CHAIRMAN RAND PAUL, M.D.

U.S. SENATE COMMITTEE ON HOMELAND SECURITY & GOVERNMENTAL AFFAIRS

Chairman Rand Paul is releasing new documents from the Committee's ongoing investigation which reveal **Dr. Anthony Fauci's** deep connections to the national security apparatus, which positioned him to **influence the COVID-19 origins debate** across the scientific community, the intelligence community, and the public. The release follows the Committee's May 13, 2026 hearing with **CIA Whistleblower James Erdman**, who testified that Fauci steered analysts working on the Intelligence Community's COVID-19 origins assessment toward the NIH funded scientists behind the Proximal Origin paper.

2003–2020 FAUCI'S TIES TO THE INTELLIGENCE COMMUNITY PREDATED COVID BY NEARLY TWO DECADES

AUGUST 2003

Fauci's feedback incorporated into a published **National Intelligence Council** paper on SARS as a formal reviewer.

NOVEMBER 2003

Fauci received a copy of a **CIA report** titled "The Darker Bioweapons Future," which warned that pathogens could be **genetically engineered** to be **more dangerous.**

SEPTEMBER 2007

Fauci invited by Robert Joseph and Ash Carter to meet with an outside review panel commissioned to look at future directions for DTRA's CWMD activities.

MARCH 2020

Fauci is invited to speak at the Spring 2020 meeting of JASON — a secretive external advisory group that advises the national security agencies.

2020 DR. FAUCI HELPED STEER THE EARLY COVID-19 ORIGINS DEBATE THROUGH NIAID-FUNDED EXPERTS

JANUARY 31

Kristian Andersen alerts **Fauci** to **concerns** about the virus's **furin cleavage site**; **Fauci** urged Andersen to assemble scientists to evaluate the issue and, if they agreed, report it to the **FBI and MI5**.

FEBRUARY 1

AM — Fauci informed that the National Academies will convene a call with gene-editing and coronavirus experts on February 3.

PM — Fauci joins a call with a group of scientists convened to discuss concerns that the **virus looked engineered**; several of the participants then begin drafting what later became the **Proximal Origin paper**.

FEBRUARY 3

Fauci participates in the **National Academies call** to "determine the origins of 2019-nCoV", which included Andersen, Peter Daszak, Ralph Baric, and federal officials from the **intelligence community** and other government agencies.

MARCH 6

Andersen tells **Fauci** and then-NIH Director Francis Collins that Nature Medicine will publish the **Proximal Origin paper** thanking them for their "advice and leadership." Collins forwards the email with NIH, noting he and **Fauci** helped "but are appropriately not mentioned explicitly."

MARCH 17

Nature Medicine publishes **"The Proximal Origin of SARS-CoV-2,"** concluding "[o]ur analyses clearly show that SARS-CoV-2 is not a laboratory construct or a purposefully manipulated virus."

2021 FAUCI THEN FED THE INTELLIGENCE COMMUNITY THE VERY "SCIENCE" HE HELPED ORCHESTRATE

MAY 26

President Biden ordered the Intelligence Community to conduct a **90-day review** of the origins of COVID-19.

JUNE 4

The National Security Council (NSC) convened a **classified briefing** for **Fauci.**

JUNE 9

HHS worked to bring **Fauci** into a Deputies Committee meeting so sensitive it required one-time read-ins "through two IC agencies" for roughly nine compartments.

JUNE 21

Following a **"challenging briefing"** weeks before, NSC notifies **Fauci** that a **"read file"** was prepared to review **"in line with what has been provided to other senior Administration officials and the President"**, which could not leave "the complex."

JUNE 28

The Intelligence Community requested **HHS/NIH share information** relevant to its ongoing assessment.

JULY 8

A day after a classified reading-room session, **Fauci** forwarded the NSC a new preprint by the same **Proximal Origin authors** — Andersen, Bob Garry, Eddie Holmes, Jeremy Farrar, Andrew Rambaut — calling it the work of "a group of highly qualified virologists" that "summarizes what I said yesterday," and asked for it to be shared.

AUGUST 13

A DoD whistleblower filed an IG complaint over EcoHealth's 2018 DARPA **DEFUSE proposal** with the **Wuhan Institute of Virology**, Ralph Baric, and others to insert a **furin cleavage site** into a chimeric virus.

AUGUST 25

Twelve days later, the NSC invited **Fauci** to review a **"very interesting report"** on the "same topic as before" that they believed would be worth his time. **Fauci** later said the report was **"important"** and told his staff he would go down to the White House to read it.

From: [redacted]@nic.odci.gov>

To: "Afauci@niaid.nih.gov" <Afauci@niaid.nih.gov>

Cc: [redacted]@nih.gov" [redacted]@nih.gov>

Subject: Request for review of NIC paper on SARS

Date: Wed, 30 Jul 2003 23:38:02 -0400

Importance: Normal

Attachments: ICA_SARS_072503_unclass.doc; ICA_SARS_072503_unclass.pdf

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Dr. Fauci;

Attached below is a draft paper by the National Intelligence Council on "SARS: Implications for the US." We would greatly value your feedback in reviewing the text. Please let us know if we can cite you by name and title as a reviewer in the opening page. [redacted] at CDC and [redacted] are reviewing the paper as well.

The focus of this paper is fairly modest: we highlight the various reasons why we need to stay vigilant for the potential return of SARS and then explore several scenarios that US policymakers might have to deal with if the disease resurges.

Thank you for taking time out of your busy schedule to review the paper.

The National Intelligence Council is beginning its research effort for "Global Trends 2020"--a multidisciplinary look at the key trends shaping world dynamics over the coming decades, and we would love the opportunity to chat at some point with some NIH folks about their long term expectations on health issues.

Thanks

[redacted]
Deputy National Intelligence Officer for Global Issues
National Intelligence Council

Below is a PDF formatted version.

From: "Bernard, Kenneth" [redacted]@who.eop.gov>
To: AFAUCI@niaid.nih.gov, [redacted]@hhs.gov
Subject: Fw: NIC on SARS
Date: Thu, 28 Aug 2003 14:28:22 -0400
Importance: Normal
Attachments: NIC_on_SARS.pdf

-----Original Message-----
From: [redacted]@ucia.gov>
To: [redacted]@cdc.gov>; [redacted]
[redacted]@aei.org>; Bernard, Kenneth [redacted]@who.eop.gov>;
[redacted]j@mail.vetmed.lsu.edu>; [redacted]@mail.nih.gov>
Sent: Thu Aug 28 10:53:42 2003
Subject: NIC on SARS

Dear Colleagues :

Attached is the unclassified copy of the NIC's latest publication on SARS. It has not yet been posted to the website, but I wanted to forward you a copy as soon as I could.

We are happy to have completed the publication and joke amongst ourselves that, "Now, it had better come back . . ."

Apologies for the lack of references, but that is the existing style. (I am lobbying hard to get them to change that on unclassified publications - they are considering it for Global Trends 2020 due out in 2004).

Have a nice holiday weekend!

[redacted]

From: [redacted]@nic.odci.gov>

To: AFauci@niaid.nih.gov, [redacted]@cdc.gov, [redacted]@mail.rockefeller.edu

Cc: [redacted]@niaid.nih.gov,[redacted]@nic.odci.gov

Subject: NIC paper on SARS published

Date: Fri, 29 Aug 2003 00:13:30 -0400

Importance: Normal

Attachments: 56797book.pdf; ICA_SARS_FORMATTED_20_Aug.doc

Dr. Fauci, Dr. [redacted], and Dr. [redacted]:

I would like to thank all three of you for reviewing the National Intelligence Council (NIC) paper on SARS, which just has been published. Each of you provided insightful comments which we incorporated into our final draft, and it is an honor to have folks of your stature and experience provide feedback on our work. The NIC has put increasing emphasis over the years on incorporating outside expertise to ensure that our analysis is as broad and relevant as possible, and we greatly appreciate the extra effort you take to help us cover such a tough issue as SARS.

You should know that the paper was posted today on the NIC's public internet website at www.odci.gov/nic. Moreover, we are giving a simple head's up to a handful of journalists who work on health issues as to the existence of the SARS paper. As a result, we want to alert you to the possibility that some journalist may contact you with questions about the paper.

The electronic version of the paper is attached below in both PDF and Microsoft Word formats. We are also mailing you the paper in hardcopy as well.

FYI: no classified version of this paper was done. The NIC decided that, given the nature of the SARS threat and the efforts to respond, an open discussion of the dynamics and prospects was the most constructive way to go.

Thank you again for your assistance.

[redacted]
Deputy National Intelligence Officer for Global Issues
National Intelligence Council

PDF format version

Microsoft word version (without 2 overside fold out graphics)

From: "Culp, Donald Lt Col USAF" [redacted]@DTRA.MIL>
To: [redacted]@healthtechnetwork.com, [redacted]@saic.com, [redacted]@mail.rockefeller.edu, [redacted]@johnstondc.com, [redacted]@sri.org, "DiGiovanni, Cleto CIVILIAN" [redacted]@DTRA.MIL>, "Epstein, Gerald CIV" [redacted]@DTRA.MIL>, [redacted]@ha.osd.mil, [redacted]@jhsph.edu, [redacted]@hsc-hq.tamu.edu, afauci@niaid.nih.gov, [redacted]@umn.edu
Cc: "[redacted]@ida.org>
Subject: RE: Review of the DoD Chem/Bio Program Direction
Date: Fri, 12 Sep 2003 12:00:30 -0400
Importance: Normal
Attachments: Maps_and_Directions_to_IDA.htm; Agenda_for_TRAC_Review.doc

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Ladies and Gentlemen,

Attached is additional information for the TRAC review meeting at IDA on 1 October. I have enclosed the current agenda and directions to IDA. Meeting room at IDA will be 9700, which is on the 9th floor.

Please RSVP to me and Deborah Jermunson at IDA so that we know if you are attending.

While discussions will likely not be classified, it is prudent to forward your collateral clearance to IDA nonetheless. Here is the contact info....
[redacted]/IDA Visitor Security (Secret is sufficient), Ph: [redacted], Fax: [redacted]

Let me know if I can be of any further assistance.

Regards,

Lt Col Don Culp, USAF
TRAC Executive Secretary
[redacted]@dtra.mil

-----Original Message-----
From: [redacted]@ida.org]
Sent: Friday, September 12, 2003 7:11 AM
To: [redacted]@healthtechnetwork.com; [redacted]@saic.com; [redacted]@mail.rockefeller.edu; [redacted]@johnstondc.com; [redacted]@sri.org; DiGiovanni, Cleto CIVILIAN; Epstein, Gerald CIV; [redacted]@ha.osd.mil; [redacted]@jhsph.edu; [redacted]@hsc-hq.tamu.edu; afauci@niaid.nih.gov; [redacted]@umn.edu
Cc: Culp, Donald Lt Col USAF; [redacted]
Subject: RE: Review of the DoD Chem/Bio Program Direction

Considering everyone's availability, we will hold the meeting on 1 Oct at IDA in Alexandria, Virginia. Col Culp will send you the details.

-----Original Message-----
From: [redacted]
Sent: Monday, September 08, 2003 9:15 AM
To: [redacted]@healthtechnetwork.com'; [redacted]@saic.com'; [redacted]@mail.rockefeller.edu'; [redacted]@johnstondc.com'; [redacted]@sri.org'; [redacted]@dtra.mil'; [redacted]@dtra.mil'; [redacted]@ha.osd.mil'; [redacted]@jhsph.edu'; [redacted]@hsc-hq.tamu.edu'; 'afauci@niaid.nih.gov'; [redacted]@umn.edu'
Cc: [redacted]@DTRA.MIL'; [redacted]
Subject: Review of the DoD Chem/Bio Program Direction

Dr Dale Klein, Assistant to the Secretary of Defense for Nuclear, Chemical and Biological has asked the Threat Reduction Advisory Committee to review the DoD Chemical and Biological program direction to include focus, organization and needed personnel qualifications. We are planning to meet on 1 October for this purpose. I apologize for the short notice but feel we need to get started as soon as practical. We will meet in Washington, probably at IDA. Please let me know as soon as possible if you can participate on that date.

From: "Giovanni, Maria (NIH/NIAID)" [redacted]

To: "Fauci, Anthony (NIH/NIAID)" <AFAUCI@niaid.nih.gov>, "La Montagne, John (NIH/NIAID)" [redacted]@niaid.nih.gov>

Subject: NAS Report on Advances in Biotechnology

Date: Fri, 21 Nov 2003 17:57:21 -0500

Importance: Normal

Attachments: Bioweapons.pdf

Dear Dr. Fauci and John:

This may be helpful for the meeting on Monday with the Center for International Security Studies/U.Maryland.
-----Original Message-----
From: [redacted]@ucia.gov]
Sent: Thursday, November 13, 2003 6:33 PM
To: [redacted]@stanford.edu
Cc: [redacted]@danforthcenter.org; [redacted]@petkevich.com; [redacted]@molsci.org; [redacted]@aecom.yu.edu; [redacted]@lilly.com; [redacted]@msu.edu; [redacted]@battelle.org; [redacted]@mail.utexas.edu; [redacted]@ida.org; [redacted]@battelle.org; [redacted]@seas.ucla.edu; [redacted]@kgi.edu; [redacted]@drexel.edu; [redacted]@potomacinstitute.org; [redacted]@tufts.edu; [redacted]@arete-dc.com; [redacted]@pmgm2.stanford.edu; [redacted]@mail.med.upenn.edu; [redacted]@mitre.org; [redacted]@tufts.edu; [redacted]@DLSci.com; [redacted]@jhsph.edu; [redacted]@jhsph.edu; [redacted]@jhsph.edu; [redacted]@jhsph.edu; [redacted]@afmic.detrick.army.mil; [redacted]@sbccom.apgea.army.mil; [redacted]@DET.AMEDD.ARMY.MIL; [redacted]@darpa.mil; [redacted]@darpa.mil; [redacted]@darpa.mil; [redacted]@darpa.mil; [redacted]@dia.mil; [redacted]@dia.mil; [redacted]@dtra.mil; [redacted]@dtra.mil; [redacted]@osd.mil; [redacted]@osd.pentagon.mil; [redacted]@science.doe.gov; [redacted]@epa.gov; [redacted]@llnl.gov; [redacted]@DET.AMEDD.ARMY.MIL; [redacted]@yahoo.com; [redacted]@helix.nih.gov; [redacted]@NIH.GOV; [redacted](DIRP/NIMH); [redacted]@nsf.gov; [redacted]@nsf.gov; [redacted]@nsf.gov; [redacted]@ostp.eop.gov; [redacted]@tswg.gov; [redacted]@tsa.dot.gov; [redacted]@ars.usda.gov; [redacted]@nas.edu; [redacted]@nas.edu; [redacted]@nas.edu; [redacted]@nas.edu; [redacted]@umail.umd.edu; [redacted]@ucia.gov; [redacted]@ucia.gov; [redacted]@ucia.gov
Subject: Electronic Copy of Meeting Report

To All:

Some of you may have received a hardcopy in the mail of the final unclassified version of the meeting report from the January workshop on "new BW". Unfortunately, we were only able to mail to those who provided us with a business address. However, I have been able to obtain a fully electronic version of the report, suitable for emailing, which I attach here. Thank you all for your forbearance and patience in waiting for the report. You are likely unable to imagine the lengthy editing, vetting and approval process which each agency document must undergo. That, in addition to the overwhelming press of daily business, made it hard to get the document out to you in a more timely fashion. In any event, I thank you again for your expertise in helping us to address and better formulate this very critical issue.

Best regards,

[redacted]

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[redacted]
Sr. Analyst for S&T
DI/OTI/SAG
[redacted]

CENTRAL INTELLIGENCE AGENCY DIRECTORATE OF INTELLIGENCE

The Darker Bioweapons Future

3 November 2003

A panel of life science experts convened for the Strategic Assessments Group by the National Academy of Sciences concluded that advances in biotechnology, coupled with the difficulty in detecting nefarious biological activity, have the potential to create a much more dangerous biological warfare (BW) threat. The panel noted:

- The effects of some of these engineered biological agents could be worse than any disease known to man.

- The genomic revolution is pushing biotechnology into an explosive growth phase. Panelists asserted that the resulting wave front of knowledge will evolve rapidly and be so broad, complex, and widely available to the public that traditional intelligence means for monitoring WMD development could prove inadequate to deal with the threat from these advanced biological weapons.

- Detection of related activities, particularly the development of novel bioengineered pathogens, will depend increasingly on more specific human intelligence and, argued panelists, will necessitate a closer—and perhaps qualitatively different—working relationship between the intelligence and biological sciences communities.

The Threat From Advanced BW

In the last several decades, the world has witnessed a knowledge explosion in the life sciences based on an understanding of genes and how they work. According to panel members, practical applications of this new and burgeoning knowledge base will accelerate dramatically and unpredictably:

- As one expert remarked: "In the life sciences, we now are where information technology was in the 1960s; more than any other science, it will revolutionize the 21st century."

Growing understanding of the complex biochemical pathways that underlie life processes has the potential to enable a class of new, more virulent biological agents engineered to attack distinct biochemical pathways and elicit specific effects, claimed panel members. The same science that may cure some of our worst diseases could be used to create the world's most frightening weapons.

The know-how to develop some of these weapons already exists. For example:

- Australian researchers recently inadvertently showed that the virulence of mousepox virus can be significantly enhanced by the incorporation of a standard immunoregulator gene, a technique that could be applied to other naturally occurring pathogens such as anthrax or smallpox, greatly increasing their lethality.

- Indeed, other biologists have synthesized a key smallpox viral protein and shown its effectiveness in blocking critical aspects of the human immune response.

