From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 1/29/2020 10:21:13 PM
To: Lavelle, Judith (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bdb3ed4cd9b847baa381e33a48b838b5-lavellejm]; Deatrick, Elizabeth (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=96d24866f0824a1cb19adfeccc50fedd-deatrickem]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Curiosity Stream in MD

Judy,

yes, I think so. I have an important conference call on the 10th, time not certain but probably 10 or 11 am. The 12th seems good. So we know exactly what she wants to talk about?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Lavelle, Judith (NIH/NIAID) [E] <judith.lavelle@nih.gov>
Sent: Wednesday, January 29, 2020 5:17 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Deatrick, Elizabeth (NIH/NIAID) [C] <elizabeth.deatrick@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Curiosity Stream in MD

Hi Dr. Morens,

The producer does have availability during the afternoon on Monday, Feb 10, and any time on Friday, Feb 14. Her preference is Monday. Do you have any availability on either of these days?

Thanks!
Judy

Judith Lavelle
Technical Writer-Editor
National Institute of Allergy and Infectious Diseases
5601 Fishers Ln., Room 6G37
Rockville, MD 20852
O: (240) 669-5090 | M: b6
Pronouns: she/her | @jude_lavelle

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, January 29, 2020 1:59 PM
To: Deatrick, Elizabeth (NIH/NIAID) [C] <elizabeth.deatrick@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Curiosity Stream in MD

OK, TY. And just to clarify, my unavailability is specifically for next week

David

David M. Morens, M.D.
CAPT, United States Public Health Service

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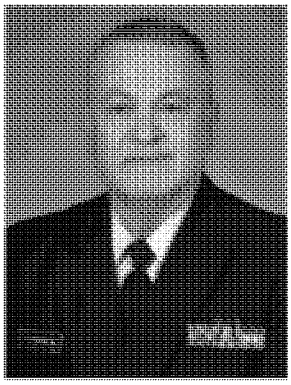

From: Deatrick, Elizabeth (NIH/NIAID) [C] <elizabeth.deatrick@nih.gov>
Sent: Wednesday, January 29, 2020 12:57 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Curiosity Stream in MD

Hi Dr. Morens,

Thanks for letting us know! I'll let the producer know you're unavailable and see if I can get a little more information—and if appropriate, I'll pass it forward to someone else.

Best,
Elizabeth

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, January 29, 2020 12:54 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: Curiosity Stream in MD

Folks, this just came in. I have no memory of it. I will be away from early Tue until late Sunday next week. In any case, maybe this is best for Tony or someone else here?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
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Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ **301 496 2263** (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Sue Houghton b6
Sent: Wednesday, January 29, 2020 12:17 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Curiosity Stream in MD

Dear Dr. Morens,
A few years ago you were generous enough to participate in piece for Curiosity Stream about viruses, and we are revisiting this due to the latest news from Wuhan. We're putting together an updated, short show and plan on using some of your wonderful interview bites from the earlier one, but would very much like to interview you again for this new version.

It wouldn't take more than an hour (with an hour to set up before you're needed) and we very much hope you'll have time for us. Would you be able to work with us Tuesday, Wed. Thurs. or Friday of next week?

Many, many thanks. Please let me know.
Sue Houghton

Sue Houghton
Producer/Writer
b6

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 1/31/2020 8:17:02 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: FW: Voice Mail (1 minute and 3 seconds)
Attachments: (703) 344-4009 (1 minute and 3 seconds) Voice Mail.mp3

Tony may wish to do this? as he is involved in getting out the "right" message? I have not replied to them....

David

David M. Morens, M.D.
CAPT, United States Public Health Service
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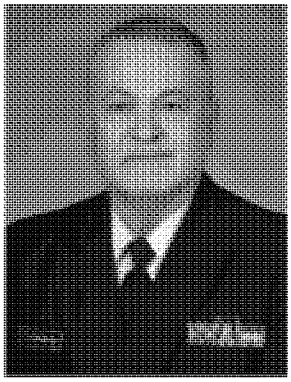

From: Microsoft Outlook <MicrosoftExchange329e71ec88ae4615bbc36ab6ce41109e@nih.mail.onmicrosoft.com> **On Behalf Of** JULIE WRIGHT
Sent: Friday, January 31, 2020 3:12 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Voice Mail (1 minute and 3 seconds)

Yeah hi Dr. Morens my name is structural I work for the Physician's Committee for responsible medicine for PCRM I goes to show there called the exam room and we are putting together an episode off on the corner virus and would love to have you come on and talk a little bit about it I think it be fascinating if we could discuss how his once about this is had decided from birds and semester wind up in seconds humans Dr. Neil barnard our president forwarded me an article that was published and 2013 other chamber called pandemic influenza viruses hoping for the will not taken from you kind of covered up pretty well in there and I was hoping that you would be able to join us.

Talk a little bit more about that please give me a call back my number is b6 gain b6 and my name is structural and I'm with PCRM thank you so much bye bye.

You received a voice message from JULIE WRIGHT at b6

Caller-Id: b6

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 1/31/2020 8:36:13 PM
To: Routh, Jennifer (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e3b5bba3619344e38037ca94a71473a8-routhj]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Interview Request

Great, thanks….

David

David M. Morens, M.D.
CAPT, United States Public Health Service
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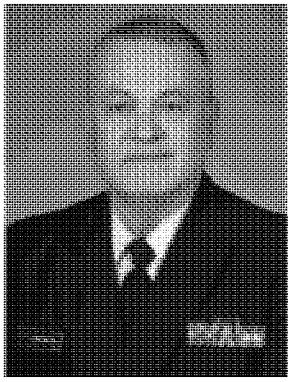

From: Routh, Jennifer (NIH/NIAID) [E] <jennifer.routh@nih.gov>
Sent: Friday, January 31, 2020 3:36 PM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Interview Request

I think best to decline this one. Elizabeth is handling (noting we do not have anyone available and sending to CDC resources).

For those unfamiliar with this group
https://en.wikipedia.org/wiki/Physicians_Committee_for_Responsible_Medicine#cite_note-ama-prime-6

Jennifer Routh [E]
News and Science Writing Branch
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases (NIAID)
NIH/HHS
31 Center Drive Room 7A17C
Bethesda, MD 20892
Direct: (301) 496-8327
jennifer.routh@nih.gov

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, January 31, 2020 3:19 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: Interview Request

Same message, email version just arrived

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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National Institute of Allergy and Infectious Diseases
National Institutes of Health
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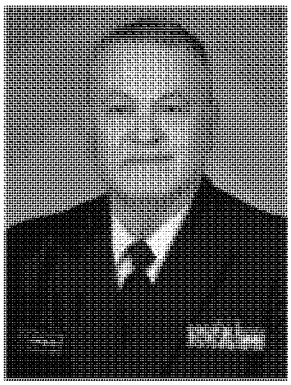

From: Chuck Carroll <CCarroll@pcrm.org>
Sent: Friday, January 31, 2020 3:17 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Interview Request

Dr. Morens,

I hope this email finds you well. Would you be able to join me for an interview regarding the coronavirus outbreak for a show I host for the Physicians Committee called The Exam Room. It would be fascinating if we could discuss how influenza viruses have descended from birds to humans. Does the same apply for the current outbreak?

Dr. Neal Barnard, PCRM President, forwarded me your 2013 article — "Pandemic Influenza Viruses — Hoping for the Road Not Taken" — that was published in The New England Journal of Medicine and suggested you would be the perfect individual for this topic.

Please let me know if you are able or interested. If so, we can record the segment via phone or in studio. Our offices are on Wisconsin Ave. in Friendship Heights, just over the Maryland-DC border. Are you located in Bethesda? It would be ideal if we could record the segment early next week if possible.

I hope to hear from you soon.

Thank you,

Chuck Carroll, Host of The Exam Room Podcast / Media Consultant
Physicians Committee for Responsible Medicine
5100 Wisconsin Ave NW, Suite 400, Washington, DC 20016
O: 703.344.4009

From: Routh, Jennifer (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E3B5BBA3619344E38037CA94A71473A8-ROUTHJ]
Sent: 1/31/2020 8:23:20 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Interview Request

Elizabeth & Judy – hold on this one. We will discuss.

Jennifer Routh [E]
News and Science Writing Branch
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases (NIAID)
NIH/HHS
31 Center Drive Room 7A17C
Bethesda, MD 20892
Direct: (301) 496-8327
jennifer.routh@nih.gov

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, January 31, 2020 3:19 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: Interview Request

Same message, email version just arrived

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
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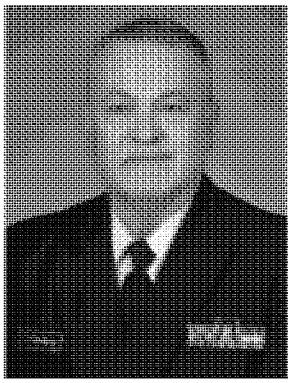
dm270q@nih.gov



From: Chuck Carroll <CCarroll@pcrm.org>
Sent: Friday, January 31, 2020 3:17 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Interview Request

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Please let me know if you are able or interested. If so, we can record the segment via phone or in studio. Our offices are on Wisconsin Ave. in Friendship Heights, just over the Maryland-DC border. Are you located in Bethesda? It would be ideal if we could record the segment early next week if possible.

I hope to hear from you soon.

