INTERVIEW OF: FRANCIS COLLINS, M.D.

Friday, January 12, 2024

The Interview Commenced at 10:07 a.m.
Appearances.

MEMBERS OF CONGRESS:

Brad Wenstrup, Ohio
Debbie Dingell, Michigan
Dr. Raul Ruiz, California
Morgan Griffith, Virginia

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Minority Senior Counsel
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<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>National Institutes of Health, Gain-of-Function Research Involving Potential Pandemic Pathogens</td>
</tr>
<tr>
<td>B</td>
<td>U.S. Government Gain-of-Function Deliberative Process and Research Funding Pause on Selected Gain-of-Function Research Involving Influenza, MERS, and SARS Viruses, October 17, 2014</td>
</tr>
<tr>
<td>C</td>
<td>Framework for Guiding Funding Decisions about Proposed Research Involving Enhanced Potential Pandemic Pathogens, 2017</td>
</tr>
<tr>
<td>D</td>
<td>Email dated 1 Feb 2020 from Jeremy Farrar to Anthony Fauci, and others, Bates commencing SSCP_NIH000791</td>
</tr>
<tr>
<td>E</td>
<td>Email dated 2/1/2020 from Lawrence Tabak to Francis Collins, and others, Bates commencing SSCP_NIH001902</td>
</tr>
<tr>
<td>F</td>
<td>Email dated 4 Feb 2020 from Jeremy Farrar to Anthony Fauci, and others, Bates commencing SSCP_NIH000751</td>
</tr>
<tr>
<td>Exhibit</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>G</td>
<td>Email dated 2/8/202 from Jeremy Farrar to Edward Holmes, and others, Bates commencing REV0000411</td>
</tr>
<tr>
<td>2</td>
<td>August 13, 2014, U.S. rolls back oversight of potentially dangerous experiments</td>
</tr>
<tr>
<td>3</td>
<td>Virus Evolution, Association between SARS-CoV-2 and metagenomic content of samples from the Huanan Seafood Market</td>
</tr>
<tr>
<td>4</td>
<td>Letter dated April 19, 2020, from Michael S. Lauer, MD, to Kevin Olival, PhD and Naomi Schrag, JD, Bates SSCP_NIH003832</td>
</tr>
<tr>
<td>5</td>
<td>Letter dated 24 April 2020 from Michael S. Lauer, MD, to Drs. Aleksei Chmura and Peter Daszak, Bates SSCP_NIH003833</td>
</tr>
<tr>
<td>Exhibit</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>6</td>
<td>Letter dated 8 July 2020 from Michael S. Lauer, to Drs. Aleksei Chmura and Peter Daszak</td>
</tr>
<tr>
<td>7</td>
<td>Letter dated 23 July 2021, from Michael S. Lauer, MD, to Drs. Aleksei Chmura and Peter Daszak, Bates commencing SSCP_NIH003882</td>
</tr>
<tr>
<td>8</td>
<td>Letter dated July 28, 2021, from Francis S. Collins, M.D., Ph.D. to The Honorable James Comer</td>
</tr>
<tr>
<td>9</td>
<td>Letter dated October 20, 2021, from Lawrence A. Tabak, D.D.S., Ph.D. to The Honorable James Comer</td>
</tr>
<tr>
<td>10</td>
<td>Interim RPRR, Project Title: Understanding the Risk of Bat Coronavirus Emergency, progress report</td>
</tr>
<tr>
<td>11</td>
<td>Article, Research Involving Enhanced Potential Pandemic Pathogens</td>
</tr>
<tr>
<td>12</td>
<td>Email communication, Bates commencing SSCP_NIH001796</td>
</tr>
</tbody>
</table>
136 Exhibits
137 Majority Exhibit No. Page No.
138 13 - Slack message notes, Bates
139 REV0002902 187
140 14 - Letter dated January 11, 2022
141 from James Comer and Jim Jordan
142 to The Honorable Xavier Becerra,
143 Secretary 236
144 15 - Email communication, Bates
145 commencing FOIA-00001028 259
146
Mr. Benzine. We can go on the record. This is the transcribed interview of Dr. Francis Collins conducted by the House Select Subcommittee on the Coronavirus Pandemic, the Committee on Oversight and Accountability and the Committee on Energy and Commerce under the authority granted to them by House Resolution 5, House Rule 10, and the Rules of the Committee on Oversight and Accountability and Committee on Energy and Commerce.

This interview was requested by Chairman Brad Wenstrup, Chairman James Comer, Chair Cathy McMorris Rodgers, Chairman Morgan Griffith, and Chairman Brett Guthrie as part of the Committee's oversight of the federal government's response to the coronavirus pandemic.

Further, pursuant to House Resolution 5, the Select Subcommittee has wide-ranging jurisdiction, but specifically to investigate the origins of the coronavirus pandemic, including but not limited to the federal government's funding of gain of function research and the executive branch policies, deliberations, decisions, activities, and the internal and external communications related to the coronavirus pandemic.

Pursuant to House Rule 10, the Committee on Oversight and Accountability has jurisdiction to investigate any matter at any time, and pursuant to House Rule 10 and 11, the
Committee on Energy and Commerce has jurisdiction for public health service agencies, including the National Institutes of Health and the entities it funds, as well as federal biomedical research and development.

BY MR. BENZINE.

Q Can the witness please state his name and spell his last name for the record?

A Yes, I'm Francis Collins, C-O-L-L-I-N-S.

Q Thank you, Dr. Collins. My name is Mitch Benzine, and I am the staff director for the Majority staff of the Select Subcommittee. I want to thank you for coming in today for this interview. We recognize that you are here voluntarily and appreciate that.

Under the Select Committee and Committee on Oversight and Accountability's rules, you are allowed to have an attorney present to advise you during this interview. Do you have an attorney representing you in a personal capacity with you today?

A Yes, I do.

Mr. Benzine. Will counsel please identify themselves?

Mr. Nassikas. Good morning, Mr. Benzine. Its John Nassikas, Cate Brandon, Eliza Buergenthal, and Olivia Foster from Arnold & Porter on behalf of Dr. Collins.

Mr. Benzine. Thank you.

BY MR. BENZINE.
Q Is there also an attorney present representing the Department of Health and Human Services with you today?

A Yes.

Mr. Benzine. Will counsel please identify themselves?

Ms. Ganapathy. Tara Ganapathy, senior counsel, HHS.

BY MR. BENZINE.

Q Is there also an attorney representing the White House with you today?

A Yes.

Mr. Benzine. Will counsel please identify themselves?

Mr. Barstow. Kevin Barstow, White House counsel's office.

Mr. Benzine. For the record, can the additional staff please introduce themselves with their name, title, and affiliation.

Mr. Osterhues. Eric Osterhues, chief counsel, Select Subcommittee for the Coronavirus Pandemic, Majority staff.

Ms. Brewer. Madeline Brewer, Majority counsel for the Select Subcommittee.

[Redacted], chief Minority counsel, Select Subcommittee.


Minority counsel, Select
Subcommittee.

Chief counsel for the Minority, Energy and Commerce Committee, Subcommittee on Oversight and Investigations.

Democratic staff director of the Select Subcommittee.

Democratic senior counsel, Select Subcommittee.

Ms. Cook. Marta Cook, senior advisor for oversight at NIH.

Ms. Berstell. Daria Berstell, Office of Assistant Secretary for Legislative Analysis.

Mr. Benzine. Can the Members that are present in the room please identify themselves?

Mr. Wenstrup. Brad Wenstrup, Ohio, Second District.

Ms. Dingell. Debbie Dingell, Michigan.

Mr. Benzine. Thank you all.

BY MR. BENZINE.

Q Dr. Collins, before I begin, I would like to go over the ground rules for this interview.

The way this interview will proceed is as follows. The Majority and Minority staff will alternate asking you questions, one hour per side per round until each side is finished with their questioning.

The Majority staff will begin and proceed for an hour, and then the Majority staff will have an hour to ask questions.
We will then alternate back and forth in this manner until both sides have no more questions. If either side is in the middle of a specific line of questions, they may choose to end a few minutes past an hour to ensure completion of that specific line of questioning, including any pertinent follow-ups.

In this interview, while one member of the staff for each side may lead the questioning, additional staff may ask questions.

There is a court reporter taking down everything I say and everything you say to make a written record of the interview. For the record to be clear, please wait until the staffer questioning you finishes each question before you begin your answer, and the staffer will wait until you finish your response before proceeding to the next question.

Further, to ensure the court reporter can properly record this interview, please speak clearly, concisely, and slowly.

Also, the court reporter cannot record nonverbal answers, such as nodding or shaking your head, so it is important that you answer each question with an audible verbal answer.

Exhibits may be entered into the record. Majority exhibits will be identified numerically, Minority exhibits will be
identified alphabetically.

Do you understand?

A Yes.

Q We want you to answer our questions in the most complete and truthful manner possible. If you have any questions or do not fully understand the question, please let us know. We will attempt to clarify, add context to, or rephrase our questions.

Do you understand?

A Yes.

Q If we ask about specific conversations or events in the past and you are unable to recall the exact words or details, you should testify to the substance of those conversations or events to the best of your recollection. If you recall only a part of a conversation or event, you should give us your best recollection of those events or parts of conversations that you do recall.

Do you understand?

A Yes.

Q Although you are here voluntarily and we will not swear you in, you are required pursuant to Title 18, Section 1001 of the United States Code to answer questions from Congress truthfully. This also applies to questions posed by congressional staff in this interview.

Do you understand?
Q If, at any time, you knowingly make false statements, you could be subject to criminal prosecution. Do you understand?
A Yes.

Q Is there any reason you are unable to provide truthful testimony today?
A No.

Q The Select Subcommittee follows the rules of the Committee on Oversight and Accountability. Please note that if you wish to assert a privilege over any statement today, that assertion must comply with the rules of the Committee on Oversight and Accountability. Pursuant to that, Committee Rule 16(c)(1) states, "for the Chair to consider assertions of privilege over testimony or statements, witnesses or entities must clearly state the specific privilege being asserted and the reason for the assertion on or before the scheduled date of testimony or appearance." Do you understand?
A Yes.

Q Ordinarily, we take a five-minute break at the end of each hour of questioning, but if you need a longer break or a break before that, please let us know and we will be happy to accommodate. However, to the extent that there is a pending question, we would ask that you
finish answering the question before we take a break. Do you understand?

A  Yes.

Q  Any further questions before we begin?

A  No.

Mr. Nassikas. Mr. Benzine, just one quick note. You mentioned to best recollection, that's an important one. All of Dr. Collins' answers today are going to be to the best of his recollection, and he will be very honest and truthful in his answers.

And you cited 1001, as we've talked by phone, we just ask that in whatever retelling you do of Dr. Francis' honest comments today also kind of respects the truthfulness that's embedded in 1001.

Mr. Benzine. Thank you.

BY MR. BENZINE.

Q  I want to thank you for your years of work in this space and for coming in voluntarily. I want to go through a couple other baseline questions before we get into your education and experience.

You are represented by personal counsel, but accompanied by both Department and White House counsel. Are you aware that those representatives do not represent your interests, but instead those of the United States government?

A  Yes.
Are you aware that it is possible your personal interests may diverge from those of the United States government?

A Yes.

The representatives from the Department and the Whitehouse may exert privileges on behalf of the government and instruct you to not answer questions. Are you aware that the decision to answer questions, even if instructed not to, resides with you?

A Yes.

Are you aware that if you refuse to answer any questions today, either as instructed or otherwise, the Select Subcommittee has the authority to compel your testimony?

A Yes.

All right, thank you.

Like I said, I want to run very briefly through education and experience. Where did you attend undergraduate school and what degree did you graduate with?

A University of Virginia, wahoowa, a bachelor's degree of chemistry in 1970.

And where did you get your medical degree?

A In between there, I got a Ph.D. in physical chemistry. But then I went to the University of North Carolina for medical training, got my MD in 1977.
Q Thank you.

Mr. Nassikas. Where was your Ph.D. from?

The Witness. From Yale, oddly enough, since I believe there are people in the room who also went there.

BY MR. BENZINE.

Q Who is your current employer and what is your current job title?

A The National Institutes of Health. I'm currently a distinguished investigator in the National Human Genome Institute at NIH.

Q Do you currently hold or have you previously held any honorary or academic positions?

A Before coming to NIH 30 years ago, I was on the faculty at the University of Michigan for nine years.

Q And then do you currently hold or have you previously held any positions on boards of companies or nonprofits?

A Way back in the 1980s, I was a cofounder of a small biotech company called Gene Labs, but that was something that I left probably about 1991. Nothing since then.

Q Thank you. When did you become director of the NIH?

A In 2009.

Q And then in that role, who was your direct
A The Secretary of Health and Human Services.

Q And then understanding things change wildly, but what were kind of your standard roles and responsibilities?

A They do change wildly. The National Institutes of Health is the largest supporter of biomedical research in the world. As the director, it's my responsibility to survey what the scientific opportunities might be, and to be sure that we were doing everything possible to pursue those in a way that would make advances for the public in terms of alleviating suffering and saving lives.

Q While director, did you hold a security clearance?

A Yes.

Q At what level?

A Top secret.

Q Not SCI?

A You know, I don't recall.

Q Okay. During the pandemic, did you receive any classified briefings regarding COVID-19 or China?

A Not about COVID-19.

Q I'm going to ask a really long list of names, and if you can bear with me while I go through it of
just "yes" or "no" if you talked to any of these individuals regarding the origins of COVID, the Wuhan Institute of Virology, or EcoHealth Alliance. So the general timeframe will be January 2019 until now.

A  Mm-hmm.

Q  As much as you can remember.

Mr. Nassikas. And "yes" or "no" will be obviously to the best of Dr. Collins' recollection.

The Witness. Right.

Mr. Nassikas. So you don't have to say that every time.

BY MR. BENZINE.

Q  It can be "yes," "no," or "I don't recall."

And we can go back through it.

Secretary Azar.

A  Yes.

Q  Admiral Giroir?

A  Yes.

Q  Dr. Kadlec?

A  Yes.

Q  Dr. Birx?

A  Yes.

Q  Dr. Redfield?

A  Yes.

Q  Dr. Raj Panjabi?

A  Yes.
Q Dr. Ashish Jha?
A Yes.
Q Jeff Zients?
A Yes.
Q Andy Slavitt?
A Not to my recollection.
Q Rob Flaherty?
A Not to my recollection.
Q Secretary Becerra?
A Yes.
Q Susan Rice?
A Yes.
Q Neera Tanden?
A No, not to my recollection.
Q Shalanda Young?
A Again, the substance of your question was about COVID origins, EcoHealth, or Wuhan. That would be no.
Q Dr. Fauci?
A Yes.
Q Dr. Tabak?
A Yes.
Q Dr. Auchincloss?
A Yes.
Q Dr. Morens?
472  A  No.
473  Q  Dr. Ping Chen?
474  A  No.
475  Q  Dr. Cliff Lane?
476  A  Yes.
477  Q  Dr. Michael Lauer?
478  A  Yes.
479  Q  Dr. David Christian Hassell?
480  A  No.
481  Q  Mr. Gray Handley?
482  A  Not to my recollection.
483  Q  Mr. Greg Folkers?
484  A  Not to my recollection.
485  Q  Dr. Eric Stemmy?
486  A  Not to my recollection.
487  Q  Dr. Emily Erbelding?
488  A  No.
489  Q  Dr. Tedros?
490  A  Yes.
491  Q  Dr. Jeremy Farrar?
492  A  Yes.
493  Q  Dr. Kristian Andersen?
494  A  Would an involvement in a conference call be the sort of thing you're asking about?
495           Yes, is that the only involvement?
Only in conference calls.

Dr. Michael Farzan?

Only in conference calls.

Dr. Eddie Holmes?

Only in conference calls.

Dr. Ian Lipkin?

Yes.

Dr. Andrew Rambaut?

Only in the call.

Dr. Christian Drosten?

Only in the call.

Dr. Ron Fouchier?

Only in the call.

Dr. Marion Koopmans?

Only in the call.

Dr. Peter Daszak?

No.

Dr. Michael Worobey?

No.

Dr. Jonathan Pekar?

No.

Dr. James LeDuc?

No.

Dr. Shi Zhengli?

No.
Q Dr. George Gao?
A No.
Q Dr. Ralph Baric?
A Not to my recollection.
Q Thank you. I want to go back through and ask a few more specifics. So the answer only in the call for Dr. Koopmans, Dr. Fouchier, Dr. Drosten, Dr. Rambaut, Dr. Holmes, Dr. Farzan, and Dr. Andersen is referring to the February 1st conference call; is that correct?
A That is correct. There was another call that involved Dr. Andersen later in the year.
Q Do you recall about when that was?
A It would have been about July.
Q Do you recall the substance of that one?
A It was initiated by a concern by Dr. Bloom.
Q Thank you. Going back up the list.
A Dr. Farrar obviously has the conference call association. Were there other communications with Dr. Farrar?
A There were.
Q Do you recall about when or how many?
A Not specifically. No, I wouldn't be able to lay them out precisely.
Q More than one, but less than five?
A That would be about right.
Q All right. And do you recall outside of the
conference call, which we'll talk about in more detail, do you recall the contents of the conversations? Was it origin-specific or did it get to anything else?

A It was also about the response --

Q Okay.

A -- to the pandemic. And particularly the urgency of identifying therapeutics and vaccinations.

Q Thank you. Dr. Lauer, do you recall the contents of those conversations?

A Dr. Lauer, as the director of extramural research for NIH, had very significant responsibilities for everything that NIH does. So I would, in the course of my time as director, be in conversations with him almost every other day about something.

In terms of COVID, well, a lot of what we were talking about at that point was COVID. I can't tell you the number of occasions or the topics.

Q Do you recall any conversations with him regarding compliance efforts with EcoHealth?

A Only after the fact.

Q Okay. Dr. Lane, do you recall the contents of those conversations?

A I talked with him a lot about what he was doing to set up the clinical guidelines that all of the docs were looking for to know what was the right way to
prevent and treat COVID-19.

Q    Dr. Auchincloss, do you recall those?
A    It would have been very limited. As Dr. Fauci's deputy, I don't recall the content.

Q    Dr. Tabak, do you recall those?
A    Dr. Tabak is my principal deputy whose desk was 20 feet away from mine. We talked many times a day.

Q    Do you recall any specific conversations about origins, Wuhan, or EcoHealth?
A    Not any specific ones.

Q    And then Dr. Fauci, any specific -- understanding you probably talked often. Any specific conversations regarding origins, Wuhan, or EcoHealth?
A    No specific conversations. But, yes, we were in touch very regularly during the crisis of COVID-19.

Q    What about Susan Rice, do you recall those conversations?

Mr. Barstow. Dr. Collins, if you can answer this at a very general level, that's okay, but do not reveal any specific conversations.

The Witness. It will be easy because I don't recall the conversation at all.

BY MR. BENZINE.

Q    But you did talk to Dr. Rice about one of
those three topics?

Let me step back a moment. I have spoken with Dr. Rice about other things. Now that I'm trying to dredge through my memory, I am not sure I ever spoke to her about COVID.

Okay.

So maybe I would like to clarify that.

All right. Secretary Becerra, do you recall the contents of those conversations?

Of course I reported to Secretary Becerra when he became Secretary. We met regularly to cover a wide range of issues. I don't recall the specifics.

Mr. Zeintz, do you recall the contents of those conversations?

Dr. Collins, I would give you the same instruction here. General topic is okay, but do not reveal specifics about those conversations.

Right. Well, as the person who was initially leading the Biden administration's response to COVID, I spoke with him about those topics. I won't go into the detail.

To the best of your recollection, were any of the conversations regarding compliance on EcoHealth?
ask you not to answer that question.

Mr. Benzine. On what grounds?

Mr. Barstow. Executive branch confidentiality interest.

Mr. Benzine. Are you instructing him to not answer the question?

Mr. Barstow. Yes, I am.

Mr. Benzine. All right.

BY MR. BENZINE.

Q Did you have any conversations with Mr. Zeintz regarding the Wuhan Institute of Virology?

Mr. Barstow. Again, I am going to step in here and instruct Dr. Collins not to answer that question.

BY MR. BENZINE.

Q Did you have any conversations with Mr. Zeintz regarding the origins of COVID-19?

Mr. Barstow. Once again, I am going to step in here and ask Dr. Collins not to answer that question.

BY MR. BENZINE.

Q Okay, going up the list. Dr. Jha, do you recall the contents of those conversations?

Mr. Barstow. The same instruction, Dr. Collins.

BY MR. BENZINE.

Q Dr. Collins, did you have any conversations with Dr. Jha regarding the origins of COVID-19?

Mr. Barstow. I'm going to ask Dr. Collins to not to answer
Dr. Collins, did you have any conversations with Dr. Jha regarding the Wuhan Institute of Virology?

Mr. Barstow. I am going to ask Dr. Collins not to answer that question.

Dr. Collins, did you have any conversations with Dr. Jha regarding EcoHealth?

Mr. Barstow. I am going to ask him not to answer that question.

What about Dr. Panjabi, do you recall the contents of those conversations?

Mr. Barstow. The same instruction.

Dr. Collins, did you have any conversations with Dr. Panjabi regarding the origins of COVID-19?

Mr. Barstow. I'm going to ask Dr. Collins not answer that question.

Dr. Collins, did you have any conversations with Dr. Panjabi regarding the Wuhan Institute of Virology?

Mr. Barstow. Once again I'm going to ask Dr. Collins not answer that question.
BY MR. BENZINE.

Q Dr. Collins, did you have any conversations with Dr. Panjabi regarding EcoHealth?

Mr. Barstow. Once again, I'm going to ask him not answer that question.

BY MR. BENZINE.

Q Do you recall the contents of the conversations with Dr. Redfield?

A Only in a very general way.

Q Do you recall any specifics of conversations regarding the origins, his perspective, or your perspective?

A No.

Q What about Dr. Birx, do you recall the contents of those conversations?

Mr. Barstow. The same instruction, Dr. Collins.

BY MR. BENZINE.

Q Dr. Collins, do you recall any conversations with Dr. Birx regarding the origins of COVID-19?

Mr. Barstow. I am going to ask Dr. Collins not to answer that question.

BY MR. BENZINE.

Q Dr. Collins, do you recall any conversations with Dr. Birx regarding the Wuhan Institute of Virology?

Mr. Barstow. I will ask him not to answer that question as
BY MR. BENZINE.

Q And, Dr. Collins, do you recall any conversations with Dr. Birx regarding EcoHealth?

Mr. Barstow. And again, I will ask him not to answer that question.

BY MR. BENZINE.

Q Do you recall the contents of the conversations with Dr. Kadlec?

A Only in a very general way.

Q Any memory of --

Ms. Ganapathy. Dr. Collins, I'm going to step in and instruct you to respond, but in a way that focuses on broad themes, as opposed to getting into specifics of deliberative discussions.

Mr. Osterhues. What about factual matters?

Ms. Ganapathy. Specifics of deliberative discussions.

Mr. Osterhues. Deliberative does not include facts.

Ms. Ganapathy. The content of deliberative discussions.

Mr. Osterhues. No, we went through this the last time. We've gone through this before. I don't know if you really understand what deliberative is. Facts are not deliberative.

Ms. Ganapathy. So our position is that we are here voluntarily today as an accommodation. We're not going to
get into specifics of high level deliberative discussions.

So I'm instructing the witness to respond accordingly.

Mr. Benzine. All right. For both White House and Department counsel, we are going to run through as many questions as we can today, but if this continues, we are going to end the interview and issue a subpoena to Dr. Collins. So keep that in the back of your head as we continue.

BY MR. BENZINE.

Q So you can answer the general conversations that you had with Dr. Kadlec regarding origins, Wuhan, or EcoHealth.

A I don't recall the specifics at all.

Q Do you recall the contents of the conversations with Admiral Giroir?

A There again, I don't recall the specifics.

Q And then what about the contents with Secretary Azar?

A I met with Secretary Azar regularly, and certainly we talked about the response to COVID, primarily.

Q Do you recall any specifics on origins, Wuhan, or EcoHealth?

A I don't recall.

Q Thank you. I'm going to go through some other departments and agencies that you may not have
specific conversations with specific people, but I just want to ask if you had any conversations with anyone affiliated with these agencies.

Ms. Brandon. About what topic?

Mr. Benzine. The same three, origins, EcoHealth, or the Wuhan Institute.

Ms. Brandon. Thank you.

BY MR. BENZINE.

Q Anyone affiliated with Fort Detrick?

A No.

Q Anyone affiliated with the State Department?

A Not that I can recall.

Q Anyone affiliated with the FBI?

A What time period are we talking about?

Q January until now.

A I was interviewed by the FBI.

Q Do you recall about when?

A I think that was August of '23.

Q Thank you. Any conversations with anyone affiliated with the CIA?

A No.

Q Anyone affiliated with the National Center for Medical Intelligence?

A No, I don't know what that is.

Q Anyone affiliated with the Department of
Energy?

A On these three topics? No.

Q And then anyone affiliated with the Defense Threat Reduction Agency?

A Hmm-mm. And, again, these are all to my best recollection.

Q Yes, absolutely. One final baseline question. Have you had any conversations with anyone, particularly anyone on that long list, regarding this interview?

A No.

Q Thank you. I want to ask about personal email and phone. Did you ever conduct official business via a personal email?

A No.

Q What about a personal cell phone?

A I have a single cell phone that's government issued, which I'm allowed to use for a small part of the time for personal purposes.

Q Thank you. What about any official business over an encrypted messaging app, like Signal or WhatsApp?

A Signal, I don't know what that is.

WhatsApp, not official business.

Q Does NIH use Microsoft Teams or any other messaging service on your desktop or laptop?
A Not on mine.
Q Did you keep or maintain more than one calendar?
A No.
Q What about more than one email account?
A There were a lot of aliases, but they all fed into the same inbox.
Q Perfect, thank you. I'm going to shift gears and talk about the grant process a little bit at NIH. And just to the best of your knowledge, answer these. If you don't know, say so. And then I'm going to get into a few more specific questions about foreign collaborators or foreign labs.
We talked to any number of people through the kind of NIAID grant process and then a couple people in NIH, Dr. Lauer, Dr. Tabak, about the NIH grant process. And I just want to very briefly run through proposal to funding, from your point of view, what the process is.
A An investigator who has a research idea writes a proposal following the guidelines that NIH puts forward about what's expected to be included, submits that often at a particular date where there's a deadline for receipt. That is then looked at by the scientific staff at NIH to decide whether it's an appropriate kind of question that fits within NIH's mission. And, if so, which
institute should it be assigned to. There are 27 institutes, et cetera.

At that point, then it is assigned to a peer review study section of other experts in that area of science, all of whom are to do this with complete confidentiality. And these are not government employees, these are the experts that seem to know most about that area.

The grant then is reviewed by that study section. There's an active discussion about its pros and cons, and it gets assigned a score, a priority score. That is the closest point, then, of figuring out whether it's going to get funded, but it's not the whole final story.

