

## The U.S. intelligence community and the roots of the pandemic virus

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### Summary

The U.S. Intelligence Community (IC) report regarding the roots of the SARS-CoV-2, as reflected in a published unclassified summary (August 2021), was excessively inconclusive, and has hence been followed, as a result of President Biden's request, by a more detailed - yet still unduly faint - unclassified summary (October 2021). Assessments of low confidence predominate both summaries. Related methodological, analytical, and motivational issues, which are highly consequential, lead to focusing on the U.S. IC within that context. Inevitably, the outcome embodies much criticism.

### The U.S. intelligence reports about the roots of the pandemic virus

On May 26, 2021, in a statement issued by the White House<sup>1</sup>, U.S. President Joe Biden noted: “I have now asked the Intelligence Community to redouble their efforts to collect and analyze information that could bring us closer to a definitive conclusion (about the roots of the pandemic, including whether it emerged from human contact with an infected animal or, from a laboratory accident), and to report back to me in 90 days. As part of that report, I have asked for areas of further inquiry that may be required, including specific questions for China. I have also asked that this effort include work by our National Labs and other agencies of our government to augment the Intelligence Community’s efforts. And I have asked the Intelligence Community to keep Congress fully apprised of its work.”

On August 27, 2021, The U.S. Office of the Director of National Intelligence (ODNI) released an unclassified summary of the IC assessment on the roots (direct source and genomic origin) of the COVID-19 pathogen.<sup>2</sup> The core issues of that unclassified summary can be highlighted and commented on, in short, as presented in the following two tables (Table 1 and Table 2).

**Table 1. Different assessments reached by agencies and elements of the U.S. IC regarding the roots (direct source and genomic origin) of the pandemic virus (as of August 27, 2021)**

Assessment confidence level	Assessment content	Argumentative factors Comments	Comments (by authors of the present article)
Moderate (one element of the IC)	The first human infection with SARS-CoV-2 most likely was the result of a laboratory-associated incident, probably involving experimentation, animal handling, or sampling by the Wuhan Institute of Virology.	The inherently risky nature of work on coronaviruses.	Plentiful and diversified, unclassified and declassified information provides many additional argumentative factors that strengthen both the mentioned assessment confidence level and the assessment content.
Low (four elements and the National Intelligence Council)	The initial SARS-CoV-2 infection was most likely caused by natural exposure to an animal infected with it or a close progenitor virus-a virus that probably would be more than 99 percent similar to SARS-CoV-2.	China's officials' lack of fore-knowledge of the virus before the initial outbreak of COVID-19 emerged; the numerous vectors for natural exposure, and other factors.	The two mentioned argumentative factors are weak; particularly in light of various, indirectly opposite data. The term "officials" is not defined. No vectors of the index virus have been detected.
None (three elements)	Coalescing around either of the two above-mentioned assessments is out of reach.	Heterogeneity of estimates, due to the inadequacy of information.	An entirely acceptable approach, generally speaking. Regarded as preferable over low confidence assessments.
Low (most agencies)	SARS-CoV-2 probably was not genetically engineered	Not mentioned	Virus evolution via man-induced serial passages is not referred to at all, otherwise.
None (two agencies)	Assessing whether the virus was genetically engineered or not is out of reach.	No sufficient evidence either way.	The balances of evidence tend anyhow to some human intervention, genomically.

**Table 2. Evaluations reached by the U.S. IC as a whole, in relation to the roots of the pandemic virus (as of August 27, 2021)**

Essence of evaluation	Content of evaluation	Comments (by the authors)
Assessment	SARS-CoV-2, the virus that sparked the pandemic, probably emerged and infected humans through an initial small-scale exposure that occurred no later than November 2019.	An accidental - apparently small-scale - environmental leakage of the virus most likely occurred in Wuhan prior to November, considering various concrete, though circumstantial, evidence.
Judgment	The virus was not developed as a biological weapon.	In what way, however, should be observed the tight interfaces between the PLA and the WIV's coronaviruses programs during the recent decade.
Assessment	China's officials did not have foreknowledge of the virus before the initial outbreak of COVID-19 emerged.	The term 'officials' is not adequately defined - at large or specifically - within this context.
Judgment	China's cooperation most likely would be needed to reach a conclusive assessment of the roots of COVID-19. China, however, continues to hinder the global investigation, resist sharing information, and blame other countries, including the U.S.	A cardinal point that is not referred to concretely is why China resists sharing information concerning the roots of the virus, while there are multiple examples that clearly follow such a Chinese line. The unshared information appears to be crucial.
Judgment	Providing a more definitive explanation for the roots of COVID-19 is out of reach, unless new information allows to determine the virus initial emanation.	An apparent corollary would be, then, the coping between U.S./ NATO/the Five Eyes intelligence systems and China's counter-intelligence system.