Thank you,

Chuck Carroll, Host of The Exam Room Podcast / Media Consultant
Physicians Committee for Responsible Medicine
5100 Wisconsin Ave NW, Suite 400, Washington, DC 20016
O: 703.344.4009

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 2/10/2020 11:32:27 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: Fwd: another story idea

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: Marlene Cimons b6
Date: February 10, 2020 at 15:45:44 EST
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: another story idea
hi guys, see below

Marlene usually contacts me via her good buddy tony and theoretically bypasses y'all. Happy to talk to her if our shameless censors agree. d

Hi Dave -

Hope all's well with you. Do you remember a few years ago we spoke about perma frost melting and identifying new viruses and other pathogens that might emerge? Nothing came of that at the time, mostly because Nexus Media (the website I did the flu/tropics story for) was really up and running at the time. All of a sudden, my editor is super interested in a story about melting perma frost and emerging viruses being fodder for scientific study to learn about disease-causing pathogens, both new and old. (I haven't yet had the heart to tell him how *old* this topic is, mostly because I think think it's fascinating, and I suspect there may be updates. Anyway, I dug up my old notes on our conversation (yes, I still have them, computer pack rat that I am!) and wondering if you might have time to talk in the coming days to revisit the topic?
I can't suggest a specific day/time yet because I am struggling with a very ill cat (now in the hospital) and I'm not sure what will be happening to him in the coming days - whether he will get better or whether I will have to make a painful decision....and my focus right now, not surprisingly, is emotionally in a turmoil.....thanks for understanding this. (I have six rescue animals, and they are my family now that my kids are grown and gone, so it's been quite tough.)
until I know what's going to happen there, I'm holding off setting up any specific interviews - but just wanted to make sure you were around and willing this week and next.....let me know, and in the meantime, if you have a meantime, give the topic some fresh thought.....thanks as always -
Marlene

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 2/28/2020 3:02:17 PM
To: Oplinger, Anne (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17c5b4d244b64f9ea2afb118821bd9e2-aoplinger]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: RE: short time window... FW: Interview re 1918 flu

I assume so, either that or the article we did in, I think, mBio

David

David M. Morens, M.D.
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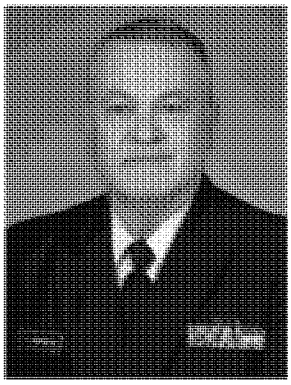

From: Oplinger, Anne (NIH/NIAID) [E] <aoplinger@niaid.nih.gov>
Sent: Friday, February 28, 2020 10:01 AM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: RE: short time window... FW: Interview re 1918 flu

I can request clearance. I'll try to find out his deadline. I believe he is referring to this?
https://www.niaid.nih.gov/about/joseph-kinyoun-indispensable-man-plague-san-francisco

Anne A. Oplinger
NIAID Office of Communications
Media Line: 301-402-1663
General Line: 301-594-3961
aoplinger@niaid.nih.gov

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, February 28, 2020 9:50 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: short time window... FW: Interview re 1918 flu

David

David M. Morens, M.D.
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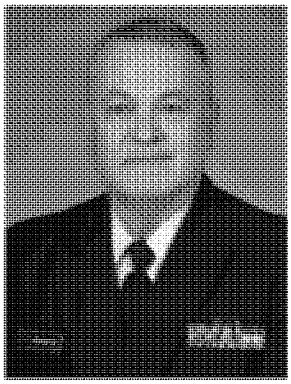


From: Michael Le Page <Michael.LePage@newscientist.com>
Sent: Friday, February 28, 2020 9:41 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Interview re 1918 flu

Hallo David

I'm a reporter at New Scientist magazine, based in the UK. In light of the covid-19 outbreak, I'm writing about past pandemics such as 1918, and what we can learn from them

Could we chat briefly today before noon your time? If so, let me know what number I can reach you on

Thanks, Michael

Michael Le Page
@mjflepage
+44 20 7611 1212
https://www.newscientist.com/author/michael-le-page/

Michael Le Page | Environment Reporter
T +44 2076 111212
E Michael.LePage@newscientist.com

NewScientist
newscientist.com | 4th Floor | 25 Bedford Street | London WC2E 9ES | UK

From: Oplinger, Anne (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=17C5B4D244B64F9EA2AFB118821BD9E2-AOPLINGER]
Sent: 2/28/2020 2:52:15 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: RE: short time window... FW: Interview re 1918 flu

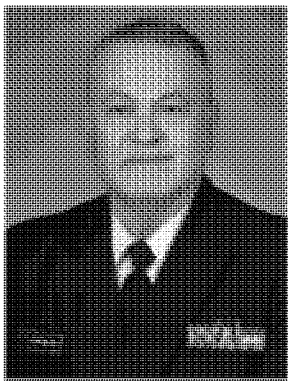
David, can you fit this in? I can request clearance, but don't know if it will be received in time. I can reference your NEJM item from the other day (pandora's box).

Anne A. Oplinger
NIAID Office of Communications
Media Line: 301-402-1663
General Line: 301-594-3961
aoplinger@niaid.nih.gov

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, February 28, 2020 9:50 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: short time window... FW: Interview re 1918 flu

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Michael Le Page <Michael.LePage@newscientist.com>
Sent: Friday, February 28, 2020 9:41 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Interview re 1918 flu

Hallo David

I'm a reporter at New Scientist magazine, based in the UK. In light of the covid-19 outbreak, I'm writing about past pandemics such as 1918, and what we can learn from them

Could we chat briefly today before noon your time? If so, let me know what number I can reach you on

Thanks, Michael

Michael Le Page
@mjflepage
+44 20 7611 1212
https://www.newscientist.com/author/michael-le-page/

Michael Le Page | Environment Reporter
T +44 2076 111212
E Michael.LePage@newscientist.com

NewScientist
newscientist.com | 4th Floor | 25 Bedford Street | London WC2E 9ES | UK

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 2/28/2020 2:57:28 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: Voice Mail (31 seconds) another press inquiry, regarding Kinyoun in 1900 this time
Attachments: b6 (31 seconds) Voice Mail.mp3

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Microsoft Outlook <MicrosoftExchange329e71ec88ae4615bbc36ab6ce41109e@nih.mail.onmicrosoft.com> **On Behalf Of** SAC BEE NEWSPAP
Sent: Thursday, February 27, 2020 5:11 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Voice Mail (31 seconds)

Hi .

My name is Danielle at whether I have made -- with the sacramental B and I am working on a story -- about -- the people on the lady breaking seven Cisco in 1901 -- and I saw your your historical piece on the net and I would -- like to ask you have any questions.

My number is b6 thank you very much bye bye.

You received a voice message from SAC BEE NEWSPAP at b6

Caller-Id: b6

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 3/12/2020 4:19:43 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Barber, Susanna (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1708a16129e04848bc24df7293170c02-weisssu]; Parrish, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]
CC: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; Stover, Kathy (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c82722674ba14c2f969bd50dfa6a7af4-stoverk]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]; Awwad, David (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a5171ce4c4d4110abfe9aebfbdafbe7-dawwad]
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 (b6 - NPR)

David – Sounds like a good idea but that's not our decision to make. You should talk to your administrative people over there.

Best,
Marg

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, March 12, 2020 12:17 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>; Awwad, David (NIH/NIAID) [C] <dawwad@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 b6 - NPR)

Marg, a quick search of a few folders for just "coronavirus" turns up over 700 items; the full search will go into the thousands.

You mention that maybe David A & his folks could help.

The task would be easier if I could just forward all such emails and docs to some central source. Is that doable?

Maybe we can hire folks to help do this?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, March 12, 2020 12:06 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 b6 - NPR)

Sorry David. It means anything where you are in the "to" line or the "from" line. Maybe David Awwad (IT) could help with the search of your emails.

Best,

Marg

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, March 12, 2020 11:58 AM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 [**b6**] NPR)

Marg, does "to and from" mean just between the named folks, or, for example, from me to someone else not named in the FOIA? If the latter, I must have hundreds of such items: how to transmit them without spending days of time?

TY

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ **301 496 2263** (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, March 12, 2020 10:19 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: ACTION REQUIRED: FOI Case No. 53738 (**b6** NPR)

Please see the attached Program Search for communications to and from ASF, Hugh, Cliff, Gray, Greg, Laurie & David mentioning coronavirus, severe acute respiratory syndrome coronavirus 2, Wuhan, 2019-nCoV, SARS-CoV-2, and COVID-19.

Best,
Marg

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 3/12/2020 4:04:32 PM
To: Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]
CC: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; Stover, Kathy (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c82722674ba14c2f969bd50dfa6a7af4-stoverk]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]; Barber, Susanna (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1708a16129e04848bc24df7293170c02-weisssu]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Parrish, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 b6 NPR)

Sorry Gray - The Department and NIH FOIA has found these requests reasonable and has begun granting expedited processing. Dr. Fauci's office is processing more than 20 similar requests. Unfortunately, we are just going to have to push through. We are doing our best to piggy-back these requests wherever possible.

Marg

From: Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>
Sent: Thursday, March 12, 2020 11:57 AM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 b6 NPR)

Marg,

This one is a bit over the top.

This request is for every communication over a two month period focused on COVID-19?

Is there not some way to get back to the requestor and ask for a narrowing of the request to make it more reasonable, especially during a pandemic response?

Gray

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, March 12, 2020 10:19 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: ACTION REQUIRED: FOI Case No. 53738 (**b6** - NPR)

Please see the attached Program Search for communications to and from ASF, Hugh, Cliff, Gray, Greg, Laurie & David mentioning coronavirus, severe acute respiratory syndrome coronavirus 2, Wuhan, 2019-nCoV, SARS-CoV-2, and COVID-19.

Best,
Marg

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 6/30/2020 7:31:03 PM
To: Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Parrish, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; Stover, Kathy (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c82722674ba14c2f969bd50dfa6a7af4-stoverk]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]
Subject: LAWSUIT: ACTION REQUIRED: FOI Case No. 53738 (b6 - NPR)

Importance: High

We need the responsive documents (in either msg. or pst. format), with a completed search memo and requested redactions and a justification memo for this case by **cob, Tuesday, July 7, 2020.**

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Monday, June 8, 2020 2:18 PM
To: Folkers, Greg (NIH/NIAID) [E] <GFOLKERS@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <Laurie.Doepel@nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <DMORENS@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: LAWSUIT: ACTION REQUIRED: FOI Case No. 53738 b6 NPR)

We are now being sued over our failure to respond to this request. Please provide your responsive documents as soon as possible.
Please do not send us PDF's as we cannot hand sort them. We need them in .msg or .pst format.

Thank you.

Marg

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, March 12, 2020 10:19 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: ACTION REQUIRED: FOI Case No. 53738 b6 - NPR)

Please see the attached Program Search for communications to and from ASF, Hugh, Cliff, Gray, Greg, Laurie & David mentioning coronavirus, severe acute respiratory syndrome coronavirus 2, Wuhan, 2019-nCoV, SARS-CoV-2, and COVID-19.