- A team of biologists recently created a polio virus *in vitro* from scratch.

According to the scientists convened, other classes of unconventional pathogens that may arise over the next decade and beyond include binary BW agents that only become effective when two components are combined (a particularly insidious example would be a mild pathogen that when combined with its antidote becomes virulent); "designer" BW agents created to be antibiotic resistant or to evade an immune response; weaponized gene therapy vectors that effect permanent change in the victim's genetic makeup; or a "stealth" virus, which could lie dormant inside the

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This report was prepared by the Office of Transnational Issues. Comments and queries are welcome and may be directed to [redacted]

victim for an extended period before *being* triggered. For example, one panelist cited the possibility of a stealth virus attack that could cripple a large portion of people in their forties with severe arthritis, concealing its hostile origin and leaving a country with massive health and economic problems.

According to experts, the biotechnology underlying the development of advanced biological agents is likely to advance very rapidly, causing a diverse and elusive threat spectrum. The resulting diversity of new BW agents could enable such a broad range of attack scenarios that it would be virtually impossible to anticipate and defend against, they say. As a result, there could be a considerable lag time in developing effective biodefense measures.

However, effective countermeasures, once developed, could be leveraged against a range of BW agents, asserted attendees, citing current research aimed at developing protocols for augmenting common elements of the body's response to disease, rather than treating individual diseases. Such treatments could strengthen our defense against attacks by ABW agents.

Implications for Warning

The experts emphasized that, because the processes, techniques, equipment and know-how needed for advanced bio agent development are dual use, it will be extremely difficult to distinguish between legitimate biological research activities and production of advanced BW agents.

- The panel contrasted the difficulty of detecting advanced bioweapons with that of detecting nuclear weapons, which has always had clear surveillance and detection "observables," such as highly enriched uranium or telltale production equipment.

Consequently, most panelists argued that a qualitatively different relationship between the government and life sciences communities might be needed to most effectively grapple with the future BW threat.

They cited the pace, breadth, and volume of the evolving bioscience knowledge base, coupled with its dual-use nature and the fact that most is publicly available via electronic means and very hard to track, as the driving forces for enhanced cooperation. Most panelists agreed that the US life sciences research community was more or less "over its Vietnam-era distrust" of the national security establishment and would be open to more collaboration.

- One possibility, they argued, might be early government assistance to life sciences community efforts to develop its own "standards and norms" intended to differentiate between "legitimate" and "illegitimate" research, efforts recently initiated by the US biological sciences community.

- A more comprehensive vision articulated by one panelist was for the bioscience community at large to aid the government by acting as "a living sensor web"—at international conferences, in university labs, and through informal networks—to identify and alert it to new technical advances with weaponization potential. The workshop did not discuss the legal or regulatory implications of any such changes.

From: William H Courtney <[redacted]@csc.com>
To: afauci@niaid.nih.gov
Subject: DTRA Review Panel on Combatting WMD
Date: Fri, 21 Sep 2007 17:43:52 -0400
Importance: Normal
Attachments: Ambassador_Robert_Joseph_Letter_DTRA_Review_Panel.pdf;
070828_Review_Panel_Terms_of_Reference.doc;
070828_DTRA_Review_Panel_Members_and_Short_Bios.doc

Tony,

I enjoyed chatting at the NSC reception.

As I mentioned, DTRA Director Jim Tegnelia has commissioned an outside review panel to look at future directions for DTRA's CWMD activities. Bob Joseph and Ash Carter are co-chairing it. The Panel is beginning its work by meeting with Pentagon officials, including Vice Chair of the JCS GEN Cartwright and Under Secretary for Policy Ambassador Eric Edelman.

Bob and Ash wish to invite you to meet with the Panel. It meets in plenary session on October 31 and again on December 4. Venues are not yet decided but one or both meetings might take place at the Pentagon Conference Center. Discussions will take place up to the SECRET level.

Are you interested in meeting with the Panel and, if so, are you available on either date?

In addition to Bob and Ash, you probably know another Member of the Panel, Dave Franz.

Enclosed is a letter from Jim to Bob (he sent an identical one to Ash), the TOR for the Panel, and a list of Panel Members.

Thanks,

Bill

(See attached file: Ambassador Robert Joseph Letter_DTRA Review Panel.pdf)
(See attached file: 070828 Review Panel Terms of Reference.doc)(See attached file: 070828 DTRA Review Panel Members and Short Bios.doc)

Ambassador William Courtney
Director, Strategy and Development
North American Public Sector
Computer Sciences Corporation (CSC)
[redacted]

Defense Threat Reduction Agency
8725 John J. Kingman Road, MSC 6201
Fort Belvoir, VA 22060-6201

SEP 1 4 2007

The Honorable Robert G. Joseph
Senior Scholar
National Institute for Public Policy
9302 Lee Highway, Suite 750
Fairfax, VA 22031

Dear Ambassador Joseph:

Thank you for agreeing to co-chair the Review Panel on Future Directions for the Defense Threat Reduction Agency (DTRA) Missions and Capabilities to Combat Weapons of Mass Destruction (CWMD). Your past experience and leadership, and that of the other panel members, is a tremendous asset in this endeavor.

As DTRA approaches its Tenth Anniversary next year, the Review Panel will examine fundamental issues that can help DTRA and it stakeholders define directions for the next decade and beyond. The panel will conduct an independent review of, and provide recommendations on, potential future directions for DTRA missions and capabilities as part of the broader Department of Defense and the United States Government effort to CWMD. The objective is to develop ideas for future directions for DTRA's role in support of the three major pillars of the National Strategy to CWMD.

a. Prevention/Nonproliferation: building situational awareness of worldwide WMD activities, and eliminating and improving security of WMD, related materials, and delivery systems worldwide, including the possible expansion of DTRA missions and capabilities into geographic regions of emerging security challenges.

b. Proliferation/Counterproliferation: preparing to respond quickly to WMD situations, including interdiction and elimination; detecting, interdicting, and recovering lost or stolen (loose) nuclear weapons to counter the full spectrum of threats, including nuclear terrorism; and building of CWMD capabilities of friendly states to deter and defend against state and non-state WMD threats.

c. Response/Consequence Management: conducting foreign consequence management and vulnerability and survivability assessments, and enhancing attribution capabilities for defense and deterrence.

The Panel's recommendations should also consider how to strengthen support for DTRA missions, including potential leadership and integration roles in CWMD.

Enclosed are the terms of reference for the Review Panel. I look forward to receiving your report by the end of February 2008.

Should you have any further questions or require further assistance, please feel free to contact my Director of Operations, Mr. Michael Evenson. He may be reached at 703-767-4132 or mike.evenson@dtra.mil.

Sincerely,

James A. Tegnelia
Director

Enclosure:
As stated

August 28, 2007

Future Directions for DTRA Missions and Capabilities
To Combat Weapons of Mass Destruction

Review Panel Terms of Reference

Task

Conduct an independent review of, and provide recommendations on, potential future directions for DTRA missions and capabilities, as part of the broader Department of Defense (DoD) and the United States Government (USG) effort to Combat Weapons of Mass Destruction (CWMD). The objective is to develop ideas for future directions for DTRA's role in support of the three major pillars of the National Strategy to CWMD:

Prevention/ Nonproliferation:

- Building situational awareness of worldwide WMD activities
- Eliminating and improving security of WMD, related materials, and delivery systems worldwide, including the possible expansion of Cooperative Threat Reduction (CTR) and other DTRA CWMD missions and capabilities into geographic regions of emerging security challenges

Protection/Counterproliferation:

- Preparing to respond quickly, anywhere, to WMD situations, including interdiction and elimination
- Detecting, interdicting, and recovering lost or stolen (loose) nuclear weapons to counter the full spectrum of threats, including nuclear terrorism
- Building of CWMD capabilities of friendly states to deter and defend against state and non-state WMD threats

Response/Consequence Management:

- Conducting foreign consequence management and vulnerability and survivability assessments
- Enhancing attribution capabilities for defense and deterrence

Recommendations should also consider how to strengthen support for DTRA missions, including potential CWMD leadership and integration roles.

The review will not focus directly on research and development activities. However, it may, in the context of the broader examination of CWMD programs and opportunities, offer recommendations on new or different emphases in research and development.

Approach

The review is to be completed by the end of February 2008. The panel will have expertise in a range of areas associated with CWMD and related issues. Former Under Secretary of State, Ambassador Robert Joseph and former Assistant Secretary of Defense, Dr. Ashton Carter will co-chair the panel. Dr. Susan Koch will be a member and will take the lead in writing the report.

The panel will meet in four or five sessions beginning August 31. At the first session, to be held at DTRA HQ, the panel will address with DTRA officials organizational matters and the structure of the report. At the second and third sessions, the panel will talk with independent and government experts. At a concluding session, the panel will complete its report, including recommendations. The panel will seek consensus recommendations but separate views may be added. The report and recommendations will be submitted to the Threat Reduction Advisory Committee (TRAC), as well as to OSD Policy, OSD Acquisition, Technology and Logistics, Joint Chiefs of Staff, and the United States Strategic Command.

To facilitate quick access to participants, DTRA will arrange consultancy status for those members of the panel who wish them. As part-time consultants, participants will not need formal vetting required of personnel who participate in a FACA Advisory Committee, such as the TRAC.

Questions to be Addressed

Prevention/Nonproliferation:

What are the appropriate roles for DTRA in situational awareness? What are DTRA's advantages in this area, compared to other DoD components, the Intelligence Community, and other agencies, e.g., HHS for biodefense awareness?

What are appropriate future contributions, both substantive and geographic, of CTR and other programs to eliminate and control WMD, related materials and delivery systems in permissive environments worldwide?

To what extent, and with what priority, should these programs be expanded outside of the former Soviet Union?

What is the likely future need for implementation of treaties and other arrangements that will require inspection and verification, and how can DTRA best contribute to this mission?

What will likely be the requirements for WMD and related material removal and elimination, in the Former Soviet Union and elsewhere outside the CTR program? What can DTRA contribute to this mission?

What is the likely future role of DTRA in addressing the Man Portable Air Defense Systems threat and the elimination of Small Arms and Light Weapons?

Protection/Counterproliferation:

What are the likely needs and appropriate roles for DTRA's partnership with USSTRATCOM, as well as support to OSD, JCS, other COCOMs and other agencies, for CWMD operations in protectionand counterproliferation in light of today's threats? Emerging threats?

What are DTRA's comparative strengths, working with other DoD components, in supporting CWMD operations, including in the area of nuclear detection? What constraints does DTRA face in carrying out its support of What other constraints are likely in the future?

Response:

What are the DTRA's comparative strengths and appropriate roles, working with other DoD components, in supporting WMD consequence management, and in conducting and assisting others to conduct vulnerability and survivability assessments, within and outside the United States?

General:

How should DTRA work with its partner USSTRATCOM, as well as with other DoD components, in supporting various CWMD activities, such as training, planning, assessments, exercises, and operations?

Do any technology priorities need to be altered to provide more effective support for CWMD operations?

How should DTRA alter its strategies and investments for CWMD operations to meet emerging, and future, possibly unforeseen, threats?

Annex
Candidate Mission Areas/Capabilities to be Addressed

Prevention/Nonproliferation:

- Threat Reduction
  - Plans, policy, international agreements, and capabilities for bilateral and multilateral work to:
    - Consolidate and reduce WMD, related materials, and delivery systems in permissive environments worldwide;
    - Enhance material protection, control and accounting of WMD and materials worldwide;
    - Foster sustained implementation of higher security standards WMD worldwide

- Detection
  - National and international sensor, C4ISR[1] capabilities and architecture for WMD and related material detection in permissive and restrictive environments;
  - Forensic capabilities to characterize and attribute WMD and related material;
  - Rapid response to detected WMD and related materials

- Verification
  - Plans, policies, procedures, and technologies to meet 21st century verification requirements

Protection/Counterproliferation:

- Interdiction
  - Plans, policy, and doctrine for interdiction;
  - C4ISR and other capabilities, including interface with detection capabilities, to locate and track WMD, delivery systems and related materials in (or in preparation for) transit;
  - Provision of force structure and expertise, including nonlethal and special operations capabilities, for interdiction;
  - Logistics to support interdiction

- Elimination
  - Plans, policy, and doctrine to eliminate WMD, delivery systems and related materials, including production capabilities, in hostile and immediate post-conflict environments;
  - C4ISR capabilities to detect and identify WMD, delivery systems, related materials, and production and storage facilities and capabilities in hostile and immediate post-conflict environments;
  - Logistics to support elimination of WMD, delivery systems, related materials, and production and storage facilities in hostile and immediate post-conflict environments

[1] Command, control, communication, computers, intelligence, surveillance, and reconnaissance

- Passive Defense
  - Sensor, C4ISR, and forensic capabilities to detect, characterize and attribute WMD hazards against U.S. and partner forces in peacetime and battlefield environments;
  - Capabilities to protect U.S. and partner troops against WMD.

- Active Defense
  - Specially developed capabilities to neutralize WMD threats worldwide.

- Offensive Operations
  - Plan operations;
  - Detect and identify WMD and delivery system targets;
  - Employ offensive capabilities against WMD and delivery system targets with little or no collateral effects;
  - Assess engagements.

Response/Consequence Management:

- Decontamination and remediation capabilities to initiate or sustain United States and partner military operations following WMD use;
- Capabilities to respond, mitigate, and restore other services following WMD use inside or outside United States;
- Procedures and systems to ensure effective communication and coordination with partner civil and military authorities, other United States Federal agencies, United States state and local authorities.

General:

- Cooperative activities with international partners to improve their capabilities, and heighten their contribution, to all aspects of combating WMD: prevention/nonproliferation; protection/counterproliferation; and response/consequence management.

28 August 2007

Future Directions fFor DTRA Missions and Capabilities
To Combat Weapons of Mass Destruction

Review Panel Terms of Reference

Task

Conduct an independent review of, and provide recommendations on, potential future directions for DTRA missions and /capabilities, as part of the broader DOD and USG effort to combat weapons of mass destruction (CWMD). The objective is to develop ideas for future directions for DTRA's role /in support of the three major pillars of the National Strategy to Combat Weapons of Mass Destruction:

Prevention/ Nonproliferation, including:

- Building situational awareness of worldwide WMD activities
- Eliminating and improving security of WMD, related materials, and delivery systems wControl over WMD Materials and Systems worldwide, operative Threat Reduction including the possible expansion of CTR and other DTRA CWMD missions and capabilities into geographic regions of emerging security challenge

Arms Control Inspections, Verification, Eliminations (Campaign Two)Protection/Counterproliferation, including:

- Preparing to respond quickly, anywhere, to WMD situations, including interdiction and elimination
- Detecting, interdicting and recovering lost or stolen (loose) nuclear weapons to counter the full spectrum of threats, including nuclear terrorism
- Building of CWMD capabilities of friendly states to deter and defend against state and non-state WMD threats

Response/Consequence Management:

- Conducting foreign consequence management and vulnerability and survivability assessments
- Enhancing attribution capabilities for defense and deterrence

Recommendations should also consider how to strengthen support for DTRA missions, including potential CWMD leadership and integration roles.

The review will not focus directly on research and development activities. However, it may, in the context of the broader examination of CWMD programs and opportunities, offer recommendations on new or different emphases in R&D.

Approach

The review is to be completed by the end of February 2008. The Panel will have expertise in a range of areas associated with CWMD and related issues. Former Under Secretary of State Ambassador Robert Joseph and former Assistant Secretary of Defense Dr. Ashton Carter will co-chair the Panel. Dr. Susan Koch will be a Member and will take the lead in writing the report.

The Panel will meet in four or five sessions beginning on August 31. At the first session, to be held at DTRA HQ, the Panel will address with DTRA officials organizational matters and the structure of the report. At the second and third sessions, the Panel will talk with independent and government experts. At a concluding session, the Panel will complete its report, including recommendations. The Panel will seek consensus recommendations but separate views may be added. The report and recommendations will be submitted to the Threat Reduction Advisory Committee (TRAC), as well as to OSD Policy, OSD Acquisition, Technology and Logistics, Joint Chiefs of Staff, and Strategic Command.

To facilitate quick access to participants, DTRA will arrange consultancy status for those members of the Panel who wish them. As part-time consultants, participants will not need formal vetting required of personnel who participate in a FACA Advisory Committee, such as the TRAC.

Questions to be Addressed

Prevention/Nonproliferation:

What are the appropriate roles for DTRA in situational awareness? What are DTRA's advantages in this area, compared to other DOD components, the Intelligence Community, and other agencies, e.g., HHS for biodefense awareness?

What are appropriatethe likely future contributions, both substantive and geographic, of CTR and other the programs to eliminate and control WMD, related materials and delivery systems materials and systems in permissive environments worldwide?

To what extent, and with what priority, should these programs be expanded outside of the former Soviet Union?

What is the likely future need for implementation of treaties and other arrangementsagreements that will require inspection and future of verification, and how what can DTRA best contribute to this mission?

What will likely be the requirements for WMD and related material removal and elimination, in the former Soviet Union and elsewhere outside the CTR programoutside the CTR program? What can DTRA contribute to this mission?

What is the likely future role of DTRA in addressing the MANPADS threat and the elimination of SA/LWs?

Protection/Counterproliferation:

What are the likely needs and appropriate roles for DoD's and DTRA's partnership with STRATCOM, as well as support to OSD, JCS, other COCOMs and other agencies, for CWMD operations in prevention, protection, and counterproliferationresponse in light of today's threats? Emerging threats?

What demands are likely to be placed on DoD and on DTRA, to meet these threats?

