- 1 ALDERSON COURT REPORTING
- 2 DESIRAE S. JURA
- **3** HVC347000
- 4 INTERVIEW OF: CLIFFORD LANE, M.D.
- 5 Friday, December 15, 2023
- 6 U.S. House of Representatives
- 7 Committee on Oversight and Reform
- 8 Select Subcommittee on the Coronavirus Crisis
- 9 Washington, D.C.
- 10 The Interview Commenced at 10:05 a.m.

- 11 Appearances.
- 12 For the SELECT SUBCOMMITTEE ON THE CORONAVIRUS
- 13 CRISIS:
- 14 MITCH BENZINE, Staff Director
- JOHN STROM, Majority Counsel
- 16 ERIC OSTERHUES, Majority Counsel
- JOE CIPOLLONE, Majority Counsel
- 18 ALAN SLOBODIN, Majority Counsel
- Minority Counsel
- 20 Minority Senior Counsel
- 21 Minority Staff Director
- For the COMMITTEE ON ENERGY AND COMMERECE,
- 23 SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
- 24 MINORTLY CHIEF COUNSEL
- 25 Minority Staff
- Minority Staff
- 27 For the U.S. DEPARTMENT OF HEALTH AND HUMAN
- 28 SERVICES:
- 29 TARA GANAPATHY, Senior Counsel
- 30 MARTA COOK, Senior Adviser
- 31 YELENA TSILKER, Senior Adviser

32	Exhibits	
33	Majority Exhibit No.	Page No.
34	1 - Homeland Intelligence Article,	
35	1 May 2020, New Analytic Technique	
36	Indicates China Likely Hid Severity	
37	of COVID-19 from the International	
38	Community While it Stockpiled	
39	Medical Supplies	47
40	2 - The Lancet article, Effect of	
41	changing case definitions for	
42	COVID-19 on the epidemic curve and	
43	transmission parameters in mainland	
44	China: A modelling study	74
45	3 - Email communications, Bates	
46	commencing SSC_NIH001902	77
47	4 - Email communication, Bates	
48	commencing SSCP_NIH001796	79
49	5 - Email communication dated	
50	February 9, 2020, with attached	
51	article UPDATE 1-WHO advance team on	
52	coronavirus on way to China -	
53	Tedros tweet	83
54	6 - Letter dated 13 February 2020 from	
55	Dr. Tedros Adhanom Ghebreyesus to	
56	Dr. Cliff Lane	87

5/	EXNID	lts	
58	Major	ity Exhibit No.	Page No.
59	7 -	Email communications, Bates	
60		commencing STATE-2023-00014-0001754	94
61	8 -	Email communication, Bates;	
62		commencing STATE-2023-00014-0000858	95
63	9 -	Trip Report, February 13-15, 2020,	
64		Tokyo, Japan, Bates commencing	
65		SSCP_NIH0025333	98
66	10 -	Nature, Accelerated Article	
67		Preview, Surveillance of SARS-CoV-2	
68		at the Huanan Seafood Market, Bates	
69		commencing Nature www.nature.com	115
70	11 -	Global Times article, Wuhan's	
71		Huanan seafood market a victim of	
72		COVID-19; CDC director	116
73	12 -	Email communication, Bates	
74		Commencing STATE-2023-00014-0001643	142
75	13 -	Email dated 23 Feb 2020 from SCANO,	
76		Fabio to Lane, Cliff	148
77	14 -	Fact Sheet: Activity at the Wuhan	
78		Institute of Virology	151
79	15 -	State Department cable dated	
80		Jan 19, 2018	155

81	Exhibits
82	Majority Exhibit No. Page No.
83	16 - Journal of Biosafety and
84	Biosecurity, Review Article,
85	"Current status and future challenges
86	of high-level biosafety laboratories
87	in China" 158
88	17 - World Health Organization, WHO
89	Mission, slides, Bates commencing
90	ECOHEALTHALLIANCE_000002696 168
91	18 - Scientific Reports article, Animal
92	Sales from Wuhan wet markets
93	immediately prior to the COVID-19
94	pandemic 172
95	19 - Virus Evolution article, Association
96	between SARS-CoV-2 and metagenomic
97	content of samples from the Huanan
98	Seafood Market 175
99	20 - Features article, Looking for
100	Trouble 179

101	PROCEEDINGS
102	Mr. Benzine. We can go on the record. This is
103	a transcribed interview of Dr. H. Clifford Lane
104	conducted by the House Select Subcommittee on the
105	Coronavirus Pandemic, the Committee on Oversight and
106	Accountability, and the Committee on Energy and
107	Commerce, under the authority granted to them by
108	House Resolution 5, House Rule 10, and the rules of
109	the Committee on Oversight and Accountability and
110	Committee on Energy and Commerce.
111	This interview was requested by Chairman Brad
112	Wenstrup, Chairman James Comer, Chair Cathy McMorris
113	Rodgers, Chairman Morgan Griffith, and Chairman Brett
114	Guthrie as part of the Committee's oversight of the
115	federal government's response to the coronavirus
116	pandemic.
117	Further, pursuant to House Resolution 5, the
118	Select Subcommittee has wide-ranging jurisdiction,
119	but specifically to investigate the origins of the

118 Select Subcommittee has wide-ranging jurisdiction,
119 but specifically to investigate the origins of the
120 coronavirus pandemic, including but not limited to
121 the federal government's funding of gain of function
122 research.

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

- 127 Commerce has jurisdiction for public health service
- 128 agencies, including the National Institutes of Health
- 129 and the entities it funds, as well as federal
- 130 biomedical research and development.
- 131 EXAMINATION
- 132 BY MR. BENZINE.
- 133 Q Can the witness please state his name and
- 134 spell his last name for the record?
- 135 A Henry Clifford Lane, L-A-N-E.
- 136 Q Thank you. Dr. Lane, my name is Mitch
- 137 Benzine, and I'm the staff director for the Majority
- 138 Staff of the Select Subcommittee. I want to thank
- 139 you for coming in today for this interview. We
- 140 recognize that you are here voluntarily and we
- 141 appreciate that.
- 142 Under the Select Subcommittee and Committee on
- 143 Oversight and Accountability's rules, you are allowed
- 144 to have an attorney present to advise you during this
- 145 interview. Do you have an attorney representing you
- in a personal capacity with you today?
- 147 A No.
- 148 Q Is there an attorney representing the
- 149 Department of Health and Human Services with you
- **150** today?
- 151 A Yes.
- Mr. Benzine. Will counsel identify themselves?

- 153 Ms. Ganapathy. Tara Ganapathy, senior counsel,
- 154 HHS.
- Mr. Benzine. For the record, beginning with the
- 156 remainder of the Majority Staff, can the additional
- 157 staff members please introduce themselves with their
- 158 name, title, and affiliation?
- 159 Mr. Strom. John Strom, senior counsel, House
- 160 Energy and Commerce Oversight and Investigation
- 161 Subcommittee Majority.
- Mr. Osterhues. Eric Osterhues, chief counsel,
- 163 Select Subcommittee for the Coronavirus Pandemic
- 164 Majority.
- Mr. Slobodin. Alan Slobodin, chief
- 166 investigative counsel, House Energy and Commerce
- 167 Committee, Majority Oversight and Investigations
- 168 Subcommittee.
- 169 Mr. Cipollone. Joseph Cipollone, counsel for
- 170 the Select Subcommittee's Majority.
- 171 , professional staff,
- 172 Energy and Commerce Subcommittee on Oversight
- 173 Investigations, Minority.
- 174 , analyst, Energy and
- 175 Commerce, Minority.
- 176 , chief counsel,
- 177 Energy and Commerce Committee Oversight Investigation
- 178 Subcommittee Minority.

- 179 professional
- 180 staff member, Energy and Commerce, Oversight
- 181 Investigations Subcommittee.
- 182 , Democratic staff
- 183 director of the Select Subcommittee.
- 184 , Democratic counsel,
- 185 Select Subcommittee.
- 186 , senior counsel,
- 187 Democratic staff, Select Subcommittee.
- 188 Ms. Cook. Marta Cook, senior adviser for
- 189 oversight at NIH.
- 190 Ms. Tsilker. Yelena Tsilker, senior advisor for
- 191 oversight at HHS.
- 192 Mr. Benzine. Thank you, all.
- 193 BY MR. BENZINE.
- 194 Q Dr. Lane, before we begin, I would like to
- 195 go over the ground rules for this interview.
- 196 The way the interview will proceed is as
- 197 follows. Majority and Minority staff will alternate
- 198 asking you questions, one hour per side, per round
- 199 until each side is finished with their questioning.
- The Majority Staff will begin and proceed for an
- 201 hour, and then the Minority staff will have an hour
- 202 to ask questions. We will then alternate back and
- 203 forth in this manner until both sides have no more
- questions.

- 205 If either side is in the middle of a specific
- 206 line of questions, they may choose to end a few
- 207 minutes past an hour to ensure completion of that
- 208 specific line of questioning, including any pertinent
- 209 follow-ups. In this interview, while one member of
- 210 the staff for each side may lead the question
- 211 additional staff may ask questions.
- There is a court reporter taking down everything
- 213 I say and everything you say to make a written record
- 214 of the interview. For the record to be clear, please
- 215 wait until the staffer questioning you finishes each
- 216 question before you begin your answer, and the
- 217 staffer will wait until you finish your response
- 218 before proceeding to the next question.
- 219 Further, to ensure the court reporter can
- 220 properly record this interview, please speak clearly,
- 221 concisely, and slowly. Also, the court reporter
- 222 cannot record non-verbal answers, such as nodding or
- 223 shaking your head, so it is important that you answer
- 224 each question with an audible, verbal answer.
- Exhibits may be entered into the record. The
- 226 Majority exhibits will be identified numerically.
- 227 Minority exhibits will be identified alphabetically.
- 228 Do you understand?
- 229 A Yes.
- 230 Q We want you to answer our questions in the

- 231 most complete and truthful manner possible, so we
- 232 will take our time. If you have any questions or do
- 233 not fully understand the question, please let us
- 234 know, we will attempt to clarify, add context to, or
- rephrase our questions. Do you understand?
- 236 A Yes.
- 237 Q If we ask about specific conversations or
- 238 events in the past and you are unable to recall the
- 239 exact words or details, you should testify to the
- 240 substance of those conversations or events to the
- 241 best of your recollection. If you recall only a part
- 242 of a conversation or event, you should give us your
- 243 best recollection of those events or parts of
- 244 conversations that you do recall. Do you understand?
- 245 A Yes.
- 246 Q Although you are here voluntarily and we
- 247 will not swear you in, you are required pursuant to
- 248 Title 18, Section 1001 of the United States Code to
- 249 answer questions from Congress truthfully. This also
- 250 applies to questions posed by congressional staff in
- 251 this interview. Do you understand?
- **252** A Yes.
- 253 Q If, at any time, you knowingly make false
- 254 statements, you could be subject to criminal
- 255 prosecution. Do you understand?
- 256 A Yes.

- 257 Q Is there any reason you're unable to
- 258 provide truthful testimony today?
- 259 A Not that I am aware of.
- 260 Q The Select Subcommittee follows the rules
- 261 on the Committee on Oversight and Accountability.
- 262 Please note that if you wish to assert a privilege
- 263 over any statements made, that assertion must comply
- 264 with the rules of the Committee on Oversight and
- 265 Accountability.
- Pursuant to that, Rule 16(c)(1) states, for the
- 267 Chair to consider assertions of privilege over
- 268 testimony or statements, witnesses or entities must
- 269 clearly state the specific privilege being asserted
- and the reason for the assertion on or before the
- 271 scheduled date of testimony or appearance.
- Do you understand?
- 273 A Yes.
- Q Ordinarily, we take a five-minute break at
- 275 the end of each hour of questioning, but if you need
- 276 a longer break or break before that, please let us
- 277 know, and we'll be happy to accommodate. However, to
- 278 the extent there is a pending question, we would ask
- 279 that you finish answering the question before we take
- 280 the break. Do you understand?
- 281 A Yes.
- 282 Q Any more questions before we begin?

- 283 A No.
- 284 Q All right. I want to start out by
- 285 thanking again for being here voluntarily, and a
- 286 couple decades of public health work, and start by
- 287 discussing your education and experience before we
- 288 get into more specific topics.
- 289 Where did you attend undergraduate school and
- 290 what degree did you graduate with?
- 291 A University of Michigan, a bachelor of
- 292 science in chemistry and a medical degree.
- 293 Q Who is your current employer and what is
- your current job title?
- 295 A Currently employed by the National
- 296 Institute of Allergy and Infectious Diseases at the
- 297 National Institutes of Health. My current supervisor
- 298 is Dr. Jeanne Marrazzo, the director of the
- 299 Institute.
- 300 My current job title is deputy director for
- 301 clinical research and special projects. I also am
- 302 director of our division of clinical research, the
- 303 clinical director for the Institute, and chief of the
- 304 clinical and molecular retrovirology section of the
- 305 laboratory of immunoregulation, and in our division of
- 306 intramural research.
- Q Do you have any time off?
- 308 A Not to my best recollection.

- 309 Q So your direct report is Dr. Marrazzo?
- 310 A Yes.
- 311 Q Can you elaborate, as best as you can and
- 312 briefly, on kind of what a stereotypical day-to-day
- 313 looks like?
- 314 A I would say there probably is no
- 315 stereotypical day. As noted, I have a variety of
- 316 responsibilities. I tend, on any given day, to
- 317 prioritize what's pending, usually involving several
- 318 calls or meetings.
- 319 It will often involve review of data, talking to
- 320 people in the lab. It may involve discussion on
- 321 protocol design, data generated from clinical research
- 322 protocols, preparing manuscripts, attending meetings,
- 323 or traveling to different sites where we have
- 324 clinical research programs.
- Q Do you have people that report to you?
- 326 A Yes, I do.
- 327 Q About how many?
- 328 A I probably have somewhere in the range of
- 329 about 12-15 direct reports, and then they obviously
- 330 have reports as well.
- 331 Q During the -- so you kind of ran through
- 332 the basic data. During the pandemic, did that change
- **333** at all?
- 334 A The level of activity during the pandemic

- 335 was something I had never experienced before. As you
- 336 mentioned, I've been doing this for a while. I had
- 337 extensive experience in the early days of the
- 338 HIV/AIDS epidemic, and I have to say, what we ended
- 339 up doing in COVID was like taking 30 years of AIDS
- 340 and compressing it into weeks of time, in terms of
- 341 what we needed to try to do, and would not be
- 342 uncommon actually to have multiple calls going at the
- 343 same time, pushing really hard to get programs
- 344 started, to get protocols initiated. It was a very
- 345 different time, yes.
- 346 Q At least it looks like in the first couple
- 347 of months of the pandemic, you were traveling at
- 348 least a little bit. Was that common prior to the
- 349 pandemic? Did you often travel for your job?
- 350 A I did travel often for my job. Part of
- 351 the special projects that I oversee involve having
- 352 research capacity in areas of the world where we're
- 353 concerned about emerging infectious diseases. So as
- 354 part of that work, some of which was originated from
- 355 pandemic flu concerns in Indonesia or Mexico, part
- 356 related to Ebola in Liberia, Guinea, and the Congo.
- 357 Q Had you ever traveled to China prior to
- **358** 2020?
- 359 A I had not.
- 360 Q Do you currently hold or have you held a

- **361** security clearance in the past?
- 362 A I currently do.
- 363 O At what level?
- 364 A TS/SCI.
- 365 Q During the course of the pandemic, did you
- 366 receive any classified briefings on COVID-19?
- 367 A I don't recall being in any classified
- 368 briefings. I do recall briefings down at the White
- 369 House, but I don't recall anything that was
- 370 specifically classified.
- Okay. I'm going to run through some
- 372 baseline questions of your level of communication
- 373 with certain people. It's a long list, with a couple
- 374 topics, so bear with me as I go through it. As I
- 375 said in the preamble, if you don't recall specifics,
- 376 but you do recall that you did communicate with them,
- 377 say yes, and we can try to figure out specifics
- 378 later.
- First, I want to ask, generally, have you sent
- any emails since January of 2020 regarding origins of
- 381 COVID, Wuhan Institute of Virology, or EcoHealth
- 382 Alliance?
- 383 A I don't recall any emails where I would
- 384 have specifically had that as the major topic. There
- 385 certainly could have been. People could have asked a
- 386 question I might have responded to. I honestly don't

```
387 recall.
```

388 $\,$ Q Okay. I want to start by asking the long

389 list if you communicated with any of these people

390 regarding specifically the origins of COVID.

391 Dr. Francis Collins?

392 A Yes.

393 Q Dr. Anthony Fauci?

394 A Yes.

395 Q Dr. Lawrence Tabak?

396 A I don't recall specifically with

397 Dr. Tabak, but he might have been on discussions that

398 involved Dr. Collins or Dr. Fauci.

399 Q Dr. Hugh Auchincloss?

400 A I don't recall specifically, but it's

401 likely.

402 Q Dr. David Morens?

403 A No.

Q Dr. Ping Chen?

405 A No.

406 Q Dr. Ian Watson?

407 A No.

408 Q Dr. Andrew Pope?

409 A No.

410 Q Dr. Victor Zhao?

411 A I don't recall anything with Dr. Zhao

412 related to COVID. He sent emails quite frequently in

```
413 his position at the National Academy, so there might
```

- 414 have been something there. And again, when I say no,
- 415 it's really always to the best of my recollection.
- 416 Q Yes. Dr. Robert Redfield?
- 417 A I don't think so about origins, no.
- 418 Q Dr. Michael Lauer?
- 419 A No.
- 420 Q Dr. David Hassell?
- **421** A No.
- Q Dr. Eric Stemmy?
- 423 A No.
- 424 Q Mr. Gray Handley?
- 425 A I don't recall anything like that with
- 426 him.
- 427 Q Mr. Greg Folkers?
- 428 A No.
- 429 Q Dr. Jeremy Farrar?
- 430 A I certainly have had discussions with
- 431 Dr. Farrar, but I don't recall any specific to the
- 432 origins.
- Q Dr. Kristian Andersen?
- 434 A No.
- 435 Q Dr. Michael Farzan?
- 436 A No.
- Q Dr. Eddie Holmes?
- 438 A No.

```
439
    Q Dr. Ian Lipkin?
440
         A No. Again, I've had discussions with
441
     Dr. Lipkin, but I don't recall any discussions
442
     related to origins.
         Q Dr. Andrew Rambaut?
443
444
         Α
              No.
445
         Q
              Dr. Christian Drosten?
446
         Α
            No.
447
            Dr. Ron Fouchier?
448
         Α
            No.
449
         Q
               Dr. Marion Koopmans?
450
         Α
              No.
              Dr. Peter Daszak?
451
         Q
452
         Α
              No.
453
            Dr. Aleksei Chmura?
         Q
         A No.
454
455
        Q
              Dr. Kevin Olival?
456
         Α
               No.
               Dr. Michael Worobey?
457
         Q.
458
         Α
               No.
              Dr. Jonathan Pekar?
459
         Q
460
              No.
         Α
461
              Dr. Florence Debarre?
         Q.
462
         Α
            No.
```

Dr. James LeDuc?

I have discussions -- I have had

463

464

Q

Α

- 465 discussions in the past with Dr. LeDuc. I don't
- 466 recall anything related to origins.
- 467 Q Dr. Shi Zhengli?
- 468 A No.
- 469 Q Dr. George Gao?
- 470 A No.
- 471 Q Dr. Ralph Baric?
- 472 A No.
- 473 Q We'll go back and elaborate a little on
- 474 the yeses if you can.
- **475** A Sure.
- 476 Q So I think the for sure remember yeses
- 477 were Dr. Collins and Dr. Fauci. Can you elaborate a
- 478 little more on your conversations regarding origins
- 479 with Dr. Collins?
- 480 A So there -- during the outbreak,
- 481 particularly in the early days, there were multiple
- 482 phone calls, sometimes on a daily basis, definitely
- 483 on a weekly basis, on a whole array of topics. My
- 484 area of focus would have been on therapeutics
- 485 research, but there would be other topics covered in
- 486 many of these calls.
- 487 So it might have been a topic that would come up
- 488 from time to time. I honestly can't recall anything
- 489 very specific about those particular discussions, but
- 490 they were wide ranging.

- 491 Q Any water cooler discussions regarding the
- 492 origins, any like off the cuff?
- 493 A I did not go to those water coolers.
- 494 Q Fair enough. Was that about as much as
- 495 you can recall of those conversations with
- 496 Dr. Collins?
- 497 A Pretty much, yes.
- 498 O What about Dr. Fauci?
- 499 A The same with Dr. Fauci. We would have --
- 500 you know, with Dr. Collins the discussions would be
- 501 at the NIH level, and I would be there as someone who
- 502 had expertise in a given area. Again, with Dr.
- 503 Fauci, it would have been similar things at the
- 504 Institute level, and we would have similar
- 505 discussions.
- Again, a lot of those discussions were focused
- on how do we launch a research response particularly
- 508 in vaccines and therapeutics which ended up being a
- 509 key part of the NIAID response.
- 510 Q Again, with him, no off-the-cuff water
- 511 cooler, hey, look at that weird virus kind of
- 512 comments?
- 513 A No.
- 514 Q I'm going to run through the same list
- again about any conversations regarding the Wuhan
- 516 Institute of Virology.

- 517 Dr. Francis Collins.
- 518 A The only time I can recall some
- 519 discussions might have been when I returned from
- 520 China, you know, did we get a chance to go to the
- 521 Wuhan Institute of Virology, which we did not.
- 522 Q Would that be the only time you would
- remember any of these people?
- A Pretty much, yes.
- 525 Q After going through the pandemic, after
- 526 more things started coming out, do you recall any
- 527 other conversations particularly with Dr. Collins,
- 528 Fauci, Tabak, or Auchincloss?
- 529 A You know, again, the topic might have come
- 530 up in the context of just all the things we were
- 531 dealing with at the time, but I don't recall anything
- that was a focused discussion on that issue.
- 533 Q All right. The same kind of question, and
- I won't run through the list if I don't have to, but
- on EcoHealth Alliance?
- 536 A Yeah, I don't recall anything really with
- 537 EcoHealth Alliance. That would have been other types
- 538 of discussions I doubt I would have been part of, and
- 539 I don't recall anything specific to that.
- 540 Q After NIH started enforcement actions on
- 541 EcoHealth Alliance, were you part of any conversation
- or hearing any conversations regarding that?

- 543 A I wasn't part of those conversations. I
- 544 did see some emails related to that.
- 545 Q Did you hear anything regarding NIAID's
- 546 position on whether or not the grant should have been
- 547 terminated?
- 548 A The one thing I do recall was -- and I
- 549 can't tell you where I heard it, or who I heard it
- from. But what I do recall concerns terminating
- 551 grants without good cause.
- And the question also arose, if you sever a
- relationship, you also lose an opportunity to learn
- 554 what's going on in a lab. And those would have been
- 555 general discussions. Nothing specific to that, but I
- 556 do think there was some discussion about the merits
- and the pros and cons.
- 558 Q What do you mean about lose insight into
- what's going on into the lab?
- So, for example, if I'm funding you and
- you're running a lab, I'm expecting to get reports on
- 562 what you're doing. If then I say to you, we're not
- 563 going to be funding you anymore, I would not expect
- 564 to be getting any more reports.
- 565 Q That's fair. Would you -- in that same
- scenario, would you expect insights beyond what you
- 567 were funding? Would you expect to know the lab's
- 568 biosafety history or certification history, what

- they're capable of doing?
- 570 A So I don't have that type of relationship
- 571 with that lab the Wuhan Institute of Virology.
- 572 However, I would say, from a general perspective, if
- 573 you have a relationship with another scientist or you
- 574 have a collaboration, you do tend to have opportunity
- 575 to discuss things beyond what's immediately in front
- 576 of you.
- This one's a bit of a broader list, but
- 578 I'm going to start with the list that I just ran
- 579 through. Your 2020 trip to China in February, if you
- 580 spoke to any of these people. I'll just read the
- 581 list, and if you spoke to any of these people about
- 582 that trip. And this is just yes or no. We can get
- 583 into details later.
- President Donald Trump?
- 585 A I don't think so.
- Vice President Mike Pence?
- 587 A No.
- 588 Q Chief of Staff Mick Mulvaney?
- 589 A No.
- 590 Q Matthew Pottinger?
- A No. Actually, I don't know who that is.
- **592** Q Okay.
- 593 A But I don't recall that.
- **594** Q Joe Grogan?

```
595 A No.
```

596 Q Marc Short?

597 A No.

598 Q Deborah Birx?

599 A I don't think so, but I would have talked

600 to her more frequently, so something could have come

601 up.

Q Mark Meadows?

603 A No.

Q Robert O'Brien?

605 A No.

606 Q Jared Fisher?

607 A No.

608 Q Francis Collins?

A About the trip to China?

610 Q Yes.

A Yes, but it would have been in general

612 terms. I don't think I did a formal debrief with

613 Dr. Collins.

O Dr. Fauci?

A Yes, I would have spoken to him about the

616 trip.

617 Q Dr. Tabak?

618 A Only in the context of general discussions

619 on some of these frequent calls, but nothing

620 specific.

```
Q Dr. Auchincloss?
```

- A I don't think so.
- Q Dr. Morens?
- 624 A No.
- **625** Q Dr. Chen?
- A No. Dr. Chen?
- Q Ping Chen?
- 628 A No.
- 629 Q Dr. Ian Watson?
- 630 A No.
- Q Dr. Andrew Pope?
- 632 A No.
- Q Dr. Robert Redfield?
- A I don't think so. It could have come up
- in a call, but nothing specific.
- Q Dr. Lauer?
- 637 A No.
- Q Mr. Handley?
- 639 A If so, it just would have been very
- 640 general. It wouldn't have been anything specific.
- Q Mr. Folkers?
- 642 A No.
- Q Dr. Farrar?
- A I don't recall anything specific, although
- 645 I did talk to him a fair amount, so something could
- 646 have come up, but nothing focused on the trip, no.

```
Q Okay. Dr. Daszak?
```

- 648 A No.
- **649** Q Dr. Gao?
- 650 A No.
- **651** Q Dr. Baric?
- 652 A No.
- 653 Q Going back to Dr. Fauci, can you elaborate
- 654 a little bit more on your conversations regarding the
- 655 trip with him?
- 656 A I can distinctly remember my first
- discussion about the trip with him was, I was at
- 658 Dulles Airport getting ready to board a flight to
- 659 Tokyo to help set up our study therapeutic trial for
- 660 COVID-19. And the Diamond Princess was docked in
- 661 Yokohama, so there was a desire to get Japan onboard
- 662 with a multi-center multinational trial.
- As I was getting ready to get on the plane, I
- 664 got a phone call from Dr. Fauci. And he said, you've
- been selected by WHO to be part of the delegation to
- 666 China. And I said, well, I really can't, I'm getting
- 667 ready to go to Tokyo, et cetera. And he said, I
- 668 think this needs to be your priority. And I said
- 669 okay.
- 670 Q I've seen the State Department emails of
- 671 trying to get your visa and everything, and it was
- quite the adventure there in February. Any

- 673 conversations with Dr. Fauci while you were on the
- 674 ground?
- A Just to say one thing for clarification.
- 676 The value of Wi-Fi on airplanes cannot be
- 077 underestimated, because from the time I boarded that
- 678 flight to Tokyo for the next 14 hours, we were
- 679 constantly in contact, as you said, with so many
- 680 people. So by the time I landed, I went right to the
- 681 Chinese embassy to Japan to hand in the passport to
- 682 get a visa.
- I don't recall any discussions with Dr. Fauci
- 684 while I was on the ground in China. I actually was
- 685 quite sensitive about making phone calls. The calls
- 686 I do recall during that time were related to clinical
- 687 trial design.
- 688 Q And then any conversations with him on --
- once you returned stateside?
- 690 A Yes. So the immediate conversation, it
- 691 was interesting that I went -- again, I had a meeting
- 692 actually with Defense Health Board. And so I went
- from the airport to the Falls Church facility to go
- 694 to a meeting. And while I'm in the meeting, I got a
- 695 call to talk to Dr. Fauci. And he said, how are you
- 696 doing? Or something along those lines. And I said,
- 697 fine. He said, why are you at that meeting as
- 698 opposed to, I really think you should be home?