Best,
Marg

From: Folkers, Greg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=614C792839A146B9A8F87A1378519DBD-GFOLKERS]
Sent: 3/12/2020 2:24:51 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Barber, Susanna (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1708a16129e04848bc24df7293170c02-weisssu]; Parrish, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; Stover, Kathy (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c82722674ba14c2f969bd50dfa6a7af4-stoverk]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]
Subject: RE: ACTION REQUIRED: FOI Case No. 53738 b6 NPR)

Thanks
Will add to queue

Greg
Gregory K. Folkers, M.S., M.P.H.
Chief of Staff, Immediate Office of the Director
National Institute of Allergy and Infectious Diseases (NIAID)
National Institutes of Health/DHHS
9000 Rockville Pike
Bldg. 31, Room 7A-05
Bethesda, MD 20892
@greg_folkers
gfolkers@nih.gov

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, March 12, 2020 10:19 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Barber, Susanna (NIH/NIAID) [E] <susanna.barber@nih.gov>; Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; Stover, Kathy (NIH/NIAID) [E] <kathy.stover@nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: ACTION REQUIRED: FOI Case No. 53738 b6 NPR)

Please see the attached Program Search for communications to and from ASF, Hugh, Cliff, Gray, Greg, Laurie & David mentioning coronavirus, severe acute respiratory syndrome coronavirus 2, Wuhan, 2019-nCoV, SARS-CoV-2, and COVID-19.

Best,
Marg

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Freedom of Information Office
5601 Fishers Lane, Room 6G50
Bethesda, Maryland 20892
Tel (301) 451-5109
Fax (301) 480-0904/ Email foia@niaid.nih.gov

National Institutes of Health
National Institute of Allergy
and Infectious Diseases
Bethesda, MD 20892

Memorandum

Date: March 12, 2020

To: Gregory K. Folkers & Laurie Doepel, IOD, NIAID
Hugh Auchincloss
Susanna Barber/David Parrish, DCR
Gray Handley
David Morens

From: Margaret Moore
NIAID/OCGR/FOIA Office

Subject: Request for Records Pursuant to the Freedom of Information Act (FOIA)
REQUESTER: #53738 b6 - NPR)

Response Due: March 26, 2020

DATE RANGE: December 1, 2019 to January 31, 2020

b6 (NPR) has submitted a FOIA request for the following documents:

Communications to and from the following people:

ASF
Hugh AUchincloss
Cliff Lane
Gray Handley
Greg Folkers
Laurie Doepel
David Morens

Mentioning any of the following terms – Coronavirus, severe acute respiratory syndrome coronavirus 2, Wuhan, 2019-nCoV, SARS-CoV-2, and COVID-19. These communications include but are not limited to emails, messaging app or messaging platform messages, memos and internal reports.

A copy of the request is attached (Attachment #1).

In accordance with the FOIA, the NIAID FOIA office has 20 working days in which to make a determination to grant or deny access to the records. Please search all of your electronic and hard copy files as appropriate and provide a response using the following guidelines/checklist:

- ☐ 1 complete copy of all records responsive to the request with no markings (clean copy). The clean copy must include ALL of the documents regardless of whether they are all releasable. Either hard copies or electronic copies are acceptable.
  - Hard copies
    - Single sided
    - Reverse chronological order
    - No staples or paper clips
    - Duplicates removed
  - Electronic copies
    - Same as hard copies
    - .pdf, .doc, .xls, pps etc. files are fine
    - E-mail files should be in .pst or .msg format
    - CD, USB drive or e-mail

- ☐ 1 copy of records with your indications of what you believe should be withheld using one of the Exemptions to the FOIA (highlighted copy).
  - The FOIA is a disclosure statute with 9 Exemptions. At NIH, we essentially have 4 exemptions available to us. A detailed description and links to additional information is attached to this memo (Attachment 2). If the information does not meet one of these 4 Exemptions, it CANNOT be withheld.

- ☐ A completed NIAID Search and Review Worksheet for <u>each</u> person who searched for and reviewed documents (Attachment 3).

Please do NOT have individuals in your Office/Division send documents directly to the NIAID FOIA Office unless specifically asked to do so. All responsive documents should be returned to you for review and collating to ensure the consistency of the requested redactions, elimination of duplicates, and completeness of the response. If the requested documents do not exist, please provide a written statement that explains how you searched for the records (which office(s) were searched; what places were searched, i.e., desk, computers, files, and boxes; and how you searched, i.e., manually, electronically, etc). A no-records response gives the requestor the administrative right to appeal. The appeal will challenge how we searched for records. Therefore, a written statement of your search is very important.

Please note that NIAID is not required to create documents in response to a FOIA request. In addition, please let us know if you know of other NIAID individuals who have responsive records.

If you have any questions or concerns, we can be reached weekdays between 8:30 am to 5:00 pm at (301) 451-5109 or foia@niaid.nih.gov. Your assistance in this matter is greatly appreciated.

Attachment 1 – FOIA Request from b6
Attachment 2 – FOIA Exemptions
Attachment 3 – NIAID FOIA Search and Review Worksheet

March 11, 2020

RE: Coronavirus communications

Dear Sir or Madam:

Under the federal Freedom of Information Act, 5 U.S.C. § 552 (the "FOIA"), I request as a reporter on behalf of National Public Radio, Inc. (NPR) that the National Institutes of Health make available to me for inspection and copying the following documents (which include electronic records):

Communications to and from the following people –

Anthony S. Fauci
Hugh Auchincloss
Henry Clifford "H." Lane
Gray Handley
Gregory K. Folkers
Laurie K. Doepel
David M. Morens

mentioning any of the following terms - 'coronavirus', 'severe acute respiratory syndrome coronavirus 2', 'Wuhan', '2019-nCoV', 'SARS-CoV-2', 'COVID-19'. These communications include but are not limited to emails, messaging app or messaging platform messages, memos and internal reports from 12/01/2019 to 1/31/2020.

As you know, the FOIA provides that if portions of a document are exempt from release, the remainder must be segregated and disclosed. Therefore, please send me all non-exempt portions of the records I have requested and justify any deletions by reference to specific exemptions of the FOIA. I reserve the right to appeal your decision to withhold any materials.

Since some of the documents listed above may be more readily available than others, please provide the documents that are available as soon as possible without waiting to provide access to all the documents.

Please provide the materials in machine-readable format where possible.

The FOIA provides for waiver or reduction of fees if disclosure could be considered as "primarily benefiting the general public." I am a journalist employed by NPR and intend to use the information I am requesting as a basis for a planned news story, which makes me a "representative of the news media." Therefore, I ask that you waive all duplication fees. If you deny this request, however, and the fees will exceed $250, please notify me of the charges before you fulfill my request so that I may decide whether to pay the fees or appeal your denial of my request for a waiver.

I submit this request in my capacity as a journalist, and this information is time-sensitive. Accordingly, I would appreciate your communicating with me by telephone or email b6 or b6 rather than by mail, if you have any questions regarding this request. You can also communicate with anyone in NPR's Legal Department, including Micah Ratner (mratner@npr.org).

I look forward to receiving your reply within twenty (20) business days, as required by federal law.

Thank you for your anticipated cooperation with this FOIA request.

Sincerely,

b6

Attachment 2: Exemptions from Disclosure under the FOIA

- **Exemption 3** is used for information that is not releasable because of a Federal statute other than the FOIA. One example that we have used in the recent past is the protection of information pertaining to the transport of biological agents under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Another example is that some portions of some financial disclosure documents are exempt from release under the Ethics in Government Act.

- **Exemption 4** is used for information such as trade secrets or proprietary information. Examples of trade secrets are: a formula for a drug or a design plan for a piece of equipment. This is information that is NOT in the public domain AND is commercial or financial in nature. Exemption 4 does not protect information simply because it is not published. Exemption 4 material will be identified by the grantee/contractor. The grantee/contractor will be required to articulate how the release of the information will cause SIGNIFICANT FINANCIAL HARM. The justification should include: 1) the names of actual competitors; 2) a detailed explanation of how the information could be used to cause financial harm; and 3) the dollar value of the harm. If the grantee/contractor requests that information be withheld under Exemption 4, the NIAID FOIA Office will then send the information to the designated program official to review and indicate either concurrence or revision. **As the content matter experts, it will be up to the designated NIAID program official to determine whether the requested information meets the criteria for withholding under Exemption 4.** SBIRs are handled slightly differently. If requested by the grantee, SBIR information is protected from disclosure for 4 years under Section 8(b)(2) of Policy Directive 15 U.S.C 638.

- **Exemption 5** is used for information that would be protected in civil litigation. There are four types of information that fall under Exemption 5:
    1) Deliberative Process: information must be predecisional AND express an opinion. We use this to protect information like unfunded grant applications, reviewers' comments, staff recommendations, nominations, etc.
    2) Attorney-work product: information prepared by an attorney in contemplation of litigation
    3) Attorney-client: request for advice from NIH Legal Counsel
    4) Government commercial interest: confidential business information generated by the government (this would include Intramural research with commercial value).

  Exemption 5 material is discretionary, meaning we can choose not to assert it. The older the information, the harder it is to protect under Exemption 5. If challenged, the US Attorney will not defend our use of Exemption 5 unless we can articulate the harm to NIH if the information is released. PLEASE NOTE: Exemption 5 is only used for internal government documents. If anyone outside the government is included, it is no longer internal and not covered by Exemption 5.

- **Exemption 6** is used for personal information such as identifiable patient information, home phone numbers or addresses, dates of birth, social security numbers, Institutional Base Salary, etc. We have a standard list of items that we routinely withhold under Exemption 6.

NOTE: **Exemption 2** used to be available to withhold information "related solely to the internal personnel rules and practices of an agency." While this used to be interpreted very broadly, the US Supreme Court ruling in *Milner v. Department of the Navy* severely limited the use of this Exemption. NIH FOIA has determined that Exemption 2 is no longer available to us.

Exemption 7 protects from disclosure information in a law enforcement file under certain conditions. It is only used at the NIH level.

Attachment 3: NIAID FOIA Search and Review Worksheet

To: NIAID FOIA Specialist
From: _____
Date: _____
Re: FOIA Request Number 53738 b6

We were asked to search for materials that respond to the above-listed FOIA request. We were asked to respond by **March 26, 2020**. The following summarizes the results of this search:

Section A
The search for responsive documents was conducted as follows:

Date someone began and completed looking: _____

Total time: It took _____ hours to search for material.

Rate 1: GS-01 – GS08 *Rate 2: GS09 – GS14* *Rate 3: GS15 and above*

Rate of searcher: 1, 2, or 3	Time spent (minutes)	Place(s) searched and why chosen to search

Total time: It took _____ hours to review the responsive documents.

