



United States Department of State

Washington, D.C. 20520

May 14, 2024

Case No. FL-2021-00033

Gary Ruskin
4096 Piedmont Ave. #963
Oakland, CA 94611

Dear Mr. Ruskin:

We refer you to our letter dated March 7, 2024, regarding the release of certain U.S. Department of State (“Department”) material under the Freedom of Information Act (“FOIA”), 5 U.S.C. § 552. Upon further review, we have determined that additional information may be released in five records previously released in part.

An enclosure explains the FOIA exemptions and other grounds for withholding material. Where we have made redactions, the applicable FOIA exemptions are marked on each record. Where applicable, the Department has considered the foreseeable harm standard when reviewing these records and applying FOIA exemptions. All non-exempt material that is reasonably segregable from the exempt material has been released and is enclosed.

If you have any questions, your attorney may contact Laurel H. Lum, Trial Attorney, at laurel.h.lum@usdoj.gov or (202) 305-8177. Please refer to the case number, FL-2021-00033, and the civil action number, 20-cv-08415, in all correspondence about this case.

Sincerely,

A handwritten signature in cursive script that reads "Terry Gordon".

Terry Gordon
Chief, Litigation and Appeals Branch
Office of Information Programs and Services

Enclosures: As stated.

The Freedom of Information Act (5 USC 552)

FOIA Exemptions

- (b)(1) Information specifically authorized by an executive order to be kept secret in the interest of national defense or foreign policy. Executive Order 13526 includes the following classification categories:
- 1.4(a) Military plans, systems, or operations
 - 1.4(b) Foreign government information
 - 1.4(c) Intelligence activities, sources or methods, or cryptology
 - 1.4(d) Foreign relations or foreign activities of the US, including confidential sources
 - 1.4(e) Scientific, technological, or economic matters relating to national security, including defense against transnational terrorism
 - 1.4(f) U.S. Government programs for safeguarding nuclear materials or facilities
 - 1.4(g) Vulnerabilities or capabilities of systems, installations, infrastructures, projects, plans, or protection services relating to US national security, including defense against transnational terrorism
 - 1.4(h) Weapons of mass destruction
- (b)(2) Related solely to the internal personnel rules and practices of an agency
- (b)(3) Specifically exempted from disclosure by statute (other than 5 USC 552), for example:
- | | |
|----------------|---|
| ARMSEXP | Arms Export Control Act, 50a USC 2411(c) |
| CIA PERS/ORG | Central Intelligence Agency Act of 1949, 50 USC 403(g) |
| EXPORT CONTROL | Export Administration Act of 1979, 50 USC App. Sec. 2411(c) |
| FS ACT | Foreign Service Act of 1980, 22 USC 4004 |
| INA | Immigration and Nationality Act, 8 USC 1202(f), Sec. 222(f) |
| IRAN | Iran Claims Settlement Act, Public Law 99-99, Sec. 505 |
- (b)(4) Trade secrets and confidential commercial or financial information
- (b)(5) Interagency or intra-agency communications forming part of the deliberative process, attorney-client privilege, or attorney work product
- (b)(6) Personal privacy information
- (b)(7) Law enforcement information whose disclosure would:
- (A) interfere with enforcement proceedings
 - (B) deprive a person of a fair trial
 - (C) constitute an unwarranted invasion of personal privacy
 - (D) disclose confidential sources
 - (E) disclose investigation techniques
 - (F) endanger life or physical safety of an individual
- (b)(8) Prepared by or for a government agency regulating or supervising financial institutions
- (b)(9) Geological and geophysical information and data, including maps, concerning wells

Other Grounds for Withholding

- NR Material not responsive to a FOIA request excised with the agreement of the requester

| | | | |
|-----------------|---------------------------------|-----------|--------|
| From: | (b)(6) | (Beijing) | (b)(6) |
| To: | (b)(6) | | |
| Subject: | Re: WIV Cables | | |
| Date: | Fri, 17 Apr 2020 15:45:01 +0000 | | |

Hi there and yes. I need to be able to pull them out today. Can get them to you in the next hour?
Sent via the Samsung Galaxy S8, an AT&T 4G LTE smartphone

----- Original message -----

From: (b)(6)
Date: 4/16/20 4:48 PM (GMT-06:00)
To: (b)(6) (Beijing) (b)(6)
Subject: Re: WIV Cables
Hi (b)(6)
Did you ever get approval to share HHS talking points?

(b)(6)

Get Outlook for iOS

From: (b)(6)
Sent: Wednesday, April 15, 2020 5:38:47 PM
To: (b)(6) (Beijing) (b)(6)
(CDC/DDPHSIS/CGH/DGHP) (b)(6) (Beijing | NIH) (b)(6)
Subject: Re: WIV Cables

Please call back

Get Outlook for iOS

From: (b)(6)
Sent: Wednesday, April 15, 2020 5:08:30 PM
To: (b)(6) (Beijing) (b)(6)
(CDC/DDPHSIS/CGH/DGHP) (b)(6) (Beijing | NIH) (b)(6)
Subject: Re: WIV Cables

Yes 530. Does everyone have the number? Looking forward to talking to you all again.

(b)(6)

Get Outlook for iOS

From: (b)(6) (Beijing) (b)(6)
Sent: Wednesday, April 15, 2020 5:03:20 PM
To: (b)(6) (CDC/DDPHSIS/CGH/DGHP) (b)(6)
(b)(6) (Beijing | NIH) (b)(6)
Subject: RE: WIV Cables

Hello everyone – We changed the time for this chat to 5:30 so just flagging that (b)(6) Talk shortly,

(b)(6)

From: (b)(6) (CDC/DDPHSIS/CGH/DGHP) (b)(6)
Sent: Wednesday, April 15, 2020 3:03 PM
To: (b)(6) (Beijing | NIH)

(b)(6)

Cc: (b)(6) (Beijing) (b)(6)

Subject: RE: WIV Cables

Will try to call in for 30 minutes (am back in Atlanta, too)

(b)(6)

From: (b)(6)

Sent: Wednesday, April 15, 2020 1:19 PM

To: (b)(6) (NIH/NIAID) [E] (b)(6)

Cc: (b)(6) (Beijing) (b)(6)

(CDC/DDPHSIS/CGH/DGHP) (b)(6)

Subject: Re: WIV Cables

Happy to have (b)(6) join too. Here is the conference call information: USA Toll-Free: (b)(7)(E)

International Toll: (b)(7)(E) / Access Code: (b)(7)(E)

(b)(6) does that time work for you?

Get [Outlook for iOS](#)

From: (b)(6) (NIH/NIAID) [E] (b)(6)

Sent: Wednesday, April 15, 2020 12:59:55 PM

To: (b)(6)

Cc: (b)(6) (Beijing) (b)(6)

(CDC/DDPHSIS/CGH/DGHP) (b)(6)

Subject: Re: WIV Cables

6 pm work for me. I would like to have (b)(6) from NIAID to call in. He has a lot of more experience in this type of matter. If that is OK with you.

Please let me know the calling information.

Good to hear from you. Hope you are doing well. I came back to NIAID in Dec, just before the outbreak.

Take care

Talk to you later

(b)(6)

From: (b)(6)

Date: Wednesday, April 15, 2020 at 12:53 PM

To: (b)(6)

Cc: (b)(6) (Beijing) (b)(6)

(b)(6)

Subject: Re: WIV Cables

Excellent how about this evening at say 6pm? I was not planning on it but happy to loop them in if that would help. Most of this is about the cables and before their time though.

(b)(6)

Get [Outlook for iOS](#)

From: (b)(6) (NIH/NIAID) [E] (b)(6)
Sent: Wednesday, April 15, 2020 10:10 AM
To: (b)(6)
Cc: (b)(6) (Beijing) (b)(6) (CDC/DDPHSIS/CGH/DGHP)
Subject: Re: WIV Cables

I am in training now. Call in the evening would work for me.

Good to hear from you and hope you are doing well. I also talked to (b)(6) and (b)(6) yesterday about this. Would you like to have them on the call as well?