- 699 Q It's a long flight to get off the plane
- 700 and go straight to a meeting.
- 701 A It is. And then there was some general
- 702 discussion, and I provided a trip report that was
- 703 fairly extensive. And I think that pretty much
- 704 covered -- I don't recall a lot of discussion about
- 705 the trip outside of providing the report.
- 706 Q Okay. I want to ask, and understanding
- 707 some of these might be in conjunction with the trip,
- 708 so if it is, just say that. If you have any
- 709 interactions with any of the following institutions
- 710 regarding COVID-19.
- 711 A Mm-hmm.
- 712 Q The Wuhan Institute of Virology?
- 713 A Not directly, no.
- 714 Q What would the indirect be?
- 715 A So part of the WHO delegation, I think it
- 716 was three of the outside experts, three of the
- 717 experts from China had the chance to go to Wuhan for
- 718 I think a night. I don't remember exactly how long.
- 719 And come back and then debrief us what they learned
- 720 while they were there.
- 721 I do not think they went to the Wuhan Institute
- of Virology, so whatever I learned about Wuhan would
- 723 have been from that delegation, plus one of the early
- 724 days of the visit there was a video link to the

- 725 clinicians in Wuhan.
- 726 Q The Wuhan Centers for Disease Control and
- 727 Prevention?
- 728 A No, not directly. Again, anything would
- 729 have been indirect.
- 730 Q The Chinese Centers for Disease Control
- 731 and Prevention?
- 732 A I believe we had a briefing by them, yes.
- 733 Q Wuhan University?
- **734** A No.
- 735 Q The Chinese Academy of Sciences?
- 736 A I believe there were members of the
- 737 delegation from the Chinese Academy of Sciences. I'm
- 738 not 100 percent sure, but I think so.
- **739** Q Okay.
- 740 A But I don't recall going to a facility.
- 741 Q The Academy of Military Medical Sciences?
- 742 A I don't think so.
- 743 Q I want to run through just a few names and
- 744 ask if you ever communicated with them via their
- 745 personal email or cell phone regarding COVID,
- 746 regarding these issues, not just anything.
- 747 Dr. Collins?
- 748 A By phone? I'm sorry, repeat the question?
- 749 Q If you've ever communicated on a personal
- 750 email or a personal cell phone with any of these

- 751 people.
- 752 A Personal, no, no.
- **753** Q Dr. Fauci?
- **754** A No.
- 755 Q No to the whole list?
- 756 A Correct.
- 757 Q Perfect. Thank you. Did you have any
- 758 conversations with anyone affiliated with Fort
- 759 Detrick regarding COVID-19?
- **760** A Yes.
- 761 Q Can you elaborate on those communications?
- 762 A One of the things that comes under my
- 763 division is a high containment lab at Fort Detrick.
- 764 There's an interagency biodefense campus at Fort
- 765 Detrick, the Army led USAMRIID, the Homeland Security
- 766 led NBACC, and then there's an NIAID lab. And we
- 767 were involved in a number of things related to the
- 768 response.
- **769** Q What?
- 770 A Predominantly evaluating countermeasures,
- 771 looking at the effects of particularly different
- 772 monoclonal antibodies against the different variants
- of SARS-CoV-2 as they emerged, as well as working to
- 774 develop animal models.
- 775 Q Did you have any conversations -- I'll
- 776 frame this. Outside of getting your visa and

- 777 everything, did you have any conversations with the
- 778 State Department regarding COVID-19?
- 779 A In China, we met with some staff from the
- 780 embassy team. I think it was mostly CDC. I don't
- 781 know if someone from State might have been there, but
- 782 I did not have any briefings with State that I
- 783 recall.
- 784 Q What about any communications with the
- 785 Department of Energy regarding COVID-19?
- 786 A No, not to my knowledge.
- 787 Q Vanity Fair a few weeks ago reported that
- 788 in mid-2019, Deputy Secretary of Energy Brouillette
- 789 alerted a top Dr. Fauci adviser that the coronavirus
- 790 work at the Wuhan Institute risked being
- 791 misappropriated for military purposes. You were not
- 792 the one that received that warning?
- 793 A No, I was not.
- 794 Q All right. Vanity Fair also reported that
- 795 in October of 2020, he was then Secretary
- 796 Brouillette, told Dr. Fauci that the Department of
- 797 Energy scientists had evidence suggesting that
- 798 COVID-19 originated at the Wuhan Institute of
- 799 Virology. Do you have any knowledge of that?
- 800 A I don't.
- 801 Q Final one that you may not have any
- 802 knowledge of. Secretary Brouillette also offered the

- 803 Department of Energy resources and computing capacity
- 804 to NIH. Do you have any knowledge of that?
- **805** A I do not.
- 806 Q Do you know if NIAID ever partnered with
- 807 the Department of Energy during COVID-19?
- 808 A I'm not aware of anything. I mean, we
- 809 certainly have done work over the years with
- 810 Los Alamos, in terms of HIV sequence analysis. I
- 811 just don't know about COVID-19.
- 812 Q Final little bucket in this questionnaire,
- 813 again, through the course of the pandemic, did you
- 814 have any communication with anyone affiliated with
- 815 Twitter or X?
- 816 A No.
- **817** Q Facebook?
- 818 A No.
- **819** Q Instagram?
- 820 A No.
- **821** Q YouTube?
- 822 A No. When you say -- I mean, occasionally,
- 823 I watched a YouTube video.
- Q Like an employee of one of those?
- 825 A No.
- 826 Q Moving on to a little more background on
- 827 your relationship with Dr. Fauci. When did you start
- 828 at NIAID?

- **829** A 1979.
- 830 Q Was Dr. Fauci already director then?
- 831 A No.
- 832 Q Oh, you predate Dr. Fauci?
- 833 A Well, I don't predate his presence at
- 834 NIAID. I predate his directorship.
- 835 Q His directorship?
- **836** A Yes.
- Q Did you work with him prior to him being
- 838 director?
- 839 A I did work with Dr. Fauci prior to him
- 840 being director. When I came to NIAID, he was a
- 841 section head in the laboratory of clinical
- 842 investigation. And in that context, admitted a
- 843 number of patients with a variety of different
- 844 diseases as a first year fellow.
- Part of my responsibility was caring for those
- 846 patients that he would then have the senior oversight
- 847 on. The way the fellowship is structured is your
- 848 first year is predominantly clinical, and then your
- 849 second and third and subsequent years are involved in
- 850 research.
- 851 I had initially wanted to work in Dr. Fauci's
- 852 lab, but there were other more competitive people,
- 853 and so I did not get selected to work in his lab. I
- 854 worked in Dr. Frank's lab for a year, and then

- 855 transferred over to work in Dr. Fauci's lab. And
- 856 actually, I've worked in his laboratory since that
- 857 time until his retirement.
- 858 Q During the pandemic, just ballpark it, how
- 859 often a week would you meet with Dr. Fauci?
- 860 A It would be multiple times a week. Phone
- 861 calls predominantly. Again, we were into social
- 862 distancing, so it would mostly be phone calls.
- 863 Q What were the contents of those meetings?
- 864 Was it predominantly therapeutics and research?
- 865 A It would have been the two main areas I
- 866 was working on initially were the development and
- 867 implementation of therapeutics, research agenda, and
- 868 putting together a set of treatment guidelines.
- 869 Q What about email? Could you ballpark the
- 870 volume of your email communication with Dr. Fauci?
- 871 Daily? Multiple times a day?
- 872 A It probably would be on the order of
- 873 daily, at least in terms of being CC'd, there would
- 874 have been a lot of email communication, yes.
- 875 Q Thank you. Moving on to COVID in
- 876 particular. Just yes or no. Is investigating the
- **877** origins of COVID-19 important?
- 878 A Yes.
- 879 Q Is discovering the origins of COVID-19
- 880 important?

- **881** A Yes.
- Q Can you explain why?
- 883 A In trying to understand the breadth of
- 884 what happened during the outbreak, being able to
- 885 study those extraordinarily early events, I think is
- 886 one of the best ways for us to try and prevent
- 887 something like this from happening again. You know,
- 888 knowing who the very, very earliest cases were, what
- 889 their potential exposures were, I think is of
- 890 critical importance to being better prepared for a
- 891 response the next time.
- 892 Q Do you believe the origin of COVID-19 is
- 893 still unsettled?
- **894** A Yes.
- 895 Q I want to talk about generally how viruses
- 896 appear and what we can do to maybe combat them.
- You explained this a little bit, but what did
- 898 the origins -- how do origins help us prepare for a
- 899 future pandemic.
- 900 A If one has a sense of what the reservoirs
- 901 might be for, let's just say viruses to start with,
- 902 viruses of pandemic potential, one can try to monitor
- 903 those reservoirs. They have this term one health
- 904 that sort of spans the spectrum of wherever anyone,
- 905 anything might be infected. You can try to do your
- 906 best to focus your surveillance on those areas that

- 907 may be of highest risk.
- 908 Q The kind of like two pathways that we hear
- 909 a lot are zoonotic event, stereotypical from either
- 910 animal directly to a human, animal through a series
- 911 of animals to a human or laboratory research related
- 912 accident. Are those sort of the two pathways for a
- 913 virus maybe not to emerge, but jump into the human
- 914 population?
- 915 A Yes, I think, again, sort of a natural
- 916 exposure or a laboratory-based exposure, maybe to
- 917 generalize it that way.
- 918 Q This one, I'm going to show I'm not a
- 919 scientist. So like the definition of pandemic,
- 920 epidemic, I don't really know. But the kind of like
- 921 three large coronaviruses, to my understanding over
- 922 the last 20 years, SARS 1, MERS, and COVID-19; is
- 923 that right?
- 924 A Yes.
- 925 Q Do you recall how many cases SARS 1 had or
- **926** has?
- 927 A I don't recall precisely, but we're
- 928 talking I think more in the hundreds to low
- 929 thousands.
- 930 Q Are what about MERS?
- 931 A I don't know the exact data on MERS. I
- 932 would have to check that to be sure.

- 933 Q Would still be like in the thousands?
- 934 A It would be, yes.
- 935 Q Do you know the current number-ish for
- **936** COVID-19?
- 937 A In terms of number of people who have been
- 938 infected?
- 939 Q Mm-hmm.
- 940 A I don't know that there is an accurate
- 941 number. When one reviews the literature on
- 942 surveillance and antibody positivity, it's possible
- 943 but can be difficult to sort out vaccination from
- 944 infection, but I think many people say probably the
- 945 majority of the world's populations have been
- 946 infected with this virus.
- 947 Q The running number is 800 million-ish. I
- 948 agree it's probably more the number of people who get
- 949 infected and don't take a test, get infected and
- 950 don't report it, whatever. You've studied HIV/AIDS
- 951 for a long time. It infects a lot of people. Why
- 952 the big difference between SARS 1 and SARS 2?
- 953 A It's a very good question about why the
- 954 SARS 1 outbreak was so limited and SARS-Co-V-2 was so
- 955 widespread. If you look at what happened with the
- 956 original SARS outbreak, it appears that it was
- 957 recognized very early and there was a lot of
- 958 containment of the people who had been infected. And

- 959 while there were reports of what were referred to in
- 960 quotes as super spreaders, it didn't seem to be quite
- 961 as contagious as what we're seeing now with
- 962 SARS-Co-V-2.
- 963 Q The kind of two aspects, the early and
- 964 contained for SARS 1 difference between SARS 2. I
- 965 guess they kind of go hand in hand, if you don't
- 966 catch it early, you can't contain it because when you
- 967 put containment mitigation measures in, it doesn't
- 968 really matter at that point.
- 969 On this one, you went to China, you at least
- 970 heard tell of what Wuhan looks like in February, all
- 971 in all a ghost town, pretty much locked down. So
- 972 China at least attempted the containment part, but it
- 973 still spread. Does that, in your estimation, just
- 974 mean that it was spreading much earlier than when
- 975 they started implementing these measures?
- 976 A It's hard for -- I wouldn't know. It
- 977 would just be pure speculation.
- 978 Q If you know, so SARS 1 is pretty
- 979 well-established to be zoonotic transfer from animals
- 980 to humans. Did China put in pandemic mitigation
- 981 measures after SARS 1?
- 982 A I honestly don't know. One would assume
- 983 that they did. I mean, the outbreak, there was Hong
- 984 Kong was one of the places hardest hit, so I do think

- 985 that there were things done, but I just don't know.
- 986 I would have to go back and look at what was done.
- 987 Q I want to ask four scenarios and if you
- 988 would consider them laboratory-related or
- 989 research-related.
- 990 A (Nodding head.)
- 991 Q A researcher manipulating viruses in a lab
- 992 and getting infected?
- 993 A You mean how you would characterize that?
- 994 Q Would it be a laboratory spillover?
- 995 A That would be a laboratory accident.
- 996 Q Researcher conducting serial passage on a
- 997 naturally occurring virus and getting infected?
- 998 A So any infection in the lab would be a
- 999 laboratory associated infection.
- 1000 Q What about a researcher getting infected
- 1001 during collection in a cave and bringing it back to a
- 1002 lab?
- 1003 A That would be a natural exposure to
- 1004 infection, in my opinion.
- 1005 Q And then to the best of your knowledge,
- 1006 have lab accidents of viral infections happened
- **1007** before?
- 1008 A There have been lab accidents of viral
- 1009 infections, yes.
- 1010 Q What do good laboratory or

- 1011 research-related accident prevention strategies look
- **1012** like?
- 1013 A Depending upon what type of agent you're
- 1014 dealing with, you would do different layers of
- 1015 protection and as defined in biosafety levels 2, 3,
- **1016** and 4.
- 1017 Q Are there cases -- we've heard a couple
- 1018 times of, yes, like the BMBLs allow you to do novel
- 1019 naturally occurring work in BSL-2, but that's not how
- 1020 you should be doing it. Do you think those should be
- **1021** updated?
- 1022 A I'm not the best person to provide an
- 1023 opinion on that.
- 1024 Q Okay. I want to ask about kind of how you
- 1025 first heard about COVID. So it was first reported at
- 1026 least publicly on ProMED on December 30, 2019. Is
- 1027 that when you first heard?
- 1028 A I don't know when I first heard. I
- 1029 remember when I first took notice.
- 1030 Q Okay.
- 1031 A So I first took notice early in January of
- 1032 2020. And the reason I remembered is I was actually
- 1033 working in Liberia with our program there and the TV
- 1034 was on. And I saw that they were building two
- 1035 1,000-plus bed hospitals in Wuhan. And I remember
- 1036 thinking, one doesn't do that unless there's

- 1037 something going on. That was the first time that I
- 1038 certainly paid attention or noticed.
- 1040 January. I'm not going to ask for the exact date,
- 1041 because I can't remember exact dates. Like early
- 1042 half of January?
- 1043 A Probably, it was probably second or third
- 1044 week of January.
- 1045 Q Would that level of hospital construction
- 1046 be indicative of a virus that's spreading a little
- 1047 more than maybe what was being reported at that time?
- 1048 A It would be indicative of a medical need
- 1049 that had not been previously anticipated. I might
- 1050 say it that way.
- 1051 Q Okay. But you didn't hear of kind of
- 1052 weird pneumonia thing going on in December at all?
- 1053 A You know, I likely saw something, read
- 1054 something, but it didn't stick.
- 1055 Q Is that a common occurrence, is that
- 1056 common in that area of the world kind of every now
- 1057 and then on ProMED, hey, there's a weird virus going
- 1058 on? We see it now, I get questions about it now.
- 1059 A You know, if you're following surveillance
- 1060 reports, whether it's WHO, you say ProMED, lay
- 1061 literature, you see things pop up from time to time.
- 1062 And you say, oh, well, I wonder what that will

- 1063 become. And more often than not, it does not turn
- 1064 into a major public health concern. On occasion, it
- 1065 certainly does, and this was one example of that.
- 1066 Q Do you recall when the genetic sequence
- 1067 was first made available?
- 1068 A Within January. It was fairly early. I
- 1069 can remember everyone being quite -- I don't know
- 1070 what the right word is, but energized by seeing how
- 1071 quickly an etiology was established and then how
- 1072 rapidly the sequence information was made publicly
- 1073 available.
- 1074 Q Do you remember who made it publicly
- **1075** available?
- 1076 A I don't. It obviously came from China,
- 1077 but I don't know who.
- 1078 Q Dr. Eddie Holmes from Australia made it
- 1079 publicly available on behalf of a doctor in China.
- 1080 A Okay.
- 1081 Q The doctor in China's lab the next day was
- 1082 shut down the next day for recertification. Do you
- 1083 have any knowledge or have you heard about that?
- 1084 A I have a vague recollection of some of
- 1085 that, yes. I don't have any firsthand knowledge.
- 1086 Q What is the vague recollection, what I
- 1087 just said?
- 1088 A That there were some consequences

- 1089 discussed in literature, like the lay literature, for
- 1090 the most part.
- 1091 Q It wasn't to your recollection like, hey,
- 1092 get a phone call and this guy's lab was shut down?
- 1093 A No, nothing like that.
- 1094 Q It was also reported early on that Chinese
- 1095 doctors who were publicly discussing the outbreak on
- 1096 social media were detained, and in particular, Dr. Li
- 1097 Wenliang who eventually succumbed to COVID-19 was
- 1098 forced to sign an NDA about the virus. Do you have
- 1099 any knowledge about any of that? Did you hear about
- 1100 any of that on the ground?
- 1101 A No, all I know about that is what I saw in
- 1102 the public domain.
- 1103 Q Briefly, understanding this is kind of a
- 1104 science-y question, can you explain the importance
- 1105 either in therapeutics or research, the importance of
- 1106 having the viral sequence?
- 1107 A Having the viral sequence is key to early
- 1108 understanding of what might be some of the pathologic
- 1109 mechanisms, the nature of the surface proteins, what
- 1110 cell receptors they might bind to, what enzymes are
- 1111 critical to the replication of the virus as
- 1112 therapeutic targets, and then how to design
- 1113 immunogens, proteins that might be used in vaccine
- 1114 development.

```
1115 Q In Dr. Farrar's book titled Spike, he
```

- 1116 wrote, Eddie Holmes has screenshots taken from social
- 1117 media in China about the coronavirus sequence. They
- 1118 suggest the full genome was known by a genomics
- 1119 company in China by December 27, 2019. It was
- 1120 reported to the Chinese CDC and the hospital who
- 1121 provide it had samples. Were you aware of that?
- 1122 A No.
- 1123 Q In Dr. Daszak's interview, he said he was
- 1124 told on December 28 or 29 that China had sequenced
- 1125 the virus, and that it was 20 percent divergent from
- 1126 SARS 1. Were you aware of that?
- 1127 A No.
- 1128 Q If the sequence came out about two weeks
- 1129 later, January 11th or 12th, would those two weeks
- 1130 have made a difference?
- 1131 A Make a difference in terms of?
- 1132 Q Designing therapeutics or vaccines?
- 1133 A I guess it would have made a two-week
- 1134 difference, so -- I couldn't say any more than that.
- 1135 Q It wouldn't have given you like a head
- 1136 start on anything?
- 1137 A It would have just moved the timeframe two
- 1138 weeks.
- 1139 Q Okay. I want to introduce Majority
- 1140 Exhibit 1.

```
1141 [Majority Exhibit No. 1 was
```

- 1142
 marked for identification.]
- 1143 BY MR. BENZINE.
- 1144 Q I'll give you a minute to flip through it,
- 1145 but this is a May 1, 2020 Department of Homeland
- 1146 Security Intelligence report. It's unclassified, and
- 1147 it's titled New Analytic Technique Indicates China
- 1148 Likely Hid Severity of COVID-19 from the
- 1149 International Community While it Stockpiled Medical
- 1150 Supplies.
- 1151 Have you seen this report before just now?
- 1152 A I do not recognize it, no.
- 1153 Ms. Ganapathy. Can you give him just one minute
- 1154 to look through? Dr. Lane?
- 1155 The Witness. Thank you.
- 1156 BY MR. BENZINE.
- 1157 Q I want to go to the third paragraph on the
- 1158 first page, it has the bolded sentence that reads,
- 1159 "We assess the Chinese Government intentionally
- 1160 concealed the severity of COVID-19 from the
- 1161 international community in early January while it
- 1162 stockpiled medical supplies by both increasing
- 1163 imports and decreasing exports. We further assess
- 1164 the Chinese Government attempted to hide its actions
- 1165 by denying there were export restrictions and
- 1166 obfuscating and delaying provision of its trade

```
1167 data."
```

- 1168 It continues to say, "China intentionally cut
- 1169 its exports of gloves by 48 percent, gowns by 71
- 1170 percent, surgical masks by 48 percent, ventilators by
- 1171 45 percent, and cotton swabs by 58 percent."
- 1172 You were there close to this timeframe. Was
- 1173 there any rumblings about China hoarding or
- 1174 stockpiling PPE?
- 1175 A No, I didn't hear any discussions on that.
- 1176 Q Did you hear any after the fact?
- 1177 A No, I did not.
- 1178 Q There were no discussions while, to the
- 1179 best of your recollection, while we were trying to
- 1180 procure PPE that China had a corner on the market?
- 1181 A I was aware that we were potentially
- 1182 facing shortages, but I did not know anything along
- 1183 the lines reported in this document.
- 1184 Q All right. Thank you.
- 1185 Mr. Benzine. We can go off the record.
- 1186 (Recess.)
- 1187 On the record.
- 1188 BY
- 1189 Q Good morning, Dr. Lane. My name is
- 1190 I'm senior counsel for the Minority on the
- 1191 Select Subcommittee. I just want to reiterate the
- 1192 things that were given to you earlier. Thank you for

- 1193 coming in voluntarily and meeting with us today. We
- 1194 do really appreciate the time you have taken out of
- 1195 your very busy schedule. And with that, I do want to
- 1196 get a little bit more into the specifics of your
- 1197 career at NIH.
- 1198 You've been there since 1979, so that is a long
- 1199 time, and I know you've held several positions. You
- 1200 talked about your start and sort of where you are
- 1201 now, but can you give us a run-through how you moved
- 1202 up the ranks at NIAID?
- 1203 A Sure, and thank you. So I came there
- 1204 following completion of my internal medicine training
- 1205 at the University of Michigan, so that was in 1979.
- 1206 And I entered into fellowship training in infectious
- 1207 diseases and immunology. That was a three-year
- 1208 training program.
- 1209 Following that time, I went into the laboratory
- 1210 of immunoregulation. We didn't call it tenure
- 1211 track at the time, but today, we would have called it
- 1212 tenure track. So I was carrying out a program of
- 1213 independent investigation, studying the abnormalities
- 1214 of the immune system and a variety of diseases with
- 1215 an early focus on HIV/AIDS.
- 1216 So over the subsequent years, I was involved in
- 1217 that study on a more basic level of the immune system
- 1218 abnormalities in patients with AIDS as well as

- 1219 working to try to develop better therapies for
- 1220 underlying condition through manipulating the immune
- 1221 system or antiviral drugs and then treating the
- 1222 complications of HIV/AIDS.
- 1223 I eventually was appointed as the senior
- 1224 investigator in the lab, and then deputy clinical
- 1225 director and eventually a section head. I did a
- 1226 sabbatical for about a year-and-a-half in molecular
- 1227 immunology in another NIH lab with Dr. Ronald
- 1228 Germain, and then came back to the laboratory of
- 1229 immunoregulation when the incumbent clinical
- 1230 director, Mike Frank, left NIAID to go to Duke. I
- 1231 was appointed clinical director of the Institute and
- 1232 with a focus on what we do at the clinical center in
- 1233 Bethesda.
- 1234 As things evolved, one thing that sort of was a
- 1235 pivot of it in my career was what was going on with
- 1236 AIDS in South Africa after the end of Apartheid.
- 1237 Please stop me if I go too long on this.
- 1238 Q You're good. Thank you.
- 1239 A So what was interesting was -- so Nelson
- 1240 Mandela was the first post-Apartheid president, and
- 1241 he was really focused on reconciliation and moving
- 1242 forward. His successor, Thabo Mbeki, was convinced
- 1243 that it wasn't clear that HIV caused AIDS. And as a
- 1244 result of that, he did not want to be providing what

- 1245 were life-saving antiretroviral drugs to the general
- 1246 population. So if you had private insurance, if you
- 1247 had money, you would be getting drugs. If you were
- 1248 relying on the public sector, you won't.
- 1249 A key element of the public sector, them not
- 1250 getting drugs was the South African national defense
- 1251 force. So what was happening was they were being hit
- 1252 extraordinarily hard by the HIV epidemic, because
- 1253 during Apartheid, there was nothing sort of coming
- 1254 into South Africa from the rest of the continent.
- 1255 But after the Apartheid, HIV came in and spread quite
- 1256 considerably. So you had estimates of around 20
- 1257 percent of the military affected, and without
- 1258 treatment, they just progressed.
- 1259 So the person who was in charge of force
- 1260 preparedness named General Radebe, who was a
- 1261 urologist trained in Cuba who worked for -- was an
- 1262 ANC member said, I've got to get these drugs to the
- 1263 soldiers, because I know they will work.
- 1264 But Mbeki said, no, you can't do that. He had a
- 1265 health minister, Tshabalala-Msimang, who claimed
- 1266 African potato, lemon juice, would be how you would
- 1267 treat AIDS. It was just so sad. And so he finally
- 1268 got agreement that he could study the drugs. He
- 1269 couldn't have them and use them, he could study them.
- 1270 So how do I study something? How do I do

- 1271 research? And someone said you should go talk to the
- 1272 Americans. So he went and talked to the U.S.
- 1273 ambassador to South Africa, Cameron Hume. Cameron
- 1274 Hume brought in NIH. I ended up being asked if I
- 1275 could work with them. And so we built a program sort
- 1276 of from nothing.
- 1277 And that got me very interested in global health
- 1278 and the impact of research in global health. So that
- 1279 was the first sort of special project that we did.
- 1280 And from there, we did a similar model of sort of
- 1281 different elements of clinical research, training
- 1282 host country staff in these skills that you need, and
- 1283 then building programs with the idea not just to
- 1284 address the immediate issue, but to do that in a
- 1285 sustainable fashion.
- 1286 So again, over the years, we've done that in
- 1287 Mexico and Indonesia for pandemic flu, potentially
- 1288 pandemic flu, and in Africa related to Ebola.
- 1289 So with that, there was a period of time when
- 1290 our principal deputy director, John Lamontagne, died
- 1291 suddenly on official travel. And I was asked to fill
- 1292 in as principal deputy for about a year-and-a-half.
- 1293 So I did that, and then Dr. Auchincloss came in
- 1294 as the permanent principal deputy. I stayed on with
- 1295 a title of deputy director for clinical research and
- 1296 special projects. And a lot of those things we were

- 1297 doing then were consolidated into a division of
- 1298 clinical research that I had.
- 1299 Q Thank you. That was quite a history
- 1300 lesson but also really showed your passion for the
- 1301 work you're doing, which is greatly appreciated by
- 1302 all of us. One thing that you mentioned, and then I
- 1303 think it would just be good to clarify. You
- 1304 mentioned several times therapeutics. You talked
- 1305 about them earlier. What's the difference between
- 1306 therapeutics and a vaccine?
- 1307 A So a vaccine is something you administer
- 1308 to try to prevent a disease from occurring if exposed
- 1309 to the agents, infectious agent that causes that
- 1310 disease. Therapeutic is treating a disease that's
- 1311 already present.
- 1312 Q I may be wrong, but it sounds like your
- 1313 work has been focused on therapeutics?
- 1314 A My work in COVID-19 was very much focused
- 1315 on therapeutics, yes.
- 1316 Q And your work, in general, at NIAID, is it
- 1317 focused on therapeutics?
- 1318 A It's mostly pathogenesis and therapeutics.
- 1319 Q Okay.
- 1320 A We have a vaccine research center, and a
- 1321 lot of the vaccine research takes place there.
- 1322 Q You've mentioned several international

- 1323 destinations that you've worked in, so we know you
- 1324 travel pretty extensively, it sounds like, for your
- 1325 work. What kind of trips are you taking when you're
- 1326 going? Are they short, long?
- 1327 A The trips I take are typically very short.
- 1328 Usually they're planned ahead of time of what the
- 1329 objectives are. It often involves interactions with
- 1330 ministry of health officials, leads of whatever
- 1331 program we have. And then close coordination with
- 1332 the U.S. embassy team.
- 1333 Q And what's your role on these trips?
- 1334 A I'm usually the lead for the NIH, the
- 1335 NIAID side.
- 1336 Q And based on your travels, is it your
- 1337 understanding that outbreak response measures that
- 1338 are applied in one context or one country may not
- 1339 necessarily be applicable to another context or
- 1340 country?
- 1341 A I would say whatever one is doing in
- 1342 another country benefits greatly by taking into
- 1343 account the local context and the input from people
- 1344 who live in that country.
- 1345 Q All right. And are there any other
- 1346 factors you would consider when evaluating the
- 1347 applicability of one country's outbreak response
- 1348 measures to another country?