What are DoD's and DTRA's comparative strengths, working with other DOD components, in supporting CWMD operations, including in the area of nuclear detection?for CWMD operations State and local authorities'?

What constraints does DoD and DTRA face in carrying out its support of CWMD operations? What other constraints are likely in the future?

Response:

What are the DTRA's comparative strengths and appropriate roles, working with other DOD components, in supporting WMD consequence management, and in conducting and assisting others to conduct vulnerability and survivability assessments, within and outside the United States?

How should DTRA alter its CWMD strategies, and investments, to meet emerging, and future possibly unforeseen, threats?
*Nonproliferation:*What are the likely future contributions of the CTR program?Will DTRA likely be tasked to expand further its CTR roles and presence outside of the former Soviet Union?*Arms Control:*What is the future of verification and what can DTRA contribute to this mission?What is the likely future role of DTRA in addressing the MANPADS threat and the elimination of SA/LWs?

General:

How should DTRA work with its partner STRATCOM, as well as with other DOD components, in supporting various CWMD axctivitiesactivities, such as training, planning, assessments, exercises, and operations?

Do any technology priorities need to be altered to provide more effective support for CWMD operations?

How should DTRA alter its CWMD strategies, and investments, for CWMD operations to meet emerging, and future, possibly unforeseen, threats?

Annex
Candidate Mission Areas/Capabilities to be Addressed

Prevention/Nonproliferation:

- Threat Reduction
  - Plans, policy, international agreements, and capabilities for bilateral and multilateral work to:
    - Consolidate and reduce WMD, related materials and delivery systems in permissive environments worldwide;
    - Enhance material protection, control and accounting of WMD and materials worldwide;
    - Foster sustained implementation of higher security standards WMD worldwide.

- Detection
  - National and international sensor, C4ISR[1]capabilities and architecture for WMD and related material detection in permissive and restrictive environments;
  - Forensic capabilities to characterize and attribute WMD and related material;
  - Rapid response to detected WMD and related materials.

- Verification
  - Plans, policies, procedures, technologies to meet 21st century verification requirements.

Protection/Counterproliferation:

- Interdiction
  - Plans, policy and doctrine for interdiction;
  - C4ISR and other capabilities, including interface with detection capabilities, to locate and track WMD, delivery systems and related materials in (or in preparation for) transit;
  - Provision of force structure and expertise, including nonlethal and special operations capabilities, for interdiction;
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  - Plans, policy and doctrine to eliminate WMD, delivery systems and related materials, including production capabilities, in hostile and immediate post-conflict environments;
  - C4ISR capabilities to detect and identify WMD, delivery systems, related materials and production and storage facilities and capabilities in hostile and immediate post-conflict environments;
  - Logistics to support elimination of WMD, delivery systems, related materials, and production and storage facilities in hostile and immediate post-conflict environments..

[1] Command, control, communication, computers, intelligence, surveillance and reconnaissance

- Passive Defense
  - Sensor, C4ISR, and forensic capabilities to detect, characterize and attribute WMD hazards against U.S. and partner forces in peacetime and battlefield environments;
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  - Employ offensive capabilities against WMD and delivery system targets with little or no collateral effects;
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Response/Consequence Management

- Decontamination and remediation capabilities to initiate or sustain U.S. and partner military operations following WMD use;
- Capabilities to respond, mitigate and restore other services following WMD use inside or outside United States;
- Procedures and systems to ensure effective communication and coordination with partner civil and military authorities, other U.S. Federal agencies, U.S. state and local authorities.

General

- Cooperative activities with international partners to improve their capabilities, and heighten their contribution, to all aspects of combating WMD: prevention/nonproliferation; protection/counterproliferation; and response/consequence management.

28 August 2007

DTRA Future Directions Review

Panel Members and Short Bios

Co-Chairs

The Honorable Ashton Carter, Chair, International Relations, Security, and Science, Harvard University; Co-Director, Preventive Defense Project; former Assistant Secretary of Defense for International Security Policy; Director, Center for Science and International Affairs, John F. Kennedy School, Harvard University

The Honorable Robert Joseph, Senior Scholar, National Institute for Public Policy; former Under Secretary of State for International Security Policy; Special Assistant to the President and Senior Director for Proliferation Strategy, Counterproliferation, and Homeland Defense, National Security Council Staff; Director, Center for Counterproliferation Research, National Defense University

Members

Ambassador Linton Brooks, Consultant; former Administrator, National Nuclear Security Agency, Department of Energy; Chief Negotiator, Strategic Arms Reduction Treaty; Assistant Director for Strategic and Nuclear Affairs, Arms Control and Disarmament Agency; Director, Defense Policy and Arms Control, National Security Council Staff

Ambassador William Courtney, Director, Strategy and Development, Computer Sciences Corporation; former Special Assistant to the President and Senior Director for Russia, Ukraine and Eurasia, National Security Council Staff; Ambassador to Kazakhstan and Georgia

The Honorable Charles Curtis, President and Chief Operating Officer, Nuclear Threat Initiative; former Executive Vice President and Chief Operating Officer, United Nations Foundation; Partner, Hogan & Hartson; Deputy Secretary of Energy; Chairman, Federal Energy Regulatory Commission

The Honorable Robert Einhorn, Senior Adviser, International Security Program, Center for Strategic and International Studies; former Assistant Secretary of State for Nonproliferation; Senior Adviser, Policy Planning Staff, Department of State

Dr. David R. Franz, Vice President & Chief Biological Scientist, Midwest Research Institute; Director, National Agricultural Biosecurity Center, Kansas State University; former Commander, U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID); Deputy Commander, U.S. Army Medical Research and Materiel Command

GEN John Gordon (USAF, Ret), Independent Consultant; former Assistant to the President for Homeland Security; Deputy National Security Advisor for Counter Terrorism and the National Director for Counter Terrorism; Administrator, National Nuclear Security Administration, Department of Energy; Deputy Director of Central Intelligence

The Honorable Susan Koch, Consultant; former Director, Proliferation Strategy, National Security Council Staff; Deputy Assistant Secretary of Defense for Threat Reduction Policy; Assistant Director for Strategic and Nuclear Affairs, Arms Control and Disarmament Agency

The Honorable Franklin Miller, Vice President, The Cohen Group; former Special Assistant to the President and Senior Director for Defense Policy and Arms Control, National Security Council Staff; Acting Assistant Secretary of Defense for International Security Policy

VADM David Nichols, USN (Ret), Consultant; former Deputy Commander, U.S. Central Command; Commander, U.S. Fifth Fleet/Naval Forces, U.S. Central Command; Commander, Naval Strike and Air Warfare Center, Naval Air Station, Fallon NV; Executive Assistant to the Commander-in-Chief, U.S. Pacific Command

Dr. Gordon Oehler, Senior Fellow and Member of the Board of Regents, Potomac Institute for Policy Studies; former Director, Nonproliferation Center, Central Intelligence Agency

Dr. Elizabeth Sherwood-Randall, Senior Research Scholar, Center for International Security and Cooperation, Stanford University; Adjunct Senior Fellow for Alliance Relations, Council on Foreign Relations; Senior Advisor, Stanford-Harvard Preventive Defense Project; former Deputy Assistant Secretary of Defense for Russia, Ukraine and Eurasia

The Honorable William Schneider, Jr., President, International Planning Services; Chairman, Defense Science Board; Adjunct Fellow, Hudson Institute; Adviser, Central for Security Policy; former Under Secretary of State for Security Assistance, Science, and Technology

From: "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>
To: "Mascola, John (NIH/VRC) [E]" <[redacted]@mail.nih.gov>
Subject: RE: Phone call
Date: Fri, 31 Jan 2020 21:45:46 -0500
Importance: Normal

The story gets complicated. I will forward to you a very recent article by Jon Cohen that will shed some light.
Tony

From: Mascola, John (NIH/VRC) [E] <[redacted]@mail.nih.gov>
Sent: Friday, January 31, 2020 8:16 PM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Subject: FW: Phone call

Tony,

I will track and will review data on the "furin cleavage site" of 2019-nCoV. This is the site that is analogous to the furin cleavage site between gp120 and gp41 of HIV. It generally consists of a short series of basic AA (so Arg, Lys). For most type 1 viral surface proteins (like HIV), the cleavage event is necessary for the trimeric protein to fold into its native configuration. But for CoV family, there is a lot of natural variation at this site – so I would need to hear more details to understand the concern by Kristian and others.
John

From: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Sent: Friday, January 31, 2020 7:39 PM
To: Jeremy Farrar <[redacted]@wellcome.ac.uk>
Cc: Kristian G. Andersen <[redacted]@gmail.com>
Subject: RE: Phone call

Jeremy:
I just got off the phone with Kristian Anderson and he related to me his concern about the Furine site mutation in the spike protein of the currently circulating 2019-nCoV. I told him that as soon as possible he and Eddie Holmes should get a group of evolutionary biologists together to examine carefully the data to determine if his concerns are validated. He should do this very quickly and if everyone agrees with this concern, they should report it to the appropriate authorities. I would imagine that in the USA this would be the FBI and in the UK it would be MI5. It would be important to quickly get confirmation of the cause of his concern by experts in the field of coronaviruses and evolutionary biology. In the meantime, I will alert my US. Government official colleagues of my conversation with you and Kristian and determine what further investigation they recommend. Let us stay in touch.
Best regards,
Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases

Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
[redacted]

From: Jeremy Farrar <[redacted]@wellcome.ac.uk>
Sent: Friday, January 31, 2020 5:57 PM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Subject: Re: Phone call

Thanks Tony

Can you phone Kristian Anderson

[redacted]

He is expecting your call now.

The people involved are:

Kristian Anderson
https://www.scripps.edu/faculty/andersen/

Bob Garry
https://medicine.tulane.edu/departments/microbiology-immunology-tulane-cancer-center/faculty/robert-f-garry-jr-phd

Eddie Holmes
https://sydney.edu.au/science/about/our-people/academic-staff/edward-holmes.html

---

From: "Conrad, Patricia (NIH/NIAID) [E]" <[redacted]@niaid.nih.gov> on behalf of "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>
Date: Friday, 31 January 2020 at 22:34
To: Jeremy Farrar <[redacted]@wellcome.ac.uk>
Subject: RE: Phone call

Will call shortly…

Patricia L. Conrad
Public Health Analyst and

Special Assistant to the Director
National Institute of Allergy and Infectious Diseases
The National Institutes of Health
31 Center Drive, MSC 2520 - Room 7A03
Bethesda, Maryland 20892
[redacted]

From: Jeremy Farrar <[redacted]@wellcome.ac.uk>
Sent: Friday, January 31, 2020 5:23 PM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Subject: Phone call

Tony
Really would like to speak with you this evening

It is 10pm now UK

Can you phone me on [redacted]

Jeremy

From: "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>
To: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>
Subject: FW: Request from the Secretary Follow up from Call with Dr. Fauci FYSA
Date: Sat, 01 Feb 2020 11:29:05 -0500
Importance: High

HEADS UP for this.

_____

From: Kadlec, Robert (OS/ASPR/IO) [redacted]@hhs.gov>
Sent: Saturday, February 1, 2020 11:25 AM
To: Harrison, Brian (HHS/IOS) [redacted]@hhs.gov>; Stecker, Judy (OS/IOS) [redacted]@hhs.gov>; Mango, Paul (HHS/IOS) [redacted]@hhs.gov>
Cc: Shuy, Bryan (OS/ASPR/IO) <[redacted]@hhs.gov>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Subject: Request from the Secretary Follow up from Call with Dr. Fauci FYSA
Importance: High

OSTP with the National Academy of Sciences will hold an initial call with U.S. gene editing and coronavirus experts on Monday afternoon as a precursor to a more formal proceeding to review the scientific data concerning the novel coronavirus sequence. This will be an unclassified event and will be part of a transparent public facing process

From: "Pope, Andrew" [redacted]@nas.edu>
To: "Tony Fauci (afauci@niaid.nih.gov)" <afauci@niaid.nih.gov>
Cc: "'Hassell, David (Chris) (OS/ASPR/IO)'" [redacted]@hhs.gov>, [redacted]@nas.edu>, [redacted]@nas.edu>
Subject: Academies meeting today-2pm
Date: Mon, 03 Feb 2020 08:34:21 -0500
Importance: Normal
Attachments: ___NCoV_-_DRAFT_Plan_Fin_Feb_2.docx
Inline-Images: image001.png

Hi Tony

I know you're swamped, and that you've been in touch with Chris Hassell among others already, but we wanted to let you know about today's meeting/call at 2pm. The scope is attached and imported below. We will send call-in info to you mid-morning just in case you can join this afternoon.

Please let me know if you need more info, or whatever.

I hope you can join!

My best,
Andy

Statement of Task:
In response to a request from HHS, the NASEM will examine information and identify data requirements that would help determine the origins of 2019-nCoV, specifically from an evolutionary/structural biology standpoint. NASEM will also consider whether this should include more temporally and geographically diverse clinical isolates, sequences, etc. Although a widely-disputed paper posted on a pre-print server last week has since been withdrawn, the response to that paper highlights the need to determine these information needs as quickly as possible. As part of a broader deliberative process, this review will help prepare for future events by establishing a process for quickly assembling subject matter experts for evaluation of other potentially threatening organisms.

Workplan
NASEM will hold a meeting of experts to assess what data, information and samples are needed to address the unknowns, in order to understand the evolutionary origins of NCoV and more effectively respond to both the outbreak and any resulting misinformation. A statement from the National Academies will be prepared and published on the Web as a "Based on Science" article that summarizes the status and needs for more and what types of data. A more in-depth examination of the issues will be established as a follow up as needed.

Andrew M. Pope, Ph.D.
Director
Board on Health Sciences Policy
Health and Medicine Division
The National Academies of Sciences,
Engineering, and Medicine
[redacted]@nas.edu
[redacted]

[redacted] office
Find us at nationalacademies.org/HMD

The National Academies of
SCIENCES · ENGINEERING · MEDICINE

From: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]

To: "Barasch, Kimberly (NIH/NIAID) [C]" [redacted]@nih.gov>

Cc: "Eisinger, Robert (NIH/NIAID) [E]" [redacted]@nih.gov>, "Marston, Hilary (NIH/NIAID) [E]" [redacted]@nih.gov>, "Lerner, Andrea (NIH/NIAID) [E]" [redacted]@nih.gov>

Subject: FW: Today's Call/meeting info

Date: Mon, 03 Feb 2020 12:09:58 -0500

Importance: Normal

Attachments: Agenda-_2019-nCoV.docx; SOW.docx

Inline-Images: image001.png

THIS IS FOR ASF CALL AT 2:15 PM – 2:30 PM ET TODAY

Kim – please make sure he takes this to VRC

Patricia L. Conrad
Public Health Analyst and
Special Assistant to the Director
National Institute of Allergy and Infectious Diseases
The National Institutes of Health
31 Center Drive, MSC 2520 - Room 7A03
Bethesda, Maryland 20892
[redacted]

From: Pope, Andrew [redacted]@nas.edu>
Sent: Monday, February 3, 2020 12:05 PM
To: [redacted]@nyulangone.org>; [redacted]@scripps.edu' [redacted]@scripps.edu>; Baric, Ralph [redacted]@email.unc.edu>; [redacted]@bedford.io' [redacted]@bedford.io>; Peter Daszak (daszak@ecohealthalliance.org) <daszak@ecohealthalliance.org>; [redacted]@jhmi.edu' [redacted]@jhmi.edu>; [redacted]@jhu.edu>; [redacted]@jhu.edu' [redacted]@jhu.edu>; [redacted]@uiowa.edu) [redacted]@uiowa.edu>; [redacted]@dni.gov>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Hassell, David (Chris) (OS/ASPR/IO) [redacted]@hhs.gov>; Prasher, Joanna (CDC/DDPHSIS/CPR/OD) [redacted]@cdc.gov>; [redacted]@fbi.gov' [redacted]@fbi.gov>; 'Watson, Ian D. EOP/OSTP' [redacted]@ostp.eop.gov>; Kadlec, Robert (OS/ASPR/IO) [redacted]@hhs.gov>; Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Barasch, Kimberly (NIH/NIAID) [C] [redacted]@nih.gov>
Cc: [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]

[redacted]@nas.edu>; Dzau, Victor J. [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>; [redacted]@nas.edu>
Subject: Today's Call/meeting info

Thank you for participating in today's meeting of experts at the National Academies to discuss and identify what data, information and samples are needed to understand the evolutionary origins of 2019-nCoV and more effectively respond to the outbreak and resulting misinformation.

Attached for your information are:
- Agenda
- Scope of Work

A list of participants will be sent along shortly

Please let me know if you have any questions of problems with connecting.