(b)(6)

From: (b)(6)
Date: Wednesday, April 15, 2020 at 9:32 AM
To: (b)(6)
Cc: (b)(6) (Beijing) (b)(6)
(b)(6)
Subject: WIV Cables

Hi (b)(6)

As I am sure you are quite aware at this point the cables ESTH wrote on the WIV lab and the concerns we had about the findings of the papers on bat coronavirus research have become big news lately. (b)(5)

(b)(5) Do you all have time to discuss this with me. (b)(5)

(b)(5)

It seems we are all back in the States now so perhaps we could do phone call?

(b)(6)

From: (b)(6) (NIH/NIAID) [E] (b)(6)
Sent: Thursday, April 12, 2018 4:43 AM
To: (b)(6) (Beijing) (b)(6)
Cc: (b)(6) (Wuhan) (b)(6) (Beijing)
 (b)(6) (Beijing) (b)(6)
 (b)(6) (Beijing) (b)(6)
 (China/DIR) (b)(6) (Beijing) (b)(6)
 (Beijing | NSF) (b)(6) (Beijing) (b)(6)
 (b)(6) (CDC/CGH/DGHP) (b)(6)

Subject: Re: For your review -- Cable on Wuhan Institute of Virology visit

Thanks (b)(6) for the chance to review the cable. I have no comment added. I am at the EEID meeting. Dr. Zhi Hong Hu told me she was very impressed for the scientific knowledge that the US visitors have.

(b)(6)

Sent from my iPhone

On Apr 12, 2018, at 3:48 PM, (b)(6) (Beijing) (b)(6) wrote:

Hi (b)(6)

Thanks for the opportunity to review. Added in two suggested comments.

(b)(6)

~~SBU~~

This email is UNCLASSIFIED.

From: (b)(6) (Wuhan)
Sent: Thursday, April 12, 2018 2:59 PM
To: (b)(6) (Beijing); (b)(6) (Beijing); (b)(6) (NIH/NIAID) [E]
 (b)(6) (Beijing); (b)(6) (Beijing); (b)(6) (China/DIR); (b)(6)
 (b)(6) (Beijing); (b)(6) (Beijing | NSF); (b)(6) (Beijing) (b)(6)
 (b)(6) (Beijing)

Subject: For your review -- Cable on Wuhan Institute of Virology visit

All – here's a cable on this institute from (b)(6) visit a couple weeks ago. (b)(6) thanks for your introduction to the institute, and thanks all as well for the help with the briefing paper – I hope we answered at least some of your questions in the meeting!

Please let me know if you have any corrections or comments, feel free to track changes on the attached if you'd prefer.

(b)(6) Wuhan

China Virus Institute Welcomes More U.S. Cooperation on Global Health Security

REFS:

- A. 18 BEIJING 138
- B. 17 BEIJING 2458
- C. 11 MUMBAI 630
- D. 17 TOKYO 716
- E. 13 SEOUL 790

1. ~~(SBU)~~ **Summary and Comment:** China's Wuhan Institute of Virology, a global leader in virus research, is a key partner for the United States in protecting global health security. Its role as operator of the just-launched "P4" lab -- the first such lab in China -- opens up even more opportunities for expert exchange, especially in light of the lab's shortage of trained staff (Ref A). Given the legacy of SARS and the likelihood that the next global pandemic will originate in China, the United States should prioritize expanding our already significant cooperation with this institute. This should include partnering with the institute on the Global Virome Project (Ref B), and possibly trilateral U.S.-China-EU projects, building on the institute's strong ties with France. **End Summary and Comment.**

2. ~~(SBU)~~ Wuhan Institute of Virology researchers and staff gave an overview of the lab and current cooperation with the United States to visiting Environment, Science, Technology and Health Counsellor Rick Switzer and Consulate Wuhan Consul General Jamie Fous in late March. In the last year, the institute has also hosted visits from the National Institutes of Health (NIH), National Science Foundation, and experts from the University of Texas Medical Center in Galveston. The institute reports to the Chinese Academy of Sciences in Beijing.

P4 Lab is Open and Transparent, Officials Emphasize

3. ~~(SBU)~~ The Wuhan P4 or biosafety level (BSL) 4 lab, referring to labs with the highest level of safety precautions, became fully operational and began working with live viruses early this year. Institute officials said they believed it is the only operational P4 lab in Asia aside from a U.S. Center for Disease Control (CDC)-supported facility in Pune, India (Ref C). China plans to stand up a second P4 lab in Harbin. Institute officials said Japan's biosafety labs are "old" and lack cutting-edge equipment, so they consider Japan's labs to be "P3 Plus" (*Note: the Japanese government says it has one P4-level lab in the Tokyo suburbs, though its activities are limited, and Japan is building a new P4 lab in Nagasaki, see Ref D. Taiwan operates at least one P4 lab. South Korea was close to opening a P4 lab as of last year, see Ref E. *End Note.*) Wuhan's lab is located about 20 miles from the city center in Zhengdian district, and the institute plans to gradually consolidated its other training, classroom and lab facilities at that location.*

4. ~~(SBU)~~ Officials described the lab as a "regional node" in the global biosafety system and said it would play an emergency response role in an epidemic or pandemic. The lab's English brochure highlighted a national security role, saying that it "is an effective measure to improve

China's availability in safeguarding national bio-safety if [a] possible biological warfare or terrorist attack happens."

5. ~~(SBU)~~ Institute officials said there would be "limited availability" for international and domestic scientists for research who had gone through the necessary vetting and approval process, and stressed that the lab aimed to be a "worldwide, open platform" for virology. They said they welcomed U.S. Centers for Disease Control (CDC) experts, noting that the Chinese Academy of Sciences was not strong on human disease expertise, having only focused on it in the last 15 years, after the SARS outbreak. An Wuhan-based French consulate official who works on science and technology cooperation with China also emphasized that the lab, which was initiated in 2004 as a France-China joint project, was intended to be "open and transparent" to the global scientific community. "The intent was to set up a lab to international standards, and open to international research," he said. French experts have provided guidance and biosafety training to the lab, which will continue, the French official said. Institute officials said that France provided the lab's design and much of its technology, but that it is entirely China-funded and has been completely China-run since a "handover" ceremony in 2016.

6. ~~(SBU)~~ In addition to French assistance, experts from the NIH-supported P4 lab at the University of Texas Medical Branch in Galveston have trained Wuhan lab technicians in lab management and maintenance, institute officials said. The Wuhan institute plans to invite scientists from the Galveston lab to do research in Wuhan's lab. One Wuhan Institute of Virology researcher trained for two years at the Galveston lab, and the institute also sent one scientist to U.S. CDC headquarters in Atlanta for six months' work on influenza.

NIH-Supported Research Revises SARS Origin Story

7. ~~(SBU)~~ NIH was a major funder, along with China's National Science Foundation, of SARS research by the Wuhan Institute of Virology's Shi Zhengli and Cui Jie. The researchers spent five years of investigation and genome sequencing to show that a population of bats in a cave in Yunnan Province harbored a virus with all the "building blocks" of SARS. This lends weight to the theory that SARS originated in bat populations before jumping first to civet cats (likely via bat feces) and then to humans, after people transported the civet cats from Yunnan to Guangdong Province animal markets. The results were published late last year in *Nature* and other publications. Shi said that U.S. scientist Peter Daszak, a leading expert on emerging diseases and president of the New York-based EcoHealth Alliance, was a "strong partner." Daszak's team has provided support in statistical modeling to assess the risk of more coronaviruses like SARS crossing over to human populations.