- 1349 A I think one can look to best practices in
- 1350 similar settings, but it can be very hard. The one
- 1351 thing that we always try to pay close attention to
- and try to understand is the local community
- 1353 perspective.
- So if the local community perspective is fear of
- 1355 a disease, as particularly was the case in Ebola, it
- 1356 can be very hard to do the appropriate public health
- 1357 measures. So having the community part of what you
- 1358 do from the very beginning is really important.
- So as long as you're able to make them feel
- 1360 involved in developing whatever you end up doing is
- 1361 so much easier than doing that at the end of the day,
- and trying to explain what you've done because often
- 1363 you won't have done the right thing because you
- 1364 didn't take what the community reaction would be into
- 1365 account during the planning.
- 1366 Q Thank you. Thinking back to all the
- 1367 experiences with NIAID you told us about and all the
- 1368 different roles you've had, do you think that is why
- 1369 you were selected to join the WHO trip to China in
- 1370 February of 2020?
- 1371 A I do not know why I was selected. That
- 1372 would have been a WHO decision. So I honestly don't
- 1373 know. I think they likely wanted someone who had
- 1374 experience in research as part of the delegation, and

- 1375 that was my area.
- 1376 Q Is there anything else that you think made
- 1377 you a good candidate to join that trip?
- 1378 A I think that I had done some consulting
- 1379 from time to time with WHO. So I think I was someone
- 1380 that they knew as opposed to just a name. So that
- 1381 might have played a role.
- 1382 Q As I understand it, HHS was able to
- 1383 nominate people to join the WHO trip. And just in
- 1384 general, why is it important for HHS, NIH, or NIAID
- 1385 to have representatives on these kinds of trips?
- 1386 A The WHO delegation to China was a way to
- 1387 see firsthand what was going on, and for us -- for me
- 1388 in particular, I was keenly interested in what was
- 1389 going on in the hospitals, what the spectrum of
- 1390 illness was that was being seen, what the outcomes
- 1391 were.
- Because we were in the process of trying to put
- 1393 together therapeutic protocols and a key part with
- 1394 therapeutic protocol is, what's your end point? Are
- 1395 you looking to prevent death? Are you looking to get
- 1396 people off a ventilator? Are you looking to get them
- 1397 discharged? And we didn't understand enough about
- 1398 the disease in the beginning to know which was an
- 1399 appropriate
- 1400 primary end point. So that was really helpful to get

- 1401 that firsthand knowledge.
- 1402 WHO provides basically an unlocking of the door
- 1403 and getting in. It's very hard in some countries to
- 1404 do that on your own.
- 1405 Q And it's important for somebody from HHS
- 1406 broadly to be there to sort of bring that perspective
- 1407 back to the work we were doing here in the U.S.?
- 1408 A Absolutely. I think there were lessons
- 1409 learned from that trip that were important.
- 1410 Q Thank you.
- 1411 Those are my questions for the
- 1412 moment. I will turn this over to my colleague.
- 1413 BY
- 1414 Q Good morning, Dr. Lane. I'm
- 1415 from the Energy and Commerce Committee
- 1416 Minority Staff. Echoing my colleagues, thank you
- 1417 very much for your time and your work and for being
- 1418 here.
- 1419 Could you just -- to start off my questions
- 1420 where you just ended with can you just talk
- 1421 about what were the lessons that you brought back and
- 1422 how did you see those get better results for us here
- 1423 in the U.S.?
- 1424 A So I think for me there were mainly three
- 1425 things that I took away as being important. The
- 1426 first of these was the importance of communication

- 1427 and making it clear what was going on, what the goals
- 1428 were in terms of disease control. You could tell
- 1429 from the different briefings that we had that there
- 1430 was some very consistent messaging and there was a
- 1431 general focus on getting the numbers down of
- 1432 containing, controlling the outbreak. So the
- 1433 messaging was one point.
- 1434 The second point was the importance of getting
- 1435 guidance out to clinicians, people who were caring
- 1436 for patients with COVID-19. By the time we were
- 1437 there, which began about the middle of February, I
- 1438 think, as I recall, I was at the airport on
- 1439 Valentine's Day, that they had been through six
- 1440 iterations of their treatment guidelines and we were
- 1441 provided copies of those in English.
- 1442 And it was clear that there wasn't any type of
- 1443 clear guidance on how to manage the patients. So
- 1444 people were managing them all different ways. So
- 1445 getting some consistent guidance out to clinicians we
- 1446 felt would be very important.
- 1447 And then that translated to there being a set of
- 1448 U.S. government NIH COVID-19 treatment guidelines
- 1449 that are still active today. Those will likely be
- 1450 sunsetted. It's usually not NIH's role to do
- 1451 treatment guidelines. We typically do the research
- 1452 to inform the development of treatment guidelines,

- 1453 but in this instance, things needed to move quickly.
- 1454 And then the third thing was making sure that
- 1455 the research response was coordinated. So what we
- 1456 saw were dozens if not hundreds of different research
- 1457 protocols, but none of them getting the right
- 1458 priority in terms of what should be done first, what
- 1459 should be done second.
- 1460 So the notion that there should be some type of
- 1461 prioritization and focus on the most pressing
- 1462 research questions or testing the most promising
- 1463 countermeasure first.
- 1464 And part of that, I think, helped develop
- 1465 something that Dr. Collins led from the NIH side
- 1466 called ACTIV, A-C-T-I-V, which was a coordinated
- 1467 effort across government public/private partnership
- 1468 to try to identify the best clinical trial designs,
- 1469 the most promising countermeasures, and parameters of
- 1470 those end points that would be harmonized, so that we
- 1471 could move forward and try to develop better
- 1472 therapies over time.
- 1473 Q So it sounds like -- and let me know if
- 1474 I'm characterizing this correctly. It sounds like
- 1475 from that trip, the lessons you brought back were not
- 1476 necessarily just from things that you observed that
- 1477 were going well, but also from things that you
- 1478 observed that were not going well that you did not

- 1479 want to have happen in this country.
- 1480 A That would be correct.
- 1481 Q Okay. So you mentioned actually when you
- 1482 were talking about your background lessons that you
- 1483 observed from South Africa under Thabo Mbeki, you saw
- 1484 in China on your WHO trip, sort of communication,
- 1485 messages from the top there, I think two very
- 1486 different situations, but equally important. Is it
- 1487 fair to say that having communication right from the
- 1488 very top to the public is a crucial part of pandemic
- 1489 response?
- 1490 A Definitely, communication is a very
- 1491 important part of a pandemic response.
- 1492 Q What's your impression of how the Trump
- 1493 administration communicated to the public at the
- 1494 beginning of the COVID-19 outbreak in the United
- **1495** States?
- 1496 Ms. Ganapathy. I'll allow the witness to answer
- 1497 about his personal impression, but anything that kind
- 1498 of gets into deliberations --
- 1499 Just asking for his personal
- 1500 impressions, communications from the Trump
- 1501 administration early in the pandemic.
- 1502 The Witness. I thought it was really good that
- 1503 the White House decided to have what for a period of
- 1504 time were daily briefings, so that you had the

- 1505 opportunity to hear what the most senior leadership
- 1506 was thinking. Where I think it became challenging
- 1507 was when some of that messaging became inconsistent.
- 1508 And that then, I think, allowed sort of the larger
- 1509 population to either grab one message or another and
- 1510 run with it, and at the time, those messages were in
- 1511 conflict.
- **1512** BY
- 1513 Q Was it your impression that the
- 1514 communication that was being conveyed publicly by
- 1515 public health leaders was consistent and then by
- **1516** political leaders was inconsistent?
- 1517 A I think everyone could have their share of
- 1518 inconsistency. I wouldn't ascribe that to one group
- 1519 necessarily more than another.
- 1520 Q That's fair. So one of the things that
- 1521 you mentioned during the last round of questioning,
- 1522 you said that the initial sort of response and
- 1523 reaction to the COVID outbreak was like 30 years of
- 1524 HIV/AIDS work and research and lessons compressed
- 1525 into weeks. Could you just -- HIV/AIDS is obviously
- 1526 incredibly complicated itself, so hearing that, I
- 1527 think helps put into perspective what it is you were
- 1528 dealing with. Could you just expand on that a little
- **1529** bit?
- 1530 A Sure. So if you look at what has happened

```
1531 over the 35, 38 years of HIV/AIDS, you had a disease
```

- 1532 you didn't know what caused it. Then you identified
- 1533 the agent. Once you had the agent, you could begin
- 1534 to develop specific therapies and eventually go from
- 1535 multiple pills multiple times a day to one pill once
- 1536 a day, or currently, one shot every two months,
- 1537 managing a disease that was fatal in the majority of
- 1538 individuals left untreated to leading to close to
- 1539 normal life span. And we still don't have a vaccine.
- 1540 You look at SARS-Co-V-2, new disease, agent,
- 1541 therapeutics, vaccines, all done within a matter of
- 1542 about a year. It was really an amazing acceleration
- 1543 of processes. And I do think a lot of that was
- 1544 lessons learned and pivoting resources.
- 1545 So from the NIAID side, we had clinical trials
- 1546 networks that actually were focused on HIV work and
- 1547 they pivoted to then do COVID-19 work. So we had
- 1548 infrastructure in place that we didn't have at the
- 1549 beginning of the AIDS outbreak.
- 1550 Q So it sounds like, then, those were
- 1551 networks that were developed over a long period of
- **1552** years?
- 1553 A Yes.
- 1554 Q Presumably during your time?
- 1555 A Yes.
- 1556 Q So fair to say that it's very important to

- 1557 have relationships, trust, networks within the
- 1558 medical scientific research community prior to a
- 1559 pandemic in order to effectively respond to a
- **1560** pandemic?
- 1561 A Yes, global collaborations amongst
- 1562 scientists, global clinical research infrastructure
- 1563 is critical to being able to respond quickly to a new
- 1564 outbreak.
- 1565 Q Can you talk -- obviously, we talked about
- 1566 your WHO trip, some lessons learned from observations
- 1567 of how China was dealing with the initial outbreak.
- 1568 But can you just give some examples or talk a little
- 1569 more broadly about the way that you saw network and
- 1570 collaboration within the United States, and then also
- 1571 with global partners allow for a faster response to
- 1572 this pandemic than otherwise would have been the
- **1573** case?
- 1574 A There are good examples and bad examples
- 1575 of what was done globally in terms of the response.
- 1576 I think starting with the bad examples, just like we
- 1577 observed in China with multiple different research
- 1578 protocols, agents being tested without clear
- 1579 prioritization or coordination, you actually had a
- 1580 bit of that already in the U.S. by March of 2020.
- 1581 And again, I think the ACTIV program tried to
- 1582 help provide some prioritization there. If you then

- 1583 looked globally, you didn't have any type of then
- 1584 global coordination. We worked globally, we worked
- 1585 internationally through networks we had established
- 1586 that were initially and had been up to that time,
- 1587 mostly dealing with HIV/AIDS. So we had
- 1588 investigators in many different countries.
- 1589 What we didn't necessarily have in those
- 1590 networks were clear partnerships with the governments
- 1591 of those countries. So without the support of the
- 1592 government in a country, it can be really difficult
- 1593 to launch a clinical research study, particularly if
- 1594 there are other activities in that country by
- 1595 scientists in those countries.
- 1596 So I think we can do better in terms of global
- 1597 collaboration and agenda setting.
- 1598 Q Do you think -- this is a broad question,
- 1599 but how do you think those global partnerships are
- 1600 now relative to how they were prior to the COVID-19
- 1601 pandemic?
- 1602 A The global partnerships are hard to
- 1603 generalize. I think if you talk about a specific
- 1604 country, you can say they're strong or they're weak.
- 1605 And it often, from my experience, ties to the level
- 1606 of understanding of the political leadership in the
- 1607 country, I would say coupled with an appreciation,
- 1608 let's just say, from a U.S. government person, their

- 1609 willingness to engage in dialogue, because this was
- 1610 to me very clear in AIDS in Africa, in South Africa,
- 1611 and Ebola in West Africa, that if you didn't come in
- 1612 as a genuine partnership -- now, again there are
- 1613 lines you have to draw.
- 1614 The integrity of the science, the safety of the
- 1615 subjects. There are certain things you don't
- 1616 violate. But in terms of aspects of study design,
- 1617 eligibility, there are things where you can come to a
- 1618 common understanding.
- 1619 So I think where both parties come together, you
- 1620 can be really quite strong. Our collaborations, for
- 1621 example, with the scientists in France, I think, was
- 1622 strengthened greatly by what we did together in
- 1623 COVID-19. I think some things with the UK as well.
- So there are -- there's an increased
- 1625 recognition, I think, that we need to do better
- 1626 globally. I'm not sure there's yet a roadmap for how
- 1627 that would take place, but I'm optimistic that people
- 1628 working together with it, I think there's a shared
- 1629 vision. It's just a matter of how to get to that
- **1630** point.
- 1631 Q And could you just talk about what the
- 1632 U.S. government's role, American scientists and
- 1633 researchers, what's your understanding of how America
- 1634 plays a role? Are we seen as a helpful coordinator

- 1635 and to the extent that things are different from
- 1636 before the pandemic and after the pandemic, if that's
- 1637 affected how American leadership or lack of
- 1638 leadership is seen? What's your view on that?
- 1639 A It's very difficult to generalize how
- 1640 America is perceived, because I think it depends on
- 1641 what American, singular, you're talking about. I
- 1642 think in areas where we've had sustained
- 1643 relationships and shown good faith, I think we're
- 1644 viewed as a credible leader and partner.
- I do think, and I think quite strongly, that we
- 1646 can provide outstanding global scientific leadership.
- 1647 I think the response globally could have been much
- 1648 better, and I'm hoping the next time we need to
- 1649 respond, we have that will among multiple countries
- 1650 and their political leadership to respond in a more
- 1651 coordinated way.
- 1652 Q What would you like to see? So, I mean,
- 1653 obviously part of all of this is preventing, and if
- 1654 we can't prevent it, then responding to the next
- 1655 pandemic.
- 1656 Broadly or specifically, let's say that there is
- 1657 an outbreak, it's on the verge of being containable
- 1658 or not containable where we're at sort of a critical
- 1659 juncture, what would you like to see happen
- 1660 differently next time if we've learned anything from

```
1661 COVID-19?
```

1684

1685

1686

1662 What I think might be very helpful in that Α 1663 regard is if we had some sort of playbook for a 1664 response, and that that playbook was developed in 1665 coordination with other high income, middle income, 1666 and low income countries to have an agreed-upon 1667 strategy for moving forward. Part of it is sharing 1668 of data and samples, part of it is coordinating the 1669 research response, part of it is developing and 1670 making available countermeasures. 1671 So I think there are ways if you look at the 1672 different entities, different governments own 1673 different pieces of that. And what you see over the 1674 years at times is an unwillingness for a country to 1675 partner with the U.S. for fear the U.S. will take 1676 things. And it's not just the U.S. It could be 1677 Europe, it could be the UK. It isn't limited to us. 1678 So there's a bit of distrust there that makes it hard to move quickly. But if you build the trust, 1679 1680 I'll call it peacetime, like right now, with key 1681 areas of the world, key governments of the world, 1682 then you're very well-positioned, I think, to move 1683 rapidly. And you don't need to do it with everybody.

You need to do it with just enough countries, so that

others see that it's valuable and would want to be

part of it. That would be one thing that I would

- 1687 look to.
- 1688 Q So it sounds like -- let me know if this
- 1689 characterization is fair. You mentioned you gave the
- 1690 example of Ebola in West Africa, AIDS in South
- 1691 Africa, obviously the initial outbreak of SARS-Co-V-2
- 1692 in China. And you said there are some things that
- 1693 are not negotiable, obviously the U.S. would not be
- 1694 involved in certain trials, experiments, whatever the
- 1695 case may be that crosses red lines.
- 1696 But better for -- is it fair to say it's better
- 1697 for the U.S. to be involved internationally so long
- 1698 as none of those bright lines are being crossed than
- 1699 not, better for us to be in the room during
- 1700 peacetime, as you said, even if it's under limited
- 1701 conditions than not being involved at all?
- 1702 A I do. I think it's much better for us to
- 1703 be engaged in discussions from an ongoing basis from
- 1704 on our side what a research response would be.
- 1705 BY BY
- 1706 Q I just want to pick up on one thing you
- 1707 and were discussing, and that was the speed with
- 1708 which we were able to respond to COVID-19. It's my
- 1709 understanding that part of that was because there was
- 1710 already research going on into SARS viruses; is that
- 1711 correct?
- 1712 A There was a large foundation of research

- 1713 that antedated the COVID-19 outbreak that really
- 1714 facilitated the COVID-19 response. So in the area of
- 1715 vaccines, it was the structural biology of these
- 1716 cell-surface molecules, in the case of SARS-Co-V-2,
- 1717 the, spike protein, how to stabilize it.
- 1718 In terms of therapeutics, we knew that there is
- 1719 an enzyme called RNA polymerase in SARS-Co-V-2 that
- 1720 was shown to be able to be inhibited by the drug
- 1721 remdesivir in SARS, the original SARS. So that
- 1722 became an immediate candidate. We actually had used
- 1723 that drug in Africa as a possible therapy for Ebola,
- 1724 so we had experience with it, even though it was
- 1725 investigational. So there were many things that
- 1726 happened prior to the COVID-19 outbreak that really
- 1727 helped us move quickly during COVID-19.
- 1728 Q So that would be one of the benefits of
- 1729 doing broad virological research is that you have
- 1730 this wealth of information available when you need
- 1731 it, right?
- 1732 A There is great value to basic research,
- 1733 whether it's viruses, the immune system, other
- 1734 infectious agents, other areas of biology, yes.
- 1735 Q Are there any other benefits of virus
- 1736 research that we should be aware of?
- 1737 A What's interesting about basic research,
- 1738 let's say on viruses as an example, you don't always

- 1739 know where it's going to take you. So if you look at 1740 some of the perhaps unexpected things that have 1741 emerged from research on viruses, some of the 1742 approaches to gene therapy, some of the vaccine 1743 strategies. They take, you know, virus A and take 1744 out part of it, and put in let's say part of 1745 SARS-Co-V-2, the spike. And then you have a vaccine. You can't do that if you don't understand the 1746 1747 molecular biology of the virus and how to make those
- 1747 molecular biology of the virus and how to make those 1748 manipulations.
- 1746 manipulations.
- 1749 Q Thank you, I appreciate that explanation.
- 1750 That's all the questions we have. We
 1751 can go off the record.
- 1752 (Whereupon, at 11:43 a.m., the testimony in
- 1753 the above-entitled matter was recessed, to reconvene
- 1754 at 12:15 p.m., this same day.)
- 1755 AFTERNOON SESSION
- 1756 (12:20 p.m.)

- 1757 EXAMINATION (RESUMED)
- 1758 Mr. Benzine. We can go back on the record.
- 1759 BY MR. STROM.
- 1760 Q Dr. Lane, John Strom with EOC Majority. I
- 1761 wanted to go back to something you said, I believe,
- 1762 in the first hour. We were talking about
- 1763 understanding early events regarding the outbreak,
- 1764 important to get as a full picture as possible in the
- 1765 early cases. And you gave SARS as sort of a relevant
- 1766 non-SARS-Co-V-2 answer of the kind of information you
- 1767 want to get.
- 1768 So I wanted to ask you, the Chinese government
- 1769 has disclosed to the WHO that there were -- or that
- 1770 it was able to find 170 cases in December of 2019
- 1771 that had an onset date in December of 2019, with the
- 1772 earliest confirmed case being December 8th. We don't
- 1773 know the criteria they used to eliminate suspected
- 1774 cases, and they haven't shared the underlying data.
- 1775 But given what you saw in mid-February on your trip,
- 1776 is it plausible that there were only 170 cases in
- **1777** December of 2019?
- 1778 A I would say for any outbreak
- 1779 investigation, the number of cases you identify is
- 1780 almost always going to be fewer than the number that
- 1781 actually have occurred.
- 1782 Q Sure. But what they have shared is that

- 1783 their view is very definitively, there were no cases
- 1784 in November or October. Is that a position you agree
- 1785 with or have confidence in that representation?
- 1786 A I would not know when the first case would
- 1787 have occurred. But as I said earlier, I think it's
- 1788 really important to try to figure that out and it
- 1789 remains a bit unclear to me as to when the first case
- 1790 occurred.
- 1791 [Majority Exhibit No. 2 was
- 1792 marked for identification.]
- 1793 BY MR. STROM.
- 1794 Q I'm going to hand you an academic article,
- 1795 it will be Majority Exhibit 2. We can start with the
- 1796 summary here, but it is a paper by a number of
- 1797 researchers mostly out of Hong Kong that talk about
- 1798 the impact of the changing case definition used by
- 1799 Chinese officials during the early phase of the
- 1800 outbreak that that had vis-a-vis trying to determine
- 1801 the number of total cases. So the one that I'm most
- 1802 interested in is the third paragraph under
- 1803 "Findings."
- 1804 A Mm-hmm.
- 1805 Q Where it says, "From January 15 to March
- 1806 3, 2020, seven versions of the case definition for
- 1807 COVID-19 were issued by the National Health
- 1808 Commission in China." And sort of skipping to the

- 1809 last sentence, "If the fifth version of the case
- 1810 definition had been applied throughout the outbreak
- 1811 with sufficient testing capacity, we estimated that
- 1812 by February 20, 2020, there would have been 232,000
- 1813 confirmed cases in China as opposed to 55,508
- 1814 confirmed cases reported."
- 1815 And just if you want to turn to the third to
- 1816 last page, where the discussion section begins.
- 1817 A Mm-hmm.
- 1818 Q The first paragraph in the discussion
- 1819 section, about halfway down, there's a sentence that
- 1820 begins, "We estimated that many cases were undetected
- 1821 when using an earlier case definition, which is
- 1822 consistent with the study by Li and colleagues, which
- 1823 estimated around 85% of cases were undetected before
- **1824** January 23."
- 1825 My question with that is, knowing that you're
- 1826 looking at sort of an 85 percent mis-rate, does it
- 1827 still seem plausible that we go from a handful of
- 1828 cases, one case on December 8, up to 232,00 by
- 1829 mid-February? That's sort of -- the R-naught there
- 1830 is extremely high even for a virus like COVID.
- 1831 A And specifically the question?
- 1832 Q Sure.
- 1833 A Does what they say here make sense?
- 1834 Q Does it make sense that obviously the case

- 1835 definition evolves, and if you take the broadest case
- 1836 definition, the last one they use you get 232,000
- 1837 case number. Does it still make sense that there
- 1838 wouldn't be any cases in November if you had that
- 1839 many cases in mid to late February? I realize it's
- 1840 sort of back of the envelope epidemiology, but I
- 1841 would love to know your thought on that.
- 1842 A Not being an epidemiologist, but I think,
- 1843 as I said earlier, what you know is, by definition,
- 1844 there's going to be less than what is there. And
- 1845 what's interesting about this particular paper is
- 1846 that -- and is it okay if I use an analogy with age?
- 1847 Q Absolutely.
- 1848 A So before we knew that HIV caused AIDS,
- 1849 the only way you made a diagnosis was through a case
- 1850 definition. But AIDS was pretty distinct. So the
- 1851 case definition was occurrence of a disease
- 1852 predictive of an underlying defect in immunity
- 1853 without any reason for that defect in immunity. So
- 1854 that was how you made diagnoses. And once you knew
- 1855 HIV caused AIDS, then to make a diagnosis, you had to
- 1856 demonstrate infection with HIV.
- 1857 What they're dealing with here is trying to
- 1858 decide if this case of pneumonia or respiratory
- 1859 illness is COVID or not, compared to other
- 1860 respiratory illnesses. So they're trying to come up