"Zoom" Call-in info is as follows (and is included at top of agenda):

Zoom Dial-in Info:
Time: Feb 3, 2020 02:00 PM Eastern Time (US and Canada)
Join from PC, Mac, Linux, iOS or Android: https://nasem.zoom.us[redacted]
Telephone: [redacted]
Meeting ID: [redacted]
International numbers available: https://nasem.zoom.u[redacted]

Andrew M. Pope, Ph.D.
Director
Board on Health Sciences Policy
Health and Medicine Division
The National Academies of Sciences,
Engineering, and Medicine
[redacted]@nas.edu
[redacted], direct
[redacted], office
Find us at nationalacademies.org/HMD

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From: [redacted]@mitre.org>
To: "anthony.fauci@nih.gov" <anthony.fauci@nih.gov>
Cc: "Williams, Ellen" [redacted]>, "Fisher, Peter" [redacted] "Long, Gordon D." [redacted]@mitre.org>
Subject: JASON Speaker Invitation - A. Fauci
Date: Tue, 03 Mar 2020 14:38:08 -0500
Importance: High
Attachments: Speaker_Invite_-_A._Fauci.pdf; General_Information.pdf
Inline-Images: image001.png; image002.png; image003.png; image004.png; image005.png; image006.png

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Hello Dr. Fauci,
I hope this finds you well. The JASON Program would like to invite you to speak at its annual Spring Meeting taking place April 24 & 25 (Friday-Saturday), 2020. I have attached a formal invitation to speak along with some general information about the meeting. We understand your schedule is growing increasingly complicated considering the escalating state of nCoV-19 but would be honored if you are available and able to speak on the matter at our upcoming event.
I have cc'd the JASON Chair Ellen Williams, Vice-Chair Peter Fisher, and Director Gordon Long who are available to talk about the organization and specific areas of interest.
Please let me know if you are available and interested at your earliest convenience. Due to time constraints we will need an indication of interest by the end of the week (3/8/2020) otherwise we will need to move on.
I look forward to hearing from you soonest.
V/R,

[redacted]
Sr. Communications Specialist
MITRE - JASON Program Office
Office: [redacted]
SIPR: [redacted]@hq.doe.sgov.gov

MITRE

March 3, 2020

Dr. Anthony S. Fauci
anthony.fauci@nih.gov

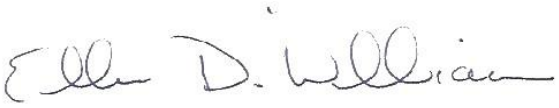
Dear Dr. Fauci:

On behalf of the JASON organization, I would like to invite you to speak at the 2020 JASON Spring Meeting on "nCoV-19 science, status and implications", at the MITRE facility in McLean Virginia, April 24-25, 2020. It is an event held each year to address scientific and technical issues critical to U.S. national security.

JASON is a group of approximately 60 academic scientists, founded in 1959, who advise the U.S. government on a broad range of issues affecting our nation. JASON members include 4 Nobel Laureates and 25 members of the U.S. National Academy of Sciences, with diverse expertise. We serve the Executive Branch of the government as a rigorously independent and impartial group. Each year we take on 12-15 topics for sponsors including the DoD, DOE, DNI, CIA, NRO, NGA, NSA, FBI, DOS, HHS, and others. We do this during an intensive 8-week summer study, culminating in a formal report on each topic.

I hope you will join us at the 2020 Spring Meeting, which provides an informal opportunity to meet our members and other distinguished guests from the government, academic, and, commercial science and technology communities.

Yours sincerely,



Ellen D. Williams, Ph.D
Chair, JASON

The MITRE Corporation
7515 Colshire Drive
McLean, Virginia 22102-7508
(703) 983-6997

General Information for Speakers

Some Background:

JASON is an independent group of approximately 60 academic scientists, founded in 1959, who advise the Executive Branch of the U.S. government on a broad range of issues pertaining to national security. JASON members include 4 Nobel Laureates and 25 members of the U.S. National Academy of Sciences, with diverse expertise and high-level security clearances. JASON does not provide an aggregated list of its members, all of who are non-government employees and have primary responsibility to their home institutions.

The current membership of JASON consists of approximately 40% physicists, 20% chemists and biologists, 20% computer scientists and engineers, 10% mathematicians and statisticians, and 10% from other disciplines. JASONs range in age from 38 to 72, with uniform distribution over this range. On average, members of JASON have 17 years of experience with the organization, providing continuity and cohesiveness that make JASON unique among U.S. government advisory groups. JASON is a rigorously independent and impartial self-governing body that chooses its own members and demands that they perform to the highest intellectual standards.

Who else is there:

In addition to the JASONs, the audience consists of about 120 leaders in the S&T community from across the government agencies. Congressional staffers come from time to time. Typically, there is no industry unless they are serving in a government capacity like the Defense Science Board. There is no press in the audience and your remarks are "off the record". We do not distribute slides or notes from you talk.

How long is a talk:

Each talk lasts about 45 minutes followed by 15 minutes for questions. There are always questions. We normally have 12 speakers over two days, and an evening dinner session on Friday. You are encouraged to stay for as many talks as you like (appropriate clearances will be required for any classified talks) and the evening session.

Room configuration and technical details:

Presentations should be sent in advance and formatted for 16:9 display. Slides will be loaded onto either a PC or Mac briefing laptop (whichever your slides are compatible with). The room will include a stage with a podium and large projection screen. You will have access to a podium, lapel mic, laser pointer, slide clicker. An IT member will be in the room at all times to help you get set up and ensure everything runs smoothly.

What type of talk should I give:

There are two basic types of talks, operational and scientific.

Operational talks are given by high level government officials and address challenges with technical or strategic roots. Difficult technical challenges are of great interest to this audience. Strategic issues include where the agency is going and what motivates these directions. What keeps an official awake at night can be a useful frame. Scientific talks are given by scientists doing cutting edge research and those who have developed new approaches potentially important to national security.

The best talks begin with adequate background so that a technically savvy, but uninitiated listener can quickly grasp both a field's key questions and the specific research or operational foci of the speaker. A deep exploration of specific issues or case studies can then be used to illuminate current research and development. Sufficient depth so that the audience can provide substantive feedback to the speaker is desirable. The audience is very attentive and interactive.

As this audience is unique, if the speaker has access to a JASON member who can provide more detailed feedback, they are encouraged to take advantage of this opportunity.

From: "Collins, Francis (NIH/OD) [E]" <collinsf@od.nih.gov>
To: "Burklow, John (NIH/OD) [E]" <[redacted]@OD.NIH.GOV>, "Myles, Renate (NIH/OD) [E]" [redacted]@mail.nih.gov>, "Tabak, Lawrence (NIH/OD) [E]" [redacted]@nih.gov>, "Wolinetz, Carrie (NIH/OD) [E]" <[redacted]@nih.gov>, "Hallett, Adrienne (NIH/OD) [E]" <[redacted]@nih.gov>
Subject: FW: SARS-CoV-2 article to be published in Nature Medicine
Date: Fri, 06 Mar 2020 21:19:05 -0500
Importance: Normal
Attachments: Andersen_Coronavirus_Nature_2020_Press_Release_Draft_4.docx; Manuscript.pdf

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FYI, this is work that Tony, Jeremy, Larry, and I helped with, but are appropriately not mentioned explicitly in the paper. Note the conclusion: "The analysis of public genome sequence data from SARS-CoV-2 and related viruses found no evidence that the virus was made in a laboratory or otherwise engineered." I hope Senator Cotton notices this.

FC

From: Kristian G. Andersen <[redacted]@scripps.edu>
Sent: Friday, March 6, 2020 4:22 PM
To: Jeremy Farrar <[redacted]@wellcome.ac.uk>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Collins, Francis (NIH/OD) [E] <collinsf@od.nih.gov>
Cc: Robert Garry [redacted]@tulane.edu>; Edward Holmes <[redacted]@sydney.edu.au>; Andrew Rambaut <[redacted]@ed.ac.uk>; Ian Lipkin <[redacted]@me.com>; Chris Emery <[redacted]@scripps.edu>
Subject: SARS-CoV-2 article to be published in Nature Medicine

Dear Jeremy, Tony, and Francis,

Thank you again for your advice and leadership as we have been working through the SARS-CoV-2 'origins' paper. We're happy to say that the paper was just accepted by Nature Medicine and should be published shortly (not quite sure when).

To keep you in the loop, I just wanted to share the accepted version with you, as well as a draft press release. We're still waiting for proofs, so please let me know if you have any comments, suggestions, or questions about the paper or the press release.

Tony, thank you for your straight talk on CNN last night - it's being noticed.

Best,
Kristian

Kristian G. Andersen, PhD
Associate Professor, Scripps Research
Director of Infectious Disease Genomics, Scripps Research Translational Institute
Director, Center for Viral Systems Biology

The Scripps Research Institute
10550 North Torrey Pines Road, SGM-300A
Department of Immunology and Microbial Science
La Jolla, CA 92037

[redacted]

[redacted]

Assistant: [redacted]

Andersen Coronavirus Nature Medicine Press Release Draft 2-24-20

The COVID-19 coronavirus epidemic has a natural origin, scientists say

The novel SARS-CoV-2 coronavirus that emerged in the city of Wuhan, China, last year and has since caused a large scale COVID-19 epidemic and spread to more than 70 other countries is the product of natural evolution, according to findings published today in the journal *Nature Medicine*.

The analysis of public genome sequence data from SARS-CoV-2 and related viruses found no evidence that the virus was made in a laboratory or otherwise engineered.

“By comparing the available genome sequence data for known coronavirus strains, we can firmly determine that SARS-CoV-2 originated through natural processes,” said Kristian Andersen, PhD, an associate professor of immunology and microbiology at Scripps Research and corresponding author on the paper.

In addition to Andersen, authors on the paper include Robert F. Garry, of Tulane University; Edward Holmes, of the University of Sydney; Andrew Rambaut, of University of Edinburgh; W. Ian Lipkin, of Columbia University.

Coronaviruses are a large family of viruses that can cause illnesses ranging widely in severity. The first known severe illness caused by a coronavirus emerged with the 2003 Severe Acute Respiratory Syndrome (SARS) epidemic in China. A second outbreak of severe illness began in 2012 in Saudi Arabia with the Middle East Respiratory Syndrome (MERS).

On December 31 of last year, Chinese authorities alerted the World Health Organization of an outbreak of a novel strain of coronavirus causing severe illness, which was subsequently named SARS-CoV-2. As of February 20, 2020, nearly 100,000[TBD] COVID-19 cases have been documented, although many more mild cases have likely gone undiagnosed. The virus has killed over 3,000[TBD] people.

Shortly after the epidemic began, Chinese scientists sequenced the genome of SARS-CoV-2 and made the data available to researchers worldwide. The resulting genomic sequence data has shown that Chinese authorities rapidly detected the epidemic and that the number of COVID-19 cases have been increasing because of human to human transmission after a single introduction into the human population. Andersen and collaborators at several other research institutions used this sequencing data to explore the origins and evolution of SARS-CoV-2 by focusing in on several tell-tale features of the virus.

The scientists analyzed the genetic template for spike proteins, armatures on the outside of the virus that it uses to grab and penetrate the outer walls of human and animal cells. More specifically, they focused on two important features of the spike protein: the receptor-binding

domain (RBD), a kind of grappling hook that grips onto host cells, and the cleavage site, a molecular can opener that allows the virus to crack open and enter host cells.

Evidence for natural evolution

The scientists found that the RBD portion of the SARS-CoV-2 spike proteins had evolved to effectively target a molecular feature on the outside of human cells called ACE2, a receptor involved in regulating blood pressure. The SARS-CoV-2 spike protein was so effective at binding the human cells, in fact, that the scientists concluded it was the result of natural selection and not the product of genetic engineering.

This evidence for natural evolution was supported by data on SARS-CoV-2's backbone – its overall molecular structure. If someone were seeking to engineer a new coronavirus as a pathogen, they would have constructed it from the backbone of a virus known to cause illness. But the scientists found that the SARS-CoV-2 backbone differed substantially from those of already known coronaviruses and mostly resembled related viruses found in bats and pangolins.

"These two features of the virus, the mutations in the RBD portion of the spike protein and its distinct backbone, rules out laboratory manipulation as a potential origin for SARS-CoV-2" said Andersen.

Josie Golding, PhD, epidemics lead at UK-based Wellcome Trust, said the findings by Andersen and his colleagues are "crucially important to bring an evidence-based view to the rumors that have been circulating about the origins of the virus (SARS-CoV-2) causing COVID-19."

"They conclude that the virus is the product of natural evolution," Goulding adds, "ending any speculation about deliberate genetic engineering."

Possible origins of the virus

Based on their genomic sequencing analysis, Andersen and his collaborators concluded that the most likely origins for SARS-CoV-2 followed one of two possible scenarios.

In one scenario, the virus evolved to its current pathogenic state through natural selection in a non-human host and then jumped to humans. This is how previous coronavirus outbreaks have emerged, with humans contracting the virus after direct exposure to civets (SARS) and camels (MERS). The researchers proposed bats as the most likely reservoir for SARS-CoV-2 as it is very similar to a bat coronavirus. There are no documented cases of direct bat-human transmission, however, suggesting that an intermediate host was likely involved between bats and humans.

In this scenario, both of the distinctive features of SARS-CoV-2's spike protein—the RBD portion that binds to cells and the cleavage site that opens the virus up—would have evolved to their current state prior to entering humans. In this case, the current epidemic would probably have emerged rapidly as soon as humans were infected, as the virus would have already evolved the features that make it pathogenic and able to spread between people.

In the other proposed scenario, a non-pathogenic version of the virus jumped from an animal host into humans and then evolved to its current pathogenic state within the human population. For instance, some coronaviruses from pangolins, armadillo-like mammals found in Asia and Africa, have an RBD structure very similar to that of SARS-CoV-2. A coronavirus from a pangolin could possibly have been transmitted to a human, either directly or through an intermediary host such as civets or ferrets.

Then the other distinct spike protein characteristic of SARS-CoV-2, the cleavage site, could have evolved within a human host, possibly via limited undetected circulation in the human population prior to the beginning of the epidemic. The researchers found that the SARS-CoV-2 cleavage site, appears similar to the cleavage sites of strains of bird flu that has been shown to transmit easily between people. SARS-CoV-2 could have evolved such a virulent cleavage site in human cells and soon kicked off the current epidemic, as the coronavirus would possibly have become far more capable of spreading between people.

Study co-author Andrew Rambaut cautioned that it is difficult if not impossible to know at this point which of the scenarios is most likely. If the SARS-CoV-2 entered humans in its current pathogenic form from an animal source, it raises the probability of future outbreaks, as the illness-causing strain of the virus could still be circulating in the animal population and might once again jump into humans. The chances are lower of a non-pathogenic coronavirus entering the human population and then evolving properties similar to SARS-CoV-2.

Funding for the research was provided by the US National Institutes of Health, the Pew Charitable Trusts, the Wellcome Trust, the European Research Council, and an ARC Australian Laureate Fellowship.

The Proximal Origin of SARS-CoV-2

Kristian G. Andersen[1,2*], Andrew Rambaut[3], W. Ian Lipkin[4], Edward C. Holmes[5] & Robert F. Garry[6,7]

[1]Department of Immunology and Microbiology, The Scripps Research Institute, La Jolla, CA 92037, USA.
[2]Scripps Research Translational Institute, La Jolla, CA 92037, USA.
[3]Institute of Evolutionary Biology, University of Edinburgh, Edinburgh, UK.
[4]Center for Infection and Immunity, Mailman School of Public Health of Columbia University, New York, New York, USA.
[5]Marie Bashir Institute for Infectious Diseases and Biosecurity, School of Life and Environmental Sciences and School of Medical Sciences, The University of Sydney, Sydney, Australia.
[6]Tulane University, School of Medicine, Department of Microbiology and Immunology, New Orleans, LA, USA.
[7]Zalgen Labs, LCC, Germantown, MD, USA.

*Corresponding author: andersen@scripps.edu

TO THE EDITOR - Since the first reports of novel pneumonia (COVID-19) in Wuhan, Hubei province, China[1,2] there has been considerable discussion on the origin of the causative virus SARS-CoV-2[3] (also referred to as HCoV-19)[4]. Infections with SARS-CoV-2 are now widespread, and as of 29 February 2020, 86,012 cases have been confirmed in more than 60 countries, with 2,941 deaths[5].

SARS-CoV-2 is the seventh coronavirus known to infect humans. SARS-CoV, MERS-CoV, and SARS-CoV-2 can cause severe disease, whereas HKU1, NL63, OC43 and 229E, are associated with mild symptoms[6]. Herein, we review what can be deduced about the origin of SARS-CoV-2 from the comparative analysis of genomic data. We offer a perspective on the notable features in the SARS-CoV-2 genome and discuss scenarios by which they could have arisen. Our analyses clearly show that SARS-CoV-2 is not a laboratory construct nor a purposefully manipulated virus.

Notable features of the SARS-CoV-2 genome

Our comparison of alpha- and betacoronaviruses identifies two notable genomic features of SARS-CoV-2: (***i***) based on structural studies[7–9] and biochemical experiments[1,9,10], SARS-CoV-2 appears optimized for binding to the human ACE2 receptor; (***ii***) the spike (S) protein of SARS-CoV-2 has a functional polybasic (furin) cleavage site at the S1/S2 boundary through the insertion of twelve nucleotides[8]. Additionally, this led to the predicted acquisition of three O-linked glycans around the site.

1. Mutations in the receptor binding domain of SARS-CoV-2

The receptor binding domain (RBD) in the spike protein is the most variable part of the coronavirus genome[1,2]. Six RBD amino acids have been shown to be critical for binding to ACE2 receptors and determining the host range of SARS-like viruses[7]. Using coordinates based on SARS-CoV, they are Y442, L472, N479, D480, T487, and Y4911 corresponding to L455, F486, Q493, S494, N501, and Y505 in SARS-CoV-2[7]. Five of these six residues differ between SARS-CoV-2 and SARS-CoV (**Fig. 1a**). Based on structural studies[7–9] and biochemical experiments[1,9,10], SARS-CoV-2 seems to have an RBD that binds with high affinity to ACE2 from human, ferret, cat, and other species with high receptor homology[7].

While these analyses suggest that SARS-CoV-2 may bind human ACE2 with high affinity, computational analyses predict that the interaction is not ideal[7] and the RBD sequence is different from those shown in SARS-CoV to be optimal for receptor binding[7,11]. Thus, the high affinity binding of the SARS-CoV-2 spike protein to human ACE2 is most likely the result of natural selection on a human or human-like ACE2 permitting another optimal binding solution to arise. This is strong evidence that SARS-CoV-2 is *not* the product of purposeful manipulation.