President Biden thanked the IC for its work but indirectly admitted that the result it produced was insufficient, and called upon it to continue its effort to have clearer answers to the questions he posed to it in May. At the same time, he criticized China for withholding the information necessary to come up with a better understanding and denying access to it; he further pledged to form international like-minded states appeal to Beijing to change its attitude.<sup>3</sup>

Biden's call upon the IC for clearer answers was met, ostensibly, on October 29, in the form of an "Updated Assessment", produced and published by the ODNI.<sup>4</sup> It included elaborations

referring to a variety of issues related to the roots of the pandemic virus, far beyond the August report, as presented and discussed in the following table (Table 3), but was based on the same information that stood behind the August publication.

**Table 3. Main informational and interpretative elaborations issued by the ODNI in the form of an “Updated Assessment” (as of October 29, 2021)**

General context under discussion	Content of elaboration	comments (by the authors)
Geographical location of the initial SARS-CoV-2 human infection in China	Although all of the earliest confirmed cases of COVID-19 were documented in China's Hubei Province, where Wuhan is located, according to Western and China's press reports, it is plausible that a traveler came in contact with the virus elsewhere and then went to Wuhan.	According to a wealth of heterogeneous information, it is much more plausible that the initial human infection occurred in Wuhan. China's press reports are tendentious (unsurprisingly), and often affect or induce Western press reporting in a manner serving China's interests.
Identity and timing of the primary recognizers of the initial SARS-CoV-2 in humans in China	China's officials probably did not have fore-knowledge that SARS-CoV-2 existed before WIV researchers isolated it, subsequent to infections in the general population.  Suggestively, WIV personnel were unaware of the existence of SARS-CoV-2 until the outbreak was underway (purportedly December 2019).	This observation is incompatible with a range of facts; such as the fact that on September 12, 2019, a critical database regarding viruses collected by WIV was removed from the institute. The removal was explained (much later) by Dr. Shi Zhengli, the principal investigator at the WIV, as a step taken "during the COVID-19 pandemic... to (ostensibly) prevent cyber security attacks."
Location and mode of SARS-CoV-2 contraction by patient zero in China	The IC assesses that information indicating that several WIV researchers reported symptoms consistent with COVID-19 in autumn 2019 is not diagnostic of the pandemic's origins. Even if confirmed, hospital admission alone would not be diagnostic of COVID-19 infection.	Undisclosed cases of human COVID-19 infections probably occurred in Wuhan before the discussed event, in and/or off the WIV.  Off the WIV, an initial, non-human contagion preceding human cases could as well emanate from accidental leaking from WIV, or from an unnoticed transfer of infected animals from WIV elsewhere.
The feasibility of a laboratory-associated incident being the most likely scenario of initial SARS-CoV-2 contagion in China	In general, a variety of arguments led to such an assessment, the only assessment (among others) with a confidence level higher than low (moderate).	The reasoning for this assessment appears the most sound one along with the whole ODNI document. Plenty of additional arguments independently lead to the same assessment.