- 1861 with a case definition that works, and is relatively
- 1862 specific without applying what would be the gold
- 1863 standard, once it was there, demonstrating evidence
- 1864 of SARS-Co-V-2 infection. So once you had the test,
- 1865 and extensive testing, you would add that to your
- 1866 case definition.
- 1867 So I think they're talking about the degree of
- 1868 uncertainty of what the clinical presentation might
- 1869 be. So I think there's obviously a bit of hypothesis
- 1870 in here, but I think it's very plausible that the
- 1871 first cases were prior to the first reported cases.
- **1872** Q Sure.
- 1873 A That I think is probably the case.
- 1874 Q Thank you.
- 1875 BY MR. BENZINE.
- 1876 Q I want to shift gears a little bit and
- 1877 introduce Majority Exhibit 3.
- 1878 [Majority Exhibit No. 3 was
- 1879
 marked for identification.]
- 1880 BY MR. BENZINE.
- 1881 Q And again, this is another good example
- 1882 of, if you don't know anything, say you don't know
- 1883 anything. But this is an email chain with
- 1884 Dr. Farrar, Dr. Fauci, Dr. Collins, and Dr. Tabak on
- 1885 it from February 1, 2020, and it's Bates marked
- 1886 SSCP NIH001902 through 1903.

```
1887 And the email on the bottom of 1902 from
```

- 1888 Dr. Farrar is setting up an initial call to discuss
- 1889 the origins of COVID with a group of people and
- 1890 inviting Dr. Fauci.
- 1891 Dr. Fauci then forwards it to Dr. Collins.
- 1892 Dr. Tabak then invites himself. And then they share
- 1893 a couple publications after the fact.
- 1894 Were you invited to this call?
- 1895 A I don't think so.
- 1896 Q Did you have any conversations with
- 1897 Dr. Fauci about this call after the fact?
- 1898 A Yeah, I have a vague recollection of such
- 1899 a call. There certainly, I think, has been public
- 1900 domain reporting on the call as well, but I was not
- 1901 involved in that call.
- 1902 Q Did Dr. Collins or Dr. Tabak ever come to
- 1903 you and say we just had this call and discussed this?
- 1904 A Not to my recollection, no.
- 1905 Q Thank you.
- 1906 [Majority Exhibit No. 4 was
- 1907 marked for identification.
- 1908 BY MR. BENZINE.
- 1909 Q I'm going to introduce Majority Exhibit 4.
- 1910 This is another email chain and it has Dr. Fauci,
- 1911 Garrett Grigsby, Brian Harrison, Larry Kerr, Stewart
- 1912 Simonson, and Dr. Bob Kadlec on it as well, and Bates

- 1913 marked SSCP NIH001796 through 1798.
- 1914 And I want to draw your attention to 1797, so
- 1915 the second page, the large block of text from
- 1916 Dr. Fauci, and he's kind of recounting what happened
- 1917 on the call. I want to draw your attention to kind
- 1918 of like a third of the way down on the right-hand
- 1919 side, there's a sentence that starts with "The
- 1920 suspicion?"
- **1921** A Mm-hmm.
- 1922 Q And it says, "The suspicion was heightened
- 1923 by the fact that scientists at Wuhan University are
- 1924 known to have been working on gain-of-function
- 1925 experiments to determine the molecular mechanisms
- 1926 associated with bat viruses adapting to human
- 1927 infection, and the outbreak originated in Wuhan."
- 1928 Did you have any conversations with Dr. Fauci
- 1929 about potential gain of function experiments in
- **1930** Wuhan?
- 1931 A No. No, I did not. Can I just have a
- 1932 minute to read that?
- 1933 Q Yeah.
- 1934 A Just to see if there's anything there
- 1935 which would be helpful to know.
- 1936 Thanks, yeah.
- 1937 Q So in it, they kind of immediately dispel
- 1938 the HIV conspiracy theory, but talk about the

- 1939 potential of different kind of gain of function
- 1940 happening in Wuhan on coronaviruses, no conversations
- 1941 to your recollection?
- 1942 A No.
- **1943** Q Okay.
- 1944 BY MR. STROM.
- 1945 Q As someone with an HIV background, do you
- 1946 recall when this issue first came up?
- 1947 A I have to say I don't. I think that was
- 1948 sort of -- that's why I sort of wanted to read it
- 1949 because I caught the HIV in there, I wasn't quite
- 1950 sure what that was about. Thank you.
- 1951 BY MR. BENZINE.
- 1952 Q Along the same lines, are you aware of
- 1953 correspondence originally posted on a blog in
- 1954 February, but then in Nature Medicine in March called
- 1955 The Proximal Origin of SARS-Co-V-2?
- 1956 A So that title sounds vaguely familiar with
- 1957 me. I couldn't tell you what was in that article,
- 1958 but that title does sound familiar.
- 1959 Q Any conversations with Dr. Fauci or
- 1960 Dr. Collins about it?
- 1961 A No.
- 1962 Q Okay. I want to move on to your trip to
- 1963 China and what happened there. So you were one of
- 1964 two U.S. scientists on the WHO trip with, I think it

- 1965 was 13 international experts and 12 Chinese experts?
- 1966 A That sounds about right.
- 1967 Q Some combination of that, in mid-February
- 1968 2020. And you testified previously you were kind of
- 1969 like on the plane to Tokyo when this first came
- 1970 across your desk?
- 1971 A At the gate, yes.
- 1972 Q At the gate. And that was the first time
- 1973 you had heard about this potential --
- 1974 A I think weeks earlier, someone had asked
- 1975 if I had been selected, would I be willing to go,
- 1976 which I responded yes. But that would be the only
- 1977 thing I knew prior to that. In fact, I really didn't
- 1978 think I was going.
- 1979 Q I think I saw a couple things like you got
- 1980 invited and then you were like, I'm in Tokyo. Should
- 1981 we get someone else. Those kind of conversations?
- 1982 A Yes.
- 1983 Q While on the plane to Tokyo, you said
- 1984 there was a lot of back and forth, you used the plane
- 1985 Wi-Fi guite a bit. What were those conversations?
- 1986 Was it just your like feasibility of going or was it
- 1987 more along the lines of, should we do this, what
- 1988 should we learn, those kinds of things?
- 1989 A It was all logistics about getting a visa.
- 1990 It was about WHO would be in touch with the Chinese

- 1991 embassy and State Department. I don't even know all
- 1992 the people who were involved, but it was just trying
- 1993 to be sure that I could get flights. I don't recall
- 1994 anything other than logistics.
- 1995 Q Okay. You then landed in Tokyo and were
- 1996 in Tokyo for a day, maybe day-and-a-half?
- 1997 A Yes.
- 1998 Q Before you got on a plane to Beijing.
- 1999 Usually it's my understanding on these kind of
- 2000 international trips for non-normal, like non-State
- 2001 Department, non-like intel kind of officials, that
- 2002 you would get a security briefing on the country that
- 2003 you're going to. Did you receive a security briefing
- 2004 prior to landing in Beijing or after landing in
- 2005 Beijing or not at all?
- 2006 A I don't recall a security briefing.
- 2007 Someone might have sent me a document that I was
- 2008 supposed to read that I probably would have, but I
- 2009 really don't recall anything like that.
- 2010 Q No random embassy official being like,
- 2011 don't leave your phone here, don't --
- 2012 A No, they didn't. Although fortunately,
- 2013 from other travels, it's pretty much the same.
- 2014 Q Yeah. I want to introduce Majority
- **2015** Exhibit 5.
- 2016 [Majority Exhibit No. 5 was

```
2017 marked for identification.]
```

- 2018 BY MR. BENZINE.
- 2019 Q I'll give you a minute to flip through it
- 2020 while I identify it. It doesn't have any Bates
- 2021 numbers on it. It's from a Freedom of Information
- 2022 Act request of February 9, 2020 email that has a
- 2023 number of HHS officials on it, Dr. Fauci,
- 2024 Mr. Harrison, Mr. Kerr, Dr. Redfield, Dr. Kadlec, and
- 2025 Dr. Bright, another one.
- 2026 And flipping through to the back, the first
- 2027 email is a forward of an article from Larry Kerr to
- 2028 Garrett Grigsby and the title of the article is
- 2029 UPDATE 1-WHO Advance Team on Coronavirus on Way to
- 2030 China. And this was February 9th. I don't think you
- 2031 had gotten the official invitation yet.
- 2032 The way I could read the headline is meaning
- 2033 that WHO was going to advance the trip with the
- 2034 experts, not necessarily sending the experts. Is
- that your understanding?
- 2036 A Give me one minute to just finish.
- **2037** O Yeah.
- 2038 A Yes. So this would have been -- it says
- 2039 here, Bruce Aylward, who was the lead for the
- 2040 delegation, he went there ahead of most of the rest
- 2041 of the outside China members of the delegation, yes.
- 2042 Q And would that have been to -- if you

- 2043 know, would that have been to kind of like design the
- **2044** trip?
- 2045 A My best recollection of the discussions
- 2046 when I got there was that those discussions helped
- 2047 set the agenda for the trip and what would be, what
- 2048 visits would take place, how basically the agenda.
- 2049 Q Okay. We're just going to kind of go in
- 2050 order here, so flipping backwards there is an email
- 2051 from Garrett Grigsby to -- I'm not going to try to
- 2052 pronounce his last name, but the chief of staff to
- 2053 Dr. Tedros of the WHO.
- It's redacted but Kerr responds, "We have three
- 2055 people on the way to Beijing who will work with our
- 2056 Chinese counterparts on finalizing the terms of
- 2057 reference and composition of the joint WHO-China
- 2058 mission. As you are much aware, the US has given us
- 2059 a number of names who will be able and willing to
- 2060 join such a mission. We have received similar
- 2061 proposals from other countries and will now match the
- 2062 'long list' of experts with the required specific
- 2063 expertise. We are hoping to have more clarity over
- 2064 the coming days."
- There's a couple other emails. Mr. Grigsby
- 2066 forwards it along. And then at the top of the second
- 2067 page Dr. Fauci writes, "I do not like the sound of
- 2068 this. So now we are in the queue with other

- 2069 countries? Seems like he is talking about at best 1
- 2070 USA person and maybe even 0 USA people."
- 2071 Do you recall any conversations about if
- 2072 Americans would even get to go on the trip?
- 2073 A I don't recall anything specific, but
- 2074 there could have been some discussion at that point.
- 2075 It sort of resonates a little bit that at times the
- 2076 U.S. isn't always front and center on some of these
- 2077 activities.
- 2078 Q Okay, thank you. And then this was
- 2079 February 9th. Had you already been in discussions
- 2080 about you going?
- 2081 A No.
- 2082 Q No?
- 2083 A I mean, there might have been something
- 2084 earlier on, you know, would you be willing. And I'm
- 2085 guessing when they talk about that a list was
- 2086 provided, that probably I was on that list from HHS.
- 2087 But I had no discussions other than the one, would
- 2088 you be willing.
- 2089 Q It's kind of -- I think you landed in
- 2090 Beijing on February 14th. And on February 9th, you
- 2091 had no idea you were going. It's kind of crazy. Is
- 2092 that kind of standard? You've been on a lot of
- 2093 international trips. Is that kind of like standard
- 2094 operating procedures or is that unique to this one?

```
2095 A You would usually have more than five days
```

- 2096 warning for a trip to China, I think, or anywhere
- 2097 that far away. I was completely focused on getting
- 2098 the clinical trial up and running. And in
- 2099 particular, making the site in Japan, which is, to be
- 2100 honest, why when I was first informed I was selected,
- 2101 my first thought was, no, I'm already, in quotes, on
- 2102 a mission. I need to carry out that mission as
- 2103 opposed to do something else. It was quite a
- 2104 surprise.
- 2105 [Majority Exhibit No. 6 was
- 2106 marked for identification.]
- 2107 BY MR. BENZINE.
- 2108 Q I want to introduce Majority Exhibit 6.
- 2109 This is the actual invitation from Dr. Tedros to you
- 2110 dated February 13, 2020. It's more kind of like
- 2111 curiosity in how these things are planned.
- 2112 Obviously, this went to you. You probably got it
- 2113 first, if not near second in the U.S. government.
- 2114 But could you start your kind of administrative tasks
- 2115 prior to getting this invitation, or did everything
- 2116 come together now in 36-ish hours?
- 2117 A Everything came together extremely
- 2118 quickly. There are multiple steps an NIH employee
- 2119 will have to take before embarking on international
- 2120 travel, not the least of which is having clearance

- 2121 from the host country, the U.S. embassy in the host
- 2122 country going through the Fogarty International
- 2123 Center to contact the foreign country embassy in the
- 2124 U.S. It was none of that. It was you're going and
- 2125 just figure out how to get there.
- 2126 Q Another question I had, one of the steps
- 2127 it seems like is getting like a \$1 salary from some
- 2128 sort of State Department entity. Does that sound
- 2129 familiar?
- 2130 A No, not for us because this would have
- 2131 been official travel, so I would have been TDY
- 2132 basically. And I'm guessing I got this quite a few
- 2133 days after the date of it.
- 2134 Q Okay.
- 2135 A I certainly didn't get it on February
- **2136** 13th.
- 2137 Q I guess why do you have that, you don't
- **2138** recall?
- 2139 A This isn't an I don't recall. I wouldn't
- 2140 have been in the airport on the 14th getting on a
- 2141 plane to Tokyo had I known I was going to do this.
- 2142 Q That's true.
- 2143 A Yes.
- 2144 Q The other American on the trip was a CDC
- 2145 scientist?
- **2146** A Mm-hmm.

- 2147 Q And excuse me if I pronounce his name
- 2148 wrong, Dr. Weigong Zhou?
- 2149 A Mm-hmm.
- 2150 Q After things kind of started coming
- 2151 together, understanding you're on a plane, it was
- 2152 very quickly, did you have any conversations with
- 2153 him/her regarding how their travel got set up or if
- they were in front of you or behind you?
- 2155 A I did not have any discussions with him
- 2156 until I saw him in China.
- 2157 Q Okay. And it doesn't seem like any of
- 2158 this is an NIH problem, but this was really haphazard
- 2159 or quickly put together. Did you have any
- 2160 conversations regarding, like, why it was quickly put
- 2161 together? Was there any concern on the part of China
- 2162 of doing this, were there concerns on the part of
- **2163** WHO?
- 2164 A So my recollection is that there was quite
- 2165 a bit of discussion between WHO and China about even
- 2166 having a delegation. And because of all the unknowns
- 2167 WHO I think felt very strongly that there should be
- 2168 some outside look at what was going on. But I think
- 2169 there was reticence on the part of the Chinese to
- 2170 have that happen.
- 2171 So I think -- I don't know what the sequence of
- 2172 events were, but I'm guessing once WHO got a green

- 2173 light, they wanted to move quickly before that light
- 2174 changed color. That would be, yeah.
- 2175 Q Did you know Dr. Zhou, CDC Dr. Zhou prior
- 2176 to this trip?
- **2177** A I did not.
- 2178 Q When you got there or like to the best of
- 2179 your knowledge, obviously, the WHO kind of negotiated
- 2180 this out with the Chinese government of what it was
- 2181 going to look like. Were there any discussions on
- 2182 Chinese influence on the terms of reference or
- 2183 itinerary of the trip?
- 2184 A There was no specific discussion with the
- 2185 group about those negotiations. The one thing that I
- 2186 think everyone felt was very important that there be
- 2187 some visibility on what was going on in Wuhan since
- 2188 that appeared to be sort of the center if not the
- **2189** origin.
- 2190 Q Was kind of like side-bar to Wuhan not
- 2191 originally on the itinerary? Did that kind of get
- **2192** added or?
- 2193 A There was a video link to the clinicians
- 2194 at Wuhan early in the trip while I think while we
- 2195 were still in Beijing. And then towards the very
- 2196 end, there finally was a decision that a subset could
- 2197 go to Wuhan that was not part of the original agenda.

- 2199 A I don't know for sure but from sort of the
- 2200 implications that I think there was great
- 2201 encouragement from WHO that for the trip to actually
- 2202 not suffer from a lack of credibility it would be
- 2203 really important for at least a subset of individuals
- 2204 to go to Wuhan.
- 2205 Q When I guess before you, at any point
- 2206 during the trip, did you have to sign a nondisclosure
- 2207 agreement or any other agreement limiting what you
- 2208 would say about the trip?
- 2209 A So there are agreements that you sign, a
- 2210 declaration of interest which makes sure you don't
- 2211 talk about -- not talk about, to make sure that you
- 2212 don't have a conflict of interest. Or if you do, at
- 2213 least it's disclosed. I don't recall exactly, but
- 2214 there probably was something saying if something was
- 2215 indicated to be confidential, that you would respect
- 2216 that. I just would have to check to be sure.
- 2217 Q Is the declaration of interest the
- 2218 conflict of interest form standard on WHO trips?
- 2219 A It's very standard for actually any
- 2220 engagement with WHO.
- Q Okay. We have the trip report we'll go
- 2222 through, but just kind of like baseline questions.
- 2223 While on the trip, were you able to access
- 2224 information that was non-public?

- 2225 A I'm not sure what was or wasn't public
- 2226 when it was presented to us. There was a degree of
- 2227 consistency with some of the epidemiology that was
- 2228 being reported and a lot of that was included in the
- 2229 report, the official report from the trip.
- 2230 I would make one comment that was interesting
- 2231 when you gave me the academic article. So there's --
- 2232 and so you read from the abstract in the discussion.
- 2233 So a paper will usually have an abstract, a summary,
- 2234 but will have an introduction, methods, results, and
- 2235 discussion. The methods and the results are the best
- 2236 places to focus because the introduction and
- 2237 discussion can be a little bit looser.
- The report that was generated by the same sense
- 2239 I would focus on sort of the methods and the data
- 2240 that are in it.
- 2241 Q Okay. And I have a few questions about
- 2242 the report, too, so we'll get there.
- 2243 A Okay.
- 2244 Q Did -- in your view, while you were there,
- were the Chinese cooperative?
- 2246 A So while I was there, the Chinese part of
- 2247 the delegation that I interacted with, I thought were
- 2248 very cooperative and respectful. The trip was very
- 2249 managed, right? The non-Chinese delegation early on,
- 2250 in particular, was kept quite separate from the

- 2251 Chinese delegation. In fact, we really didn't get
- 2252 together. I didn't have a chance to have any
- 2253 discussions sort of, as you were saying, water cooler
- 2254 until we really started on the trips outside of
- 2255 Beijing.
- 2256 Q So that was kind of my next question. Did
- 2257 you have any kind of like -- a lot of the points of
- 2258 these trips, like even congressional trips is that
- 2259 you get to meet people and have discussions that you
- 2260 normally wouldn't get to. Did you have discussions
- 2261 with any of the Chinese scientists that were contrary
- 2262 to what you were being officially told?
- 2263 A I took every opportunity I had to talk to
- 2264 people, particularly who were resident in China about
- 2265 what did they think was going on? What were their
- 2266 concerns, what research were they doing? So I did
- 2267 have many of that.
- 2268 Q Was any of that information contradictory
- 2269 to the official position?
- 2270 A It really wasn't. Again, I was delving at
- 2271 things from the perspective of the clinical
- 2272 manifestations of the disease and the research
- 2273 response to the outbreak. But I was actually
- 2274 typically going after more detail than what we were
- 2275 hearing in the briefings.
- 2276 Q Okay. So we talked a little bit about the

```
2277 side trip to Wuhan, the really short side trip to
```

- 2278 Wuhan. Were you one of the three that went?
- 2279 A No.
- 2280 Q Was Dr. Zhou one of the three that went?
- 2281 A No.
- 2282 Q I want to introduce Exhibit 7.
- 2283 [Majority Exhibit No. 7 was
- 2284 marked for identification.]
- 2285 BY MR. BENZINE.
- 2286 Q So I will give you a minute to flip
- 2287 through it. This is an email chain from the State
- 2288 Department. All the names are blacked out, but it's
- 2289 Bates marked STATE-1754 through 1759. And the page I
- 2290 have a question about or just a comment about is on
- 2291 the first page, and it looks like it was highlighted
- 2292 at one point, but it reads, "Our CDC representative
- 2293 Dr. Weigong Zhou has been asked to be a part of this
- 2294 small team" that is going to travel to Wuhan that
- weekend.
- Do you remember him being asked to go to Wuhan?
- 2297 A I do not recall him being asked. I do
- 2298 recall being in a pretty big room, so all the
- 2299 delegation is there and we were working on writing
- 2300 the report. And I think everyone was actually glad
- 2301 to hear that there would be a subset going to Wuhan.
- 2302 And while I don't know how everyone felt about it, I

- 2303 think most everyone wished that they had been
- 2304 selected, because it would have been something of
- 2305 great interest.
- 2306 Q The epicenter of the epidemic at that
- 2307 point --
- 2308 A Yes.
- 2309 Q -- for a poor alliteration.
- 2310 [Majority Exhibit No. 8 was
- 2311 marked for identification.]
- 2312 BY MR. BENZINE.
- 2313 O I want to introduce Exhibit 8 and it's a
- 2314 long email chain, but I only want to focus on a
- 2315 couple, so there's no reason to flip through. I just
- 2316 didn't want to cut off the chain.
- I want to go -- it's a document again from the
- 2318 State Department and Bates marked STATE-858 through
- 2319 875. And I want to flip to page 861 and 862.
- 2320 A Okay.
- 2322 starts on 862. And just kind of like overall, this
- 2323 feels like a chain where like you and Dr. Zhou are
- 2324 updating people in the embassy, you talk about
- 2325 wanting to get dinner some night or have a phone call
- 2326 some night, those kinds of things. The email in the
- 2327 middle of the page is from Dr. Zhou and says, "I have
- 2328 just been asked to go to Wuhan with a 3-person team

- 2329 including Bruce. It's pending China approval right
- 2330 now. If approved, we can leave anytime, so may not
- 2331 be available tomorrow."
- Do you know who the Bruce is that he was
- 2333 referring to?
- 2334 A So that would have been Bruce Aylward, who
- 2335 was the lead for the delegation from WHO.
- 2336 Q A Beijing embassy employee responds, "Have
- 2337 you received final confirmation of your travel to
- 2338 Wuhan and any details about flight and hotel? As
- 2339 soon as you have these, please do send along."
- 2340 Dr. Zhou says, "not yet." And then a little
- 2341 while later says, "I just got the final word. I will
- 2342 not go to Wuhan. They picked the member from
- 2343 Nigeria. I should be able to join the call
- 2344 tomorrow."
- 2345 This like string of emails, and correct me if
- 2346 I'm wrong, sounds like the makeup of the team that
- 2347 was going to Wuhan had to be approved by China.
- 2348 A Are you asking?
- 2349 Q If you have any knowledge.
- 2350 A I don't have firsthand knowledge.
- 2351 Obviously, I'm copied on these emails, but I don't
- 2352 have any firsthand knowledge of what they might have
- 2353 been discussing with him. But I would agree that a
- 2354 read of this would logically go to that conclusion.

- 2355 Q And the next step in the logic puzzle
- 2356 would be if he was selected pending Chinese approval
- 2357 and then didn't go, that China nixed him?
- 2358 A I honestly don't know, but that would be a
- 2359 logical read of the email string.
- 2360 Q You didn't have any conversations with
- 2361 Dr. Zhou over dinner one night in Beijing like why
- 2362 didn't you go to Wuhan?
- 2363 A No, I definitely -- dinner was typically
- by yourself.
- 2365 Q I suppose that makes sense. Thank you.
- 2366 Again, before we get into the trip report itself, I'm
- 2367 going to ask kind of like a baseline question.
- 2368 Before or after you went, were you -- you said you
- 2369 didn't get a security briefing in Beijing, but were
- 2370 you briefed or contacted by anyone else in the
- 2371 intelligence community regarding the trip?
- 2372 A I don't recall any contacts from the
- 2373 intelligence community, no.
- Q Not even after?
- 2375 A I do not recall anything of that type, no.
- 2376 Mr. Strom. Just to be clear, including the FBI,
- 2377 like federal law enforcement?
- The Witness. I honestly don't, no.
- 2379 BY MR. BENZINE.
- 2380 Q Have you stayed in touch with any of the

- 2381 Chinese officials on the trip?
- 2382 A No. With any of the Chinese officials,
- 2383 no.
- 2384 Q Any of the international consortium?
- 2385 A I've had a couple of email exchanges,
- 2386 nothing recent, with a couple of the people from the
- 2387 trip, yes.
- 2388 Q Do you recall the contents of those
- exchanges?
- 2390 A So there was one person on the trip who
- 2391 was a very knowledgeable epidemiologist from Hong
- 2392 Kong, and so as I might see something, you know, in
- 2393 the lay -- or the press about how the outbreak was
- 2394 evolving, I would ask him what his take was on it.
- 2395 Q I am going to introduce Majority Exhibit
- **2396** 9.
- 2397 [Majority Exhibit No. 9 was
- 2398 marked for identification.]
- BY MR. BENZINE.
- 2400 Q So this is your trip report beginning
- 2401 February 13 in Tokyo and ending on your return to
- 2402 Dulles two weeks-ish later?
- 2403 A Mm-hmm.
- 2404 Q And it is Bates marked SSCP-NIH-2533
- 2405 through 2565. And first, I want to again ask just
- 2406 some kind of baseline ones. Is it standard course of

- 2407 practice that if you go on one of these trips you
- 2408 kind of write a summary report for NIH in this case?
- 2409 A It would be usual to have a very brief
- 2410 summary of the high points of a trip. This I have
- 2411 never generated a trip report even approaching this
- **2412** one.
- 2413 Q 33 pages is pretty solid. There was
- 2414 obviously a lot going on. I'm not going to -- I'm
- 2415 going to ask some specific questions about it, but
- 2416 not ask about the whole document.
- 2417 Starting on the first page, and just for the
- 2418 record, the redactions were put on by the department.
- 2419 His name is already in the record. If it's not that
- 2420 person, you don't need to disclose who is under the
- 2421 redaction. The second paragraph begins, "Upon our
- 2422 arrival, [blank] and I took a taxi." Was that
- 2423 Dr. Zhou with the CDC?
- 2424 A No, that actually was my colleague,
- 2425 Dr. Hiromi Imamichi, who works with me in the lab who
- 2426 speaks Japanese and was coming with me to Tokyo with
- 2427 the work. She stayed in Tokyo as I went to China.
- **2428** Q Okay.
- **2429** A Yeah.
- 2430 Q Walking through as well going to 2535.
- **2431** A Mm-hmm.
- 2432 Q I assume you don't need to familiarize

- 2433 yourself with this document. It's probably pretty
- 2434 well ingrained?
- 2435 A I will say, I have not read it recently, I
- 2436 may have to pause on occasion, but, yes, I should
- 2437 know it pretty well.
- Q Going to the second paragraph under day 2.
- 2439 A Mm-hmm.
- 2440 Q So 10:45, you met in the lobby near Pizza
- 2441 Hut. If you asked me if there was a Pizza Hut in
- 2442 Beijing, I probably would have been surprised.
- 2443 "Following a rounding of introductions (members
- 2444 of the group as noted in attachment X) we received
- 2445 briefs by [redaction] on the goals of the mission."
- Was that the WHO sponsor?
- 2447 A You know, I'm not sure. We certainly did
- 2448 receive briefings by the WHO.
- **2449** Q Okay.
- 2450 A During that time, yes.
- 2451 Q Going into the next paragraph, Background
- 2452 and Goals of the Mission, I want to focus on the
- 2453 first couple of sentences. "Nerves in China are very
- 2454 raw. High-level officials in Hubei have been fired.
- 2455 We are in the middle of a political earthquake and
- 2456 there will be enormous scrutiny of our work.
- 2457 Extraordinary measures, at great cost, have been put
- 2458 in place in China."