There's a second level of review where the advisory council in each of the 27 institutes and centers has an advisory council, that then does a look over all of the grants that came through in that previous four months, and decides whether there should be some adjustment of exactly where the cut should be about what gets funded and what doesn't. In case there's something that's really high priority and didn't quite make it as far as the priority score, well, maybe that one will be prioritized.

Once that decision is made, the award is decided and the grants administrator reaches out to the investigator and sets up the grant with appropriate oversight.

Q Is it possible to receive a fundable score
and not subsequently receive funding?

A Yes. A fundable score is sort of a hard thing to say precisely what that should be. It depends on the institute on that particular cycle on the congressional budget.

Q But just because a grant has gone through the peer review process and gotten the stamp of approval that it can receive funding does not mean that it will receive funding?

A The second level of review is real. It would be very unusual for something that got an extremely positive peer review to be pulled out and not funded. But it's more the things on the margin where there can be some adjustment.

Q And then is it the Institute or Center director that makes the final funding decision?

A Officially, it's the director who signs off on that, recognizing, of course, that the real work has been done by the advisory council and by the staff.

Q And then you, as NIH director overseeing it all, could you ever make a funding decision?

A No.

Q Could you overrule any previously made funding decisions?

A That would be extremely unusual.
But it's within your authority?

It probably is in a very exceptional situation. Keep in mind, though, that the work is almost entirely done at the institute level, not at the director's level.

Thank you. We've asked a number of people regarding the vetting or certifying process of foreign labs that receive U.S. dollars. Do you know what that process is?

I do not.

To your knowledge, does NIH certify foreign labs that receive U.S. dollars?

I don't know that.

I guess my next question, if you don't know -- if they're receiving U.S. money, how would NIH kind of make sure they follow the right BMBL standards or things like that?

That would be up to the staff to do that. I trust my staff when I was NIH director to have that kind of subject matter expertise.

BY MR. STROM.

Is that staff resident at your Office of Director or is it more likely in the institutes?

In the institutes.

Mr. Nassikas. Just for the record, who are you?
Mr. Strom. Sorry, John Strom, senior counsel, House Energy and Commerce Committee, Oversight and Investigation subcommittee.

Mr. Nassikas. Thank you.

Mr. Strom. Sorry.

BY MR. BENZINE.

Q The kind of same questions that I imagine are similar answers. The process for vetting a foreign collaborator, do you know what that is?

A Only in the sense that the peer review process is going to look to see whether a proposal is being conducted by people who have the appropriate expertise.

Q Do you know if, during that process or otherwise, foreign collaborators go through a national security review?

A I do not, no.

Q Do you know if there are any countries that are kind of off limits for receiving NIH dollars?

A Off limits? Not that I know of.

Q Do you know if NIH partners with any other U.S. agencies to assist in any of these processes?

A NIH does do collaborations with other parts of the government. We've done the Human Genome Project was a joint effort between NIH and the Department of Energy.

Q Again, what we're trying to figure out is
if, like, you get a proposal that has a foreign lab on it, if NIH would do all the work themselves, or if they would call the State Department, or if they would call some other department to try to determine if that foreign lab is reputable.

A I don't know.

Q Okay, moving on to kind of why we're here. I want to talk about, first, how pandemics emerge and get into COVID-19 a little bit.

So our general understanding is kind of two viable pathways for a pandemic spillover, zoonitic or some type of laboratory research-related accident; is that correct?

Very broadly correct.

A Very broadly correct. I'm trying to think if there might be some other pathway, but those seem reasonable.

Q And in zoonotic, there's kind of the, like, direct from an animal to a human, and then from an animal to an intermediary host to a human, depending on how many -- there could be multiple middle steps in there. Is that generally accurate?

A That's generally accurate.

Q So there's been kind of -- the two really big coronavirus spillovers before this were SARS 1 and MERS, both of which had fewer than 10,000 cases worldwide
over now two decades.

A

Mm-hmm.

Q And COVID-19 is close to, at least what we know of, 800 million. I guess one of the curiosities we have is, why such a big difference? Is it just kind of obviously one was 2002, this is 2023, there's more traveling, there's more human movement. But is there a functional difference in the virus that makes it so much -- the case numbers so much higher?

A I'm not a virologist. I'm not an infectious disease expert. My understanding is that it was the ability of SARS-CoV-2 to be so transmissible, so contagious.

Q And then back to kind of the zoonotic pathway. And, again, I'm going to say it 10,000 times today. I'm not even not a virologist, I'm just not a scientist. So hang with me on some things.

A Okay.

Q For the kind of stereotypical zoonotic outbreak, obviously there aren't a whole lot of wild animal farms in major cities. There's obviously markets, but not the farms themselves. And our understanding is that you would normally see the farms in -- we'll use China and like southeastern China, a few cases sprout up in there, animals travel up the road a little ways, a few cases more, until
it gets into a metropolitan area, and then it explodes. Is that close?

A I don't have the expertise to assess that statement.

Q All right, thank you. We'll skip ahead a couple, then. I want to get just kind of a definitional understanding on what a laboratory or research-related accident would be. I think there's a bit of a misconception that it has to be like some mad scientist in the lab, like, building a bomb that spills over, right, versus kind of, like, what the more stereotypical science is.

So just in these scenarios of just "yes" or "no," if you think it would be a laboratory or research-related accident.

A researcher intentionally manipulating viruses in the lab and getting infected.

A Who's getting infected?

Q The researcher is, the person doing the manipulating.

A That sounds like an accident.

Q What about a researcher in the lab conducting serial passage of a virus and getting infected?

A Again, if the researcher gets infected, that's an accident.
Q: What about just a researcher sampling or sequencing viruses and getting infected?

A: First of all, you would not expect just sequencing would be a risk. That's not something that's an infectious agent.

Q: What about sampling, getting it from environmental samples and taking out viruses?

A: I think there's an occupational risk if, for instance, a researcher is working in a wildlife environment, of getting infected. Is that an accident or is that an occupational risk? I'm not sure I could call that an accident in that sense.

Mr. Nassikas. Mr. Benzine, maybe I'm the only one who doesn't get it. What's the underlying question again?

Mr. Benzine. If these would be considered a lab accident.

Ms. Brandon. Or naturally occurring.

BY MR. BENZINE.

Q: Or naturally occurring.

A: That sounds more naturally occurring, because it didn't even sound like you were limiting it to a lab.

Q: And then the final one, a researcher getting infected during field work and bringing it back to the laboratory?

A: I wouldn't call that a lab accident.
Q: A few more high-level questions. One of the primary purposes of this Subcommittee is to investigate what happened from -- during this pandemic to thinking about how we can prepare for future pandemics.
A: I'm with you.
Q: A large question of that has been the origins of this virus, obviously, so we can protect better from both pathways. We see NSABB coming out with more stringent lab recommendations. A couple -- I think it was like 30 virologists a couple days ago wrote that they wanted more laboratory guidelines. And then obviously the question of wet markets and wildlife trading, how we can better regulate that.
Q: So what do the origins of a pandemic like COVID-19 tell us to prepare for a possible future pandemic?
A: We do not at the present time know exactly what happened that led to the SARS-CoV-2 emergence. Certainly one would, therefore, want to look at the possible ways that this came to be, and make sure that those are not happening now without oversight.
Q: Understanding you're not a virologist, but obviously, you've been in the space for a long time, what would some zoonotic spillover prevention strategies look like?
A: Zoonotic spillovers happen when there is
close interaction between humans and animals that are infected. To the extent that our world seems to provide more opportunities for that to happen, we are more at risk. Certainly such things as wet markets, especially if they contain wild animals, are putting people at risk who are close by. So I would have to say that certainly would be an area that we should try to regulate very carefully.

Q And then kind of the laboratory side of the equation, what would those prevention strategies look like?
A One would want to have in place policies that require stringent attention to the laboratory controls if experiments are being done on potential pandemic pathogens.
Q Do you think there should be increased laboratory regulations on novel pathogens? So we hear the potential pathogen language a lot, and the definition is already capable of infecting humans. Do you think there should be any more restrictions placed on unknown pathogens?
A I'm not the expert. I think it is good that NSABB has been reconsidering that very question.
Q Moving forward to when COVID first struck, first reported on ProMED on December 30th, and then China publicly confirmed it December 31st, 2019. When did you first become aware of the outbreak?
A: I can't precisely state the date, but it was shortly after the 1st of January.

Q: Do you remember how you learned?

A: I don't remember precisely, but I am sure it was one of the infectious disease experts at NIH.

Q: And then do you recall when the genomic sequence of COVID-19 was first made public?

A: I believe it was January 10th.

Q: And then what's kind of the importance of having the sequence of the virus?

A: Well, as a guy who has worked a lot on genome sequences, this is basically providing you with the blueprint of whatever organism you're talking about, in this case the virus. So it's providing you with a window about its origin, about its biological mechanism, and potentially about ways that we might prevent its spread or help people who are already infected. It's central.

Q: My kind of, again, layman understanding is that the sequence being different from having an actual virus isolated, it tells you what to plan for, but not exactly what it looks like; is that right?

A: It's like you have the blueprint for the house, but you're not walking in the front door.

Q: That's a good analogy. I appreciate that.

A: Could you tell from -- and again, I'm sorry if this is kind
of a non-educated question. But can you tell from the
sequence itself that it's a coronavirus or do you have to
do any more studying?

A It has to be compared with everything we
know about all other viruses that have ever been studied.
And it's fairly straightforward with that database of other
viral genome sequences to say this is a coronavirus.

Q In Dr. Farrar's book titled Spike, he talked
about the sequence in it and he wrote, "Eddie Holmes has
taken screenshots from social media in China about the
coronavirus sequence. They suggest the full genome was
known by a genomics company in China by December 27, 2019,
and that that was reported to the Chinese CDC and the
hospital who provided the sample on the 27th and 28th of
December."

Q Were you aware of that?

A No.

Q Did Dr. Farrar ever tell you that on
conference calls or anything?

A No.

Q Were you aware of the NIH ever receiving the
sequence prior to January 10th?

A No.

Q Similarly, in our interview of Dr. Daszak
this past November, he testified stating that he was aware
of a coronavirus 20 percent divergent from SARS 1 circulating in China by December 30th. Were you aware of that?

A No.

Q He said that was kind of odd specificity, because COVID-19 ended up being pretty close to 20 percent divergent of SARS 1, and that it would kind of show that at least China knew a little bit more than what they were leading on, and possibly had the sequence prior to January 10th.

Do you recall any conversations regarding that, China potentially having a sequence prior to it becoming publicly available?

A No.

Q And then do you recall who eventually made the sequence publicly available?

A Only what I heard, that Eddie Holmes played a critical role in that.

Q And did you hear anything about him doing it on behalf of a Chinese researcher?

A Only secondhand.

Q Did you hear anything about that Chinese researcher's lab being shut down for recertification?

A No.

Q While we are discussing the sequence, one of
the features of the virus that has been in the news a lot
is the furin cleavage site and everyone discussing kind of,
like, its impact on the virus. It's never been seen before
and the SARS-related lineage has been seen, I think, in the
family above it.
Looking at the sequence, can you tell that it had a furin
cleavage site?
Again, I'm depending on the experts on
looking at the protein sequence that would be coded for by
the genome. The experts say that looks like it would be a
furin cleavage site.
And then in all your conversations regarding
this, again, understanding you're not a virologist, do you
know what the furin cleavage site does?
Only that I read papers that suggest it was
an important way to help the virus get inside the cell.
Does that mean it would make it more
transmissible?
Potentially. But, again, I'm not the
expert.
Again, we just very briefly -- and you had
no knowledge of it, to be fair, of the Chinese researcher
who allowed Dr. Holmes to publish the sequence had his lab
shut down for recertification. There are also numerous
reports of doctors who discussed the outbreak being forced
to sign NDAs in China and are being gagged or silenced, and
the original whistleblower, Dr. Li Wenliang, who eventually
passed away, was one of those who was forced to sign a
nondisclosure agreement. Do you have any knowledge of any
of those actions?

A No, I do not.

Q When we were going through the really long
list of names, I mentioned Dr. Ping Chen. Before I
mentioned her, had you ever heard of her?

A I had heard of her.

Q Do you know generally who she is?

A Only that she works in the National
Institute of Allergy and Infectious Disease and had some
role with examining the Wuhan Institute of Virology.

Q So she was stationed in Beijing for NIAID up
until mid-December of 2019, and then toured the Wuhan
Institute of Virology, and facilitated at least one other
tour of the Wuhan Institute of Virology in 2017. And this
may not be -- I guess you said you didn't have any
discussions with her. So you never met with her after the
pandemic broke out?

A No.

Q Do you recall meeting with her after the
tour?

A No.
So this is more of, like, an observation than a question, but she seems to be kind of a valuable witness for NIH and NIAID and the U.S. government in general. She was in China when the outbreak was starting, and had been to the Wuhan Institute of Virology, and no one we have spoken to has met with her. That's just kind of interesting. I don't know what that means, but you haven't, either, so we can move on.

Early on, we talked about Dr. Stemmy, too, and he was the program officer for the EcoHealth grant that has been -- I don't even know the sequence of events at this point -- semi-terminated, terminated, suspended, went through all the oversight mechanisms. Early on, he was in communication with Dr. Daszak regarding information on COVID-19. Did you ever hear anything about that?

No.

And then, again, Dr. Chen in January 2020 was in conversations with Dr. Shi at the Wuhan Institute regarding COVID-19. Did you ever hear anything about that?

No.

All right. I'm going to switch and discuss gain of function research and try to lay some -- try to discuss definitions first.

Good.

And put -- talk definitions first, and put
kind of, like, policies for later. So this is just baseline definitions of the various aspects here.

The first definition I have, which I pulled off the NIH website, is it's just gain of function is defined as a type of research that modifies a biological agent, so that it confers new or enhanced activity to that agent. Does that sound like a fair definition for gain of function research?

Let's be really careful. Context is critical. There's been so much confusion about this, so I'm glad we're going there to talk about the definitions. Gain of function in some scientific conversations is quite broad. I would even argue piano lessons are a gain of function, because they train your brain to do something it didn't do before. Certainly in biology, an experiment where you modify a bacterium so that it can digest an oil spill, which can be a good thing, that's a gain of function. You're trying to contribute to that bacterium that it wasn't able to do before.

But here today, I think we are mostly talking about gain of function as it relates to potential pathogens, particularly potential pandemic pathogens. There, let's be really careful to say that has to be defined in a very precise way, which has been carried out by a series of experts, and a lot of harm gets done when the definition is not carefully attended to when statements are made about
Q whether something was or was not.

Q And I agree with that, and I'm going to get to the kind of P3CO version of the definition --

A Good.

Q -- in a second. This definition was on NIH's website. It has since been taken off NIH's website, and we'll talk about that, too. But I take it from how you just described kind of the broad level gain of function, you agree with that definition for the broad level of the term?

A If it was clear that it was talking about the broad level of the term. It would be unfortunate if somebody took that definition and said, well, that also describes gain of function for pathogens. That would be a mistake. Context would be broad in that case.

Q If I was a researcher, could I conduct this broad level of gain of function on a pathogen while also simultaneously not meeting the definition of an ePPP?

A If you're working on a potential pandemic pathogen, you have to be guided and constrained by the P3CO definition and all that entails.

Q And I agree. I'm trying to figure out if there's daylight between -- that only applies to human viruses which we already discussed, so it would be a discrete set of viruses or a discrete set of pathogens.
If working on viruses not known to already infect humans, I mean, theoretically, I could conduct research that modifies that agent, whatever that agent is, so that it confers new or enhanced activity to that agent. I guess I'm just trying to understand if there's research that could fit this definition of gain of function without fitting the ePPP PC3O definition.

I think what -- if you're talking about research on any particular virus that has the potential in any way of being pathogenic, then you have to consider whether this meets P3CO or not. And the answer may well be, no, it doesn't, but the question ought to be, is it in that zone or not.

Okay. That was going to be the next definition of -- the P3C0 definition of it as a potential pandemic pathogen, one that has likely a wide and uncontrollable spread in humans and likely to cause significant morbidity and/or mortality in humans resulting from the enhancement of the transmissibility and/or of virulence of that pathogen. So that's the definition you are using?

That's right.

And I guess my point is, that's very limiting, that there could be dangerous research that doesn't meet that definition. And I think potentially
inherently trying to have novel viruses be able to infect human cells is potentially dangerous, that kind of has some potential to create a human pathogen. I'm going to ask you one more time and then I'll move on. But there's got to be a bucket of research that would be modifying biological agents, so that it confers new or enhanced activity to that agent that does not meet the P3 definition. 

A The P3 definition would implicate a very high level of stringent review, but lots of research that doesn't meet that definition would still require, because of biosafety regulations, to be carried out in a special facility, like a BSL2 or 3 or 4. So there is some oversight of the kind of thing you're asking about.

Q Thank you.

Mr. Benzine. I think that is a good place for us to break for our hour. We can go off the record.

(Recess.)

All right. We can get started. We can go back on the record.

Just to start with, could any additional Members who have since joined just identify themselves, please?

Dr. McCormick. Dr. Rich McCormick from Georgia's Sixth.

Thank you.
Q. Dr. Collins, I'm chief Minority counsel for the Select Subcommittee. Thank you for coming in. We really appreciate it.

I have some questions on some discrete topics, but before I get to them, just a few quick narrow questions about a few things that were discussed in the last round. Actually, before I go to that, Mr. Barstow has a remark.

Mr. Barstow. So I think we just wanted to clarify something that was covered in the last hour. Mitch asked Dr. Collins if he had conversations on three topics, COVID origins, EcoHealth Alliance, and the WIV with a series of administration officials and other non-administration people.

Dr. Collins said yes, that he had conversations with Debbie Birx, Raj Panjabi, Ashish Jha, Jeff Zeintz, and Susan Rice. I want to clarify for the record that I think Dr. Collins was referring to general discussions about COVID issues with those officials, and not on the three topics that Mitch listed, which was, again, COVID origins, EcoHealth Alliance, and the WIV.

Is that right, Dr. Collins?

The Witness. That's correct. And again, I made a misstatement about Susan Rice. I never spoke to her about COVID at all. So I hope that got corrected.

Great. Thank you, both.
We had one small question in the same space, which is Dr. Michael Farzan, I think there was a "yes" answer there, and it sounded as if the yes was based on the large February 1st conference call with the whole group. And our understanding, and we spoke to Dr. Farzan, he was not on that call. So knowing that, if that were the case, would that change that "yes" to a "no"?

That would definitely change that "yes" to a "no." I was apparently mistaken. I thought he was on the call, but I will take your correction.

He had other conversations with folks who were on that call, but he himself was not on that call. Thank you for helping me correct that.

Absolutely. And just a quick sort of comment and question with respect to Dr. Ping Chen. Our understanding is that she was not in China when the outbreak occurred. She came back to the United States from her role in December of 2018, so she would not have been there at the time or had contemporaneous knowledge of the outbreak itself.

And an additional clarification, to the extent you're aware, our understanding is her visit to the WIV BSL4 lab, that that lab was brand-new at the time, and is not the same lab where EcoHealth Alliance with the sub-awards of
Wuhan Institute of Virology conducted chimeric work with SARS-related viruses. In our understanding, that was in a BSL2 or 2-plus Wuhan Institute lab, which is in a completely different physical location from the BSL4. I don't know if you understand similarly.

A: I don't have any firsthand knowledge about that.

Q: Okay, great. I would like to start with a discussion that picks up right where you left off with the Majority, which is gain of function research and different definitions of that term. You may end up covering some of the same ground you've already covered, I hope you don't mind, but I'm going to ask you to do it.

There was and still is a grant at NIAID to an organization called EcoHealth Alliance, which was to study bat coronaviruses. That grant originally included a sub-award to the Wuhan Institute of Virology. Are you, at this point, generally familiar with what that grant was and is?

A: In a general way.

Q: There was certain lab work done at the Wuhan Institute of Virology under that sub-award that has been the subject of significant scrutiny and attention, and a lot of that scrutiny is focused on whether or not that work was or was not gain of function research.

And it feels to us as if, in addition to the controversy
that has existed there, there has been a substantial amount
of confusion about that issue. And it feels to us as if a
lot of that confusion has been caused by the fact that
different people certainly that this Subcommittee has
spoken with, have insisted on using the same term, gain of
function, the same three words, to mean completely
different things at different times with different
definitions. So I would like, if you don't mind, for you
to help me untangle some of that here.

We have heard folks, and folks at NIH actually have
probably been the most consistent on this issue, so kudos
to you. But we have heard folks use the term gain of
function in at least three different ways. We have heard a
layman's definition, which is basically just a literal
usage. It's simply saying, was something modified in a way
such that there has been a gain of function?

And sometimes people seem to use that to include loss of
function or change of function, but regardless, it seems to
be a very casual, literal way of using the term. I think
you were discussing that a little bit with our Majority
colleagues. Are you generally familiar with that usage of
the term?

A In common everyday language by non-experts,
absolutely.

Q Great. We have also heard people use the
term gain of function in the context of the 2014 Federal Gain of Function Moratorium. And this now has all sorts of specifics built into it, only applies to certain viruses and its mammals and the respiratory route. Are you generally familiar with that usage of the term?
A Yes, I am.
Q Thirdly, we have heard folks use the term gain of function in the context of the 2017 P3CO framework, which is the most detailed set of definitions of the three. Now it's humans and there is a concept of a potential pandemic pathogen which is a multi-part definition and there are carve-outs. Are you generally familiar with that usage of the term?
A Yes.
Q Great. I would like to talk about each of those three and how they differ from each other and whether some of them might be more or less useful from each other. Starting with that layman's definition, I will introduce an exhibit that I think is a good example of that. So that will be Minority Exhibit A.
(Minority Exhibit A was identified for the record.)
If you could pass those around, please, and I will give you a moment to look that over. In the meantime, we've had an additional Member join us, and if
that Member could just identify themselves, please?

Dr. Ruiz. Congressman Dr. Raul Ruiz.

The Witness. Doctor, nice to see you.

BY

Q Take your time and look that over. I will only be focusing on a small part, but take your time to familiarize yourself with it.

A Okay.

Q Great. So just to start with, I think the Majority alluded to this web page also. I don't really know what this is. It's from the NIH website. You were the director of NIH. It's some kind of public toolkit maybe or something to that effect. Whatever it is, is it right that it is not a regulation or formal policy of any kind?

A It's attempting to explain for people who want to understand what is the current position of NIH about gain of function research involving potential pandemic pathogens, so there's no way to be confused about that.

Q All right, great. So if I point your attention on the first page under the header Gain-of-Function Research, I'm going to just read a brief excerpt of that out loud.

"The term gain-of-function research describes a type of
research that modifies a biological agent, so that it
confers new or enhanced activity to that agent. Some
scientists use the term broadly to refer to any such
modification."

As far as you can recall, in your time as director, did
that definition have any regulatory significance?

A  I think that was more just a standard use of
language that people might use in a conversation.

Q  Was it something that NIH would have
implemented in a formal sense?

A  No.

Q  Okay. Separately from that, I'm not sure
whether it's a useful definition. You use the example
about learning to play the piano, great, that's helpful.

In addition, we learned recently about some research that
was done last year, where there was a genetic modification
of bacteria to allow the bacteria to detect tumors. That's
great, and that's exciting. That is also technically under
this layman's usage.

A  Under the broad context of the words.

Q  That would be gain of function under this
usage; is that right?

A  That's right.

Q  Okay. So I'm not sure that this definition
gets to what we, as a Subcommittee, are worried about. I
think we are all focused on pathogens and on research that makes those pathogens more dangerous. And I think for that we would have to look at definitions 2 and 3, the Gain-of-Function Moratorium and the P3CO framework. Do you generally agree with that observation?

A Yes, I do.

Q Great. So in that case, I will introduce as Minority Exhibit B, the 2014 Gain-of-Function Moratorium.

(Minority Exhibit B was identified for the record.)

BY Q And I imagine you're familiar with it, but you're welcome to take a moment to glance it over.

A Okay.

Q Great. So the operative language in this policy is on the second page or the first page of text, depending on how you look at it, in italics. It's just one paragraph. I'm going to read it out loud because it's helpful for the transcript to show what we're talking about.

That reads, "new U.S. Government funding will not be released for gain-of-function research projects that may be reasonably anticipated to confer attributes to influenza, MERS, or SARS viruses, such that the virus would have enhanced pathogenicity and/or transmissibility in mammals
via the respiratory route. The research funding pause
would not apply to characterization or testing of naturally
occurring influenza, MERS, and SARS viruses, unless the
tests are reasonably anticipated to increase
transmissibility and/or pathogenicity."
So just an initial question. Am I right that this was a
formal binding policy that was implemented while you were
at NIH?

A That's correct.

Q And this set of definitions, as we just saw,
is a lot more specific. Can you tell us just a little bit
about what this policy is, your understanding of how it
came to be? You may or may not have been central to its
crafting, but your understanding of the context of policy?

A The policy was intended to allow time for
deeper consideration about what kind of oversight ought to
be applied in circumstances where the risks might be more
significant. The decision was to include not just
influenza, which had been the original concern, but also
SARS and MERS, and also to include this in terms of
mammals, but very explicitly to say this is limited to
circumstances that would increase pathogenicity and/or
transmissibility. Basically saying that NIH is not to
prepare during this time to fund new grants that proposed
those kinds of experiments.
And a nuance of this policy that I think sometimes gets lost, am I right that this is a forward-looking test? In other words, the moment of decisionmaking is before the research in question has occurred; is that right?

Exactly. This is about new U.S. government funding will not be released.

So it is not as simple as looking at a chart that summarizes work that has already happened and asking yourself, well, what happened in the experiment? For this purpose, it's about thinking what was reasonable to anticipate at the time that the work was being proposed?

Correct.

All right, great. We focused mostly on NIAID grants in our previous conversations. There's probably a limit to which you would be familiar with the inner workings at NIAID and how they implemented this policy. But our 30,000 foot level of understanding is, at least in the division we're interested in, there was a committee called the Gain-of-Function and Dual Use Research of Concern Committee, whose job it was to ask themselves these types of questions when the pause was in effect.

Our understanding is, with respect to the particular EcoHealth Alliance grant that has been of so much interest to so many folks, that that committee in the summer of 2016
asked themselves that very question, and that the answer that they produced was that, no, that the work in question was not subject to the 2014 pause.

I don't know if you have a similar understanding, knowing that you, yourself, would not have been involved with that decision?

A: I don't have any firsthand information.

Q: Is that your general understanding from afar?

A: From afar, that's my understanding.

Q: Great. I think it makes sense perhaps to look at the third definition, which is the 2017 P3CO framework, so I will introduce as Minority Exhibit C, that framework.

(Minority Exhibit C was identified for the record.)

And I will give you a moment to look it over. This is longer, and I am not going to be asking about the whole thing, so there is no reason to read it front to back, but feel free to familiarize yourself.

All right. So I'm going to do something similar. I'm not going to read the whole thing out loud, but there are two key definitions that I do want to read just for clarity.

On the first page of full text under Scope and Definitions,
I will read part A, which is, "A potential pandemic pathogen (PPP) is a pathogen that satisfies both of the following: 1. It is likely highly transmissible and likely capable of wide and uncontrollable spread in human populations; and, 2. It is likely highly virulent and likely to cause significant morbidity and/or mortality in humans."