2. Polybasic furin cleavage site and O-linked glycans

The second notable feature of SARS-CoV-2 is a polybasic cleavage site (RRAR) at the S1/S2 junction, the two subunits of the spike (**Fig. 1b**)[8]. This allows effective cleavage by furin and other proteases and plays a role in determining virus infectivity and host range[12]. In addition, a leading proline is also inserted at this site in SARS-CoV-2; thus, the inserted sequence is PRRA (**Fig. 1b**). The turn created by the proline is predicted to result in the addition of O-linked glycans to S673, T678, and S686 flanking the cleavage site and are unique to SARS-CoV-2 (**Fig. 1b**). Polybasic cleavage sites have not been observed in related

"lineage B" betacoronaviruses, although other human betacoronaviruses, including HKU1 (lineage A), have them and predicted O-linked glycans[13]. Given the level of genetic variation in the spike it is likely that SARS-CoV-2-like viruses with partial or full polybasic cleavage sites will be discovered in other species.

The functional consequence of the polybasic cleavage site in SARS-CoV-2 is unknown and it will be important to determine its impact on transmissibility and pathogenesis in animal models. Experiments with SARS-CoV have shown that insertion of a furin cleavage site at the S1/S2 junction enhances cell–cell fusion without affecting virus entry[14]. In addition, efficient cleavage of the MERS-CoV spike enables MERS-like coronaviruses from bats to infect human cells[15]. In avian influenza viruses, rapid replication and transmission in highly dense chicken populations selects for the acquisition of polybasic cleavage sites in the haemagglutinin (HA) protein[16], which serves a similar function as the coronavirus spike protein. Acquisition of polybasic cleavage sites in HA, by insertion or recombination, converts low pathogenicity avian influenza viruses into highly pathogenic forms[16]. The acquisition of polybasic cleavage sites by HA has also been observed after repeated passage in cell culture or through animals[17].

The function of the predicted O-linked glycans is unclear, but they could create a "mucin-like domain" shielding epitopes or key residues on the SARS-CoV-2 spike protein[18]. Several viruses employ mucin-like domains as glycan shields involved in immune evasion[18]. Although prediction of O-linked glycosylation is robust, experimental studies are required to determine if these sites are utilized in SARS-CoV-2.

Theories of SARS-CoV-2 origins

It is improbable that SARS-CoV-2 emerged through laboratory manipulation of a related SARS-like coronavirus. As noted above, the RBD of SARS-CoV-2 is optimized for human ACE2 binding with an efficient solution different from those previously predicted[7,11]. Further, had genetic manipulation had been performed, one of the several reverse genetic systems available for betacoronaviruses would likely have been used[19]. However, the genetic data irrefutably show that SARS-CoV-2 is not derived from any previously used virus backbone[20]. Instead, we propose two scenarios that can plausibly explain the origin of SARS-CoV-2: (***i***) natural selection in an animal host prior to zoonotic transfer, and (***ii***) natural selection in humans following zoonotic transfer. We also discuss whether selection during passage could have given rise to SARS-CoV-2.

1. Natural selection in an animal host prior to zoonotic transfer

As many early cases of COVID-19 were linked to the Huanan market in Wuhan[1,2], it is possible that an animal source was present at this location. Given the similarity of SARS-CoV-2 to bat SARS-like coronaviruses[2], it is likely that bats serve as reservoir hosts for its progenitor. Although RaTG13, sampled from a *Rhinolophus affinis* bat[1], is ~96% identical overall to SARS-CoV-2, its spike diverges in the RBD suggesting that it may not bind efficiently to the human ACE2 receptor (**Fig. 1a**)[7].

Malayan pangolins (*Manis javanica*) illegally imported into Guangdong province contain coronaviruses similar to SARS-CoV-2[21]. Although the RaTG13 bat virus remains the closest relative to SARS-CoV-2 across the genome[1], some pangolin coronaviruses exhibit strong similarity to SARS-CoV-2 in the RBD, including all six key RBD residues (**Fig. 1**)[21]. This clearly shows that the SARS-CoV-2 spike protein optimized for binding to human-like ACE2 is the result of natural selection.

Neither the bat nor pangolin betacoronaviruses sampled to date have polybasic cleavage sites. Although no animal coronavirus has been identified that is sufficiently similar to have served as the direct SARS-CoV-2 progenitor, the diversity of coronaviruses in bats and other species is massively undersampled. Mutations, insertions and deletions, can occur near the S1/S2 junction of coronaviruses[22] showing that the polybasic cleavage site can arise by a natural evolutionary process. For a precursor virus to acquire both the polybasic cleavage site and mutations in the spike protein suitable for human ACE2 receptor binding, an animal host would likely have to have a high population density – to allow natural selection to proceed efficiently – and an ACE2 gene that is similar to the human orthologue.

2. Natural selection in humans following zoonotic transfer

It is possible that a progenitor to SARS-CoV-2 jumped into humans, acquiring the genomic features described above through adaptation during undetected human-to-human transmission. Once acquired,

these adaptations would enable the epidemic to take off, producing a sufficiently large cluster of cases to trigger the surveillance system that detected it[1,2].

All SARS-CoV-2 genomes sequenced so far have the genomic features derived above and are thus derived from a common ancestor that had them too. The presence in pangolins of an RBD very similar to that in SARS-CoV-2 means we can infer this was also likely in the virus that jumped to humans. This leaves the polybasic cleavage site insertion to occur during human-to-human transmission.

Estimates of the timing of the most recent common ancestor of SARS-CoV-2 using current sequence data point to virus emergence in late November to early December 2019[23], compatible with the earliest retrospectively confirmed cases[24]. Hence, this scenario presumes a period of unrecognised transmission in humans between the initial zoonotic event and the acquisition of the polybasic cleavage site. Sufficient opportunity could occur if there had been many prior zoonotic events producing short chains of human-to-human transmission over an extended period. This is essentially the situation for MERS-CoV where all human cases are the result of repeated jumps of the virus from dromedary camels, producing single infections or short transmission chains that eventually resolve, with no adaptation to sustained transmission[25].

Studies of banked human samples could provide information on whether such cryptic spread has occurred. Retrospective serological studies could also be informative and a few such studies have been conducted showing low-level exposures to SARS-like coronaviruses in certain areas of China [26]. Critically, however, these studies could not have distinguished whether exposures were due to prior infections with SARS-CoV, SARS-CoV-2, or other SARS-like coronaviruses. Further serological studies should be conducted to determine the extent of prior human exposure to SARS-CoV-2.

3. Selection during passage

Basic research involving passage of bat SARS-like coronaviruses in cell culture and/or animal models have been ongoing in BSL-2 for many years in laboratories across the world[27] and there are documented instances of laboratory escapes of SARS-CoV[28]. We must therefore examine the possibility of a inadvertent laboratory release of SARS-CoV-2.

In theory, it is possible that SARS-CoV-2 acquired RBD mutations (**Fig. 1a**) during adaptation to passage in cell culture, as has been observed in studies with SARS-CoV[11]. The finding of SARS-like coronaviruses from pangolins with near-identical RBDs, however, provides a much stronger and parsimonious explanation for how SARS-CoV-2 acquired these via recombination or mutation[19].

The acquisition of both the polybasic cleavage site and predicted O-linked glycans also argues against culture-based scenarios. New polybasic cleavage sites have only been observed after prolonged passage of low pathogenicity avian influenza virus *in vitro* or *in vivo*[17]. Furthermore, a hypothetical generation of SARS-CoV-2 by cell culture or animal passage would have required prior isolation of a progenitor virus with very high genetic similarity, which has not been described. Subsequent generation of a polybasic cleavage site would have then required repeated passage in cell culture or animals with ACE2 receptors similar to humans, but such work has also not previously been described. Finally, the generation of the predicted O-linked glycans is also unlikely to have occured due to cell culture passage, as such features suggest the involvement of an immune system[18].

Conclusions

In the midst of the global COVID-19 public health emergency it is reasonable to wonder why the origins of the epidemic matter. A detailed understanding of how an animal virus jumped species boundaries to infect humans so productively will help in the prevention of future zoonotic events. For example, if SARS-CoV-2 pre-adapted in another animal species then we are at risk of future re-emergence events. In contrast, if the adaptive process occurred in humans, then even if we have repeated zoonotic transfers they are unlikely to take off without the same series of mutations. In addition, identifying the closest animal relatives of SARS-CoV-2 will greatly assist studies of virus function. Indeed, the availability of the RaTG13 bat sequence helped reveal key RBD mutations and the polybasic cleavage site.

The genomic features described here may in part explain the infectiousness and transmissibility of SARS-CoV-2 in humans. Although the evidence shows that SARS-CoV-2 is not a purposefully manipulated virus, it is currently impossible to prove or disprove the other theories of its origin described here. However, since we observe all notable SARS-CoV-2 features - including the optimized RBD and polybasic cleavage site - in related coronaviruses in nature, we do not believe that any type of laboratory-based scenario is plausible.

More scientific data could swing the balance of evidence to favor one hypothesis over another. Obtaining related virus sequences from animal sources would be the most definitive way of revealing virus origins. For example, a future observation of an intermediate or fully formed polybasic cleavage site in an SARS-CoV-2-like virus from animals would lend even further support to the natural selection hypotheses. It would also be helpful to obtain more genetic and functional data about SARS-CoV-2, including animal studies. The identification of a potential intermediate host of SARS-CoV-2, as well as the sequencing of very early cases would similarly be highly informative. Irrespective of the exact mechanisms of how SARS-CoV-2 originated via natural selection, the ongoing surveillance of pneumonia in humans and other animals is clearly of utmost importance.

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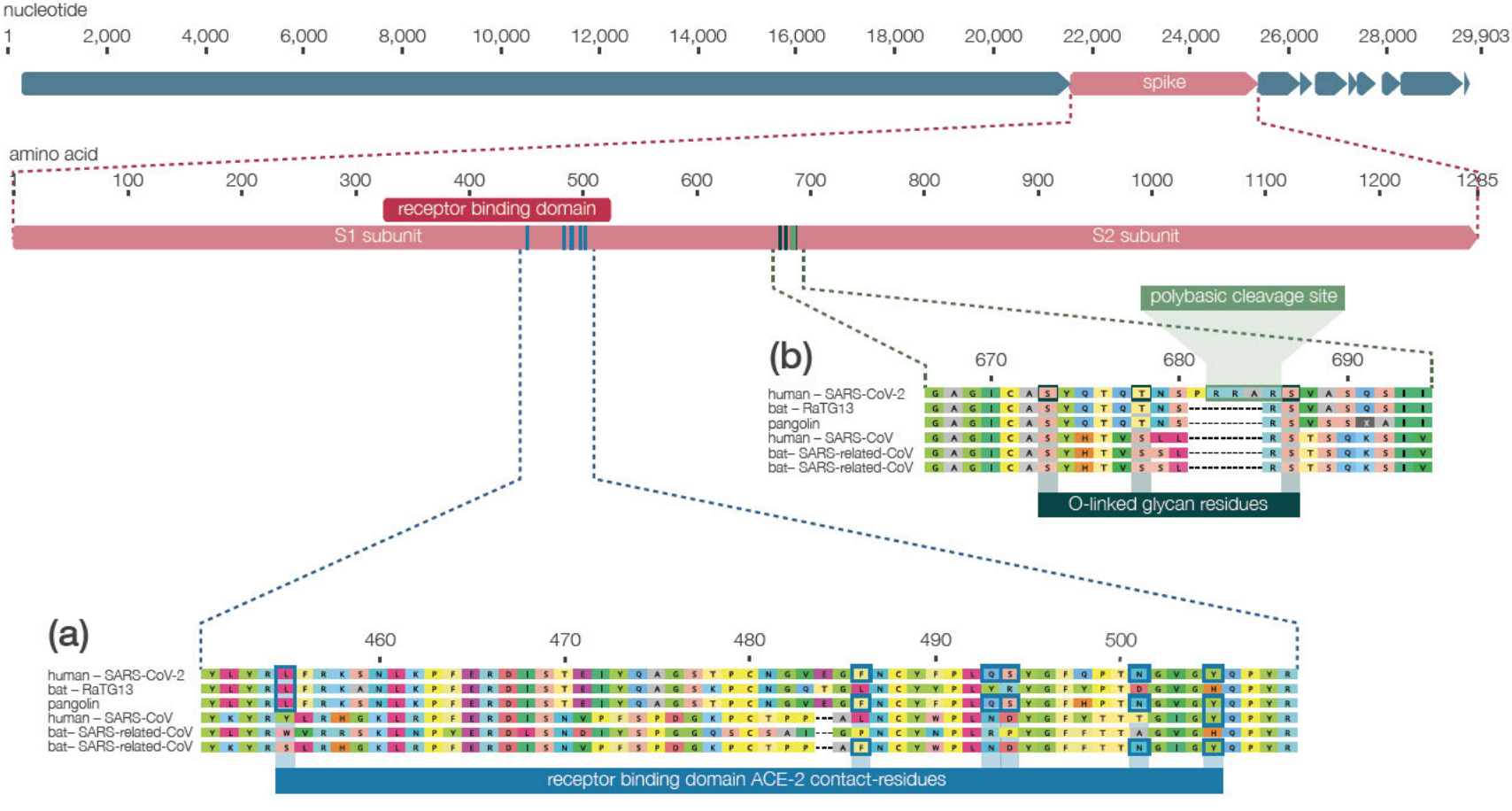
Competing Interests

RFG is co-founder of Zalgen Labs, a biotechnology company developing countermeasures to emerging viruses. None of the other authors declare any conflicts of interest.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amino acid
100
200
300
400
500
600
700
800
900
1000
1100
1200
1285
receptor binding domain
S1 subunit
S2 subunit
polybasic cleavage site
(b)
670
680
690
human – SARS-CoV-2
bat – RaTG13
pangolin
human – SARS-CoV
bat– SARS-related-CoV
bat– SARS-related-CoV
O-linked glycan residues
(a)
460
470
480
490
500
human – SARS-CoV-2
bat – RaTG13
pangolin
human – SARS-CoV
bat– SARS-related-CoV
bat– SARS-related-CoV
receptor binding domain ACE-2 contact-residues

Figure Legends

Figure 1. (**a**) Mutations in contact residues of the SARS-CoV-2 spike protein. The spike protein of SARS-CoV-2 (top) was aligned against the most closely related SARS-like CoVs and SARS-CoV. Key residues in the spike protein that make contact to the ACE2 receptor are marked with blue boxes in both SARS-CoV-2 and the SARS-CoV Urbani strain. (**b**) Acquisition of polybasic cleavage site and O-linked glycans. Both the polybasic cleavage site and the three adjacent predicted O-linked glycans are unique to SARS-CoV-2 and not previously seen in lineage B betacoronaviruses. Sequences shown are from NCBI GenBank, accession numbers MN908947, MN996532, AY278741, KY417146 and MK211376. The pangolin coronavirus sequences are a consensus generated from SRR10168377 and SRR10168378 (NCBI BioProject PRJNA573298)[29,30].

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25. Dudas, G., Carvalho, L. M., Rambaut, A. & Bedford, T. *Elife* **7**, (2018).
26. Wang, N. *et al. Virol. Sin.* **33**, 104–107 (2018).

From: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]

To: "'Cameron, Beth E. EOP/NSC'" <[redacted]@nsc.eop.gov>

Cc: "Walker, Sarah F. EOP/NSC" [redacted]@nsc.eop.gov>, "Barasch, Kimberly (NIH/NIAID) [E]" [redacted]@nih.gov>, "Frisk, Megan L. EOP/NSC" [redacted]@nsc.eop.gov>, "[redacted]@ucia.gov" [redacted]@ucia.gov>

Subject: RE: High Side Briefing for Dr. Fauci

Date: Thu, 03 Jun 2021 13:45:29 -0400

Importance: Normal

We can do tomorrow at 730 am – 8:30 am or at 5 pm – 6 pm ET.

We would need to make sure our secure room is available – do you want to try for tomorrow?

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, June 3, 2021 1:39 PM
To: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>
Cc: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; [redacted]@ucia.gov
Subject: RE: High Side Briefing for Dr. Fauci
Importance: High

Dear Patti,

With apologies for the delay, I am adding my colleagues as well to facilitate scheduling. Recognizing Dr. Fauci's time constraints, we realize that the times for tomorrow may no longer be available, but understand the importance of providing this briefing soonest.

I am happy to participate if helpful – defer that to those providing the brief.

All the very best,
Beth

From: Cameron, Beth E. EOP/NSC
Sent: Tuesday, June 1, 2021 10:14 AM
To: 'Conrad, Patricia (NIH/NIAID) [E]' [redacted]@niaid.nih.gov>
Cc: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] <[redacted]@nih.gov>
Subject: RE: High Side Briefing for Dr. Fauci

Many thanks! I will check these and get right back to you

From: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>
Sent: Tuesday, June 1, 2021 9:52 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E]

[redacted]@nih.gov>
Subject: RE: High Side Briefing for Dr. Fauci

Thank you – we can try to have him available:

June 3 11 am – 12 noon ET
June 4 7 am – 8:30 am ET or 5 pm – 6 pm ET

Let us know if any of the above works and we will work with your team and our Secure Skiff staff for this.

Thank you.