Ready to Help with the Global Virome Project

8. ~~(SBU)~~ Institute officials expressed strong interest in the Global Virome Project (GVP), and said Chinese funding for the project would likely come from Chinese Academy of Sciences funding already earmarked for One Belt, One Road-related initiatives. The GVP aims to launch this year as an international collaborative effort to identify within ten years virtually all of the planet's viruses that have pandemic or epidemic potential and the ability to jump to humans. "We hope China will be one of the leading countries to initiate the Global Virome Project," one

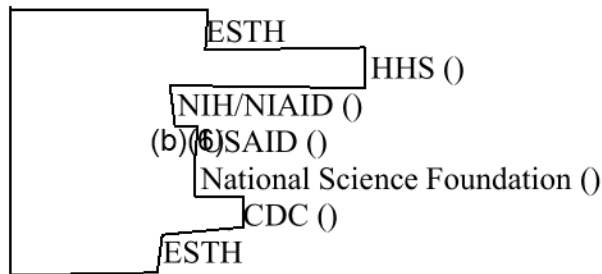
Wuhan Institute of Virology official said. China attended the GVP meeting in January in Thailand and is waiting for more details on the initiative. The officials said that the Chinese government funds projects similar to GVP to investigate the background of viruses and bacteria. The effort falls under the 973 Program, or National Basic Research Program, which aims to help China advance in key scientific fields. This essentially constituted China's own Virome Project, officials said, but they noted the program currently has no official name.

9. ~~(SBU)~~ The Wuhan Institute of Virology's Shi Zhengli is the China Country Coordinator for the USAID-funded PREDICT project, which is designed to show "proof of concept" and be a forerunner to the Global Virome Project. (b)(6) with the EcoHealth Alliance (a New York City-based NGO that is working with the University of California, Davis to manage the PREDICT project), recently planned to visit Wuhan to meet with Shi.

U.S.-China Workshop Explores Research Partnerships

10. ~~(SBU)~~ The Institute also has ongoing collaboration with the U.S. National Science Foundation, including a just-concluded workshop in Shenzhen, involving about 20 scientists from the United States and China, on the topic of the "Ecology and Evolution of Infectious Diseases." The Chinese lead for this workshop was the Wuhan Institute of Virology's Hu Zhihong, and the U.S. co-chair was the University of Oklahoma's Xiao Xiangming. The workshop developed broader ties between the U.S. and Chinese disease research communities, and explored opportunities for research cooperation in areas like using "big data" to predict emerging infectious diseases. A follow-on workshop will be held in June at the University of Berkeley.

CLEARED :



APPROVED: Wuhan Consul General Jamie Fouss ()

~~SBU~~

This email is UNCLASSIFIED.

<Wuhan Institute of Virology.BJesth.docx>

| | | | |
|-------------------|--------|-----------|--------|
| Sender: | (b)(6) | (Beijing) | (b)(6) |
| Recipient: | (b)(6) | | |

| | |
|-----------------|---|
| From: | "Keshap, Atul" (b)(6) |
| To: | (b)(6) |
| CC: | (b)(6) Stilwell, David R (b)(6) Feith, David (h)(6) (b)(6) (b)(6) |
| Subject: | Re: FRaTG13 (shared in confidence)— |
| Date: | Mon, 30 Nov 2020 14:56:16 +0000 |

Chinese state media continue their efforts to displace blame:



From: (b)(6)
Sent: Sunday, November 29, 2020 5:58:17 PM
To: (b)(6)
Cc: (b)(6) Stilwell, David R (b)(6) Feith, David
 (b)(6)
 (h)(6)
 (b)(6)
 (h)(6) Keshap, Atul (b)(6)
Subject: FRaTG13 (shared in confidence)—

(b)(6)

The attached note from (b)(6) seems important. I asked (b)(6) to respond specifically to (b)(6) who were among the early proponents that COVID 19, undoubtedly, was of natural zoonotic origin. (b)(5)

(b)(5)

[Large redacted area containing (b)(5) text]

(b)(5)

Deigin. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/bies.202000240>

Prospects&Overviews ThegeneticstructureofSARS-CoV-2doesnotruleouta laboratoryorigin

2of9 SEGRETOANDDEIGIN adaptation to human cells. We here describe how the two main SARS-CoV-2features,(1)thepresenceofafurincleavagesitemissinginother ...

onlinelibrary.wiley.com

(b)(5)

Thanks.

(b)(6)

From: Steven Quay (b)(6)

Sent: Sunday, November 29, 2020 8:24 AM

To: (b)(6)

Subject: Re: Fw: RaTG13 (shared in confidence)

(b)(6)

Here is my response to the Andersen argument that CoV-2 was not ideal for the receptor binding and so should have come from nature. The facts show the exact opposite.

Regards, Steve

On Sun, 29 Nov 2020 at 03:45, (b)(6) wrote:

Steve, Here are the same authors laying out why COV-19 had to be natural. Have you considered a response letter? David

<https://www.nature.com/articles/s41591-020-0820-9.pdf>

From: (b)(6)

Sent: Saturday, November 28, 2020 2:32 PM

To: Steven Quay (b)(6)

Subject: Re: Fw: RaTG13 (shared in confidence)

Below: Nature commentary pointing out the futility, waste, and opportunity costs associated projects pursued by Ecohealth, WIV, NIAID, et al, in the name of "predicting the next outbreak". Though they don't address the grave hazards, and BW dual use issues, involved with the gain of function work in WIV's prediction research, they laid out other important fundamental flaws with Ecohealth and WIV's approach. The authors go on to make the more compelling case for better bio surveillance instead. <https://www.nature.com/articles/d41586-018-05373-w>

**COMMENT**

07 JUNE 2018

Pandemics: spend on surveillance, not prediction

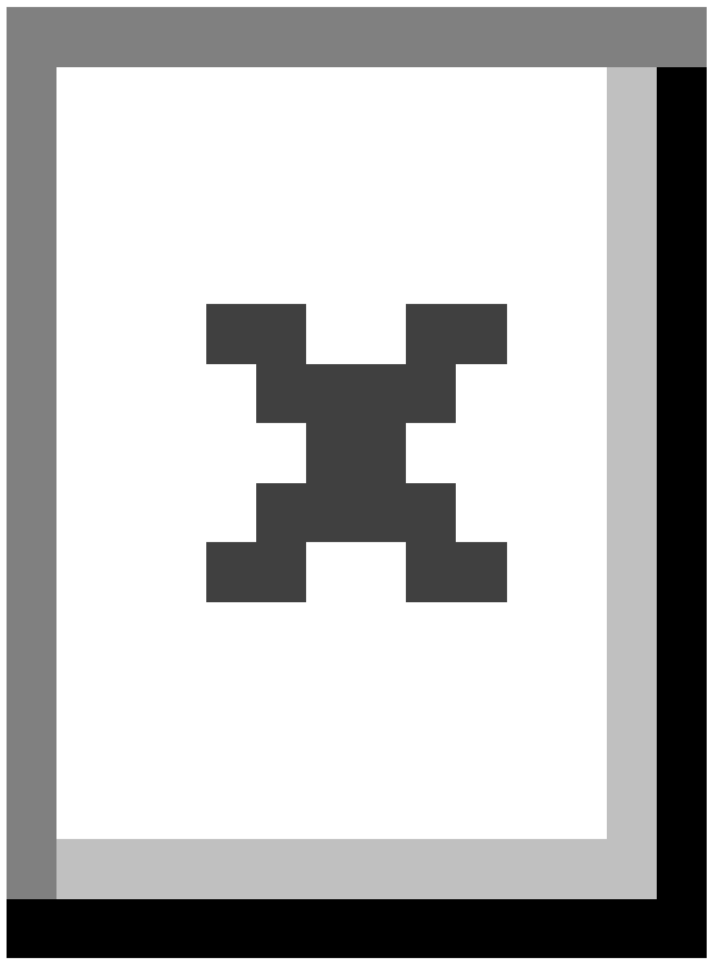
Trust is undermined when scientists make overblown promises about disease prevention, warn Edward C. Holmes, Andrew Rambaut and Kristian G. Andersen.

The resurgence of Ebola virus in the Democratic Republic of the Congo this May is a stark reminder that no amount of DNA sequencing can tell us when or where the next virus outbreak will appear. More genome sequence data were obtained for the 2013–16 Ebola epidemic than for any other single disease outbreak. Still, health workers in Mbandaka, the country’s northwestern provincial capital, are scrambling to contain a growing number of cases.