General context under discussion	Content of elaboration	comments (by the authors)
Aberrant activities at and adjacently to the WIV during 2019 (also before 2019 and thereafter)	Steps taken in fall 2019, as expounded by the Multi-Agency Collaboration Environment, are regarded by the IC to be unremarkable.	Even if correctly regarded (ostensibly) by the IC, a lot of various other aberrant activities did take place at and adjacently to WIV, in a highly suspicious manner, prior to and after patient zero.
The feasibility that SARS-CoV-2 and the initial contagion originated naturally, being the most likely scenario in China	In general, a variety of arguments led to such assessments, overall with a low confidence level, though. SARS-CoV-2 is thereby categorized, tentatively, as just a regular zoonotic virus.	The presented arguments are entirely conceivable, yet they are anchored in a theoretical sphere, thus far; in actuality, there are still no concrete findings to support the case of SARS-CoV-2 being a natural outcome.
The feasibility that SARS-CoV-2 came into being via genetic engineering, or, alternatively, naturally in China	<p>The WIV previously created chimeras, or combinations, of SARS-like coronaviruses, but this information does not provide insight into whether SARS-CoV-2 was genetically engineered by the WIV.</p> <p>A 2017 dissertation by a WIV student showed that reverse genetic cloning techniques left no trace of genetic modification of SARS-like coronaviruses.</p> <p>We still have not observed genetic signatures in SARS-CoV-2 that would be diagnostic of genetic engineering, according to the IC's understanding of the virus.</p> <p>Naturally occurring events of genetic recombination could yield SARS-CoV-2.</p> <p>We have not identified any existing coronavirus strains that could have plausibly served as a backbone if SARS-CoV-2 had been genetically engineered.</p>	<p>Though indirectly, the arguments posed by the ODNI actually attribute feasibility rate to a natural genomic origin, yet such rate which at its maximum would merely equal the feasibility rate of engineered genomic origin, in that:</p> <p>The WIV mastered and practiced the creation of chimeric SARS-like viruses;</p> <p>The WIV mastered and practiced the genetic engineering techniques that leave no genomic signatures or traces;</p> <p>Albeit possible in principle, the chances for natural origination are considerably lower than engineered origination, statistically, given the multiplicity of human-adapted traits of the index virus, which are widely regarded to constitute an unordinary cluster;</p> <p>A variety of important existing bat coronavirus strains isolated (and often upgraded) by WIV are currently hidden, hence cannot be referred to.</p>



General context under discussion	Content of elaboration	comments (by the authors)
Serial passages of a potential progenitor virus through experimental animals and/or cell cultures (laboratory adaptation), as a possible mode of SARS-CoV-2 genome origination.	<p>The process would require the differentiation and maintenance of primary cells, and the development of appropriate animal models.</p> <p>The process probably would take years.</p>	<p>The mentioned requirements have been accomplished in WIV by 2019. Within the time period from 2013 (i.e. the Mojiang mine events) to 2019 should well suffice.</p> <p>Moreover, the process could conjoin or substitute for genetic engineering.</p>
Possible linkages between SARS-CoV-2 and China's biological warfare programs (offensive/defensive)	Claims that SARS-CoV-2 was created in China as a biological weapon, as expounded by a Hong Kong virologist, are invalid due to scientific inadequacy.	Irrespective of that observation, there are multiple indications of WIV having particular ties with the Chinese army, which demand clarifications.
Inadequate reporting by China, as for the following issues (next column):	<p>a. reservoir and potential intermediate species of the virus;</p> <p>b. identification of a progenitor virus that gave rise to the pandemic virus;</p> <p>c. leading candidates or regions for spillover.</p>	<p>a. with special reference to laboratory and other experimental animals;</p> <p>b. with special reference to the related viral strains dealt with in Wuhan labs;</p> <p>c. with special reference to experiments done in the Mojiang mine (as a possible alternative source of initial contagion).</p>
Undisclosed data held by China, and institutionalized reporting coming from China	<p>The global scientific community does not know exactly where, when, or how the first human infection with SARS-CoV-2 occurred.</p> <p>Closing persistent information gaps on the origins of COVID-19 is very likely to require greater transparency and collaboration from Beijing.</p> <p>However, at least some relevant data on coronaviruses of interest has either been unavailable or has not been published by the WIV; particularly, in reference to coronaviruses isolated in Mojiang mine.</p>	<p>In principle, published information pertaining to the WIV and coming from China might potentially be misleading, at least since July 2019, when China's Dr. Xiangguo Qiu was evicted in Canada (a severe affair apparently not connected to SARS-CoV-2).</p> <p>The undisclosed information China holds is essential for tracing the virus' roots.</p> <p>Nonetheless, diagnosticity should not necessarily rely on direct evidence; circumstantial evidence often leads, vitally, to moderate, even high-level confidence of diagnosticity, especially when there is a lack of direct evidence.</p>

## Estimate

By demanding clearer answers after the August report appeared, President Biden has done the right thing; but if concrete answers can be reached only with China's goodwill, and if most evaluations of the IC are some low confidence judgments and assessments regarding a critical factual question, then another question emerges – what is the added value of intelligence in such a case?

Low confidence assessments may be acceptable when the IC deals with vague issues that we sometimes refer to as riddles or mysteries. For example, what was the motivation of a certain individual or group to act in a certain way, and what may happen if a certain ruler passes away, or if the US leaves a certain country? In the riddles, the answers are known to some people but are not accessible, and it is hard to determine which is the right one. In the mysteries, there is no real answer, as it refers to developments that have not happened yet. Nevertheless, there is an expectation from the IC to be able to provide assessments and judgments with some substance about such issues.