Section B **Please check the appropriate line(s).**

___Responsive information was located and is attached. I have reviewed the enclosed records and find that no material should be withheld. I approve the release of the records.

___No responsive information was located; the places listed in Section B were searched. I have attached a memo further detailing the search.

___Information was located, but NIAID would be harmed if certain sections were released. I have compiled the information, identified these sections, and included a justification memo explaining the harm. The information and memo are attached.

APPROVAL FOR ACTION AS MARKED:

_____ _____
Name Date

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 3/19/2020 9:39:59 AM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: Australian media request: COVID19 and climate
Attachments: SSRN-id3553617.pdf; ATT00001.htm

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Katelyn Doyle <Doyle.Katelyn@abc.net.au>
> **Date:** March 18, 2020 at 22:56:49 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Australian media request: COVID19 and climate**
>
> Afternoon Dr Morens,
>
> Kate Doyle from Australia's national broadcaster the ABC, where I usually write weather explainers.
>
> Straying away from my usual field, I found your work on the topic so I hope you might be able to help me with some questions we have had come in regarding COVID19 and the weather.
>
> **Questions along the lines of:**
> Why is there is a 'flu season' in winter?
> I have come across the attached paper addressing COVID19's spread and the weather conditions do you have any comment?
> Is there any truth to the idea that COVID19 spreads more slowly in hot humid environments?
> Is there any indication that COVID19 will spread more quickly as we move towards winter in Australia? Is this because it is getting colder?
>
> Is there any relationship between infectious diseases and climate change?
> What are the projections for infectious diseases as the world warms?
> How does this align with colds and the flu being worse in winter?
> Has climate change in any way impacted COVID19?
>
> I am writing a piece for ABC online and I am all set up at home to (hopefully) be able to record audio from which I can quote, let me know a time that works for you. Or if it works better to send through written answers that works for me, given the unusual circumstances. My deadline is by the end of the week.
>
> Cheers,
>
> Kate

Kate Doyle
Weather Reporter

P 04 4755 2329
E Doyle.Katelyn@abc.net.au

-

High Temperature and High Humidity Reduce the Transmission of COVID-19

Jingyuan Wang, Ke Tang, Kai Feng and Weifeng Lv*

March 9, 2020

Abstract. This paper investigates how air temperature and humidity influence the transmission of COVID-19. After estimating the serial interval of COVID-19 from 105 pairs of the virus carrier and the infected, we calculate the daily effective reproductive number, R, for each of all 100 Chinese cities with more than 40 cases. Using the daily R values from January 21 to 23, 2020 as proxies of non-intervened transmission intensity, we find, under a linear regression framework for 100 Chinese cities, high temperature and high relative humidity significantly *reduce* the transmission of COVID-19, respectively, even after controlling for population density and GDP per capita of cities. One degree Celsius increase in temperature and one percent increase in relative humidity lower R by 0.0383 and 0.0224, respectively. This result is consistent with the fact that the high temperature and high humidity significantly reduce the transmission of influenza. It indicates that the arrival of summer and rainy season in the northern hemisphere can effectively reduce the transmission of the COVID-19.

Keywords: COVID-19, Transmission, Effective Reproductive Number, Temperature, Humidity

---

* Jingyuan Wang, Kai Feng and Weifeng Lv are from the School of Computer Science and Engineering at Beihang University; Ke Tang is from the School of Social Sciences at Tsinghua University (contact author). We thank Jiahao Ji for helpful research assistance. Email addresses: jywang@buaa.edu.cn (Jingyuan Wang), ketang@tsinghua.edu.cn (Ke Tang), fengkai@buaa.edu.cn (Kai Feng) and lwf@nlsde.buaa.edu.cn (Weifeng Lv). This work was supported by the National Key R&D Program of China (2019YFB2102100 to Jingyuan Wang) and the National Natural Science Foundation of China (Grant No. 61572059 and 71531001 to Jingyuan Wang and U1811463 to Weifeng Lv).

Since December 2019, Wuhan, the capital of Hubei Province, China, has reported an outbreak of atypical pneumonia caused by COVID-19 (SARS-CoV-2 or 2019-nCov)[1,2], the virus has transmitted nationwide and internationally[3,4]. Compared with SARS, the range of the outbreak of COVID-19 is much wider. European Centre for Disease Prevention and Control shows that, as of 2 March 2020, more than 89,000 COVID-19 cases have been reported globally, from all provinces of China and 66 countries globally.[1] Global outbreaks of COVID-19 have posed major obstacles to public health and the world economy[5].

The transmission of viruses can be affected by a number of factors, including climate conditions (such as temperature and humidity), population density and medical care quality[6,7]. Therefore, understanding the relationship between weather and the transmission of COVID-19 is key to forecast the intensity and end time of this epidemic. However, up to now, it is still unknown whether such a relationship exists or not. For example, on March 06, 2020, Michael Ryan, the executive director of the WHO Health Emergencies Program, said that people still did not know the activity or behavior of the COVID-19 virus in different climatic conditions.[2]

Rough observations of outbreaks of COVID-19 outside China show a noteworthy phenomenon. In the early dates of the outbreak, countries with relatively lower air temperature and lower humidity (e.g. Korea, Japan and Iran) see severe outbreaks than warmer and more humid countries (e.g. Singapore, Malaysia and Thailand) do. Considering the natural log of the average number of cases per day from February 8 to 29 as a *rough* measure of the severity of the COVID-19 outbreaks[3], in Figure 1, we show that the severity is negatively related to temperature and relative humidity using 14 countries with more than 20 new cases during this period.[4]

[Figure 1 about here.]

[1]Refer to https://www.ecdc.europa.eu/en/publications-data/rapid-risk-assessment-outbreak-novel-coronavirus-disease-2019-covid-19-increased.
[2]Refer to http://www.xinhuanet.com/english/2020-03/07/c_138851282.htm
[3]If a country has its first case after February 8, we use the natural log of average number of cases per day between the first-case date and February 29.
[4]The temperature and relative humidity of the capital city of a country are chosen as a proxy for the country.

Inside China, the COVID-19 has spread widely to many cities, and the intensity of transmission and weather conditions in these cities vary largely (shown in Table SI 1), we can, therefore, analyze the determinants of COVID-19 transmission, especially the weather factors. In order to formally quantify the transmission of COVID-19, we first fit 105 samples of serial intervals with the Weibull distribution (a distribution commonly used to fit the serial interval of influenza[8]), then calculate the effective reproductive number, R, a quantity measuring the severity of infectiousness [9], for each of all 100 Chinese cities with more than 40 cases. Because we aim to study the influences of various factors on R under *natural* conditions,[5] we select our data before China's large-scale intervention in the spread of COVID-19 on 24 January, when the first-level response to major public health emergencies in many major cities and provinces including Beijing and Shanghai are announced. Moreover, after the statement of person-to-person transmission from Professor Nanshan Zhong on the evening of January 20 through a public television interview, Chinese hospitals of all provinces began serious case recording of COVID-19, we, therefore, take the daily R values from January 21 to January 23 to proxy the non-intervened R for each city.[6]

Figure 2 shows the average R values from January 21 to 23 for different Chinese cities geographically. Compared with the southeast coast of China, cities in the northern area of China show relatively larger R values and lower temperatures and relative humidity. The scatter plots in Figure 3 illustrate two negative relations between the daily air temperature and R value and between the daily relative humidity and R value, respectively.

[Figure 2 about here.]

[Figure 3 about here.]

Our finding is consistent with the evidence that high temperature and high humidity reduce the transmission of influenza[10-14], which can be explained by two possible

[5]If people stay at home for most of their time under the restrictions of the isolation policy, weather conditions are unlikely to influence the virus transmission due to no chance of contacts between people.
[6]Wuhan City imposed travel restriction at 10 a.m. on January 23, but a large amount of people left Wuhan before 10 a.m. on that day, therefore, our sample still includes January 23.

reasons: First, the influenza virus is more stable in cold temperature, and respiratory droplets, as containers of viruses, remain airborne longer in dry air[15, 16]. Second, cold and dry weather can also weaken the hosts' immunity and make them more susceptible to the virus[17, 18]. These mechanisms are also likely to apply to the COVID-19 transmission. Our result is also consistent with the evidence that high temperature and high relative humidity reduce the viability of SARS coronavirus[19,20].

We then regress the average *R* values of various cities on their average temperature and average humidity over the 3 days (January 21 to 23) and control variables including GDP per capita in 2018 and population density in 2018. Note that GDP per capita and population density can be considered as measures for medical conditions and the crowdness of people inside a city, respectively, which might influence the spread of the COVID-19.

Table 1 shows that the air temperature has a quite strong influence on *R* with significance levels of 1% for all specifications. The influence of relative humidity on *R* is relatively smaller compared to that of temperature, with significance levels of 5% to 10% for different specifications. The control variables are not as significant as the temperature and relative humidity, but with expected signs. For example, cities with larger GDP per capita are likely to have better health care facilities, which tend to reduce the transmission of COVID-19. In cities with higher levels of population density, the virus is expected to spread faster than that in less crowded cities.

We then run a panel regression of daily *R* values on daily temperatures, relative humidity and control variables with both fixed and random effects models. Temperature and relative humidity have quite strong influences on *R* values, with 1% significant levels for both. Relative humidity has a stronger significance than the temperature does, due to its larger daily fluctuation relative to the temperature. Note that since GDP per capita and population density do not change from January 21 to 23, their effects are, therefore, absorbed in the fixed effects dummies in the fixed-effects panel regressions. One degree Celsius increase in temperature and one percent increase in relative humidity lower the *R* value by 0.0383 and 0.0224, respectively, in the panel regression

with fixed effects. We run a Hausman test with a null hypothesis that the random-effects model is preferred to the fixed-effects one, and get the test's p value of 0.06.

If omitting control variables,[7] the fixed-effects model of Table 2 provides an estimation of the R value for a certain city given its temperature and relative humidity:

$$R = 3.968 - 0.0383\,Temperature - 0.0224\,RelativeHumidity \quad (1)$$

Assuming that the same relationship of Equation (1) applies to cities outside China and that the temperature and relative humid of 2020 are the same as those in 2019, we can draw a map of R values for worldwide cities in Figure 4 by plugging the average March and July temperatures and relative humidity of 2019 into Equation (1). This figure cautions people of the risk of COVID-19 outbreak worldwide, in March and July of 2020, respectively. As expected, the R values are larger for temperate countries and smaller for tropical countries in March. In July, the arrival of summer and rainy season in the northern hemisphere can effectively reduce the transmission of the COVID-19; however, risks remain in some countries in the southern hemisphere (e.g. Australia and South Africa). If we plug the normal summer temperature and relative humidity of Tokyo (28°C and 85%, respectively) into Equation (1), the transmission of the COVID-19 in Tokyo will be seriously reduced between March and the Olympics: the estimated R value decreases from 1.914 to 0.992, a 48% drop!