Paragraph B tells us that, "An enhanced PPP is defined as a PPP resulting from the enhancement of the transmissibility and/or virulence of a pathogen. Enhanced PPPs do not include naturally occurring pathogens that are circulating in or have been recovered from nature, regardless of their pandemic potential."

That's the end of that. So it may be that you had a little more involvement in this framework. Could you briefly just sort of describe for us what it is, what its purpose is, what its context was at the time it came into effect?

A So we talked a moment ago about the pause which had as part of its plan that that was going to provide an opportunity for experts to look at this situation and come up with something that would be a more longstanding policy. That was a careful, deliberative process, driven particularly by the National Science Advisory Board for Biosecurity, NSABB, and which led them to this set of recommendations pretty much, although that
went through another iteration by review by OSTP, and then
finally a review and ultimate publishing of the framework
by HHS.
Importantly, this incorporated a lot of public input with
opportunities for a lot of debate about how best to set in
place the appropriate kind of policy that would have the
greatest opportunity to recognize proposals that needed
special scrutiny without creating such a bureaucratic
nightmare that it would slow down other kinds of research
that really were not of sufficient concern to justify that.
That's how this came to be.

Q Thank you. What are some important or
relevant for you distinctions between this policy and the
2014 pause? In other words, we see here talk about humans
as opposed to mammals. Any other distinctions and their
significance?

A I think a couple main ones. One is, as you
said, this refers to humans. The other was the scope of
potential pathogens. Including in 2014, as we looked at a
moment ago, was influenza, SARS, and MERS. This covered
all potential pathogens of whatever group. So it was
broader in that regard.

Q Am I right that on the other side of the
coin, a similarity between this P3CO and pause is that,
again, they are both forward-looking?
Absolutely. This was an attempt to say from this point going forward, what are going to be our criteria for deciding whether research should get started or not, whether it should be funded or not.

And I guess another distinction to point out is that the pause was just that, it was a pause. In other words, work subject to it simply could not occur during that three-year time. And this is a little bit different. It seems to describe a framework for further scrutiny before the work can occur?

Which was always the intent, that the pause would need to inspire a process, which this represents, that would allow a way for such research to be at least considered and not simply taken off the table.

A similar question here that we discussed in the context of the 2014 pause, which is, again, from afar, our understanding is there's a somewhat similar process for sending a particular proposal for further P3CO review. And it involves a very complex set of events, peer reviewers and program officers are involved, at least in the NIAID context.

And whatever that process, our understanding is that in the context of the EcoHealth grant in question, that that question was asked by the relevant folks and there was a decision made that that work also did not require referral
under the P3CO framework.

From a distance, I know, is that also your general understanding?

A That's my understanding.

Q Great. Is it right to say that for you, when you think about or use the term gain of function in your professional capacity as director in forming a conversation like this, that you, depending on the time in question, are thinking in the context of either the definition in the moratorium, the pause, or the P3CO framework, as the case may be?

A I am very sensitized to making sure in any conversation about gain of function, that the context is made explicit. If we're talking about a pathogen, then what time, what year are we discussing? Let's be sure we are applying the appropriate term of art to be sure we're not going to get confused.

Q And I guess to repeat something that you already said, there's a substantive reason for that distinction. The first definition that we looked at is so broad that it captures work that is not reasonably thought of as being of concern.

A And therefore, would not be appropriate to subject to a very high-level complex review when it carries no significant risk.
Great, thank you. I would like also to pivot to a different topic, which is the Proximal Origin paper, which I imagine is a paper that you are, at this point, generally familiar with; is that right?

Yes.

Great. I will say at the outset, I don't think it makes sense to get into all the details of the science of that paper with you. As you pointed out at the beginning, you, yourself, are not a virologist and we have done all of that with the authors. We have flown around the country and we have sat with them and we have discussed full-length glycans and receptor binding domains and pangolins and furin cleavage sites. I am not going to do that with you unless you really, really want to.

It would be interesting, but probably not productive.

Okay, great. What I do think might make sense is to spend a little bit of time on the separate question on who organized this paper. Of course, the authors wrote the paper, but there has been some degree of attention on the question of whether anybody else had the idea that the paper should be written or played an organizing or coordinating role in the process of publication.

I will say that that question is probably a little bit more
of interest to our colleagues in the Majority than to ourselves, but we have tried to take a very close look at it, and our view is based on documents and interviews with folks who were involved, that it does seem like Dr. Jeremy Farrar, who is a British scientist, was playing something that looks like that sort of a role with respect to this paper.

I'll just pause there. From 30,000 feet, to the extent you were even able to see, is that your general recollection?

A

Q Okay. So I'm going to go into a little bit more detail. This Proximal Origin series of events occurred over a few different phases, not all of which involved you. Our understanding is there was a phone call between Dr. Kristian Andersen and Dr. Fauci right there at the end of January. Our understanding is that that conversation, you were not a part of that; is that right?

A

Q All right. But we do understand that coming out of that conversation, Dr. Farrar went and set up a larger conference call for February 1st. That one had all sorts of international folks on it who had expertise, I guess, in evolutionary virology.

There's been some question of how that call came to be and whose call it really was. We have a couple of documents, I
think, that help tell the story of that call, so I will introduce one of those as Minority Exhibit D. And this document, for the record, is Bates numbered NIH 791. I will give you a moment to look that over.

(Minority Exhibit D was identified for the record.)

The Witness. Okay.

BY Q

All right. So these email chains go in reverse order. In other words, the back is whatever happened first. I'm actually going to confuse you more by starting at the top of the first page with the most recent set of conversations. I just want to note it seems here that this provides a little bit of color into how you came into the conversation.

You can see Dr. Fauci on the first page emailing this larger group, responding to an existing email chain and saying, "Please include Francis Collins on all subsequent correspondence regarding this call." And then Dr. Farrar says, "Francis, Call me."

So anything you generally recall. That sort of speaks for itself, as far as how you came into it, but anything you would like to add about those discrete events?

A I don't have precise recollection of the series of events here, but I was informed by Dr. Fauci that
this call was going to happen, and that he thought I should join, since I, at that time, served as his supervisor, and with obviously incredible attention at that moment about what's happening with the pandemic. So I agreed to do so.  

Q  Great. On the second page of the document, Bates labeled 792, we have an email from Dr. Farrar that sort of lays out exactly how this call was scripted to go. And so I'm just going to point to a few different aspects of that. 

Dr. Farrar says that, "I will be on email throughout," and to email Paul or I if there are any problems. We know from CC line that Paul works for Dr. Farrar at Wellcome Trust. I won't quiz you on that. Dr. Farrar says, "If you cannot make it, I will phone you afterwards to update." And there's an agenda down below where Dr. Farrar is assigning roles and he has assigned himself the introduction, the focus, and the desired outcomes, as well as the summary and next steps. So that feels pretty clearcut for us as leaders that Dr. Farrar was managing this conference call. Is that generally what you recall as well? 

A  Absolutely, yes. 

Q  Great. And I will say that that is consistent with what other folks who were on the call have said to us as well.
There's one more email on this February 1st call making sort of a similar point, but I do think it's worth looking at, so I will introduce that as Minority Exhibit E. (Minority Exhibit E was identified for the record.)

BY Q I will give you a moment to look that over. It's not too long.

A Mm-hmm.

Q All right. So this one is Bates labeled NIH1902, and we see down at the bottom of the first page, an email from Dr. Farrar to Dr. Fauci. The subject is Conference details, and Dr. Farrar asks, "Could you join? Trying to set up an initial call with," and then he's got a list of names.

Is it fair to deduce that the call Dr. Farrar is referring to there is what would become the February 1st conference call?

A Yes.

Q Great. And then Dr. Fauci forwards that on to yourself, and you reply that you will join. And then there's a discussion of whether Dr. Tabak will or will not join. You note that it would be fine with you if he did but, "I note Jeremy says he wants to keep this a 'really tight group'."
So I don't really know how else to measure who controls a call, other than who it is that decides if it's big or small or who is on it. Is it fair for us to read this as being consistent with what we just talked about, that Dr. Farrar was sort of the manager and organizer of the call?

A He was the convener.

Q Great. And our impression, and part of this is from Dr. Farrar's book, which I don't have, I'm not going to show you, but we talked about it a little bit earlier where Dr. Farrar spoke at length about he was deeply concerned about what he was hearing about the possibility of where this virus came from. And so I just want to know if you recall. Our understanding is it's not that Dr. Farrar was sort of an administrative organizer, and only that he had substantive expertise and concerns about the topic at hand; is that right?

A That's correct.

Q I spoke over you. Is that correct?

A That's correct.

Q Great. All right. So after that call, what we have heard is that --

I'll pause there. We've got an additional Member that joined us. So if that Member wouldn't mind
identifying themselves?

Mr. Griffith. Morgan Griffith, Chairman of the Oversight Investigations Subcommittee of Energy and Commerce.

Thank you.

BY

Q So after the first February 1st call, we have heard that the authors of the paper went off and they wrote the paper. And as far as the paper itself goes and whether there was anybody other than the authors who was helping them along, we spoke to Dr. Kristian Andersen, one of the coauthors. He told us that Dr. Farrar was a father figure to the paper, which is sort of a strange phrase, but helps us understand who was what.

And he also told us that you played no role at all in the paper. Dr. Robert Garry has called Dr. Farrar an amazing leader of the paper and told us that you did not influence the paper. Dr. Ian Lipkin joined a little late, but told us that nobody suggested to him that you were even involved in the paper.

So as far as the paper itself goes, is that generally consistent with your recollection of your own role or lack thereof?

That is correct.

Great. We have seen in the emails that the authors would sometimes share drafts of the paper with
Dr. Farrar, and Dr. Farrar would sometimes forward those
drafts on to yourself and/or Dr. Fauci. If you recall, as
a recipient of those forwarding emails, did you see your
role as more of you were meant to receive it and then go
into the document and somehow edit, or was it more of an
FYI type of thing?
A            It was for information, not for me to edit
it.
Q            Okay. We can look at an example that I
think is helpful. So I will introduce Minority Exhibit F.
(Minority Exhibit F was
identified for the record.)
BY
Q        I will give you a moment to look that over.
That one is Bates labeled NIH751, and I will not quiz you
on the contents of the draft that is attached.
So my only question is, in this example, it's two or three
days after that February 1st conference call. It seems to
be an example of exactly what we just talked about, which
is Dr. Holmes sends whatever his current draft is to
Dr. Farrar; Dr. Farrar forwards it to yourself, and
Dr. Fauci says, "a very first rough draft from Eddie and
team."
To the extent that you recall, is this the situation that
you just said, in other words, Dr. Farrar is sending it to
you as an FYI?

A Yes.

Q Okay. There has been some discussion with respect to the substance of the paper. I know it's not your field of expertise, but there has been a thought or a conversation about whether these authors flip-flopped. In other words, as of that February 1st conference call, the theory goes that they were convinced that the virus originated in a lab, and just days later, they changed their mind and said it could not possibly have come from a lab. And the only intervening event was a conversation with yourself and Dr. Fauci, and there must be something not quite right about this whole thing.

I just want to look at one example to examine the extent to which that was or was not the case, and so I will introduce Minority Exhibit G.

(Minority Exhibit G was identified for the record.)

BY Q I will give you a moment to look that over.

That is Bates labeled REV411.

A Okay.

Q So this is now at February 8th. We are a week away from that original February 1st conference call.

It's another example of Dr. Farrar forwarding on a draft,
except this time it's to a larger group that includes some
of the folks who were on that conference call who are
virologists or evolutionary virologists; is that right?
Dr. Fouchier, as an example?
A
Yes.
Q
So Dr. Farrar is asking for a little bit of
input as to the contents of the draft. I think, if you
recall, but I would think it's fair to assume that he's
looking for that input from folks such as Dr. Fouchier for
whom this is their field, rather than yourself?
A
That's correct.
Q
All right. And in the draft itself, maybe
just starting on REV413, the second page of the paper under
the header Origin of 2019 nCoV. I'm just going to run
through from a very, very high level what the draft seems
to be doing at this moment in time, which is they're
examining three possible origin scenarios, one being
natural selection in humans, the other being natural
selection in an animal host, and the third being selection
during passage. In other words, a laboratory origin. We
can just see those from the headers that flow on to the
next page.
At the very end of the paper, under the header Limitations
and Recommendations, the draft tells us that, "The
evolution scenarios discussed above are largely
indistinguishable and current data are consistent with all
three."

So is it fair to perceive as a reader that, at this point
on February 8th, the authors were still taking the
position -- I know that everybody had ruled out whatever
that HIV theory was and deliberate creation and design in
the laboratory off to the side, bioweapon off to the side.
But when we talk about the possibility, for example, of a
serial pathogen in a lab, the authors at this point were
saying it's impossible to tell, we're perfectly open to
that possibility.

A That's correct.

Q All right. I think there's a point worth
making also about the final version of the paper itself. I
don't think I'm going to introduce it, I'm just going to
mention for your recollection, they have a couple of very
conclusory phrases in that paper, such as: Our analysis
clearly shows that SARS-CoV-2 is not a laboratory construct
or purposely manipulated virus.

As I said, we have had very detailed conversations with the
authors of the paper. Their choice of exact words had a
set of meanings for them that are not always obvious for
the reader, particularly somebody who doesn't have that
preexisting scientific background.

For example, when they use the phrase laboratory construct,
it turns out that what they had in their minds, according to them, was a virus whose backbone was identifiable as being from the Wuhan Institute of Virology. There are particular viruses that that lab worked with frequently that were well-known in the community. And they said, well, we didn't mean really any kind of laboratory construct, we meant specifically which one. So those types of nuances, I think, would it be fair to say, number one, not readily apparent from the words themselves and, number two, would not have been so apparent to you at the time as a reader?

Would not have been.

They also had a few conclusions that could be read reasonably to conflict with each other. In one place, they say that they do not believe any type of laboratory-based scenario is plausible. In another place, they tell us that it is impossible to prove or disprove whether or not this was a result of serial passage in a lab. I think it is reasonable for a reader to get a little bit tangled up about how those can fit together, and I don't know whether at any point you have experienced a similar degree of confusion in the nuances of this paper. I do think careful reading of this does make one a little unclear about how those two statements were
both intended.

I think my own understanding related to the question about whether this was human engineered from scratch and this work done by these world experts strongly argue that is not.

So that's a really helpful and important point that we've heard elsewhere, and my question will have you restate almost what you just said. But is there an extent to which the conversation -- when this conversation started, it was more focused on either the HIV theory or the idea of a bioweapon or deliberately engineered virus more so than a nuance such as serial passage?

The original question was, does this genome look like something that might have been put together intentionally by an investigator as opposed to deriving from a natural zoonotic event.

And that first possibility of being intentionally put together does not, in and of itself, capture all possible lab origins, for example, selection during passage would be an example?

It does not.

Great. Unless there's anything more you would like to add on the substance, I promised you I wouldn't drag you into it, and then I dragged you into it. There is just one more point that's related to this paper.
It has been suggested that either yourself or Dr. Fauci, or some combination of both, somehow bribed the authors of this paper to write an anti-lab leak paper in exchange for subsequent $9 million grants that went to Dr. Andersen and Dr. Garry. We out of a feeling of due diligence asked the authors about this. Dr. Andersen told us that the allegations are false and that he had not even talked to you about his grant application. And we had an exchange with Dr. Garry that I will read out loud because I think it's helpful.

We asked Dr. Garry, "Did Tony Fauci or Francis Collins ever threaten you or bully you or intimidate you into concealing or altering the findings of your paper or in any other way?" Dr. Garry said no.

We asked Dr. Garry, "Did Drs. Fauci or Collins ever threaten to revoke or offer to provide federal funding from you in any way?" Dr. Garry said no.

We asked, "Are you aware of any efforts by Drs. Fauci or Collins to suppress scientific inquiry into the origins of the virus?" Dr. Garry said no.

And lastly, we asked, "Is there any version of this question that I haven't asked you yet to which the answer would somehow be yes?" Dr. Garry said, there is not.

So I will ask you as well. Did you, in any way, ever threaten to withhold federal funding from the authors of
this paper or promise to award federal funding to the authors of this paper if they changed or suppressed their findings?

Absolutely not. I want to categorically and unequivocally say there was no such efforts to put pressure on the authors, in terms of any funding decision. And I want that to be absolutely clear.

Thank you.

With that, I will turn to my colleague,

Thank you.

Good afternoon, Dr. Collins. You spoke a little bit in the first hour with the Republicans about the grant-making process at NIH, and I'm not going to go into all the details of that, but I do have a couple questions just to make things clear for the record.

You mentioned the initial peer review or study section that is the initial group that will review for substance the grant application. And it's my understanding that the scientists and academics who make up that study section are not NIH staff, correct?

That's correct.

And are they fully vetted for potential conflicts of interest and to ensure they have the
appropriate expertise prior to joining the study section?

A Yes.

Q And it is also my understanding that the advisory council or board, depending on the institute changes the title, but that that advisory council or board is also made up predominantly of people who are not NIH staff?

A That's correct.

Q And are those members of the advisory council or board also fully vetted for potential conflicts of interest and to ensure they have the appropriate expertise prior to joining the advisory council or board?

A Yes, that's correct.

Q And I spent a good amount of time reviewing the NIH grant process and I saw several references in various different websites and documents about the grant-making process that mentioned preventing conflicts of interest. So it seems that is a very high priority for NIH?

A Absolutely.

Q And that's to protect the integrity of the grant application process, correct?

A So it's above reproach.

Q Thank you very much, Dr. Collins.

I think with that we can go off the record.
(Recess.)

Mr. Benzine. We can go back on the record, and in a minute, Chairman Griffith wants to ask a few questions, but I want to state one thing very clearly for the record that this Committee has never made any allegations that you or Dr. Fauci bribed any of the authors to write the paper. Thank you.

BY MR. GRIFFITH.

Q Good to see you, Dr. Collins.

A Thank you.

Q I've got some tough questions for you, but we appreciate you.

So here's one that I got out of the Fauci depositions. We're talking about all of this stuff, and it seems that he didn't know a whole lot about stuff and he would say, well, that would have been my Deputy Director Auchincloss's responsibility, or that was Francis Collins. So my question comes up, what is the role that Dr. Fauci used to perform? What was his job description? What's he supposed to be doing? Because it didn't sound like he was doing much of anything except sitting on top of the heap.

A As the director of the National Institute of Allergy and Infectious Diseases, he carried a very heavy load of responsibility for overseeing what NIH's research program was for all infectious diseases as well as allergy.
And there's a bunch of immunology in there as well. When you consider the scale of that, the number of grants that his institute is supporting on any given day, thousands of them, he absolutely had to depend on subject matter experts in his institute which were an amazing group of extremely talented people. So I think as an effective leader, he needed to identify the areas that needed his attention and trust the expertise in his institute to handle almost all the rest of it. Q But when we asked him about whether he was aware of the EcoHealth Alliance grant and that they were doing sub-grants to Wuhan Institute of Virology, he seemed to indicate that he didn't have any knowledge at all of that process, didn't know, wouldn't have known if they were doing it, had a sub-grantee that was a foreign entity, even went so far as to say if you mentioned Wuhan to him in a general sense that he wouldn't have known what was there, whether it was a university, disavowed knowledge in advance of all the stuff that happened with COVID-19, disavowed knowledge of knowing what the Wuhan Institute of Virology was, and that there might have been some other entity that was in Wuhan. If you had just said Wuhan to him, he would have said, oh, it's a city in China. That just struck me as somebody that wasn't really paying attention.
I understand that he may not know every little thing in every grant, but shouldn't he have at least been aware that he was doing business at the Wuhan Institute of Virology?

I don't think so, given the complexity of what his institute was trying to support across many different diseases, including work in other countries.

Do you know if the EcoHealth Alliance was the only time that we had money that ended up getting into the Wuhan Institute of Virology? Were there other grants?

I don't know.

Okay. Gain of function, and it's in the same vein. You all had posted at the time, and we had submitted an exhibit that showed what you all had on your website as the definition of gain of function. And I understand you talked about this earlier, but I wasn't here. And then Dr. Fauci had a different definition.

I recognize both are valid. I'm not picking -- or picking on that. But my concern is, is that we don't -- from a policy standpoint, we don't appear to have a single definition that we're using when we're doing grants.

So under the definition that was on the website, some of what they were doing in Wuhan might have been gain of function. By the definition with the three Ps and that process, they weren't. And I get that and I respect that,
but from a public perspective, that started a huge brouhaha in this country. Shouldn't the NIH through all of its different departments have one definition of what gain of function is, and that's the one that ought to be posted? We did talk about this earlier, and it clearly depends on context, Congressman, because you can't stop scientists from using the term gain of function in other ways that isn't necessarily sensitized to how precise that needs to be when you're talking about a pathogen. As I said earlier, look at what we're doing for cancer right now. We're saving people's lives with something called CAR-T cells. And that is giving gain of function to an immune system. I'm not against doing gain of function when it's not a pathogen. But the other is more debatable and I'm not here to debate that today. What I'm asking is, shouldn't there be a definition? Contextual, maybe at the cocktail party, it makes sense. Contextual, when you have certain Senators who are looking at the definition on the NIH site and then asking questions and you have this huge brouhaha, which if you would have had one definition wouldn't be a problem. Further, when you're giving out grant money, I think it would be a whole lot easier for those thousands of people
receiving grants, thousands of entities receiving grants, to know what the definition is and what is and isn't allowed.

First, let's get the definition straight and then what is and isn't allowed.

I take your point that we need to be really clear about this, and that's exactly what -- starting back in 2013 with the original idea about a pause, and then the definition of P3CO, that's exactly what NIH --

And I just --

Mr. Nassikas. Can he finish his answer, Congressman?

Mr. Griffith. That's fine.

The Witness. I think you can't stop scientists who are not even working on infectious disease from saying the words gain of function now and then, because they're thinking of it in a different context. But for anybody who is doing research on a potentially infectious agent, they know that the definition NIH is going to go by is P3CO. That is not hard to find.

And I know you're not in charge anymore, so you can't make these things. But as a policy guy, I'm trying to figure out if we shouldn't, Congress, dictate that you post what you're doing if it's going to be on a pathogen, because that's what caused a -- we had a lot of
discussion in the previous depositions about that, because that's what caused a huge distrust by the American people when the spat occurred between Senator Paul and Dr. Fauci. And it was all based on the misunderstanding, grant you, I understand it was a misunderstanding, but it was because the NIH was unclear in its own documents as to what gain of function is, and I think there ought to be a definition. Even if it has to be multiple pages, it should be there.

A In the previous session, Congressman, we actually looked at that definition. I think it is very clear and it's not hard to find. But I take your point, there has been a lot of confusion.

Q Let me switch gears or stay in the same kind of vein because it's where I'm concerned, and that is vetting labs that we're doing work with. I think we do fair in the United States of America. I'm not saying we're perfect, we've obviously had problems. In my time on Energy and Commerce, we have seen some of those problems, not always NIH labs, but labs in general. Shouldn't the NIH, for all those thousands and thousands of grants that it awards through whatever divisions, shouldn't we be vetting the labs if some of our money is going there, so that we don't have a situation? Because no matter what happened at the lab in Wuhan, most people recognize -- let me stop there.
You would agree that most people recognized that BSL2 in Wuhan did not really mean the same thing as BSL2 might have meant in the United States, that they didn’t have the proper filtration in their air systems, et cetera.

Wouldn’t you agree with that?

A: I don’t have those details.

Q: But -- and then that begs the question.

Shouldn’t we -- and I’m looking at it as a policy maker, and I respect that you have a slightly different role. But shouldn’t we, as a country, want to have a consistent pattern of where our research is being done, particularly if we’re dealing with pathogens, and the labs actually are safe?

A: Absolutely. The question is, what is that policy, and how do you make sure you do something that’s effective, but not so onerous that it makes really important research impossible.

Q: And shouldn’t it be the NIH’s job to do that, or should Congress have to step in? And I’m willing to step in, but should Congress be doing it or should NIH?

A: Because these are really complicated scientific questions in terms of exactly what the right answers ought to be, I would very much hope this could be a process that is based upon that science.

Q: And I’m happy to do it based on science, but
maybe legislate.
All right. I've got some conflict of interest questions. One of the areas that Energy and Commerce is interested in understanding and strengthening are the conflict of interest disclosures for federally funded researchers. To most laymen, it would seem that scientists like Peter Daszak, Eddie Holmes, Ralph Baric, Linda Weiss, Bob Gary, et cetera, who have been extremely vocal and active in the public and governmental discussions about the origins of SARS-CoV-2 all had significant conflicts of interest when they weigh in on origins. Some of these scientists have collaborated with the Wuhan Institute of Virology, others are relying on access to bat caves and viruses that are collected from China, others have made their careers, their reputations, and their livelihoods conducting and proliferating the kind of gain of function research that many believe could have possibly started — many believe could have possibly started the pandemic. I know that's not your position, but many believe that. So they aren't totally disinterested experts. They have skin in the game?
In litigation, we solve this problem by disclosing to jurors that experts are hired by the parties to the lawsuit because knowing that is relevant for a jury to consider when evaluating the expert's testimonies.
So is it your opinion that Dr. Daszak has a conflict of interest when discussing the origins of SARS-CoV-2, given his ties to the Wuhan Institute of Virology?

A

I'm not sure I can speculate on that. It would depend on the setting in which he was expressing his view.

Q

Well, how about to this Subcommittee, or to this Committee and my Subcommittee?

A

I don't think -- I'm not in a good position to assess that.

Q

How about Ralph Baric?

A

I would have to give the same answer. I don't know the context.

Q

Eddie Holmes?

A

The same answer.

Q

All right. So here's my position on that. And, look, nobody is accusing you or Dr. Fauci of bribing people. But when it comes to those thousands and thousands of grants, you all are the -- are you all the biggest in the world on giving grants for medical research?

A

Yes.

Q

Okay, I thought that was the case, and I'm glad that's the case. That being said, you all are kind of like Darth Vader when you walk in the room. Somebody might not be in trouble, but they don't want to get in trouble.
They're going to scurry off to the side and try to stay out of trouble.

So when you all issue an opinion on something or statements are made that -- about, you know, we highly disregard -- and I'm paraphrasing, but disregard a lab leak theory, don't you think that would make people uncomfortable who might be on the fence or might want to keep an open mind on that? Don't you think it would make them uncomfortable that maybe if they challenge the giant of research and the two people that are leading it, that they can get in trouble?

A I don't think so. I think it's a scientific organization. Part of the way we operate is by encouraging challenges. I would honestly want to support that, encourage exactly that kind of contrary view.

Q And I know you would, but I fear that maybe the power of those two offices is so great that notwithstanding your intent -- because I know your heart is a good heart. I'm not challenging that at all -- that you may inadvertently have influenced some of the discussion on origins early on. Can you see that as a possibility?

Ms. Brandon. Congressman, could I ask a clarifying question?

Mr. Griffith. Sure. I'm asking him if he is willing to recognize that there is a possibility based on the strength
of his office and his organization that scientists might have been hesitant to challenge the clear position coming out of their institution that the natural source was the only real likely source?

