

#1: A 'consensus' sequence of SARS like events

Leading up to patient 0 in Wuhan

Jim Haslam

Oct 2

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Disclaimer: this is obviously a Wuhan lab leak hypothetical based on an accident, not an accusation. A series of post not so much to discuss 'lab' leak but 'what' leaked. Written to answer the two biggest questions:

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- why did the WIV publish RaTG13 on January 24 2020, starting engineering rumors by US virologists, leading to a February 1st teleconference drafting a natural origin paper, later referenced in major press conference?
- why only North American (lab) animals (not Chinese bats) can become both infected and 'efficiently' transmit SARS2?



BSL4 located in rural Wuhan

get away from the main campus and the office bureaucracy of the Chinese Academy of Science (CAS). It's been 4 months of failed test results, but a new FedEx package is waiting for her, and the small number of virologists that worked on this global project would be excited.

Like the viruses they hunt, this is an academic project without borders, nationalities or even a particular species. Ideally the beginning of the end for any zoonotic disease spillover events, which increased because molecular diagnostics in the late 1990's started identifying unknown pathogens, from both foreign travelers and domesticated livestock.

In the winter of 2002 a Chinese wet market was the source of SARS killing hundreds while hurting China's economy and political reputation. The first SARS would spread within 500 miles of Washington D.C., killing dozens, with Canadian hospitals suspending non-essential services.

Americans would be introduced to America's Dr. Anthony Fauci, who raised the potential of bioterrorism in Congress, but reassures the panicked C-SPAN callers that SARS "jumped species from an animal to a human" and there is "no evidence...of genetic engineering." Fauci explains his NIAID virologists can do "genetic manipulation, to get only segments of the virus that can be used in a vaccine."

The SARS outbreak ended by summer of 2003, but Fauci funded a University of North Carolina (UNC) virologist who created the first infectious clone (lab created version) of SARS. This would "provide a template for manipulation of the viral genome, allowing for the rapid and rational development and testing of candidate vaccines and therapeutics against this important human pathogen."

"Within a few years, this clone could lead to an attenuated virus — a live SARS virus that has been tweaked so it's no longer deadly. That, in turn, could be used to create an effective (animal) vaccine."

The 62 year old "science in a suit" started using and repeating his post 9/11 line "bioterrorism is just another form of emerging and reemerging infection." In the same 2003 C-SPAN interview a caller asked him to resign, but nearly two decades later the "J.

Edgar Hoover" of biology became the highest paid bureaucrat, because "his work on biodefense research activities."

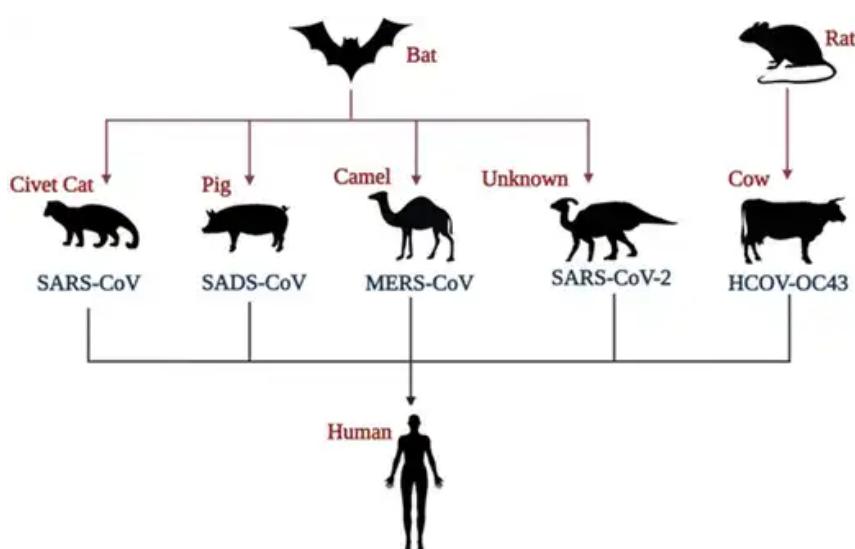
Billions of biodefense tax dollars would flow from Congress to NIAID, who started a building spree of biolabs. SARS research money allocated two decades ago would continue into 2019, with \$44M from Fauci's NIAID, now partially funding Danielle's Wuhan research.

Why is she studying bat viruses?

In 2000's Danielle spent time in North America as technician at Harvard, animal research postdoc in Canada, even an anti-doping scientist for the Winter Olympics. In 2012 Danielle and her US educated boss Linfa Wang, were recruited into this growing NIAID biodefense network via Duke University. They would both relocate to Duke-Singapore where an animal BSL3 lab was built. That same year SARS became a select agent, because it's potential use as a bioweapon, ironically giving Duke's rival UNC a monopoly on SARS research.

In 2014 MERS from Middle Eastern camels found its way to both the US and China, so Fauci's Rocky Mountain lab (RML) began development on a camel vaccine for Middle

East and Far East camels. Fauci explains that NIAID has developed a human vaccine for almost every outbreak like MERS, but pharmaceutical companies don't have a viable market, so the concept is to vaccinate the camels to protect the people.



Reservoir = bats. Intermediary species = civet pig camel

Around that same time interest in bat viruses took off and 2017 virologists started the bat genome project. In 2018 bats are big news and by 2019, with decreasing cost of next generation sequencing (NGS) technology and increased bat cave sampling, virologists rightly or wrongly (even comically) blamed all these global events on bats.

Pork & poultry biosecurity is both US & China national security

China's meat production once depended on small rural farms but they can't meet modern biosecurity standards (bird nets, roofs, boots, etc). Both legal and illegal pig vaccines are thought to have caused accidental pig infections leading to rising pork prices. Consumption has also tripled past two decades and suffered some serious disease setbacks.

A 2013 coronavirus 99% similar to a Chinese strain, had evolved around the local pig vaccine. It spread to America via imported pig feed and wiped out 10% of US pork production. A 2016-17 SARS like bat virus was blamed for infecting pork farms in China, where food security is national security. What you thought was a drug sniffing dog at the international airport was looking for illegal pork.

In early 2019 US virologists traveled to a Chinese veterinary research center. A meeting

between the two largest pork and poultry producers in the world on “combating infectious diseases and further enhancing cooperation between China and USA” (i.e. CAS and NAS).

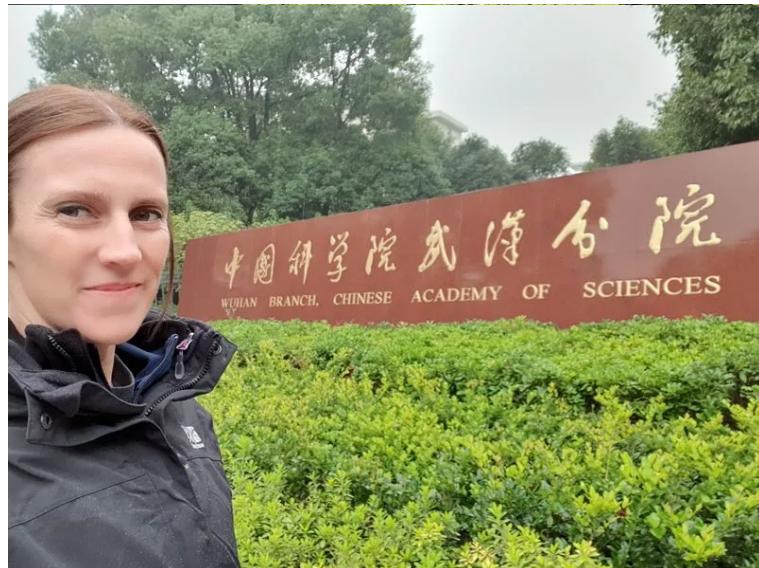
- Can we “predict” and intervene to prevent virus transfers? A ‘cleavage site’ has been identified for avian disease emergence in a new species.
- Can we use “deliberate design” to create novel animal vaccines? Yes but there may be “unintended consequences.”