[Table 1 about here.]

[Figure 4 about here.]

[7]Even though GDP per capita has a significance level about 10% in the panel regression with random effects, we still prefer to not include it in our estimation on R values for worldwide cities, because many countries outside China have different health care systems than China, hence the impact of GDP per capital on other countries may not be the same as it is in China.

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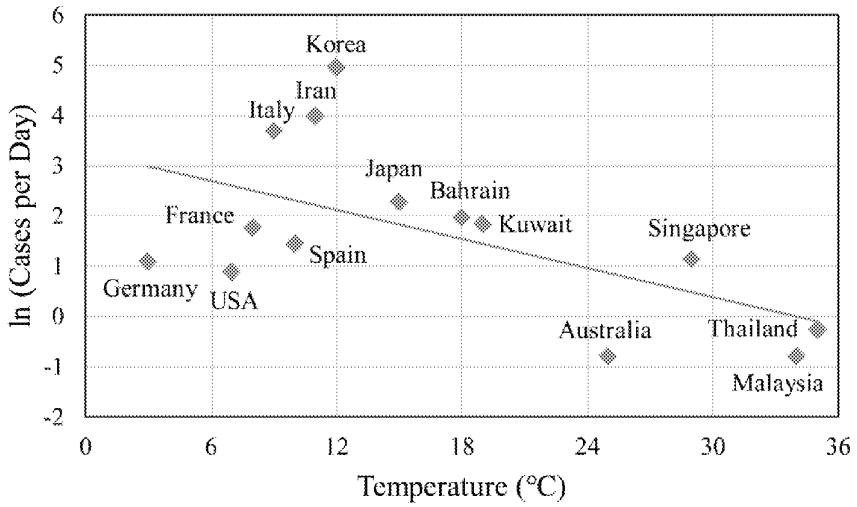
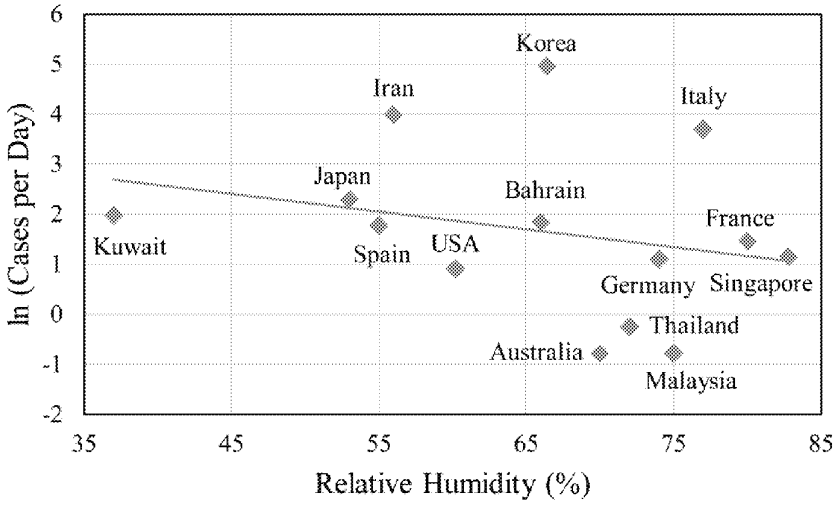


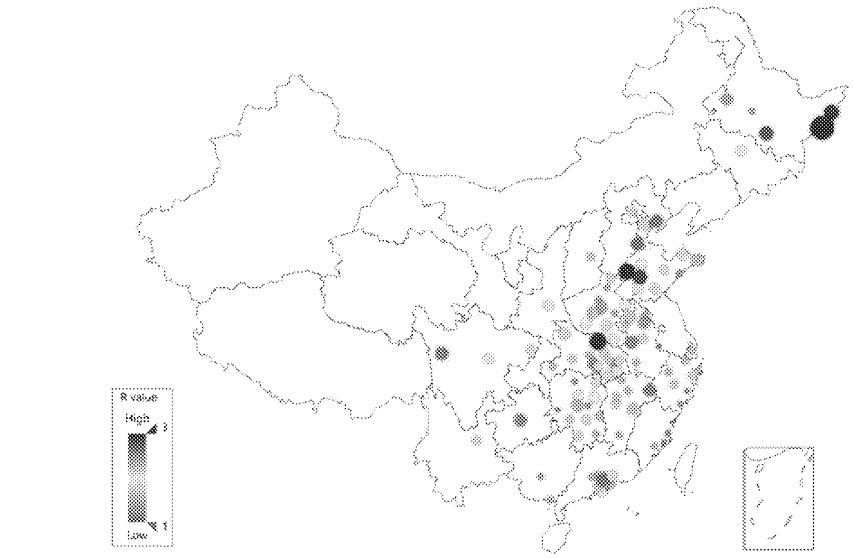
(a)



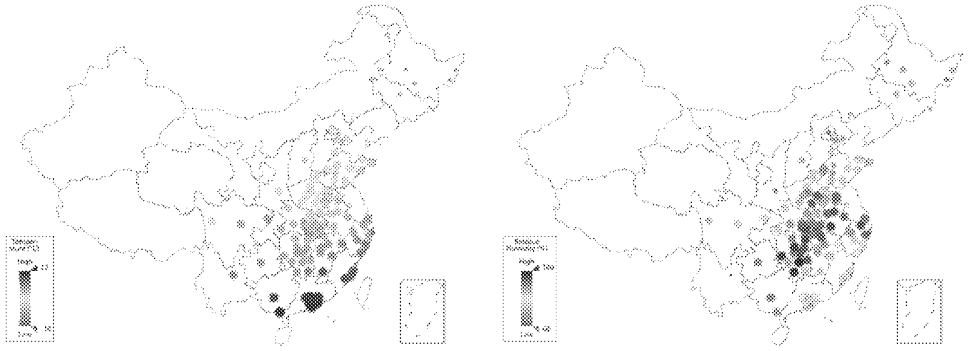
(b)

Figure 1: Severity of COVID-19 outbreaks v.s. temperature and relative humidity for countries outside China.

The natural log of the average number of cases per day from February 8 to 29 is used to proxy the severity of the COVID-19 outbreak for a certain country. If a country has its first case after February 8, we use the natural log of the average number of cases per day between the first-case date and February 29. The temperature and relative humidity of the capital city are used as proxies for the country. Negative relationships between temperature and severity and between humidity and severity are shown in (a) and (b), respectively.



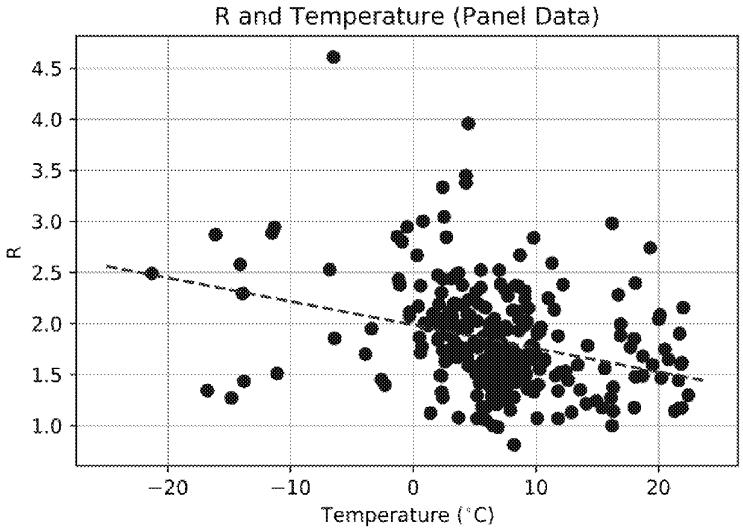
(a)



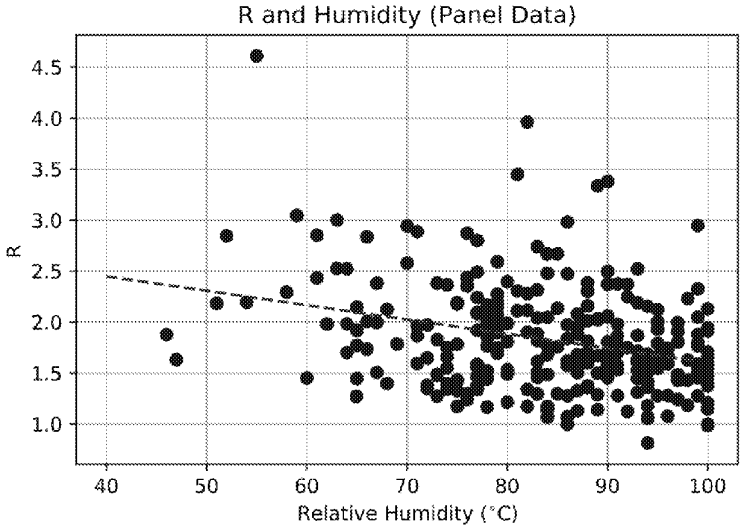
(b) (c)

Figure 2: A city-level visualization of the COVID-19 transmission (a), temperature (b) and relative humidity (c).

Average *R* values from January 21 to 23, 2020 for 100 Chinese cities are used in subplot (a). The average temperature and relative humidity for the same period are plotted in (b) and (c). Subplots (a), (b) and (c) together inform that the *R* values are larger in the cold and dry northern regions of China.