Ms. Brandon. I understand.

Dr. Collins, did you ever tell the authors of Proximal Origin --

Mr. Griffith. No, I'm not asking him if he told. I'm asking him if it's a possibility he thought it might influence somebody. It's not a matter of direct telling.

What I'm asking is, is he willing to recognize the possibility that his merely stating that would make some scientists question whether they should go in the direction to look for a source other than the natural source.

Ms. Brandon. Sir, I'm just trying to clarify that. To my knowledge, I don't think Dr. Collins ever suggested that there was a natural origin to these authors before they wrote the paper.

Mr. Griffith. Oh, okay.

BY MR. GRIFFITH.

Q Is that accurate?

A State the statement again?

Q I'm going with her question, so she'll have to restate it.

Ms. Brandon. Prior to the February 1 phone call or during
the February 1 phone calls, did you express an opinion that you thought that the origins of COVID were natural?

The Witness. No.

BY MR. GRIFFITH.

Q But after the February 1 phone call, you did?

A Based upon the conclusion of the experts.

Q And wasn't there an email out there somewhere that indicated that you needed to shut down the lab leak theory? Because -- go ahead, answer and I'll follow up.

A We should take a minute to talk about what's meant by lab leak.

Q Any kind of a lab accident. I'm not saying anything intentional. I'm saying something that happened at the lab. I'm not including -- we've got a discussion with Dr. Fauci. I'm not including a person who worked at the lab who went out into the field and came back with the virus. I'm talking about something that happened in the lab.

Mr. Nassikas. And Dr. Collins is going to answer your question, but he has to put the context.

Mr. Griffith. I understand.

The Witness. We're talking now about early sort of late winter, early spring 2020. In my mind, the question that
the experts were trying to address primarily was, was this virus human engineered. Was it, in fact, created from scratch by somebody who was trying to create a really dangerous pathogen.

I thought the evidence was strongly against that. That is one kind of way that the lab leak was being utilized by some people, and I thought that kind of use of lab leak was not something that should continue to be propagated, and yet it was in some settings.

So in answer to your question, yes, I was very much opposed to the idea that the continued assertion that this virus had been human engineered should be just left unchallenged. It needed to be challenged.

Q This went further than challenging it. You said it ought to be put down, didn't you?

A Well --

Q Put a stop to it right away?

A By that, I meant that we should do what we can to get the truth out there, as opposed to statements that were reckless and speculative that were not based on evidence.

Q How do you explain the furin cleavage site and the 12 nucleotides that show up in this coronavirus that don't show up anywhere else prior to this?

A I can't explain it. I can certainly point
to the fact that furin cleavage sites have appeared in
other coronaviruses, not beta coronaviruses, but other
coronaviruses, so there is some way in which that can
happen naturally. I can't explain how it happened with
SARS-CoV-2.

Q And do they always have those 12 nucleotides
when they have the furin cleavage site? Because that's
what made it really contagious, I understand.
A The furin cleavage site has to be a certain
series of amino acids, so 12 nucleotides, that's four amino
acids, and that's generally what it takes to make a furin
cleavage site.

Q All right. Slightly switching again.
A Fine.

Q It bothers me, and Dr. Fauci said this in
his hearing. What he said didn't bother me, but it
triggered thoughts in my mind. He said we need to -- he
was keeping an open mind, he believes that it's a natural
source, and that we need to continue looking for the
natural source, but to keep an open mind on the other if
you could find evidence. And he said one of the problems
was that we couldn't find any evidence of a lab incident.
Maybe that's a better way of using that word, a lab
incident, because the Chinese wouldn't cooperate.

And as a recovering attorney, did a lot of small courtroom
cases for decades, sometimes the lack of behavior or the lack of evidence tells me something. And here's what I'm seeing and I would your comment on it. The Chinese have not done extensive scouring for animals. They haven't really been looking hard for the source. You agree with that?

A I agree with that.

Q If they didn't believe it was a lab leak, wouldn't it be in their interest to look for that source and find that source, so that they could say, look, it wasn't us?

A Actually, I wouldn't agree.

Q Tell me why.

A I think it's in the Chinese's best interest for this to be unresolved. If it was a lab leak, they're responsible. If it was a natural origin in a wet market that was selling wild animals that they were not supposed to be doing, they're responsible. So they love it that this hasn't gotten resolved.

Q And I understand that, but their level of culpability is greater if it's in a facility that they own, as opposed to a natural source. And it seems to me that their failure to look strenuously for the natural source indicates that they know it's a lab leak.

A I don't agree. I think they're just as
culpable.

Q We will disagree on that.

Mr. Griffith. Give me just a minute. All right. I will yield back.

Mr. Benzine. Thank you, sir.

I want to introduce Majority Exhibit 1.

(Majority Exhibit No. 1 was identified for the record.)

BY MR. BENZINE.

Q So this is an op-ed that you, in addition to Drs. Fauci and Dr. Gary Nabel, wrote December 30, 2011 in The Washington Post, I believe in response to Dr. Fouchier's experiments on avian influenza in ferrets. I will give you a minute to flip through, you don't need to read it word for word, but I guess the first kind of question is, do you remember drafting this article?

A It was 12 years ago, but I vaguely remember it.

Q Do you remember if it was, like we've heard a lot of things in science, drafted by committee seems to be a term that floats around. Do you remember who was the lead drafter, or was this all kind of done together?

A I don't remember.

Q The line that I want to talk most about is on the first page and starts the third paragraph.
Mr. Nassikas. One second. If you could let him finish his
scan.


BY MR. BENZINE.

Q The start of the third paragraph is, "Given
these uncertainties, important information and insights can
come from generating a potentially dangerous virus in the
laboratory." The rest of the article talks about kind of
the risk/benefit analysis and ensuring the information is
used for good. And I want to talk about each of those.

I guess, generally, what kind of important information
could come from generating a potentially dangerous virus in
the laboratory?

A Once again, I'm not a virologist, but the
argument has been made that if you were trying to
anticipate a future dangerous pandemic, it helps to know
what you're looking for. So if, under carefully controlled
conditions, you can study a virus like influenza and
discover that certain changes in its genome might be
associated with greater human risk, then you know in your
surveillance you should be looking for those kinds of
changes.

Q Does that logic also apply to like we've
talked about, kind of the difference between an already
known human pathogen and a novel virus? Does that logic
2522 apply to novel viruses as well?
2523 A It's harder to see that, if that's not a
2524 virus that you are currently planning to do surveillance
2525 for.
2526 Q So I guess in the EcoHealth context, the
2527 vast majority of what they do and specific in that grant is
2528 surveillance work going, collecting samples, bringing them
2529 back, and testing to see if they could infect either ACE2
2530 mice or humanized mice. I learned on Monday that those are
2531 different things. That a humanized virus is kind of the
2532 entire mouse ecosystem is now a human ecosystem.
2533 A Immune system.
2534 Q Immune system, versus the ACE2, just
2535 changing the ACE2 receptor in the mouse. So a lot of what
2536 they did were changing out spike proteins on an already
2537 understood backbone to see if the new spike protein could
2538 pierce the ACE2 receptor. That seems potentially dangerous
2539 to me. Does that sound dangerous to you?
2540 A The goal of those experiments, again, was to
2541 try to understand whether what happened with SARS and what
2542 happened with MERS might happen again, in a careful way, to
2543 assess what's the property of a virus in that family that
2544 is most likely to be a concern.
2545 Q The article also touches on the risk/benefit
2546 analysis. And from what we've kind of gleaned, that falls
in the P3 realm that in addition to -- like, NIAID would make the determination of whether or not it met the P3 of a potentially enhanced pandemic pathogen. And then the P3 board would do a risk/benefit analysis on whether or not the proposed research was worth the risk. Is that correct?

A I think you said something I don't quite agree with.

Q Okay.

A That this was in the P3 realm.

Q No, not this. That the risk/benefit analysis falls under the P3 realm.

A The point of the policy is to try to put in place a very high level deliberative body that could assess whether the benefits are worth the risk.

Q So it would be the P3 board's job to determine risk/benefit, not the NIAID grant officials?

A I think the pathway was pretty clear that if NIAID officials observed an incoming application that appeared to be in this place as described by P3CO, they would flag it, and then the higher level review would need to happen before funding.

Q What has been unclear and we're trying to figure out is where that bifurcation happens, where we're no longer talking about just does this research propose working within ePPP versus a determination made of whether
or not it's worth it.

And our understanding from NIAID is that they don't look at whether or not the research is worth it. The research comes in, ePPP check, send it up to the P3, P3 does the risk/benefit. Does that sound right?

A Certainly NIAID is involving in assessing whether the science is compelling. That's what the peer review process does, so they're not abandoning that.

Q It's unclear to us whether or not a risk/benefit analysis takes place unless something is referred to the P3.

A No, I would not agree with that.

Q Okay.

A All peer review involves risk/benefit. The risk might be you spent money and got nothing useful, and the benefit is going to be you're going to advance human knowledge. So that's happening to everything that NIH looks at.

Q The third kind of big thing that is mentioned in this article is ensuring that the information that comes from this research is used for good, the kind of dual use concerns. How does NIH go about that?

A I'm not that familiar with the precise policies about dual use research of concern, DURC as it's called. So I can't actually quote you the precise way in
which that oversight happens.

Q Who at NIH would be in charge of that?
A Every institute has to have some capabilities in that space. I can't tell you exactly who that person would be.

Q Okay. For research that has been flagged, does NIH review publications prior to them being published?
A Not ordinarily. But if something has been flagged, as was the case 12 years ago with influenza, that might happen.

Q Okay. I guess, again, that's kind of what we're trying to figure out. If a research proposal is going forward prior to a researcher potentially publishing a roadmap on creating a dangerous virus, if the U.S. government is given the opportunity to weigh in.
A Certainly at the level of reviewing the proposal, yes.

Q Okay.
A At the level of reviewing all publications before they appear, not unless it's a special circumstance. Influenza is an example.

Q Like this one, NIH was able to review the Fouchier publication prior to publishing.
A That was reviewed by a group. I don't recall, it might have been the NSABB because they were in
existence at that time, or it might have been some other ad hoc group.

Mr. Benzine. Thank you.

BY MR. STROM.

Q    Dr. Collins, from the 2011 article through to the ’14 pause, it sounds like, and I think you mentioned in talking with Mr. Griffith, there's a sort of an ongoing discussion about some sort of deliberative pause on gain of function experiments.

So my understanding is that in 2014, as these deliberations were underway, NIH rejigged or made adjustments to the NSABB's composition budget and mission statement or charter. Do you recall those events?

A    I don't.

Q    Okay. I'm going to give you this article here to try to see if it will refresh your recollection. We'll pass these around.

(Majority Exhibit No. 2 was identified for the record.)

BY MR. STROM.

Q    So as you’re reading it, I can sort of summarize it, and for the record, give the title. It's a Reuters article called "U.S. rolls back oversight of potentially dangerous experiments," it was published August 13, 2014, so it's almost two months to the day before the
pause goes into effect.

Real quick, is there more than one copy for the Minority if possible?

Mr. Strom. I made 10 copies or so. They're making their way around.

Thanks, John.

Mr. Strom. And just to note, the article itself is only about three-and-a-half pages long. 13 is just ads.

BY MR. STROM.

Q So just to give you the layman's view. In reading this article, it sounds as if, in the aftermath of the controversial influenza experiments, the NSABB had made a recommendation that I think really ran counter to sort of the core principles of sort of open scientific publication of wanting to share methods of replicability and concerns like that, because of the potential dual use nature of the research. Is that consistent with your understanding?

A Yeah, maybe I wouldn't have called it ran counter. I think they tried to balance whether this, as a scientific event, was important and I think they thought it was. But was it creating a risk because of the possibility that others might try to replicate.

Q Sure. And then the last paragraph on the first printed page says, "In the last two years, members of the NSABB found their responsibilities reduced and their
meetings canceled, and nearly a dozen were abruptly dismissed, according to seven current and former board members, and a Reuters review of agency documents."
The article also says that there was a reduction in the responsibilities of the board and that its charter was modified, and then that its budget was cut from around $300,000 to just about $150,000.
So the impression it gives is that as this discussion is gearing up, and it came under the Obama administration, is a discussion about whether it's appropriate to have a pause or to put more guard rails on it is that NIH or NIAID are sort of systematically dismantling their oversight board, their recommendation board.
So I guess my question would be, is that sort of -- to the best of your recollection, what led you -- what led NIH to dismiss these 11 members of the board? Let's start with that.
I have no recollection of this.
And then, do you recall what caused NIH to change the board's charter?
I do not know.
And then a similar question. Do you recall what caused NIH to half the NSABB's budget?
I do not know.
And then --
BY MR. BENZINE.

Q Who would have the authority to remove members from NSABB?

A I would have to look at their charter. I don't remember whose authority that's under, whether that's NIH or the department.

BY MR. STROM.

Q The NSABB reports to the NIH Office of Science Policy, I believe, that is part of your broader --

A They staff it.

Q They staff it?

A I would have to look at the charter to see to whom they actually report.

Q Sure. So I guess, to your recollection, was there a sense at NIH that a pause wasn't needed, opposition to pausing this kind of research? I'm just trying to understand why they would make these adjustments to an outside advisory board or recommendations, while at the same time that obviously there are people within the Obama administration who are deeply concerned about the nature of this kind of research.

A I can't really come up with an explanation for the changes that you're mentioning. I do have to point out the NSABB became the most critical first part of figuring out what they should do that led ultimately to
P3CO. So they were not exactly pushed aside. They were asked to take on a very critical role.

Q And you don't recall if the membership changes were related to that new role that they were taking on?

A I don't recall.

Q Thank you.

BY MR. BENZINE.

Q So the Minority introduced the deliberative gain of function pause as Exhibit B.

A Okay.

Q I'm not going to ask about the language in it, but if you want to have it in front of you. Were you involved at all in the conversation leading to this policy?

A I probably was at a high level, not in a detailed level. I don't recall precisely what role I was asked to play.

Q We can skip through some of them and move along to the P3, which I believe the Minority introduced as Exhibit C.

Were you involved at all in this?

A I was involved in terms of knowing it was going on, making sure that the appropriate plans were in place about how to get the right groups to look at this.
Can you go into a little bit more detail on that? What do you mean by the right groups to look at this?

That this began with the NSABB effort, and that it also then needed to be reviewed at the level of OSTP and the department.

Was NIH involved at all in the drafting of the operative language?

No.

Do you know who was?

The original draft was from NSABB. Those are individuals who are not government employees.

And then approved by OSTP and then approved by HHS?

Correct.

It's our understanding that NIAID, and it's a department-wide policy, but that NIAID and NIH are the only ones to ever submit anything to the P3. Is that consistent with yours?

I can imagine that being the case. They're the ones who support this kind of research.

And it would seem maybe a little contrary to understanding that because NIAID is the prime, and NIAID and NIH are the primary users of the language, that they weren't involved in the drafting of the language. Is that
A  No, I think you wanted to have the most objective expert input on how to do this.

Q  Okay. And the Minority talked a little bit about it, and I just want to make sure I have it clear. So in order to meet the definitions in the P3CO, the underlying prerequisite is the pathogen proposed being worked on is known to infect humans; is that right?

A  That's right.

Q  And then the proposed research would have to make that pathogen more highly transmissible or virulent; is that right?

A  Potentially.

Q  All right. Reasonably anticipated or something, I think, is the language. And we talked about this briefly, but just again for clarity, this language wouldn't apply to research on novel viruses, even creating chimeras, because the novel virus is not known to have infected humans; is that right?

A  According to this definition, that's right.

Q  Do you believe that there should be oversight of that type of work?

A  That's a complicated question that I think deserves a deep look, and has been looked at again by the NSABB in more recent deliberations.
Thank you. I want to talk a little bit about the Wuhan Institute of Virology and just your knowledge of what was going on there, if there was any. And if there's not, let us know.

This could go quite quickly.

Perfect. So the Wuhan Institute was China's first -- or involved China's first BSL Level 4 laboratory. They also had 2 and 3. Is that your understanding?

That's my understanding.

And at least in the United States, there's various levels of research that can have each BSL4, and it's like a pathogen with no known human -- or no known solution, I guess is an easy way to put that.

The Office of the Director of National Intelligence, in response to a statute from Congress signed by the President, issued a declassified memo on the Wuhan Institute of Virology. Have you read that memo?

I don't believe I have.

Okay. In it, it describes a relationship between the Wuhan Institute and the People's Liberation Army of China. Do you have any knowledge of that relationship?

I do not.

And then it also describes that the Wuhan Institute first possessed SARS-CoV-2 in late December of
2019. Do you have any knowledge of that?

A I do not.

Q We've kind of discussed that already, that Dr. Holmes, the Chinese CDC, Dr. Daszak, at least a couple other people, including the Wuhan Institute, had sequenced the virus, and knew it was a coronavirus by late December. But the notification to the world was an unknown pneumonia which, looking back and having that information, certainly seems like a misstatement, if not an outright lie. Does it concern you that they kind of had this base of knowledge and then weren't reporting it?

A It concerns me.

Q Were you involved in any conversations regarding lack of transparency from China during the outbreak?

A No.

Q ODNI also reported that scientists at the Wuhan Institute have created chimeras of SARS-like coronaviruses through genetic engineering involving techniques that would make it difficult to detect intentional changes. Were you aware of that?

A No.

Q Are you aware of the capability to synthesize viruses without being able to tell that they were synthesized?
A: Yes, absolutely. I'm a molecular biologist.

Q: So I guess you are the expert in this kind of area of being able to synthesize those things, and you just have knowledge of not being able to leave a trace. A lot of people have said that just looking at the genome, you can tell that it wasn't -- a Proximal Origin study, you can tell it wasn't an intentionally manipulated virus. But scientists are capable of intentionally manipulating viruses without leaving fingerprints, so how do you think you can come to that statement?

A: The sequence of SARS-CoV-2 would not have been predicted to be a particularly effective and infectious virus. Somebody who was aiming to design this from scratch would never have chosen the particular sequence of nucleotides that this virus represents.

Q: And we've heard that, too, and we've also heard from the interview that a scientist at DARPA who used to be at the National Center for Medical Intelligence under the Defense Intelligence Agency, and he told us through their research that scientists don't necessarily seek perfection, that it's specifically in the pandemic preparedness realm that when you're trying to see if a virus has the potential for spillover, you understand that Mother Nature usually isn't capable of perfection.

So when you're synthesizing the viruses and piecing it
together, you're actually trying to mimic recombination in nature, not necessarily designing a virus from scratch. Is that consistent with your understanding?

A. It still wouldn't fit this situation.

Q. Why not?

A. Because the sequence of this virus would not be arrived at by recombination between what we knew at that time.

Q. It couldn't have?

A. It would not fit.

Q. Okay, why?

A. Because what we knew about the infectious nature of coronaviruses would have predicted that this virus wouldn't work.

Q. The ODNI report also said that Wuhan researchers probably did not use adequate biosafety precautions at least some of the time prior to the pandemic in handling SARS-like coronaviruses. Do you have any knowledge of that?

A. I don't.

Q. And the final section says, "several lab researchers fell ill in the fall of 2019 with symptoms, some of their symptoms consistent but not diagnostic of COVID-19, and the IC continues to assess that this information neither supports nor refutes either hypothesis"
of the pandemic's origins."

Do you have any knowledge of ill researchers at the WIV?

A Not at all.

Mr. Griffith. I've got a follow-up question.

Mr. Benzine. Absolutely. Yes, sir.

BY MR. GRIFFITH.

Q So we've got these scientists, they're working on sequences. They're not trying to create something that's going to go out and be a pandemic or a pathogen to human beings. They're just trying to say, what happens if we do this. And doesn't that happen a lot of times in science? People say, let's see what happens if we rearrange this, this way, not expecting it to be a pandemic, not trying to make a pandemic, just goofing around in the lab trying to say, hey, what happens if we do this?

A For them to have landed on this particular sequence out of all the entire universe of possible tweaks they might play with, that just stretches the imagination.

Q And that's what we do in science, isn't it, stretch the imagination?

A To a point.

Mr. Griffith. All right.

Mr. Benzine. We can go off the record.

(Lunch recess taken.)
We can go back on the record.

Dr. Collins, starting with a few questions about a few topics that were discussed in the previous round.

Mm-hmm.

One of them is, just for the record, there was some discussion in our initial round about the extent to which there has or has not been an accusation made against yourself and Dr. Fauci about a $9 million grant. There is a mention that that accusation has not been made. Just for the sake of the record, it's helpful, I think, for me to read that in Select Subcommittee hearing on investigating the origins of COVID on March 8th of last year, there was an exchange between Congressman Jordan and Nicholas Wade who was a witness at that hearing. And the topic at hand was the extent to which the authors of Proximal Origin either did or did not change their views for some reason other than science.

Mr. Wade said, "Well, if you're looking at the timeline on May 21st, just a few weeks after the nature med -- the nature medicine argument had come out, two of the signatures of the origin email to Dr. Fauci, that's Dr. Andersen and Dr. Garry, were awarded a $9 million
Mr. Jordan responded, "So there's 9 million reasons why they changed their mind. I know you would get to it, I read that last night, three months after, so three days after they say it came from a lab, they change their position. And the only intervening event, the conference call with Dr. Fauci and Dr. Collins, again a call that Mr. Redfield was not allowed to be on, the head of CDC and on the Coronavirus Task Force, and then three months later, shazam, they get 9 million bucks from Dr. Fauci."

That's the end of the quote. I think it's difficult to read that quote in any other way than from what you and I had discussed, and I just thought that would be helpful for the record.

Mr. Benzine. Sorry, just a question for clarity of the record.

Sure.

Mr. Benzine. Was Mr. Jordan the Chairman of the Select Subcommittee?

He is certainly not the Chairman of the Select Subcommittee.

Mr. Benzine. Thanks. We can move on.

I will say if the distinction rests on whether or not he is a Member of the Select Subcommittee, that distinction probably is not that meaningful for
Dr. Collins when those sorts of comments are made.

Mr. Benzine. My point is to be clear what didn't come from Chairman.

Certainly, we agree with that.

Mr. Benzine. All right, thank you.

BY...

My first sort of substantive clarification.

This website definition of gain of function. We will come back to it again, sorry, I don't know how many times we can have the exchange, but our understanding is there was no confusion amongst staff or at the director level or amongst grantees about whether or not that was somehow an operative definition of gain of function; is that correct?

That's correct.

Okay. The regulated community, as well as the agency itself, understood at all times that the operative definitions were found in the 2014 pause for those three years, and then in the P3CO framework from 2017 onward; is that right?

That's correct.

Great. A somewhat minor technical point.

There was a very brief mention of BSL levels and the extent to which, for example, a BSL2 in the United States might be something different from BSL2 in China.

Our understanding is that the levels themselves are
internationally recognized, the differences might be in different countries what the appropriate levels are for different types of work. Is that also your general understanding?

A I'm not an expert, but that's my understanding.

Q Great. Back to Proximal Origin for a moment. The timeline of those events I think can sometimes get a little muddy. Is it right that -- you've already explained it, but one more time -- you, as a virologist, in that whole sequence are more or less relying on -- you not being a virologist, sorry.

A Thank you.

Q You not being a virologist, for the transcript, are relying on what the virologists and evolutionary virologists are telling you at any given moment.

So early in that conversation, somebody says something to the effect that, gosh, we should take a look at serial passage. Their state of mind would be, hey, somebody should take a look. And if later folks do that analysis and say, we don't think that that's plausible, I would think that your state of mind would be, well, I suppose that that's not plausible.

Is that generally right?
That's generally right. I have to be guided by the experts because I'm not a virology expert myself. Great. And with respect to furin cleavage sites, which I don't think it's possible to discuss furin cleavage sites any more than I have in the last year. So we were told by the authors of Proximal Origin that at the time of the February 1st conference call, when those folks are sort of raising an alarm that, hey, we're looking at these mutations, they look potentially like they may have been inserted, that they were not aware at that moment the extent to which furin cleavage sites are observed up at the genus level in beta coronavirus, sarbecoviruses they're saying, oh, my gosh, we've never seen this, but they were not yet aware of the extent to which furin cleavage sites would exist one level above that. So you may not remember whether or not that is the case. You tell me.

I don't have a clear recollection. It does seem clear from their point of view that that's a piece of information that they collected as the process went on that contributed to an evolution in their own points of view. In addition, Dr. Andersen told us that this particular furin cleavage site with the PRRA, I think, or the amino acids, he said it's a bad furin cleavage site.
In other words, if you were sitting around trying to dream up a good furin cleavage site, this is not what that would look like, and that factored, again, into their thinking that this was very likely not something that a human had designed or engineered.

A That's my understanding as well.

Q A little bit of discussion about the P3CO framework. It's a clarification for me because I agreed with the Majority that we have sometimes tried to understand exactly what happened when. I'm going to try to summarize what I think is right, but then you can tell me if I'm right or wrong.

There is, of course, a cost/benefit analysis for any given proposed work at the proposal and award stage; is that right?

A Yes.

Q Great. And then in addition to that, or separately from that, the question of whether or not a particular grant would be referred for P3CO review, that is, I think, a definitional question, right? That question looks at whether the definitions that we looked at about ePP are met. Is that right?

A That's correct.

Q And then if that definitional requirement is met, then the P3CO committee that conducts the further
review, they would then engage in some sort of balancing
cost/benefit analysis separately about whether this work is
worth it when weighed against the risks that are presented;
is that right?

A That's correct.

Q Great. We're happy about that.

There was also a little dialogue about P3CO and the
requirement that the pathogen in question be able to infect
humans, and you affirmed that that is correct, and that's a
distinction as opposed to the 2014 pause.

A Mm-hmm.

Q But it is not just that it be able to affect
humans. There are all sorts of other criteria in the
definition that must also be met. If some of them come to
mind for you and you could repeat them, that would be
great.

A Highly transmissible and highly virulent.

Q And I think there's something about wide and
uncontrollable spread?

A Leading to wide and uncontrollable spread.

Q Great. Is it right -- again, a very brief
back-and-forth about the extent to which either NIAID or
NIH were consulted in the crafting of P3CO. Am I right to
assume that you would not personally know for a fact the
extent to which individuals at either of those agencies
were or were not consulted in that process?

A I would not, and I'm glad you're raising it again. When it was asked before, I'm not sure it came across that I would not have been in a position to know whether there was some consultation with NIAID or other parts of NIH. That's not something that I would have necessarily been informed about.

Q Thank you. This is just a pure science question. When we think and talk about novel viruses, I know you're not a virologist, I'm asking at a very superficial level. But if you do have an understanding, our sense is that there are almost an unquantifiable number of novel viruses that exist somewhere out there in the universe. And the fraction of those that in their current state are capable of directly jumping into a human and infecting a human, I think is thought to be relatively low. Is that your general sense?

A That's correct. There is actually a project that's trying to do a better job of cataloging viruses, the Virome Project, as you might guess. And the vast majority of those viruses are not capable of infecting human cells.

Q Thank you. Some discussion, back on the substance of Proximal Origin, and you had talked about how the particular sequence would not have been predicted to be a particularly effective virus and certain conclusions can
be drawn from that fact.