- 2459 We'll probably just take each one and ask you
- 2460 about it. What did you mean by "Nerves in China are
- **2461** very raw"?
- 2462 A People were very sensitive about what was
- 2463 going on. There was -- it was -- I mean, I think
- 2464 we're all familiar with what happened in this country
- 2465 and just think they had -- in China, they had the
- 2466 experiences of SARS in the past, and they were in the
- 2467 middle of something that they weren't sure where it
- 2468 was going, the world was being critical of them, and
- 2469 so there was an amazing degree of sensitivity and
- 2470 tension.
- Q Was it sensitivity about, you said kind of
- 2472 like where it was headed, like the unknowns, or was
- 2473 it sensitivity about your trip?
- 2474 A I don't think it was sensitivity about the
- 2475 trip as much as it was sensitivity about sort of the
- 2476 impressions of the world, about what was going on. I
- 2477 mean, it was a lot of things being said. There
- 2478 obviously -- by the time we got there, the numbers
- 2479 seemed to be coming down quite dramatically.
- 2480 And so I don't think, we didn't see the same
- 2481 sort of health care system overload that we actually
- 2482 experienced here. I don't know if that happened to
- 2483 them or not. The fact they were building those two
- 2484 1,000 hospitals and Wuhan suggested they were worried

- 2485 about that, but we didn't see anything of that type
- 2486 while we were there. But clearly, anyone who had
- 2487 just gone through that would be pretty anxious.
- 2488 Q Did you feel that any sensitivity or
- 2489 nerves led to a restriction on the information you
- 2490 were able to get or how people felt comfortable
- 2491 speaking with you?
- 2492 A I think there certainly was oversight of
- 2493 the trip and the activities of the trip. I do think
- 2494 that when one was able to have, as you mentioned,
- 2495 those water cooler type discussions that people, the
- 2496 scientists, the physicians, so the people I would be
- 2497 interacting with were usually pretty happy to talk
- 2498 about what they were doing. I shouldn't say happy.
- 2499 Interested in talking about what they were doing,
- 2500 because they would like input from other people who
- 2501 might be able to provide additional thoughts.
- 2502 Q Was there, to the best of your
- 2503 recollection and understanding, maybe it's not
- 2504 obvious, but was there always kind of like a
- 2505 government official in the room with you? For lack
- 2506 of a better word, were you babysat by the Chinese
- 2507 government during the trip?
- 2508 A I assumed there was someone watching me
- 2509 all the time, whether there was or there wasn't.
- 2510 Sometimes you could obviously see that there were

- 2511 people helping with the logistics, other times you
- 2512 couldn't. Certainly at some of the meals, I didn't
- 2513 feel that way.
- What was helpful to me was when we would be at
- 2515 one place for a long enough period of time that there
- 2516 would be a break in the middle. So if there was a
- 2517 break in the middle, then you could have those water
- 2518 cooler discussions. And those I didn't feel people,
- 2519 I didn't feel a sense of constraint really from the
- 2520 scientists or the clinicians I was talking to. But
- 2521 then I was talking about issues that were very
- 2522 technical.
- 2523 Q And this is a question that if you just
- 2524 don't know, you don't know. Were there any PLA
- 2525 individuals, anybody in military uniforms in the
- **2526** rooms?
- 2527 A On occasion, I did see people in military
- 2528 uniforms. I can't remember exactly which places, but
- 2529 I certainly remember seeing people in military
- 2530 uniforms.
- 2531 Q The next sentence here, "High-level
- 2532 officials in Hubei have been fired." Can you
- 2533 elaborate a little bit more?
- 2534 A I think there was a sentiment that perhaps
- 2535 the initial outbreak perhaps should have been handled
- 2536 differently and there were consequences to that.

- 2537 Q Was -- and only if you know. Was it kind
- 2538 of like the direction from Beijing to fire the Hubei
- 2539 individuals?
- 2540 A I don't know.
- 2541 Q Okay. I think we kind of covered the
- 2542 third sentence. The fourth one is getting into kind
- 2543 of the mitigation measures, the extraordinary
- 2544 measures at great cost have been put in place in
- 2545 China.
- 2546 So you're kind of discussing the mass really
- 2547 severe lockdowns, right?
- 2548 A Yes.
- 2549 Q Can you explain the "at great cost"?
- 2550 A So I had never traveled to China. When I
- 2551 got to Narita Airport to get on the plane to Beijing,
- 2552 I had been to Narita several times, I was pretty
- 2553 comfortable. As I got to the gate for the flight to
- 2554 Beijing, all of a sudden everyone had a mask on
- 2555 except me.
- 2556 We landed in Beijing, and again, I had not been
- 2557 to Beijing, but I had heard that it was a very busy
- 2558 place. The entire airport was deserted except for
- 2559 our plane deplaning. There were video monitors
- 2560 always in eye shot. I don't know what they were
- 2561 saying, but from the video that was going on, it was
- 2562 almost demanding that you put on a mask.

```
When we traveled from the airport to the hotel,
```

- 2564 there was little to no traffic. So it basically was
- 2565 a major city that had basically been put to a
- 2566 standstill. It was just something I didn't expect.
- 2567 Q You kind of like implied the cost then
- 2568 like obviously businesses aren't running, restaurants
- aren't running, those kinds of costs?
- 2570 A Exactly, yes.
- 2571 Q On the mask question, and I don't know if
- 2572 I have my dates exactly right and correct me if I'm
- 2573 wrong. I don't think that the WHO or -- the United
- 2574 States might have -- but it recognized human-to-human
- 2575 transmission by this point in February?
- 2576 A I would have to go back to precisely look
- 2577 at it. But I certainly as we were getting briefings,
- 2578 there were clear human-to-human transmission,
- 2579 certainly by the time of this trip, that was
- 2580 established.
- **2581** Q Okay.
- 2582 A Yeah.
- 2583 Q I remember a WHO statement in mid-January
- 2584 saying there wasn't any. I just don't remember when
- 2585 they corrected that.
- 2586 A I think the thing that wasn't so clear at
- 2587 this point in time was the fact that there could be
- 2588 asymptomatic transmission.

- 2589 Q Did you get the sense that there was -- at
- 2590 this point, did you have a sense that there was
- 2591 asymptomatic transmission?
- 2592 A People were sort of both ways on it
- 2593 because there wasn't enough epidemiology yet, but
- 2594 that soon became apparent.
- 2595 BY MR. STROM.
- 2596 Q Real quick on that. You said two days in
- 2597 Tokyo, albeit was cut short, on the second page, you
- 2598 are consulting with a Japanese colleague who has been
- 2599 working on the cruise ship issues. He goes, "Among
- 2600 the passengers on those flight, he noted about 2%
- 2601 were PCR+. His overall impression is that about 50%
- 2602 of infected individuals do not show symptoms."
- 2603 So that's his impression. Did you get the sense
- 2604 that the Chinese were less receptive to asymptomatic
- 2605 spread or were less aware of it?
- 2606 A You know, my impression, and again it may
- 2607 not be 100 percent accurate. But my impression was
- 2608 there was still a bit of debate about how prominent
- 2609 an issue asymptomatic spread was. It can be a little
- 2610 bit of semantics. I think it was pretty clear that
- 2611 one could be infectious before they had symptoms.
- 2612 So I think there was evidence of viral shedding
- 2613 before one had symptoms. Whether or not there could
- 2614 actually be transmission I think was still a little

- 2615 bit unclear. You know, again, if you want to do an
- 2616 epidemiologic study, infect somebody on a cruise ship
- 2617 and watch what happens. And it's interesting if you
- 2618 look at the data from the Diamond Princess and you
- 2619 map it to what we think today it's really quite
- 2620 close.
- 2621 Q And then one last question, and this is
- 2622 back to page 3, the first page of the China report,
- 2623 "I have extensive notes and will provide only the
- 2624 highlights here focusing on information not generally
- 2625 available at the time."
- 2626 Were those notes typed? Are those something you
- 2627 believe you still retain?
- 2628 A No, those would be like I was at a meeting
- 2629 taking some notes, and then this would be the record.
- 2630 Q And then to your recollection, you don't
- 2631 still have that note taking?
- 2632 A No.
- 2633 Mr. Strom. Thank you.
- 2634 BY MR. BENZINE.
- **2635** Q Flipping to 2536.
- 2636 A Yes.
- 2637 Q The top paragraph. There's a bold
- 2638 sentence, "(This was later modified to a 2-day
- 2639 extension to allow a subset [redaction] to visit
- **2640** Wuhan."

```
The redactions I'm assuming are the names that
```

- went to Wuhan?
- 2643 A Yes.
- 2644 Q Okay, the last sentence, "It was clear the
- 2645 different people in the room had access to different
- 2646 sources of non-public information that they were
- 2647 willing to share, albeit with a degree of
- 2648 discomfort."
- 2649 What did you mean by that?
- 2650 A It was quite interesting to have the
- 2651 discussions together with the Chinese delegation,
- 2652 because there was -- there was great focus on
- 2653 individual words that would go into the report.
- 2654 And so words that to me might be relatively
- 2655 equivalent in English had different meaning, I think,
- 2656 in Chinese, so -- and in trying to understand why
- 2657 there was a difference, you couldn't always get a
- 2658 good sense. And I can't say that someone said to me,
- 2659 oh, we're not going to talk about that, but at times,
- 2660 you felt that people wanted to be sure they stayed
- 2661 within the parameters probably that they were given
- 2662 for their participation in the mission. That's an
- 2663 assumption on my part.
- 2664 Q The degree of discomfort, is that
- 2665 referencing that kind of those parameters that you
- 2666 were just talking about, that they felt like they had

- 2667 a lane and they had to stay in the lane?
- 2668 A Yes. I mean, we would be at a meeting,
- 2669 and again, often they were large groups, so there
- 2670 would be the delegation and then like an extended
- 2671 group of other individuals. And you might ask a
- 2672 question, perhaps a question would be, what do you
- 2673 know from wastewater? And, well, we're looking into
- 2674 that. Those types of things make you wonder if there
- 2675 isn't some preliminary information.
- 2676 Again, many, appropriately, scientists will be
- 2677 reluctant to share a piece of information that they
- 2678 haven't confirmed. Sometimes you're a little
- 2679 reticent early on. There may have been an element of
- 2680 that as well.
- 2681 Q One of the things that we're looking at
- 2682 and we actually had a hearing this week with various
- 2683 officials regarding the WHO in early stages here is
- 2684 the Chinese government's kind of transparency early
- 2685 on, while we're evaluating changes to the
- 2686 international regulations and pandemic treaties and
- 2687 stuff to try to bolster transparency in future
- outbreaks.
- 2689 So, really interested in like those situations
- 2690 where you think like maybe there was some reticence,
- 2691 maybe there was some they had a little bit more, but
- 2692 they gave you an answer of, oh, we're checking on it,

- 2693 like, don't worry. Were there a lot of situations
- **2694** like that?
- 2695 A I wouldn't say there were a lot of
- 2696 situations like that. I would just add to put it in
- 2697 context if I stayed with the scientific community.
- 2698 Scientists run a spectrum. Some of which are, I'm
- 2699 not going to share any information with you until
- 2700 it's published in a peer-reviewed journal and I'm
- 2701 sure I get my credit for it, versus, hey, I just
- 2702 found this, I'm not sure if it's real or not, I just
- 2703 wanted you to be aware.
- 2704 So that's the spectrum. And if you go back to
- 2705 the early days of HIV, that was all over the place,
- 2706 that we need to know what's going on in the labs,
- 2707 what viruses are growing.
- 2708 So I think there's sort of a mixture of all of
- 2709 that. And so I wouldn't isolate it to China, but I
- 2710 would say wherever it is, it is not helpful during a
- 2711 public health emergency.
- 2712 Q Thank you. Flipping again to 2537. And I
- 2713 promise we won't go at a page by page cadence for the
- 2714 entire report.
- 2715 The third sentence on the start here underneath
- 2716 the picture that was redacted, you're talking about a
- 2717 meeting, everyone in the meeting maybe except you is
- 2718 wearing a mask. At that point, had you --

- 2719 A By that time, I had masked. I was masked
- everywhere, yes.
- 2721 Q The next sentence is, "The translation was
- 2722 very good, although one never knows if everything is
- 2723 being captured." What did you mean by that?
- 2724 A So as mentioned, I have done a fair amount
- 2725 of international travel, and on occasion, I might
- 2726 have traveled with a companion who spoke the local
- 2727 language. But some of the people I was meeting with
- 2728 might not know that and they might have a translator,
- 2729 and I might be getting information translated by a
- 2730 translator that I would later learn didn't really
- 2731 convey everything that was being said.
- 2732 Whether that was deliberate or not, I don't
- 2733 know, but I'm just always aware of the fact that if I
- 2734 don't -- if I'm not talking to the primary source nor
- 2735 if the translator is part of my team, I'm not always
- 2736 sure of what I'm being told. That's just a general
- 2737 skepticism I have.
- 2738 Q So there wasn't any -- or maybe you can
- 2739 answer it this way. Did you have any situational
- 2740 skepticism here that that was happening?
- 2741 A I had no firsthand reason to suspect that
- 2742 was happening here, no.
- 2744 that provided the translation?

- 2745 A I think it was, yes.
- 2746 Q I promised it wouldn't be a page by page
- 2747 but here we are going to the next page. 2538. The
- 2748 top paragraph, "The Ministry of Agriculture and Rural
- 2749 Affairs noted that no COVID-19 had been found in
- 2750 poultry, pigs, cattle, dogs, or cats." He also noted
- 2751 that "the sequences of livestock coronaviruses are
- 2752 less than 69% identical to that of COVID-19 and thus
- 2753 they were unlikely to be the animal source."
- 2754 There's kind of like -- and again, correct me if
- 2755 I'm wrong. This seems like domestic livestock versus
- 2756 kind of like the wildlife trade. Is that the right
- 2757 read of that sentence?
- 2758 A I would not read beyond what I wrote
- 2759 there, because I think that's what I heard is what I
- **2760** wrote.
- **2761** O Could --
- 2762 A I think that's a logical assumption
- 2763 because you don't see any of the classic suspects of
- 2764 a wet market.
- 2765 Q It doesn't mention pangolins or raccoon
- 2766 dogs or anything. It feels like domestically farmed
- 2767 animals for kind of like, and mentions livestock
- 2768 coronaviruses are less than 69 percent identical.
- 2769 Could that be a progenitor for COVID-19 or is that
- 2770 too far away?

- 2771 A That's way too far.
- 2772 BY MR. STROM.
- 2773 Q So the paragraph begin, "The CCDC
- 2774 representative know the 1st case was reported 2/27/19
- 2775 (although cases were subsequently identified reaching
- 2776 back to early December."
- 2777 It says, going down four lines, "Market samples
- 2778 (sewage)." Do you recall if they were indicating at
- 2779 that point they had only taken sewage samples?
- 2780 A Let me just read this.
- **2781** O Please.
- 2782 A I think that was probably just in response
- 2783 to a question about sewage. And I'm sorry, can you
- 2784 ask it again?
- 2785 Q One, do you recall it being broader than
- 2786 sewage like environmental samples?
- 2787 A From this part, they were giving, so an
- 2788 overview of epidemiologist, so this was just one
- 2789 piece of it, but it was sort of a piece that I
- 2790 focused on because I thought it was potentially
- 2791 revealing.
- 2792 Q And then, "(unfortunately there was no
- 2793 effort to amplify mammalian DNA or RNA, so no clue
- 2794 here as to the source; we later learned from the
- 2795 visit to Wuhan that there are fairly good records on
- 2796 what animals were in the market so future

```
2797 investigations looking for the animal source may be
```

- **2798** fruitful)."
- 2799 Why does it stick out in your mind that they
- 2800 hadn't made an effort to amplify the mammalian DNA or
- 2801 RNA?
- 2802 A So if you think about the layout of a
- 2803 market, and so you've got a sample from here, from
- 2804 here, from here, from here. Let's say this animal
- 2805 was the source, so where you found SARS-Co-V-2 you
- 2806 would always find genetic material from that animal
- 2807 species. So you would like to try to match up
- 2808 detection of SARS-Co-V-2 with detection of certain
- 2809 animals to try to guide your investigation.
- 2810 Q We only have five minutes left so I'm
- 2811 going to do one more quick exhibit and then we can
- trade off.
- 2813 Going a little bit out of my planned order, I
- 2814 think it's safe to say that we've never had those
- 2815 detailed records made public that were referenced,
- 2816 I'm not sure, unless you're aware of --
- 2817 A I honestly don't know.
- 2818 Q So this is an article, making it Exhibit
- **2819** 10.
- 2820 [Majority Exhibit No. 10 was
- 2821 marked for identification.]
- 2822 BY MR. STROM.

- 2823 Q It's a Nature article written by a group
- 2824 of primarily Chinese CDC authors including George Fu
- 2825 Gao, the CDC director.
- 2826 What is his reputation? Have you had a chance
- 2827 to know him?
- 2828 A No, I've not had a chance to meet him.
- 2829 Interestingly, he and I were both at a WHO meeting a
- 2830 few weeks ago, and I actually had hoped to, but I
- 2831 didn't get a chance to. He has a fairly good
- 2832 reputation. Again, I think. I don't know him
- 2833 personally.
- 2834 Q So Dr. Gao has maintained -- I'm going to
- 2835 make this Exhibit 11. It's much shorter. It's a
- 2836 Global Times article. Dr. Gao has maintained that
- 2837 the wet market -- that he is of the opinion that the
- 2838 wet market is a victim of the virus as opposed to the
- 2839 origin source of it.
- 2840 [Majority Exhibit No. 11 was
- 2841 marked for identification.]
- 2842 BY MR. STROM.
- 2843 Q So turning back to his lengthy article in
- 2844 Nature that was accepted on April 3rd of this year,
- **2845** sir, so Exhibit 10.
- 2846 A Yes, this one.
- 2847 Q So we're just going to the abstract on the
- 2848 first page to start. And about midway through, it

- 2849 says, and it relates to something that's in your
- 2850 report as well, is that, "The viruses from the market
- 2851 shared nucleotide identity of 99.99% to 100% with the
- 2852 human isolate" of essentially the Wuhan 1 strand of
- 2853 SARS-Co-V-2, so early pandemic strand.
- 2854 So as he's reporting this, and his agency has
- 2855 the data that the rest of the world is only getting
- 2856 sort of their summaries of.
- I would like you to turn to page 12, if you can.
- 2858 A Give me one minute.
- 2859 O Absolutely.
- 2860 A To review the abstract here.
- **2861** Page 12?
- 2862 Q The lines are numbered there and we will
- 2863 start at line 320.
- 2864 A Okay.
- 2865 Q So it starts, "The origin of the virus
- 2866 cannot be determined from all the analyses available
- 2867 so far. Although gene barcode analysis of animal
- 2868 species in the study suggested that" -- I believe
- 2869 these are several species of susceptible animals,
- 2870 raccoon dogs. I would have to get the specific ones
- 2871 out because it's just the Latin names.
- 2872 But, "species that have been recognized as
- 2873 potential host species of sarbecoviruses -- were
- 2874 present at the market," these "were mostly detected

- 2875 within the SARS-Co-V-2 PCR negative environmental
- 2876 samples. It remains possible that the market may
- 2877 have acted as an amplifier of transmission due to the
- 2878 high number of visitors every day, causing many of
- 2879 the initially identified infection clusters in the
- 2880 early stages of the outbreak?"
- In the interest of time, I'm going to not read
- 2882 the full second paragraph, but there is a sentence in
- 2883 there that says, "The evidence provided in this
- 2884 study," and it's referencing a study by
- 2885 Dr. Worobey -- "is not sufficient to support such a
- 2886 hypothesis" that the market is the origin.
- 2887 So I'm just wondering, it doesn't seem you
- 2888 followed this particularly closely, but the fact that
- 2889 it's a human -- the environmental samples collected
- 2890 had SARS-Co-V-2 in them were highly similar to the
- 2891 early human strands of the virus.
- 2892 So to your point, and I have a paper here by
- 2893 Jesse Bloom we can do maybe the next hour. But it
- 2894 doesn't seem like the samples here had a lot of
- 2895 animal RNA or DNA.
- 2896 A You know, it's hard for me to interpret
- 2897 sort of what a negative conclusion might be from this
- 2898 set of data.
- 2899 Q Okay.
- 2900 A It's very difficult.

```
2901 Q Sure. What I will try and do is we can
```

- 2902 break and I will try to reformat my question and
- 2903 maybe make it a little more precise. We can go off
- 2904 the record.
- 2905 (Recess.)
- 2906 Back on the record.
- 2907 BY
- 2908 Q Good afternoon. We're back. I do want
- 2909 to -- you spent a lot of the past hour talking about
- 2910 your WHO trip. We're going to ask you some more
- 2911 questions on that. So I apologize if I ask something
- 2912 that's repetitive, but there's just a little more
- 2913 detail we want to dig into.
- When you got word that you were invited on this
- **2915** trip
- 2916 -- so I gather that was February 14th when you were
- 2917 at the airport -- what was your understanding of what
- 2918 the purpose of the trip was?
- 2919 A I wasn't entirely clear on the purpose of
- 2920 the trip, other than to try to gain an outside
- 2921 perspective through firsthand knowledge and
- 2922 discussions about the nature of the outbreak.
- 2923 Q And I know you had very little time to
- 2924 prepare. But in your 14 hours on the plane or the
- 2925 little bit of time you were in Japan before heading
- 2926 to Beijing, did you do anything to prepare yourself

- 2927 for what you would be looking at in China?
- 2928 A I did not do anything during that time to
- 2929 prepare for what I would be doing in China. In fact,
- 2930 most of my activities during that time were trying to
- 2931 get all the things I was planning to do in Japan
- 2932 done. So I was pretty focused on what we were doing
- **2933** in Japan.
- 2934 Q Pretty busy. I can't even imagine having
- 2935 to deal with that, so good job. And once you got to
- 2936 China, can you just tell us a little bit about the
- 2937 organization of the trip, how you were moving from
- 2938 place to place, who was leading the charge for you?
- 2939 A So given that it was WHO was the sponsor
- 2940 of the mission for the group from outside China, they
- 2941 and their local country office helped with a lot of
- 2942 logistics for the WHO part of the delegation.
- 2943 So after arriving at the airport, there was a
- 2944 car there to pick you up. And then mostly, we were
- 2945 in buses as a group when we went to the different
- 2946 meetings. When we went from city to city, there were
- 2947 a couple of flights, I think, maybe one flight, a
- 2948 train ride. Again, the non-Chinese part of the group
- 2949 tended to be moving together and the Chinese group
- 2950 moving together.
- 2951 We started out in Beijing and then split into
- 2952 two groups, you know, equally distributed from the

- 2953 WHO and Chinese elements of the delegation going to
- 2954 different cities, and then we got back together to
- 2955 write the report.
- 2956 Q You mentioned wearing masks the entire
- 2957 time and also eating at -- I think you mentioned it,
- 2958 but if not, it was definitely in your trip report
- 2959 that you ate at your own table, everyone was
- 2960 separated. Were there any other health safety
- 2961 measures that were put in place for those of you on
- 2962 this trip?
- 2963 A There was extensive temperature checking.
- 2964 So any time you went somewhere, they would check your
- 2965 temperature. We were on a bus with dispersed
- 2966 seating. On occasion, the bus would be stopped.
- 2967 Someone would get on the bus in PPE and go around and
- 2968 check everybody's temperature on the bus. I can only
- 2969 imagine what would have happened if one of us had a
- 2970 temperature. So I was always glad when those
- 2971 temperature checks were done. Again, any time we
- 2972 entered a facility, there was a temperature check.
- 2973 For the group that went to Wuhan, I think they
- 2974 also had PCR surveillance done when they got back.
- 2975 Q Okay. And I assume handwashing was
- encouraged.
- 2977 A Yes.
- 2978 Q Hand sanitizer, if available?

- 2979 A Distancing.
- 2980 Q Sounds good. And we talked some in the
- 2981 last hour about the trip report that you wrote for
- 2982 NIH. Who was the intended audience of that report?
- 2983 A There wasn't really an intended audience.
- 2984 It was sort of my record of the trip.
- 2985 Q And you also contributed to the drafting
- 2986 of a report released by the WHO about this trip,
- 2987 correct?
- 2988 A Correct, yes.
- 2989 Q What was the purpose of that report?
- 2990 A So that WHO report was to provide
- 2991 information about the outbreak in China as observed
- 2992 by the delegation.
- 2993 Q And was it drafted by everyone who had
- 2994 been on the delegation?
- 2995 A It was drafted. Everyone who was on the
- 2996 delegation had the opportunity to provide input. As
- 2997 is often the case for this type of report, different
- 2998 sections were assigned to different groups. I was
- 2999 assigned to the section to talk about research and
- 3000 development.
- 3001 Q So you don't necessarily -- you didn't
- 3002 have input into every little piece of the report?
- 3003 A So I would have had opportunity to comment
- 3004 on any piece of the report. But I restricted my

- 3005 comments to the part where I felt I had the expertise
- 3006 to contribute namely the research and development
- 3007 section.
- 3008 Q Thank you. And who was the intended
- 3009 audience of the WHO report?
- 3010 A I think the intended audience really was
- 3011 the global community. It was a way of having a
- 3012 document coming out under the auspices of WHO that
- 3013 would provide information.
- 3014 Q And earlier, you mentioned that when you
- 3015 were looking at a report, the most important parts to
- 3016 you are the methodology and the data sections,
- **3017** correct?
- 3018 A Correct.
- 3019 Q So would that apply to the WHO report, too?
- 3020 A It would apply to virtually any report.
- 3021 Q So you would view the data that was
- 3022 presented in the WHO report as the most important
- 3023 thing for anyone to look at when they're reviewing
- 3024 that report?
- 3025 A Yes, absolutely. I think that the part of
- 3026 the report that's of most value are the data that are
- 3027 in it in terms of what types of measures were
- 3028 utilized in China and what the curve of the outbreak
- **3029** was.
- 3030 Q Okay. And that's because recommendations

3031 and other sections can be a little more subjective?

