Twitter Thread by Alina Chan



Alina Chan
@Ayjchan

going to investigate Covid-19 originating from frozen foods rather than #laborigins because lab leak too unlikely based on what the Wuhan lab personnel told them.

> More work also needs to be done to understand "the possible role of the cold chain, frozen products in the introduction of the virus over a distance\u201d, says @Peterfoodsafety.
>
> — Kai Kupferschmidt (@kakape) February 9, 2021

Not too confident that this @who team has much insight to the lab leak hypothesis - the WIV's SARS research was done at BL2 and BL3 all these years, not BL4. Team could benefit from a lab leak/biosecurity expert weighing in on their report. https://t.co/eA4a8xzNow

> Team also looked at the BSL4 lab in Wuhan Institute of Virology and "it was very unlikely that anything could escape from such a place\u201d, says @Peterfoodsafety.
>
> — Kai Kupferschmidt (@kakape) February 9, 2021

So the team says the virus was spreading before the Huanan market but that intermediate host is still the most likely #originsofcovid I'm keen to see the evidence that points to an intermediate host. Also, no mention of pangolins now? #pangolinpapers https://t.co/nQDILru96E

> Picture becoming clearer of Huanan market being just part of the spread of #sarscov2 in Wuhan in December, says @Peterfoodsafety. \u201cIt was not just only a cluster outbreak in the Huanan market, but the virus was also circulating outside of the market."
>
> — Kai Kupferschmidt (@kakape) February 9, 2021

Full press conference 2 hours here - see everyone on the other side... https://t.co/m2AOn7VadE

Thanks @WHO and also for endorsing the frozen food origins hypothesis. I imagine it's raining bonuses in China now for reporters: "WHO will investigate how killer virus that caused the covid pandemic may have first arrived in Wuhan, China via imported frozen fish..." https://t.co/5uKwqNYHA3



> Beijing has now successfully managed to both host an international investigation and suppress the lab leak theory
>
> — Dr Filippa Lentzos (@FilippaLentzos) February 9, 2021

@dctrjack good summation of key announcements at the @WHO #originsofcovid press release:

Tens of thousands of animal samples in China all tested negative for the virus, so where's the evidence pointing to intermediate host?
https://t.co/DmusS07W4s

Sampling other species of animal:

- "Sampling of bats in Hubei province has failed to find evidence of SARS-CoV-2 in native viruses, and sampling of wildlife in different places in China has so far failed to identify the presence of SARS-CoV-2," said Wannian.
- 11,000 samples from different kinds of animals like "pig, cow, goat, chicken, duck and goose" from 31 provinces in China across 2019 and 2020 and all were negative for SARS-CoV-2.
- 1,914 serum samples from 45 different species of wild animals, collected between November 2019 and March 2020, were all negative for SARS-CoV-2.
- 50,000 samples of wild animals covering 300 different species were tested via PCR and all tested negative for SARS-CoV-2.

To be fair to the @WHO I recommend that everyone listen to the full 2hour 48min presser, but if you only have 2 hours, I suggest starting at minute 42. By this point the Chinese part of the investigation has explained how the investigation works... https://t.co/m2AOn7VadE

Essentially, the WHO team is only allowed to build on what China has already investigated (min 13). They're not investigating from scratch or reproducing findings.

See my hot takes on the WHO investigation terms of reference released in Nov 2020. https://t.co/a1hWhJFPzU

> 9-page Nov 5, 2020 meeting report: WHO-convened Global Study of the Origins of SARS-CoV-2
>
> What is the @WHO approach to investigating the origins of SARS2? Possibly the biggest mystery of our lifetime.https://t.co/1u2RKWYrqJ
>
> — Alina Chan (@Ayjchan) November 9, 2020

See also an article @mattwridley and I published in the @WSJ on "the inadequacy of WHO's current investigative framework for exploring all plausible origins of Covid-19."

https://t.co/wXqfSWSDTX

https://t.co/qU7rgUE24q

By minute 42 of the presser, we've been told that they believe that the pandemic virus was likely highly adapted for humans, but have found no evidence of substantial spread of COVID in Wuhan in the 2 months prior to Dec 2019 (~min 36) after reviewing all of their records.

At min 42, the Chinese part of the @WHO investigation says all of the animal & animal product testing at Huanan seafood market turned up empty for SARS2. Earlier in the presser, they had said that the market was just a cluster and the virus had been spreading prior to the market.

They go into detail saying that cold chain origins of the virus is still an ongoing investigation...