Over the past 15 years or so, outbreaks caused by viruses such as Ebola, SARS and Zika have cost governments billions of US dollars. Combined with a perception among scientists, health workers and citizens that responses to outbreaks have been inadequate, this has fuelled what seems like a compelling idea. Namely, that if researchers can identify the next pandemic virus before the first case appears, communities could drastically improve strategies for control, and even stop a virus from taking hold^{1,2}. Indeed, since 2009, the US Agency for International Development has spent US\$170 million on evaluating the “feasibility of preemptively mitigating pandemic threats”¹.

Various experts have flagged up problems with this approach (including the three of us)^{3,4}. Nonetheless, an ambitious biodiversity-based approach to outbreak prediction — the Global Virome Project — was announced in February this year, with its proponents soliciting \$1.2 billion in funding from around the world (see ‘High stakes’). They estimate

that other mammals and birds contain 1.67 million unknown viruses from the families of viruses that are most likely to jump to humans, and will use the funding to conduct a genomic survey of these unknown viruses, with the aim of predicting which might infect people¹.



Sources: NIH; Global Virome Project

Broad genomic surveys of animal viruses will almost certainly advance our understanding of virus diversity and evolution. **In our view, they will be of little practical value when it comes to understanding and mitigating the emergence of disease.**

We urge those working on infectious disease to focus funds and efforts on a much simpler and more cost-effective way to mitigate outbreaks — proactive, real-time surveillance of human populations.

The public has increasingly questioned the scientific credibility of researchers working on outbreaks. In the 2013–16 Ebola epidemic, for instance, the international response was repeatedly criticized for being too slow. And during the 2009 H1N1 influenza epidemic, people asked whether the severity of the virus had been overblown, and if the stockpiling of pharmaceuticals was even necessary⁵. Making promises about disease prevention and control that cannot be kept will only further undermine trust.

Forecasting fallacy

Supporters of outbreak prediction maintain that if biologists genetically characterize all of the viruses circulating in animal populations (especially in groups such as bats and rodents that have previously acted as reservoirs for emerging viruses), they can determine which ones are likely to emerge next, and ultimately prevent them from doing so. With enough data, coupled with artificial intelligence and machine learning, they argue, the process could be similar to predicting the weather⁶.

Reams of data are available to train models to predict the weather. By contrast, it is exceedingly rare for viruses to emerge and cause outbreaks. Around 250 human viruses have been described, and only a small subset of these have caused major epidemics this century.

Advocates of prediction also argue that it will be possible to anticipate how likely a virus is to emerge in people on the basis of its sequence, and by using knowledge of how it interacts with cells (obtained, for instance, by studying the virus in human cell cultures).

This is misguided. Determining which of more than 1.6 million animal viruses are capable of replicating in humans and transmitting between them would require many decades' worth of laboratory work in cell cultures and animals. Even if researchers

managed to link each virus genome sequence to substantial experimental data, all sorts of other factors determine whether a virus jumps species and emerges in a human population, such as the distribution and density of animal hosts. Influenza viruses have circulated in horses since the 1950s and in dogs since the early 2000s, for instance⁷. These viruses have not emerged in human populations, and perhaps never will — for unknown reasons.

In short, there aren't enough data on virus outbreaks for researchers to be able to accurately predict the next outbreak strain. Nor is there a good enough understanding of what drives viruses to jump hosts, making it difficult to construct predictive models.

Biodiversity-based prediction also ignores the fact that viruses are not fixed entities. New variants of RNA viruses appear every day. This speedy evolution means that surveys would need to be done continuously to be informative. The cost would dwarf the proposed \$1.2-billion budget for one-time sequencing.

Even if it were possible to identify which viruses are likely to emerge in humans, thousands of candidates could end up being identified, each with a low probability of causing an outbreak. What should be done in that case? Costs would skyrocket if vaccines and therapeutics were proposed for even a handful of these.

Screen and sequence

Currently, the most effective and realistic way to fight outbreaks is to monitor human populations in the countries and locations that are most vulnerable to infectious disease. This can be done by local clinicians, health workers in non-governmental organizations such as Médecins Sans Frontières (MSF; also known as Doctors Without Borders), and global institutions such as the World Health Organization (WHO).

We advocate the detailed screening of people who are exhibiting symptoms that cannot easily be diagnosed. Such tests should use the latest sequencing technologies to characterize all the pathogens that have infected an individual — the human 'infectome'⁸. To track previous infections, investigators should also assess each person's immune response, by analysing components of their blood using broad-scale serology⁹.

Emerging diseases are commonly associated with population expansions — when people encroach on habitats occupied by animals — as well as with environmental disturbances and climate change. Deforestation, for instance, can promote human interactions with animals that carry new threats, and can increase encounters with new vector species such as ticks and mosquitoes¹⁰. Animal die-offs, for example that of bar-headed geese (*Anser*

indicus) at Lake Qinghai in China in 2005 (which was caused by the H5N1 influenza virus), can also flag problem regions or emerging pathogens. Surveillance efforts should therefore focus on communities that live and work in such environments.

Identifying which pathogen is causing an outbreak is no longer the bottleneck it once was. It took researchers two years to determine HIV as the cause of AIDS in the early 1980s using microscopy and other techniques. By contrast, in 2012 it took only weeks for investigators using genomic technologies to discover the coronavirus that caused Middle East respiratory syndrome (MERS).

Rapid identification of viruses can be achieved only if such technologies — and the people trained to use them — are globally available, including in resource-limited regions where the risk of outbreaks might be higher. Thankfully, relevant capacity-building programmes are now beginning to be established, such as the Human Heredity and Health in Africa (H3Africa) Initiative, run by the UK Wellcome Trust and the US National Institutes of Health¹¹.

Once an emerging outbreak virus has been identified, it needs to be analysed quickly to establish what type it is; which molecular mechanisms (such as receptor type) enable it to jump between individuals; how it spreads through human populations; and how it affects those infected. In other words, at least four kinds of analysis are needed: genomic, virological, epidemiological and clinical. And the data must be passed to key stakeholders, from researchers and health workers on the ground to international agencies such as the WHO and the MSF. Data must be kept as free of restrictions as possible, within the constraints of protections of patient privacy and other ethical issues.

This will best be achieved through an established global network of highly trained local researchers, such as the WHO Global Outbreak Alert and Response Network (GOARN). Real-time tools for reconstructing and tracking outbreaks at the genomic level, such as portable sequencing devices, are improving fast⁸. Information gathered during recent outbreaks has quickly had tangible impacts on public-health decisions, largely owing to data generation and analysis by many research teams within days of people being infected¹².

For instance, in the 2013–16 Ebola epidemic, genome sequencing of the virus proved that a person could sexually transmit the disease more than a year after becoming infected. This prompted the WHO to increase its recommended number of tests for persistent infection in survivors of the disease.

Ultimately, the challenge is to link genomic, clinical and epidemiological data within days of an outbreak being detected, including information about how people in an affected community are interacting. Such an open, collaborative approach to tackling the emergence of infectious disease is now possible. This is partly thanks to technology, but is mainly due to a shift in perception about the importance of this approach. At least in genomic epidemiology, there is a growing move towards real-time, open-access data and analysis, aided by the use of preprint servers and wikis such as Virological (<http://virological.org>). This type of collaborative effort can complement the work of agencies including the WHO and the MSF, which focus predominantly on providing information, isolating those who have been infected, and so on.

So far, researchers have sampled little of the viral universe. Surveys of animals will undoubtedly result in the discovery of many thousands of new viruses. These data will benefit studies of diversity and evolution, and could tell us whether and why some pathogens might jump species boundaries more frequently than others. But, given the rarity of outbreaks and the complexity of host–pathogen interactions, it is arrogant to imagine that we could use such surveys to predict and mitigate the emergence of disease.

New viruses will continue to emerge unexpectedly. There is a lot we can and must do to be better prepared.

*Nature***558**, 180-182 (2018)

doi:<https://doi.org/10.1038/d41586-018-05373-w>

From: Steven Quay (b)(6)
Sent: Thursday, November 26, 2020 4:03 AM
To: (b)(6)
Subject: Re: Fw: RaTG13 (shared in confidence)

(b)(6)

Thank you for your kind words. We will be (b)(6) and I'm not sure of Internet access but please feel free to send me things. I hope you can have a happy Thanksgiving in some fashion this year.