And I guess it's just an observation or question, which is, we have found in our conversations with the authors of the paper that there is a limit to what you can deduce from that. In other words, you can deduce that probably the sequence is not a product of the human mind, it is not a product of intelligent design, it was not dreamt up by a person.

But there is an extent to which it is difficult to be sure about whether other forms of lab work were or were not necessarily that they occurred involving naturally occurring viruses. And I'm just pointing out that possible distinction and whether you've ever considered that nuance.

A I think I'm on record about that, that I am convinced, based on the sequence, that the original arising of this virus was a natural event. But I can't exclude the possibility that there was secret study going on at the Wuhan Institute of Virology or somewhere that studied the virus and potentially played some role, but I have no evidence to support that.

Q Thank you. A slight pivot to talk to a new but related topic, which is a zoonotic origin pathway. In general, you touched on a little bit at the beginning of the day. I would like to ask a few questions about it.

I think our work often is very focused on possible lab
accident origin and what exactly that might look like. I don't think we have spent as much time talking about a zoonotic origin, but that theory, I think, has been fleshed out in detail elsewhere. And so could you maybe just, to the extent you have an understanding, talk a little about historical context for zoonotic jumps with coronaviruses, or more broadly than that.

A When you look at the nature of pandemics that have affected humans, as long as we've known about it, the vast majority have been on the basis of a natural zoonotic origin. Many of those were influenza. Certainly with SARS, we understand that to have been zoonotic through an intermediate host, probably a civet cat, where with MERS it appears that was also zoonotic maybe with camels as the intermediate host. Those are pretty well worked out. So while it has been the case there have been lab accidents, let me not try to say that's not also something that's happened historically. When you look at the major sequence of events associated with a pandemic, it has generally been a naturally occurring zoonotic transfer from some animal maybe through some other species to a human.

Q And what might that pathway typically look like, whether it's in a setting that's more the animal's natural habitat or in a setting where it's the human's natural habitat? What might it look like?
These are often circumstances where humans have come in close proximity to habitats that have traditionally been animals, whether that's a bat cave in China, as we think probably was the place where SARS and MERS originally got started, or whether it was, as in Ebola, maybe a different kind of animal interaction, we still don't know.

So, yeah, usually this is one of the consequences of the way in which the world has been developing with more and more opportunities for humans and wild animals to come in close contact in ways they might not have in the past.

To the extent that you have a sense, does China have any general characteristics or traits that might make it ripe for zoonotic spillover event?

I don't want to overgeneralize compared to all other countries in the world. But certainly China, with both the existence of lots of animals that share enough biology with humans that they might have the potential of this kind of a viral jump, and that proximity with population increasingly close to some of those habitats.

And I guess I especially have to bring up, because there still seems to be a strong reason to look at the wet market at circumstances where wild animals are being butchered and sold in a circumstance where they have not necessarily been
examined to see if they might be carrying some pathogen.

So I think that flows nicely into a conversation about SARS Co-2 and what a natural spillover might have looked like in this case. Do you have a sense at all of research or data points that are out there that have examined that question, whether it's the context of the seafood market case clusters, or anything else that comes to mind?

Yes, I do. And I think that data is actually really interesting and highly relevant, and it surprises me in some ways it hasn't gotten more attention.

So, for instance, there's two papers published in Science Magazine in 2022 looking specifically at the epidemiology of the first cases of SARS-CoV-2 in Wuhan. And by a series of analyses, which again, I'm not an expert on, but this is in a peer-reviewed paper, pointing to the west edge of the Wuhan market as the most likely place where this seemed to be emerging in a pretty compelling story.

Along with that, recognition that there were actually two slightly different SARS-CoV-2 viruses. They differed by just two single nucleotide changes but they basically then make two lineages, and the argument being that would be something you might expect to see in an animal-to-human passage but not so likely if it was a single accident in a laboratory.
Then more recently, with data that was perhaps accidentally put up on the internet, but was seen by a French investigator, Debarre, swabs that were taken from the market in or around January and then analyzed for their DNA content showed many of those, particularly in the west part of the market, positive for SARS-CoV-2. And many of them also positive for animals.

And in particular, the raccoon dog, which we know is a species that can, in fact, be infected by SARS-CoV-2 and can transmit it, is present in a number of those swabs as well. That doesn't prove that the virus was in that animal, but it certainly says they were in very close physical proximity.

I think if you were -- stepping aside from all of the other contentiousness in trying to sort out what do you think the odds are of this having been a purely natural origin with animals in the wet market having been the point at which the virus reached humans, versus postulating some other event like a lab event, you would go towards the former. Occam's Razor says that if you have a tough situation with two different opportunities to explain it, you're generally going to be right to pick the one that is the most straightforward. In this case, I think that's what this is.

So again, I'm totally open to new data that would change
this, and I wish we had more data from the Wuhan Institute of Virology about what exactly is going on in late '19 and 2020. Absent that, just looking at what we have right now, my sort of way of looking at this would say that this is a natural origin all the way through.

Q For other not perfectly analogous, but similar incidents, such as SARS 1 or MERS, was it instantaneous that folks were able to pin down the point of origin or reservoir host?

A No, I'm glad you asked. This is a very long, drawn-out process, in those instances, years. Recognizing the case of Ebola, for instance, we still don't know what the actual intermediate host was. This is hard, hard work, and it can only really be done with full cooperation of the geographic sites that you want to study, and that's not been possible so far for SARS-CoV-2.

Q Is it reasonable to think that in this case, particularly with the cooperation or lack thereof that you mentioned, that it would take significant time, if at all, to be able to do all of that tracing successfully?

A It would take significant time and a lot of cooperation and a lot of resources.

Q Perhaps worth noting, because the natural versus lab conversation, I think often there's this very sharp line that gets drawn between them such that nothing
could ever cross that boundary. For example, and I think you talked about some version of this earlier.

If you had a lab worker, goes out, does field work in a cave, collects a natural virus, brings it back to the lab, is simply handling it in some manner, no additional type of manipulation of any kind, but somehow gets infected, that virus, that would seem like it would be perhaps a lab accident involving a natural virus and not fit cleanly into the either bucket. Does that seem reasonable?

A  It does, although I think that's unlikely, given that we don't currently have evidence of viruses that were out there occurring naturally that would be able to cause that level of illness without something else along the way, that intermediate host.

Q  Does that go back to that brief exchange about novel viruses, that it's pretty unusual for a totally novel natural virus to be able to jump directly into a human host?

A  It is.

I think that is it for our questions this round. So unless there's anything more, I think we can go off the record.

(Recess.)

Mr. Benzine. We can go back on the record.

BY MR. BENZINE.
Dr. Collins, John is going to ask some questions, but I want to clear the record once again that this Committee, the Chairman being the only one that can speak for this Committee, has not made any accusations that you nor Dr. Fauci have bribed anybody to change any evidence. Thank you.

Out of curiosity, how many people work for you, or worked for you, at NIH?

A About 46,000.

Q If one of them made a statement that you disagreed with, would it be fair to ascribe that statement to you?

A No.

Q Thank you.

So I would like to follow up on our colleagues' questions about some of the early epidemiology. I am going to try to minimize exhibits just to be concise. But the Chinese, through the WHO China joint team, the Chinese side of that team did a retrospective case search as part of their origins investigation and were only able to identify 177 cases in December of 2019. Given sort of the exponential growth that we subsequently saw in January and February, does that sound like it's a reasonably complete set of early cases?
I'm not in a position to really have an opinion about that.

Do you think it's accurate that the Chinese -- the first confirmed case that they have disclosed they date to December 8th. Is it plausible to you that, given again this exponential growth that we saw, to go from one case, maybe a handful of cases if they missed some of the other ones, to these millions and millions or hundreds of thousands of cases in such a short period of time?

I'm not an epidemiologist. You would have to ask somebody with better expertise than mine.

So you mentioned, and I believe the two papers you're citing is one, the lead author is Michael Worobey, the other is Dr. Pekar, Steven Pekar maybe, I forget his first name. You cited two Science papers or two Nature papers.

Science.

The Worobey paper being one and the other being Jonathan Pekar's modeling paper?

I do not recall who the first author was.

Okay. So one of the issues you mentioned that you found compelling is that the genetic evidence, the swabs that were collected in January that were positive for SARS-CoV-2 also had animal DNA in them.
One, I guess as a practical matter, if taking the Chinese at their word that the first cases are December 8th, is a swab collected in early January or even, I believe some of the collections were done as late as March or April, going to be indicative of the origins of the virus?

A Hard to be totally clear. But if there's an ongoing infection in an animal species that's present on site, then you might expect that you could find that not just in one moment but over the course of time.

Q Because there's an infected animal population that's circulating the virus?

A Mm-hmm.

Q So I'm going to try to avoid making this an exhibit, but let me know if it's more comfortable for you to look at. This is a paper by Jesse Bloom who I know you're familiar with titled Association between SARS-CoV-2 and the metagenomic content of samples from the Huanan Seafood Market. And I'm just going to read a segment of the abstract. I'm happy to make it an exhibit if you prefer.

Mr. Nassikas. I think it would helpful for us to see it.

Mr. Strom. We will make this Majority Exhibit 3.

(Majority Exhibit No. 3 was identified for the record.)

BY MR. STROM.
You can just read the abstract is fine, since that's all I'm going to ask you about.

So you mentioned -- and I believe the French researcher you're talking about talking is a woman named Flo Debarre. There was, I think, a difference in approach between her and Crits-Cristoph, and now this other group and Dr. Bloom. So I'm just wondering, Dr. Bloom's analysis, the key phrase to me would be, "None of the samples with double-digit numbers of SARS-CoV-2 reads," and that would mean I believe 21 samples, "have a substantial fraction of their mitochondrial material from any non-human susceptible species. Only one of the fourteen samples with at least a fifth of the chordate mitochondrial material from raccoon dogs contains any SARS-CoV-2 reads, and that sample only has 1 out of approximately 200 million reads mapping to SARS-CoV-2. "Instead, SARS-CoV-2 reads are most correlated with reads mapping to various fish, such as catfish and largemouth bass." The result is "that while metagenomic analysis of the environmental samples is useful for identifying animals or animal products sold at the market, co-mingling of animal and viral genetic material is unlikely to reliably indicate whether any animals were infected by SARS-CoV-2." So understanding it's still a live issue, it seems to me that basically the samples that are in the market seem to
be -- seem not to have any animal DNA in them. Is that a fair reading of this?

A That's not so. He as much as says there is raccoon dog in some of these samples, and there were other species as well.

Q Correct. But one 1 of 200 million reads, that strikes me as a fairly insignificant amount.

A Jesse Bloom is a very careful scientist. This is a great example of the kind of scientific debate that ought to happen when you have data that's somewhat unprecedented and you're trying to figure out what it means. For him to take down this pathway that the quantitative levels of SARS-CoV-2 versus some animal are an important indicator of whether they actually coexisted. It's not something that everybody, I think, would agree with. When you're talking about swabs that have been sitting around for potentially days or weeks, there's so many other variables.

So I see what he's saying, but I don't think a conclusion that he's drawing would necessarily be agreed to by other experts.

Q But I guess the other -- so I guess the counter argument is that, don't worry about the fact that the COVID positive samples didn't correlate, weren't found with any animal material?
A: That's not true.
Q: Okay.
A: They were found with animal material. He's trying to make a quantitative case as opposed to yes/no.
Q: Sorry, I didn't mean to talk over you.
A: If you're asking, were there samples that had SARS-CoV-2 and raccoon in the same swab, the answer is yes.
Q: Right. It just seems that that's a very, very small amount to then confidently -- to base confidence off of, I guess.
A: Again, to try to turn this into a quantitative argument about how many reads, I think is going beyond the way in which this data had been collected, and ascribing significance to it that a lot of people wouldn't necessarily accept.
Q: I don't know the answer to this, so -- do you not feel like perhaps the proponents that have pointed to this as some sort of smoking gun of a natural origin aren't making the same mistake that I'm apparently walking into?
A: I hope nobody's making a mistake.
Q: Sure.
A: I hope everybody is trying to look at the data that we have, which is unfortunately not nearly as
complete as we wish it was, and trying to assess, of the various options, what seems most likely. In fact, the Occam's Razor. The swabs from the market, in my view and in the view of most virologists, tip in the direction this really was natural. It probably happened at the wet market.

Q So you accept the Chinese representation that there were only 177 cases in December as more or less like a good-faith effort to identify all the cases?

A I have no way of assessing whether that's good faith or not.

Q Hypothetically, if there's more than 177 cases, obviously we don't know if they have connections to the market or not, but that would be relevant to your analysis. So if you think it's a relatively complete set of early cases, then it's a true preponderance tied to the market. But if they missed thousands of cases for whatever reason, intentional or accidental, wouldn't it be then likely that you lose that sort of tight nexus to the market?

A Not necessarily. It could be the cases they missed are very much like the ones they found. And, again, this is hypothetical about whether they missed a lot or not. I have no reason to think that they did.

Q No reason to think that they missed early
Mr. Strom. I might have a few more questions on that, but I'll let you get on.

BY MR. BENZINE.

Q I'm going to switch gears and talk about EcoHealth and the enforcement and oversight mechanisms that happened throughout 2020.

When did you first become aware of EcoHealth's existence?

A I don't have an absolutely clear recollection. I know I did in April of 2020. I'm not sure I knew about it before then.

Q So it would be -- I'll rephrase it. Did you know about EcoHealth prior to the pandemic?

A No.

Q Did you know about Dr. Daszak prior to the pandemic?

A No.

Q Sitting here today -- this is kind of a very broad question before we get into the specifics.

Obviously, NIH and NIAID and HHS have gone through all kinds of things with EcoHealth in the way of -- in the past four years. What's your perspective on them as a grantee institution?
That's such a broad question and it would be pretty speculative. I'm not sure how to answer.

Okay. Do you think they are worthy of getting U.S. taxpayer dollars?

That all depends on what's the scientific value. So it would have to depend on the specific instance.

It doesn't depend on their past practice?

It would be a factor for sure.

Again, like John, I'm going to try to limit the amount of paper that I flood you guys with.

On May 28, 2016, Dr. Greer and Dr. Stemmy wrote to EcoHealth regarding the potential of some of their experiments falling under the gain of function deliberative pause. Are you aware of that letter?

I am aware the question was raised at that point. I don't know that I know the letter.

Were you aware that the question was raised post-pandemic? You weren't involved in the original process?

No, I was only aware long after the fact.

Thank you. Similarly -- well, I want to ask about this. Dr. Daszak wrote back and regarding the concerns proposed adding a condition to his award, that pretty much if the viruses they work with show a greater
than 1 log growth, that he would immediately stop the work
and report it to NIAID. You're aware of that addition?

A Long after the fact. Yes, I'm aware now.

Q During NIH's enforcement is when you became
aware?

A Well after --

Ms. Ganapathy. I'm just going to step in here.

Dr. Collins, to the extent that your response would require
disclosing internal deliberative communications, I would
instruct you not to do that. But to the extent that you
can respond, please do so.

The Witness. I can't tell you exactly the timing of when
that particular condition came to my attention, but it was
certainly long after the onset of the pandemic.

BY MR. BENZINE.

Q Dr. Daszak testified that he took that
condition from Dr. Baric at UNC. Were you aware of that?

A No.

Q He also said that it was originally kind of
designed by Dr. Baric, and then he had it in some of his
grants to NIAID. Is that common, that a grantee would come
up with their own special award condition?

A I would not know the answer to that.

Q Presumably, since the enforcement action and
this came to your attention, have you discovered that
specific award condition in any policy or manuals that NIH or NIAID has?
A No, I have not. But I wouldn't necessarily have been looking.
Q Okay. The next letter, July 5, 2018, from Dr. Stemmy to EcoHealth, and this is after the P3 came into effect. So they rereviewed EcoHealth's experiments under the new P3 definition.
Were you aware of that letter at the time?
A No.
Q Did you become aware of that letter during the pandemic?
A Long after, yes.
Q Those were kind of like the major letters sent pre-2020 in the EcoHealth situation. After the pandemic started, after the enforcement action started, did you have any discussions with anyone at NIAID regarding those letters?
A No.
Q Did you have any discussions with anyone at NIAID regarding the decision on the gain of function pause did not apply to EcoHealth?
A No.
Q What about the decision that the PC3O did not apply to EcoHealth?
Moving into 2020. Before we start with individual letters, we asked Dr. Lauer and he testified that he would not sign or send a letter that he disagreed with. Do you have any reason to doubt that assertion?

A No.

Q Do you agree with every enforcement action the NIH took against EcoHealth?

A Yes.

Q I want to introduce Majority Exhibit 4.

(Majority Exhibit No. 4 was identified for the record.)

BY MR. BENZINE.

Q So this is a letter from Dr. Lauer to EcoHealth and Columbia. It's pretty well-established by now that Columbia was a mistake, but primarily EcoHealth, and this letter severed the Wuhan Institute of Virology's relationship with EcoHealth pursuant to that grant. Were you previously aware of this letter?

A I was not aware when it was sent. I have seen it more recently.

Q Who made you aware of the letter?

A As part of trying to prepare for these conversations.

Q Are you more --
Mr. Benzine. I'll introduce it as 5.

(Majority Exhibit No. 5 was identified for the record.)

BY MR. BENZINE.

This is a letter from Dr. Lauer to EcoHealth from April 24, 2020 terminating the EcoHealth grant. Is this one that you're maybe more familiar with?

I am now.

When did you become familiar with this one?

I don't recall when I first saw it.

Do you recall how the decision to terminate the EcoHealth grant came to be?

The same instruction.

I was informed about the fact that this was going to happen by Dr. Tabak.

BY MR. BENZINE.

How did it come to be?

The same instruction.

I was informed about the fact that this was going to happen by Dr. Tabak.

BY MR. BENZINE.

Did Dr. Tabak tell you who he heard it from?

I'm not able to answer that.
I'm going to run through the sequence of events that we have gotten from previous testimony, and you can just respond "yes" or "no" if this is your understanding of the events.

A I might need counsel to advise me about that.

Ms. Ganapathy. Dr. Collins, you can respond "yes" or "no," but nothing further.

The Witness. Thank you.

Our understanding from previous testimony from both Dr. Tabak and Dr. Fauci was that Mr. Meadows, as chief of staff, instructed HHS OGC, who instructed Dr. Tabak, who instructed Dr. Lauer to terminate this grant. Is that also your understanding?

Ms. Ganapathy. One second. Actually, just to clarify the instruction. Dr. Collins, you can respond "yes" or "no." To the extent you don't actually know, you should say that.

The Witness. I don't actually know.

But you heard from Dr. Tabak that the grant was going to be cancelled?

A Yes.

Did you have any conversations within NIH regarding whether or not NIH had the ability to cancel this
grant?

A I don't recall that specific kind of question. This was a very unusual situation, however.

Q Do you recall any conversations about how to cancel grant?

Ms. Ganapathy. Dr. Collins, the same instruction as previously.

The Witness. I think I can't answer that one.

Mr. Benzine. Are you instructing him to not answer?

Ms. Ganapathy. Yes.

BY MR. BENZINE.

Q After the letter was sent, do you recall any conversations with anyone at NIH or NIAID regarding whether or not they agreed with the cancellation of the grant?

A I don't recall those conversations.

Q Do you recall -- so you said that you became aware of the efforts to terminate the grant from Dr. Tabak.

Do you recall about when that was?

A Within the afternoon of April 24th.

Q So the date this letter was sent?

A Yes.

Q Was that order of events kind of strange, that Dr. Tabak would inform you of action within a few hours of it being taken?

A The impression I had was that this needed to
be done very quickly.

Q Why?

A I think that's in the space I can't respond to.

Q I am going to ask the question again. It's her job to tell you if you can't respond.

Why were you under the impression that this couldn't be done, or had to be done quickly?

Ms. Ganapathy. And, Dr. Collins, I am going to instruct you to not respond to the extent it would require disclosing deliberative communications.

The Witness. I think I can't respond.

BY MR. BENZINE.

Q To the extent you know, was it because the President was giving a press conference?

Ms. Ganapathy. The same instruction as previously, Dr. Collins.

BY MR. BENZINE:

Q You can answer "yes" or "no."

The Witness. Which instruction?

Ms. Ganapathy. So, Dr. Collins, once again, I would just instruct you to only respond to the extent it would not disclose substantively your discussions, your deliberative discussions about this grant.

The Witness. Then I had better not respond.
"Yes" or "no" is not deliberative. I'm the one telling you the deliberation. "Yes" or "no" is not a deliberative answer.

Mr. Nassikas. What was the question, then?

BY MR. BENZINE.

Q Was it your understanding that the grant needed to be terminated quickly because the President was giving a press conference?

The Witness. Counsel, can you advise me whether a "yes" or "no" is acceptable?

Ms. Ganapathy. Dr. Collins, you can respond "yes" or "no" as to whether or not that was your understanding.

The Witness. Yes.

Mr. Benzine. Thank you. Welcome to Congress.

The Witness. Such fun.

Mr. Benzine. I am going to introduce Majority Exhibit 6.

(Majority Exhibit No. 6 was identified for the record.)

BY MR. BENZINE.

Q So this is a letter from July 8, 2020 again from Dr. Lauer to EcoHealth reinstating and then immediately suspending the grant, pending the answers to a number of questions. When we interviewed Dr. Tabak, he said this letter was kind of written by committee and that
you were involved in that committee. Is that a fair
characterization?

A  I was aware of it. I would not say that I played much of a role.

Q  Could you describe your role?

A  I was the NIH director. I knew that this was an action that Dr. Lauer was proposing to take, and I, by my best recollection, wanted to know what the plan was.

Q  Were you involved at all in the drafting of the letter?

A  I don't think I was.

Q  Okay.

A  I have no recollection of that.

Q  Do you recall any specifics on the conversations regarding the letter?

A  No.

Q  Again, I'm going to skip ahead a little bit in the timeline, but there were a number of letters between July 8, 2020 and my next one of July 23, 2021. I will introduce that as Majority Exhibit 7.

(Majority Exhibit No. 7 was identified for the record.)

BY MR. BENZINE.

Q  So again, another letter from Dr. Lauer to EcoHealth, this time July 23, 2021. Were you aware of this
letter at the time it was sent?

A No.

Q When did you become aware of this one?

A I'll need a minute to read it.

I don't recall having seen this before.

Q Okay. In this letter, Dr. Lauer -- on page 2 at the very bottom, Dr. Lauer requests the year 5 progress report from EcoHealth that was due at the end of the fiscal year 2019, September 30, 2019, and at this point was 22 months late.

A Sorry, where is that?

Q It's under Reports. "We are also writing to notify you that a review of our records indicates that EcoHealth Alliance is out of compliance with requirements to submit the following reports that are outlined in the NIHGPS" -- I don't know what the acronym stands for -- "the Federal Financial Report and the Interim Research Performance Progress Report." That would be their year 5 RPPR.

A Okay.

Mr. Nassikas. What's the question?

BY MR. BENZINE.

Q At this point in time, it was 22 months late, it was due September 2019. July 23, 2021. Dr. Lauer told us this was the first time that they asked for it.
When did you become aware that they were that late on a progress report?

A Not at this time. I found out that it was significantly late. I did not know about this letter.

Q Okay. Do you recall who told you that they had been late on their progress report?

A I do not recall.

Q But you know it was after, significantly after July 23, 2021?

A Yes.

Q After you were told, did anyone provide a briefing regarding the missing progress report?

A I don't recall that.

Q Dr. Daszak's testimony was that EcoHealth attempted to submit the progress report but was locked out of NIH's system. Dr. Lauer's testimony was that NIH did a forensic analysis and found no evidence that EcoHealth was unable to submit the progress report on time. Do you have any knowledge of that?

A I do not.

Mr. Benzine. I want to go ahead and introduce Majority Exhibit 8.

(Majority Exhibit No. 8 was identified for the record.)

BY MR. BENZINE.
This time it's a letter from you, so hopefully it's a little bit more familiar than Dr. Lauer's, to former Ranking Member Comer on July 28, 2021. And I will give you a minute to flip through.

Okay.

This is just kind of, like, I know how the game is played, I write letters for my bosses all the time. But I was wondering your involvement in the drafting of this letter?

As you can see, it's highly technical. I would not have a letter go out with my signature without my having reviewed it, but I was not the primary author.

Do you know who was?

I do not.

Do you know anybody that was involved in the drafting of the letter?

I do not.

I want to go to page 5. In the beginning of the third paragraph, I think you just kind of gave the answer to this, but it starts, "Results of the WIV experiments under the EcoHealth Alliance grant were reported to NIAID and published contemporaneously in peer-reviewed scientific literature to inform the global scientific community of these findings," when five days
earlier Dr. Lauer was saying that EcoHealth hadn't produced everything to NIAID.

But you said that you were unaware that the report was late, so that would -- I don't know if you want to expound on that at all. This sentence reads to me like NIAID was aware, everything EcoHealth had done had reported to NIAID, which by the time this letter was written was not true. But you were not told that it was not true?

Yeah, I would have not had any reason to know that.

I appreciate that, thank you.

Mr. Benzine. I want to introduce Majority Exhibit 9.

(Majority Exhibit No. 9 was identified for the record.)

BY MR. BENZINE.

It's just a one-and-a-half page letter.

While you look at it, it's an October 20, 2021 letter from Dr. Tabak to Mr. Comer again. And in this letter, it's notifying Congress that the year 5 progress report was, in fact, turned in, it was turned in on August 3, 2021, and that in that progress report, EcoHealth described a limited experiment that had an unexpected result where, one, a chimera they created resulted in mice becoming sicker than those infected with the underlying virus.

Ms. Ganapathy. Could you give the witness a moment to
review the letter?

The Witness. Thank you.

Okay.

BY MR. BENZINE.

Q Were you previously aware of this letter?

A I think I have seen it, but not particularly aware of it.

Q So not involved in the drafting?

A Not that I recall.

Q All right. Where I want to start, before talking about the research that the letter talks about, is the very last page. The last big paragraph talks about RaTG13 and BANAL-52 as being the two closest viruses, but neither of those would have possibly been COVID-19, which I think everyone agrees with.

The next line down is, "The analysis attached confirms that the bat coronaviruses studied under the EcoHealth Alliance grant could not have been the source of the SARS-CoV-2 and the COVID-19 pandemic."

As we have discussed at length, in some interviews, it is unclear if RaTG13 or BANAL-52 were ever studied with U.S. funds. But the statement strikes me as awfully certain when there is no way to be certain. You have been doing this a long time. In your experience, do grantees or researchers publish every experiment that they conduct?
No, I suppose not.

Do they publish every virus that they collect or sequence?

They would certainly be inclined to publish those that were of particular interest.

But not every single one?

Sometimes the data is not good enough to be published.

Okay. So this is a statement that says unequivocally "the bat coronaviruses studied under the EcoHealth Alliance grant could not have been the source of SARS-CoV-2."

Understanding that researchers do not publish every experiment that they conduct, do not publish every virus that they collect or sequence, that's a pretty certain statement, would you agree?

Mitch, this refers to an attached analysis. Do you have that analysis?

