Evidence-based investigation of SARS-CoV-2 proximal origin

20 Jul 2023 – 25rd session

Commitment of the Participants

Do not divulge video/sound/picture recordings to others outside of the workshop (without explicit consent of the persons involved).

Do not record the talks without agreement of the speaker.

Do not record the discussions without agreement of all participants.

Do not divulge without agreement of the participants.

Do not take a public position involving the group of participants.



Participants

Specialists of diverse fields, all trying to elucidate the origins of SARS-CoV-2.

Goals of the Workshop

(1) Elucidate the origins of SARS-CoV-2

(2) Foster discussions and collaborations between researchers from various relevant fields (virology, modelling, bioinformatics, ecology, social sciences, etc.) working on the origin of SARS-CoV-2.

(3) Have a general overview of the different types of evidence and approaches currently undertaken to investigate the origin of the virus.

(4) Apply an evidence-based analysis to evaluate the different hypotheses about the origin of the virus.

Commitment of the Participants

Adopt an open attitude to alternative hypotheses.

- Distinguish clearly facts from interpretations and opinions.
- Focus on facts and scientific debate.
- Avoid personal attacks (during and after the workshop).
- Avoid self-interest biasing the participation.

19 April 2023



Judicial Watch obtained through a Freedom of Information Act (FOIA) request it filed in December 2021 all reports submitted by EcoHealth Alliance to NIH or its sub-agencies related to NIH Grant No. 1R01A|110964 titled "Understanding the Risk of Bat Coronavirus Emergence" during the term of the grant. p128: "To evaluate pathogenicity of bat-CoVs we will perform in vivo infection experiments in humanized mice modified to carry human ACE2 or DPP4 gene in the Wuhan Institute of Virology BSL-3 animal facility. We will passage isolated bat-CoVs in permissive cells twice"

p212: 1R01AI110964 Year 2 (June 2016-May 2017) Report

"Specific Goals Not Met: Animal infection experiments of SARS-like coronaviruses were not done, because of the **unavailability of mice with human ACE2 in Year 2**. We now have secured these mice and will begin this work in year 3."

p255: 1R01Al110964 Year 3 (June 2017-May 2018) Report

"Mice with human ACE2 have been imported to China and have been bred for one generation in Wuhan Institute of Virology."

"Specific Goal Not Meet: Animal infection experiments of SL-CoVs and MERS-related CoV were not done in Year 3, as this is planned as part of work in Year 4"

p488: 2020 Renewal application: "We infected transgenic mice expressing hACE2 with 10^5 pfu of full-length recombinant WIV1 and three chimeric viruses (WIV1 backbone with SHC014S, WIV16S and Rs4231 S). "



March 20, 2023



Genetic evidence of susceptible wildlife in <u>SARS-CoV-2 positive samples</u> at the Huanan Wholesale Seafood Market, Wuhan: Analysis and interpretation of data released by the Chinese Center for Disease Control

Upload

Q

Communities

Search

Crits-Christoph, Alex; D Gangavarapu, Karthik; D Pekar, Jonathan E.; D Moshiri, Niema; Singh, Reema; D Levy, Joshua I.; D Goldstein, Stephen A.; D Suchard, Marc A.; D Popescu, Saskia; D Robertson, David L.; D Lemey, Philippe; D Wertheim, Joel O.; D Garry, Robert F.; D Rasmussen, Angela L.; D Andersen, Kristian G.; D Holmes, Edward C.; D Rambaut, Andrew; D Worobey, Michael; D Débarre, Florence

Donart

Racoon dogs, Fox (*Vulpes spp*.),hoary bamboo rat (*R. pruinosis*), masked palm civet (*P. larvata*)

https://zenodo.org/record/7754299#.ZCqZM3ZByUn

Latest Newsletters

The Atlantic

The Strongest Evidence Yet That an Animal Started the Pandemic

A new analysis of genetic samples from China appears to link the pandemic's origin to raccoon dogs.

By Katherine J. Wu

Angela

Rasmussen, a virologist involved in the research, told me, "This is a really strong indication that animals at the market were infected. There's really no other explanation that makes any sense."





New Results

Follow this preprint

Association between SARS-CoV-2 and metagenomic content of samples from the Huanan Seafood Market

Jesse D. Bloom
doi: https://doi.org/10.1101/2023.04.25.538336

"14 samples have >20% of their chordate mitochondrial material from raccoon dogs, but only one of these samples contains any SARS-CoV-2 reads, and that sample only has 1 of ~200,000,000 reads mapping to SARS-CoV-2."

"co-mingling of animal and viral genetic material is unlikely to reliably indicate whether any animals were infected by SARS-CoV-2"

17 May 2023



Marco Rubio 💸 @marcorubio

SEE OUR REPORT ON THE POLITICAL CHRONOLOGY OF THE #COVID OUTBREAK

Previously unknown information from official Chinese sources show that:

=by late 2018 Chinese officials warned of critical & urgent bio-safety problems at the Wuhan Institute of Virology (WIV)

= a serious biocontainment accident occurred at the WIV during the second half of 2019; and

=PRC authorities had some level of awareness of an outbreak of infectious disease well in advance of the first disclosure of Covid-19 to the public on December 31, 2019

Full report here: rubio.senate.gov/public/_cache/...