3032 A Interpretations of data are almost always

3033 subjective, yes.

3034 Q That's my understanding. Thank you.

Those are my questions for now.

3036 BY

3037 Q As you've been talking about all of the

3038 different work early in the pandemic through the

3039 pandemic, all your work prior to the COVID-19

3040 pandemic and other pandemics, it strikes me there are

3041 a lot of different things that are part of a pandemic

3042 public health response.

3050

3052

3053

3054

You have initial surveillance and monitoring of

3044 the population, you have research and communication

3045 of prevention methods, you have development

3046 implementation distribution of diagnostics. You have

3047 development, as you mentioned, of treatment protocols

3048 which I think would include even identifying what a

3049 case is, and then how you treat it. You have

development and rollout of therapeutics. The same

3051 with vaccines. Other public guidance that sort of

comes along with all of these things in terms of even

once you have them getting people to adopt them and

use them properly and compliance and all of that.

3055 Could you just speak to -- let's start with

3056 January, let's say, of 2020 through the end of that

```
3057 year to start. From where you sat, those were, I
```

3058 would assume, very competing priorities. How did you

- 3059 go about determining at what different points, what
- 3060 was prioritized, what resources went where among all
- 3061 of those important, but maybe of different importance
- 3062 at different phases things? What's the approach that
- 3063 you had to take?
- A As they say, thank you for that question.
- 3065 That's a very broad look at things. I'll try to
- 3066 provide you the perspective that I had.
- 3067 O Okav.
- 3068 A There was obviously a lot that needed to
- 3069 be done, and I really do want to give a shout out to
- 3070 the Operation Warp Speed activity. I mean, it's
- 3071 something that I had never even imagined, you know,
- 3072 one could do to respond to an outbreak and it really
- 3073 was quite extraordinary. I have to say -- I probably
- 3074 shouldn't say this, but I have to. Congress was
- 3075 great, right? Congress was supportive.
- 3076 Q You can say that.
- 3077 A You know, the funding, it wasn't -- I
- 3078 never felt that the things we were trying to do
- 3079 didn't get done because of a lack of funding. I felt
- 3080 we had the resources that we needed to do things and
- 3081 to do them really well. And we were all very
- 3082 grateful for that, because obviously that's not the

```
3083 usual scenario. So we were able to basically
```

- 3084 simultaneously launch multiple lines of activity.
- 3085 So, again, my focus was therapeutics. We were
- 3086 able through existing resources, leveraging existing
- 3087 resources at NIH, we combined clinical research
- 3088 networks that never dreamed that they would be
- 3089 combined.
- 3090 So our own network in HIV was combined with the
- 3091 thoracic surgery network at the Heart Lung and Blood
- 3092 Institute and the pulmonary network of the Heart Lung
- 3093 and Blood Institute to conduct studies in
- 3094 hospitalized patients to look at remdesivir,
- 3095 monoclonal antibodies, immune plasma, a whole variety
- 3096 of things that preceded at a timeframe that really --
- 3097 I know I'm not supposed to use the word -- was
- 3098 unprecedented. It was amazing to watch.
- I mean, you were busy, I mean, no question. But
- 3100 there was a degree of organization and focus, so
- 3101 NIBIB, bioengineering. You know, they focused on the
- 3102 diagnostics and had this thing, RADx, that got stuff
- 3103 out there in an amazing timeframe. There was the
- 3104 therapeutics in ambulatory patients, therapeutics in
- 3105 hospitalized patients, and then the whole vaccine
- 3106 effort.
- 3107 So you had enough expertise because it became,
- 3108 to use a catch phrase, all hands on deck. Everyone

- 3109 pivoted and there was broad enough expertise in
- 3110 related areas to have simultaneous activities focused
- 3111 on the respective areas. And it was really, you
- 3112 know, to me, there's a lot of it that's a model for
- 3113 what we should do next time if we are in a similar
- 3114 situation.
- 3115 Q And I appreciate it was a broad question,
- 3116 so thank you for the answer on that.
- 3117 You talked about the importance of building the
- 3118 relationships and networks during peacetime. So
- 3119 using that, what's the importance of predictable
- 3120 continuous funding and resources during peacetime
- 3121 when a pandemic is not going on in terms of
- 3122 preparation and response to what could be the next
- 3123 pandemic?
- 3124 A I think it's critical to be able to
- 3125 maintain a certain level of infrastructure for the
- 3126 critical activities that you need as part of a
- 3127 pandemic response. And I can only speak to a
- 3128 research response, but you could talk about that in
- 3129 other areas.
- 3130 So for us, in a research response, infectious
- 3131 diseases, there are so many unanswered questions that
- 3132 what we're able to do is come up with research
- 3133 protocols at a relatively low level of activity but
- 3134 at a high enough level of activity to maintain the

- 3135 expertise and the staffing so that we could rapidly
- **3136** pivot.
- 3137 I'll give you an example of that. We responded
- 3138 to the Ebola outbreak in the Congo in 2017, 2018, and
- 3139 we had not worked there before in clinical research.
- 3140 So we did that, we had the response, we actually did
- 3141 a randomized control trial of four therapeutics,
- found that two of them work. Those are now two
- 3143 licensed drugs for Ebola that have really
- 3144 dramatically decreased mortality.
- 3145 So as we finished that which was again in very
- 3146 challenging parts of the country, the discussion was,
- 3147 okay, what else is there here that we might use a
- 3148 downsized infrastructure to study to maintain the
- 3149 competency?
- 3150 So their response was, we really have a pretty
- 3151 bad problem with monkey pox. So in the center of the
- 3152 Congo, it's endemic. And it's called clade 1. It's
- 3153 a more serious disease than what the global outbreak
- 3154 was. But we launched and began a study of monkey pox
- 3155 that antedated the global outbreak. So the protocol
- 3156 for therapeutics that was used for the global
- 3157 outbreak was one that was already designed and ready
- 3158 to start in the Congo.
- 3159 So that's a really good example. I don't have
- 3160 any more that are that good, but I think it

- 3161 illustrates, I think, the importance of maintaining
- 3162 infrastructure and carrying out some level of
- 3163 activity globally so that you can respond globally if
- 3164 you need to.
- 3165 Q In terms of going back to the overly broad
- 3166 question that I asked you about prioritizing and all
- 3167 of the things that are required for public health
- 3168 response. We all agree, and you said at the
- 3169 beginning, that understanding the origins of COVID is
- 3170 important. Where does that fall among the competing
- 3171 priorities of prevention, treatment, vaccination,
- 3172 diagnostic, therapeutic, the whole spectrum, let's
- 3173 say after you have the viral sequence that you are
- 3174 trying to address?
- 3175 A It's a real challenge to set those types
- 3176 of priorities, and we were fortunate I think in
- 3177 COVID-19 that we could do them simultaneously.
- 3178 Again, what one looks for I think is what
- 3179 intervention may have the greatest public health
- 3180 impact.
- 3181 So, for example, I'll go back to the Ebola
- 3182 example. So when we went to West Africa for Ebola,
- 3183 the initial priority was getting a vaccine trial
- 3184 going, because we felt if we could prevent infection
- 3185 or at least prevent disease, that would have the
- 3186 biggest health impact.

```
And then next to that was getting a therapeutic

study started. So it really depends on the nature of

the outbreak and what's available. Again, we had

already from prior research, mostly in animal models,

candidate vaccines and candidate therapeutics, so we
```

3192 could immediately do that.

For example, if we had no candidate

3194 therapeutics, the focus would have been pre=clinical

3195 trials, and the area of clinical trials would have

3196 been on vaccines.

3197 I think that's it for us for now. We 3198 can go off the record.

3199 (Recess.)

3200 Mr. Benzine. We can go back on the record.

3201 BY MR. BENZINE.

3202 Q I want to keep walking through your trip 3203 report from China, and go to page 2542. I want to 3204 ask about one line in particular, "4 of the first 5 3205 cases" referenced December 8, 10, 15, and 16 "had no 3206 connection to the market." Was that just based off 3207 information that those individuals didn't go to the 3208 market, or how was that conclusion presented to you? 3209 A I don't recall specifically, but it would

3210 A I don't recall specifically, but it would specifically and specifically and those individuals wisited the market.

3212 Q Okay. If you recall, what was the case

- 3213 definition at that time? Did it require visiting the
- 3214 market? I remember some talk of case definitions
- 3215 that involved visiting the market.
- 3216 A I do not recall what the case definition
- 3217 they were using at that time would have been.
- 3218 Q Would that case definition have like -- I
- 3219 don't want to use the word improperly, but limit
- 3220 early cases, so that it may -- if you're limiting
- 3221 cases to those who have an affiliation to the market,
- 3222 it would certainly look like the origination was from
- 3223 the market? Is that a fair statement?
- 3224 A Any biased removal of subjects from the
- 3225 epidemiology could be misleading, yes.
- 3226 Q Flipping over to the next page, some of
- 3227 this is just -- I don't think I know the lingo, so
- 3228 I'm going to ask you. The line, "Recovered patients
- 3229 have neutralizing antibody," is that, for lack of a
- 3230 better term, natural immunity?
- 3231 A Yes, that would be the immune response to
- 3232 the infection, yes.
- 3233 Q How did you know that at that time?
- 3234 A They would have said that, someone would
- 3235 have presented that, that they had taken serum from
- 3236 recovered patients and looked to see if they would
- 3237 basically inhibit the growth of the virus in tissue
- 3238 culture.

- 3239 Q But based off that statement and your kind
- 3240 of recollection of what they told you, it would be
- 3241 fair to say, by mid-February, we had some kind of
- 3242 knowledge that there was natural immunity for a
- 3243 recovered patient?
- 3244 A Yes, I think that would be a fair
- 3245 statement.
- 3246 Q I was going to ask about the market
- 3247 samples, but I think John covered that.
- 3248 2552. It might be the only page without a
- 3249 beautiful photo redacted. The paragraph at the end,
- 3250 "The market we visited consisted of 60 booths,
- 3251 contained no bushmeat, serves 10,000 families and is
- 3252 open every day. They have had no live animals in the
- 3253 past 29 years and there has been no slaughter of live
- 3254 animals in Guangdong since SARS."
- 3255 Understanding this isn't the Wuhan market, so it
- 3256 isn't the one that is in question, but I just wanted
- 3257 to ask if it was your understanding that that was
- 3258 kind of standard throughout markets in China since
- 3259 SARS that they kind of limited wild animal meat and
- 3260 limited slaughter of live animals.
- 3261 A My understanding from the briefing was
- 3262 that this was an example of what was aspired to for
- 3263 the wet markets to have a better public health
- 3264 control of potential spillovers.

```
3265 Q So now kind of standardized across China,
```

3266 this was the ideal wet market, for lack of a better

- **3267** phrase?
- 3268 A I would not say it was ideal. I would say
- 3269 it was one that was a wet market that was exhibiting
- 3270 some of the best practices.
- **3271** Q Okay.
- **3272** A Yeah.
- 3273 Q You said not ideal. I know a lot of
- 3274 people have called for this, and a couple -- is the
- 3275 ideal just not having wet markets?
- 3276 A You know, I would have to say I'm not even
- 3277 sure what the precise definition of a wet market is.
- 3278 But I think selling live animals, having live
- 3279 animal-human interfaces without monitoring does pose
- 3280 some degree of public health risk.
- 3281 Q Out of curiosity, are there specific live
- 3282 animals? I mean, I go to Whole Foods and there's
- 3283 live lobsters. I'm not going to get something crazy
- 3284 from a lobster, I don't think. So are there specific
- 3285 animals in those markets that are concerning?
- 3286 A I'm not sure I would say that necessarily
- 3287 one type of animal versus another as opposed to
- 3288 domesticated, you know, sort of monitored flocks
- 3289 versus in the wild.
- 3290 Q So it's the more wildlife trade into the

- 3291 live animal slaughter that is the problem?
- 3292 A I think that's the bigger concern, yes.
- 3293 Q Flipping to 2555. The second paragraph at
- 3294 the top, the meeting between WHO Director General
- 3295 Tedros and President Xi was noted as an important
- 3296 moment in the fight against COVID-19. "Governor Ma
- 3297 noted that China appreciated the recent supportive
- 3298 comments WHO (could have been reflecting different
- 3299 comments from the US). He went on to express that
- 3300 China overall, like Guangdong, is open to sharing and
- 3301 working together with the international community.
- 3302 He indicated that he hoped WHO could do something
- 3303 about the false attacks on China through the internet
- 3304 on platforms like Facebook."
- 3305 So there's been -- I don't think they're
- 3306 allegations at this point. I think it was pretty
- 3307 well confirmed that there was some pressure on the
- 3308 WHO from China early on, and maybe given into in
- 3309 order to try to get into China and get samples that
- 3310 the WHO was issuing statements that were a little bit
- 3311 maybe more favorable to China than what was actually
- 3312 happening. Is that your understanding.
- 3313 A That's hard for me to comment on, because
- 3314 I don't know sort of the internal politics of WHO and
- 3315 what they were doing.
- 3316 Q Governor Ma noted that at least Guangdong

- 3317 is open to sharing and working together.
- 3318 First, did they?
- 3319 A What I had hoped from the comments at the
- 3320 visit that there might have been an opportunity, and
- 3321 I think it's mentioned in the WHO report, to engage
- 3322 the Chinese scientific community more in
- 3323 collaborations, particularly when it came to clinical
- 3324 trials, that we could do more things. That never
- 3325 came to fruition.
- 3326 Q Does China follow the same open data, open
- 3327 science data sharing practices that the United States
- 3328 and other countries follow?
- 3329 A I'm not sure what their policies are
- 3330 regarding data sharing. I couldn't comment on that.
- 3331 Q Going to 2558, the third line down. "In
- 3332 response to a direct question regarding the risk of
- 3333 transmission by asymptomatic individuals, there was
- 3334 no clear answer."
- 3335 Is this kind of referring to the kind of answer
- 3336 that you talked about earlier where they said we're
- 3337 working on that?
- 3338 A It would have been. And again, I think
- 3339 there was certainly evidence of infectious virus
- 3340 prior to symptoms. In terms of how much asymptomatic
- 3341 individuals contributed to the spread, I don't think
- 3342 that was well appreciated then.

- 3343 Q And then going to 2561. The note starts
- 3344 with "Professor Zhong."
- 3345 A Mm-hmm.
- 3346 Q I'm going to read the sentence, but this
- 3347 kind of goes to the mixed reviews on asymptomatic
- 3348 transmission at this time.
- 3349 A Mm-hmm.
- 3350 Q You note that Professor Zhong says, "He
- 3351 noted that COVID-19 is highly contagious; that there
- are asymptomatic carriers; that there may be
- 3353 recurrent positivity; that some become symptomatic
- 3354 late; that this is the 3rd coronavirus outbreak in 2
- 3355 decades and that there may be more."
- 3356 So we all kind of knew COVID-19 was highly
- 3357 contagious by this point. There were cases all over
- 3358 the world. But Professor Zhong at least seems to
- 3359 think that there were asymptomatic carriers. Is that
- 3360 how you described it, that there was a split review
- 3361 in the scientific community at this point of
- 3362 asymptomatic spread.
- 3363 A I think there was. I'd have to go back to
- 3364 read the paper to do chapter and verse, but there was
- 3365 an individual who attended a meeting, I think in
- 3366 Germany, who did or did not have symptoms, depending
- on, "did you have a headache? No, well, maybe I had
- 3368 a headache," who then was the source for some

- 3369 infection. That happened right around that time that
- 3370 that was being talked about.
- 3371 Q The recurrent positivity means being
- 3372 infected with COVID-19, recovering, and then getting
- 3373 it again; is that right?
- 3374 A Yes, it is. I can't remember exactly what
- 3375 that references to, but recurrent positivity meaning
- 3376 positive, positive again. So it may imply a second
- 3377 infection, yes.
- 3378 Q And again, maybe this is just -- I'm not a
- 3379 scientist. It seems it's really interesting from an
- 3380 outside observer that there was on one trip in like a
- 3381 one-week span, there's no asymptomatic, like
- 3382 depending on who you're talking to, you're getting
- 3383 different answers of no asymptomatic here but this
- 3384 guy is pretty sure that there's asymptomatic. You
- 3385 have some level of natural immunity which doesn't
- 3386 eliminate recurrent positivity but then you have --
- 3387 there's definitely recurring positivity.
- 3388 How do you wade through and determine?
- 3389 Obviously you wrote it all down in the report. You
- 3390 didn't editorialize yourself. But is that just kind
- 3391 of like symbolic of how this pandemic was going at
- 3392 that time of not a lot of information, difficult
- 3393 information?
- 3394 A I probably would say that I think it's

- 3395 reflective of a part of the scientific process. You 3396 know, people do an observation, they see something, 3397 they report it, and they focus on it. Someone else 3398 sees something else. It's like that analogy I guess 3399 of the nine blind men and the elephant, they'll all 3400 describe it a little bit different based on what they 3401 had seen. And until enough people see the same 3402 thing, you don't tend to get the feel to come to a 3403 consensus.
- 3404 Going to page 2563, the third paragraph 3405 down starts with, "He noted that most of the clusters 3406 that were able to be evaluated were in families. He 3407 also noted there was a strong sense by the people in 3408 Wuhan that, with time, they might be able to do a 3409 better job of figuring out exactly which animals were 3410 most likely to have been the vector given that there 3411 was fairly precise tracking of what sellers were at 3412 what stalls in the market and the fate of the animals 3413 could be traced. They know the identities of 3414 earliest cases and there is an opportunity to do a 3415 better job of combining information from those doing 3416 the human epidemiology with those who have precise 3417 knowledge of the layout of the market and the fate of 3418 the animals."
- To your knowledge, was that kind of review ever done, the kind of reverse engineering of the market?

- 3421 A I think there has been a fair amount of
- 3422 work done in that area. I think I recall seeing some
- 3423 publications on that, yes.
- 3424 Q The later WHO report, which we'll have
- 3425 some other questions about from around this same
- 3426 period, but in 2021 on the origins, tested like a
- 3427 couple hundred thousand animals and tried to
- 3428 backtrack it from the market, and none of them came
- 3429 up positive. Do you have any thoughts on that?
- 3430 A No. I have to say, I was not involved in
- 3431 that second trip, and I don't have any real knowledge
- 3432 of what they did or didn't do while they were there.
- 3433 Q Okay. I think that's all I have on the
- 3434 trip report. I was really looking forward to seeing
- 3435 what your picture was on your arrival to Dulles, but
- 3436 unfortunately, we can't. I bet it was good to be
- 3437 home, though.
- 3438 Ms. Ganapathy. Mitch, if you would like to talk
- 3439 Redactions, you can talk to leg affairs.
- 3440 The Witness. I could tell you what's under this
- 3441 one. So this is me arriving and being greeted by two
- 3442 CDC staff behind a table and giving me all the
- 3443 instructions on what I needed to do now that I was
- 3444 home.
- 3445 BY MR. BENZINE.
- 3446 Q Were they in big, scary jumpsuits?

- 3447 A Not scary, but they were in scrubs.
- 3448 Q I want to talk about a couple interviews
- 3449 you gave after this trip, a couple comments in them.
- 3450 A Mm-hmm.
- 3451 Q An NBC News article quoted you as -- some
- of the language in the final report should be taken
- 3453 with a grain of salt. But you said the data in the
- 3454 report was quite solid and I thought quite
- 3455 informative. That's what you've been saying here.
- **3456** A Yes.
- Q Don't read the abstract in the discussion,
- 3458 read the methodology. Why do you think some of the
- 3459 language, though, should have been taken with a grain
- **3460** of salt?
- 3461 A There clearly were agendas of how the data
- 3462 would be presented. And you wanted a report where
- 3463 you had consensus. You didn't want competing
- 3464 reports. So you want the Chinese delegation to be
- 3465 comfortable and the WHO delegation to be comfortable,
- 3466 and I think at times we needed to compromise on
- 3467 language to get to that point. But as I said, as you
- 3468 just said as well, the key thing was the information
- 3469 in the middle.
- 3470 Q You were involved in drafting the report?
- **3471** A Yes.
- 3472 Q Did you have any knowledge of the

- 3473 editorial process?
- 3474 A Most of it happened in a room with
- 3475 everyone, so and I think I may have mentioned part of
- 3476 this earlier. At times there would be great
- 3477 discussion about one word or another, an adjective
- 3478 that I think the Chinese translation might have had a
- 3479 different meaning than the actual English word.
- 3480 There was quite a bit of focus on that, more than I
- 3481 would have focused on personally.
- 3482 Again, the report was written by the different
- 3483 groups and the different areas. My primary
- 3484 responsibility was in the research area so that's
- 3485 where I contributed. I would only have contributed
- 3486 to the others directly or with an actual edit if I
- 3487 saw something I thought was egregious.
- 3488 Q Were there any things that you saw that
- 3489 were egregious?
- 3490 A I think at the end, no. I think each
- 3491 team -- so the way it was set up is that -- so I was
- on the research myself, and then two from the Chinese
- 3493 delegation. That was the research team. And you had
- 3494 different teams like that for each part of the
- 3495 report. So by the time it got to the plenary, to the
- 3496 collective group, I think there had been enough
- 3497 discussions where things were reasonable.
- 3498 Q In your section of the report, were there

```
3499 any edits made in a black box that you just didn't
```

- 3500 know how they appeared that you disagreed with?
- 3501 A No, it was true to what we had written.
- 3502 [Majority Exhibit No. 12 was
- marked for identification.
- 3504 BY MR. BENZINE.
- 3505 Q I want to introduce Majority Exhibit 12.
- 3506 It's an email chain again from the State Department
- 3507 and Bates numbered STATE-1643 through 1651. And I
- 3508 just want to focus on the cable that begins on 1645.
- 3509 A Mm-hmm.
- 3510 O The title of the cable is "China
- 3511 (Coronavirus): WHO Report Offers Insights but Also
- 3512 Missed Opportunities." It's a cable regarding the
- 3513 joint mission to China. Were you involved at all in
- 3514 the drafting of the cable?
- 3515 A No, not that I recall. I did meet with
- 3516 some embassy staff toward the end of, toward the end
- 3517 of the visit, I think. Yes. I'm trying to remember
- 3518 exactly when I met with the embassy. It might have
- 3519 been at the beginning. All I remember is it was in a
- 3520 coffee shop, for sure.
- 3521 Q Had you seen the cable before now?
- 3522 A If I did, I don't remember it.
- 3523 Q All right.
- 3524 A I wish I had.

- 3525 Q I'm going to ask specific questions about
- **3526** parts.
- Ms. Ganapathy. Give him a minute to take a look
- 3528 at it.
- 3529 BY MR. BENZINE.
- 3530 Q My point is we don't need to read all ten
- **3531** pages.
- 3532 A What part would you like me to focus on?
- **3533** Q 1647.
- **3534** A Okay.
- 3535 O Talk about -- it's under a section called
- 3536 Limitations and Missed Opportunities?
- **3537** A Okay.
- 3538 Q The cable lists any number of them, but I
- 3539 want to focus on a couple of the first one being the
- 3540 last bullet on that page, "The report lacks
- 3541 discussion of the Peoples Republic of China's
- 3542 rationale for case definitions, which changed
- 3543 throughout the outbreak. There was also no
- 3544 discussion of how China was finding cases and whether
- 3545 it was applying different case definitions in
- 3546 different locations."
- 3547 Did you notice anything along those lines of
- 3548 using different case definitions?
- 3549 A I think it was mentioned earlier or in
- 3550 that one article that you showed me. There was a bit

- 3551 of an evolution of the case definition but I don't
- 3552 recall anything that made me think that was somehow
- 3553 contrived. I think it was just as people were
- 3554 learning more and, again, once you could make it a
- 3555 pathogen specific diagnosis, that made it quite a bit
- **3556** easier.
- 3557 Q Flipping ahead to 1649.
- 3558 A Mm-hmm.
- 3559 Q There's the third bullet on the top with a
- 3560 bold underline, Language Hinders Credibility. And it
- 3561 reads, "The tenor of the report reads as an advocacy
- 3562 piece rather than a critical scientific assessment.
- 3563 The uncompromisingly positive tone and language
- 3564 choice, along with the omission of lessons learned,
- 3565 diminishes the credibility of the report and
- 3566 perceptions of its independence."
- 3567 So this is kind of getting what I was asking
- 3568 about. Was there kind of undue influence in any of
- 3569 the processes by the Chinese government? This is
- 3570 obviously an editorialization of the cable, I don't
- 3571 know if they know exactly, but there's obviously a
- 3572 concern that the report was unduly influenced to kind
- 3573 of have a positive spin on things.
- 3574 A Mm-hmm.
- 3575 Q Did you feel any of that pressure or get a
- 3576 sense of that while you were there?

```
3577 A I personally did not feel any pressure to
```

3578 put a spin on things. I actually was quite

3579 appreciative of the senior scientist that I was

3580 working with was from Hong Kong and so he was, he was

3581 actually at times very objective I thought in what he

3582 had discussed with me.

3583 I think, as I mentioned earlier, that's sort of

3584 the introduction and the discussion. And I don't

3585 focus too much on what language goes there as long as

3586 what's in the middle is objective and at least to the

3587 best of my knowledge accurate reflection of what we

saw or heard. And then people I think need to look

at those parts of the report carefully and use that

as information rather than the summary the spin on

3591 it.

3588

3589

3590

3592 Q Going to number 6. I'm not going to read

3593 it all, but I'll read the first sentence. "The

3594 report notably fails to critically address PRC

3595 efforts to control information and silence

3596 whistleblowers during the outbreak, particularly in

3597 the early stages when public awareness was crucial."