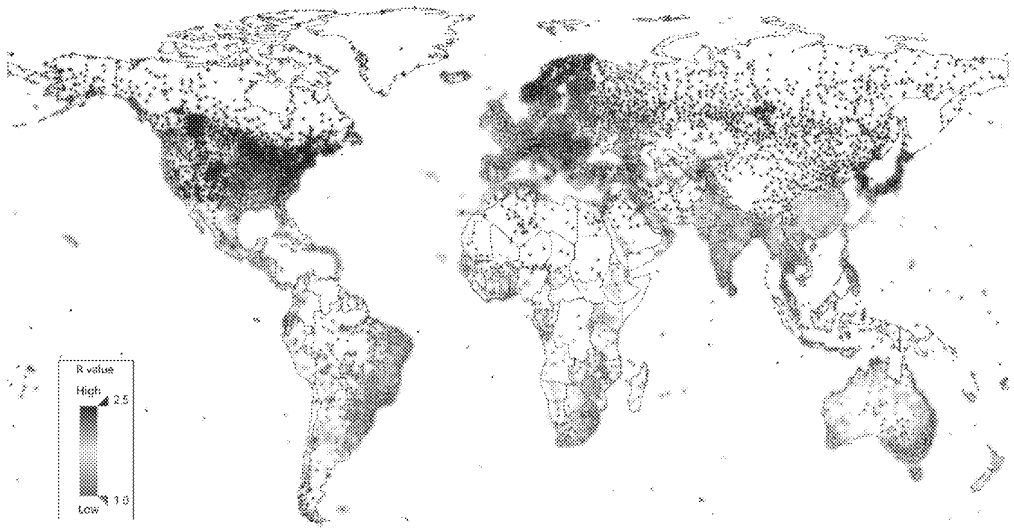
(a)



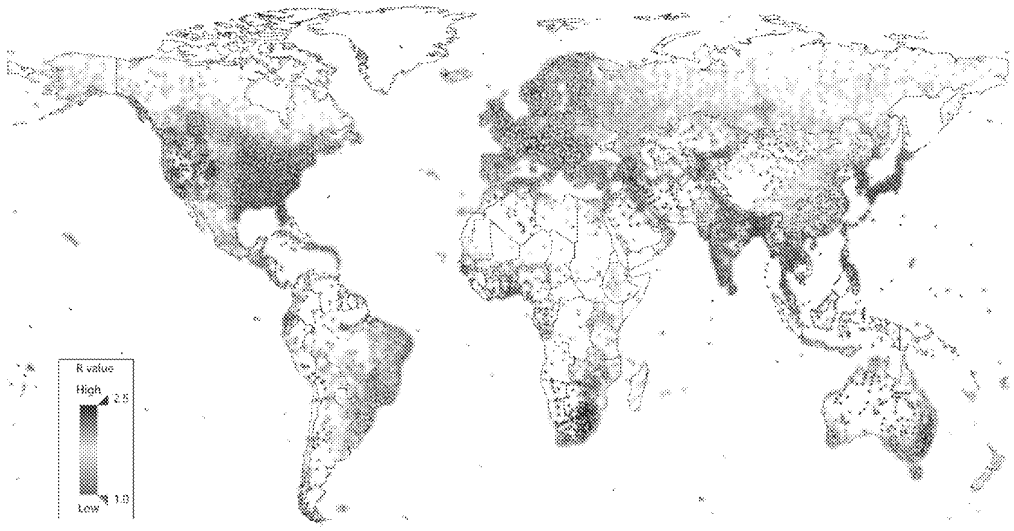
(b)

Figure 3: Effective reproductive number R v.s. temperature and relative humidity for 100 Chinese cities

Daily *R* values, temperature and relative humidity from January 21 to 23, 2020 for 100 Chinese cities are used in this figure. Negative relationships between temperature and *R* and humidity and *R* are shown in (a) and (b), respectively.



(a) R values in March



(b) R values in July

Figure 4: Worldwide risks of COVID-19 outbreak in March and July 2020

We use coefficients from the fixed-effects model of Table 2 to estimate R values of worldwide cities (represented by dots) for March and July 2020, respectively: $R = 3.968 - 0.0383\,Temperature - 0.0224\,RelativeHumidity$, where temperatures and relative humidity of March and July 2019 are obtained from https://www.ncdc.noaa.gov/ and assumed to be the same as those of 2020.

Table 1: Temperature, relative humidity and effective reproductive number: A cross-sectional regression analysis

This table reports the cross-sectional regression coefficients of the average effective reproductive number, R, on an intercept, average temperature, average relative humidity and two control variables (GDP per capita and population density). Average R values, average temperatures and relative humidity from January 21 to 23, 2020 are used in this regression. The regression is estimated by an Ordinary Least Square (OLS) method with robust standard errors. T-statistics are in the italic format with *, ** and *** representing significance at the 10%, 5% and 1% levels, respectively.

	OLS	**OLS robust standard errors**	**OLS**	**OLS robust standard errors**
Temperature	-0.0287	-0.0287	-0.0266	-0.0266
t-statistics	*-4.25****	*-3.14****	*-3.55****	*-2.91****
Relative Humidity	-0.00892	-0.00892	-0.0106	-0.0106
t-statistics	*-1.74**	*-1.65**	*-2.01***	*-1.85**
GDP per Capita			-0.0272	-0.0272
t-statistics			*-1.66**	*-1.66**
Population Density			0.0747	0.0747
t-statistics			*1.08*	*1.18*
const	2.802	2.802	3.061	3.061
t-statistics	*6.66****	*5.74****	*6.66****	*5.52****
R^2	22%	22%	24%	24%

Table 2: Temperature, relative humidity and effective reproductive number: A panel regression analysis

This table reports the panel regression coefficients of the effective reproductive number, R, on an intercept, temperature, relative humidity and two control variables (GDP per capita and population density). Daily R values, temperature and relative humidity from January 21 to 23, 2020 are used in this regression. Fixed and random effects models are both performed with robust standard errors. T-statistics are in the italic format with *, ** and *** representing significance at the 10%, 5% and 1% levels, respectively.

	Fixed Effects	**Fixed Effects with Robust Errors**	**Random Effects**	**Random Effects with Robust Errors**
Temperature	-0.0383	-0.0383	-0.024	-0.024
t-statistics	*-3.27***	*-2.16***	*-3.97***	*-3.06***
Relative Humidity	-0.0224	-0.0224	-0.020	-0.020
t-statistics	*-10.18***	*-10.15***	*-10.15***	*-9.72***
GDP per Capita			-0.031	-0.031
t-statistics			*-1.95**	*-1.92**
Population Density			0.078	0.078
t-statistics			*1.14*	*1.23*
const	3.968	3.968	3.877	3.877
t-statistics	*19.04****	*16.78****	*19.60****	*15.83****
R^2	17%	17%	19%	19%

Methods

1. Data

We hand-collect 4,711 cases from the epidemiological survey data available online published by the Center for Disease Control and Prevention of 11 provinces and municipalities including Beijing, Shanghai, Jilin, Sichuan, Hebei, Henan, Hunan, Guizhou, Chongqing, Hainan and Tianjin. By analyzing the records of each patient's contact history with other patients, we match 209 close contacts. Among them, if an infected patient comes into contact with several COVID-19 carriers, we choose the earliest contact; if a group of patients go to Wuhan City together, we hence cannot distinguish between the carrier and the infected, and, therefore, remove such samples from the data. We finally screen out 105 pairs of virus carriers and the infected, which are used to estimate serial intervals of COVID-19. We also construct epidemic curves for all100 Chinese cities with more than 40 cases from their first-case dates to February 20. The epidemic curves are used to estimate the daily effective reproductive number, R, for different cities.

Temperature and relative humidity data are obtained from 699 meteorological stations in China. If a city does not have a meteorological station inside it, the closest station is used instead. Population density and GDP per capita of 2018 for different cities are obtained from https://data.cnki.net.

2. Distribution of the serial interval

The serial interval, defined as the time span between symptom onset dates of a primary case to a successive case, is calculated based on the 105 samples of the carrier and the infected. Specifically, we fit the Weibull distribution[1, 2] using the Maximum Likelihood Estimation (MLE) method[8] and obtain the parameters of the mean and standard deviation of 7.4 and 5.2 days, respectively, which are consistent with the

[8] We fitted the Weibull distribution by Python package 'Scipy' and R package 'MASS', which can be found at https://www.scipy.org/ and https://cran.r-project.org/web/packages/MASS/index.html. The two results are consistent to each other.

preliminary estimation[3] using 10 cases (7.5 days average with 95% confidence interval of 5.3 to 19). Compared to SARS[2], the COVID-19's serial interval has a smaller average but a larger standard deviation. The fitted Weibull distribution is shown in Figure SI 1.

[Figure SI 1 about here.]

3. Estimation of the effective reproductive number

We estimate the daily effective reproductive number, *R*, for 100 cities with more than 40 cases from the first-case date to February 20 by employing a time-dependent method[4]. The inputs of the model are epidemic curves, i.e. the historical numbers of patients with symptom onset of each day for a certain city. We estimate the *R* values using a package 'R0'[4] (https://cran.r-project.org/web/packages/R0/index.html). In this package, we particularly use a function named 'est.R0.TD' in our estimation. We calculate the three-day averaged *R* from January 21 to 23 as the proxy of natural non-intervened effective reproductive number for each city. If there is no case on a certain day for a city, we skip that day and use the remaining days to get the average value. The average *R* value of these 100 cities is 1.9 with the minimum and maximum values of 1.0 and 4.6, respectively. Table SI 1 provides summary statistics of the variables used in this paper.

[Table SI 1 about here.]

4. Linear Regression

Table 1 reports the cross-sectional regression coefficients of the average effective reproductive number, *R*, on an intercept, the average temperature, the average relative humidity and two control variables (GDP per capita and population density). We estimate the parameters in the regression using the Ordinary Least Square (OLS) method. In Table 2, we run a panel regression with both fixed and random effects, respectively, using daily observations. All regressions are performed with the econometrics software *Stata*. Figure 3 shows slightly larger fitting errors in the low

temperature and low humidity range, as a robustness check, we, therefore, utilize the White's robust standard errors[5] to estimate the t-statistics in the regression.

Furthermore, among these 100 cities, Wuhan is a special sample because of the double standards for the confirmation of cases. For example, there was a sudden increase of more than 13,000 cases in a single day (February 12, 2020) in Wuhan, and the majority of them were previously left unable to seek medical treatment. Therefore, as a robustness check, we remove Wuhan city in our sample and redo both the cross-sectional and panel regressions. The results of robustness checks, presented in Table SI 2, are consistent with those in Table 1 and 2.

[Table SI 2 about here.]

References

1. Cowling, B. J. et al. Estimation of the serial interval of influenza. *Epidemiology* **20**, 344 (2009).

2. Lipsitch, M. et al. Transmission dynamics and control of severe acute respiratory syndrome. *Science* **300**, 1966–1970 (2003).