Transitioning into the non-Chinese part of the @WHO team, recommend min 52:20 @Peterfoodsafety says "and you heard some of the key findings from (the Chinese counterpart)"...

Up to minute 59, similar key points are repeated - that no substantial circulation prior to Dec 2019 in Wuhan was apparent, the market was only a later cluster and not likely the original source of the virus.

@Peterfoodsafety says all the work continues to point towards natural reservoir in bats - agreed! - continues saying, Wuhan is a very unlikely place for direct bat to human SARS2 spillover - also agreed!

~1h 1min "coming from different parts of the country, and some of the products were also imported products... the potential to continue to follow these leads and further look at the supply chain and animals that were supplied to the markets in frozen

and other processed... form"

~1h 6min, the 4 origins hypotheses are introduced.

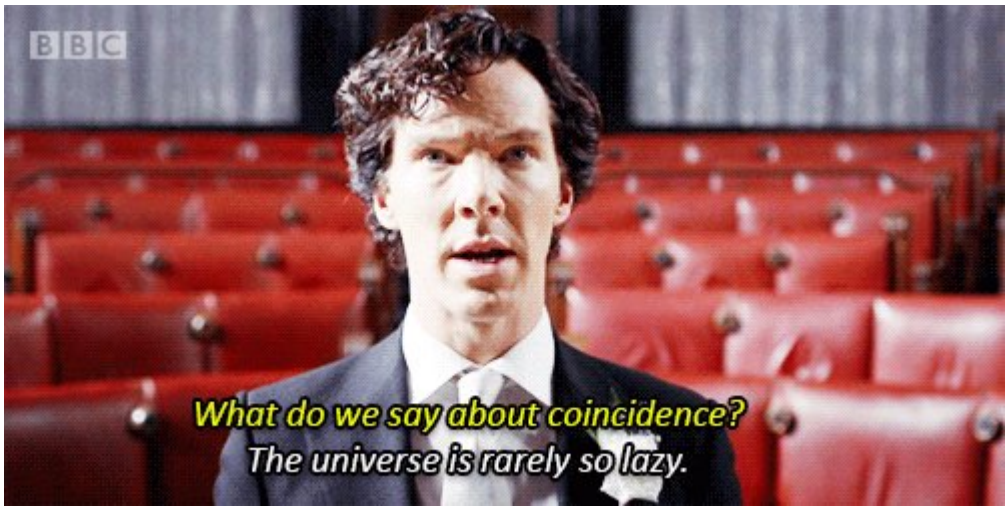
Can I please seek clarification on which team member dared to put forward strong arguments FOR a lab leak during your discussion process? (While you were all physically inside China.) I don't think even I have that bravery.

#originsofcovid
(1) Direct animal reservoir > human transmission

(2) Introduction through intermediate animal host closer related to humans (adapt, circulate) > humans

(3) Cold chain/food transmission, frozen foods in particular

(4) Lab-related incident #laborigins



@Peterfoodsafety said initial findings lean towards intermediate host "most likely", 1:12 "similarly and connected to this hypothesis is also the one including the possibility of transmission through the trade of frozen cold chain products" - listen to the Chinese translation...

I'm translating with super broken Chinese. Not my first language or that of my parents... The Chinese translator says, similarly through cold chain frozen products pathogens transmission into humans is also very likely.

Had to re-listen to this part again and again to check.

1:14:30
@Peterfoodsafety
"however the findings suggest that the laboratory incident hypothesis is extremely unlikely... therefore is not an hypothesis that will suggest future studies"



Ok, @WHO I know you don't think that you endorsed the frozen foods hypothesis, but, if so, you may need to issue a correction on the Chinese translation of what @Peterfoodsafety said. The translator translated Dr Ben as saying that cold chain transmission is highly likely.

Because ~1:25:30, after saying that the virus bat reservoir could've been outside China, you say that you have to do much more investigation of cold chain/frozen products in the introduction of the virus over a distance... can you understand how this could be misinterpreted?

1:29:13 "possible path from whatever original animal species all the way through the Huanan market could've taken a very long and convoluted path involving also movements across borders, travels etc." ... therefore interesting to follow up with individuals in other countries.