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Tuesday, June 1, 2021 9:42 AM
To: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>
Cc: Tabak, Lawrence (NIH/OD) [E] [redacted]@nih.gov>; Walker, Sarah F. EOP/NSC <[redacted]@nsc.eop.gov>
Subject: RE: High Side Briefing for Dr. Fauci

Thank you Patti! Not urgent for today. I think 45-60 min should be enough. Yes, from a SCIF – the brief will be TS/SCI. If you have blocks that might work for Dr. Fauci, I can work with the briefers and WHSR (if helpful) to schedule it.

From: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>
Sent: Tuesday, June 1, 2021 9:39 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Tabak, Lawrence (NIH/OD) [E] [redacted]@nih.gov>
Subject: RE: High Side Briefing for Dr. Fauci

Good morning:

Happy to schedule this. Please let me know how much time you need and if this is critical for today? Will both need to be done from secure room/location?

Thank you.

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Tuesday, June 1, 2021 9:33 AM
To: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>
Cc: Tabak, Lawrence (NIH/OD) [E] [redacted]@nih.gov>
Subject: RE: High Side Briefing for Dr. Fauci

Adding Patti – many thanks!

From: Tabak, Lawrence (NIH/OD) [E] [redacted]@nih.gov>
Sent: Tuesday, June 1, 2021 9:29 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Re: High Side Briefing for Dr. Fauci

Beth,
Quickest route is through Patti Conrad, [redacted]@niaid.nih.gov .
Please let me know if I can help in any other way.
Best wishes,
Larry

From: "Cameron, Beth E. EOP/NSC" [redacted]@nsc.eop.gov>
Date: Tuesday, June 1, 2021 at 9:25 AM
To: "Tabak, Lawrence (NIH/OD) [E]" [redacted]@nih.gov>
Subject: High Side Briefing for Dr. Fauci

Larry –

So good to be working with you again! We have received outreach about providing Dr. Fauci with a specific high side briefing, and I want to reach out to schedule it soonest. What is the best way to get that scheduled and also for him to receive a TS/SCI level brief?

Many thanks!
Beth

Elizabeth (Beth) E. Cameron, PhD
Special Assistant to the President and
Senior Director for Global Health Security & Biodefense
National Security Council staff
The White House
[redacted]@nsc.eop.gov

From: "Aguirre, Lisa (IOS/ONS)" [redacted]@hhs.gov>
To: "Cullen, William (NIH/OD/ORS) [E]" [redacted]@mail.nih.gov>
Cc: "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>
Subject: FW: DC on Friday
Date: Wed, 09 Jun 2021 12:55:23 -0400
Importance: Normal
Inline-Images: Picture_(Device_Independent_Bitmap)_1.jpg; Picture_(Device_Independent_Bitmap)_2.jpg

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Hi Bill, See below - further to my separate email a couple of minutes ago requesting to do a secure call with you soonest. We need to ensure Dr. Fauci is aware of a DC this Friday from 11:00-12:30. He can only participate from our SCIF or the WH (we requested approval) because of the special access compartments (we'll do a one-time read in for approximately 9 compartments), so I would like to coordinate on this as soon as you can.

-thanks, Lisa

Lisa Aguirre
Director (Acting), Office of National Security
U.S. Department of Health and Human Services
[redacted]

From: Hudgens, Alisa (HHS/OS/ONS) [redacted]@hhs.gov>
Sent: Wednesday, June 9, 2021 12:46 PM
To: [redacted] (HHS/OS) [redacted]@hhs.gov>; [redacted] (OS/ONS) [redacted]@hhs.gov>
Cc: [redacted] (IOS/ONS) [redacted]@hhs.gov>; [redacted] (IOS/ONS) [redacted]@hhs.gov>
Subject: RE: DC on Friday

Hi Jamar,

Just wanted to provide you with an update. I spoke to the NSC and they wanted Deputy Secretary Palm with a +1's, Dr. Fauci and Dr. Walensky to attend the DC. If they couldn't attend, they would authorize Mitch Wolfe and Ian Watson. Unfortunately, this meeting requires everyone to have a TS/SCI so that we can request OTRIs for all of them—so the Deputy Secretary will not be able to attend. Dr. Walensky is authorizing Mitch Wolfe to attend for her being that she won't be in DC. We're currently working with NIH to see if Dr. Fauci can attend. So, Dr. Fauci, Mitch Wolfe and Ian Watson have been put in for OTRIs for this meeting. They can attend this meeting at the HHH SCIF. Special authorization will have to take place if anyone wants to go the WH. I have asked that the NSC provide Dr. Fauci with that access just in case he's interested—we're pending approval. Otherwise, he can attend here with everyone else. I hope this helps with an update. Please feel free to call me if you have any questions or concerns. Thank you.

Sincerely,

Alisa R. Hudgens
Director
Intelligence & Analysis Division
Office of National Security
U.S. Department of Health and Human Services
[redacted]

From: Hudgens, Alisa (HHS/OS/ONS)
Sent: Wednesday, June 9, 2021 11:13 AM
To: [redacted] (HHS/OS) [redacted]@hhs.gov>; [redacted] (OS/ONS) [redacted]@hhs.gov>
Subject: RE: DC on Friday

Hi Jamar,

This meeting is highly classified and only TS/SCI cleared staff can attend that are appropriate for a DC. Who's selected will need to have a one-time read in (OTRI) requests completed through two IC agencies. We didn't want to push Ian forward alone, if there is someone in the front office that is cleared and wanting to participate. Once they're identified I can submit the request for authorization. There will be no material to review this OTRI access is only for the meeting. Please let me know, thank you so much!

Sincerely,

Alisa R. Hudgens
Director
Intelligence & Analysis Division
Office of National Security
U.S. Department of Health and Human Services
[redacted]

From: [redacted] (HHS/OS) [redacted]@hhs.gov>
Sent: Wednesday, June 9, 2021 10:41 AM
To: [redacted] (OS/ONS) [redacted]@hhs.gov>
Cc: Hudgens, Alisa (HHS/OS/ONS) [redacted]@hhs.gov>
Subject: RE: DC on Friday

Hey Brett:

All this sounds great. Just hit me up with a blurb explaining the unique circumstances. I'll flag for leadership here and we should be good to go.

From: [redacted] (OS/ONS) [redacted]@hhs.gov>
Sent: Wednesday, June 9, 2021 9:22 AM
To: [redacted] (HHS/OS) [redacted]@hhs.gov>
Cc: Hudgens, Alisa (HHS/OS/ONS) [redacted]@hhs.gov>
Subject: DC on Friday

Jamar,

In speaking with Alisa this morning, she is working with the WH to get whomever HHS nominates for the DC the necessary accesses for the meeting. We were going to recommend Ian Watson (ASPR) given his WMD experience, but we will need to know who the HHS front office would like to attend so we can convey this to the WH for program access. Thanks,

V/r

Brett

From: "Sherry, Steve (NIH/NLM/NCBI) [E]" [redacted]@ncbi.nlm.nih.gov>
To: "Tabak, Lawrence (NIH/OD) [E]" [redacted]@nih.gov>, "Ghedin, Elodie (NIH/NIAID) [E]" [redacted]@nih.gov>, "Embry, Alan (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>
Cc: "Collins, Francis (NIH/OD) [E]" <collinsf@od.nih.gov>, "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>, "Brennan, Patti (NIH/NLM) [E]" [redacted]@nih.gov>
Subject: Re: IC 90-Day Review
Date: Mon, 28 Jun 2021 19:27:18 -0400
Importance: Normal

Larry, likewise I am happy to join as well.

cheers,
Steve

From: Embry, Alan (NIH/NIAID) [E] [redacted]@niaid.nih.gov>
Sent: Monday, June 28, 2021 7:05:06 PM
To: Tabak, Lawrence (NIH/OD) [E] [redacted]@nih.gov>; Ghedin, Elodie (NIH/NIAID) [E] [redacted]@nih.gov>; Sherry, Steve (NIH/NLM/NCBI) [E] [redacted]@ncbi.nlm.nih.gov>
Cc: Collins, Francis (NIH/OD) [E] <collinsf@od.nih.gov>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Brennan, Patti (NIH/NLM) [E] [redacted]@nih.gov>
Subject: RE: IC 90-Day Review

Larry,

Sure, happy to join.

Thanks,
Alan

From: Tabak, Lawrence (NIH/OD) [E] [redacted]k@nih.gov>
Sent: Monday, June 28, 2021 6:13 PM
To: Embry, Alan (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Ghedin, Elodie (NIH/NIAID) [E] [redacted]@nih.gov>; Sherry, Steve (NIH/NLM/NCBI) [E] [redacted]@ncbi.nlm.nih.gov>
Cc: Collins, Francis (NIH/OD) [E] <collinsf@od.nih.gov>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Brennan, Patti (NIH/NLM) [E] [redacted]@nih.gov>
Subject: IC 90-Day Review
Importance: High

I would appreciate your presence at this meeting with HHS, likely to be held in the next couple of days. Just giving you a heads up about the pending request.

Parenthetically, everyone was very appreciative of your contributions Alan and Elodie at today's meeting.

Best wishes,
Larry

From: "Barstow, Kevin (HHS/IOS)" [redacted]@hhs.gov>
Date: Monday, June 28, 2021 at 5:51 PM

To: "Tabak, Lawrence (NIH/OD) [E]" [redacted]@nih.gov>
Subject: IC 90-Day Review

Dr. Tabak:
As you know, President Biden has asked the Intelligence Community to collect and analyze information regarding the origins of COVID-19. As part of this review, the Office of the Director of National Intelligence (ODNI) has asked HHS to share any data and information that may be relevant to this inquiry. HHS supports this review by the Intelligence Community and is cooperating with ODNI's request.

As an initial step, we would like to set-up a time to talk to you about what potential relevant data and information NIH might possess to share with the Intelligence Community. We'll have a few people from the Office of the Secretary on and you should feel free to include others from NIH. Ideally, we could all talk by Wednesday at the latest. Yvette Hubert, the Executive Assistant in our office, will be reaching out to coordinate schedules.

In the meantime, if you have any questions or would like to discuss further, please let me know. You can also reach me at [redacted]. Thank you.

Kevin Barstow
Senior Counsel
Office of the Deputy Secretary
U.S. Department of Health and Human Services

From: "Barasch, Kimberly (NIH/NIAID) [E]" [redacted]

To: "Cameron, Beth E. EOP/NSC" [redacted]@nsc.eop.gov>, "Bitar, Maher B. EOP/NSC" [redacted]@nsc.eop.gov>

Cc: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>, "Frisk, Megan L. EOP/NSC" [redacted]@nsc.eop.gov>, "Rault, Nick M. EOP/NSC" [redacted]@nsc.eop.gov>

Subject: RE: Follow up from the briefing of a few weeks ago

Date: Thu, 01 Jul 2021 11:41:47 -0400

Importance: Normal

Hi Beth,

Great. We are holding 4:00pm – 6:00pm on July 7th on Dr. Fauci's calendar currently. Happy to finalize this time if it works for Maher as well.

Thanks,

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, July 1, 2021 10:14 AM
To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Thank you Kim --- That works! I defer to Megan and the #INTEL team on the amount of time but think 60 min or 75? Maher: can you make this time – I think it would be good to be able to frame this with what POTUS has received and also the IC assessment steps and context.

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Thursday, July 1, 2021 9:18 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC <[redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Hi Beth,

Would Wednesday, July 7th at 4:00pm or 5:00pm ET work for you and your team?

Also, do you have an approximate on how much time would be needed to read these materials?

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, July 1, 2021 8:59 AM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Many thanks, Dr. Fauci – we will support absolutely whatever works best for you. Patti & Kim: we will accommodate whatever is most convenient – thanks, as always, for your assistance.

Many thanks,
Beth

From: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Sent: Thursday, July 1, 2021 8:38 AM
To: Cameron, Beth E. EOP/NSC <[redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Beth:
Thanks for the note. Rather than wait until I am going to be on the complex for other reasons (which may be for some time since we do most interacting via zoom), it probably would be best for me to make a specific trip to the complex solely for the purpose of sitting with you all and going over the material. I will ask Patty and Kim in my immediate office to work with your team to arrange for a mutually convenient time no later than the next week or so for me to come down to the complex. Many thanks.
Best regards,
Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
[redacted]
E-mail: afauci@niaid.nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, June 30, 2021 10:11 PM
To: Fauci, Anthony (NIH/NIAID) [E] <AFAUCI@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Re: Follow up from the briefing of a few weeks ago

Dear Patti,

I hope you are well. We wanted to check in on this recognizing Dr Fauci may be on complex tomorrow. We know he is extremely busy, but we wanted to offer the opportunity to read this document should he be on campus with the time to do so.

Best wishes and thanks again!
Beth

Sent from my iPhone

On Jun 21, 2021, at 8:44 PM, Cameron, Beth E. EOP/NSC <[redacted]@nsc.eop.gov> wrote:

Dear Dr. Fauci,

We wanted to follow up from the challenging briefing in which we both participated a couple of weeks ago. As we discussed following that meeting, my team has been working with ODNI and with NSC #INTEL to ensure that you are provided with information that is in line with what has been provided to other senior Administration officials and the President.

We recommend, subject to your concurrence, the following next steps:

1. NSC #Intel is now holding, in a read file for you, the relevant assessments. Maher Bitar (copied), the NSC Special Assistant to the President for Intelligence, and I would like to invite you to sit with us directly so that you can read this information the next time you are able to visit the White House/EEOB. We are unable to send these materials outside of the complex, but they are the same materials provided to other senior leaders here.

2. We are also delighted to schedule a follow up briefing with senior ODNI officials, but we wanted to ensure that you had a chance to read the actual assessment and make a choice on that – before putting another briefing on your calendar.

We and Maher stand ready to assist and appreciate greatly your time and leadership.

Best regards,
Beth

Elizabeth (Beth) E. Cameron, PhD
Special Assistant to the President and
Senior Director for Global Health Security & Biodefense

National Security Council staff
The White House
[redacted]@nsc.eop.gov

From: "Joyce, Morgan K. EOP/NSC" [redacted]@nsc.eop.gov>
To: "Barasch, Kimberly (NIH/NIAID) [E]" [redacted]@nih.gov>, "Frisk, Megan L. EOP/NSC" [redacted]@nsc.eop.gov>, "Cameron, Beth E. EOP/NSC" [redacted]@nsc.eop.gov>
Cc: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>, "Bitar, Maher B. EOP/NSC" [redacted]@nsc.eop.gov>, "Rault, Nick M. EOP/NSC" [redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago
Date: Fri, 02 Jul 2021 18:17:01 -0400
Importance: Normal

Hi Kim ,

This is confirmed for Wednesday, July 7 at 4:00pm in EEOB 422. No need for a COVID test.

Thanks and happy 4th weekend!

Morgan

Morgan K. Joyce
Policy Coordination Manager
National Security Council
[redacted](office) | [redacted](mobile)

From: Barasch, Kimberly (NIH/NIAID) [E][redacted]@nih.gov>
Sent: Friday, July 2, 2021 7:46 AM
To: Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Hi Morgan,

Let's go with 4:00pm on Wednesday, July 7th. Will hold an hour for this. Please let us know what room Dr. Fauci should go to and if a COVID test at the WHMU is needed prior.

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, July 1, 2021 5:17 PM

To: Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Hi Patti and Kim,

Maher and Beth can make either 4:00pm or 5:00pm work on Wednesday, July 7. Totally defer to your preference – let us know what is best.

It shouldn't take longer than 60 minutes. Our team recommends blocking an hour, if he has the time.

Thank you!

Morgan

Morgan K. Joyce
Policy Coordination Manager
National Security Council
[redacted] (office) | [redacted] (mobile)

From: Frisk, Megan L. EOP/NSC
Sent: Thursday, July 1, 2021 10:03 AM
To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC <[redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

+Morgan

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Thursday, July 1, 2021 9:18 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Hi Beth,
Would Wednesday, July 7th at 4:00pm or 5:00pm ET work for you and your team?

Also, do you have an approximate on how much time would be needed to read these materials?

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]

[redacted]@nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, July 1, 2021 8:59 AM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Many thanks, Dr. Fauci – we will support absolutely whatever works best for you. Patti & Kim: we will accommodate whatever is most convenient – thanks, as always, for your assistance.

Many thanks,
Beth

From: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Sent: Thursday, July 1, 2021 8:38 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Beth:
Thanks for the note. Rather than wait until I am going to be on the complex for other reasons (which may be for some time since we do most interacting via zoom), it probably would be best for me to make a specific trip to the complex solely for the purpose of sitting with you all and going over the material. I will ask Patty and Kim in my immediate office to work with your team to arrange for a mutually convenient time no later than the next week or so for me to come down to the complex. Many thanks.
Best regards,
Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
[redacted]
E-mail: afauci@niaid.nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, June 30, 2021 10:11 PM
To: Fauci, Anthony (NIH/NIAID) [E] <AFAUCI@niaid.nih.gov>

Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Re: Follow up from the briefing of a few weeks ago

Dear Patti,

I hope you are well. We wanted to check in on this recognizing Dr Fauci may be on complex tomorrow. We know he is extremely busy, but we wanted to offer the opportunity to read this document should he be on campus with the time to do so.

Best wishes and thanks again!
Beth

Sent from my iPhone

On Jun 21, 2021, at 8:44 PM, Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov> wrote:

Dear Dr. Fauci,

We wanted to follow up from the challenging briefing in which we both participated a couple of weeks ago. As we discussed following that meeting, my team has been working with ODNI and with NSC #INTEL to ensure that you are provided with information that is in line with what has been provided to other senior Administration officials and the President.

We recommend, subject to your concurrence, the following next steps:

1. NSC #Intel is now holding, in a read file for you, the relevant assessments. Maher Bitar (copied), the NSC Special Assistant to the President for Intelligence, and I would like to invite you to sit with us directly so that you can read this information the next time you are able to visit the White House/EEOB. We are unable to send these materials outside of the complex, but they are the same materials provided to other senior leaders here.

