“The result of these experiments is a virus that is highly virulent in humans but is sufficiently different that it no longer resembles the original bat virus,” he said.

Since those mutations would be acquired randomly in a laboratory, there would be no signature of bioengineering “but this is clearly a virus still created by human intervention.”

The Chinese government initially said the virus appeared to originate in the Huanan seafood market in Wuhan but later changed its official version to say the origin is something for scientists to study.

Beijing initially opposed international calls for an investigation into how the disease outbreak began but this week said it would support an independent WHO probe of the handling of the disease outbreak at an

unspecified date.

Critics say Chinese secrecy has prevented scientists from learning about the virus.

However, “the nature of this event and its proximity to a high-risk biosecurity facility at the epicenter of the outbreak demands a full and independent international inquiry to ascertain whether a virus of this kind of COVID-19 was being cultured in the facility and might have been accidentally released,” Mr. Petrovsky said.

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M

Mary



21 May, 2020

I preface this by saying it is just MHO. I do not have any professional qualifications to support my assessment. But . . . I have said it before-- this virus is just too perfect to have hatched in Mother Nature's incubator. It is a multi-faceted virus that affects different demographic groups in different ways, most of which are debilitating and potentially fatal in ways like nothing else we have ever faced . Add to that the fact that it is highly contagious, the economic impact in fighting it, shutting down, emergency costs for medical facilities and equipment, and financial aid to individuals and businesses. As it turns out, it has also impacted our military-- not just in cases and casualties, but also by limiting recruitment to only those who test negative. Yeah, I could be wrong. I could just be paranoid. But considering the HIV connection and other findings by researchers, I think it is fair to be suspicious.

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Winnetou89 

21 May, 2020

In a court of law, one could make a strong circumstantial case that this virus escaped from the Wuhan lab. Simply put, if it walks like a duck, quacks like a duck and acts like a duck then it is a duck. It's too perfectly "built" to zero in on the lung receptors to attack humans. The term Crimes Against Humanity keep coming to mind.

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 3 replies

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