3598 I guess my kind of understanding of -- I

3599 understand where this bullet is coming from that was

3600 widely publicly reported, I think it's widely

3601 understood that people were told, people were

3602 silenced early on in the outbreak. Did that ever

- 3603 come up in any of your discussions? Understanding
- 3604 you're operating underneath the terms of reference
- 3605 that the WHO and Beijing negotiated, so if this
- 3606 wasn't in there, you weren't going to talk about it.
- 3607 But were there any discussions about maybe scientists
- 3608 feeling slighted that they couldn't speak out early
- **3609** on?
- 3610 A I did not get any impressions of that from
- 3611 the discussions I had. As you just said, this topic
- 3612 did not come up.
- 3613 Q Number 8 discusses the "human costs of the
- 3614 PRC response" that the needs for financial assistance
- 3615 and missed medical appointments in the lockdown,
- 3616 which then we kind of saw translated over to America
- 3617 at some point.
- 3618 Were there any discussions about putting
- 3619 downsides to mitigation measures in the report?
- 3620 A I don't recall any discussion of that.
- 3621 Q Flipping to the next page 1650. I'm going
- 3622 to skip over a question on number 10 since you said
- 3623 you weren't involved in the terms of referenced
- 3624 negotiation, but 11 and 12 are kind of the same theme
- 3625 of the report was then used by China to amplify a
- 3626 positive spin on their response. And you've talked
- 3627 and I agree focusing on the methodology kind of
- 3628 eliminates the narrative aspect of this, but looking

- 3629 back in hindsight do you have any concerns or would
- 3630 you go back and say, hey, like this is kind of a very
- 3631 positive spin on what's happening here?
- 3632 A Well, I think it was really important that
- 3633 people from outside China had a chance to visit and
- 3634 to report on what was going on. And so my focus was
- 3635 making sure to the best of my ability that the
- 3636 information, the actual data in the report would be
- 3637 helpful. And I do have to say I didn't focus so much
- 3638 on what was in those bookends.
- 3639 Q Thank you. I want to introduce Majority
- **3640** Exhibit 13.
- 3641 [Majority Exhibit No. 13 was
- marked for identification.]
- 3643 BY MR. BENZINE.
- 3644 Q This is a document from Fabio Scano
- 3645 obtained via FOIA from February 23rd and an email
- 3646 from him to you. First, do you know who Mr. Scano
- **3647** is?
- 3648 A I do not. I do not.
- 3649 Q The email says -- and maybe it's a mass
- 3650 email, it doesn't have anything after the salutation.
- 3651 "The text and image history of the WeChat group "WHO
- 3652 Experts Group" is as follows." And then it's kind of
- 3653 cut off and weird. Did you use WeChat at all while
- 3654 you were in China?

```
3655 A I don't recall whether or not I used
```

- 3656 WeChat in China. I honestly don't recall. I mean,
- 3657 sometimes it's been used for groups and there was
- 3658 something, there was something we had to stay in
- 3659 touch. I don't know if that was WeChat or something
- **3660** else but.
- Mr. Strom. Stay in touch during the WHO?
- 3662 The Witness. It was like with a group, like a
- 3663 group chat of types. I think we had something like
- 3664 that I just don't remember the platform if it was an
- 3665 email string or what it was.
- 3666 BY MR. BENZINE.
- 3667 Q Were you issued a travel phone for the
- **3668** trip?
- 3669 A We probably were. I don't recall ever
- **3670** using it.
- 3671 Q Then it probably wouldn't have been
- 3672 WeChat. It's a phone app?
- 3673 A But it would have had my phone perhaps.
- **3674** Q Okay.
- 3675 A Right? So I honestly don't recall
- 3676 anything.
- 3677 Q Would that have been your -- understanding
- 3678 you don't recall the platform.
- **3679** A Yeah.
- 3680 Q Would the phone that you said my phone,

- 3681 your NIH issued phone, is it the same phone that you
- 3682 currently have?
- 3683 A It's not the same hardware.
- 3684 Q But retains the same kind of information?
- 3685 A It should.
- 3686 Q Thank you. I want to talk a little bit
- 3687 about the Wuhan Institute of Virology generally,
- 3688 understanding you didn't go to Wuhan, you haven't
- 3689 been to the Wuhan Institute of Virology.
- 3690 Earlier, you said you oversee -- and if oversee
- 3691 is too strong of a word, let me know -- one of the
- 3692 labs of Fort Detrick.
- 3693 A Mm-hmm.
- 3694 Q Is oversee the right word?
- 3695 A So the director of the lab reports to me.
- **3696** So, yes.
- 3697 Q Is that a BSL-4?
- 3698 A It's a BSL-2/3/4, yes.
- 3699 Q And do you oversee Rocky Mountain Labs as
- **3700** well?
- 3701 A I do not.
- 3702 Q Are there BSL-3s or 4 that you oversee?
- 3703 A In terms of direct oversight, no. I have
- 3704 a lab in Bethesda. But that's mostly BSL-2 or it's
- 3705 actually all BSL-2 work. I work with a lab of the
- 3706 Cancer Institute also at Fort Detrick. They do a

- 3707 small amount of BSL-3.
- 3708 Q The BSL-4 work at Fort Detrick, what is
- 3709 it?
- 3710 A It's research that I think I mentioned
- 3711 earlier pivoted to do a lot of COVID-19, SARS-Co-V-2.
- 3712 It studies Ebola, Lassa, Nipah. It's set up -- it's
- 3713 modeled after the NIH clinical center, in that any
- 3714 scientist, whether they're government employees,
- 3715 intramural scientist or extramural investigators can
- 3716 have proposals to do studies there and working in
- 3717 collaboration with the resident staff.
- 3718 Q Understanding the setting we're in, is
- 3719 there any classified research that occurs?
- 3720 A There is no classified research there.
- 3721 Q Okay. I want to introduce Majority
- **3722** Exhibit 14.
- 3723 [Majority Exhibit No. 14 was
- 3724 marked for identification.]
- 3725 BY MR. BENZINE.
- 3726 Q Again, as always, if you don't know the
- answer, we can roll through these pretty quickly.
- 3728 This is an archived version of State Department
- 3729 Fact Sheet regarding the Wuhan Institute of Virology.
- 3730 Were you previously aware of this document?
- 3731 A I do not recall this document.
- 3732 Q All right. As you flip through I'm going

- 3733 to just ask you about a few specific things.
- 3734 A Sure.
- 3735 Q The point number 1 is "Illnesses inside
- 3736 the Wuhan Institute of Virology," and this has been
- 3737 kind of like out in the public quite a bit via this
- 3738 paper and more recent ODNI paper. And it says, "The
- 3739 U.S. government has reason to believe that several
- 3740 researchers inside the WIV became sick in autumn
- 3741 2019, before the first identified case of the
- 3742 outbreak, with symptoms consistent with both COVID-19
- 3743 and common seasonal illness."
- 3744 The most recent congressionally ordered ODNI
- 3745 assessment kind of like verified this in part and not
- 3746 in part, and said several WIV researchers were ill in
- 3747 the fall of 2019 with symptoms. Some of their
- 3748 symptoms were consistent with but not diagnostic of
- 3749 COVID-19. The IC continues to assess this
- 3750 information and neither supports nor refutes either
- 3751 hypothesis of the origins.
- On your trip to China, were there any --
- 3753 understanding again that you didn't go to Wuhan, were
- 3754 there any discussions about kind of laboratory audits
- 3755 or the, I know like high level laboratories keep like
- 3756 do routine blood samples of their researchers. Were
- 3757 there any discussions of that?
- 3758 A I don't precisely recall discussions of

- 3759 that, but I do think there was some discussion of
- 3760 were there banked samples that could be looked at
- 3761 because the fact that people working in a high
- 3762 containment lab get a respiratory illness, fine. But
- 3763 what you want to do particularly if you're working in
- an environment with pathogens, if you have symptoms
- 3765 suggestive of the bug you're working with, you would
- 3766 probably want to look and see if antibodies had
- 3767 developed as a way of checking that.
- 3768 Q Do you recall an answer of whether the --
- 3769 A There were no data on that that were
- 3770 presented. That I'm quite sure of, yes.
- 3771 Q This is kind of a general question going
- 3772 back to kind of like the, for lack of a better word,
- 3773 patient zero timeframe.
- 3774 A Mm-hmm.
- 3775 Q Were there any discussions about obviously
- 3776 the first kind of documented cases were early
- 3777 December, any off-the-cuff discussions of anything
- 3778 happening in Wuhan in the fall, anything like a worse
- 3779 than average flu season or anything like that?
- 3780 A Yeah, I don't recall any robust
- 3781 discussions on that. There was a lot of focus on
- 3782 what was the definite earliest known case. That was
- 3783 a key area that we would ask about repeatedly. And
- 3784 again, it was the first time I heard anything before

- 3785 late December was during that trip.
- 3786 Q Okay. There's a couple other points in
- 3787 here, but before I read it and in the interest of
- 3788 time do you have any knowledge of biological weapons
- 3789 work at the Wuhan Institute of Virology?
- 3790 A I do not.
- 3791 Q Do you have any knowledge of Chinese
- 3792 military engagement with the Wuhan Institute of
- 3793 Virology?
- 3794 A I do not.
- 3795 Q Okay. This is again trying to understand
- 3796 kind of where NIAID or NIH and foreign labs
- 3797 intersect.
- 3798 A Mm-hmm.
- 3799 Q We've heard a couple different versions of
- 3800 who vet foreign labs who end up getting U.S.
- 3801 government money. If you ask Dr. Daszak, it's the
- 3802 NIH's job; if you ask the NIH, it's Dr. Daszak's job,
- 3803 it's the grantees job; and then in another interview,
- 3804 it was the State Department's job. And then trying
- 3805 to figure out who is actually doing this, do you have
- 3806 any knowledge of how the U.S. government ensures a
- 3807 foreign lab that's going to be a subcontractor or a
- 3808 prime contractor is vetted for biosafety or
- 3809 biosecurity?
- 3810 A I don't know how that's done in general.

- 3811 I can tell you that in some of our projects overseas
- 3812 we do have a BSL-3 lab for example in Mali to study
- 3813 tuberculosis, and we bring in outside consultants to
- 3814 look at that lab the same way we look at our labs.
- 3815 But that lab is sort of part of our portfolio. It's
- 3816 not a grant to an extramural investigator who may do
- 3817 a sub-grant. That part of the process I don't have
- 3818 visibility on.
- 3819 Q Okay, thank you.
- 3820 Mr. Slobodin. Is that an NIH lab, NIH-funded
- 3821 lab in Mali?
- The Witness. It's an NIH supported lab; it's
- 3823 cofunded by the Mali government, the university, and
- 3824 ourselves, yes.
- Mr. Benzine. I want to move on again to
- 3826 Majority Exhibit 15.
- 3827 [Majority Exhibit No. 15 was
- 3828 marked for identification.]
- 3829 BY MR. BENZINE.
- 3830 Q And again, if you don't know anything, say
- 3831 you don't know anything and we will move on.
- 3832 So this is another State Department cable and
- 3833 one that has been now publicly released by The
- 3834 Washington Post a couple years ago entitled "China
- 3835 Opens First Bio Level 4 Laboratory." Are you
- 3836 familiar with this document?

- 3837 A I'm not.
- 3838 Q It states right before the beginning of
- 3839 the redactions under the Summary and Comment,
- 3840 "Ultimately, scientists hope the lab will contribute
- 3841 to the development of new antiviral drugs and
- 3842 vaccines, but its current productivity is limited by
- 3843 a shortage of the highly trained technicians and
- 3844 investigators required to safely operate a BSL-4
- 3845 laboratory and a lack of clarity in related Chinese
- 3846 government policies and guidelines."
- 3847 There's two things in that sentence that I want
- 3848 to ask the importance of. First, the importance of
- 3849 having properly trained technicians in a BSL-4 and
- 3850 the importance of clear government regulations on the
- 3851 processes and what occurs in a BSL-4.
- 3852 A I would say I think it's very important to
- 3853 have clear operating procedures and clear oversight
- 3854 of what goes on in a BSL-4 lab.
- 3855 Q And the training of technicians is
- 3856 important as well?
- 3857 A Training of the staff is all part of that.
- 3858 Q Sitting here now, understanding you may
- 3859 not have known in 2020, do you have any to your
- 3860 understanding that the Wuhan Institute of Virology
- 3861 was researching novel SARS-like coronaviruses?
- 3862 A Can you ask that in a slightly different

```
3863 way?
```

- 3864 Q Is it your understanding currently that
- 3865 over the past four years, five years, the Wuhan
- 3866 Institute of Virology has done research on SARS-like
- 3867 coronaviruses?
- 3868 A Only from what I've read. But, yes, it
- 3869 does appear that that lab works in that area, yes.
- 3870 Q The ODNI report that I mentioned also
- 3871 mentioned they do chimeric work on coronaviruses.
- 3872 What biosafety level would you do SARS-related
- 3873 chimeric related work on?
- 3874 A That's really tough without knowing
- 3875 exactly what the exact experiments were.
- 3876 Q Okay. Is it a question of BSL-2 to BSL-3?
- 3877 A I really would have to see what
- 3878 coronaviruses, et cetera, et cetera.
- **3879** Q Okay.
- 3880 BY MR. STROM.
- 3881 Q So back to the biosafety. In your
- 3882 experience running the -- how much -- say it cost 100
- 3883 million to build. What is the annual sort of
- 3884 maintenance costs and upkeep for a BSL-3 and BSL-4
- **3885** suite?
- 3886 A I don't know an exact figure, but it's
- 3887 going to be in the millions of dollars.
- 3888 Q And I ask because -- I'll make this an

```
3889 exhibit.
```

3890 [Majority Exhibit No. 16 was

3891 marked for identification.]

3892 BY MR. STROM.

3893 Q This is an article, it's a journal

3894 distributed by Elsevier called the Journal of

3895 Biosafety and Biosecurity.

3896 A Mm-hmm.

3897 Q The author of this piece is Yuan Zhiming

3898 who is the National Biosafety Laboratory Wuhan

3899 Institute of Virology. I believe he is the safety

3900 director for the WIV at the time. He no longer works

3901 there.

3902 It was written in May 2019. The title of the

3903 article is "Current status and future challenges of

3904 high-level biosafety laboratories in China," and I

3905 would like to focus on page 3 of the article. It's a

3906 section marked "Challenges in the development of

3907 high-level biosafety laboratory systems," and

3908 specifically 3.3 and 3.4, so on the second column.

3909 If you want to just read those and I'll give you a

3910 minute.

3911 A Sure.

3912 Q So just to start with 3.3. It says that

3913 this gentleman, who I believe has been trained at

3914 UTMB to some degree, says about "5-10% of

- 3915 construction costs are needed for annual operation."
- 3916 Does that seem accurate to you?
- 3917 A I think that's accurate. If anything, I
- 3918 think from our experiences, again, we're operating
- 3919 inside an Army garrison which has its own unique
- 3920 aspects.
- **3921** Q Sure.
- 3922 A If anything, maybe a tiny bit on the low
- **3923** side.
- 3924 Q Okay. So just with your biosafety
- 3925 expertise, running a BSL-3 with no operational budget
- 3926 would be difficult?
- 3927 A You couldn't run any laboratory without an
- 3928 operational budget. I mean, a BSL-3 also, it really
- 3929 would depend on what's being done in the BSL-3, how
- 3930 much.
- 3931 Q How much hot time it has?
- 3932 A Exactly, or how much sort of PPE, personal
- 3933 protective equipment, you would wear. It really is
- 3934 dependent on what you're working with.
- 3935 Q In 3.4 here, "Currently, most laboratories
- 3936 lack specialized biosafety managers and engineers."
- 3937 I particularly would like your thoughts on the,
- 3938 some of the skilled staff is composed by part-time
- 3939 researchers. Dr. Zhiming says, "This makes it
- 3940 difficult to identify and mitigate potential safety

- 3941 hazards in facility and equipment operation early
- **3942** enough."
- 3943 Trying to read a little between the lines here,
- 3944 it sounds like they don't necessarily have a
- 3945 full-time biosafety officer who is not also a bench
- 3946 scientist. Just with your experience, is there
- 3947 anything you can sort of glean from that or expand
- **3948** on?
- 3949 A What I can say is that for the operation
- 3950 of our high containment lab at Fort Detrick, it's
- 3951 very important for us to have dedicated safety
- 3952 officers who actually don't report to us, they report
- 3953 to central NIH so that they can have a good oversight
- 3954 function. We also have full-time engineering staff
- 3955 on site monitoring the systems.
- 3956 Q Thank you.
- 3957 Mr. Strom. That's all the questions I have for
- 3958 now.
- 3959 BY MR. BENZINE.
- 3960 Q I want to talk about gain of function a
- 3961 little bit. And I know it's kind of a hot term, has
- 3962 lots of definitions and kind of a moving definition
- 3963 sometimes. First, just your general awareness of
- 3964 that type of research and any direct involvement in
- 3965 anything that could maybe fall under one of the
- 3966 definitions that somebody uses out there.

```
3967 A Sure. So I actually am not a big fan of
```

3968 the term "gain of function" because I think it can be

3969 confusing and certainly interpreted all different

3970 ways. So I like to use the term "change of

3971 function."

3972 Q Okay.

3973 A So it's a matter of how one would study

3974 really any biologic system. You perturb part of it,

3975 see the consequence, and that helps you understand

3976 the role of that part of it.

3977 What we do in terms of the research that we do

3978 is a requirement for review again by a biosafety

committee that's independent from us, and there's

3980 certain questions today that you answer for

3981 experiments that might be considered dangerous

3982 because of what's being done, and then that gets

3983 reviewed. And I know that there are discussions

3984 about how that might be recast in the future and I

3985 think whatever clarity we can bring to that so the

3986 researchers and those who support the research, you

3987 know, having good instruction would be really

3988 helpful.

3979

3989 Q In October of 2014, the White House halted

3990 federal funding. I don't like the term "gain of

3991 function," either, but it was in the title of the

3992 document.

- **3993** A Yeah.
- 3994 Q So halted funding for some types of gain
- 3995 of function research due to -- I think it was an
- 3996 experiment on avian influenza in barracks. Were you
- 3997 involved at all in that policy directive?
- 3998 A I was not involved in that. I was aware
- 3999 of what was going on.
- 4000 Q What was your awareness?
- 4001 A My awareness was there were concerns that
- 4002 experiments were being done that perhaps needed to be
- 4003 monitored regulated more carefully than they were.
- 4004 Q And then in really early January 2017, the
- 4005 White House and OSCB lifted the pause and HHS put
- 4006 into effect the potential pandemic pathogen care and
- 4007 oversight framework board. Were you involved at all
- **4008** in that?
- 4009 A No, no, I was not involved in that.
- 4010 Q Understanding you're an intramural guy at
- 4011 NIAID, you don't do a whole lot outside NIAID. Does
- 4012 intramural NIAID research have to go through P3
- 4013 review if it's going to be gain of function?
- 4014 A We go through the same sorts of review as
- 4015 anybody, yes.
- 4016 Q Have any of your projects been referred to
- **4017** the P3 board?
- 4018 A I don't think so. I mean, I wouldn't know

- 4019 every single project. Nothing that I'm personally
- 4020 involved with has been, no.
- 4021 BY MR. SLOBODIN.
- 4022 Q The process is a little different because
- 4023 with the extramural research proposals when there's a
- 4024 question about the EPPP, or whatever the term of art
- 4025 is these days, there's an internal review committee
- 4026 at NIAID to review those questions. My understanding
- 4027 is for intramural research at NIH, it goes to
- 4028 different internal review committee. That review
- 4029 committee that looks at the extramural research
- 4030 grants does not look at the intramurals; is that
- 4031 correct?
- 4032 A It would be separate groups that look at
- 4033 that.
- 4034 Q Can you tell us what is the review
- 4035 committee that would look at if it came up, where is
- 4036 that committee?
- 4037 A So that would be out of the Office of
- 4038 Research Services, the Division of Safety, Biosafety
- 4039 Committee.
- 4040 Q Is that in the Office of the Director?
- 4041 It's not in NIAID?
- 4042 A No, it's under the -- if you look at sort
- 4043 of the organizational breaks, there's an Office of
- 4044 Research Services, and the Division of Safety comes

- 4045 under that, and then it's out of the division of
- 4046 safety that they review.
- 4047 Q But that's NIH?
- 4048 A NIH central, yes.
- 4049 Q Thank you.
- 4050 BY MR. BENZINE.
- 4051 Q Just kind of a baseline question. You're
- 4052 generally aware of the P3. Are you aware of the
- 4053 intricacies of the language, or is that outside your
- 4054 bailiwick?
- 4055 A It's outside my direct bailiwick. I hear
- 4056 things from time to time but it's really outside of
- 4057 my area.
- 4058 Q And understanding that -- if that
- 4059 continues to be outside your expertise, let me know.
- 4060 One of the things that we've heard is both, I don't
- 4061 want to lose an excuse but like a crutch of an issue
- 4062 with it, is that it's interpreted as only applying to
- 4063 viruses that can already infect humans. So a novel
- 4064 coronavirus that has not been proven to infect
- 4065 humans, in essence, you can do whatever you want to
- 4066 with it. It wouldn't be gain of function because it
- 4067 hasn't already been established as a potential
- 4068 pandemic pathogen in humans. Do you think that's a
- 4069 flaw?
- 4070 A That's outside of what I would be able to

- 4071 comment on, I think.
- 4072 Q Okay. We talked a little bit about
- 4073 EcoHealth and Dr. Dr. Daszak and not a whole lot of
- 4074 communication, if any. Is your awareness of them
- 4075 just from news reporting and the kind of issues
- 4076 surrounding the grant and everything since 2020?
- 4077 A Right. My awareness of them is from
- 4078 things in the public domain, whether it's media or
- 4079 scientific papers, yes.
- 4080 Q And just again in your meetings internal
- 4081 to NIAID, like phrasing Mike Lauer, that never kind
- 4082 of came up?
- 4083 A I would say at any meeting there at times
- 4084 will be comments about any number of things, people,
- 4085 policy decisions, but I don't recall anything
- 4086 specifically.
- 4087 Q Thank you. Just again in April 2020,
- 4088 Dr. Lauer began sending letters to EcoHealth
- 4089 regarding noncompliance, late progress reports, not
- 4090 disclosing specific sub-grantees which ended up being
- 4091 the Wuhan Institute of Virology, noncompliance of
- 4092 grant agreements, and refusing to then subsequently
- 4093 turn over data information. You're generally aware
- 4094 of those efforts?
- 4095 A I'm generally aware, but not specifics. I
- 4096 was not directly involved.

- 4097 Q Not involved in any of those efforts?
- 4098 A No.
- 4099 Q And again, you don't recall specifics of
- 4100 any discussions regarding those efforts --
- **4101** A No.
- 4102 Q -- with NIAID?
- 4103 A Not that involved me, no.
- 4104 Q Just to keep ticking the boxes, on July
- 4105 17, 2023, HHS suspended the Wuhan Institute of
- 4106 Virology from federal funds. Were you involved at
- **4107** all in that?
- 4108 A No.
- 4109 Q And on September 19, 2023, HHS debarred
- 4110 the WIV for a decade. Were you involved at all in
- **4111** that?
- 4112 A No.
- 4113 Mr. Benzine. That is a good stopping point.
- 4114 Off the record.
- **4115** (Recess.)
- 4116 Mr. Benzine. We can go back on the record. I
- 4117 have a few more questions to close out and then John
- 4118 is going to ask some, too.
- 4119 BY MR. BENZINE.
- 4120 Q We mentioned briefly, but the WHO set up
- 4121 an origins investigation from January 14, 2021 to
- 4122 February 10, 2021. Are you generally aware that that

- 4123 occurred?
- 4124 A I'm aware from the public domain things on
- **4125** that, yes.
- 4126 Q Have you read the report?
- **4127** A I have not.
- 4128 Q The team was comprised of 17 international
- 4129 scientists and 17 Chinese scientists. There was one
- 4130 American Dr. Daszak of EcoHealth who we have
- 4131 discussed a little bit today. Obviously one of the
- 4132 aspects of this was investigating the labs in Wuhan
- 4133 and seeing if they were there and generally aware
- 4134 that Dr. Daszak has an affiliation with that.
- 4135 And I didn't know this, this was news to me, the
- 4136 declaration of interest that the WHO has you do. Do
- 4137 you think Dr. Daszak has a conflict of interest in
- 4138 origins investigations?
- 4139 A I would leave that up to those who assess
- **4140** that, yes.
- 4141 Q It was reported and confirmed maybe a
- 4142 little bit this week by HHS in a hearing that the
- 4143 U.S. submitted three names to be a part of this
- 4144 study. Were you one of the three names?
- 4145 A I don't know. But I wasn't asked if I was
- 4146 willing to be part of it, so I would guess that I
- **4147** wasn't.
- 4148 Q Okay. Do you have any knowledge of who

- 4149 was submitted?
- 4150 A I don't.
- **4151** Q Okay.
- 4152 A I don't.
- 4153 Q I want to introduce Majority Exhibit 17.
- 4154 [Majority Exhibit No. 17 was
- 4155 marked for identification.]
- 4156 BY MR. BENZINE.
- 4157 Q These are slides provided to us by
- 4158 EcoHealth and are Bates marked ECOHEALTHALLIANCE 2696
- 4159 through 2701.
- 4160 Dr. Daszak testified that when he got back from
- 4161 his trip he briefed both you and Dr. Fauci, and these
- 4162 were the slides from the briefing. Does that sound
- 4163 right or refresh any recollection?
- 4164 A It certainly could have happened. My
- 4165 guess is it probably was a call with multiple people
- 4166 on it as opposed to just the two of us. I have a
- 4167 vague recollection but I couldn't say.
- 4168 Q Okay. He testified that it was just the
- 4169 two of you.
- 4170 A It could have been. I just don't
- 4171 remember. Yeah, it could have been.
- 4172 Q Obviously it was a while ago so it's
- 4173 working on people's three years ago memory. Going
- 4174 to, it's page 5 of the PowerPoint but page 2700 is

- 4175 the Bates number and it's the slide with market
- 4176 testing 923 samples, and goes through the number of
- 4177 samples with various animals and none of them tested
- 4178 positive. Would that be an indication that maybe
- 4179 there wasn't a COVID positive animal at the market?
- 4180 A I think all you could determine was that
- 4181 these animals weren't COVID positive.
- **4182** Q Okay.
- 4183 A I don't know how to extrapolate beyond
- **4184** that.
- 4185 Q Those are kind of my final questions
- 4186 regarding that considering it's maybe not fresh in
- 4187 the memory.
- 4188 My final question, and I've asked this at
- 4189 various points but I'm going to bundle it up into the
- 4190 end. At any point, 2020 until now, were you
- 4191 contacted by anyone in the intelligence community to
- 4192 assist with their investigation into the origins?
- 4193 A No one that I knew who was in the
- 4194 intelligence community contacted me. That I'm pretty
- **4195** sure of.
- 4196 Q That's a fair answer, I appreciate that.
- 4197 Thank you.
- 4198 BY MR. STROM.
- 4199 Q So Dr. Lane, one of the I think the things
- 4200 we're trying to consider when we are looking at sort

- 4201 of weighing the two hypotheses is, if it's a natural
- 4202 zoonotic spillover, there's precedent for that
- 4203 phenomenon but are there specific either like ongoing
- 4204 or past zoonotic spillovers that you believe are
- 4205 particularly relevant as -- whether it's because it's
- 4206 another coronavirus like SARS or it's a respiratory
- 4207 virus, are there sort of the group of zoonotic
- 4208 spillovers that are most relevant for us to sort of
- 4209 make an apples to apples comparison to?
- 4210 A Certainly, as you say, the original SARS
- 4211 outbreak would be the closest thing.
- 4212 Q So the avian influenza, would that be
- 4213 another similar one?
- 4214 A So the avian influenza or swine influenza,
- 4215 those spillovers are usually a little bit easier to
- 4216 track because of all the surveillance that goes on on
- 4217 those animal species. And the fact that when there
- 4218 are influenza outbreaks in livestock they usually can
- 4219 find those and characterize those, so you know what
- 4220 things to look for and you probably are aware there
- 4221 are periodic outbreaks of an avian flu.
- **4222** Q Sure.
- 4223 A And so I think we've got a pretty good eye
- 4224 on some of those things. In contrast, for a
- 4225 spillover that may have originated from a bat to
- 4226 something else to something else to a human, that's a

```
4227 little bit harder to keep a close eye on.
```

- 4228 Q Sure. They were able to do it in SARS
- 4229 though.
- **4230** A Yes.
- 4231 Q And MERS as well?
- 4232 A Right, but it took a while. Yes.
- 4233 Q So going back to your report. You talk
- 4234 about there's reference that oh the Chinese officials
- 4235 that briefed you guys said that they thought they had
- 4236 pretty good records of what animals were in the
- **4237** market.
- 4238 So going to the WHO report that Mitch was
- 4239 talking about, it really wasn't particularly clear in
- 4240 that report the quantity location which stalls, they
- 4241 sort of I think it's maybe fair to say the government
- 4242 sort of changed their mind as to how good their
- 4243 publicly available records were. We do have a survey
- 4244 from a group of researchers and perhaps a great
- 4245 example of the value of the scientific collaboration,
- 4246 its researchers from Scotland and China and Canada
- 4247 who were actually doing unrelated study on tick-borne
- 4248 diseases in animals in Wuhan wet markets immediately
- 4249 prior to the pandemic. So I'll make this Exhibit 18.
- 4250 [Majority Exhibit No. 18 was
- 4251 marked for identification.]
- 4252 BY MR. STROM.