In their discussion culling isn't the answer “leading to the decision to undertake (mass) vaccination.” The head of China CDC notes his scientists are a “relative newcomer to this area.”

Western scientists have been carpet bombing wild intermediary species with delicious vaccine baits for decades. Using planes along the Mexican border, helicopters over mountains, and dropping chicken heads over Europe. All in a successful effort to rid the Western world of rabies, which originates from bats, but it still kills 50,000 worldwide in remote areas of the developing world. The aerial vaccine delivery method was successful but expensive, and Chinese bats are picky eaters so baits will not work.

Why is she in Wuhan?

This is still an Asian culture that needs to save ‘face’ and wears masks without mandates. Danielle has been maskless in Wuhan since this brand new BSL4 opened in 2017. Like Fauci’s NIAID, CAS had a post SARS biolab boom and this is the special one built upon the idea of international collaboration. It serves as a training center between the East and the West, providing another routine morning for the only Westerner in this Eastern lab.



Dani outside CAS in downtown Wuhan 2017-19

Her colleagues called her 'Dani' the 40 year old "single big girl from Australia with strong eyes." She is a special guest of CAS and "unpaid visiting scientist during regular short trips" to the WIV from her Duke lab in Singapore. Her CV proudly declares "my research aims to identify host factors important for...coronavirus replication" and "I have extensive experience in designing animal experiments with...bats." She is probably the only Wuhan technician trained to use the BSL4 and qualified for this specialized bat immunology test. Most importantly Dani is a trusted team member on both sides of the world.



BSL4 positive pressure suits

She passes through WIV security with a body temperature check, replacing her cell

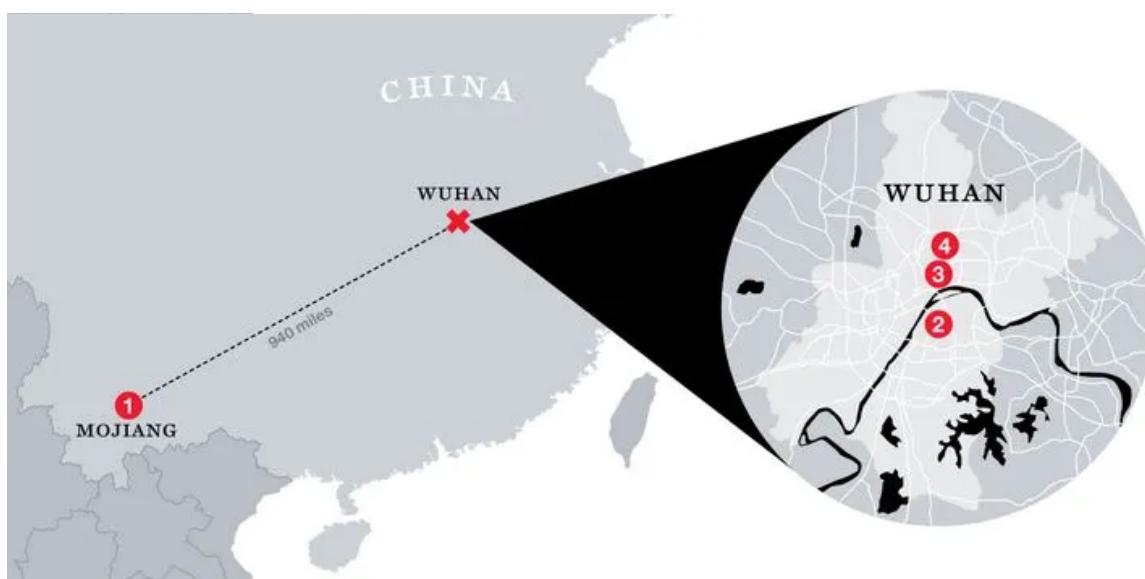
phone with a headset and ‘suits up.’ She hooks up her positive pressure suit to an umbilical cord of fresh air and steps into a negative pressure room. It’s full of what truly makes this BSL4 lab special; no monkeys, no bioweapons, no PLA, no RaTG13, no Gain-of-Function, no remdesivir, no humanized mice, just a lot of individualized bat cages.





Video of live bats in Wuhan BSL4

Dani would 'spacewalk' past the many colonized bats that grew up in captivity and step into room #3. This special room held a special group of wild-caught bats from a remote Chinese cave 1000 miles southwest of Wuhan.



For Dani's project *the bats*, not the bat samples, are more interesting

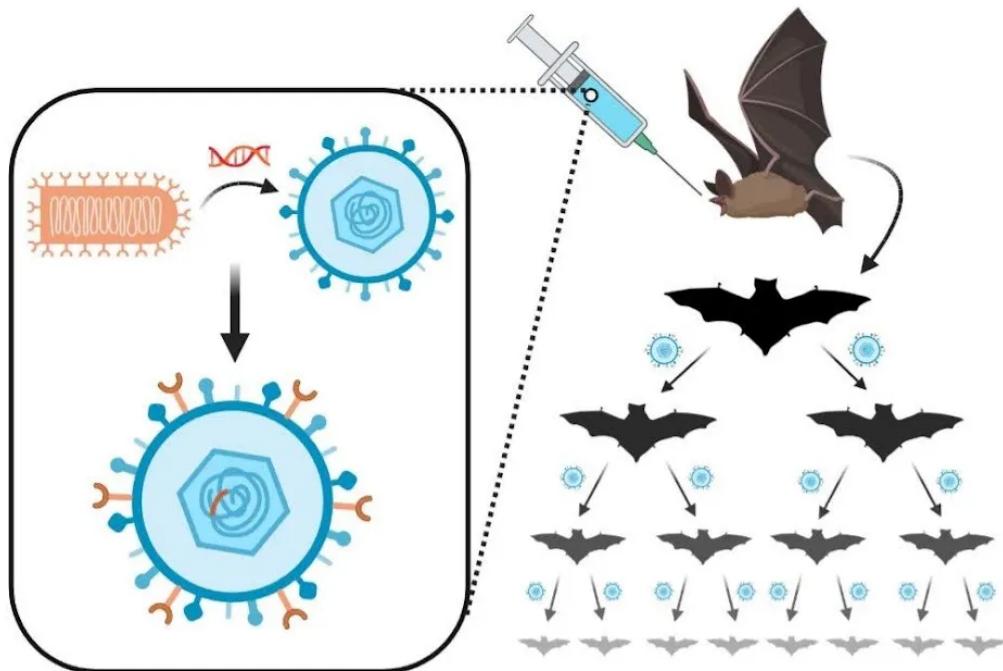
She has been trying to get a “better understanding of the asymptomatic infection of bats, by viruses highly lethal in other mammals.” Applying the same NGS technology used to detect pathogens in humans, but for bats, measuring coronavirus shedding and vaccine efficacy. This brand new Duke technology was developed for “disease prevention and control” with US Military funding who have “personnel stationed in the Asia-Pacific region.”



BSL4 aerosol lab

What is she doing in the BSL4?

The procedure was simple since most of the R&D work was done over the many years. Just take one needle out for a single injection into one of the many wild bats that were flying around. The room was 'big enough' to allow the bats to fly with elevated bat body temperature, but small enough to allow for a controlled experiment. Dani wanted to evaluate if this particular bat virus would spread orally among a few dozen live bats kept inside this simulated bat cave. The first prototypes have successfully inoculated this species of bat, but didn't spread as designed to the other bats.