I can get it, but really all it says is the bat coronavirus studied under the EcoHealth grant could not have been COVID-19.

It's saying the analysis attached confirms that. So none of us are looking at that analysis.

I'll introduce it in the next hour.

Thank you.
Mr. Benzine. Moving back to the front page of this, and I'll introduce Majority Exhibit 10 to go along with it. (Majority Exhibit No. 10 was identified for the record.)

By Mr. Benzine.

Q We don't need to read the whole thing because it is awfully long, but it is the year 5 progress report that EcoHealth submitted. We can just flip to page 15 under Specific Aim 3.

So I want to read Dr. Tabak's letter a little bit first, and then come back to this one. So the fourth paragraph down, "The limited experiment described" --

Mr. Nassikas. Wait, where are we again? I'm sorry.

Mr. Benzine. Tabak's letter, the fifth paragraph.

Mr. Nassikas. Of the first page?

Mr. Benzine. Yes.

By Mr. Benzine.

Q "The limited experiment described in the final progress report provided by EcoHealth Alliance was testing if spike proteins from naturally occurring bat coronaviruses circulating in China were capable of binding to the human ACE2 receptor in a mouse model. All other aspects of the mice, including the immune system, remained unchanged. "In this limited experiment, laboratory mice infected with
SHC014 WIV1 bat coronavirus became sicker than those infected with the WIV1 bat coronavirus. As sometimes occurs in science, this was an unexpected result of the research, as opposed to something that the researchers set out to do. Regardless, the viruses being studied under this grant were genetically very distant from SARS-CoV-2."

I now want to flip to this very long paragraph that you can read while I summarize.

Let me read it first, if you don't mind.

Yeah.

We're on page 15?

Yes, sir.

Okay.

So in this paragraph, they describe an experiment where they took a known backbone with one, and dropped in spike proteins from different coronaviruses to test if it could connect with the ACE2 receptor.

My rudimentary understanding is that the seven mice, the control group infected with just WIV1, five survived. But of the eight mice that were infected with the chimera of WIV1 and SHC014, only two survived. So as EcoHealth wrote, "These results suggest that the pathogenicity of the SHC014 is higher than other tested bat SARSr-CoVs in transgenic that express hACE2."

Understanding Dr. Tabak kind of very -- summarized this
experiment, do you think they're the same experiments?

Mr. Nassikas. Is there really a basis for Dr. Collins on the fly here to be answering these questions, Mr. Benzine?

Maybe you want to establish the basis if he has reviewed this in detail, studied it, talked about it, analyzed it.

BY MR. BENZINE.

Q I am trying to figure out if what EcoHealth reported would fall under the definition of gain of function.

A Is that the question?

Q Yes.

A No.

Q Why not?

A None of these viruses had been shown to be transmissible to humans. This is under P3CO.

Q Under the P3CO definition, but not NIH's gain of function definition.

A Well, we've talked about that, haven't we?

Q Yes.

A That that gain of function definition, which was on the website, is intended for general applications that did not relate to potential pathogens.

Q When we asked Dr. Tabak the same question, your previous deputy -- I'll read the question.

"What's described in the EcoHealth year 5 progress report
would fit the definition, the broad definition of

gain-of-function research?

"Answer: The generic broad description of what a gain of
function is, yes."

Do you agree with Dr. Tabak?

A I think he's saying the same thing that I
did in somewhat different words. There is a generic
description of gain of function which is utilized in
scientific and public conversation, but is not appropriate
to apply that to a circumstance where we're talking about a
potential pathogen. Let's keep those separate.

Q Okay. I want to introduce -- I think the
Minority already introduced it -- Minority Exhibit A.

A Which one?

Q This one. So this is the NIH website,
pulled off the Wayback Machine. It has since been updated.
But this version was active as of July 12, 2021 with this
definition.

You testified earlier, and it caught me and I wrote it
down, that it's important to be sure that we apply the
appropriate term of art, that ePPP would be the appropriate
term of art when talking about --

A PC30 --

Q -- PC30?

A -- would be the appropriate term of art to
describe how gain of function should be interpreted with
the pathogen.

Q And the Minority brought up, and we asked
Dr. Fauci similarly his testimony in the Senate and
Chairman Griffith brought it up, too, where he said the NIH
does not now and has not ever funded gain-of-function
research in Wuhan.

That would not be the term of art in your understanding?
A I'm sorry, I don't understand the way you
phrased the question.

Q So in Dr. Fauci's testimony saying that NIH
does not now and has not ever funded gain-of-function
research in Wuhan, in that statement, gain of function
would not be the appropriate term of art?
A Be careful. I think we're talking about
gain of function having different definitions depending on
the context. I think P3CO is the definition of gain of
function if you're talking about a pathogen. His statement
was clearly talking about Wuhan. So when he said gain of
function, I assumed he is thinking that PC3O criteria would
not have been the kind of funding that would have been
allowed at Wuhan.

Q And I guess our point is, if someone was
watching that hearing and Googled NIH definition of gain of
function, this is the website that would have come up.
This was active July 12, 2021. That testimony is May 11, 2021. And as we have been going through this investigation, we have kind of come across and we have heard some of it today of no laboratory construct, or no laboratory-based scenario is plausible. That's what's written on paper or said out loud is not what people meant to say. And it strikes us as kind of the experts should write or say what they mean to say.

A: And so should everybody else.

Q: I agree. And you said that when talking about a pathogen, people should automatically flip to the P3CO definition. If the gain of function definition modifies a biological agent, would a pathogen fall under biological agent?

A: I've got to look at the whole document here, not just that paragraph, which is kind of providing an historical recognition that gain of function has been used in lots of ways. But if you read the whole document, it's about gain of function involving potential pandemic pathogens and you get the P3CO.

Q: I understand that, and I am willing to stipulate in every single interview for all mankind that what EcoHealth did, did not fall under the P3CO definition.

A: Thank you.

Q: That it was reviewed, but did not fall under
the P3CO definition. What they did absolutely falls under this definition.

And so does an awful lot of other research that has nothing to do with pathogens. So I don't know where you're going with this.

I will stipulate that, too. What I'm going with is, when experts testify, they should be clearer in their testimony. When people write Congress letters, they should be clear in their letters. And saying EcoHealth did not conduct gain-of-function research in Wuhan is not clear.

We should all be clear.

We should all be clear.

Thank you.

Mr. Nassikas. And Dr. Collins has said that context is important, Mr. Benzine. I think he's asked and answered this about 20 times today.

Mr. Benzine. And I appreciate the continued efforts.

We can keep Minority Exhibit A in front of you and flip to what will be Majority Exhibit 11.

(Majority Exhibit No. 11 was identified for the record.)

BY MR. BENZINE.

This is the same website, but on the back, you'll see that it was last reviewed October 20, 2021. So the same day that Dr. Tabak sent that letter to Congress,
the gain of function page on NIH's website was changed. Do you have any knowledge of that?

A I do not.

Q Who would have the authority to change the NIH's website?

A It's handled through the Office of Communications.

Q And who runs that office?

A The chief of Communications.

Q Who is that?

A At this time? That would have, I think, been Renate Myles.

Q Okay, you can put those aside.

I want to talk about staying in the EcoHealth lane. That experiment has come under the microscope for more than just whether if or if not it is gain of function. That under their grant terms, the one-log growth term, that experiment exhibited a more than a one-log growth, and EcoHealth's position is that they reported that experiment in year 4 and that satisfied their condition.

NIH's position, as we've heard from Dr. Lauer and Dr. Tabak, is that the year 5 report and the year 4 report showed different experiments. Do you have any knowledge of that?

A I don't have any expertise to contribute to
that.

Q Is that your understanding of NIH's position?

A I'm not entirely sure. You have just told me what their position was. I did not know it.

Q Okay, so you did not have conversations with Dr. Tabak or Dr. Lauer regarding the year 4 versus year 5 experiments?

A There may have been some general reflections on that some time ago, but I don't think it was determinative.

Q Okay. This past summer, EcoHealth's grant was reinstated, NIH cut the China portion out, cut the WIV out, WIV was eventually debarred and EcoHealth's grant was reinstated. Were you involved in that decision?

A No. Just to remind you, I was not the NIH director at that point.

Q Yes, but NIH director emeritus? I don't know if they call you in to discuss anything.

A They do not.

Q Okay.

A And they shouldn't.

Q Then we will skip ahead a little bit. Were you involved in that decision? The Wuhan Institute was suspended from receiving federal funds while a
debarment proceeding occurred. Were you involved at all in
the suspension?
A No.
Q And then they were eventually debarred for
receiving federal funds for ten years. Were you involved
at all in that decision?
A No.
Q I will move forward and talk about
everyone's favorite conference call and introduce Minority
Exhibit E.
Mr. Nassikas. Which is?
Mr. Benzine. This email.
The Witness. Okay, with the funny font.
Mr. Benzine. For the life of me, I can't tell you why.
Every now and then, we get an email in funny font. I don't
know if it's just because of the inbox it was pulled from.
BY MR. BENZINE.
Q But you discussed this a little bit and how
you got all the conference call, and that kind of thing.
So the bottom email from Dr. Farrar to Dr. Fauci with who
is going to be joining the call and the call-in details.
Dr. Fauci forwards it to you. How were you made aware of
this call?
A I was, I think -- again, it's four years
ago -- initially informed by Dr. Fauci that the call was
happening. And then, I think I got this email forwarded about what the agenda was going to be from Dr. Farrar, who was clearly the person organizing the call.

Q Did Dr. Fauci ask you to join the call?
A Yes.

Q Prior to being asked to join the call, did you express interest in joining the call?
A I don't think I knew it was happening until he reached out. Again, I was his boss. It would not be unusual for him to feel that his boss should be included in something of this magnitude.

Q Do you know how many conference calls Dr. Fauci had on a weekly basis?
A A ton.

Q How many others did he invite you to?
A Very few.

Q Going a little bit up. Dr. Tabak joins in and says, "Would you like me to join?" You say it's fine "but I note Jeremy says he wants to keep this a 'really tight group'. Tony, what do you think?"

Q Do you recall any conversations with Dr. Fauci regarding Dr. Tabak joining the call?
A I do not remember.

Q Did Dr. Tabak eventually join the call?
A He did.
Q And we talked to him at length, and learn
something new in every single one of these interviews. But
he's an expert in O-linked glycans?
A That's correct.
Q And do you recall if he discussed that
expertise on the phone call?
A I believe he did make a comment.
Q Did you discuss anything on the phone call?
A Almost nothing.
Q Almost nothing?
A I was listening. I might have made a
comment about, oh, that's interesting. I had no substance
to contribute.
Q We talked about this with Dr. Fauci, and I'm
sure you're aware, Dr. Redfield has testified that he was
not included in the call, and the reason for not being
included was that he had already expressed his kind of
thought process that this may have come out of a lab. Did
you ever have any conversations with Dr. Redfield about the
call?
A No, I was unaware.
Q No conversations with him after the call,
either?
A Eventually. He was the director of the CDC.
Q I mean about the call, any conversations?
Mr. Benzine. We can go and do Majority Exhibit 12.

(Majority Exhibit No. 12 was identified for the record.)

BY MR. BENZINE.

Q So this is Majority Exhibit 12. It's an email chain with Dr. Fauci, Mr. Grigsby, Mr. Harrison, Dr. Kadlec, and you, and it's Bates marked SSCP_NIH1796 through 1798.

A Will you give me a minute to review?

Q Yes.

A Okay.

Q I want to focus on page 1797, the long email from Dr. Fauci.

A Mm-hmm.

Q So this is kind of, and he said this as well, his recounting of the conference call to what would be, I guess, his boss, Brad Harrison being chief of staff of HHS?

A Correct.

Q Dr. Kadlec being the Assistant Secretary for Preparedness and Response. There's one particular line. He goes through it, "The call with Jeremy Farrar went very well." You joined, several other highly credible scientists dispelled the HIV gene sequence pretty quickly,
dispelled the kind of like intentional release pretty quickly.

But then he talks -- and it's a sentence that starts, "The suspicion," about a third of the way through the paragraph.

A Mm-hmm.

Q "The suspicion was heightened by the fact that scientists in Wuhan University are known to have been working on gain-of-function experiments to determine the molecular mechanisms associated with bat viruses adapting to human infection, and the outbreak originated in Wuhan."

Do you recall any conversations regarding, however you want to define gain-of-function research, occurring in Wuhan on the conference call?

A I do not recall that conversation.

Q Do you recall any conversations regarding the suspicion that it originated in Wuhan and there's a high containment laboratory also in Wuhan?

A I don't recall it.

Q Do you recall anything else that was discussed on the conference call?

A Mostly about the sequence that we were analyzing and trying to understand what it told us about its possible origins.

Q Do you recall anyone discussing drafting a paper on the conference call?
A I don't recall that we got to that point.

Q There is -- and I'm not going to introduce it. If you don't remember, that's fine. There's some emails with you where Dr. Farrar asks you and Dr. Fauci to get on a call after the conference call. Do you recall that?

A I recall there was a quick check-in. I don't remember what the contents were.

Q Okay.

Mr. Benzine. I want to introduce Majority Exhibit 13.

(Majority Exhibit No. 13 was identified for the record.)

BY MR. BENZINE.

Q I sincerely apologize for the very tiny font. Apparently it's very hard to produce Slack messages. But these are Slack messages that include Dr. Andersen, Dr. Rambaut, Dr. Holmes, eventually Dr. Gary, but they're from February 1, 2020. And I'll give you a minute to skim the whole thing, but I am only going to ask about a couple.

Mr. Nassikas. Maybe read them out loud, the ones you're interested in.

Mr. Benzine. Yes, I will.

BY MR. BENZINE.

Q There's a blue bubble in the middle that says "Latest messages." I'm just going to be operating
above that.
So Dr. Andersen says, yes --
Mr. Nassikas. Hold on just a second.
The Witness. I'm trying to figure out the date.
BY MR. BENZINE.
Q It's February 1st.
A All of this.
Q All of it is. February 2nd begins at the very bottom.
A Okay. But February 1st is sort of partway down the page. So are the first entries here at the top of the page also February 1st?
Q Yes, they are. You can see kind of the time stamp. Well, I can read the time stamp. After the bubble, it says, 14:57. And before the bubble, it says, 14:52.
A I see.
Q So all February 1st in chronological order.
A Okay.
Q The first message from Dr. Anderson says, "Yes, call," referring to the conference call. They're talking about it a little ways.
The first message from Dr. Holmes there with the orange avatar says, "Big ask!" And then Dr. Andersen says, "Destroy the world based on sequence data. Yay or nay?"
Do you remember what the big ask was?
A: I don't. I'm puzzled.

Q: I know there were conversations after this with Dr. Farrar about getting the WHO involved in the origins investigation. That's my kind of operating presumption of what the big ask was, but I don't know.

A: Can't tell. It's two words.

Q: All right.

Mr. Benzine. With that, we can go off the record. Thank you.

(Recess.)

We can go back on the record.

BY

Q: Dr. Collins, I will just have two quick ones about topics discussed in the previous round.

The first is with respect to the EcoHealth year 5 report and the specific experiment that you were looking at and the specific conclusion that there had been an increase in pathogenicity in the chimera as compared to the full-length backbone. Then there was a discussion about the implications for that fact -- for whether or not the experiment could be labeled gain of function.

I just want to reemphasize two points, one which you have already made crystal clear, that the layman's usage of gain of function is not useful or productive in the context of that conversation. Is that right?
A That's correct.

Q Great. But then, secondly, with respect to that term under the 2014 moratorium or P3CO framework, I just wanted to point out again, the nuance that because those are both forward-looking policies, it would not be possible to look at the results of an experiment, and then deduce from those results whether or not the work in question does or does not fall under those policies. Instead, the key moment and the key test is before the work has occurred, and you've got to ask yourself, is it reasonably anticipated that in the future, there will or will not be an increase in pathogenicity or transmissibility. Do I understand that correctly?

A That's correct.

Q Great. One other minor point with respect to -- it's really not your problem, in a sense, but you were discussing it. The question of Dr. Fauci's previous remarks, particularly in the context of the Senate hearing, on the question of gain of function and clarity or lack of clarity. We did this with Dr. Fauci, I'll do it again here just for the sake of thoroughness. That in the hearing that I think has been discussed, where at one point in the hearing, he made a remark that NIH has not and does not fund gain-of-function research in Wuhan Institute.
At another point in that hearing, a different Senator, Senator Marshall, asked Dr. Fauci whether there are national security implications with something as theoretically lethal as viral gain of function, to which Dr. Fauci said, "Sure there is. That is why we have committees, we have a P3CO committee."

In a subsequent hearing a few months later, Dr. Fauci and Senator Paul discussed this topic again, and Dr. Fauci said to Senator Paul, "Senator, with all due respect, I disagree with so many of the things that you have said. First of all, gain of function is a very nebulous term. We have spent, not us, but outside bodies, a considerable amount of effort to give a more precise definition to the type of research that is of concern that might lead to a dangerous situation. You are aware of that. That is called P3CO."

So the only point I wanted to make is that in the context of both those hearings, Dr. Fauci did refer specifically to the P3CO framework. And is it reasonable for you to assume as a listener that if somebody says, P3CO, a listener could reasonably perceive that they are describing the P3CO framework?

A Yes, he made a good statement.

Q Great.

And with that, I will turn it over to our ranking member.
Dr. Ruiz. Thank you.

BY DR. RUIZ.

Q Dr. Collins, I am Dr. Raul Ruiz, Ranking Member of the Select Subcommittee on the COVID pandemic, and an emergency physician. And I wanted to really emphasize that our Select Subcommittee and this team is very interested in a lessons-learned, forward-looking investigation that can help us prevent future pandemics and help us better respond in order to save lives in future pandemics.

We have spent a lot of time having to combat accusations and assumptions that target individuals' previous behavior that are based on assumptions. We constantly want to -- Democrats want to constantly focus on moving forward with lessons learned to have concrete solutions that will actually make a difference in the lives of Americans for when that next pandemic comes to be.

So having said that, I want to ask you a few questions on the COVID-19 vaccine development and rollout. We know from media reporting about how impressive the COVID-19 vaccine development process was compared to the typical process.

So to help us fully understand that, can you walk us through the typical process of vaccine development approval and distribution?

A Certainly. So, Congressman, initially you
decide what is the infectious disease that you're seeking
to try to target with the vaccine. In the pre-mRNA days,
that meant you had to figure out a strategy to try to
generate some kind of a vaccine that would inspire an
immune response. And that might mean using some other
carrier virus like an adenovirus or it might be actually
trying to purify a protein subunit of that pathogen that
would not itself be infectious, but might inspire the
immune system to make antibodies in T cells.
That was a long, drawn out, complicated, often high failure
process. It often wasn't clear exactly which part of the
pathogen you should target. You wanted something where
immunity would be protective, always easy to say that with
limited knowledge about most of these pathogens. But you
would do that, and that would require oftentimes months or
even years of effort to come up with a strategy that looked
as if, in an animal model like a mouse, it seemed to be
generating antibodies that might be protective, might even
be neutralizing.
Having achieved that, if you did, and having been able to
show no unexpected side effects of a serious nature, then
you would begin to move forward to possible human clinical
trials. That requires a great deal of intense oversight by
the people who have done the research, and by the FDA to
decide whether this is in fact justified in terms of safety
That would lead to a phase 1 trial where you would enroll a small number of subjects, maybe a dozen or a couple dozens. This was not in a phase 1 trial generally trying to assess whether you're protecting somebody against the disease. It's mostly trying to say, is it toxic, is there some unexpected and unfortunate side effect, and could you at least say you've seemed to have raised some antibodies? If that looks promising -- and again, most vaccines fail at that point. But if it does look promising, then you go on to a phase 2 trial, which is a larger number of individuals, perhaps 100 or so, maybe a couple hundred to see whether this holds up in a larger population. And, again, looking to see are there any unexpected side effects.

If that's good, then it's time to really do a definitive trial which may be tens of thousands of individuals in the circumstance where they're at risk for the disease, and so you can see whether, in fact, the vaccine reduced their likelihood of falling ill. That's what ultimately was the defining trial for the mRNA vaccines for COVID-19. But what I'm laying out there, in the old days before we did this for COVID-19 with mRNA, in the old days that was a five or ten-year effort, sometimes even longer. There's one other part of this also that then often
resulted in an even longer delay is, what do you know?

Your strategy actually worked, your phase 3 trial looks good. Now people need the vaccine. And now you've got to start setting up the manufacturing which could readily take you many more months, doing this in a facility where you know the control capacity is absolutely squeaky clean and has the capacity to be able to produce enough doses to reach out and immunize a lot of people.

One of the, I think, very important aspects of what was done with COVID was Operation Warp Speed, basically deciding we're going to have that time at the end, so let's do the manufacturing even before we know if the vaccine is going to work. And if it doesn't, we'll throw those doses out. But if it does work, we haven't lost that time.

I hope that's sort of a general answer to your question.

So -- yes. But what, in your opinion, were the major differences between the standard process and the ways that COVID-19 vaccines were developed and approved?

Multiple ways. Again, I think the availability of the mRNA strategy, which didn't get invented overnight, it's been 25 years.

Can you describe that strategy of the mRNA?

You mentioned the other adenovirus --

Yes.

-- vector, but how about this one?
A Well, basically mRNA is the RNA that codes for protein. So if one has a particular sequence of RNA letters, you know what protein that will make and you can actually design it to make a protein that you want to have produced, and it means you don't actually have to have the virus growing in your lab in order to start the process of making the vaccine.

So you can, as was done here, make an mRNA that codes for the most important part of that spike protein, and you could expect therefore, if that finds its way into a cell in an animal or ultimately a human, the protein is going to get made. So you have a very quick pathway towards generating the kind of immunogen that you think the immune system is going to respond to in a way that raises antibodies and T-cells.

Q So that's a lot faster than growing the virus in a lab.

A Right, or trying to clone it and stitch it into an adenovirus, or worse yet, trying to make purified proteins subunit, which Novavax eventually was able to do with COVID-19, but it was many months after. So mRNA as a major advance in terms of the speed is a big part of this. The other advances, I think, included the ability because of that to go from a design to a phase 1 trial in 63 days. Normally, that's a year. The way in which the phase 3
trial was designed, I will tell you was also a big important part of this by the design of a master protocol, so that all of the vaccine manufacturers agreed to follow the same design which had to be randomized, double-blind, controlled. And agreeing with the same end points, and agreeing that the numbers of participants had to be at least 30,000 in order to be sure you had power to say whether it had worked or not. Having that standardized saved a lot of time, because a lot of vaccine trials maybe aren’t quite as carefully designed and you get a result and the FDA says, I don’t know if I quite believe that yet. This was done in a way that was going to be absolutely definitive, and it was.

Okay.

And then there was the warp speed on the manufacturing part. And of course, this took a lot of resources. We would not have been able to do any of this without a huge investment on the part of the United States government on behalf of the whole world to try to do this in record time.

How did NIH work with FDA and other federal agencies to expedite the process of vaccine approval and manufacturing distribution? So in other words, what steps were taken to ensure that the vaccine would be safe for children, pregnant people, and the elderly?
So if you can answer the first one in terms of how did NIH work with the FDA?

A That was a very close relationship. For me as the NIH director, working with FDA was absolutely essential from the get-go. I mentioned the importance of having a master protocol for the vaccine trial design. FDA was intimately involved as we sat around the table to figure out what that should look like.

Ms. Ganapathy. Dr. Collins, just one thing. I am just going to step in. Please respond, but to the extent that this would require disclosing any specific deliberations, we instruct you not to do so.

The Witness. I got that. I think what I've said so far is all a matter of public record, but I'll be careful.

Ms. Ganapathy. Yes.

The Witness. So FDA, because they were going to be in the position of deciding whether the trial was going to give them sufficient evidence to rule yes or no, having their input in terms of the actual design of the trial was quite critical.

BY DR. RUIZ.

Q So there was a lot of talk about the vaccine safety issues. What steps were taken to ensure that the vaccine would be safe for children, pregnant people, and the elderly?
Very important questions. Certainly the design of the original trials was done with special attention to the fact there might need to be a different way of looking at safety questions for children or for pregnant women or for the extremely old -- although as I recall, I don't think we excluded people on the basis of old age, but we certainly did in terms of children and pregnancy.

Those -- once you could see in the large-scale trial on all of the other adults that this appeared to be both highly effective, 95 percent, in preventing symptomatic disease and with very little in the way of concern about safety issues, then we certainly wanted to make sure this could be made available also to these other groups. So separate trials quickly introduced with children, with pregnant women, and ultimately, those also turned out to be highly beneficial, as one could see.

And also, there's mention of concerns of how this was expedited and there were shortcuts, or it was developed so fast that there was some way we didn't really know the full extent of its safety. How did you ensure vaccine safety even as the vaccine development process was expedited?

It is an interesting paradox, isn't it, Congressman? I think everybody wanted to have this done as
quickly as possible, but then became worried that it was
done as quickly as possible.

I think the design of the vaccine trial allowing a period
of observation after the vaccination of at least two
months. If you look at circumstances where there has been
a serious safety issue with the vaccine, it is usually
apparent in that timeframe. So the design specifically was
put in place to try to capture anything of that sort. If
it was common enough to happen in 30,000 or half of those
of the people who actually got the vaccine, you would
expect it to turn up.

Q Generally, how does research on what makes a
virus more or less transmissible contribute to the
development of vaccinations?

A Well, certainly for COVID-19 with the
continual arrival of new variants that emerged and sort of
took over the population of viruses which says they were
more transmissible than the ones that came before, they
wouldn't have done that. That was an education about how
this virus's transmissibility came over the time with
natural evolutionary pressures get better and better.
That certainly required us, thinking about the vaccine
development, to respond to that, and to try to be sure that
as people needed additional immunization, because we
certainly found out that these vaccines don't last forever,
that it would be best to do so with a booster that reflects what is the kind of virus they're now likely to encounter as opposed to where we started.

Q And how had prior research on coronavirus transmissibility contributed to the development of vaccinations for SARS-CoV-2? And do you think that also helped expedite?

A If we had not already had a big program at NIH on coronaviruses based on SARS and MERS, the previous examples, including an effort to try to see whether mRNA vaccines would work, we would never have been able to respond as quickly as we did.

Q So the NIH funding for the underlying research is important.

A Absolutely.

Q And it's also important for future pandemic preparedness.

A It is. I wrote an editorial in Science Magazine as I was preparing to step down as NIH director about lessons learned from COVID-19. And that was a big, important one, that you have to invest not just in the acute need of today, but in the basic science that prepares you for what might be coming next, so that you're not caught off guard.

Q So cutting funding to NIH on these type of
research and development programs would be detrimental to the public safety for any future pandemic in terms of putting us behind in vaccine development?

A Seriously detrimental and shortsighted.

Q And being detrimental would also mean more lives lost potentially in a future pandemic without the therapeutic or modalities or the vaccines?

A We are going to see other pandemics in the future. We should learn every time this happens about how to prepare for the next one. I think we saw opportunities that now ought to be invested in, such as figuring out what are the most likely pathogens for the next one? Could we actually start now with building the first steps in vaccine preparation or in therapeutics or diagnostics? A whole plan like that was put together. Unfortunately, it was not provided with resources.