- 4253 Q So if you want to want to take a minute to
- 4254 read just the abstract, just the bold part on the
- 4255 front page to sort of orient yourself, and I'll have
- 4256 a few quick questions.
- 4257 Doctor, if you can turn to page 4, it's a large
- 4258 table listing the species of animals that were on
- 4259 sale in these wet markets. Just to spare everyone
- 4260 having to read this article in full, this survey ran
- 4261 from March 2017 to November of 2019. The China-based
- 4262 part of this research team went on a monthly basis to
- 4263 four large markets, including the one on seafood
- 4264 market. Collectively, these four markets contained
- 4265 17 stores that they reported as selling live wild
- 4266 animals. I think if you look, there are a number of
- 4267 species in the mammal column here that are
- 4268 susceptible to SARS-Co-V-2. So raccoon dog, Siberian
- 4269 weasel, mink, all immediately come to mind as sort of
- 4270 prime, maybe intermediate, reservoirs since it is a
- **4271** bat virus.
- 4272 What struck me here is that across all 17 stores
- 4273 you had a monthly average of animals being sold as 38
- 4274 in the case of raccoon dogs or ten in the case of
- 4275 mink and other things. It strikes me as kind of a
- 4276 low number to sort of sustain the viral shedding and
- 4277 evolution you need to facilitate a spillover event.
- 4278 I was wondering if you had any thoughts on that. It

- 4279 seems different from sort of the thousands and
- 4280 thousands of palm civets that you had with SARS.
- 4281 A It's a really good question. It is a bit
- 4282 outside of my area of expertise. The only thing I
- 4283 would say is, you know, with so many things,
- 4284 something probably started somewhere. And that one
- 4285 animal, let's say in the wrong place as opposed to a
- 4286 population of animals, could have been responsible.
- 4287 So I'm a little bit uncomfortable because, as I say,
- 4288 it's a bit outside of what I work in. But it doesn't
- 4289 say to me it couldn't have been any of these, for
- 4290 example, because you don't know where the sampling is
- 4291 from, the population size of the different habitats
- 4292 in the wild. There's so many variables that would go
- 4293 into it.
- One of the things in my area that is always
- 4295 important is making sure that whatever population
- 4296 you're trying to generalize from, you're sure it
- 4297 represents the general population. So that's the
- 4298 only thing I would say.
- 4299 Q So maybe rather than focusing on the
- 4300 markets, focus on farms and areas where there are
- 4301 larger populations?
- 4302 A Exactly, or from the wild, different areas
- 4303 of the wild. Because I think that would probably be
- 4304 the way I would approach something like that.

```
4305 Q We mentioned earlier, I believe you
```

- 4306 mentioned earlier that if the Wuhan market was sort
- 4307 of the actual interface, the spillover location, you
- 4308 would expect to see SARS-Co-V-2 samples that
- 4309 contained, samples that were positive for SARS-Co-V-2
- 4310 but then also contained sort of RNA/DNA remnants of
- 4311 the animals.
- 4312 I mentioned a piece by Dr. Jesse Bloom earlier,
- 4313 we'll make this Exhibit 19.
- 4314 [Majority Exhibit No. 19 was
- 4315 marked for identification.
- 4316 BY MR. STROM.
- 4317 Q We're not going to read the whole thing,
- 4318 but I think the abstract is worth looking at.
- 4319 So about halfway through the abstract paragraph,
- 4320 there's a sentence that starts "However." I'll read
- 4321 it so that everyone can see what I'm talking about.
- 4322 "However, the SARS-Co-V-2 content of the
- 4323 environmental samples is generally very low; only 21
- 4324 of 176 samples contain more than ten SARS-Co-V-2
- 4325 reads, despite most samples being sequenced to depths
- 4326 exceeding 10" to the 8th "total reads. None of the
- 4327 samples with double-digit numbers of SARS-Co-V-2
- 4328 reads have a substantial fraction of their
- 4329 mitochondrial material from any non-human susceptible
- 4330 species. Only one of the fourteen samples with at

- 4331 least a fifth of the chordate mitochondrial material
- 4332 from raccoon dogs contains any SARS-CoV-2 reads, and
- 4333 that sample only has 1 of -200,000,000 reads mapping
- **4334** to SARS-Co-V-2.
- 4335 "Instead, SARS-Co-V-2 reads are most correlated
- 4336 with reads mapping to various fish, such as catfish
- 4337 and largemouth bass. These results suggest that
- 4338 while metagenomic analysis of the environmental
- 4339 samples is useful for identifying animals or animal
- 4340 products sold at the market, commingling of animal
- 4341 and viral genetic material is unlikely to reliably
- 4342 indicate whether any animals were infected by
- **4343** SARS-Co-V-2."
- So I think in layman's terms, it's the SARS
- 4345 positive samples from the market don't have really
- 4346 any genetic material from a susceptible mammal
- 4347 species in them. Is that a rough understanding?
- 4348 Essentially, the notable part to me is that none
- 4349 of the samples that tested positive for SARS has a
- 4350 substantial double digit numbers of SARS-Co-V-2 reads
- 4351 have any, have a substantial fraction of their
- 4352 mitochondrial material from any non-human susceptible
- 4353 species. So as I understand it, it's saying that the
- 4354 samples with the large amounts of SARS-Co-V-2 virus
- 4355 contain almost no animal DNA.
- 4356 A So again, this is a bit outside of my

- **4357** area.
- 4358 Q It's way outside of my area.
- 4359 A I would just go back, though, to the
- 4360 notion of the sample size. So the point that struck
- 4361 me as you were reading it, and then just reading it
- 4362 myself is that only 21 of 176 samples contained more
- 4363 than 10 reads. That's an unbelievably low number of
- 4364 reads, okay? And in these types of assays, what I
- 4365 typically would want to do is I would want to repeat
- 4366 the amplification to be sure those weren't false
- 4367 positives even, despite most samples being sequenced
- 4368 to depths exceeding 10 to the 8th.
- 4369 So again, you're talking about --
- 4370 Q Is there some reliability issues there?
- 4371 A In the assay? You bet. So the techniques
- 4372 that are typically used are PCR amplifications, and
- 4373 you can detect one molecule in a large number of
- 4374 molecules. However, you can easily contaminate those
- 4375 types of assays as well with just even from an
- 4376 aerosol.
- 4377 So when you're dealing with this degree, what's
- 4378 the right word. This is very infrequent to begin
- 4379 with, so I think you have to take a look at the
- 4380 techniques that were used making sure they were
- 4381 reproducible. Not saying they aren't. Making sure
- 4382 that the sequencing was being done appropriately.

```
So again, it's really hard, as I say, to prove a negative in something like this.
```

4385 And I guess to bring it up to maybe 10,000 4386 feet, we had Dr. Daszak in for an interview and he 4387 described basically the emergence of this virus of 4388 SARS-Co-V-2 as exactly what they were expecting. And 4389 I thought that was an interesting phrase, because you 4390 look at the work that he was doing with NIH, but also 4391 the work that he proposed with DARPA, I mean, it 4392 really is SARS-Co-V-2 is exactly sort of the virus 4393 they were looking for. They were looking for a 4394 SARS-related coronavirus that used human ACE2, they 4395 were looking for a SARS-related that had a furin 4396 cleavage site, they were looking for a virus that had 4397 a spike that was 18-20 percent different than SARS 1. So it just happens, and I think Jon Stewart 4398 4399 maybe put this the best. It just happens that it 4400 appears in Wuhan, which is home to their virology lab 4401 that they collaborate with, and it also had the 4402 closest known relative to SARS-Co-V-2 in its fridge. 4403 And then the part that I would like to talk to 4404 you about is that we don't have the viral reservoir,

you about is that we don't have the viral reservoir,
we don't know which one it is. We don't have
anything other than this market sort of emergence
that we're trying to sort of -- God knows that data
has been analyzed at least the available data.

```
4409 [Majority Exhibit No. 20 was
```

4410 marked for identification.]

4411 BY MR. STROM.

Q So I would like to show you an article

4413 from John Cohen from Science magazine as my next

4414 exhibit, Exhibit 20. It's a rather dramatic title

4415 called "Looking For Trouble." It's from April of

4416 2022.

What I want to talk about is the map on page

4418 237. It's this graphic right here, sir.

4419 A Okay.

4420 Q First of all, I can try to give an amateur

4421 hour explanation of what this shows, but are you able

4422 to sort of briefly explain to us what the graphic is

4423 attempting to sort of portray?

4424 A Let me just take a minute to read it and

4425 see.

4426 Q Sure.

4427 A I can probably try to say a few things but

4428 not necessarily everything.

4429 Q Let me try my way.

4430 A Okay.

4431 Q And maybe you can correct me if I make a

4432 material mistake.

4433 A Okay.

4434 Q So this map shows sort of the closest

- 4435 known relatives to SARS-Co-V-2, because we haven't
- 4436 found the viral progenitor. I think it's probably an
- 4437 important distinction to make that finding the viral
- 4438 progenitor is probably a less frequent occurrence
- 4439 than finding maybe the viral reservoir or the
- 4440 intermediate host.
- So the five closest ones to this virus are all
- 4442 in Northern Laos and then Yunnan Province of Southern
- 4443 China. So what I think surprises -- what surprised
- 4444 me is that there is seemingly no evidence as to how
- 4445 SARS-Co-V-2 got from its neighborhood in Yunnan and
- 4446 Northern Laos to Wuhan without being detected or
- 4447 without leaving some sort of trail behind where it's
- 4448 moving itself through a large population, mammals
- 4449 picking up favorable mutations kind of like what you
- 4450 saw with SARS, and then it only spills over into
- 4451 Wuhan once, maybe twice at one market and seemingly
- 4452 disappears.
- So is this an issue? Dr. Daszak posits that
- 4454 it's an issue that China just simply doesn't have the
- 4455 capacity to do any of this stuff. I'm not sure I
- 4456 agree with that contention, given some of the skills
- 4457 they've shown in containing past outbreaks, but I
- 4458 would be curious if you had thoughts on that.
- 4459 A So specifically thoughts on?
- 4460 Q Whether or not you're of the opinion that

- 4461 the Chinese CDC, their national public health people,
- 4462 should be able to rebuild the trail or retrace the
- 4463 steps that SARS-Co-V-2 took to get from Yunnan to
- 4464 Wuhan.
- 4465 A I think it's a challenge for anyone to try
- 4466 to connect all those dots. Again, the only data you
- 4467 have are the data you generate. You don't know what
- 4468 you haven't looked at. And it's a matter of -- I
- 4469 would have to read through the paper to know a bit
- 4470 more on the methodology, how many different bats did
- 4471 they collect and from the different areas. You know,
- 4472 the relatedness is due to the vertical difference.
- 4473 It doesn't, it's sort of --
- 4474 Q The whole genome, is that what it's
- **4475** called?
- 4476 A Well, I would need to look as well to see
- 4477 if they did this from whole genome or they did it
- 4478 from a segment of the genome. You can make the trees
- 4479 either way. The trees are really sort of agnostic to
- 4480 they're sort of just put together without any
- 4481 hypothesis. It's just how related are they. And
- 4482 vertical distance between two things. So it's
- 4483 something that you'll see those long distance --
- 4484 Q It's the most recent common ancestor.
- 4485 A Exactly, that's how they put it back. So
- 4486 that's all pretty speculative until you find sort of

- **4487** the --
- 4488 Q Until you fill up the family tree.
- 4489 A Exactly. So you've got a fair amount of
- 4490 uncertainty as you generate it. And again, I don't
- 4491 really know how I would interpret this one in terms
- 4492 of origins.
- 4493 Q It's just I guess, on both sides, but
- 4494 particularly in the virology community, there's a
- 4495 very predominant stance that it's a natural virus,
- 4496 but I think it lacks through -- whether it's through
- 4497 the Chinese government covering up or whatnot, it
- 4498 does seem to lack many of the expected data points
- 4499 that you would see with a respiratory virus that
- 4500 spills over, particularly one that has such broad
- 4501 tropism.
- 4502 So I appreciate your insights, Doctor, but it
- 4503 does seem -- you do wonder as they were conducting
- 4504 almost all their surveillance in Yunnan and Northern
- 4505 Laos, and these areas exactly where these viruses
- 4506 are, they were conducting almost no -- and I say
- 4507 that, this is EcoHealth, they were conducting almost
- 4508 no surveillance in Wuhan.
- 4509 In fact, no reason you should necessarily know
- 4510 this, but in year 3 of their grant, they stopped
- 4511 sampling in Hubei province because they weren't
- 4512 finding bats that used it with SARS-related virus

- 4513 that used ACE-2 receptors.
- 4514 So from a public health standpoint, it does seem
- 4515 unusual that some of the best bat virologists, bat
- 4516 virus virologists, however you want to say it, in the
- 4517 world were caught completely flat-footed and blind in
- 4518 their own town. So is it more a factor of they have
- 4519 this data and the Chinese government isn't allowing
- 4520 it in, or is it just they haven't been able to
- 4521 collect it?
- 4522 A I honestly would have no way of knowing.
- **4523** O Okav.
- 4524 Mr. Strom. That's it.
- 4525 BY MR. SLOBODIN.
- 4526 Q Dr. Lane, Mitch asked you earlier today,
- 4527 is the origin of COVID-19 unsettled science? And you
- 4528 said yes. Could you explain more why you answered
- 4529 yes to that question?
- 4530 A So from what I know from reading as
- 4531 opposed to doing, to be clear on that point, the
- 4532 sequences that have been published of closely related
- 4533 viruses still have a bit of a gap to SARS-Co-V-2. So
- 4534 until that gap has been filled in with some virus
- 4535 that looks really close and closer to SARS-Co-V-2, I
- 4536 don't think we know where this came from. So to me
- 4537 it's an open question.
- 4538 Q So for the future, because I know part of

```
4539 why you devoted decades of your life to NIAID and
```

- 4540 your work is to prevent pandemics or to help us be
- 4541 better prepared. What are your thoughts on what we
- 4542 could do to be better prepared on biological
- 4543 attribution for another major outbreak?
- 4544 Because we clearly have been confounded here,
- 4545 and I would be interested to hear any thoughts you
- 4546 have on what we could do for the future, so we're not
- 4547 caught in this impasse, or at least you say it's
- 4548 unsettled. And I think there are a lot of people who
- 4549 feel that way. I know some people have strong views
- 4550 on this. But the government hasn't reached a
- 4551 definitive conclusion on this or anything close to
- **4552** that.
- 4553 So what are your thoughts on biological
- 4554 attribution? Is there anything we can do ahead of
- 4555 time to put ourselves in a better position?
- 4556 A So I might make two suggestions along
- 4557 those lines. So one is to be sure that we have some
- 4558 degree of a global network that can respond quickly
- 4559 and have agreements between governments about how
- 4560 that response would take place and what triggers it.
- 4561 I think if there were just some way we could get
- 4562 a better engagement with scientists in the areas of
- 4563 the world that we feel are at greatest risk, and
- 4564 again, I think we see the greatest risk where you

- bring sort of things from domain one into a human domain, and that's certainly what has caused some outbreaks.
- The more we're able to, I think, work

 collaboratively in other parts of the world with a

 degree of focus on this one health initiative -- in

 other words, putting attention on the animals a bit

 more than perhaps we have, and then getting an idea

 of what we find in those animals so that we can look

 a little bit more closely. There may very well have
- 4577 was there an immune response maybe there has been.

 4578 So finding more examples of jumps and being able

 4579 to trace how those jumps occurred and what one might

 4580 have done to have prevented those types of jumps, I

been jumps of viruses that don't cause disease that

we wouldn't even know about. But if we looked to see

- 4581 think would be important areas of research.
- 4582 Q That sounds like a lot of that would
- 4583 involve surveillance. You mentioned engagement --
- 4584 greater engagement in areas around the world is the
- 4585 greatest risk. Like you mentioned Mali earlier that
- 4586 NIH is supporting a lab jointly with the university
- 4587 there.

4575

4576

- 4588 A Mm-hmm.
- 4589 Q So just tell us very briefly why you think
- 4590 that those kinds of investments are so important for

- 4591 us being prepared for the future outbreaks? What is
- 4592 the contribution? What's the public health impact
- 4593 from supporting building up that kind of capacity?
- 4594 A So I think one sort of perspective I would
- 4595 put on it, that we don't build the capacity for the
- 4596 sake of building capacity. We build the capacity to
- 4597 do meaningful research. But if we can put that
- 4598 meaningful research in a global distribution, we then
- 4599 would have assets in a variety of strategic places
- 4600 that are ready to immediately pivot.
- 4601 So if, in the process of having that sort of
- 4602 ongoing peacetime or warm base of activity, we direct
- 4603 some of that work to one health type of initiatives,
- 4604 we direct it towards studying patients who are
- 4605 admitted with unexplained fevers. There's a variety
- 4606 of things that sort of touch on the landscape of new
- 4607 diseases that I think are very amenable to research,
- 4608 and I would advocate for that type of work on an
- 4609 ongoing basis.
- 4610 Q Is it the sort of thing that leadership at
- 4611 NIAID is thinking? Do you have discussions or is
- 4612 this part of your strategizing?
- 4613 A Throughout government right now, there are
- 4614 still a number of lessons learned types of
- 4615 activities, talking about the National Biodefense
- 4616 Strategy, for example, and how one would be

- 4617 positioned to try to implement that in the most
- 4618 effective way.
- 4619 Q Thank you. We'll look forward to
- 4620 continuing the dialogue, I hope.
- 4621 Mr. Benzine. We can go off the record.
- 4622 (Recess.)
- We can go on the record.
- **4624** BY
- 4625 Q Hello again, Dr. Lane. Previously, you
- 4626 were shown some slides that are from a presentation,
- 4627 I believe it was Majority Exhibit 17. We're not
- 4628 really going to get into slides, so if you can't find
- 4629 them, it's fine. I just wanted to draw your
- 4630 attention to the meeting. And I know you said you
- 4631 didn't recall it happening, but believe that it could
- 4632 have.
- 4633 Since we know that no staff from NIH or HHS was
- 4634 on this 2021 WHO mission trip, it seems to me that it
- 4635 would make sense for any American who was on the trip
- 4636 to brief government folks about what happened. Does
- 4637 that make sense to you?
- 4638 A It does make sense, and probably would
- 4639 make sense for me to be there, since I was on the
- 4640 prior mission. I just hope that we don't let
- 4641 Dr. Daszak know that I don't remember the call.
- 4642 Q Lots of things were going on. I think it

- 4643 seems logical to forget an individual meeting. But
- 4644 would it surprise you that Dr. Daszak also met with
- 4645 others at NIAID?
- 4646 A No. I mean, I don't actually know what
- 4647 happened, but that certainly would be a logical
- 4648 thing.
- 4649 Q And that he briefed -- he reported
- 4650 briefing U.S. government intelligence on this trip,
- 4651 he reported reporting to the House Committee for
- 4652 Science, Space, and Technology. All of that seems
- 4653 routine, right?
- 4654 A (Nodding head).
- 4655 Ms. Ganapathy. You have to give verbal answers
- 4656 for the transcript.
- 4657 The Witness. I would say that a U.S. scientist
- 4658 going on a WHO mission or attending a WHO meeting and
- 4659 then briefing a number of congressional or executive
- 4660 branch groups would be a bit unusual. But I think
- 4661 it's consistent with what we were seeing with
- **4662** COVID-19.
- 4663 BY
- Q So sharing information at the time was the
- 4665 priority?
- 4666 A Yes.
- 4667 Q Unrelated. How many grants a year, on
- 4668 average, do you think NIAID oversees, extramural

```
4669 grants?
```

- 4670 A I do not know. I would hesitate to guess.
- 4671 Q And thinking about what Dr. Fauci or any
- 4672 director of NIAID is doing, they have a lot that they
- 4673 are overseeing, right?
- 4674 A They oversee a lot of information and in
- 4675 all different programmatic areas, yes.
- 4676 Q So that's intramural research, extramural
- 4677 research, general functioning of the agency or of the
- **4678** center?
- 4679 A Yes.
- 4680 O So it seems reasonable that the director
- 4681 of NIAID wouldn't know about every single extramural
- 4682 grant that was happening?
- 4683 A I think it would be close to impossible
- 4684 for any person to have detailed knowledge of every
- 4685 grant at NIAID.
- 4686 Q So in general, it's really the job of the
- 4687 grants management office to have that detailed
- 4688 knowledge of grants?
- 4689 A So I'm not on that side of NIAID
- 4690 specifically, but I do have a lot of interaction with
- 4691 them. And the general scenario is you will have
- 4692 program staff expert in an area who will be
- 4693 overseeing the portfolios in their areas, yes.
- 4694 Q Thank you.

```
4695 BY
```

- Q So just a few sort of closing questions.

 I think we've heard a lot of important takeaways sort

 of one at a time from the various questions that

 we've asked. So I just wanted to, if you would give

 us sort of your concluding thoughts from the

 pandemic.
- 4702 What are the biggest takeaways, the biggest
 4703 things that you would want to see, the lessons
 4704 learned that should be implemented for the next one?
- A You have the most difficult questions,

 4706 because that to me is such an important question that

 4707 we have such great expertise in the U.S. government

 4708 and in the U.S. in these areas, and figuring out a

 4709 way for us to work together in a very coordinated

 4710 focused fashion at the time there's an outbreak like

 4711 this, to me, would be an extremely high priority.
- So again, the area where I'm most familiar is

 clinical research, therapeutics research. One of the

 things you had was across the U.S. in the academic

 centers, in particular, you might have had a dozen

 studies ongoing without any clear prioritization of

 what to do first. And when you try to answer

 thousands of questions simultaneously, it's really
- 4719 hard to get anything answered. So having a way that
- 4720 the research response is coordinated to me is very

- 4721 important.
- To ensure that we provide the public clear,
- 4723 consistent messaging with acknowledgement of
- 4724 uncertainty where we have uncertainty, because things
- 4725 will change as we learn more. And we have to, I
- 4726 think, be quite transparent on that aspect of what we
- 4727 do.
- 4728 And then I guess the third thing is making sure
- 4729 we have enough ongoing activity in the critical areas
- 4730 that we need to make a response. So it isn't a
- 4731 matter of building the infrastructure to make a
- 4732 response, it's a matter of pivoting infrastructure to
- 4733 make a response.
- 4734 So I think I would say those three things.
- 4735 Q How are we doing, I guess, across those
- 4736 three areas after the pandemic?
- 4737 A Right now, there are a lot of discussions
- 4738 about what we might do on an ongoing basis to be
- 4739 better prepared. I don't think we're yet at the
- 4740 point where we have clear implementation plans on how
- 4741 we get that done.
- There certainly are a number of documents going
- 4743 around, as we talked earlier about implementation of
- **4744** the
- 4745 National Biodefense Strategy. And for our part, how
- 4746 we remain well-prepared to mount a research response,

- 4747 how we maintain a level of basic science research so
- 4748 that we have the building blocks and the tools and
- 4749 some of the knowledge to be able to respond.
- 4750 You know, I think we can always do better. I
- 4751 think coordination is one of the key things that we
- 4752 would benefit from doing a lot better because I do
- 4753 think we have skills and expertise here. I think
- 4754 reaching out, substantively at relatively high
- 4755 government to government levels, but then quickly
- 4756 reducing it down to the people who are the operators,
- 4757 the operations side, because it's sometimes really
- 4758 hard, I think, at a policy level to know that A
- 4759 versus B will work. So don't be too proscriptive,
- 4760 but sort of with flexibility, but make sure you get
- 4761 that government to government engagement and support.
- Just as one example, so we launch a global study
- 4763 let's say of immunoglobulin. For that study to run,
- 4764 we have got to import products to a variety of
- 4765 different countries. We have to have the European
- 4766 Medicines Agency agree to let that investigation of
- 4767 product be used. And if I look at where some of our
- 4768 time constraints were in launching studies, it really
- 4769 was in that regulatory environment.
- 4770 If you go into a response with everyone agreeing
- 4771 that we're going to have harmonization, we're going
- 4772 to look at these things together at the same time,

- 4773 we'll come to decisions, things could move a lot more
- 4774 quickly.
- 4775 Q My last question is, how would reduction
- 4776 in resources for NIAID and NIH broadly affect our
- 4777 ability to accomplish those goals, those lessons
- 4778 learned that you laid out?
- 4779 A As someone whose activities are 100
- 4780 percent -- I won't say 100 percent, perhaps largely
- 4781 dependent on the funding we get from Congress, it's
- 4782 obviously critical to what we do. I think we
- 4783 calibrate to what we have, but I think that there is
- 4784 quite a bit more that we want to be able to do on a
- 4785 sustained basis.
- 4786 So as we got the supplement for COVID and we
- 4787 were able to expand some of what we did we were able,
- 4788 as I mentioned earlier, to bring in some
- 4789 partnerships, and we partnered with the French
- 4790 research agency, with the UK, with the European
- 4791 Union, in addition to France. We did a lot of things
- 4792 together, and we don't have sustained funding for
- 4793 those things. We have sort of the different pieces.
- 4794 But having some funding that would allow us to
- 4795 maintain that global connection, I think, would be
- 4796 really important.
- We can go off the record.
- 4798 [Whereupon, at 3:30 p.m., the taking of the