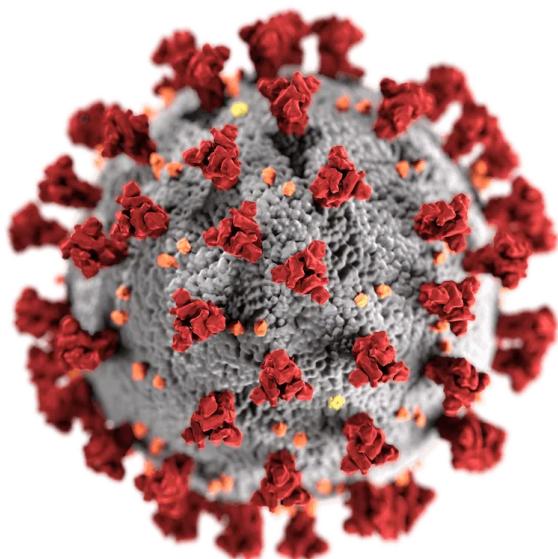


Contagious aerosol vaccine trial on Chinese bats with BSL4 requirement

This new animal vaccine approach is cheaper than aerial delivery of baits, but it's unproven and radical.

It “relies on inserting a *small piece* of the genome of the infectious disease agent into a benign virus that spreads naturally through the animal population. As this transmissible vaccine spreads from animal to animal, it immunizes them against the target infectious disease, vastly increasing immunity within the animal population and reducing the risk of spillover to humans.”

The tiny Chinese bats naturally live in dense forests and deep caves on steep cliffs, so they are ideal for a contagious animal vaccine trial. This type of self spreading bat vaccine doesn't require expensive field equipment in remote areas.



SARS-like spike protein for both animal & human vaccines

The ‘small piece’ is an engineered spike protein which makes a good target, for both human *and* animal vaccines like “a camel or a bat.” For MERS the spike protein was a direct injection into the intermediary species of camels, which are easier to catch than bats. For SARS the coronavirus spike protein is seamlessly inserted into a regional bat virus. The local bat population will now produce antibodies against this high risk strain; therefore, not spread this high risk strain into local wet markets or pig farms.

Dani’s experiment is called targeted immune boosting using a synthesized bat virus. The initial concept had worked well in the New World ‘bats’ in the New World labs. Now was another *in vivo* experiment (Latin for “within the living”) for the Old World bats in this Old World lab.

Is she playing with a virus or a vaccine?

Fauci aptly calls it Dual Use Research of Concern (DURC). Over the past 2 decades there was a focus on One Health since animals are responsible for 75% of “human infectious threats.” Can we stop the disease there before it spills over to humans? The idea is to “keep it in the bats...and the birds in China.”

- Bat vaccine? US Military and even USGS studied.
 - NIAID patented the spike protein concept in 2016 with an RML test in 2018 concluding “it would be interesting to perform an experimental inoculation study using Chinese horseshoe bats.”

- Follow the money? Economically animal vaccines have higher margins and promotions before Covid. Bat health is a big deal with a lot of jobs.



Infectious diseases
aren't the only reason
to study bats. "Modern
medicine can learn a
lot from bats," says
Linfa Wang, in areas
like aging and cancer.

Image: Linfa Wang Lab,
DukeNUS Medical School

Dani's boss Linfa at Duke in Singapore

- A waste of money? Of course but NIAID also funded an Australian horse vaccine (of course!) for a Hendra bat virus that killed 7 humans. Tested in a foreign BSL4 by Dani's boss Linfa.
 - Ironically even the horses had lawyers represent them in a \$53M class action lawsuit in 2018 for bad side effects, so NIAID in 2019 started floating the idea if "a bat vaccine be considered to control (disease) transmission?"

- Why bats? They are the new lab rat that don't have lawyers, randomized control trials, licensing, PETA protection, or FDA approvals like us humans, which takes 15-20 years for vaccine approval but 2-5 years for animals.

- Targeted immune boosting? Think immunotherapy on a mammalian model (immune stimulation *in vivo*) which is cutting edge research with broad applications. “Because bats and humans are both mammals, whatever we discover in bats would be highly applicable to humans.”

- Why SARS? For this geographic area of the world SARS falls under the 'known unknown' category and this 'consensus' bat sequence can cause human infection.
- Why now? The live bat colony will be put into hibernation at the end of October.
- Why here? This infectious aerosol test requires a BSL4 with a live Chinese bat colony and Wuhan has the only lab on the planet.
 - Ironically the US CDC wouldn't allow importation of this foreign bat species so Fauci said "You gotta go where the action is."



Chinese bats roost in deep caves on steep mountains

- Why design it to be so contagious? It's the most economical ('free') way to reach millions of bats hiding in deep narrow caves on steep mountain cliffs ($R_0 > 1$).
- Too sci-fi? A TED & TWiV talk about self spreading bat vaccines mentioning human-to-human transmission with OPV.

- Does high transmissibility and low virulence sound familiar?

A vaccine that spreads like a virus?

Dani is experimenting with a synthetic Chinese bat virus designed to look *natural* to the local Chinese bat species. She is a bat immunologist trying to trick the bats own immune system to recognize it, accept it, and create antibodies against it. A vaccine designed to 'steer' bat-like viruses *away* from human-like viruses. A coronavirus designed to be stable and mirror the local strain circulating among the local species of bats.

- What kind of self spreading vaccine? Attenuated (weakened) transmissible vaccine. The double edged sword of a live attenuated vaccine (LAV).
 - Ideal for animals but never approved for humans because of potential "reversion to virulence."
- What does this prototype vaccinate against? For example the Laos Banal bat (sample #2 below) collected by US researchers based in Singapore in 2017.

This high tech vaccine was designed to spread like a virus through the air from one bat

lung to the next; bat-to-bat oral transmission via aerosol. It's designed to infect the next mammalian host through bad bat breath—as soon as possible, in great quantities. Even designed to reinfect its mammalian host (called 'superinfection' or 'boosters') to overcome any natural immunity.

- Why? So that it can keep spreading and shedding!

This prototype was designed to remain suspended in the bat cave (lab) air for hours. Dani in her spacesuit may have noted this newest prototype is a brilliant *superspread*er in the tiny mammalian bat lungs. Success as it inoculates one bat and may have started to spread orally to the other bats through the lab air.

How did a bat vaccine cause Covid-19?

Then something bad happened which hasn't been documented, since her experiment was safely contained inside the BSL4, but accidentally gets outside. Maybe a needle punctured her hand while trying to handle the tiny wild bat, turning her human lungs into the superspreader. Most labs do not require a 2 person security rule, but use headsets and surveillance cameras to monitor technicians, other labs require 2 people while using needles.



Dani and colleague inside Wuhan BSL4

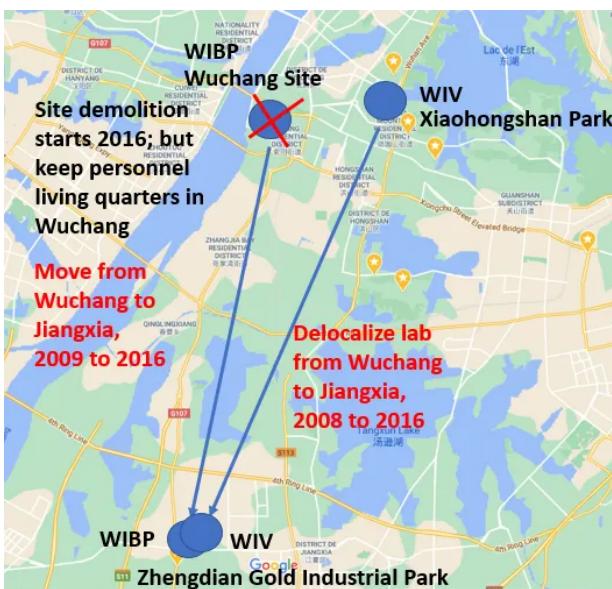
A few weeks earlier, in September 2019, the director of the WIV complained of lack of maintenance funds. Maybe a power failure losing negative air pressure, the duct tape sealing the door failed, a bat sneezed on her face, bit a hole in her spacesuit, toilet break, who knows? Dani may not know since this prototype was designed to spread

asymptomatically among its mammalian host.