Regards, (b)(6)

On Wed, Nov 25, 2020, 11:31 PM (b)(6) wrote:

Steve,

Very helpful! Thank you.

We are working hard on (b)(5)

Please let me know if (b)(5)

(b)(5)

Also, if (b)(6)

(b)(5)

You are superb scientific detective and scientific researcher. A rare combination!
We are indebted for your insight and assistance,

(b)(6)

From: Steven Quay (b)(6)

Sent: Wednesday, November 25, 2020 9:15 AM

To: (b)(6)

Cc: Lawrence Rimmel (b)(6)

Subject: Re: Fw: RaTG13 (shared in confidence)

(b)(6)

See answers attached. Regards, Steve

On Wed, 25 Nov 2020 at 14:56, (b)(6) wrote:

Steve,

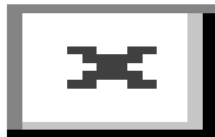
Please let us know your thoughts. (b)(5)

(b)(5)

Thanks.

(b)(6)

<https://www.newsweek.com/controversial-wuhan-lab-experiments-that-may-have-started-coronavirus-pandemic-1500503>



Why The Wuhan Lab Remains A Suspect In the Coronavirus Investigation

After reporting that Covid-19 occurred naturally, U.S. intelligence modified its stance to say it might have leaked from a lab.

www.newsweek.com

From: Feith, David (b)(6)

Sent: Tuesday, November 24, 2020 7:29 PM

To: (b)(6)

(b)(6)

Subject: RE: RaTG13

With Q&A attached...

~~SENSITIVE BUT UNCLASSIFIED~~

From: Feith, David

Sent: Tuesday, November 24, 2020 7:25 PM

To: (b)(6)
(b)(6)
Subject: RaTG13

(b)(5)

It seems that WIV's original Nature article of Feb. 3, 2020 didn't include this history:
<https://www.nature.com/articles/s41586-020-2012-7>. After public challenges, WIV published an addendum just last week, on Nov. 17 2020: <https://www.nature.com/articles/s41586-020-2951-z>. Shi Zhengli also gave an interview to Science published July 31 (<https://science.sciencemag.org/content/369/6503/487?rss=1>); the full Q&A attached includes her statement that WIV "didn't isolate this virus" (page 5). (b)(5)

(b)(5)

Appreciate any thoughts. Thanks.

--
David Feith
Deputy Assistant Secretary
Bureau of East Asian and Pacific Affairs (EAP)
U.S. Department of State

(b)(6) (o)
(c)
(b)(6)

~~SENSITIVE BUT UNCLASSIFIED~~

~~SENSITIVE BUT UNCLASSIFIED~~

--
Steven C Quay, MD, PhD, FCAP
(b)(6)
Dr. Quay Official Website
STAY SAFE: #1 Best Seller Amazon Medical eBooks

--
Steven C Quay, MD, PhD, FCAP
(b)(6)

Skype: (b)(6)

Dr. Quay Official Website

STAY SAFE: #1 Best Seller Amazon Medical eBooks

| | |
|-------------------|---|
| Sender: | "Keshap, Atul" (b)(6) |
| Recipient: | (b)(6) Stilwell, David R (b)(6) Feith, David (b)(6) |

| | |
|-----------------|------------------------------------|
| From: | "Moore, Jessica L" (b)(6) |
| To: | Fritz, Jonathan D (b)(6) (b)(6) |
| Subject: | RE: FOIA and WIV Cable |
| Date: | Thu, 16 Jul 2020 11:08:17 +0000 |

Attached are the final, FOIA-ready cables.

Jess Moore
Deputy Assistant Secretary, House Affairs
U.S. Department of State

~~SBU - DELIBERATIVE PROCESS~~

From: Fritz, Jonathan D (b)(6)
Sent: Wednesday, July 15, 2020 11:01 PM
To: Moore, Jessica L (b)(6); (b)(6)
Subject: RE: FOIA and WIV Cable

This looks solid to me. Would be interested to see the redactions...

~~SBU - DELIBERATIVE PROCESS~~

From: Moore, Jessica L (b)(6)
Sent: Wednesday, July 15, 2020 2:28 PM
To: (b)(6); Fritz, Jonathan D (b)(6)
Subject: FW: FOIA and WIV Cable

DAS Fritz and (b)(6) - After a few weeks of latency, this request is now live again and I was hoping to give you a brief update on this proposed response to the Hill and the FOIA litigation. If either of you have a few minutes to give me a quick call, you can reach me at my desk at (b)(6) Thank you!

Jess Moore
Deputy Assistant Secretary, House Affairs
U.S. Department of State

~~SBU - DELIBERATIVE PROCESS~~

From: Taylor, Mary Elizabeth (b)(6)
Sent: Tuesday, June 9, 2020 11:16 PM
To: Martin, Kathryn (Katie) (b)(6)
Cc: Moore, Jessica L (b)(6)
Subject: Fwd: FOIA and WIV Cable

Mary Elizabeth Taylor
Assistant Secretary of State
Legislative Affairs (H)
202-647-1807

From: (b)(6)

Sent: Tuesday, June 9, 2020 10:06:29 PM

To: Stilwell, David R (b)(6); Taylor, Mary Elizabeth (b)(6)

(b)(6)

Cc: (b)(6); Fritz, Jonathan (b)(6)

Subject: Re: FOIA and WIV Cable

Sir,

I made some edits to the below (b)(5)

(b)(5) The NIAD funded grants to EcoHealth Alliance were used to support cooperative research on bat coronaviruses that was solely focused on academic research and not related to lab safety.

Text:

(b)(5)

Best,

(b)(6)

From: Stilwell, David R (b)(6)

Sent: Tuesday, June 9, 2020 9:27 PM

To: Taylor, Mary Elizabeth (b)(6); Seagroves, Cliff C (b)(6)

Cc: (b)(6); Fritz, Jonathan D (b)(6) (b)(6)

(b)(6)

Subject: FOIA and WIV Cable

Let's use this to identify again our concerns (b)(5)

(b)(5)

(b)(6)

Need you and Jonathan to check the language as we put this out with the FOIA'ed cable.

Text:

(b)(5)

How's that?

Dave

From: (b)(6)

Sent: Friday, April 3, 2020 5:15 PM

To: (b)(6); Stilwell, David R (b)(6); Fritz, Jonathan D

(b)(6) (b)(6)

Cc: (b)(6); Keshap, Atul (b)(6)

Subject: Re: WIV Cable

Here are the most relevant elements:

From 2018 Cables:

1. ~~(SBU)~~ **Summary with Comment:** China's Wuhan Institute of Virology, a global leader in virus research, is a key partner for the United States in protecting global health security. Its role as operator of the just-launched Biosafety Level 4 (or "P4") lab -- the first such lab in China -- opens up even more opportunities for expert exchange, especially in light of the lab's shortage of trained staff (Ref A). Given the legacy of SARS and the likelihood that the next global pandemic will originate in China, the United States should prioritize expanding our already significant cooperation with this institute. This should include partnering with the institute on basic science research and the Global Virome Project (Ref B), and possibly trilateral U.S.-China-EU projects, building on the institute's strong ties with France. **End Summary with Comment.**

5. ~~(SBU)~~ During interactions with scientists at the WIV laboratory, they noted that the new lab has a serious shortage of appropriately trained technicians and investigators needed to safely operate this high-containment laboratory.