I saw this report from a Chinese news outlet this morning and thought they must've misrepresented the @WHO presser but actually they were reporting correctly from the Chinese translation of the presser.

https://t.co/lZXgPsggOG

> Unfortunate but unsurprising misrepresentation of the @WHO team's investigation by Chinese news media. I'm not going to share their posts or sites. pic.twitter.com/Gzh15p9aKG
>
> — Alina Chan (@Ayjchan) February 9, 2021

~1:44:00 @Peterfoodsafety "... as I mentioned among the more interesting products where frozen... animals" providing clues or directions for the next round of studies.

I recommend watching the flanking video to ensure I'm not taking this of context.
https://t.co/m2AOn7VadE

Chinese counterpart reaffirms this answer, saying that Huanan market may not be the original source of the outbreak due to several pieces of evidence, and that ~1:53:15 several possible introduction pathways into the market including cold chain.

And the part we've all been waiting for 1:54:00 @SkyNews questions the @WHO team: of the 4 hypotheses, the only one you decisively rejected was the laboratory incident.



@Peterfoodsafety says lab accidents happen once in a while, ~1:55:30 "nowhere previously was this particular virus researched or identified or known... no publication, no reports of this virus..."

Hearing from relevant lab staff about staff health monitoring program, audit program, looked at WIV BSL4 "it was very unlikely that anything could escape from such a place" https://t.co/zKcNHCH7tv

> Not too confident that this @who team has much insight to the lab leak hypothesis - the WIV\u2019s SARS research was done at BL2 and BL3 all these years, not BL4. Team could benefit from a lab leak/biosecurity expert weighing in on their report. https://t.co/eA4a8xzNow
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~2:03:00 Chinese counterpart concurs, says whole global scientific community has refuted that SARS2 was engineered (who said so?) and that "in all the laboratories in Wuhan there is no existing virus of SARS-CoV-2... no way that this virus would be leaked"



LAST QUESTION ~2:14:20
@WSJ asks are there any signs of an intermediate host? Do you have info, data, samples regarding gain-of-function research regarding the closely related coronaviruses at WIV to SARS2?

@MarionKoopmans says no animals at the market were positive for the virus, but some of the supplied animal species are susceptible to the virus, so maybe these animals were there at the market prior to sampling (even though market isn't likely the original outbreak source...)

@Peterfoodsafety says they interacted with WIV, visited the labs, got a detailed description of their research. OK, but if you're looking at the daily logs of a lab for the past several years, it wouldn't take only 2 weeks. Will wait for the full report, but I seriously doubt...

... that the @WHO received access to the full extent of lab records, databases, personnel health records required to confirm that no lab-related incidents involving SARS-like virus occurred in Wuhan city or involving lab personnel working with Wuhan labs.

~2:26:00 mark: the animal sampling - ALL NEGATIVE for SARS2 virus. Listened to both English and Chinese: tested 11K different animals eg pigs cows goats chickens ducks goose across 31 Chinese provinces since 2019; in // 12K swab samples; 26800 animals samples across 24 provinces.

~2:29:20 wild animals testing: Nov '19 - Mar '20, 1.9K serum samples, 35 species. All antibody negative. Before & after COVID outbreak, from Huanan market, Wuhan municipality, and other cities in Hubei and neighboring provinces, 50K wild animal samples 300 species - PCR negative.

~2:31:00 @AFP journalist asks about overseas #originsofcovid narrative. @MarionKoopmans says they reviewed the few papers pointing at early European cases, but no conclusive remarks on the matter whether it is likely at all that covid cases could've appeared in Europe pre-Wuhan.

~2:41:20 @Peterfoodsafety talks about experience talking to early cases that they're just normal people doing normal office work instead of having special activities like hiking in the mountains or having special pets.

Made it through this ~3-hour presser, replaying parts of it to ensure I got it correct (happy to be corrected if any of the content I tweeted is wrong).

Next person inviting me for a podcast, let's make it ~3 hours long so we can ask people "have you listened to all of it, huh?"

I feel like the @WHO is a bad boyfriend. Every time you do something horrible, you convince me to trust in you again because you had reasons, and then you smash that trust to bits.



Just get yourselves physically out of China and then we'll listen to what you have to say, ok?



Thread by one of the two @WHO non-Chinese team members at the presser: https://t.co/h8X0D0CedV

> De chineze overheid is daar inderdaad stellig in. Feit is wel ook dat oa op de markt producten (bevroren vlees van wilde dieren farms) werd verkocht, en producten uit 20 landen. En amerikaans onderzoek laat tot weken survival zien . Dus was onze conclusie: volg die ketens https://t.co/s3T7SIOME2
>
> — Marion Koopmans (@MarionKoopmans) February 10, 2021