Q So when a new virus emerges, what basic understanding do scientists need about a virus and how it replicates in order to begin the development of vaccine development?

A We need to understand its basic biology. Viruses are clever little stretches of nucleic acid, but they're often not immediately obvious in terms of how they do what they do. They have their own set of genes that help them replicate, that help them get inside human cells,
that help them package themselves so they could get into
the next set of human cells. All of that basic science is
critical if you're going to be successful in coming up with
both vaccines and with therapeutics.

Q And how did NIAID acquire that information
about SARS-CoV-2?

A They already had the foundation of
information about coronaviruses in the same class because
of SARS and MERS, and that put NIAID ahead of where they
otherwise would have been. They already knew something
about how the basic genes that are involved in this
particular class of coronaviruses and what they do, and
that enabled them very quickly to be able to predict what
would be the best mRNA sequence to use.

That happened in 48 hours. The design of the vaccine that
has saved 3 million lives in the United States alone, maybe
including mine because I got this, too, was done in 48
hours with just having the sequence of the virus and all
the knowledge they already had about this family of
coronaviruses. And they could say, this is the exact
sequence we want to make.

And then a trick there. Barney Graham -- just a real hero
under the circumstance, but most people don't know his
name -- had already studied other coronaviruses like this
and had figured out, if you want to make a really good
vaccine, you don't want to use exactly the same protein sequence that the virus makes. You want to make a little tweak to it. You want to put in a couple of proteins in just the right place which makes it fold in a way that it's better for the immune system to recognize it. That was profound. All of the other mRNA vaccine strategies used Barney's idea. I don't know if our vaccines would have worked without that.

Q That's incredible. He definitely deserves some recognition for that.

A He does.

Q So we've talked just now and earlier about the significance of using mRNA technologies to develop the COVID-19 vaccine. But what potential does the use of mRNA technologies hold for future vaccine development?

A A lot. And it's not just for infectious disease.

Q Yeah, talk to me.

A Certainly for infectious disease, we now have a platform, if you can call this a platform, I think for developing a vaccine for almost anything. And it's being applied in places where we've had a real hard time getting a good vaccine, like tuberculosis or malaria. mRNA opens that up.

But cancer is the other place where there's a huge amount
of excitement. People have worked on cancer vaccines for a long time, and it has been pretty frustrating because the timetable is so long. If you got cancer today and somebody took out that tumor and then tried to analyze it and figured, oh, here are some aspects of that tumor that the immune system should have seen, but it didn't. Let's try to rev it up by making you a personal vaccine that will allow the immune system to wake up.

But by the time you get there, it's like a year later because it's so slow. With mRNA, the cycle time now becomes actually practical in this space, and there are a lot of researchers doing that where they're getting pretty excited.

Q I'm an emergency medicine physician and that really excites me, too.

A Right. Especially for people with stage 4 disease where we don't do much to help them. Immunotherapy might be the way we can cure people even at that stage.

Q That's incredible. Do you think that Congress is investing enough in mRNA technologies as compared to other forms of research at the NIH?

A I think it is an area that everybody identifies as high priority. But when only about 20 percent of the grants that come to NIH can be funded right now because of the budget, that means there's still some
pretty good science, probably really good science, that's being left on the table.

Q And is there research being done on this technology now, before an outbreak is imminent? Are we using this research in identifying what one may think that the next pandemic is and then better prepare for that?

A I don't know the precise details about how much that's been possible. There was a big plan to do a lot of that and it was not resourced. At a smaller level, I am sure there are some efforts going on with, for instance, influenza since most of us expect influenza is likely to emerge with another bad one before long.

Q And what role, if at all, did you play in developing the strategy for how vaccine distribution should be prioritized?

A I had no role in that.

Q You had no role in that?

A I was part of the Operation Warp Speed team, but that was not my assignment. So I was aware that people like -- were deeply engaged in trying to work out that part, but I did not have input.

Q I want to move now towards therapeutics.

A Yes.

Q That's something that I know that hasn't been as advanced as our quick development of vaccines, and
we are still looking for some good therapeutics to match different patient populations and needs. So I would like to focus on the ongoing work of developing therapeutics for COVID-19 in future novel viruses. Although the public health emergency concluded last year, it is important that we continue to stay on top of COVID-19, which continues to pose a threat to the medically vulnerable including the elderly and the immunocompromised. An important way we continue to reduce the threat of COVID-19 to these populations is by investing in the development and availability of therapeutics. Could you explain for us the work NIH has conducted to develop COVID-19 therapeutics?

A I would be glad to. I had the responsibility as the NIH director to try to be sure that the therapeutic efforts were not happening in some uncoordinated scattershot way, and that meant pulling together an unprecedented public/private partnership called ACTIVE, an acronym that stood for Accelerating COVID-19 Therapeutic Interventions and Vaccines. Vaccines was in there, too. This was set up in about two weeks primarily by me in late March of 2020, and grew to involve 20 other pharmaceutical companies that had the greatest interest in this, an executive committee that I cochaired with Paul Stoffels of
Johnson & Johnson, and meetings that went on amongst various subgroups essentially around the clock. It was an incredibly impressive, everybody drop everything, work 100 hours a week to try to figure out what could we do to try to find both vaccines and therapeutics.

One's original hope, of course, is that there is going to be a drug that's already been given to people for something else and is known to be safe that will turn out to work. Repurposing has got to be your first order of business but you have no guarantee that's going to work. It worked in some modest ways. Remdesivir, the first drug that got approved for really sick people in the United States, that was repurposed and that was an NIH study done in the space of just three months after the pandemic hit our shores. Steroids, that was the UK. They came up with that before anybody else, and that turned out also to be a valuable intervention for people in the ICU but was not good as a treatment for people with milder illness.

What we did with ACTIVE was to look at what are the possible drugs that somebody would say might have activity here, and then try to prioritize which ones should go into rigorous trials, and there were about 800 of those suggestions and we had a group of experts looking at every one of those saying, does this one look promising or is this just kind of a hope and a prayer?
And ultimately, it came down to testing 20 million of those in rigorous randomized trials, in clinical trial networks we had to set up from scratch because they weren't there. This was incredibly intense. It involved these master protocols. Most of those failed. Hydroxychloroquine failed, ivermectin failed. That's important to know, isn't it, not just what worked, but also what didn't work, so that people won't put their hopes and trust in it. Monoclonal antibodies went into that, and with the initial virus a lot of those looked really good and saved some lives, but then the virus had to mutate and then the monoclonal antibody had to be redesigned. There were a few other drugs that were repurposed that worked reasonably well. Anticoagulants, interestingly. Because the virus caused this problem with hypercoagulability, it turned out that was actually a good thing to give for people who were in the hospital, not for people who were doing okay at home. But once you got in the hospital and you were sick enough, you were at risk for a big clot. So that also happened. That was all approved. But looking for the home run, there wasn't a home run in repurposing.

Q In terms of anticoagulants, can I just ask you for my own personal knowledge, when you say
anticoagulants in the hospital, are you talking about Coumadin or aspirin? Because there was a lot of aspirin in early outpatient regimens.

A This was full heparinization.

Q Oh, full heparinization, in the hospital?

A In the hospital, because we ran a trial of full versus low dose heparin and the full was slightly better. So it was a big deal. And aspirin did not seem to provide the same protection. I think that was another trial.

Q Even in outpatient settings?

A I don't remember. I'm sure that got tested. I don't remember that it turned out to be important or I would probably know.

Q Okay. Please continue.

A But of course, what we all wanted was a highly effective oral agent, and we didn't have one in the medicine cabinet that was already developed, so that had to be invented. And that's where Paxlovid came along. Pfizer built upon some efforts they had previously done with SARS, so they weren't starting totally from scratch. They had sort of a framework of what a molecule might look like.

I will say, NIH helped in a certain way by giving them other information we had. And that drug turns out to be pretty good. It's highly effective and fortunately it
works in virtually all of the various strains, because it doesn't work on the spike proteins, it works on another part of the life cycle. So I would say a lot of lives, we don't know how many, have been saved by Paxlovid. When I got COVID back in February, I sure took it. I hated the bad taste in my mouth, but I was okay anyway to have the chance to experience that. It's certainly the case that I wish we had a longer list there, but that was a really important story. We ran a workshop about, okay, what should we be doing to try to accelerate this? And here, as you probably know, if you're going to develop a drug, you've really got to know the lifecycle of this virus so you know where its Achilles heel is where you can find a small molecule that will interfere with that. So that's a lot of really deep basic science to build on. I wish we were doing that for some of the other future pandemics, but we're simply not.

Q  Why not?
A  We don't have the resources.
Q  So more resources would aid in better preparation?
A  Yes.
Q  And cutting resources to the NIH and your research would harm our ability to better prepare for the next pandemic?
Absolutely. I wrote another paper about this with my 31 coauthors who are all part of this active partnership, including FDA, including people from all these companies, that got published about a year ago. And it has a whole box that says, lessons learned. Here's what we should be doing. When I look at that list now, I'm really troubled.

Q I would love to see that box.
A Happy to share.

Mr. Nassikas. We'll get a copy to you.
Dr. Ruiz. Please.

BY DR. RUIZ.

Q And you touched on this a little earlier, but to what extent did NIH's work to develop COVID-19 therapeutics build off of the body of research NIH had generated in the years prior to the pandemic?
A Oh, in many incredibly important ways, in every possible way. I mean, basic virology but certainly specific virology about coronaviruses. The things like what Barney Graham already knew about that protein idea.

But also, in terms of the mRNA platform, that's 25 years of initially a lot of skepticism about whether this would work, and whether it would be safe. A Nobel Prize has now been given for the people who persisted Katalin Kariko and Drew Weissman, but that was all efforts that we supported
And as well as clinical trial design, that's something we had learned a lot about in the previous years and so we knew how to do it in a fashion that it would be rigorous and then compelling.

And one final thing I would say. The other thing I was very compelled about was if you're going to do a trial of this sort, based on everything we've done in the part, it has to involve people of diverse backgrounds. If you're going to convince the public that this vaccine is safe for them, they've got to look at who took part in the trial and say, are there people there that look like me?

And I cannot tell you how many Saturday mornings I spent talking to people running the trials asking them, what does your diversity look like? And if it's not what the country looks like, there's a problem. And this isn't just a nice thing to have. This is essential to have, both for understanding whether it works and also convincing people that they've been represented in a critical way in figuring out if this is safe.

Q I appreciate you saying that. We'll have some questions about that in the near future. And the reason why I appreciate you saying that is because I actually have a bill that would help alleviate barriers for underrepresented populations in clinical trials. And so we
are working through that as well in a very bipartisan way with a colleague of mine on Energy and Commerce. So now I would like to turn to the development of new COVID-19 therapeutics.

A Mm-hmm.

Q So what benefits would new therapeutics options offer to COVID-19 patients, particularly the medically vulnerable and those with long COVID?

A Well, just talking about acute COVID illness to begin with, long COVID, I think at the moment, we have one very successful drug, Paxlovid, and one that's also been FDA approved, although there are some concerns about whether it is as ideal for reasons I don't need to get into. But that's a pretty short list for a pandemic that continues, as we all know, to spread around the world. We are hearing the wastewater levels now are as high as they've been in a year. So we ought to have a larger menu there, and that's a lot of hard work that needs to be done. Paxlovid, by the way, is a drug that interacts with other drugs, and so there's certainly plenty of people who, when you look at the list of drug interactions, are simply not candidates. And that's unfortunate. In the ideal world, you want a drug that has no side effects, is 100 percent effective, and doesn't interact with anything else. We don't have that.
So you discussed some of this a few moments ago, but is there anything that you would like to add regarding NIH's ongoing work to develop COVID-19 therapeutics? Like, what can we do now to help, as Congress?

Again, if we had the resources to fund more basic virology about the classes of viruses that are most likely to cause future pandemics so we could really work out in advance the life cycle of each of those viruses and understand where are the vulnerable places that a drug could turn out to be beneficial, then we would be well ahead. That is happening at a much slower pace than it should.

And what does the current research and development landscape look like for new COVID-19 therapeutics?

You know, I don't know that it looks particularly promising at the moment. Because Paxlovid is out there, industry may feel like this is therefore a pretty tough community to be able to land another success story. It really is one of those places where you need the whole ecosystem of public and private to try to push this forward when there may be a fairly high risk of failure.

Do you think the fact that the SARS-CoV-2 virus mutates very often, does that affect the impetus to
want to pursue this type of research?

I think, if anything, it should increase the interest, because as SARS-CoV-2 comes up with new ways to decorate itself with a different spike protein, the protection from the vaccines can wane. So far what we have seen is, at least for Paxlovid, the drugs however maintain pretty high effectiveness because they operate on a part of the viral lifecycle that doesn't change, at least not much from variant to variant.

You asked about long COVID, and there again, this is an incredibly heartbreaking situation. Well, let's just say all of COVID is heartbreaking when you consider all of the people's lives that have been lost and families that have been devastated.

But long COVID, as an additional terribly difficult consequence of this now affecting an untold number, but probably millions of people, we still, despite Congress having provided significant resources three years ago to NIH, haven't quite figured out what is going on. And it's probably different between individuals. It's not one condition. It's probably multiple different ways that being infected with this virus leaves you with consequences that linger on.

Maybe the virus is still hiding there somewhere. There are some indications of that, although it's really hard to
prove. Maybe it is this effect on the vascular system, maybe it's that your immune system got revved up and can't figure up how to calm down and so you're walking around months after the infection is gone with your body still fighting off an infection which makes you feel terrible. We don't know. But a lot more is being learned, and again the program that NIH put together following more than 40,000 people is beginning to shed a lot of light on that. I know people are frustrated that we don't have answers yet. It's really hard to get those answers.

Q Anything else before we move on to the other topic, in terms of steps the federal government and Congress could consider to foster the development of therapeutics and other medical countermeasures for potential future outbreaks, including of novel viruses?

A I would love to mention also diagnostics, because I think that maybe hasn't gotten as much attention, but can be absolutely critical for managing an outbreak or a pandemic. As you know, with SARS-CoV-2, we got off to a slow start in terms of having diagnostics that gave you a rapid turnaround. There is another place where I got personally very involved when Senators Blunt and Alexander identified this as a serious problem and identified a way to provide
some additional resources.

And this was a great opportunity to tap into the creativity and the vision of people in academia and in small businesses, so we set up a shark tank, and we called it that, and invited people who had great ideas about how to do a fast turnaround of SARS-CoV-2 tests, maybe that could even be done at home, to come forward and show us what they got.

And we went through hundreds of applicants and ultimately winnowed down the ones that looked most promising, and that's why there are tests on the pharmaceutical shelves that we are all taking advantage of. It wouldn't have happened, at least not at that speed, without that very creative government program which looked a lot like venture capital.

Q Yeah.

A And it worked and we still have that program now being applied to other diseases. And it's certainly -- it was recently applied to monkey pox, for instance, but could be applied to other emerging pathogens if we could keep it going, because we have the whole framework and we know how to do it.

Q Now let's talk about diversity in clinical trials.

A Let's.
As a physician and public health expert, one of my top priorities in strengthening our nation's research capacity is ensuring that our population of clinical trial participants is diverse and inclusive of historically underrepresented communities, including of communities of color, vulnerable populations, a wide range of age groups, et cetera.

Dr. Collins, I understand this is a priority of yours as well, as you mentioned earlier. Could you explain how NIH worked to ensure diversity in clinical trials for COVID-19 medical countermeasures including the vaccines?

We basically said you have to do this or you're not going to get funded. It has to be very clear. Too many times, I think, in the past, it has been, well, you know, you really ought to try when you're doing a clinical trial to enroll diverse people. But there's no real teeth to it.

NIH has now determined to apply that kind of rigor and actually to require people running trials to report regularly whether they're achieving it with the chance that they might actually have their funding slowed down if they can't come forward with a successful strategy.

And why has it been important for NIH to ensure diversity in their clinical trials or a diverse population in COVID-19 clinical trials?
A For two reasons. One is it's really critical to understand whether a particular intervention is going to work across different groups. We're all different. Each of us has a unique kind of biology, and certainly across groups you don't want to lose the chance to discover that.

And secondly, if you want confidence on the part of the public that a particular result is something that applies to them, then they need to be able to be convinced that people like them were part of what you did. That was the argument with the vaccine trials.

And I will tell you, at the beginning of those trials, the first couple of weeks of report, 92 percent or something like that of the people enrolling were young white men. And that was great, but that was not the answer that we needed.

And so it took a lot of arm twisting and a lot of reminders, that's not going to be good enough, this has to change, and an insistence on seeing every week how are you doing? And some of the centers that were being supported, because there were many of them across the country, figured out how to do this and they were allowed to expand their recruitment and some of the others couldn't and they shrank theirs.

Q One of the reasons I find the work of
ensuring appropriate representation of communities of color in COVID-19 clinical trials to be incredibly important is the disproportionate harm the pandemic inflicted on these populations, and it was due to a multitude of reasons. Dr. Collins, is there any perspective you would like to share with us on the pandemic's disproportionate impact on the communities of colors in the U.S.?

A It was very clear at the outset when you saw the impact in morbidity and mortality that communities of color were suffering a disproportionately large amount of that. And there are multiple reasons, as you said, all of which are troubling and heartbreaking. Access to medical care was not equivalent. People who were basically needing to make a living couldn't necessarily stay at home for two or three weeks or more to stay out of harm's way. The idea that you could achieve a certain level of isolation just wasn't feasible.

So you put all those things together with our health care system and its limited outreach to all peoples, and the outcome was heartbreaking to see. If you needed one more compelling example of how our health care system does not provide benefits to everyone equally, there it was. I think just as a slight counter example that maybe it could have been better when it came to the vaccines -- and
maybe it was helpful in a significant way that the trials really were diverse. When you looked to see what was happening by, say, summer of 2021 when vaccines had been available for free to anybody who wanted them, actually diverse communities were embracing that pretty much like everybody else.

So -- and that would not have been predicted a few years earlier given understandable skepticism in the part of some communities about whether medical research is always being done for their benefit.

Q Did you run into any barriers in getting a more diverse population into your clinical trials?

A Yeah, people said this is hard.

Q And why did they say it was hard?

A If you're setting up a trial site and you're asking for volunteers, the easiest way to do so is to put information out in people's traditional modes of when you put something in the paper or something, an email, that doesn't reach everybody. And again, because of history, some groups are going to be much more suspicious about a trial that maybe is not in their best interest.

Q How about transportation?

A And there's transportation.

Q How about hours of the trial or --

A Hours of the trial, people have to get off
work. All of those things, you're absolutely right.

Q How about financing or any kind of payment
to be included into participation when they're working hard
and try to pay the bills?
A And you're asking them to give up time.

Yes, those are all serious factors.

Q And this is my last question. For NIH's
broader universe of research work, are there lessons we
should take away from the work of ensuring diverse
populations in COVID-19 clinical trials and, for example,
on the importance of additional education, outreach, and
investments and recruitment efforts?
A That's another great question. One of the
things we did with the COVID vaccine trials was to work
with communities, a program called CEAL, C-E-A-L, Community
Empowerment Alliance.

Basically recognizing that if you are really asking groups
to trust that this is something they want to take part in,
you need to have people that are part of their community
engaged as partners. That's a lesson that I think we have
learned over and over again, and we sure learned it in that
space.

Q So in other words, employ and work with
people that are similar to the communities that are
underrepresented in order to have better clinical trials
that can lead to better clinical outcomes in that population. But in the case of a pandemic, since it's a highly transmissible pandemic, doing that will actually prevent the transmissions to the general public and in our entire nation?

You are exactly right.

So, in other words, eliminating programs that foster diversity inclusions and equity into the federal government workforce, into the public health aspects or any of the other agency aspects would hinder our ability to foster that kind of good outcomes for individuals in the general public, all of Americans, in the case of a pandemic?

Pandemics only get under control if you can actually reduce the likelihood of infection across the whole population.

And by defunding programs that foster diversity so you have more of the federal government reflective of the diverse populations in our country, you're hindering that effort?

If you're not having effective outreach to everybody, you're not going to have an effective control in a pandemic.

And so effective outreach. A more effective outreach would be done by people who belong to those
different -- or identify culturally with those communities?

A That is --

Q Especially the hardest to reach communities.

A And the evidence certainly supports that.

Q The evidence. I like how you always bring it back it to the evidence because I too am an evidence-based physician. So I appreciate you saying that.

Dr. Ruiz. And with that, I'll turn it back.

I know we only have a few minutes left in the round, but I think my colleague, has a couple questions.

I think we can get through this together,

Dr. Collins.

Okay.

Q It's been very well-publicized that Dr. Fauci received threats against himself and his family over the course of the COVID-19 pandemic. You mentioned to the Washington Post that you also received threats. Is that true?

A That's true.

Q Do you recall anything specific leading to or causing these threats to begin?

A I think oftentimes they were after some appearance I made in a public way or maybe on a media
What was the nature of the threats that were made to you?

They were highly diverse. The ones that were most troubling were threatening physical harms. Most troubling were not limited to threatening me, but also my family.

And how did those threats impact you and your life and your family's life?

It's been a source of considerable concern and it still is today. Certainly upgraded our security system. I have had the experience of having police knocking on my door at 1:00 in the morning to say, you might need to know there's been a credible threat. There is at least one instance of someone who ended up in jail because of the credibility of the threats to both me and my daughters.

And that's a horrifying experience. I think you have everybody's sympathies in having to deal with that just for doing your job. But similarly, are you aware that other scientists also received threats based on the work they were doing during the COVID-19 pandemic?

Certainly Dr. Fauci. I have heard of others. I believe Kristian Andersen mentioned in one of his public statements that he had also been targeted.
And it seems that this hostile atmosphere for scientists and this treatment that they may be getting could hinder the advancement of science and specifically pandemic preparedness. Is that your understanding?

I think we can expand that to an even higher level of what's happened in terms of science distrust.

Just at the point where the scientific response to COVID I think will be seen historically as one of the most remarkable achievements that science has ever mounted for anything in the last course of human history. Ironically, this has also coincided with the general deterioration and trust in science by the public.

You may or may not be aware, but there have been actual studies into the effects of this environment and what it does to scientists and their work. So I am just going to go over a little of the of that with you and then get your take on it.

There was a GAO report titled Pandemic Origins, Technologies, and Challenges For Biological Investigations. This was released in January of 2023. In it, it said, "Researchers may experience unwanted attention or pressure because of their involvement in pandemic origin investigations and leave the field or refuse to participate."

When you hear that, what does that mean to you and what
impact do you see it having?

A It's very troubling. And it's across the board in terms of the whole public health response. I've talked to public health officers in communities who, in trying to do their job, found signs put up saying they should be put in jail.

This demonization of people trying to do the best they could in the face of a terrible pandemic is not something I thought America would do. It seems like hating other people is the most un-American action you could think of, but now it seems to be commonplace.

Q And I think it's helpful to also hear from the scientists themselves. Nature published an article in October 2021 titled "'I hope you die': how the COVID pandemic unleashed attacks on scientists." This article included dozens of researchers who shared their stories about death threats or threats of physical or sexual violence.

Nature also released an associated editorial with this piece where they said, and I quote, "Institutions at all levels must do more to protect and defend scientists and to condemn intimidation."

They also said, "Taking steps to support scientists who face harassment does not mean silencing robust, open criticism and discussion. The coronavirus pandemic has
seen plenty of disagreement and changing views as new data have come in as well as differing stances on which policies to adopt. Scientists and health officials should expect their research to be questioned and challenged and should welcome critical feedback that is given in good faith, but threats of violence and extreme online abuse do nothing to encourage debate and risk undermining scientist communication at a time when it has never mattered more." I think this echoes some things you've said earlier today about encouraging robust debate among scientists. However, threats do nothing for the debate. Is there anything you would like to comment on that?

A I think what you read is a really good statement. It captures both parts of this. Yeah, science can only be successful if there's open debate about what is true and what is not true. And science is focused on trying to find truth, and truth does exist. The idea that there is no such thing as truth, no scientist I know would adhere to that. We are not post-modernists. But obviously, when it comes down to a discussion, it's about the data, it's about the interpretation of the data. It should never become a personal attack, especially one that threatens somebody's physical safety. Somehow that line, perhaps encouraged by social media, is now getting crossed every day, every hour, every minute
with no consequences. It's just normal behavior now. It breaks my heart.

Q Are there any actions that you think the United States government can be taking to ensure we have a properly staffed and qualified workforce for scientific research and specifically pandemic preparedness?

A I worry that the way in which these risks are now perceived, people who might have contemplated going into the public health may be thinking twice about that. The best way I guess to counter that is to be sure that appropriate safety protections are there when they are needed, but maybe also to encourage people to see this is still, despite all of that, an amazing time to be involved in public health and medical research. We are learning so much. It is just exciting to be part of that endeavor.

I don't want that to get lost in all of the things we have been talking about in terms of the negative sides. This is the golden era for medical research, whether it's infectious disease or cancer or rare diseases like sickle cell that we are now curing. Anybody who wants to be part of something truly exciting where they make a contribution to human flourishing, this is where you want to be.

Q That sounds like that would be something wonderful for all of our bright young scholars and scientists to hear to encourage them to go into public
health, medical, scientific research fields.

A  If you want to wake up in the morning feeling like you're doing something that matters, come on, we've got that.

Q  Absolutely. I think that is a great place for us to end, Dr. Collins.

So we can go off the record.

(Recess.)

Mr. Benzine. All right, we can go back on the record.

BY MR. BENZINE.

Q  Before I ask you a couple more questions about Proximal Origin, I want to unequivocally state, and the Chairman would be absolutely the first person to state that we denounce any threats against anybody's lives. I don't know if you know, but he has been shot at on the baseball field where Mr. Scalise was shot and credited with saving Mr. Scalise's life.

A  I remember that.

Q  What some of the other people in this room know now, after Monday and Tuesday, is that I have gotten similar ones particularly after a hearing where people don't like what I have to say, either. And so I just want to put it out there that we are unequivocal in denouncing all threats.

I want to ask a few very brief questions on the paper, the
Proximal Origin, which we talked about earlier a bit, but I assume you are aware of the paper.

Yes.

Written by Dr. Andersen, Dr. Gary, Dr. Lipkin, Dr. Holmes, and Dr. Rambaut.

First, there is — significant is too strong an adjective, but probably in the neighborhood of five to eight times they sent drafts either to you or Dr. Fauci through Dr. Farrar mostly. Did you ever edit or suggest any edits to the paper?

No.

And to your knowledge, did Dr. Farrar ever edit or suggest any edits to the paper?

I would not know that.

And then also, to your knowledge, did Dr. Fauci ever edit or suggest any edits to the paper?

Not to my knowledge.

All right. Thank you.

Mr. Benzine. I want to introduce Majority Exhibit 14. (Majority Exhibit No. 14 was identified for the record.)

BY MR. BENZINE.