In the case of SARS-CoV-2, the questions posed to the IC are factual questions, belonging to a different category. It is the category of secrets. In this domain, the answers are known and well defined, and are out there for the intelligence to find them. This is the first Raison D'être of intelligence – to reveal secrets that somebody protects and makes an effort to deny you access to. Assessing with low confidence an answer to this kind of questions may not be good. It is especially so, since the WIV should obviously have been a high priority target for the IC, and particularly for the National Center for Medical Intelligence (NCMI), long before SARS-CoV-2; and much more so in the year and a half of time that has elapsed since

SARS-CoV-2 was first identified. There is no doubt that huge efforts were directed to obtain access to the required information, but judging by the unclassified summary it seems that they did not bear the expected results at all. This reflects probably the difficulties of getting such information, but if this is the case the best way to respond would be to simply say that the IC does not have enough reliable information to provide answers with sensible confidence, other than the one moderate confidence assessment, which it did reach.

Thus, the actual contribution, if any, of low confidence intelligence assessments is critically doubtful, as a principle. It would seem much more reasonable, if not definitive, that the minimal level of confidence of an intelligence assessment ought to be 'moderate', so as to be regarded as valid, hence contributory, within the context of factual intelligence issues. Moreover, the acceptance of low confidence assessments – particularly when there are many of that kind (majority, in the present case) – might probably be misleading, given the consumer's normal inclination to follow the content of an assessment, rather than pay attention to its confidence level. Therefore, it would be advisable, as a principle, to refer to low confidence level assessments as equivalents to out-of-reach-assessments (due to the inadequacy of information).

Irrespective of the above, which is a fundamental methodological essential, the ODNI August unclassified summary appears to be faint, to say the least, in light of the U.S. State Department Fact Sheet (January 15, 2021 – “Activity at the Wuhan Institute of Virology”),<sup>5</sup> and the U.S. House Foreign Affairs Committee Report Minority Staff (August 2, 2021 – “The Origins of COVID-19: An Investigation of the Wuhan Institute of Virology”),<sup>6</sup> which strongly points to a lab-

leak scenario. The two latter documents are much unlike the former. The differently oriented politics of the Republicans and the Democrats cannot be regarded as the sole, not even the main reason for the far distance between the contents of the two latter documents and the ODNI ostensibly predominant version that the initial SARS-CoV-2 infection was most likely caused by natural exposure (four IC elements and the National Intelligence Council; low confidence). Neither could the main reason be the fact that the two early documents were formally not a product of the IC, considering the fairly detailed argumentation and clarifications posed by Dr. David Asher (currently affiliated with Hudson Institute) after the Fact Sheet had been published (and earlier considerably structured by him).<sup>7</sup>

One cardinal reason does seem to be, then, the methodology that acknowledges the validity of intelligence assessments based on low confidence level, within the context of factual intelligence issues. The opposite methodology, as described above, is the much preferable one, and would overshadow the unneeded complexity argued in the ODNI unclassified summaries, posed as: “Variations in analytic views largely stem from differences in how agencies weigh intelligence reporting and scientific publications, and intelligence and scientific gaps.”

Subsequent to the ODNI August report, two remarkable letters were sent during September from other committees of the U.S. Congress, in reference to that report. One letter, coming from the Committee on Oversight and Reform, asked the DNI to provide “all raw intelligence reports, meeting notes, and emails relied upon by the IC to develop the Assessment”, because the assessment was “unacceptable” and “only served to provide more confusion.”<sup>8</sup>

The second letter, sent from the Permanent Select Committee on Intelligence Minority to President Biden, noted: “Shockingly, ODNI has repeatedly refused to tell the Committee which scientists the IC consulted... Surely you can see the absurdity of ODNI withholding this information from us... Without this information, we cannot find the IC’s report remotely credible.”<sup>9</sup>

The IC October report detailed much of the process through which the final assessments and judgments were developed within 90 days; it was still unduly faint, though. It included an opening session in which the questions of inquiry were determined, and the collection was charged with requirements and later on two analysis sessions were held, in which two Structured Analysis Techniques were used. In the first session representatives of the various agencies conducted an Analysis of Competing Hypothesis (ACH) that led to the conclusion that most reporting was consistent with both hypotheses and the reporting that was inconsistent was deemed to be not credible. Such ACH was probably done by the agencies separately and led them to different assessments with low confidence. Before the start of drafting, the National Intelligence Council (NIC) hosted a wide Team A/Team B analytic exercise to explore how the IC could strengthen either hypothesis through a debate-style format. Agencies pulled from these conversations – along with the work conducted during and before the study – to solidify their consensus positions. Then the NIC conducted four rounds of outside review of the draft assessment. These sessions, according to the report, provided valuable feedback that was incorporated into the assessment.