6. ~~(SBU)~~ The ability of WIV scientists to undertake productive research despite limitations on the use of the new BSL-4 facility is demonstrated by a recent publication on the origins of SARS. Over a five-year study, Drs. Shi and Cui Jie (and their research team) widely sampled bats in Yunnan province with funding support from NIAID/NIH, USAID, and several Chinese funding agencies. The study results were published in PLoS Pathogens online on Nov. 30, 2017 (1), and it demonstrated that a SARS-like coronavirus isolated from horseshoe bats in a single cave contain all the building blocks of the pandemic SARS-coronavirus genome that caused the human outbreak. These results strongly suggest that the highly pathogenic SARS-coronavirus originated in this bat population. Most importantly, the researchers also showed that various SARS-like coronaviruses can interact with ACE2, the human receptor identified for SARS coronavirus. This finding strongly suggests that SARS-like coronaviruses from bats can be transmitted to humans to cause SARS-like disease. From a public health perspective, this makes the continued surveillance of SARS-like coronaviruses in bats and study of the animal human

interface critical to future emerging coronavirus outbreak prediction and prevention. It is interesting that WIV scientists are allowed to study the SARS-like coronaviruses isolated from bats while they are precluded from studying human-disease causing SARS coronavirus in their new BSL-4 lab until permission for such work is granted by the NHFCP.

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From: (b)(6)
Sent: Friday, April 3, 2020 5:14:18 PM
To: Stilwell, David R (b)(6); Fritz, Jonathan D (b)(6) (b)(6)
(b)(6) (b)(6)
Cc: (b)(6); Keshap, Atul (b)(6)
Subject: Re: WIV Cable

Attached. They're also on an email from a few days ago with (b)(6) others.

--
(b)(6)
Senior Advisor
Bureau of East Asian and Pacific Affairs (EAP)
U.S. Department of State
(b)(6) (o)
(b)(6) (c)
(b)(6)

On April 3, 2020 at 5:11:51 PM EDT, Stilwell, David R (b)(6) wrote:
First one to get me a soft copy of (b)(6) Wuhan cables gets a Samoa Cookie.
drs

David R. Stilwell
Ass't Secretary East Asia Pacific
(202) 647-9596

| | |
|-------------------|------------------------------------|
| Sender: | "Moore, Jessica L" (b)(6) |
| Recipient: | Fritz, Jonathan D (b)(6) (b)(6) |

| | |
|-----------------|--|
| From: | "Harris, Harry B (Seoul)" (b)(6) |
| To: | Stilwell, David R (b)(6) |
| Subject: | RE: Mission Korea Public Diplomacy Highlights , March 13, 2020 |
| Date: | Sun, 15 Mar 2020 05:09:31 +0000 |

Good on him!

From: Stilwell, David R (b)(6)
Sent: Sunday, March 15, 2020 1:17 PM
To: Harris, Harry B (Seoul) (b)(6)
Subject: Re: Mission Korea Public Diplomacy Highlights , March 13, 2020

(b)(6)

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From: Harris, Harry B (Seoul) (b)(6)
Sent: Saturday, March 14, 2020 11:18:12 PM
To: Stilwell, David R (b)(6)
Subject: RE: Mission Korea Public Diplomacy Highlights , March 13, 2020

I agree completely. What is Rob Spalding doing these days? Just saw the cable on global Authorized Departure for at-risk individuals.

From: Stilwell, David R (b)(6)
Sent: Sunday, March 15, 2020 11:46 AM
To: Harris, Harry B (Seoul) (b)(6)
Subject: Re: Mission Korea Public Diplomacy Highlights , March 13, 2020

I do object to the idea of "extent of distrust and toxic state of relations". All the blame goes to the Chinese side—we've acted in good faith for 40 years while China has signed and ignored every document put in front of them. There is only one side guilty of distrust; but you know that more than most. Things are markedly better than they were 5 years ago—at least this administration acknowledges the problem.

Best
Stilly

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From: Harris, Harry B (Seoul) (b)(6)
Sent: Saturday, March 14, 2020 7:32:28 PM

To: Stilwell, David R (b)(6)

Subject: RE: Mission Korea Public Diplomacy Highlights , March 13, 2020

Wow on the toilet picture photo! Love Spalding's tweet...what is Rob doing these days? Glad Rob and you are responding to Crazy Zhao but where's the GEC in this? Here's Yonden Lhatoo, editor of the South China Morning Post on this...he makes a good point -- why doesn't Twitter ban Zhao?

Why China is amplifying a conspiracy theory to blame America for coronavirus crisis

- Yonden Lhatoo breaks down a Chinese foreign ministry spokesman's claim that the US military is behind the Covid-19 pandemic, highlighting the extent of mistrust and toxic state of relations between the two sides

Yonden Lhatoo

Published: 7:28pm, 14 Mar, 2020

<https://www.scmp.com/news/hong-kong/article/3075227/why-china-amplifying-conspiracy-theory-blame-america-coronavirus>

There's no dearth of conspiracy theories flying around about the origins of the coronavirus pandemic, from reckless speculation in news reports to silly nonsense spread by social media, and they're all best left ignored at a time of global panic and paranoia.

But when a spokesman for China's foreign ministry jumps on the tinfoil-hat bandwagon to accuse the US military of unleashing a deadly disease that has infected well over 140,000 people in more than 120 countries, it begs closer scrutiny to understand what exactly is going on.

Zhao Lijian set off a storm this week by taking to Twitter to suggest there was something more to the story after the US Centres for Disease Control and Prevention admitted, without giving a time frame, that some influenza deaths in America had turned out to be Covid-19 cases.

"When did patient zero begin in the US? How many people are infected? What are the names of the hospitals? It might be the US Army who brought the epidemic to Wuhan. Be transparent! Make public your data! US owe us an explanation!"

The incendiary tweet echoed a Canada-based conspiracy website's unsubstantiated claims that America was the real source of the coronavirus, apparently linking it to the US Army's participation in the Military World Games, which drew competitors from more than 100 countries to Wuhan last October before the Chinese city became ground zero for the pandemic.

On the face of it, China has just accused the US of a jaw-dropping act of war, prompting the State Department to summon Beijing's ambassador to Washington for a dressing down.

Of course, Zhao has a reputation for being a bit of a loose cannon with a trigger-happy tweet finger, so Beijing can conveniently explain it away as rogue commentary in a personal capacity rather than an official statement. But it's also obvious he would not dare go so far without authorisation from higher up. Just look at how Geng Shuang, Zhao's foreign ministry colleague, responded when asked for an explanation: "You wonder if Zhao's opinions represent those of the Chinese government. I think you first should ask if remarks by certain US senior officials that vilify China represent the official stance of the US government."

And there you have it. It's a tit-for-tat, zero-sum blame game the two countries are playing to their mutual detriment, instead of joining forces to wipe out a common enemy that recognises no political or geographical boundaries.

China is at pains to point out that the source of the coronavirus is yet to be conclusively established by international experts, and that the assumption it must have first been transmitted to humans from all manner of wildlife being sold at a wet market in Wuhan is still to be proven. That's why it bristles at the likes of US President Donald Trump calling it a "foreign virus", or Secretary of State Mike Pompeo and Republican leaders provocatively labelling it as the "Wuhan virus" or "Chinese coronavirus". Remember the other popular conspiracy theory that China may have engineered the coronavirus as a bioweapon at the Wuhan National Biosafety Laboratory, which has been debunked by scientists who studied its genetic make-up? Zero Hedge, a right-leaning financial blog popular among Wall Street insiders, was banned from Twitter last month for amplifying the same theory and doxxing a Chinese scientist from the Wuhan Institute of Virology, whom it identified as the man responsible for weaponising the coronavirus.

Isn't it only fair that Twitter should apply the same rules to Zhao and ban him for "spreading misinformation" about the pandemic? Why are Chinese officials even using Twitter in the first place when the platform is prohibited in China?

Yonden Lhatoo is the chief news editor at the Post

This article appeared in the South China Morning Post print edition as: Why is China spreading a coronavirus conspiracy?

Yonden Lhatoo

Yonden Lhatoo is the Chief News Editor at the Post. He had worked as a television news anchor and editor in Hong Kong for nearly two decades before joining the SCMP in 2015.

From: Stilwell, David R (b)(6)

Sent: Sunday, March 15, 2020 8:11 AM

To: Harris, Harry B (Seoul) (b)(6)

Subject: RE: Mission Korea Public Diplomacy Highlights , March 13, 2020

Our push-back on Zhao Lijian's idiotic attempt to blame us got decent coverage, in the US at least. I say that based on the number of emails/texts I got saying "attaboy!" from folks outside of government. Not much we can do about allies who choose to believe the worst about us.