3. Li, Q. et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. *N. Engl. J. Med.* https://doi.org/10.1056/NEJMoa2001316 (2020).

4. Wallinga, J. & Teunis, P. Different epidemic curves for severe acute respiratory syndrome reveal similar impacts of control measures. *Am. J. Epidemiol.* **160**, 509–516 (2004).

5. Wooldridge, J, M. Introductory Econometrics: A Modern Approach, 3rd edition. 276 (*Nelson Education,* 2016).

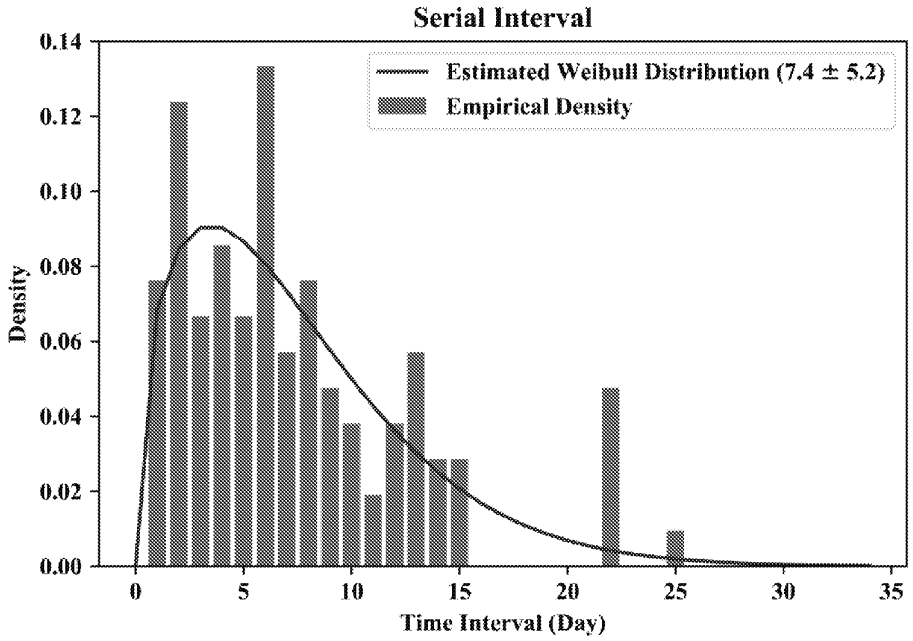


Figure SI 1: Estimation of the serial interval with the Weibull distribution

Bars denote the probability of occurrences in specified bins, and the red curve is the density function of the estimated Weibull distribution.

Table SI 1: Data Summary

This table summarizes variables for 100 cities: the average R value, average temperature and relative humidity from January 21 to 23, 2020, and the GDP per capita and the population density of 2018.

	Mean	Std	Min	Max
Average *R*	1.881	0.527	1.031	4.609
Average Temperature (Celsius)	6.183	7.283	-17.933	21.033
Average Relative Humidity (%)	83.340	9.567	46.667	100.0
GDP per Capital (RMB 10k)	6.771	3.762	1.387	18.594
Population Density (k/km^2)	0.723	0.879	0.00657	6.671

Table SI 2: Relationship between Temperature, relative humidity, and effective reproductive number for samples without Wuhan

The table reports the linear regression coefficients of the effective reproductive number, R, on an intercept, temperature, relative humidity and two control variables (GDP per capita and population density) for samples without Wuhan. Both cross-sectional and panel regressions in Table 1 and 2 are performed. T-statistics are in the italic format with *, ** and *** representing significance at the 10%, 5% and 1% levels, respectively.

	Cross-sectional	**Cross-sectional**	**Panel Fixed Effects**	**Panel Random Effects**
Temperature	-0.0287	-0.0266	-0.0380	-0.0244
t-statistics	*-4.24***	*-3.52***	*-3.23***	*-3.93***
Relative Humidity	-0.00876	-0.0106	-0.0224	-0.0203
t-statistics	*-1.70**	*-1.97***	*-10.13***	*-10.10***
GDP per Capita		-0.0269		-0.0316
t-statistics		*-1.60*		*-1.94**
Population Density		0.0745		0.0782
t-statistics		*1.07*		1.13
const	2.791	3.056	3.965	3.879
t-statistics	*6.59****	*6.54****	*18.95****	*19.44****
R^2	22%	24%	17%	19%

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 3/19/2020 5:03:41 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: March 24 - Invitation for 5-minute plenary update

Not sure how/if this being handled but apparently Tony was asked, declined, then asked me and John Mascola. I am willing to do as these are many old friends of NIAID, although would only be doing it briefly, can't do the whole thing. D

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Ellen Carlin <carlin@ecohealthalliance.org>
> **Date:** March 18, 2020 at 20:53:02 EDT
> **To:** "Mascola, John (NIH/VRC) [E]" <jmascola@mail.nih.gov>
> **Cc:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>, "Phyllis A. Arthur" <parthur@bio.org>, Gregory Frank <gfrank@bio.org>, "Austin, Sarah (NIH/NIAID) [E]" <austinsj@niaid.nih.gov>, "Suhana, Tina (NIH/VRC) [E]" <esuhana@mail.nih.gov>, "Graham, Barney (NIH/VRC) [E]" <bgraham@mail.nih.gov>, "Ledgerwood, Julie (NIH/NIAID) [E]" <jumartin@niaid.nih.gov>
> **Subject: Re: March 24 - Invitation for 5-minute plenary update**
>
> Dear John,
>
> Many thanks for the confirmation. We know this is an extraordinary time, and we very much appreciate you be willing to participate in this important event.
>
> We will follow up in the near term with dial-in logistics and a final agenda. Please don't hesitate to be in touch in the meantime if you have any questions for us.
>
> Sincerely,
> Ellen
>
> On Mar 18, 2020, at 7:57 PM, Mascola, John (NIH/VRC) [E] <jmascola@mail.nih.gov> wrote:
>
> Dear Ellen,
>
> It is certainly a busy time and we are all adjusting.
>
> I can contribute to the virtual meeting and provide brief remarks.
>
> Best regards,
> John
>
> **From:** Ellen Carlin <carlin@ecohealthalliance.org>
> **Sent:** Wednesday, March 18, 2020 10:25 AM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Phyllis A. Arthur <parthur@bio.org>; Gregory Frank <gfrank@bio.org>; Mascola, John (NIH/VRC) [E] <jmascola@mail.nih.gov>
Subject: March 24 - Invitation for 5-minute plenary update

Dear David,

I hope this email finds you well during these trying times. Does it feel like the world is a different place entirely since I saw you a month ago??

By now you will have received an invitation to BIO's multi-stakeholder COVID-19 Collaboration Virtual Summit that will take place March 24-25, 2020 (agenda attached). I am working with BIO in their efforts to ensure that the government is connected to the companies and researchers who are working on products and technologies that could counter the COVID outbreak, and to identify any challenges that could delay progress.

We are writing to ask if you would provide **five minutes of remarks during the opening plenary on "U.S. Government and NGO Response, Current Development Partnerships, and R&D Gaps" on Tuesday March 24 from 11:00-11:40 pm**. We had asked Dr. Fauci but he is quite understandably otherwise engaged. My next thought was you and I recognize that you are probably just as busy. But we are very much hoping for NIH representation; BARDA, DOD JPEO, and CEPI speakers are confirmed for that session. The meeting will be held via GoToMeeting and you can join from your home or office.

Thank you for considering lending your expertise to ensure robust discussion and actionable outcomes from the meeting. We look forward to your RSVP, and really appreciate your consideration during this very busy time.

Many thanks,

Ellen
<BCCI Virtual Summit AGENDA 17Mar2020 - Public v5.docx>

From: Hoffman, Hillary (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3869FE27631B4DCDB698193593F46102-HOFFMANHE]
Sent: 4/20/2020 12:38:12 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: RE: Inrterview Request from Korea

Hi David,

Thank you for passing along. We will decline this international TV request on your behalf.

Kind regards,
Hillary

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Monday, April 20, 2020 8:01 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: Fwd: Inrterview Request from Korea

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: b6 b6
Date: April 20, 2020 at 01:13:26 EDT
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: Inrterview Request from Korea

Dear Dr. Morens,

My name is Sungrae Park, a TV producer for Korean Broadcasting System, a public broadcaster here, working on COVID-19.

Gathering materials of the Spnish flu, I got to know an Alaskan historian, Katie Ringsmuth who introd uce you to me.

I was impressed by the work you and Taubenberger did to reconstruct the virus. I think this work prov es we, humans are smarter than virused only when we learn from the past failure to be prepared for t he next.

I think the story of Brevig Mission is very impressing because it can show my viewer here both the vul nerability and capability against viruses.

I alread got the permission from HHS to reuse an old documetary.

https://www.youtube.com/watch?v=XbEefT_M6xY

So your interview will help me much. Are you available fot my interview via Skype?

Take care,
Park
Windows 10용 메일에서 보냄

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/20/2020 4:22:24 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: 25 signs that the pandemic was comeing

Note that Tony is quoted in this, from a speech he gave d

-----Original Message-----
From: calisher@cybersafe.net <calisher@cybersafe.net>
Sent: Monday, April 20, 2020 12:17 PM
To: Shelley <rockpile@cybersafe.net>; 'Sarah Haworth' [b6]; Sean [b6]; 'Dan Calisher' <dcalisher@fostergraham.com>; 'Suzie Cohen' [b6]; 'Lois Paretti' <lois.paretti@unlv.edu>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; 'Murphy, Frederick A.' <famurphy@utmb.edu>; Ksiazek, Thomas (Galveston National Labortory-UT) <tgksiaze@utmb.edu>; Rich Freeman [b6]
Subject: FW: 25 signs that the pandemic was comeing

We were warned and Trump did nothing.

-----Original Message-----
From: Cohrs, Randall <RANDALL.COHRS@CUANSCHUTZ.EDU>
Sent: Monday, April 20, 2020 9:59 AM
To: Joel.Rovnak@colostate.edu; Charles H Calisher (calisher@cybersafe.net) <calisher@cybersafe.net>
Cc: Antonio Facchiano [b6]; Aamir Shahzad <aamir.shahzad@eutranslationalmedicine.org>
Subject: FW: 25 signs that the pandemic was comeing

Hi Joel and Charlie, Just got this link from a friend in Rome.