Video pic from Wuhan BSL4

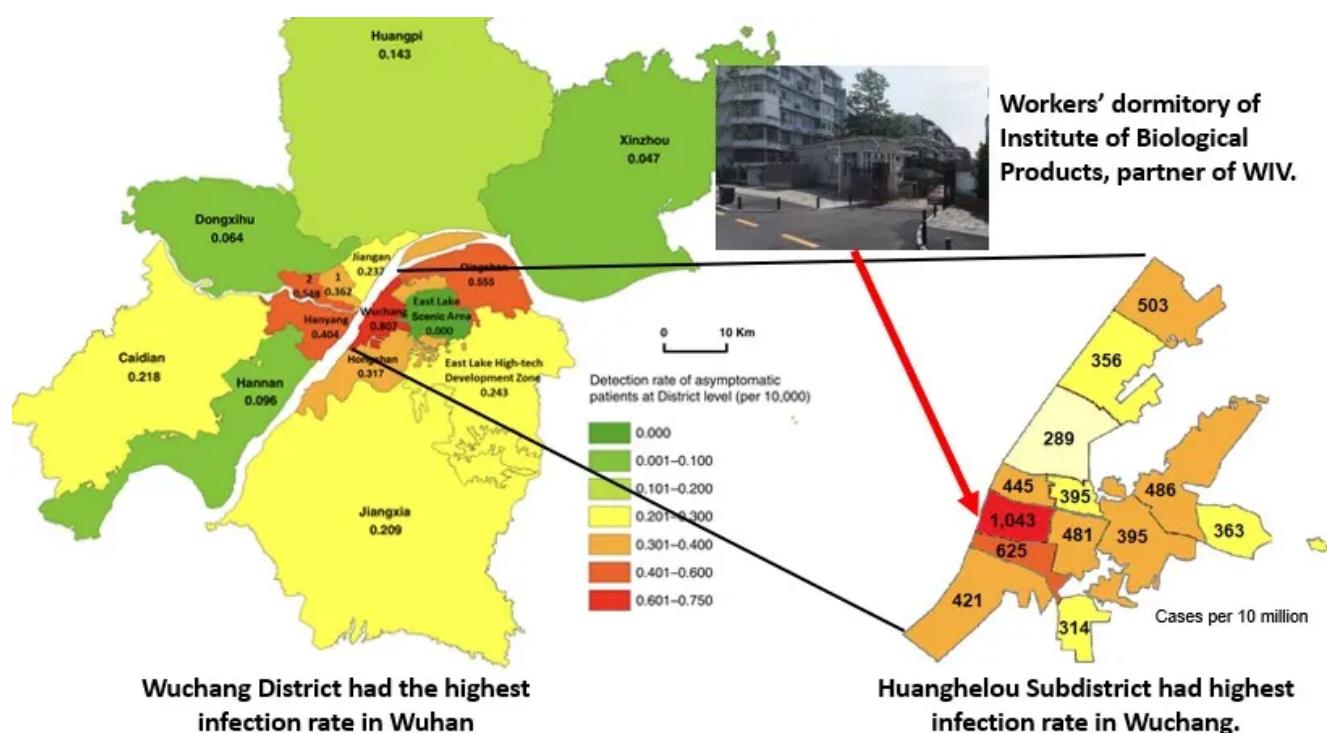
Like any good self spreading animal vaccine it's designed to evade the animals immune response (e.g. using Nsp1 Orf6 Orf8 etc) since any pre-existing immunity to the vaccine vector will slow the vaccine spread. There was a 5-15% probability the escape event was not even detected.



BSL4 (Zhengdian) is 15 miles south of downtown living quarters

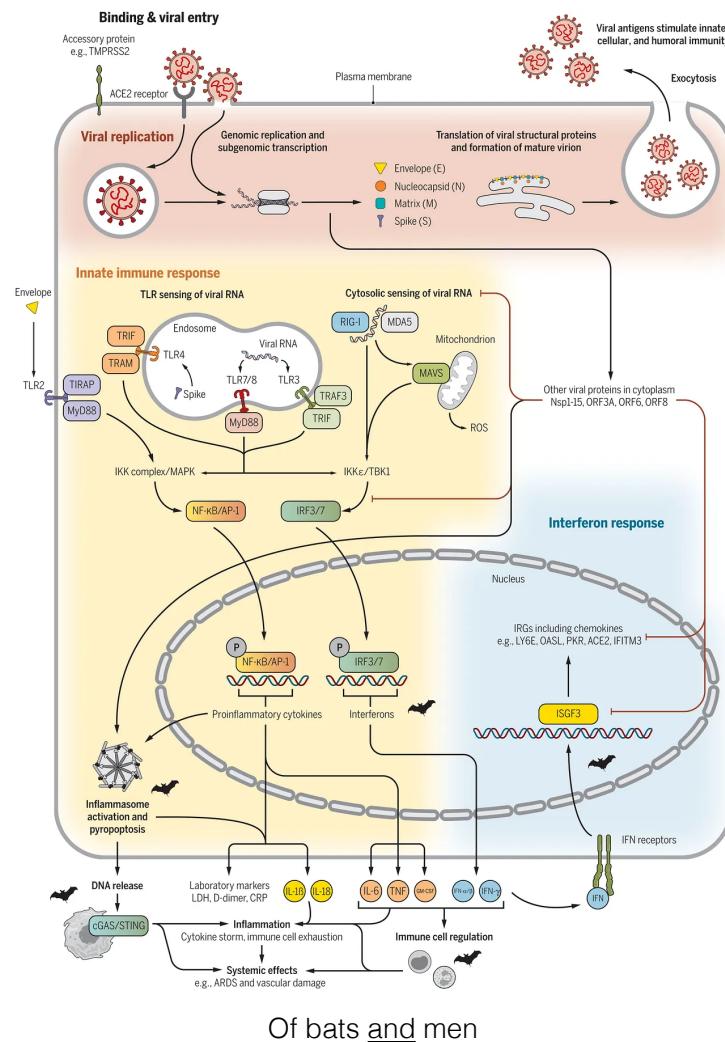
Dani's shift ends with a chemical and personal shower. She grabbed her cell phone and passed a temperature check while walking back through WIV security. Most of her colleagues are working on different projects, others were busy catching up on their

Weibo accounts. They all climbed back on the crowded Wuhan bus, for the 15 mile ride to their downtown living quarters, probably changing the course of human history.



Downtown WIBP dormitory for BSL4 techs was epicenter of Wuhan outbreak

Days later the BSL4 is in lockdown, weeks later the entire city of Wuhan is locked down, and months later the entire world follows. This contagious bat vaccine, ironically designed to prevent SARS spillover, has now spilled over into the human population, from an animal vaccine trial gone sideways.

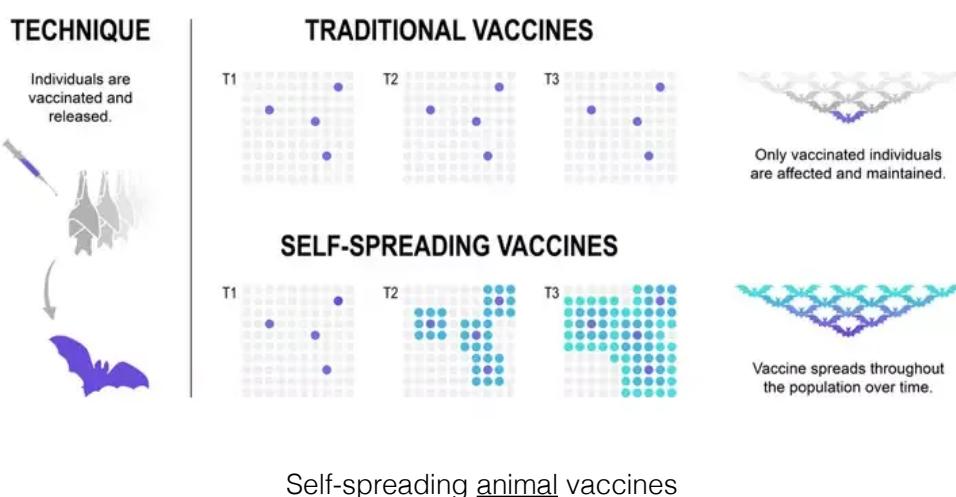


- Biologically impossible? What you think of as a dirty bird is just a long armed furry mammal, with an immune system closer to humans than lab mice.
 - Both humans and bats have furin, memory B & T cells, with similar ACE2 “respiratory tract tissue.”
 - Unfortunately the New World lab *in vitro* (in the glass) experiments were in primate and human airway cell lines due to a lack of Old World bat cells.