Safety issues in early and mid-2019 Wuhan schools being closed in Nov 2019

...

https://twitter.com/marcorubio/status/1658804447819051008?s=20 https://www.rubio.senate.gov/public/_cache/files/4f6bb786-504e-443d-8904-974dafc1cd0e/ CD3BC3317D197A25E9FF01EBFB869357.rubio-covid-origins-report-final.pdf

30 May 2023

Covid: Top Chinese scientist says don't rule out lab leak

() 30 May



"We really don't know where the virus came from... the question is still open," Prof Gao tells the BBC.



Prof George Gao

3 Jun 2023

			.COM.CN					\sim	
HOME (CHINA	WORLD	BUSINESS	LIFESTYLE	CULTURE	TRAVEL	WATCHT	HIS	SPOR
China	Ne	ews S	Society I	nnovation	HK/Macao	Cross	s-Strait	Co	ver St

• Home / China / Latest

Chinese scientist refutes BBC report on COVID lab leak

chinadaily.com.cn | Updated: 2023-06-03 17:28

f

Gao stated that the BBC's "outrageous" quotation of his words was taken out of context from an online conversation he had with several scientists at the end of 2022.

Gao said: "Scientifically, we do not rule out any possibilities. But every possibility requires evidence, **and there is no evidence of a lab leak**. Science requires evidence and questioning, so within the scientific context, any possibility can be discussed."



INSIGHT INVESTIGATION

What really went on inside the Wuhan lab weeks before Covid erupted

• NEW

According to the US investigators, the classified programme was to make the mineshaft viruses more infectious to humans.

They found evidence that researchers working on these experiments were taken to hospital with Covid-like symptoms in November 2019 — a month before the West became aware of the pandemic — and one of their relatives died.

PUBLIC

Ben Hu, Yu Ping, and Yan Zhu

First People Sickened By COVID-19 Were Chinese Scientists At Wuhan Institute Of Virology, Say US Government Sources

The three scientists were engaged in "gain-of-function" research on SARS-like coronaviruses when they fell ill



MICHAEL SHELLENBERGER, MATT TAIBBI, AND ALEX GUTENTAG 13 JUN 2023

PLA vaccine specialist, Zhou Yusen, aged just 54, appears to have died in May 2020.

Seven of Hughes's team headed to the Mojiang mine in June 2020. When they arrived, they were told the Mojjang mine was closed, so they sampled bats in another abandoned copper mine nearby. On the first day of their work, police arrived, seized the samples and took them to their station, where they were interrogated and detained for 48 hours.





Professor Robert Garry, a respected microbiologist, is one of five scientists who wrote a paper in March 2020 entitled 'The Proximal Origin of Sars-Cov-2' credited with dismissing the theory Covid meagered from a lab leak, now says the paper went too far in its dismissal

https://www.dailymail.co.uk/health/article-12189717/Influential-paper-dismissed-Covid-lab-leak-went-far-claims-one-researchers.html? ito=native_share_article-nativemenubutton

20 Jun 2023 **Top WHO virologist admits it should never have dismissed lab leak theory as being more implausible than China's own 'frozen food' origin story**

• Professor Marion Koopmans is head of viroscience at Erasmus Medical Centre

https://www.dailymail.co.uk/health/article-12203765/Top-virologist-admits-agency-NEVER-dismissed-lab-leak-theory-implausible.html? ns_mchannel=rss&ns_campaign=1490&ito=1490



By Yaron Steinbuch

June 20, 2023 | 9:48am | Updated

https://nypost.com/2023/06/20/expert-says-who-should-not-have-dismissed-covid-lab-leak-theory/

21 Jun 2023

The New York Times

U.S. Intelligence Agencies May Never Find Covid's Origins, Officials Say

The agencies are expected to release declassified material on what they have learned about Covid's origins. People briefed on the material say there is no smoking gun.

https://www.nytimes.com/2023/06/21/us/politics/covid-pandemic-lab-leak-intelligence.html

23 Jun 2023



We have no indications that any of these researchers were hospitalized because of the symptoms consistent with COVID-19. One researcher may have been hospitalized in this timeframe for treatment of a nonrespiratory medical condition.

OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE

(U) Potential Links Between the Wuhan Institute of Virology and the Origin of the COVID-19 Pandemic

https://www.dni.gov/files/ODNI/documents/assessments/Report-on-Potential-Links-Between-the-Wuhan-Institute-of-Virology-and-the-Origins-of-COVID-19-20230623.pdf



NEWS CAREERS COMMENTARY JOURNALS V

Science

brought to you by BibCNRS INSB & I...