The first attachment is of a Tweet we wrote, but couldn't get past the clearance chain so Rob Spalding put it out there. Probably more effective that way.

The second one is from Zhao's Chinese language Tweets where it seems like he's trying to defend himself. From his supervisors? From the Netizens? Hard to say, but he's definitely 'splaining.

All are well in Hawaii; very concerned about Seattle. Folks in DC are taking hand-washing and social distancing very seriously. They're also taking toilet paper too seriously (3rd attachment). Ft Myer commissary was still pretty well stocked this morning, but they'd cleared out all the toilet paper. What's up with that?

From: Harris, Harry B (Seoul) (b)(6)

Sent: Saturday, March 14, 2020 7:00 PM

To: Stilwell, David R (b)(6)

Subject: RE: Mission Korea Public Diplomacy Highlights , March 13, 2020

Stilly -- I have a white face mask with a Sharpie-mustache painted on it ready to deploy. Re Wu-flu, China is turning the narrative on its head by suggesting broadly in China that the virus started in U.S. weapons labs and deployed to the Wuhan area. This is getting some traction in the PRC and this theory has jumped to the ROK and, I suspect, elsewhere. Where is the GEC in all this? At the COM conference we heard that the GEC's newfound agility, nimbleness, and re-focus on the Indo-Pac would lead-turn these things, but I think we're shooting way behind the proverbial duck here.

Hope you're well and healthy. (b)(6) Here's a new graph on state-by-state infections. Hawaii is looking good. Not so much Colorado! (b)(6)
(b)(6) My best,

Harry

<https://www.cnn.com/2020/03/03/health/us-coronavirus-cases-state-by-state/index.html>

From: Stilwell, David R (b)(6)
Sent: Sunday, March 15, 2020 6:53 AM
To: Harris, Harry B (Seoul) (b)(6)
Subject: FW: Mission Korea Public Diplomacy Highlights , March 13, 2020

I saw a Korean conspiracy theoretical rag mistook your mask for a bigger moustache. . . 😊

This Tweet made my entire week, as we watch morons claim that saying "Wuhan Coronavirus" is racist. Didn't know Wuhan is a race, and these same perma-protesters were saying Wuhan Coronavirus mere days prior. Commie stooges.

<https://mobile.twitter.com/peterjhasson/status/1238213711900393473?s=12>

From: (b)(6) Seoul (b)(6)
Sent: Friday, March 13, 2020 3:35 AM
To: Seoul PD Highlights (UNCLASS Only) <SeoulPDHighlights@state.gov>
Subject: Mission Korea Public Diplomacy Highlights , March 13, 2020

Greetings friends,

Our apologies for a much reduced highlights product as a result of the COVID-19 crisis. In case it's not clear from the small photo, Ambassador Harris is the guy in the black mask.

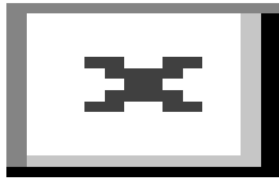
Wishing everyone an enjoyable weekend (while maintaining 1m social distance).

(b)(6)



Issue Date: March 13, 2020

Ambassador Harris Tours COVID-19 Screening at Incheon International Airport



PD's Media Unit provided press support for Ambassador Harris' March 11 visit to Seoul's Incheon International Airport to observe first-hand new COVID-19 screening procedures for passengers of U.S.-bound flights. Both broadcast and print media widely and positively covered the Ambassador's interaction with screening staff and expressions of gratitude to them, due in part to the Press Unit's work with its MOFA counterparts to get wording in reporting changed from "inspection" to "visit," changing the tone of subsequent stories. (COVID-19, Security/Alliance, Health)

Further Reading: Please see our cable 20 Seoul 406, Seoul: PD Seoul Makerspace Fellow Lessons Learned.

* * *

Mission Korea Public Diplomacy Highlights showcases significant public diplomacy programs and activities. Thanks for reading, and as always, to request to be removed or to add someone to the distribution list, just drop us a line.

(b)(6)

Minister Counselor for Public Affairs
U.S. Embassy Seoul

| | |
|-------------------|----------------------------------|
| Sender: | "Harris, Harry B (Seoul)" (b)(6) |
| Recipient: | Stilwell, David R (b)(6) |

| | | | |
|-----------------|---|-----------|--------|
| From: | (b)(6) | (Beijing) | (b)(6) |
| To: | (b)(6) | (Beijing) | (b)(6) |
| Subject: | RE: China's Interest in the Global Virome Project Presents an Opportunity for Global Health Cooperation | | |
| Date: | Fri, 29 Sep 2017 00:27:18 -0400 | | |

Fingers crossed.

(b)(5)

Official
UNCLASSIFIED

From: (b)(6) (Beijing)
Sent: Thursday, September 28, 2017 5:15 PM
To: (b)(6) (Beijing)
Subject: Re: China's Interest in the Global Virome Project Presents an Opportunity for Global Health Cooperation

(b)(5)

Thanks for

leading the effort to get this down on paper. Lets see what happens next.

Sent from my BlackBerry 10 smartphone.

From: (b)(6) (Beijing)
Sent: Thursday, September 28, 2017 17:13
To: (b)(6) (Beijing | NSF); (b)(6) (CDC/CGH/DGHP); (b)(6) (Beijing); (b)(6) (Beijing)
Subject: Fw: China's Interest in the Global Virome Project Presents an Opportunity for Global Health Cooperation

Cable released. Thanks for everyone's help getting this out.

(b)(6)

Sent from my BlackBerry 10 smartphone.

From: SMART Core <svcSmartBtsEwsHPrec@state.gov>
Sent: Thursday, September 28, 2017 15:56
To: (b)(6)

(b)(6)

(b)(6)

Reply To: SMART Core

Cc: (b)(6)

(b)(6)

Subject: China's Interest in the Global Virome Project Presents an Opportunity for Global Health Cooperation

UNCLASSIFIED

~~SBU~~

Action Office: POL, IMO, ECON, MGT, RSO, SCIENCE
Info Office: IMO_INFO, MED_INFO, ECON_INFO, EXEC_INFO, DAO_INFO

MRN: 17 BEIJING 2458
Date/DTG: Sep 28, 2017 / 280753Z SEP 17
From: AMEMBASSY BEIJING
Action: WASHDC, SECSTATE *ROUTINE*
E.O.: 13526
TAGS: PREL, SHLH, TBIO, KGHI, CDC, AID, CN
Captions: SENSITIVE
Subject: China's Interest in the Global Virome Project Presents an Opportunity for Global Health Cooperation

1. ~~(SBU)~~ **Summary and Comment:** The proposed Global Virome Project (GVP), an international non-governmental organization built on a decade-long prototype initiated by the U.S. Agency for International Development (USAID), seeks to address vulnerability from emerging diseases by creating a global database of viruses of animal origin and identifying those pathogens with greatest potential to jump to humans through sequencing their genomes, understanding the ecology involved in transmission, and assessing risk to humans. This knowledge could then be used to devise treatments and countermeasures. In the months leading

up to the planned January 2018 launch of the Global Virome Project to codify this “proof of concept” into an international organization, China has expressed considerable interest in becoming a leader of this nascent global effort by contributing to collaborative academic papers, hosting symposia, participating in international activities, and by proposing its own associated China Virome Project. While the GVP will have to navigate complex issues concerning sharing of specimens and data across national borders, China’s interest in the Global Virome Project, represents a positive indication that health cooperation, safeguarding global health security, and advancing innovation in science remain priorities for China and presents new ground for potential U.S.-China collaboration. Absent U.S. government leadership in GVP agenda-setting, governance, and funding the Chinese government could likely take a leading position in this potentially path breaking endeavor undermining years of USG leadership and considerable investment in this critical field of public health.