Has this happened before?

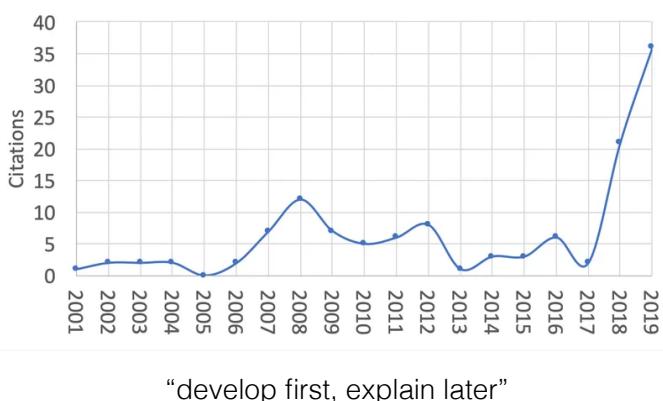
A Far East lab leak led to the 1977 flu pandemic. A year later smallpox leaked via air duct from an adjacent room killing an English photographer. SARS in 2004 leaked four times, once from a Beijing lab that killed the technician's mother. That same year a Russian scientist, receiving US money, died after sticking herself with an Ebola vaccine needle.

Animal vaccines have been documented to cause occasional human infection. In 1978 a cat vaccine was spreading around the world in dogs, due to a lab origin mix-up of feline and canine cells. Just 1000 miles northwest of Wuhan, at the exact same 2019 timeline, an *animal* vaccine plant infected thousands of local residents. Most of these hazardous events were localized or using traditional vaccines.

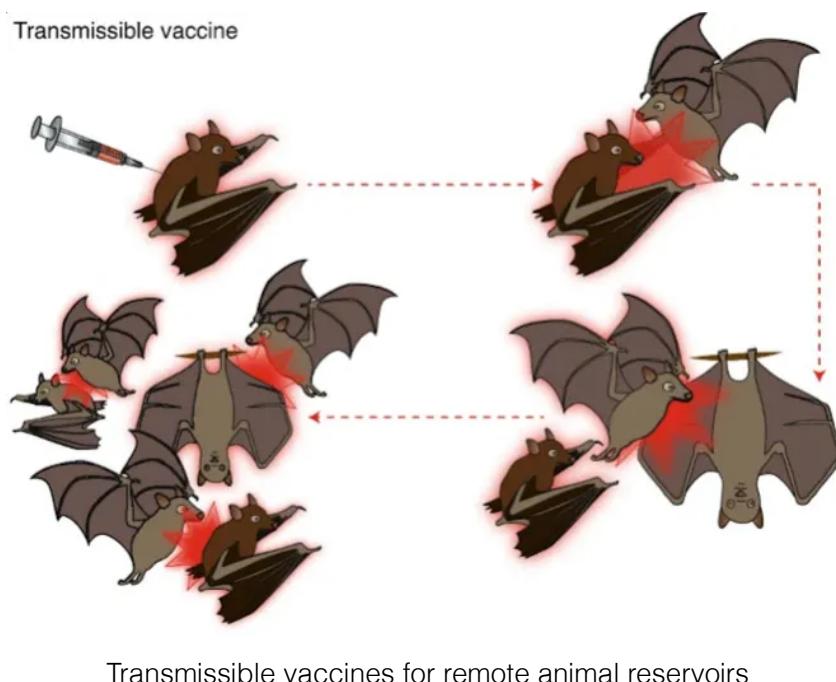


In 1995 a lab made rabbit virus escaped a remote Australian island and later spread to New Zealand. In 2001 the first self spreading vaccine trial on a tiny rabbit island worked, but the technology at the time didn't spread well. The veterinarian noted “transmissible vaccines had not drawn much interest from pharmaceutical companies because they look unprofitable.”

Number of citations of scientific publications with “*transmissible vaccine*” “or “*self-spreading vaccine*” as their topic



In 2016 there was renewed interest in controversial self spreading vaccines by Western Universities and Western governments. For example a transmissible rabies vaccine for bats. It was speculated that self spreading vaccines “could mutate” or “may jump species.”



This Wuhan lab trial was a vaccination program for SARS-like disease in bats, naturally located in rural Chinese caves, unfortunately one that now spreads through urban human populations around the globe. Bats are social mammals just like us ground based humans. We fly off to work every day foraging for food in crowded (dry) markets, catching the virus, and then commute home to 'roost' in our man caves spreading this vaccine.

What on earth led up to this?

In the past governments would just cull the infected species, but in recent years there were mass protests against mass culling, even winding up on the basketball courts of the NBA. So the logical answer was to vaccinate the animal reservoir of most global emerging infectious diseases, bats.

This wasn't a nefarious act on anyone's part, just a tragic accident. An unintended consequence of 2-3 decades of wildlife vaccines mixed with the modern revolution of synthetic biology and vaccinology. Synthetic viral genomics allowed the “seamless”

engineering of a self spreading vaccine. This No See'm biotechnology was not used to confuse the lab origin debate, but to confuse an animal's immune system into thinking this virus is natural and local; therefore, more likely to infect the local bat species. Virologists *created* a Chinese strain for the Chinese bats.

CoV, FVs or henipaviruses. While most wildlife-origin viruses with unknown transmission potential or pathogenicity in people uncategorized, we use BSL-3 for isolation as standard, and cell culture for potentially BSL-4 pathogens will be undertaken at collaborating institute NEIDL. To facilitate this, duplicate samples in culture medium from animals PCR +ve for FVs and very close relatives of NiV or HeV will be shipped to NEIDL (See letter of support) for culture, characterization and sharing with other approved agencies including NIH Rocky Mountain Laboratories where PI Daszak and Co-Is Baric have ongoing collaborations. Similarly, some duplicate samples of animals PCR +ve for CoVs will be shipped to UNC for further characterization by Co-I Baric. Where feasible and appropriate, training opportunities at NEIDL and UNC for in-country staff will be given, thereby enriching hands-on collaboration across sites.

From NIAID R01, sharing Chinese bat samples with UNC and Fauci's RML

The confusing origins debate had a few prominent US virologists claiming lab origin was a possibility. "Well, of course the answers to those questions are in China" but WIV "proximity is a problem" to a Wuhan outbreak. On the other side international virologists were arguing WIV couldn't engineer this type of virus. It turns out both groups were right for the wrong reasons; if a virus is engineered, wherever it spills over into the human population does not tell us *where* it was engineered.



High level NIAID 2018 vaccine meeting in Wuhan including Shi, Fauci's RML & shorts!

Months earlier NIAID scientists from the Vaccine Research Center traveled to Wuhan for “open scientific exchange and data sharing between China and the US for the benefit of global health.” The French, who built the BSL4, were fading from view as the WIV signed a NIAID Letter of Support in 2013, for bat sample collection and sharing. That same year UTMB became the training center for WIV technicians and UNC started reverse engineering Chinese pathogens in 2015-16.