2. We are also delighted to schedule a follow up briefing with senior ODNI officials, but we wanted to ensure that you had a chance to read the actual assessment and make a choice on that – before putting another briefing on your calendar.

We and Maher stand ready to assist and appreciate greatly your time and leadership.

Best regards,
Beth

Elizabeth (Beth) E. Cameron, PhD
Special Assistant to the President and
Senior Director for Global Health Security & Biodefense
National Security Council staff
The White House
[redacted]@nsc.eop.gov

From: "Cameron, Beth E. EOP/NSC" [redacted]@nsc.eop.gov>
To: "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>
Subject: Re: The Origins of SARS-CoV-2: A Critical Review >https://bit.ly/3jSK1Ep<
Date: Thu, 08 Jul 2021 06:33:43 -0400
Importance: Normal

Dear Dr. Fauci,

You beat me to the thank you! It is us who want to thank YOU for coming down and spending time with us and on this issue. We remain in awe of you and grateful for your work. I'm glad it was useful for you, and it was certainly impactful for the team. Thanks also for flagging this article. I will share it with the NSC group you met yesterday, my bio team, colleagues in OSTP, and also with Jake.

Thank you again for what you do and who you are,
Beth

On Jul 8, 2021, at 6:23 AM, Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov> wrote:

Beth:
Thanks for the session yesterday. Much appreciated. The article accessible from the link in the subject line above just came out as a "preprint" yesterday. It is from a group of highly qualified virologists.. Please show it to your team. It summarizes what I said yesterday. I will follow this with another e-mail from CNN summarizing the article.
Best regards,
Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
[redacted]
E-mail: afauci@niaid.nih.gov

July 7, 2021 Preprint Open Access

The Origins of SARS-CoV-2: A Critical Review

Holmes, Edward C; Goldstein, Stephen A; Rasmussen, Angela L; Robertson, David L; Crits-Christoph, Alexander; Wertheim, Joel O; Anthony, Simon J; Barclay, Wendy S; Boni, Maciej F; Doherty, Peter C; Farrar, Jeremy; Geoghegan,

Jemma L; Jiang, Xiaowei; Leibowitz, Julian L; Neil, Stuart J D; Skern, Tim; Weiss, Susan R; Worobey, Michael; Andersen, Kristian G; Garry, Robert F; Rambaut, Andrew
The Origins of SARS-CoV-2: A Critical Review
Holmes et al.
Since the first reports of a novel SARS-like coronavirus in December 2019 in Wuhan, China, there has been intense interest in understanding how SARS-CoV-2 emerged in the human population. Recent debate has coalesced around two competing ideas: a “laboratory escape” scenario and zoonotic emergence. Here, we critically review the current scientific evidence that may help clarify the origin of SARS-CoV-2.

From: "Tabak, Lawrence (NIH/OD) [E]" [redacted]@nih.gov>
To: "Collins, Francis (NIH/OD) [E]" <collinsf@od.nih.gov>, "McManus, Ayanna (NIH/OD) [E]" [redacted]@nih.gov>, "Wood, Gretchen (NIH/OD) [E]" [redacted]@od.nih.gov>
Subject: Re: draft agenda for 5pm
Date: Mon, 12 Jul 2021 16:03:37 -0400
Importance: Normal

Between this and the meeting with ODNI tomorrow, these have been the two most confusing meetings I have ever engaged in 21 years in the USG.

From: Francis Collins <collinsf@od.nih.gov>
Date: Monday, July 12, 2021 at 3:52 PM
To: "Tabak, Lawrence (NIH/OD) [E]" [redacted]@nih.gov>, "McManus, Ayanna (NIH/OD) [E]" [redacted]@nih.gov>, "Wood, Gretchen (NIH/OD) [E]" [redacted]@od.nih.gov>
Subject: FW: draft agenda for 5pm

I am totally confused now about the booster meetings. This note from Kessler provides a proposed agenda, presumably for today at 5 pm, and it includes Pfizer senior staff, not just HHS. I don't see this on my calendar, but there's a WebEx invite in my e-mail from 10:12 AM this morning, and it includes Pfizer names.

FC

From: Kessler, David (HHS/IOS) [redacted]@hhs.gov>
Sent: Monday, July 12, 2021 11:26 AM
To: Selib, Jonathan [redacted]@pfizer.com>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Collins, Francis (NIH/OD) [E] <collinsf@od.nih.gov>; Mascola, John (NIH/VRC) [E] [redacted]@mail.nih.gov>; [redacted]@pfizer.com
Cc: Waterstraat, Tamieka (OS/ASPR/IO) (CTR) [redacted]@hhs.gov>; Kirby, Thomas R. (Randy) (HHS/IOS) [redacted]@hhs.gov>
Subject: draft agenda for 5pm

Looping in Jon Selib and Mikael Dolsten from Pfizer on this Email and M
Here is what I have as a working agenda for the 5pm
Please edit
Tamieka – please Attach to invite after we have edits

Feel fee

Welcome/Agenda	David Kessler
Introductory Comments –Pfizer	Mikael Dolsten
Introductory Comments—HHS	Fauci/Collins/Walensky/Woodcock/Marks/Murthy/Levine/OConnell
Update--Real World Evidence	Luis Jodar
Update –Scientific Evidence Delta Variant	Phil Dormitzer
Discussion	

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
675 NORTH RANDOLPH STREET
ARLINGTON, VA 22203-2114

13 Aug 21

From: COMMANDANT OF THE MARINE CORPS FELLOW, DARPA
To: INSPECTOR GENERAL

Subj: SARS-CoV-2 ORIGINS INVESTIGATION WITH US GOVERNMENT PROGRAM UNDISCLOSED DOCUMENT ANALYSIS

Ref:(1) Executive Slide HR00118Soo17 EcoHealth Alliance DEFUSE
(2) HR00118S0017-PREEMPT-FP-019-PM Summary (Selectable – Not Recommended)
(3) PREEMPT Volume 1 no ESS HR00118S0017 EcoHealth Alliance DEFUSE
(4) PREEMPT Volume 2 EHA Final HR00118S0017 EcoHealth Alliance DEFUSE
(5) SF424_2_0-V2.0 HR00118S0017 EcoHealth Alliance DEFUSE
(6) WIV Budget packet HR001118S0017 EcoHealth Alliance DEFUSE
(7) WS00094394-RR_KeyPersonExpanded_2_0-V2.0 HR001118S0017 EcoHealth Alliance DEFUSE
(8) WS00094394-RR_PersonalData_1_2-V1.2 HR001118S0017 EcoHealth Alliance DEFUSE

1. SARS-CoV-2 is an American-created recombinant bat vaccine, or its precursor virus. It was created by an EcoHealth Alliance program at the Wuhan Institute of Virology (WIV), as suggested by the reporting surrounding the lab leak hypothesis. The details of this program have been concealed since the pandemic began. These details can be found in the EcoHealth Alliance proposal response to the DARPA[i] PREEMPT[ii] program Broad Agency Announcement (BAA) HR00118S0017, dated March 2018[iii] – a document not yet publicly disclosed.

The contents of the proposed program are extremely detailed. Peter Daszak lays out step-by-step what the organization intends to do by phase and by location. The primary scientists involved, their roles, and their institutions are indicated. The funding plan for the WIV work is its own document. The reasons why nonpharmaceutical interventions like masks and medical countermeasures like the mRNA vaccines do not work well can be extrapolated from the details. The reasons why the early treatment protocols work as curatives are apparent.

SARS-CoV-2's form as it emerged is likely as a precursor, deliberately virulent, humanized recombinant SARSr-CoV that was to be reverse engineered into a live attenuated SARSr-Cov bat vaccine. Its nature can be determined from analysis of its genome with the context provided by the EcoHealth Alliance proposal. Joining this analysis with US intelligence collections on Wuhan will aid this determination.

When synthesized with the EcoHealth Alliance proposal, US collections confirm EcoHealth Alliance was performing the work proposed. The analysts produce their reports in a vacuum, absent the context the proposal provides. As a fellow at DARPA, I could see both, and can do the synthesis. For instance, WIV personnel identified in intelligence reports are named in the proposal, these people use the lexicon of the proposal in the collections, and the virus variants proposed for experimentation are identical to those gleaned by collections. Moreover, I am also privy to information obtained by congressional office investigators and by DRASTIC[iv], which further corroborates that the program detailed in the BAA response was conducted until it was shut down in April 2020.

The purpose of the EcoHealth program, called DEFUSE[v] in the proposal, was to inoculate bats in the Yunnan, China caves where confirmed SARS-CoVs were found. Ostensibly, doing this would prevent another SARS-CoV pandemic; the bats' immune systems would be reinforced to prevent a deadly SARS-CoV from emerging. The specific language used is "inoculate bats with novel chimeric polyvalent spike proteins to enhance their adaptive immune memory against specific high-risk viruses."[vi] Being defense-related, it makes sense that EcoHealth submitted the proposal first to the Department of Defense, before it settled with NIH/NIAID. The BAA response is dated March 2018 and was submitted by Peter Daszak, president of EcoHealth Alliance.

DARPA rejected the proposal because the work was too close to violating the gain-of-function (GoF) moratorium,[vii] despite what Peter Daszak says in the proposal (that the work would not[viii]). As is known, Dr. Fauci with NIAID did not reject the proposal. The work took place at the WIV and at several sites in the US, identified in detail in the proposal.[ix]

The EcoHealth Alliance response to the PREEMPT BAA is placed along with other proposal documents in the PREEMPT folder on the DARPA Biological Technologies Office JWICS (top secret) share drive, address: Network/filer/BTO/CI Folder/PREEMPT

This folder was empty for a year. The files, completely unmarked with classification or distribution data, were placed in this folder in July 2021, which conspicuously aligns with media reporting, my probing, and Senator Paul's inquiry into NIH/NIAID gain-of-function programs. The unmarked nature combined with the timing signals that the documents were being hidden. No files at DARPA go unmarked in classification or distribution, including proprietary documents. Furthermore, PREEMPT is an unclassified program.

The files are also now held by Marine Corps Intelligence Activity (MCIA). They are identified in the reference block above.

2. SARS-CoV-2, hereafter referred to as SARSr-CoV-WIV, is a synthetic spike protein chimera engineered to attach to human ACE2 receptors and

inserted into a recombinant bat SARSr-CoV backbone. It is likely a live vaccine not yet engineered to a more attenuated state that the program sought to create with its final version. It leaked and spread rapidly because it was aerosolized so it could efficiently infect bats in caves, but it was not ready to infect bats yet, which is why it does not appear to infect bats. The reason the disease is so confusing is because it is less a virus than it is engineered spike proteins hitch-hiking a ride on a SARSr-CoV quasispecies swarm. The closer it is to the final live attenuated vaccine form, the more likely that it has been deattentuating since initial escape in August 2019.

The utility of certain countermeasures can be extrapolated from the documents:

- The team selected for SARSr-CoVs that were most monoclonal antibody and vaccine resistant.
- It is not practical to inoculate bats directly with shots, nor can bats get respiratory infections from droplets, so the team developed an aerosol to deliver the inoculations directly into the caves. To ensure it worked well, they developed the aerosol against *masked* civets.
- The proposal notes that interferon, Remdesivir, and chloroquine phosphate inhibit SARSr-CoV viral replication.

Because of its (now) known nature, the SARSr-CoV-WIV's illness is readily resolved with early treatment that inhibits the viral replication that spreads the spike proteins around the body (which induce a harmful overactive immune response as the body tries to clear the spikes from the ACE2 receptors). Many of the early treatment protocols ignored by the authorities work because they inhibit viral replication or modulate the immune response to the spike proteins, which makes sense within the context of what EcoHealth was creating. Some of these treatment protocols also inhibit the action of the engineered spike protein. For instance, Ivermectin (identified as curative in April 2020) works throughout all phases of illness because it both inhibits viral replication and modulates the immune response. Of note, chloroquine phosphate (Hydroxychloriquine, identified April 2020 as curative) is identified in the proposal as a SARSr-CoV inhibitor, as is interferon (identified May 2020 as curative).

The gene-encoded, or "mRNA," vaccines work poorly because they are synthetic replications of the already-synthetic SARSr-CoV-WIV spike proteins and possess no other epitopes. The mRNA instructs the cells to produce synthetic copies of the SARSr-CoV-WIV synthetic spike protein directly into the bloodstream, wherein they spread and produce the same ACE2 immune storm that the recombinant vaccine does. Many doctors in the country have identified that the symptoms of vaccine reactions mirror the symptoms of the disease, which corroborates with the similar synthetic nature and function of the respective spike proteins.
The vaccine recipient has no defense against the bloodstream entry, but their nose protects them from the recombinant spike protein quasispecies during "natural infection" (better termed as aerosolized inoculation).

Furthermore, the EcoHealth proposal states that a "vaccine approach lacks sufficient epitope coverage to protect against quasispecies of coronavirus."[x] Consequently, they were trying to make vaccines work by "targeted immune boosting via vaccine inoculators using chimeric polyvalent recombinant spike proteins."[xi] The nature of using a spike protein vaccine with one epitope against a spike protein vaccine with a quasispecies may explain the unusual (and potentially detrimental) antibody response amongst the vaccinated to the new COVID variants.[xii] Fundamentally, the knowledge the proposal provides signals that the risk of Antibody Dependent Enhancement (ADE) from vaccination should be evaluated with high priority, on top of the reality that single-epitope vaccines will have little effect against SARSr-CoV-WIV, as indicated in the proposal.

The potential for SARSr-CoV-WIV to deattentuate requires immediate attention. Live vaccines have been found to deattentuate in the past. If this is the case with SARSr-CoV-WIV, then the mass vaccination campaign actually performs an accelerated gain-of-function for it. Since it is designed for bats off of a human-susceptible SARS-CoV, vaccinating humans against it actually gains its function back towards a more deattenuated human-susceptible form. Improving the SARSr-CoV-WIV spike protein to gain robustness against monoclonal vaccines is one of the steps of the DEFUSE program. The mechanism to improve the SARSr-CoV-WIV spike protein (other than direct engineering) is to challenge it against animals that have spike protein-only antibodies. The attenuated virus will either die or adapt its form to neutralize the spike protein-only antibodies. The intent was to perform this task against humanized mice and then "batified" mice. Instead, it was done with the world's population.

SARSr-CoV-WIV is not meant to kill the bats, but to immunize them. This nature may explain its general harmlessness to most people, and its harmfulness to the old and comorbid, who are in general more susceptible to vaccine reactions. The asymptomatic nature is also explained by the bat vaccine-intention of its creators (a good vaccine does not generate symptoms). Such effects would be expected of an immature vaccine, or a vaccine being reverse engineered from a more virulent form into an attenuated form. The spike protein effect on ACE2 receptors exacerbates the harmfulness in accordance with age and comorbidity. The nature of SARSr-CoV-WIV's deattentuation will also indicate future virulence, though knowing its nature at last neutralizes the threat as effective treatments can be applied with confidence.

3. DRASTIC and other scientists will clean up my description of SARSr-CoV-WIV's nature and progression within the DEFUSE program. This information is sufficient for an investigative report and more than enough to correct the existing pandemic strategy. Previously, the nation did not know itself, nor the adversary in the pandemic conflict. Now it knows both. The problem can be framed appropriately and specifically against a confirmed hypothesis. Limiting disease transmission can be dropped as the implied strategic end, as it is not the actual problem,

nor is it actually feasible. The strategy will then align early treatment protocols and prophylaxis with the known curatives as ways and means. This course of action will achieve the strategic end of clinical resolution for those that are susceptible to the adverse effects from SARSr-CoV-WIV inoculation.

4. I will inevitably be asked how I figured this out and how I discovered the documents. The pandemic response became the predominant focus of my fellowship efforts. DARPA worked a number of pandemic innovations and much of its team was familiar with biodefense. I had the opportunity to "sit in the back row" per se and observe and listen-in on the government's efforts. My obligation-light fellowship also allowed me to observe and read the field. This observation grew in scope to the point that it became a series of reports, like a military scout would prepare when tasked to investigate a problem.

These reports served as iterative thinking against the problem over many months. Eventually, I arrived at a hypothesis that what leaked from the WIV could be a bat vaccine or its precursor. It was feasible that the US would try to avoid a SARS-CoV outbreak by stopping it at its source, not by halting its infections amongst people, but by halting the infections amongst the bats. Americans are creative, even if imprudent, and technologically confident enough to try it. This concept seemed to fit within the PREEMPT program construct as well, and DRASTIC had discovered that some earlier specimens within the USAID PREDICT program were obtained in Africa and sent to the WIV. Moreover, the unusual nature and pathology of the virus hinted that it could be a vaccine or be vaccine-like.

A technological challenge as difficult as inoculating bats in China would be tried at DARPA first. The massive, "Manhattan Project"-level of information suppression executed by the government and the Trusted News Initiative indicates that it would be covered-up if something bad happened. The lab-leak hypothesis and squabbling between Senator Paul and Dr. Fauci indicated that the cover up was more localized. Further, an actual cover-up would be more disciplined with its paperwork. So I presumed that unclassified files would be concealed on a higher network and found them where I expected them to be. I understood what they were and their content, pushed the files off-site, and compiled this report.