2. ~~(SBU)~~ By continuing to work with other nations, including China, and playing a leading role in the Global Virome Project, the United States would benefit from the advances in health science, intellectual property, and commerce that will come from it. U.S.-China collaboration on the Global Virome Project is an opportunity to lead innovation in science, collaborate with China, and potentially contribute to scientific breakthroughs. **End Summary and Comment.**

Health Security is a Global Agenda

3. ~~(SBU)~~ The Global Virome Project as proposed could be an important scientific contribution to the Global Health Security Agenda (GHSA). Launched in February 2014, the GHSA is a multi-sectoral effort aiming to accelerate implementation of the World Health Organization’s International Health Regulations (IHR) in order to make the world safe and secure from infectious disease threats, whatever their source. Under the Global Health Security Agenda, the United States assists 31 countries and the Caribbean Community, including \$1 billion for 17 at-risk countries to strengthen global health security through a whole-of-government effort to prevent, detect, and respond to disease outbreaks at the local, subnational and national levels.

Pandemic Disease is a Global Threat

4. ~~(SBU)~~ A component to the overall Global Health Security Agenda is reducing the threat of pandemic disease, which is a widespread epidemic of naturally emerging deadly infectious pathogens. According to “The Global Virome Project,” a collaborative paper written by several of the foremost experts on pandemic health issues, viruses of animal origin have caused significant outbreaks, such as SARS, influenza, MERS, Ebola, HIV, and Zika. Outbreaks such as these have had major economic and geopolitical impact and have threatened global security. There are an estimated 1.6 million such viruses worldwide. Scientists have estimated that only 1% of the potential viral threats have been identified and hundreds of thousands of unknown viruses in wildlife have the potential to infect people. However, less than 0.1% of all viruses with the potential to pose a threat to global health are estimated to have spilled over from animals to humans. With growing populations, reduced animal habitats and increasing international travel and trade, these types of emerging infectious diseases pose increasing risks of a global nature.

The Global Virome Project's Beginnings as a U.S. Investment

5. ~~(SBU)~~ GVP grew out of the PREDICT project of USAID, which has, over its seven year history, received \$130 million in U.S. funding and has thus far sampled over 56,000 wild animals and identified about 1000 new viruses. PREDICT hosts the GVP Secretariat at University of California-Davis. The GVP concept was validated at a gathering of international stakeholders in 2016, which included scientists and public health practitioners from the public and private sectors. Its first follow-up meeting was held in Beijing in early 2017, including a half-day session to initiate the associated China National Virome Project (CNVP). GVP expects to be incorporated as an international not-for-profit organization prior to its official launch, which is planned for January 30, 2018 in Thailand at the Prince Mahidol Awards Conference.

The Global Virome Project's Audacious Agenda

6. ~~(SBU)~~ The Global Virome Project is, by the project leadership's own admission, ambitious. Over the course of ten years and at an estimated cost of \$1 billion (\$100 million a year for ten years), the Global Virome Project aims to sample 63% of global mammalian diversity to find 71% of mammalian viromes. The projected costs cover sample collection and laboratory analysis, with phases including countries with the highest diversity of mammalian species. Phase One includes 10 countries and 1562 mammals, Phase Two, 16 countries and 970 mammals, Phase Three with 23 countries and 447 mammals. GVP also expects to collect samples from 740 waterfowl species.

7. ~~(SBU)~~ GVP's core principles include embracing an international scope while fostering local ownership, promoting equitable access to data and benefits, instilling transparency, building national capabilities for prevention, detection, and response for emerging viral threats, and encouraging global ownership through an international alliance. If successful, this initiative will provide a wealth of publicly accessible unbiased data, which should enable innovative research on the mechanisms and ecology of disease transmission, and informatics focusing on virus families as opposed to individual viruses. Such research could accelerate the development of new diagnostics, vaccine technologies, and risk mitigation strategies against whole families of emerging viral diseases.

Like all Risky Endeavors Failure is a Possibility

8. ~~(SBU)~~ GVP looks to the Human Genome Project as a model, in which a comprehensive, ambitious approach led to the development of new technologies and a vast data resource now available to all. Unlike the Human Genome Project, GVP is by design not 'owned' by an institution or specific country, because of its international sampling scope. Its infrastructure will also be distributed globally. Thus GVP faces significant challenges as it transitions from a start-up to an independently operating foundation: Who will own the samples that are collected from many countries? Where will they be analyzed? Will all GVP data be freely available to the public? GVP expects to grapple with these legal and ethical issues very early, but it will take time for policies to be proposed and approved by the many countries that will be either allowing sample collection or storing specimens and data.

GVP Enjoys Strong Chinese Government Support in Principle and in Kind

9. ~~(SBU)~~ The Chinese government has shown strong interest in the Global Virome Project and is not shy about expressing interest in funding projects where Chinese scientists will take a lead. The new Director of China Center for Disease Control and Prevention (China CDC), Dr. George Gao, a distinguished virologist, told EmbOfs that the Global Virome Project is a priority project that China CDC must push hard on to get stakeholders involved and organize funding. He stated that China's involvement in this project is a good follow-up to the August 21 World Health Organization dialogue meeting at which Health and Human Services Secretary Price and US Ambassador Branstad where both sides agreed on the need for increased U.S.-China collaboration against growing health threats at the intersection of animal and human health. In February 2017, Gao led a symposium proposing a China virome project, however the specific details of how the two will integrate was left undefined.

10. ~~(SBU)~~ The Beijing Genomics Institute (BGI), now based in Shenzhen, made a blanket offer to conduct 30% of the sequencing for GVP, but did not provide details on how that sequencing would take place or where the subsequent data would be housed. Its current leader, Yang Huanming, was instrumental in China's involvement in the Human Genome Project in the 1990s, and is a proponent of sharing data. BGI's commitment (as opposed to Yang's commitment) to GVP's values of open, free access to data has not yet been officially stated however. [Note: The BGI group has enjoyed significant funding from the Chinese government. BGI Genomics became a publically-traded company in July 2017.]

11. ~~(SBU)~~ The GVP expects to raise its \$1 billion ten-year budget from a variety of sources, both public and private. Roughly \$5 million per year will cover operations of the non-governmental organization, to include working groups, sample and data standardization and management, and technical assistance to participating country field operations. However, specifics on funding commitments have not been publicly announced.

Both the U.S. and China Strongly Support GVP-related Collaborative Research

12. ~~(SBU)~~ Beyond creating the database of viral sequences which carries the \$1 billion price tag, GVP recognizes the importance of research on the mechanisms and ecology of infectious disease transmission. This type of research already enjoys strong support in both China and the United States, and scientists are increasingly collaborating with each other.

13. ~~(SBU)~~ Shi Zhengli, a senior scientist at the Wuhan Institute of Virology, Chinese Academy of Sciences (CAS) who studied mechanisms of transmission of SARS between species, stated that CAS has already allocated funding for GVP-related research. Wang Zhengwu, Department of International Affairs at CAS, stated that CAS is working on a process and mechanism to support Chinese scientists with backing from the Ministry of Sciences and Technology and The National Natural Science Foundation of China (NSFC) for Global Virome Project type research. He noted that CAS encourages Chinese scientists to take part in or lead international research projects and that CAS has a budget for seed funding to incubate research projects, workshops, and collaboration that can be used for the Global Virome Project. Significant USG support for GVP-related research already exists, including the Ecology and Evolution of

Infectious Diseases (EEID) program, which is jointly supported by NIH, USDA, and NSF, is actively seeking collaboration in China, and plans to host a joint workshop supported by NSFC and CAS in early 2017.

Global Virome Project Provides China a Platform for International Collaboration

14. ~~(SBU)~~ It is encouraging that China, along with other countries, is ready to take what started as a U.S.-led initiative and proof of concept to a global scale. The GVP still awaits a commitment of funding for its viral sampling and processing infrastructure. It is likely that the Chinese government will engage both with funding and with in-kind support, which will likely give China a large voice in GVP governance and data-sharing policies. While U.S.-based NGOs and academics are likely to provide some leadership for the GVP, it will be important for the USG to remain engaged in significant ways with the GVP, to ensure that U.S. interests are adequately reflected in this effort, which will facilitate the development of countermeasures against future threats (pandemic preparedness), and enable rapid detection of viral threats and increase the capacity to handle them.

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