- For scientific or intelligence purposes? "The United States knows how to do both very well."

who discovered the link between bats and the original SARS virus that caused disease worldwide in 2003. She has participated in each of our dialogues and in every session she has been fully engaged, very open and transparent about her work, and eager to collaborate. It is my understanding that she a co-investigator on a coronavirus project with an American scientist, but I do not have details and it is not someone from UTMB.

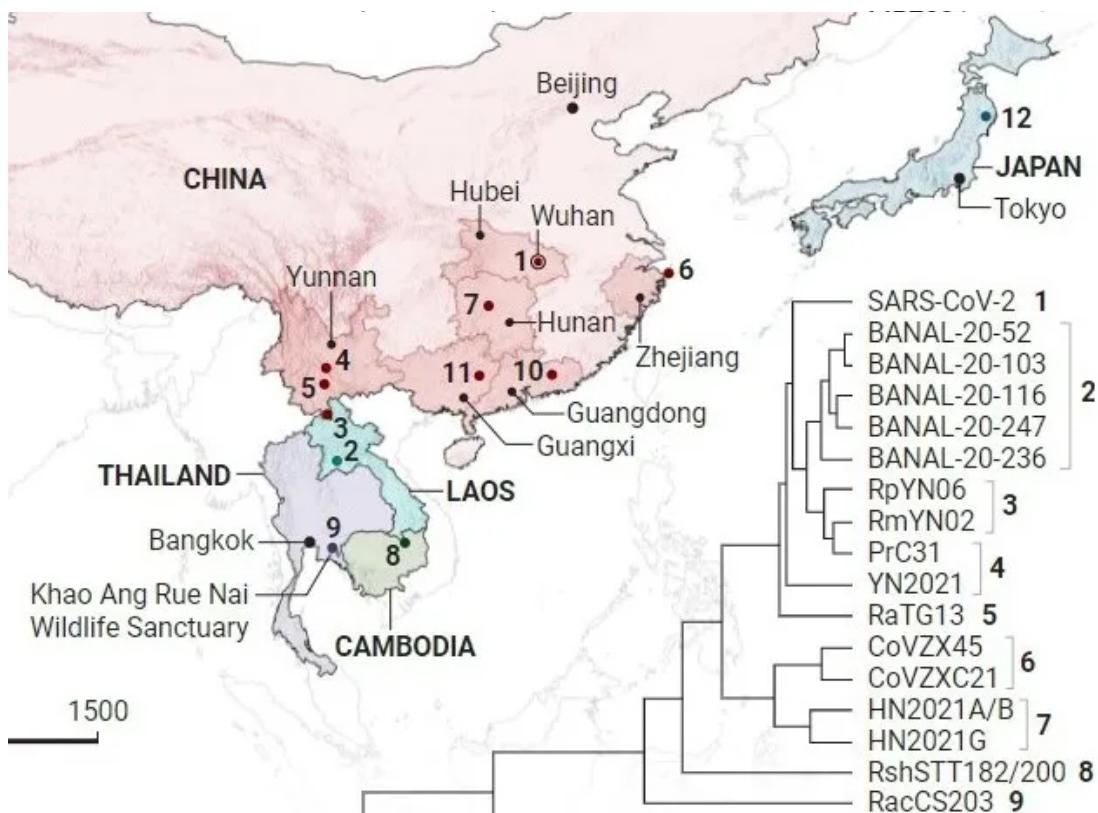
There is convincing evidence that the new virus was not the result of intentional genetic engineering and that it almost certainly originated from nature given its high similarity to other known bat-associated coronaviruses. Bat-associated coronaviruses are difficult to grow in the laboratory in general, although the current pandemic SARS-2 virus does grow well in cell culture. I do not know how much of Dr Shi's work involved handling live virus or work in experimental animals.

I have been told by Dr Shi that she is confident that the virus did not escape from her laboratory.

Dr Shi was among the first to identify the new virus, to determine its genetic sequence, and to share it publicly. She was also among the first to publish about the new virus in the international scientific literature.

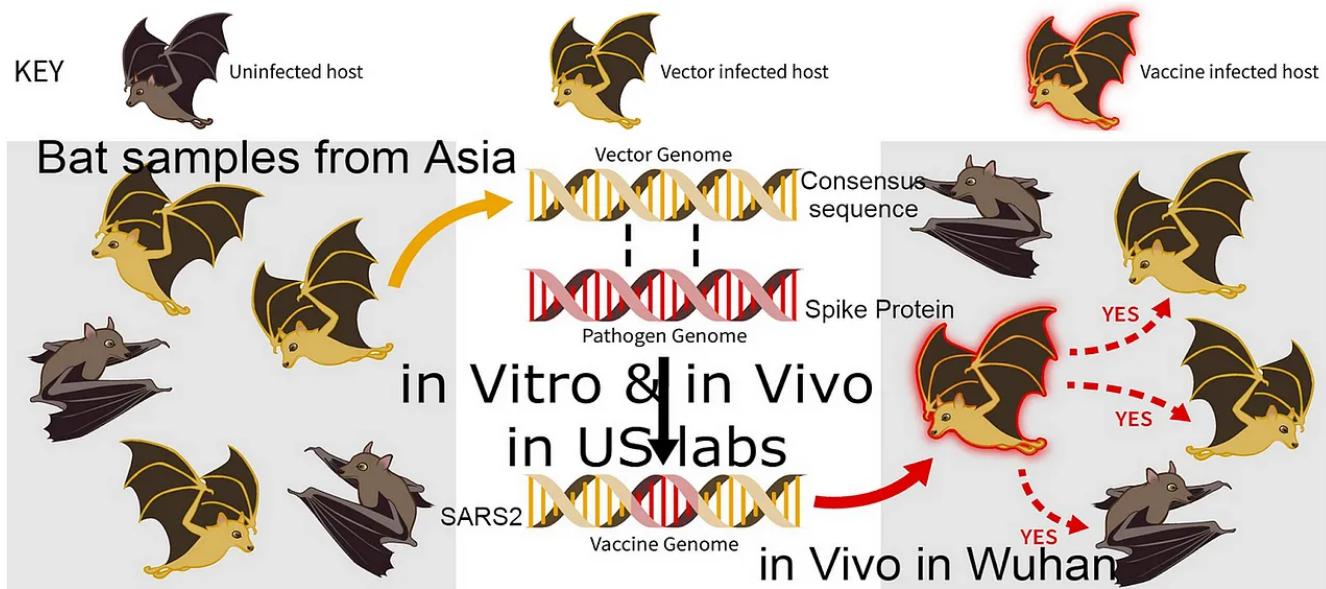
UTMB pointing finger at UNC in early 2020. Removed from final draft.

To appreciate the international collaboration on this project, understand “the mail is filled with little envelopes with plasmid dried onto filter paper that scientists routinely send each other.” A virus sample collected in one far away Asian bat cave, can be sent to another far away US lab for in house engineering. A vaccine created on one continent, can be tested on another, from D.C. to Brisbane to Dani's boss within 48 hours!



SARS2 is a consensus sequence of “several” bat samples previously sent to New World labs from Southwest China and Southeast Asia (#5, 3, 2, 8, 9)

MTA's were signed with the WIV “to ensure the free exchange of reagents needed for research purposes only and fully supported by the NIH.” NIAID Letters of Support were signed by Asian contractors for “sharing technology, samples, reagents, data and research results” with all coronavirus samples “shipped to North Carolina for further characterization.” An international division of labor and institutional knowledge that allowed for this amazing biotechnology to be created in the first place, one that transcends national borders in the same way the virus now spreads.



How a bat virus traveled 1000 miles (NIAID) and 1500 miles (DoD in 2017)
from Asian caves to WIV via US labs

This was a direct spillover event from bats into humans, *inside* the WIV, therefore no intermediary species (in Wuhan) will be found. To bet on Fauci he was 100% correct: "If you want to put some money on it, you'd get a bat involved" who just a few years earlier wrote "in an unlikely but conceivable turn of events, what if that scientist becomes infected with the virus, which leads to an outbreak and ultimately triggers a pandemic?"