8/13/2021

X J. Murphy

Joseph Murphy
Major, US Marine Corps
Signed by: [redacted]

[i] DARPA: Defense Advanced Research Projects Agency
[ii] PREEMPT: Preventing Emerging Pathogenic Threats

[iv] DRASTIC: Decentralized Radical Autonomous Search Team Investigating COVID-19. This collection of scientists and sleuths broke open the lab leak hypothesis into the mainstream and has picked apart Chinese and World Health Organization (WHO) reports on SARS-CoV-2's origins in Wuhan.
[v] DEFUSE: Defusing Threat of Bat-borne Coronavirus
[vi] PREEMPT Volume 1 no ESS HR00118S0017 EcoHealth Alliance DEFUSE. Another description used: "We will develop recombinant chimera spike proteins from known SARSr-CoVs, and those characterized by DEFUSE, using details of SARS S protein structure and host cell binding, we will sequence, reconstruct, and characterize spike trimmers and RBDs of SARSr-CoVs, incorporate them into nanoparticles or raccoon poxvirus vectors for delivery to bats."
[vii] Dr. James Gimbert, DARPA Program Manager states: "team's approach does potentially involve GoF/DURC research (they aim to synthesize spike glycoproteins that may bind to human cell receptors and insert them into SARS-CoV backbones to assess capacity to cause SARS-like disease."
[viii] "We will commercially synthesize SARSr-CoV S glycoprotein genes, designed for insertion into SHC014 or WIV16 molecular clone backbones (88% and 97% S protein identity to epidemic SARS-Urbani). These are BSL-3, not select agents or subject to P3CO" (they use bat SARSr-CoV backbones which are exempt)"
[ix] Duke NUS Medical School, UNC, USGS National Wildlife Health Center, Palo Alto Rsesearch Center, Kumning, Signapore, and Madison, WI.
[x] PREEMPT Volume 1 no ESS HR00118S0017 EcoHealth Alliance DEFUSE
[xi] PREEMPT Volume 1 no ESS HR00118S0017 EcoHealth Alliance DEFUSE
[xii] "For Delta, neutralizing antibodies have a decreased affinity for spike protein, while facilitating antibodies have a "strikingly increased" affinity for spike protein." Yahi, et al. "Infection-enhancing anti-SARS-CoV-2 antibodies recognize both the original Wuhan/D614G strain and Delta variants. A potential risk for mass vaccination?" *Journal of Infection*. August 9, 2021. https://www.journalofinfection.com/article/S0163-4453(21)00392-3/fulltext

From: "Fauci, Anthony (NIH/NIAID) [E]" <afauci@niaid.nih.gov>
To: "Barasch, Kimberly (NIH/NIAID) [E]" [redacted]@nih.gov>, "Conrad, Patricia (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>
Subject: FW: Follow up reading for Dr. Fauci
Date: Wed, 25 Aug 2021 21:47:51 -0400
Importance: Normal

This is important. Let us discuss my going down to the White House to review the report.

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, August 25, 2021 7:38 PM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Cc: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Follow up reading for Dr. Fauci

Dear Dr. Fauci,

We warmly welcome you to join us to review a very interesting report we have here at NSC (same topic as before). Unfortunately, the document is such that we will again need to host you here to read it, but we very much hope you will be able to review and believe it will be worth your time if you are able. Dr. Lander has also reviewed.

Our Intelligence shop has cleared the way for you to read it at your convenience, and we will host you whenever it's most convenient for you!

Many thanks and all the very best,
Beth

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, July 1, 2021 8:59 AM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
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Beth:
Thanks for the note. Rather than wait until I am going to be on the complex for other reasons (which may be for some time since we do most interacting via zoom), it probably would be best for me to make a specific trip to the complex solely for the purpose of sitting with you all and going over the material. I will ask Patty and Kim in my immediate office to work with your team to arrange for a mutually convenient time no later than the next week or so for me to come down to the complex. Many thanks.
Best regards,
Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
[redacted]
E-mail: afauci@niaid.nih.gov

From: Cameron, Beth E. EOP/NSC[redacted]@nsc.eop.gov>
Sent: Wednesday, June 30, 2021 10:11 PM
To: Fauci, Anthony (NIH/NIAID) [E] <AFAUCI@niaid.nih.gov>
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Best wishes and thanks again!
Beth

Sent from my iPhone

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We recommend, subject to your concurrence, the following next steps:

1. NSC #Intel is now holding, in a read file for you, the relevant assessments. Maher Bitar (copied), the NSC Special Assistant to the President for Intelligence, and I would like to invite you to sit with us directly so that you can read this information the next time you are able to visit the White House/EEOB. We are unable to send these materials outside of the complex, but they are the same materials provided to other senior leaders here.

2. We are also delighted to schedule a follow up briefing with senior ODNI officials, but we wanted to ensure that you had a chance to read the actual assessment and make a choice on that – before putting another briefing on your calendar.

We and Maher stand ready to assist and appreciate greatly your time and leadership.

Best regards,
Beth

Elizabeth (Beth) E. Cameron, PhD
Special Assistant to the President and
Senior Director for Global Health Security & Biodefense
National Security Council staff
The White House
[redacted]@nsc.eop.gov

From: "Barasch, Kimberly (NIH/NIAID) [E]" [redacted]

To: "Pohl, Jill H. EOP/NSC" [redacted]@nsc.eop.gov>, "Walker, Sarah F. EOP/NSC" [redacted]@nsc.eop.gov>, "Cameron, Beth E. EOP/NSC" [redacted]@nsc.eop.gov>, "Jacob, Oliver W. EOP/NSC" [redacted]@nsc.eop.gov>, "Rosenberger, Laura M. EOP/NSC" [redacted]@nsc.eop.gov>, "Dien, Peter H. EOP/NSC" [redacted]@nsc.eop.gov>

Cc: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>, "Frisk, Megan L. EOP/NSC" [redacted]@nsc.eop.gov>, "Bitar, Maher B. EOP/NSC" [redacted]@nsc.eop.gov>, "Gustafson, Marc F. EOP/NSC" [redacted]@nsc.eop.gov>, "Joyce, Morgan K. EOP/NSC" [redacted]@nsc.eop.gov>

Subject: RE: Follow up reading for Dr. Fauci

Date: Thu, 02 Sep 2021 08:23:46 -0400

Importance: Normal

Good morning,
The WH COVID Presser for today has been moved to 3:00pm – 4:00pm, which Dr. Fauci will participate in from the NIH. Because of this change, Dr. Fauci will be joining the 4:00pm PC from the NIH SCIF.

Can we move the reading of the report to Friday, September 3rd at either 4:30pm or 5:00pm in the EEOB?

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, September 1, 2021 5:03 PM
To: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>; Rosenberger, Laura M. EOP/NSC [redacted]@nsc.eop.gov>; Dien, Peter H. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Adding Laura to make sure she's tracking!

Jill Pohl
Director for Intelligence
White House – National Security Council
[redacted] (desk)

[redacted] (cell)

From: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, September 1, 2021 4:47 PM
To: 'Barasch, Kimberly (NIH/NIAID) [E]' [redacted]@nih.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Many thanks, Kim!

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Wednesday, September 1, 2021 4:35 PM
To: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Sarah,
NSC ExecSec reached out. Dr. Fauci will attend the PC tomorrow at 4:15pm in-person and then will walk over to the Intel reading in the EEOB with Beth once the meeting concludes.

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, September 1, 2021 4:11 PM
To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Kim,

NSC ExecSec will reach out to you shortly with the information for the PC tomorrow at 4:15. Please let me know if you do not receive it. If Dr. Fauci is available to attend the 4:15 PC in the White House Situation Room, we can proceed with the Intel reading in EEOB as soon as the PC concludes. Otherwise, we are happy to adjust based off his schedule.

Best,
Sarah

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Wednesday, September 1, 2021 3:58 PM
To: Walker, Sarah F. EOP/NSC [redacted]r@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Sarah,

There was a Principals Committee meeting yesterday, August 31st at 4:30pm. We are currently tracking the next Principals Committee meeting for Thursday, September 9th. We have not heard or seen anything about a meeting for Sept. 2nd at 4:15pm. Happy to accommodate regarding timing if needed.

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, September 1, 2021 3:15 PM
To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Good Afternoon Kim,

Dr. Fauci should have just received an invitation for a Principals Committee meeting in the White House Situation Room, scheduled for tomorrow, Thursday, September 2 from 4:15-5:15 PM. If he is able to attend that meeting, would he be able to come to EEOB and read the products afterwards (5:15-6:00 PM)? In which case, Beth will be able to walk with him from WHSR to #INTEL.

Many thanks,
Sarah

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Wednesday, September 1, 2021 3:01 PM
To: Pohl, Jill H. EOP/NSC <[redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC <[redacted]@nsc.eop.gov>; Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>;

Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Good afternoon,

Reconfirming that Dr. Fauci will be coming to the WH/EEOB tomorrow, September 2nd at 4:30pm for the follow up reading. Will Sarah Walker, or some else, meet Dr. Fauci at the Navy Steps and assist in getting him to EEOB 422?

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Pohl, Jill H. EOP/NSC <[redacted]@nsc.eop.gov>
Sent: Thursday, August 26, 2021 7:07 PM
To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Jacob, Oliver W. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC <[redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Adding Oliver on our team as well. We can use #INTEL again if you'd like (EEOB 422!)

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Thursday, August 26, 2021 3:54 PM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>; Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC <[redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Beth.
That would be great if someone is able to meet Dr. Fauci at the foot of the Navy Steps.

Thanks,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, August 26, 2021 3:38 PM

To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Kim – yes, for sure. We will happily meet Dr. Fauci at the foot of the Navy Steps, as before, if that helps. We are identifying a room in EEOB.

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Thursday, August 26, 2021 3:23 PM
To: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Sarah,
Great and thank you. Where should Dr. Fauci go upon arriving at the WH? I am assuming an office within the EEOB.

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
[redacted]@nih.gov

From: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, August 26, 2021 3:12 PM
To: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Kim,

Thursday, September 2nd at 4:30 PM works well on our end. Please feel free to use me as a POC for any logistics or assistance.

Thank you,
Sarah

Sarah Walker
Policy Advisor
Global Health Security and Biodefense
National Security Council | The White House

D: [redacted] | C: [redacted]

From: Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Sent: Thursday, August 26, 2021 2:07 PM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: RE: Follow up reading for Dr. Fauci

Hi Beth,

Dr. Fauci is able to stop by next week on Thursday, September 2nd at 4:30pm. Will this work?

Thank you,
Kim

Kim Barasch
Office of the Director
National Institute of Allergy & Infectious Diseases
301.496.2263
Kimberly.Barasch@nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, August 25, 2021 10:06 PM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>; Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>; Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Re: Follow up reading for Dr. Fauci

Many thanks Dr Fauci!

On Aug 25, 2021, at 9:50 PM, Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov> wrote:

Beth:
Thanks for the note. I will ask my staff to contact you and your staff about arranging for me to go down to your place to view the document as soon as is feasible.
Best regards,
Tony

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, August 25, 2021 7:38 PM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Cc: Walker, Sarah F. EOP/NSC [redacted]@nsc.eop.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Gustafson, Marc F. EOP/NSC [redacted]@nsc.eop.gov>;

Pohl, Jill H. EOP/NSC [redacted]@nsc.eop.gov>; Joyce, Morgan K. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Follow up reading for Dr. Fauci

Dear Dr. Fauci,

We warmly welcome you to join us to review a very interesting report we have here at NSC (same topic as before). Unfortunately, the document is such that we will again need to host you here to read it, but we very much hope you will be able to review and believe it will be worth your time if you are able. Dr. Lander has also reviewed.

Our Intelligence shop has cleared the way for you to read it at your convenience, and we will host you whenever it's most convenient for you!

Many thanks and all the very best,
Beth

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Thursday, July 1, 2021 8:59 AM
To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC <[redacted]r@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Many thanks, Dr. Fauci – we will support absolutely whatever works best for you. Patti & Kim: we will accommodate whatever is most convenient – thanks, as always, for your assistance.

Many thanks,
Beth

From: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>
Sent: Thursday, July 1, 2021 8:38 AM
To: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC [redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>; Barasch, Kimberly (NIH/NIAID) [E] [redacted]@nih.gov>
Subject: RE: Follow up from the briefing of a few weeks ago

Beth:
Thanks for the note. Rather than wait until I am going to be on the complex for other reasons (which may be for some time since we do most interacting via zoom), it probably would be best for me to make a specific trip to the complex solely for the purpose of sitting with you all and going over the material. I will ask Patty and Kim in my immediate office to work with your team to arrange for a mutually convenient time no later than the next week or so for me to come down to the complex. Many thanks.
Best regards,
Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520

National Institutes of Health
Bethesda, MD 20892-2520
[redacted]
E-mail: afauci@niaid.nih.gov

From: Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov>
Sent: Wednesday, June 30, 2021 10:11 PM
To: Fauci, Anthony (NIH/NIAID) [E] <AFAUCI@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] [redacted]@niaid.nih.gov>; Frisk, Megan L. EOP/NSC [redacted]@nsc.eop.gov>; Bitar, Maher B. EOP/NSC <[redacted]@nsc.eop.gov>; Rault, Nick M. EOP/NSC [redacted]@nsc.eop.gov>
Subject: Re: Follow up from the briefing of a few weeks ago

Dear Patti,

I hope you are well. We wanted to check in on this recognizing Dr Fauci may be on complex tomorrow. We know he is extremely busy, but we wanted to offer the opportunity to read this document should he be on campus with the time to do so.

Best wishes and thanks again!
Beth

Sent from my iPhone

On Jun 21, 2021, at 8:44 PM, Cameron, Beth E. EOP/NSC [redacted]@nsc.eop.gov> wrote:

Dear Dr. Fauci,

We wanted to follow up from the challenging briefing in which we both participated a couple of weeks ago. As we discussed following that meeting, my team has been working with ODNI and with NSC #INTEL to ensure that you are provided with information that is in line with what has been provided to other senior Administration officials and the President.

We recommend, subject to your concurrence, the following next steps:

1. NSC #Intel is now holding, in a read file for you, the relevant assessments. Maher Bitar (copied), the NSC Special Assistant to the President for Intelligence, and I would like to invite you to sit with us directly so that you can read this information the next time you are able to visit the White House/EEOB. We are unable to send these materials outside of the complex, but they are the same materials provided to other senior leaders here.

2. We are also delighted to schedule a follow up briefing with senior ODNI officials, but we wanted to ensure that you had a chance to read the actual assessment and make a choice on that – before putting another briefing on your calendar.

We and Maher stand ready to assist and appreciate greatly your time and leadership.

Best regards,
Beth

Elizabeth (Beth) E. Cameron, PhD
Special Assistant to the President and
Senior Director for Global Health Security & Biodefense
National Security Council staff
The White House
[redacted]@nsc.eop.gov

From: PHEMCE Advisory Council [redacted]@hhs.gov>
To: "Conrad, Patricia (NIH/NIAID) [E]" [redacted]@niaid.nih.gov>
Subject: FW: Council Threat Briefing
Date: Tue, 27 Dec 2022 11:40:29 -0500
Importance: High
Attachments: unnamed

From: PHEMCE Advisory Council [redacted]@hhs.gov>
Sent: Tuesday, December 27, 2022 11:40:21 AM (UTC-05:00) Eastern Time (US & Canada)
To: [redacted]@usda.gov [redacted]@usda.gov>; [redacted]@usda.gov [redacted]@usda.gov>; [redacted].civ@mail.mil>; Walensky, Rochelle (CDC/OD) [redacted]@cdc.gov>; [redacted]@mail.mil>; Robert.Califf[redacted]@fda.hhs.gov>; Woodcock, Janet (FDA/OC) [redacted]@fda.hhs.gov>; Tabak, Lawrence (NIH/OD) [E] [redacted]k@nih.gov>; Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>; O'Connell, Dawn (OS/ASPR/IO) [redacted]@hhs.gov>; pritesh.gandhi (dhs.gov) [redacted]@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) [redacted]@hq.dhs.gov>; [redacted]@va.gov [redacted]@va.gov>; [redacted]@va.gov [redacted]@va.gov>; [redacted]@dni.gov [redacted]@dni.gov>; [redacted]@mail.mil [redacted]@mail.mil>; Walke, Henry (CDC/DDPHSIS/CPR/OD) [redacted]@cdc.gov>; [redacted]@odni.gov [redacted]@odni.gov>
Cc: [redacted]@hhs.gov>; [redacted]hhs.gov>; [redacted]@hhs.gov>; [redacted]@hhs.gov>; [redacted]@hhs.gov>; [redacted]@USDA.gov>; [redacted]l@mail.mil [redacted]il@mail.mil>; [redacted]@mail.mil [redacted]@mail.mil>; [redacted]@cdc.gov>; [redacted]@fda.hhs.gov>; [redacted]@fda.hhs.gov>; [redacted]@nih.gov>; [redacted]@hhs.gov>; [redacted]@hq.dhs.gov [redacted]@hq.dhs.gov>; [redacted]va.gov [redacted]@va.gov>; [redacted]@dni.gov [redacted]@dni.gov>
Subject: Council Threat Briefing
When: Thursday, January 26, 2023 1:00 PM-2:30 PM.
Where:

PHEMCE Advisory Council Members:

The Assistant Secretary for Preparedness and Response (ASPR) has requested that the Advisory Council members (and their designated alternates) convene in McLean, VA at the Office of the Director of National Intelligence (ODNI)'s Liberty Crossing II (LX-II) SCIF on January 26th from 1:00 – 2:30 PM ET for a **classified threat briefing conducted by ODNI**.

ODNI prefers to conduct this briefing at a TS/SCI level and recommends in-person attendance. If either [member] or [alternate] reside outside of the Washington, DC area and are unable to travel, please let us know.

Additional details and request for information forthcoming.

- The PHEMCE team

[redacted]@hhs.gov