It is not clear from the unclassified summaries what other methods were used by the various agencies. Anyhow, providing



assessments with low confidence to a factual intelligence question is not contributing real value and is insufficient. Even the contribution of moderate confidence assessments is debatable, unless a high confidence one is out of reach (as is the case, purportedly, with the ODNI reports under discussion). It would hence have been better if the IC simply said it is unable to come up with more valuable answers – beyond the moderate confidence assessment it generated – and excluded the low confidence assessments. No wonder that the faint message emanating from the report was heavily criticized, and raised a question mark about the IC's ability to have adequate access to priority intelligence requirements in China; as well as an actual possibility that the assessments were presented this way to help avoid increasing tensions with China.

The ODNI unclassified summaries do not clarify whether all the mentioned intelligence agencies and elements had the very same informational base, and the very same scientific consultants. Further, it is quite obvious, in general, that the capacities and eminence of the related agencies and elements vary within the U.S. IC, yet there isn't any such connotation in the present case.

Moreover, the ODNI unclassified summaries do not mention anything as to whether they rely on, i.a., on U.S. important domestic intelligence resources, such as EcoHealth Alliance and North Carolina University (just two examples among many); as well as important external intelligence resources, such as NATO and the Five Eyes. This factor might be crucial, due to the interactions of multiple Western and Australian academic institutions and suppliers with various research facilities across China, and particularly in Wuhan, during the last decade.

Former DNI John Ratcliffe (replaced on January 20, 2021), and others, implicitly – yet unequivocally – questioned the extent to which the IC report was devoid of the possible impact of its findings, as it should have been. Ratcliffe said on September 20, 2021, in reference to intelligence analysts he interacted with while in office: “the people that had the most access to the most intelligence, are telling you that the most likely origin of COVID-19, of the Wuhan virus, was a lab leak at the Wuhan Institute of Virology. This is really most likely what happened... It is probably a certainty... When we looked more closely at the WIV, a lot of scientists, like Dr. Peter Daszak and Dr. Anthony Fauci, were saying there is no live bats there, there is no gain of functions research there, there is no military there; and we had intelligence that was telling us all of those things were occurring there... There is compelling intelligence that hasn't been declassified... I think the time has come for the Biden administration to declassify additional information that would, again, (provide) more evidence...”<sup>10</sup>

Further, former FBI Assistant Director Kevin Brock commented (20 Sep 2021) on the ODNI August report: “We have the intelligence community that can get to the truth on this (the roots of the pandemic virus). The question is, do we have the will? Are there political, are there foreign international relation issues that come into play, that obfuscate us finally getting to the truth?... The (ODNI August) report, to me, indicates that there may have been more behind the scenes toward downplaying this question than it may seem. Our intelligence community is filled with people, analysts who can do analysis, specifically when there's as much open-source material available. I'm not convinced that we are flying so blind in China right now from an intelligence collection standpoint that this report

intimates. That's just not the truth. We have good sources, we have good methods, we have good tactics, and we should be able to aggregate the intelligence that we need as a government to formulate policy going forward. So the question becomes, then why did they issue a report like this?... There are political influences exercised in this country (US) by China in a very sophisticated way against our politicians that can sometimes compromise from a conflict of interest's standpoint. I think we have to be honest about that. So all of these factors come into play and ultimately result in a concern that perhaps our quest for truth is being downplayed or blocked in some way."<sup>11</sup>

Obviously, the FBI is supposed to obtain factual information, as well as opinions and impressions, from persons and institutions in the U.S., concerning their full interfaces with Chinese partners, either actual or tentative; as well as to interfere, when needed. Fairly complicated, yet potentially highly fruitful (and indeed, there is a version maintaining that the above-mentioned one moderate confidence-based assessment is the FBI's<sup>12</sup>). A parallel complexity, if appreciably variant, marks the interactions of the CIA with its allies within NATO and the Five Eyes.