WUHAN INSTITUTE OF VIROLOGY THE CHINESE ACADEMY OF SCIENCES

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31 October 2018

Dr. Peter Daszak
 President
 EcoHealth Alliance
 460 W 34th St. 17th Floor
 New York, NY 10001 USA

Dear Dr. Daszak,

The Wuhan Institute of Virology, Chinese Academy of Sciences, has an high interest in working with EcoHealth Alliance and its scientists to identify and prevent the transmission of bat coronaviruses to human populations globally. In particular, the NIAID funded R01 renewal proposal entitled "Understanding the risk of bat coronavirus emergence" will provide an excellent opportunity to achieve these goals.

The Wuhan Institute of Virology, Chinese Academy of Sciences, recognizes the mutual benefits to be gained through research cooperation and a successful partnership with EcoHealth Alliance in the field of identification and prevention of zoonotic disease transmission. It is vital to not only identify the diseases themselves, but also identify high-risk human populations and the actions that put them at risk for infection along with evaluating approaches to intervention and disease management.

Understanding and preventing exposure and transmission of zoonotic diseases from wildlife to humans remains a high priority for prevention of pandemics. In our discussion with EcoHealth Alliance, we have agreed to participate in activities that will strengthen the ability of China and other countries in the region to respond to epidemic disease outbreaks - particularly those of animal origin. To assist in this study, we will provide participating laboratories in China with human samples both new and archived and support research in bat coronaviruses.

We at Wuhan Institute of Virology, Chinese Academy of Sciences, look forward to our continued collaborations with the EcoHealth Alliance team and working further on this worthwhile study.

Sincerely,


 Dr. Yanyi Wang
 Director, Wuhan Institute of Virology
 Chinese Academy of Sciences
 Xiao Hong Shan, No.44
 Wuhan 430071 China
 (b) (6) 14022

MTA signed by WIV for R01 with NIAID via EcoHealth

It's a blurry line but this civilian project was more of an academic science fair experiment, not military biodefense. Involving more dorks than spooks, working for the

USDA not PLA. CAS had Western biologists on the local payroll mapping local bats. NAS had high level Chinese officials elected as members and they meet at least once a year. There is a century of ties between U.S. and Chinese medical universities that reach back to 1835 and 1917. Fauci's collaboration with China goes back "decades," starting in 1983 to be exact, just one year before becoming head of NIAID.

Also in 1983 NIH and CAS (WIV is one of the research institutes under CAS) signed a MOU and it included sharing research materials. I know this is a long time ago. (b)(5)

I have a copy of the MOU but it is with all other files being sent by classified route. I don't have it with me. FIC has the copy (I got from Tina).

Maybe more information than you need.

Thanks

Ping

Sent from my iPhone

> On Jan 23, 2020, at 8:55 PM, Mulach, Barbara (NIH/NIAID) [E] (b)(6) wrote:

>

> Great, thanks! Karen found the Wuhan University award and we were just trying to figure out if the two institutions were connected. Any information Ping or others could provide would be appreciated.

NIH and CAS MOU since 1983

All this was financially supported by the bipartisan funding (SARS is 1st disease on 1st page) of a modern 'Manhattan Project' No one was breaking any laws or regulations, just working with them, since a "bat virus" is exempt from DURC. And there was one change to one sentence back in 2017; bats, unlike mice, are not considered a "mammalian" model in a Gain of Function ban or regulation. Self spreading vaccines are not even on the regulatory radar.

It's always the cover-up, never the crime

What started as a SARS animal vaccine is now called SARS-CoV-2. This 'virus' is actually a bat vaccine, a contagious vaccine designed for Chinese bats. For an animal reservoir that none of us knew about, while using biotechnology that none of us heard about. Developed by NIAID funded virologists and tested by a blameless NIAID contractor. Herself a world class bat immunologist, inside the BSL4, at the same time a world class airborne bat vaccine came out of it.

"There's an old saying in science: You don't publish your mistakes" but the creation and coverup was no mistake. We will find the guilty parties straddling this hard line debate. Anonymous WHO sources will go on record after scientists issue death threats. Clues

will be found in the boring bowels of academic research, while others will find unclassified information in classified folders. Let's adopt Hanlon's razor while working through this sordid SARS2 story: never attribute to malice that which is adequately explained by stupidity.

- A government health agency would never cover this up? A 70 50 30 and 20 year old reminder.

In essence China will coverup *lab* leak while US virologists will coverup *what* leaked. Ironically the 'virus' itself will turn into the biggest whistleblower in human history, self disseminating around the globe, searching for the return address on the FedEx package, opened earlier that October day.

In the meantime Dani and collaborators can we see your lab books?

Whataboutism? (inside baseball)

- If SARS2 is an *animal* vaccine, nothing nefarious, a lot more will make sense.

Reference: Response to RFA-AI-19-028 for grant entitled *Understanding Risk of Zoonotic Virus Emergence in EID Hotspots of Southeast Asia*.

Dear Dr. Daszak,

This letter confirms that the appropriate program and administrative personnel at The University of North Carolina at Chapel Hill (UNC-CH) have reviewed the above referenced program announcement and are committed to enter into a subcontract with the EcoHealth Alliance for the performance period of March 1, 2020 to February 28, 2025. The work to be performed by UNC-CH does not include human research subjects but does include animal research subjects. UNC-CH maintains an active and enforced conflict of interest policy meeting the requirements of 42 CFR Part 50, Subpart F and 45CFR Part 94.

UNC R01 letter to NIAID via EcoHealth

- An animal vaccine designed to be contagious and transmissible for a remote animal reservoir (like bats) via the upper respiratory tract of a mammal, with similar RBD as humans.
 - Based on emails and books, probably less than a dozen virologists directly developed and knew about it, so easy to keep an R&D accident quiet
 - Based on emails, nothing is more coveted by US scientists than access to a live Chinese horseshoe bat colony

- US biologists are infatuated with bats (aka sky puppies) and testing vaccines
- US virologists are infatuated with bats because their incredible immune system
- US biodefense money was infatuated with bats because disease prevention
- NIAID alone budgeted nearly \$15M for bats in 2019 since bats are reservoir for many viruses like SARS, Ebola, Nipah, Hendra and Marburg.
- The biological proof for this theory?
 - no *in vitro* and/or *in vivo* in Wuhan could have created SARS2, therefore; (and ironically) becoming proof a Wuhan area lab *leak* and US area lab *origin*.
- Created by Chinese virologists? more later but biologically impossible. Also biologically impossible to keep Chinese bat colony alive in a US lab
 - In 2005 Shi and WIV were still plucking prawns from Yangtze river while UNC was developing No See'M "seamless" engineering methods
 - Shi and WIV have 0 interest in FCS and 0 ability to produce vaccines
 - No human airway cells in WIV, only vero cells, which delete FCS
 - HAE cells are a lung donor's throat living in a UNC petri dish

SELECT AGENT RESEARCH/BIOHAZARDS. No select agent research.

Agents: SARS-related bat coronaviruses (SARSr-CoV), like WIV1, WIV16 and SHC014. These bat viruses are distantly related to the epidemic human SARS-CoV which emerged in 2003 and caused 8,000 cases and 800 deaths worldwide. While the epidemic human SARS-CoV is a BSL3 select agent, the SARSr-CoV are BSL3 pathogens in the US and not select agents. The proposal will use a SARSr-CoV molecule clone designated WIV1 during the course of these studies, which is NOT a select agent. This strain has not been shown to cause human disease or be transmissible between humans. All recombinant DNA work will use the bat SARSr-CoV WIV1 molecular clone. At the University of North Carolina (US Government select agent certified laboratory), some virus growth studies will be conducted in primary human airways, comparing wildtype SARS-CoV, WIV1 and various SARSr-CoV WIV1 chimeric virus growth kinetics. Wildtype SARS-CoV strain research will not be conducted at the Wuhan Institute of Virology.