It looks like a long letter but really we are only going to talk about one part of the letter and I will direct you to it.
For the record, this is a January 11, 2022 letter from Mr. Comer and Mr. Jordan to Secretary Becerra. The appendix is where we are going to focus. It starts on what would be page 4-ish of the letter. And these are mostly now produced emails to the Committee, but I want to flip to page 12 and 13 of the appendix.

A Is that the number on the bottom of the page?

Q Yes, sir.

A Mm-hmm. At the very end.

Q Yes. So unfortunately, despite having asked for this now numerous times, the Department has refused to provide this email to us. So this is a transcription of it. In 2021, Minority staff were allowed to go to HHS, view these emails in camera and transcribe them. So as you can see, the email up top with the gray boxes, the gray boxes and then the words underneath it. And so this is --

A I don't understand the process, but okay.

Q I promise the substance of the email is what's underneath it.

So it's an email from you to Dr. Fauci, Dr. Tabak, Dr. Lane, and John Burklow from April 16, 2020 and reads, "Wondering if there is something NIH can do to help put down this very destructive conspiracy, with what seems to be growing momentum." And then it has a link to a Bret
Baier story about the coronavirus outbreak starting in the Wuhan lab.

And then you continue, "I hoped the Nature Magazine article on the genomic sequence of SARS-CoV-2 would settle this. But probably didn't get much visibility. Anything more we can do? Ask the National Academy to weigh in?"

Do you recall sending this email?

A I do.

Q First, kind of a baseline question, is the possibility that COVID-19 originated from some type of laboratory accident a conspiracy theory?

A Let me make it clear that at the time this email was written, my focus was on the question about whether this virus had been human engineered. And based on the detailed analysis of the experts, I felt that that had been convincingly excluded as a possibility.

Mr. Strom. Can I ask for clarity? When you say human engineered, do you mean almost like de novo from scratch?

The Witness. From scratch. For people to continue to put that forward, therefore, in the face of strong evidence against it, I'm not a fan in retrospect of the word conspiracy, but it was certainly a speculation that was not based on evidence and it was potentially confusing and harmful.

BY MR. BENZINE.
And I appreciate that, and I appreciate the clarification on the de novo construction. But we're just trying -- there's no reason you should know this, but any number of people have been censored, silenced, for saying even the possibility of a lab leak, not a de novo construction, but the possibility of a lab leak was possible.

So I'm just trying to ask, if in your opinion, the possibility of a lab leak, putting aside de novo construction, is a conspiracy theory?

I think you would have seen in emails back in February that I was among those wondering about the possibility of whether this virus had been under study in a lab. So I wouldn't have called that hypothesis a conspiracy. But to say that it was de novo engineered, that crosses the line.

And respectfully, that's not what I'm asking. I'm just asking if it's a possibility, yes or no?

Mr. Nassikas. He was answering your question, Mr. Benzine.

All it's calling for is a "yes" or "no." Is the possibility of a lab leak a conspiracy theory?

You have to define what you mean by a lab leak.

Putting aside de novo, the possibility of a
laboratory or research-related accident, a researcher doing something in a lab, getting infected with a virus, and then sparking the pandemic. Is that scenario a conspiracy theory?

A Not at this point.

Q Thank you. Going down the email, you said that, "I hoped the Nature Medicine article on the genomic sequence of SARS-CoV-2 would settle this." I presume that's refers to Proximal Origin?

A Yes.

Q And settle this, what you're referring to in that email is kind of the de novo construction of a virus, not necessarily the lab leak overall?

A Correct.

Q Okay. And then, "Anything more we can do?" What did you mean by that statement? Obviously, you followed it with, "Ask the National Academy to weigh in?"

But I'm trying to understand the thought process.

A Yeah, I was offering one option. I think, from reading this email, trying to reconstruct my mindset, and this is almost four years ago, was concerned that what had already been scientifically deduced about this virus had not been as widely appreciated as maybe it should be.

Q At any point, did you tell or suggest Dr. Fauci to take any action pursuant to this email?
The next day, April 17, 2020, Dr. Fauci was asked the question at a White House press conference regarding the origins of the virus and cited to Proximal Origin. It then got significantly more visibility because it was cited on the White House lawn. Did you instruct him to do that?

No.

Did you know he was going to do that?

No.

I want to shift gears and run through some topics really quickly.

From January 14, 2021 through February 10, 2021, the WHO sent a team to China to investigate the origins of COVID-19. Are you generally aware of that investigation?

I'm generally aware.

Did you read the report?

No.

Were you involved at all in the planning or setting up of the trip?

No.

It was reported that the U.S. submitted three names to be a part of the trip. Do you recall those names?

No, I do not.
The team was comprised of 17 international scientists and 17 Chinese scientists. The only American was Dr. Daszak of EcoHealth Alliance. We have talked about Dr. Daszak an awful lot today. You obviously had a lot of -- combed through some of his things during the enforcement process.

You were asked kind of broadly about Dr. Daszak and conflicts of interest earlier by Chairman Griffith. I want to ask specifically on this one, do you think Dr. Daszak had a conflict of interest in going on this trip?

A: It is not my place to assess how WHO evaluated that.

Q: Okay. You said earlier that you met with the FBI this past August, August of 2023.

A: I think that's about the time.

Q: Was that the only time that you were contacted by anyone in the intelligence community regarding COVID-19?

A: The best of my recollection, yes, that was it.

Q: And did you tell the FBI substantially what you told us today?

A: Almost identical.

Q: Thank you. One final question on origins, and then we are going to talk about some of the mitigation
measures and things.

Okay.

And move on from there.

We have talked about this an awful lot, I think I know the answer to the question, but I want to ask it. Is the origin of COVID-19 still unsettled science?

Yes.

I am going to skip through some of these questions. And so I apologize for bouncing around on topics, but in the spirit of time, we'll ask you some more specific ones.

In the realm of masking, obviously masks became this big to-do during the pandemic. One of the specific aspects that we are interested in is the science and data that supported it for children. So the WHO recommended against masking children less than five because masks are, I'm quoting, not in the overall interest of the child, and against children 6 to 11 from wearing masks because of again, quoting, the potential impact of wearing a mask on learning and psychological development.

The United States recommended masking kids as young as two, so directly contradicted the WHO's recommendation on that.

Do you recall what science or data backed up that recommendation --

I have no knowledge of that.
Okay. There are now studies coming out regarding learning loss from both school closures and childhood mask wearing -- for masks specifically, kids not being able to see adults form words and things like that and it's causing speech issues. Are you aware of those issues?

In a general way, yes.

Do you agree that there's learning loss and other unintended consequences of mask wearing?

I have to depend on the experts who assess those things who have evidence, they say, that that's the case.

Thank you. Moving on to social distancing and the various regulations surrounding that. On March 22nd, 2020, the CDC issued guidance describing social distancing to include remaining out of congregant settings, avoiding mass gatherings, and maintaining a distance of approximately six feet from others when possible. We asked Dr. Fauci where the six feet came from and he said it kind of just appeared, is the quote. Do you recall science or evidence that supported the six-foot distance?

I do not.

Is that I do not recall or I do not see any evidence supporting six feet?

I did not see evidence, but I'm not sure I
would have been shown evidence at that point.

Q Okay.

A I was not involved in that conversation.

Q Since then, it has been an awfully large topic. Have you seen any evidence since then supporting six feet?

A No.

Q We as a staff took a trip to Los Alamos and Lawrence Livermore National Laboratories in New Mexico and California, and beyond the nuclear stuff that they do and the radiation stuff that they do, they also have epidemiologists and various other experts on staff.

A Mm-hmm.

Q And they told us that one of the things that their through computing and their epidemiologists could do would be remodel a sneeze, and say how far the droplets go and how far air flies and things like that. Do you ever recall NIH partnering with the National Labs during the pandemic?

A Not that I recall.

Q Okay. In this kind of realm, you -- at least recently, it became public, a kind of town hall you did, where you were asked about various mitigation measures. Do you know what I'm talking about?

A I assume you're talking about a Braver
Angels meeting back in the summer?

Q Yes, is that when it originally occurred, it was over the summer?

A Yes, July.

Q During this, you said, As a guy living inside the Beltway feeling a sense of crisis trying to decide what to do in some situation, or in the White House, with people who had data that was incomplete, we weren't really thinking about what that would mean to Wilk and his family in Minnesota a thousand miles away from where the virus was hitting so hard. We weren't really considering the consequences in communities that were not New York City or some other big city.

The public health people, we talked about this earlier, if you're a public health person and you are trying to make a decision, you have this very narrow view of what the right decision is and that is something that will save a life. It doesn't matter what else happens. So you attach infinite value to stopping the disease and saving the life, you attach a zero value to whether this actually totally disrupts people's lives, ruins the economy, and has many kids kept out of school in a way that they never quite recovered."

Do you think that that calculation, the infinite value to the public health measure versus the zero value to the
other kind of unintended consequences was a mistake?

A I'm glad you're asking. I made those comments in the context of what it was like in March or April of 2020. People have forgotten just how devastating the situation was with trailer trucks pulling up outside the morgue because the morgue couldn't handle all the dead bodies, thousands of people dying every day.

I am a public health person, I'm a physician. I swore the Hippocratic Oath. I was speaking about myself in that quote. For me trying to make a decision or contribute to a decision about mitigation measures, my number one -- basically my sole concern had to be saving lives. That's what I was there for.

I knew there were other parts of the government that were also a part of making big sweeping decisions, and I counted on them to cover such things as the economy, such things as education. But that was not my role, that was not why I was there.

So I'm unapologetic for focusing on saving lives. I think that was my responsibility, that was my calling. And especially at that point, that felt very compelling.

Keep in mind, in terms of the harms that were done that you've described with prolonged closures of schools, those were state and local decisions. The government made general recommendations. States had to decide what to do.
Q And I definitely appreciate and remember the early days, too. It was terrible, especially up in New York.

So you touched on something that I think when we are looking forward to future pandemics that we want to incorporate is kind of ensuring a whole of government response when it's needed, that it's not just a public health emergency. Decisions that are made in the public health space have an economic, national security, foreign affairs, educational ramifications. Do you think it's important to have kind of all the voices at the table when determining what steps are needed?

A Yes. And not just at the federal level, but particularly because of our federalist government, the states and localities having that same diversity of viewpoints that captures all of the consequences of the decision.

Q And having all those viewpoints at the table would kind of eliminate the risk of any one overruling all the others. Is that fair?

A That's the way it ought to work.

Q Again, I don't know the answer to these questions, so if they're no, just let me know. Another situation we are investigating that a Member on this Committee actually called medical malpractice is the New
York nursing home order that directed nursing homes to accept COVID-19 patients and sometimes not even test them for COVID-19.

Did you have any conversations with Governor Cuomo during the pandemic?

A No, I did not.

Q What about any conversations with former New York Health Commissioner Howard Zucker?

A No.

Q Again, bouncing around on all kinds of topics.

A That's okay.

Q We're just going through these. Another thing that we are evaluating going forward is having -- and some of this might just be to avoid public misperceptions, which I think is actually an important goal, of definitions on what a death and what a case and what a hospitalization actually are. So we have heard a lot, and I think Dr. Birx mentioned pretty early on, of an individual dying with COVID versus from COVID. Are you aware of that kind of distinction?

A I am aware there was a discussion about how best to define those situations.

Q What do you recall about that discussion?

A That it was complicated.
Q And I know it's not, when we talked to Dr. Fauci and there is kind of like our understanding, and he agreed, the three buckets of like a very clear COVID death which probably never happened, right, there's almost probably no American that's completely healthy, catches COVID, and then passes away.

A There were a few.

Q A few. The middle ground where there's some kind of intervening event, catching COVID exacerbates what you already have and you pass away. And then the very extreme on the other side, that you have COVID, you're unaware, you get in a car accident and you pass away.

I think from our side, we agreed the first two in there are a COVID death, the last one not being so. Would you agree with that?

A I would agree with that.

Q Another thing. Hospitalizations, in particular, is that during the pandemic, maybe still, I'm not aware, but hospitals would test everyone coming in for COVID to obviously get an accurate case count, but then would record it as a COVID hospitalization regardless of the rationale for actually being in the hospital. One of the things we want to look at is better defining what a hospitalization means. So I guess I'm asking -- I am going to put it in hypothetical terms again just so we can kind
Someone breaking their leg, not knowing they have COVID, going and getting tested for COVID. Would that be a COVID hospitalization?

A Got to be careful in terms of not generalizing that particular instance. Did they break their leg because they were really sick and were trying to climb upstairs to go to bed and tripped? So --

Q Okay.

A Careful attention to those details.

Q Understanding those details matter, would you agree that there were probably COVID hospitalizations through how the hospitals tested for it, that the patient wasn't there for COVID?

A I don't know how hospitals were doing that or how they were categorizing them. I'm uncomfortable answering.

Q Do you think in a future pandemic that there should be clear, established definitions for case hospitalization and death counts?

A I think an effort should be made to do the best you can, recognizing as we've just been talking about, there may not be bright lines in every situation.

Q Thank you. The Ranking Member talked about COVID vaccines a lot, and I've heard the Chairman say any
number of times that millions of lives were saved by COVID
vaccines, and that broadly they are very safe and
effective. I will ask, you detailed your involvement in
Operation Warp Speed, so I don't need to ask about that.
But were you involved at all in the FDA processes for EUA
or full biologics approval?
A No.
Q One of the things we hear an awful lot is
kind of -- and we discussed this in other aspects, but is
kind of the, like, maybe overmessaging the kind of noble
lie, to say -- say something with the effort of getting
more people vaccinated, that it's a slight mistruth for a
noble goal. Some of that has come up in the vaccine
aspect. Like I said, it saved millions of lives, safe and
effective, but were there breakthrough cases for the
vaccine?
A Of course.
Q And breakthrough hospitalizations?
A Yes.
Q And breakthrough deaths?
A Yes.
Q So it would be kind of unfair to make
unequivocal statements that there weren't; is that fair?
A It would also be unfair to make unequivocal
statements that vaccines don't benefit anybody in terms of
preventing hospitalization or death because that would not be true.

And I agree. In July 2021, President Biden had a town hall and said, if you're vaccinated, you're not going to be hospitalized, you're not going to be in the ICU unit, and you're not going to die.

So we just kind of walked through that there were breakthrough cases, there were breakthrough hospitalizations, there were breakthrough deaths. Do you think that statement is maybe unfair?

I think I can't judge how the President decided how to phrase his point. I think he was trying to make the case that vaccines are going to be highly beneficial. Beyond that, I am not in a position to judge the words that he chose.

I would say, July of 2021, at that point, about 85 percent of the people who were dying were unvaccinated.

And I agree with that, too. From our perspective, sometimes the unequivocal statements when they are proven wrong lead to maybe some hesitancy on some people's part. I was promised I wouldn't get hospitalized and then my friend got hospitalized and maybe the vaccine doesn't work as well, from what we have been hearing from constituents.

Mr. Nassikas. Mr. Benzine, what President Biden is saying
there obviously was stated in good faith with good intentions and contrasts pretty starkly with what the former President said.

Mr. Benzine. In fairness, John, the White House is here. If they want to defend the President, they can. I would prefer you didn't.

Mr. Nassikas. That's fine. I am just wanting you to be honest with the record here.

Mr. Benzine. I mean, if you want me to read it again and ask him again if it's true, I'm more than happy to.

Mr. Nassikas. Take your time, however you want to take it up.

BY MR. BENZINE.

Q After the full biologics approval, there were some vaccine mandates that went into the effect. DoD, CMS, OSHA, OPM, Head Start. Were you involved in any of those?

A No.

Q As I just kind of laid out, like promises to things, and we have seen a downtick in a lot of the childhood vaccinations post COVID-19, which we are obviously concerned about. Do you think mandating vaccines could contribute to vaccine hesitancy on traditional vaccinations?

A I don't know.
One of the other things we have seen is, and as much as you are familiar, are you familiar with the VAERS system?

Yes.

And it's the U.S. government's way to track adverse events to vaccines; is that right?

It is.

Our understanding is that it is pretty flawed, that it contributes to a decent amount of overcounting, that you don't have to be a physician to enter. There aren't really very many standards to enter an adverse event into VAERS. Is that true?

That's true. Plus, there is no way to correlate the adverse events with the actual receiving the vaccine.

Very true. Do you think that VAERS system needs to be reformed?

I wish it was renamed.

We can start there. What would you name it?

I don't have an alternative, but the name currently leads people to believe that this is an accumulation of circumstances where the vaccine caused an adverse event. The vast majority of what's in that database are correlation, but not causation.
reforming it, trying to limit it -- maybe not limit is the right word, but ensure that the reporting that goes into it is accurate and then vetted by CDC and FDA.

A Mm-hmm.

Q So in addition to renaming, do you agree that we could reform the system a little bit?

A I think some reforming would be a good thing.

Q All right, thank you. I want to shift gears and talk about immunity. And my understanding, two kinds. Kind of infection derived immunity and vaccine acquired immunity. My general understanding, I guess depending on the pathogen and how much it can evade either of those, is the way out of a pandemic is to get enough immunity so that if there is a case it can't spread very well, that there's enough blocking it. Is that fair?

A That's fair.

Q I am pretty sure I know the answer to this question, but are you aware of the Great Barrington Declaration?

A Yes, I am.

Q How did you become aware of the Great Barrington Declaration?

A On October the 5th or 6th of 2020, a time where we still didn't have a vaccine, didn't know if we
would have one, this was announced by the group, the three individuals that had authored it, and was immediately brought to the attention of the Secretary of Health and Human Services.

Q: Do you know how it was brought to the attention of Secretary Azar?
A: I believe through Dr. Scott Atlas.

Q: And he was at the White House at the time?
A: Yes.

Q: Do you know how it got to Dr. Atlas?
A: I believe, from what I have read --

Ms. Ganapathy. Dr. Collins, I am going to step in and just say to the extent that this would require you to disclose any deliberative communications, I would instruct you not to answer.

The Witness. I think I can stay out of that zone.

Basically, that Dr. Atlas played a role in having those experts appear in Massachusetts and resulting in this one-page declaration.

BY MR. BENZINE.

Q: And those three individuals, Dr. Bhattacharya, Gupta, and Kulldorff met with the Secretary on this, correct?
A: I don't know if all three of them did. At least some of them did.
Q  Do you know who?
A  I don't.
Q  And do you believe that meeting to be set up by Dr. Atlas as well?
A  That's my understanding.
Mr. Benzine. I want to introduce this as Majority Exhibit 15.
(Majority Exhibit No. 15 was identified for the record.)

BY MR. BENZINE.

Q  So this is an email production from FOIA and Bates marked 1028 through 1031. I will give you a second to skim. You don't need to read the whole article, but the email I want to focus on is on the last page.
A  Yeah, I'm not familiar with the Wired article.

Q  The last page is an email from you to Dr. Fauci, Dr. Lane, and Dr. Tabak. And it reads, "Hi Tony and Cliff, See GreatBarringtonDeclaration.org. This proposal from the three fringe epidemiologists who met with the Secretary seems to be getting a lot of attention and a even co-signature from Nobel Prize winner Mike Leavitt at Stanford. There needs to be a quick and devastating published takedown of its premises. I don't see anything like that online yet - is it underway?"
First, what were your concerns with the Great Barrington Declaration?

A I was deeply alarmed that this proposal, which flew in the face of virtually every principle of how to handle a pandemic, had been put forward and within 24 hours, without opportunity for any scientific debate, was presented to a cabinet member with the implication that this might rather quickly become the new policy for the United States.

As a physician and somebody who hung around epidemiologists a lot, I was convinced this would result in the deaths of tens of thousands of people, and was looking for a quick response of some sort to sound the alarm.

Q Was it your interpretation that the Great Barrington Declaration called for a kind of like, for lack of a better phrase, let it rip approach?

A That's been -- I think characterized is too strong, but it was in that zone. Basically, the idea would be what they called focused protection of the vulnerable people, mostly elderly, and otherwise younger people would essentially go about normal activities with schools, businesses, et cetera. And with the expectation that the illness would certainly spread rapidly amongst that unprotected group and somehow the focused protection would work.
This troubled me greatly because of the absence of any proposal of how you could actually do this effectively. Are those old people supposed to hide in their houses for the next year with no interaction with anybody? And also, knowing at this point that something like 30 or 40 percent of the people who died from COVID-19 were under 65, this just seemed all wrong.

Q I appreciate that and the rationale, because I think it has been -- I'm not and never will advocate for a let it rip approach, but it doesn't seem like that's what they advocated for, but I understand, your perspective now hearing it makes a lot of sense and I appreciate it.

Q I don't want to nitpick too much, it's late on a Friday before a holiday weekend, but what did you mean by fringe epidemiologists?

A I meant their proposal was fringe.

Q Not they themselves?

A What they were putting forward was way outside the boundaries of what most experienced public health experts would have advocated for. And again, if it was put forward as a scientific presentation and let's discuss this, well, fine, let's do that. But they were short-circuiting that by a direct transmission to a cabinet member of the United States of America.

Q At this point in time, did you have access
to Secretary Azar?

A I did, but not on an easy, everyday basis.

Q Did you ever try to set up a meeting with the Secretary regarding the Great Barrington Declaration?

A I don't recall so.

Q Do you know if anyone within, outside of these folks and whoever from the government attended with them, do you know if anyone attempted to set up a meeting to kind of counter the Great Barrington Declaration?

A I don't know.

Q The second to last line is my next question, "There needs to be a quick and devastating published takedown of its premises." What did you mean by that?

A I meant that this is a dangerous approach that could do great harm. I am looking for a response from credible experts to get that response out there quickly before this becomes somehow a U.S. policy, which seemed like a potential serious risk.

Q And then, "I don't see anything like that online yet - is it underway?" What did you mean by that?

A That this is now October 8th. This statement has been out now for two or three days. I was interested to see whether there was going to be such a response from the experts. And as, in fact, there was about a week later, with 14 public health organizations
putting forward a very strong disagreement with the Great Barrington Declaration, and then a whole other effort called the John Snow Memorandum capturing additional experts who pointed out the potential dangerous flaws.

Q Did you ever instruct anyone at NIH or NIAID to draft a counter to the Great Barrington Declaration?
A I did not.

Q My last kind of question, we talked about therapeutics and treatments a lot and the active program, and I jotted down some notes, attempt to repurpose already FDA approved drugs. I think a valiant attempt. 800 went in, tested 29, and even fewer than 29 came out. Is that fair?
A They were all tested. The vast majority showed no benefit. I think the total that did was six.

Q Okay.
A That's in that science summary that I mentioned earlier.

Q Thank you. Do you recall -- I think there was some testimony before about -- and I might be flipping my million and billion, but 7 million or 7 billion spent on this. Do you recall if it's an M or a B?
A Spent on which exactly?
Q On ACTIV.
A It would certainly be more than 7 million.
And a lot of these expenditures were being done by the private sector. Remember, this was a public/private partnership, where a lot of the work had to be done by the companies. I don't know the number. 7 billion sounds awfully large.

Q Seven is stuck in my head and I don't remember quite where it came from, but I really appreciate that.

Mr. Benzine. I think we can go off the record then.

(Pause.)

We can go back on the record.

BY Q Dr. Collins, thank you for being here. My names is I am the Democratic staff director for the Select Subcommittee. I just wanted to ask a few questions following on to a few topics my Majority colleagues raised in the last round.

Just initially, Dr. Collins, I want to get your perspective here. Is it true that in March of 2020, officials at every level of government were operating off of extremely limited information regarding the coronavirus and the ways in which it spread?

A Absolutely true.

Q If you could briefly elaborate for us on what we knew and what we didn't know about the virus and
its spread at that time in March 2020, I would appreciate it.

A  I'm trying to figure out exactly what the timing was relative to the realization that this virus was readily spread by asymptomatic people. And that was a big discovery that really led to, of course, a much more serious outcome. With SARS and MERS, the people who were infected were sick.

Q  Of course. But at a high level, when we were looking at those very first weeks and months of the COVID-19 pandemic, we were operating off of very limited information about the way the virus spread and that body of work was the one that was actively in development in those very first initial stages of the pandemic; is that correct?

A  That is correct. Again, I don't recall precisely if you're asking about March, what was the body of knowledge we had, but it was very incomplete.

Q  And would you agree, or is it true that as a nation, we were experiencing significant challenges, again, in that very early period of COVID-19, with supplies of tests and PPE?

A  Absolutely. Very serious.

Q  And just for the record, with respect to tests, we were seeing a delayed deployment of effective COVID-19 tests due to a number of issues including
contamination of those tests and fundamental design flaws.

Does that sound correct?

A

Yes, that's correct.

Q

And with respect to PPE, we did observe

missteps by the federal government both in obtaining and
effectively distributing PPE to states; is that correct?

A

I was not involved in the PPE part.

Q

Does it sound familiar that that was an

issue we were experiencing as a nation, though?

A

It sounds familiar, correct.

Q

Now, taking a step back, is it true that

when we are faced with a rapidly spreading respiratory

virus, when we have little understanding of the ways in

which it spreads, as you just said, and when we have

limited supplies of testing and mitigation measures, one of

the few tools that we have at our disposal to reduce spread

is to create physical separation between people in order to

reduce the risk of person-to-person transmission?

A

That is a reasonable approach that might be

taken.

Q

And was it reasonable in March 2020 for

public health officials, again working with extremely

limited information about the virus and its spread, to

believe that physical separation between people had the

potential to reduce person-to-person transmission?
A: I think it was a reasonable assumption.

Q: And just to be clear, do you agree, Dr. Collins, that public health guidance suggesting six feet of social distancing between individuals to reduce the spread of COVID-19 was not an attempt to deceive the American public or to mislead the American public, rather, it was an effort to reduce the spread of COVID-19 and to save lives, again when public health officials had extremely limited information about the spread of the virus?

A: I would agree.

Q: I also wanted to briefly just revisit the topic of herd immunity, the different kinds of immunity, and the way in which that sort of set of issues was approached in the pandemic response.

I would like to just quickly get your view on herd immunity. As I understand it, sort of a marquee or noteworthy aspect of the novel coronavirus and COVID-19 is the ability to get reinfected; is that correct?

A: Yes.

Q: So can you just briefly explain for us how the ability to get reinfected with the novel coronavirus, with COVID-19 undermines the feasibility of herd immunity as an approach for addressing COVID-19 specifically?

A: Again, I'm not an immunologist, but the idea
of herd immunity is that you have a significant fraction of
the population that is essentially immune from being
infected with COVID-19. That turned out to be a very
difficult goal to achieve because of waning of the immune
response and changing of the virus.

Q You mentioned for us in the last round asked
by my Majority colleague that there are different types of
immunity. There is infection acquired immunity, there is
vaccine conferred immunity, and there is hybrid immunity.
As you just explained for us, immunity wanes. And the idea
that infection acquired immunity is something that is a
permanent fix or a permanent form of protection against
COVID-19 is rendered moot as a result of that, correct?

A That's correct.

Q And just to be clear for the record, hybrid
immunity, which is immunity conferred both through
vaccination and immunity conferred from infection, affords
stronger and more durable protection than infection
acquired immunity alone?

A That was the result of a Kentucky study.

Q Okay.

I think with that, we can go off the record.

[Whereupon, at 5:22 p.m., the taking of the instant
interview ceased.]