Speaking about the period when he led the CIA (January 2017 – April 2018) Mike Pompeo referred – in an interview that dealt with the intelligence relating to the pandemic virus – to the entanglement of this duty, in general: “As former director of the CIA, I was always worried that we were collecting information, but we were not able to process it efficiently and timely get that information to the right places.”<sup>13</sup>

The domestic interactions among the agencies comprising ICs, and the domestic interfaces between ICs and governments are known to be problematic worldwide, quite

often; certainly, more than should be expected, objectively. Alike is the interplay between intelligence collection and analysis systems. Those ought not to be the cases, nonetheless, whenever they concern a colossal issue such as the roots of the pandemic virus. Let alone – the collaboration among ICs of different countries, which is highly imperative under such circumstances.

Finally, it was recently disclosed that the WIV (together with EcoHealth Alliance) intended to artificially incorporate human-specific furin cleavage sites into an unspecified SARS-related bat virus, transform it into a dispersible aerosolic form, and spray it in the Mojiang mine, so as to experimentally vaccinate bats residing therein. A pertinent research proposal asking for funding was submitted in 2018 to the U.S. Defense Advanced Research Project Agency and rejected, due to being hazardous, as explained: “It is clear that the proposed project... could have put local communities at risk.”<sup>14</sup>

But this does not mean it has not been carried out by WIV. The collaboration with EcoHealth and, alongside, the corollary joint research proposal (looking for more than a U.S.\$14 million grant) were highly desirable for WIV – in various senses meeting one common Chinese optimal modus operandi, which combines such peculiarity with legitimacy, finance, sophisticated know-how, upgraded constituents, and scientific spying – yet not a necessity. WIV could *well have* carried out this research project, hence, on its own, eventually, and into 2019. The uncanny experimental layout of that research proposal, overall, is noticeably suspicious and obviously consistent with the lab-leak scenario. Surprisingly or not, this basically unclassified research proposal has been leaked by an anonymous whistleblower, in September 2021. Much earlier, already in 2018, it should have been

regarded to be a meaningful warning signal, if not a concrete alert. Surprisingly or not, additionally, this highly intriguing affair has not been mentioned at all in the ODNI's unclassified documents.

Dr. David Asher, who officially and thoroughly inquired into the roots of the pandemic virus, was critical and direct in reference to the ODNI's October document at large: "Personally, I find it startling and almost a disgrace to the nation's intelligence or the international intelligence."<sup>15</sup>

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## **Endnotes:**

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<sup>2</sup> Office of the Director of National Intelligence, *Unclassified Summary of Assessment on*

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<sup>3</sup> The White House, *Statement by President Joe Biden on the Investigation into the Origins of COVID-19*, August 27, 2021 <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/27/statement-by-president-joe-biden-on-the-investigation-into-the-origins-of-covid-%E2%81%A019/>.

<sup>4</sup> Office of the Director of National Intelligence, *Updated Assessment on COVID-19 Origins*, October 29, 2021, <https://www.dni.gov/files/ODNI/documents/assessments/Declassified-Assessment-on-COVID-19-Origins.pdf>.

<sup>5</sup> US Department OF State; Fact Sheet: *Activity at the Wuhan Institute of Virology*, January 15, 2021, <https://2017-2021.state.gov/fact-sheet-activity-at-the-wuhan-institute-of-virology/index.html>.

<sup>6</sup> U.S. House Foreign Affairs Committee Report Minority Staff, *The Origins of COVID-19: An Investigation of the Wuhan Institute of Virology*, August 2, 2021, <https://gop-foreignaffairs.house.gov/wp-content/uploads/2021/08/ORIGINS-OF-COVID-19-REPORT.pdf>.

<sup>7</sup> Dany Shoham, *The Quest for the Coronavirus Progenitor: Integrating Intelligence and Science*, BESA Center Perspectives Paper No. 2,022, May 11, 2021, <https://besacenter.org/the-quest-for-the-coronavirus-progenitor-integrating-intelligence-and-science/>

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<sup>9</sup> Permanent Select Committee on Intelligence Minority, *Letter to U.S. President*, September 24, 2021, [https://www.scribd.com/document/527612374/House-Intel-Letter-to-Biden-Admin#download&from\\_embed](https://www.scribd.com/document/527612374/House-Intel-Letter-to-Biden-Admin#download&from_embed)

<sup>10</sup> Sky News Australia special investigation: *What Really Happened in Wuhan*, September 27, 2021, [https://www.youtube.com/watch?v=oh2Sj\\_QpZOA&ab\\_channel=SkyNewsAustralia](https://www.youtube.com/watch?v=oh2Sj_QpZOA&ab_channel=SkyNewsAustralia).

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