Registration status of all entities where select agent(s) will be used. Wildtype SARS-CoV is a select agent. UNC-Chapel Hill is currently registered with the CDC for select agent use, including SARS-CoV, as required by select agent regulations (42 CFR 73). The UNC SARS select agent laboratories are routinely inspected by the environmental health and safety department at UNC and by the CDC. Workers receive select agent and BSL3 training focused on SARS-CoV safety, procedures and protective clothing/PAPR training each year.

From NIAID R01, sharing Chinese bat samples with UNC and Fauci's RML

- Created by China using US biotechnology? more later but technically impossible due to 'tacit' knowledge

- The janitor required FBI security clearance to enter US select agent labs (e.g. UNC). In 2012 UNC was given de facto monopoly on SARS research because of it's expensive select agent status.
- Both Penn Med and Iowa State stopped studying SARS but both suspected SARS2 engineering.
- A US military BSL4 lab, UTMB, stopped engineering SARS in 2009, noting in 2021 “due to large size of coronavirus genome (~30,000nts) & several toxic elements, manipulation of SARS2 is not a trivial task & requires sophisticated methods”
- No “collaboration” between WIV and UNC which kept engineering methods obscure and have much different technology.
- No reverse genetic system for new backbone (SARS2) in WIV, they can only shuffle spikes into the existing isolated “backbone of WIV1”
- No infectious clone for creating SARS2 in WIV before 2020
- It is career suicide to share Western lab technology

From: [Weiss, Susan](#)
To: [Liu, Shan-Lu](#)
Subject: Re: [External] FW: Your article proofs for review (ID# TEMI 1733440)
Date: Friday, February 21, 2020 10:13:18 AM

Henry and I have been speculating- how can that site have appeared at S1/S2 border- I hate to think to was engineered- among the MHV strains, the cleavage site does not increase pathogenicity while it does effect entry route (surface vs endosome) . so for me the only significance of this furin site is as a marker for where the virus came from- frightening to think it may have been engineered

UNC No See'M method based on MHV A59 mouse model, sharing “similarities” with SARS2

- The lab animal for developing a transmission model for a coronavirus vaccine is unpublished but involves many US labs
 - “Transmission models have never been developed for SARS” which “does not replicate in the guinea pig, and replication in the ferret is limited...Moreover, passage experiments have not been reported, because research laboratories have focused their studies in the mouse model, which more accurately and

faithfully reproduces the human disease condition. In addition, no one has reported or attempted to develop a SARS-CoV transmission model."

- SARS2 transmits in American mink, found in Europe but not China, and it's cousin the ferret is well known GoF lab animal.
 - Ironically US biosecurity hawks in 2012 kept Fauci from publishing Fouchier's ferret aerosol procedures.
 - On February 1 2020 teleconference Ron Fouchier would call US virologists "idiots" for claiming SARS2 is engineered, probably because Fauci's RML is staffed with Fouchier aerosol protégés.

- Created by Dani's Australian virologists? Covid-19 doesn't infect kangaroos
 - Linfa tried but failed to keep a Chinese bat colony alive in an Australian BSL4.
 - No BSL4 in Dani's Singapore ABLS3 lab, which is part of NIAID post 9/11 regional biodefense network. UNC being part of Duke's biodefense network built a BSL3 on campus but live bats and aerosol test require BSL4.
 - Dani "the last and only foreign scientist" claimed to be working on Ebola but 0 Ebola papers in her 100+ publications. She is a specialist in Asian bat immunology and Duke developed a novel NGS for detecting bat shedding of "Nipah virus and betacoronaviruses"
 - Dani isolated Nipah viruses from Bangladesh bats in CSIRO BSL4, which may have shown up in WIV BSL4
 - In 2019 Dani and Linfa are cross refencing UNC "consensus" sequence DARPA Defuse type work
 - Per Linfa Duke is only responsible for bat immunology, not virology.

PI-TA-02 Task 8: Experimental testing of 'targeted immune boosting' using humanized mice and experimental bat colonies (UNC, NWHC, Duke-NUS, WIV)

Subtask 8.1 Develop chimeric SARS-CoV S immunogens (UNC) **Subtask 8.2** Design and test 2nd generation chimeric S glycoprotein immunogens in humanized mice (UNC). **Subtask 8.3** Create raccoon poxvirus-vectored targeted immune boosting approach to be tested in captive bats at Duke-NUS (NWHC). **Subtask 8.4** Test targeted immune boosting in captive *Eonycteris* sp. colony, using Malaka virus and SARS-CoV infections (Duke-NUS). **Subtask 8.5** Test targeted immune boosting in wild-caught captive *Rhinolophus* spp. (WIV)

Milestone(s): Initiation and completion of each subtask.

DARPA Defuse showing Duke bat immunology SoW

- If WIV knew about Laos Banal why not publish it instead of headache of RaTG13?
 - Dani provides a logical path for Laos Banal-52 RBD, collected by NMRC-A based in Singapore in 2017, and partially published by UNC in 2018, to wind up in Wuhan.
- This sounds crazier than frozen food hypothesis Dani proposed? Bat immunology is a highly specialized and very small international group of virologists that share reagents, bat cells, samples, vaccines, etc.
 - Linfa can get bat disease antibodies in 48 hours from NIAID in Washington D.C.
- What about monkeys? WIV isn't setup for primates (it's setup for bats) and the huge animal labs are Harbin, Kunming and Beijing
 - US labs also full of monkeys and Egyptian fruit bats but no Chinese bats
 - WIV in Feb 2020 submitted a primate paper, but referencing Fauci's RML March paper.
 - WIV claimed no primate research in BSL4 before 2020
 - Rhesus Macaques are transmission model for SARS based on NIAID, RML and Dutch studies (i.e. Fauci's aerosol specialist).
- Beijing bioweapon? This thing isn't Chinese junk
 - Covid has 99% survival rate and WIV is a "safety school"
- Bioweapon because of immune evasion? Western virologists are glorified veterinarians, zoologists, and bat immunologists
 - They design and patent animal vaccines to "modulate an immune response in a

subject without deleterious effect on the subject."

- PLA? Rumor based on a University of Minnesota paper and without evidence
 - PLA still 4 months away from probable lab leak
 - The WIV is a civilian bat lab collaborating with many "interested" NIAID virologists
- Human challenge trials? No one aerosols a human vaccine (can't charge for it!)
 - think human airway cells, with hairy mucus that replicates your throat in a petri dish, and exclusive to Western labs
- CCP organ harvesting? Organ harvesting was involved in the creation of SARS2 but not what you assumed
- Chinese money? CAS budget of \$15B vs HHS budget of \$1.7T
 - Per capita China = Mexico
 - NIH budget = South Korean military
 - US money “drives global science”
 - Fauci, who provided 1/2 of all global funding for emerging infectious disease (e.g. SARS), would ironically have a responsibility (and budget) to fund a DARPA Defuse type project preempting something that can “threaten the economy and political security of nations”

2 Comments



Write a comment...



lissnup Oct 3

The PBS ONLINE special "China's COVID Secrets" has been removed from most sites but some kind souls uploaded a copy: <https://youtu.be/Ar865Xmna2s>

I'll be watching it to compare with the version aired by the BBC (and now also restricted to UK iPlayer viewers) "54 Days: China and the Pandemic"

Reply Collapse

1 reply

- HIV vaccine? Same 'inserts' found elsewhere and HIV research in past

1 more comments...

◦ Bats (and deer) don't catch AIDS, but bat vaccines are big \$\$\$, and serve as a modern pathway to human vaccines

- Therapeutics? Not airborne or contagious
 - That work was at NIAID lab in Shanghai who tried (but failed because of NIH) to upload SARS2 sequence early. NIAID even has reps in Beijing.
- Gain of Function? SARS2 doesn't infect regular lab mice, only transgenic mice provided to WIV by UNC.