HOME > NEWS > SCIENCEINSIDER > 'RIDICULOUS,' SAYS CHINESE SCIENTIST ACCUSED OF BEING PANDEMIC'S PATIENT ZERO

SCIENCEINSIDER SCIENCE AND POLICY

'Ridiculous,' says Chinese scientist accused of being pandemic's patient zero

Ben Hu denies he was sick in late 2019, or that his coronavirus work led to COVID-19, and newly declassified U.S. intelligence doesn't substantiate allegations against him

23 JUN 2023 · 6:35 PM · BY JON COHEN

https://www-science-org.insb.bib.cnrs.fr/content/article/ridiculous-says-chinese-scientist-accused-being-pandemic-s-patient-zero

11 Jul 2023

Scientists Kristian Andersen and Robert Garry testified on the origins of COVID-1 before the House Oversight Select Subcommittee on the Coronavirus Pandemic



https://www.c-span.org/video/?529219-1/hearing-origins-covid-19



SELECT SUBCOMMITTEE ON THE

CORONAVIRUS PANDEMIC

- CHAIRMAN BRAD WENSTRUP-

THE PROXIMAL ORIGIN OF A COVER-UP:

DID THE "BETHESDA BOYS" DOWNPLAY A LAB LEAK?

https://oversight.house.gov/wp-content/uploads/2023/07/Final-Report-6.pdf



"THEY PLAYED NO ROLE"

Select Subcommittee Republicans' Own Investigation Disproves Allegations That Dr. Fauci and Dr. Collins Suppressed the Lab Leak Theory Through the "Proximal Origin" Paper

https://oversightdemocrats.house.gov/sites/democrats.oversight.house.gov/files/For%20Distribution-2023.07.11%20Proximal%20Origin %20Democratic%20Staff%20Report.pdf

^{12 Jul 202} nature

Explore content V About the journal V Publish with us V Subscribe

<u>nature</u> > <u>news</u> > article

NEWS | 12 July 2023

US congressional hearing produces heat but no light on COVID-origins debate

A showdown over an influential early publication has done little to prepare the country for the next pandemic, observers say.

Max Kozlov

Drafts of Proximal Origin paper and communications with editors

https://drive.google.com/file/d/11zyWYG1OZ7z7RMZHaj2EoDeHveGnendT/view



https://twitter.com/franciscodeasis/status/1678901425571606528

18 Jul 2023

PUBLIC

C

Top Scientists Misled Congress About Covid Origins, Newly Released Emails And Messages Show

Top advisor to Anthony Fauci still thought a lab leak was possible in April 2020, one month after claiming publicly that it wasn't



ALEX GUTENTAG, LEIGHTON WOODHOUSE, MICHAEL SHELLENBERGER, AND MATT TAIBBI 18 JUL 2023

Kristian Andersen 16:41

Okay, here's what I'm thinking. This is playing on his previous emails and includes humor to deflect the fact that I'm dismissing him - so yes, the smiley face is very deliberate... Can't ignore him and can't just give him the scientific story - that would only lead to follow up question. I'm hoping that by including "extremely busy" I'll also be able to deflect requests for a call - and also gives me a get out of jail card for ignoring a potential request...

Hi Don,

National security? White House? Spooks? I wish my life was that exciting, but I unfortunately don't have anything to add here - my existence isn't really in Technicolor, so I'm just focused on the science ;-). Specifically, we have been trying to understand the timing, origin, and transmission of the virus. As we outline in our "Proximal Origin of SARS CoV2" post on Virological, the data is consistent with a natural scenario and inconsistent with a scenario involving any type of deliberate genetic engineering, including a bioweapon.

Our post on Virological is currently under peer review and we're still getting feedback from a lot of people to ensure that once published, the scientific message will be as clear as possible. In parallel, we're

19 Jul 2023

HOME \ NEWS \ POLITICS

Biden administration cuts off Wuhan lab from U.S. funding

Cites lack of information, poor safety record

[The Wuhan lab] hasn't received U.S. funding since mid-2020.

The Department of Health and Human Services has determined the lab is "not compliant with federal regulations and is not presently responsible,"





THE PREPRINT SERVER FOR BIOLOGY

New Results

Follow this preprint

The recency and geographical origins of the bat viruses ancestral to SARS-CoV and SARS-CoV-2

Jonathan E. Pekar, D Spyros Lytras, Mahan Ghafari, Andrew F. Magee, Edyth Parker, Jennifer L. Havens, Aris Katzourakis, Tetyana I. Vasylyeva, D Marc A. Suchard, Alice C. Hughes, Doseph Hughes, David L. Robertson, Simon Dellicour, Michael Worobey, Joel O. Wertheim, Philippe Lemey
 doi: https://doi.org/10.1101/2023.07.12.548617

This article is a preprint and has not been certified by peer review [what does this mean?].

30 and 26 breakpoint positions were detected for the two virus subgroups.

"we find that the closest-inferred bat virus ancestors of SARS-CoV and SARS-CoV-2 existed just \sim 1-3 years prior to their emergence in humans"