--

25 signs that the pandemic was coming

https://www.genengnews.com/a-lists/blinking-red-25-missed-pandemic-warning-signs/?utm_medium=newsletter&utm_source=GEN+Daily+News+Highlights&utm_content=01&utm_campaign=GEN+Daily+News+Highlights_20200420&oly_enc_id=4679J6147645E9Y

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/21/2020 7:48:08 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Professional Sports and COVID Testing

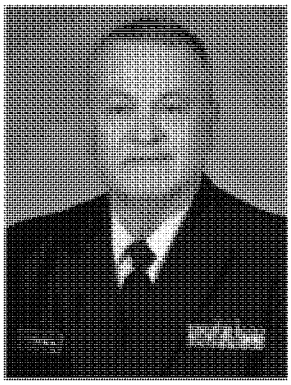
TY, I do have an auto reply for outside emails, but it seems not to stop anybody as they keep emailing me did you get my email, etc.

How is your mom? I hope whatever it is it's not serious. But I guess at 80, almost anything can be serious. Will you head up north this weekend?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Tuesday, April 21, 2020 3:40 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Professional Sports and COVID Testing

For this one, it looks like he wants u to consult for his company….. for free.

I would start telling people like this that you are overcommitted and will have to pass.

And maybe have an out of office reply for outside people hat says because of covid your responses may be significantly delayed

For random inquiries we have a public inquiries staff who can help u - u can send to NIAIDPublicInquiries@mail.nih.gov and ask them to help out

As u know, for press calls u can triage to cog – or beg off entirely

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, April 21, 2020 2:47 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: FW: Professional Sports and COVID Testing

Guys, how are we dealing with these sorts of things? (See below). I am getting bombarded by these sorts of requests for consultation, and spend many hours trying to respond. They typically want phone time, sometimes hours. It could soon become a full time job. I am sure Tony is getting way more of this than I am, and I know other colleagues like Jeff T and various others are getting bombarded as well. Do we have an NIAID mechanism to handles this, or are we all just ducks in a shooting gallery? I have never just ignored people, but now I am thinking this is so overboard that there won't be time to get any work done.

TY,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health

Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Art McGill <art.mcgill@cdtsolutions.com>
Sent: Tuesday, April 21, 2020 2:35 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Professional Sports and COVID Testing

Dr. Morens,

My name is Art McGill, and I am with Comprehensive Drug Testing (CDT). I was referred to you by one of your colleagues, after I initially contacted NIAID. At CDT, we administer the drug testing programs for professional sports leagues in North America (MLB, NHL, etc.). We've been working with the leagues about COVID testing, as well – since that will be needed in order to open up sports again. We think that being able to re-start sports, in a safe and controlled environment, would be a great thing for society as a whole.

I am writing to see if we could talk for 20-30 minutes sometime in the near future. Everyone agrees that COVID-19 testing needs to ramp up and that players, support staff, etc. need to be tested under a regular process (weekly, for instance). There are many different ways to test for COVID-19, and we and our clients are interested to know what you think would be the best ways to implement testing. Should it all be PCR testing that gets sent to a lab? Would finger prick instant testing for antibodies be sufficient? Can molecular point-of-care testing (such as manufactured by Abbott) be relied upon? Is it some combination or hybrid model of using all of these options? Something else altogether?

We are working with the sports leagues to try and develop and design testing protocols and procedures to be able to offer this. The sports leagues are looking to us to execute COVID-19 testing. Would you be willing to talk for 20-30 minutes so that we can help clarify the best way to implement COVID-19 testing and help sports get up and running?

I can be reached via phone at b6 Please feel free to contact me at any time or suggest a time that works well for you.

My sincerest thanks.

Art

Art McGill
CDT, Inc.
230 Commerce, Suite 100
Irvine, CA 92602
O: (714) 852-5212
C b6
art.mcgill@cdtsolutions.com
http://www.cdtsolutions.com

From: Conrad, Patricia (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7EA3E3EA7DAA432887495D6825C9E588-CONRADPA]
Sent: 4/21/2020 6:49:01 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Harris, Kara (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e7e298bf5504b0f961b5f25cba86e65-kharris]; Haskins, Melinda (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=545e01141619453bb4fc1dcde6c45887-haskinsm]
Subject: RE: Professional Sports and COVID Testing

This came to ASF as well and he suggested you. Sorry – not sure that helps

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Sent: Tuesday, April 21, 2020 2:47 PM
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Sent: 4/23/2020 2:47:42 PM
To: Conrad, Patricia (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ea3e3ea7daa432887495d6825c9e588-conradpa]; Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: RE: Professional Golf Association of America Inquiry

OK, shall I respond to this fellow and say that we think it's better that CDC handle? I can't just "not answer" an email like this. TY,

David

David M. Morens, M.D.
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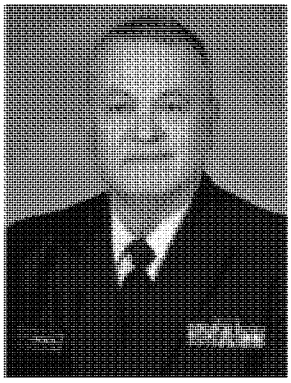

From: Conrad, Patricia (NIH/NIAID) [E] <conradpa@niaid.nih.gov>
Sent: Thursday, April 23, 2020 10:46 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: RE: Professional Golf Association of America Inquiry

Defer to hilary since she said it was deferred to cdc….gues you can stand down

Patricia L. Conrad
Public Health Analyst and
Special Assistant to the Director
National Institute of Allergy and Infectious Diseases
The National Institutes of Health
31 Center Drive, MSC 2520 - Room 7A03
Bethesda, Maryland 20892
301-496-2263
301-496-4409 fax

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, April 23, 2020 10:44 AM
To: Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>; Conrad, Patricia (NIH/NIAID) [E] <conradpa@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: RE: Professional Golf Association of America Inquiry

So I am a bit confused. Both I and CDC are to follow up with these folks? Is that right? TY,

David

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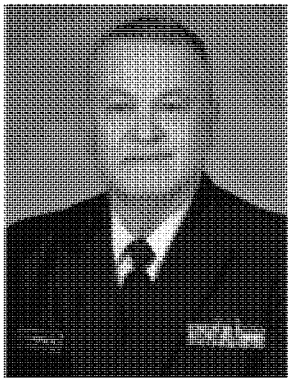

From: Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>
Sent: Thursday, April 23, 2020 10:42 AM
To: Conrad, Patricia (NIH/NIAID) [E] <conradpa@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: Re: Professional Golf Association of America Inquiry

Building 1 got similar outreach to Carrie W and John Burklow and are directing to CDC.

From: Patricia Conrad <conradpa@niaid.nih.gov>
Date: Thursday, April 23, 2020 at 10:39 AM
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>, NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Gregory Folkers <gfolkers@niaid.nih.gov>
Subject: RE: Professional Golf Association of America Inquiry

Yes – this is one ASF would like you to take. thx

Patricia L. Conrad
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Special Assistant to the Director
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devices. National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statement made that are sender's own and not expressly made on behalf of the NIAID by one of its representatives.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, April 23, 2020 10:38 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: FW: Professional Golf Association of America Inquiry

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TY,

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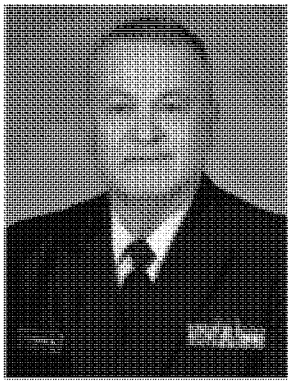

From: Chris Liedel <cliedel@usopm.org>
Sent: Thursday, April 23, 2020 10:29 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: jprice@pgahq.com
Subject: Professional Golf Association of America Inquiry

Dr. Morens,

My name is Chris Liedel and I serve as an independent director of the PGA.

Yesterday, I was given your contact information by the NIAID office as the best person to speak on how we might communicate with our constituency best practices for reopening the country in the coming weeks and months.

My reason for writing is to seek your advice and recommendations on important factors to consider for the sport of golf's response to this pandemic while we prepare a plan to return to participation in the game that is safe, respectful, and coordinated with institution's like yours.

Like every industry, we are evaluating a host of strategies -- ones for managing safeguards at professional tournaments; summer youth development programs; and ensuring current guidelines for social distancing and hygiene are respected.

The game's reach is extensive with two million workers in the industry and roughly 25 million players across the country. Our elite players on the tour have tremendous influence, and have the ability to broadcast the proper safeguards and message -- one that is consistent with your recommendations.

My goal is to have a brief call with you and our key personnel at the PGA to ensure we are supportive of your recommendations as we plan for the future.

Realizing the priorities of your team these days, is there a convenient time over the next couple of days that we could arrange a call to speak?

Thank you in advance, and thank you for what the NIAID is doing for our country during these unprecedented times.

Sincerely

Chris Liedel

Christopher A. Liedel

Chief Executive Officer

UNITED STATES
OLYMPIC & PARALYMPIC
MUSEUM

719-619-8700

P.O. Box 681

Colorado Springs, CO

80901

www.usopm.org

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/23/2020 2:45:59 PM
To: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
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Well said, as this relates to larger national policy and I think responses are best coordinated at high levels. Happy to do my part as long as this is the decision.

David

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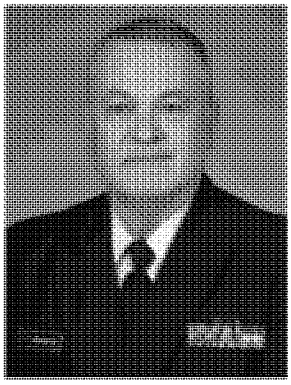

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Sent: Thursday, April 23, 2020 10:44 AM
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I'll let front office speak to whether it's legit or not – it looks legit, and is in line with other similar requests from other sports and industries. But this begs a larger question about who should be consulting/speculating on reopening of the country or any given industry. Certainly ASF himself is well in tune with the latest discussions within the Task Force. But otherwise, I think we should be referring these inquiries to CDC. It's fundamentally public health guidance they are seeking.

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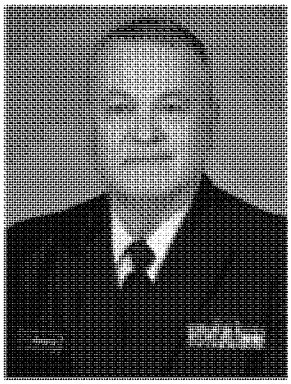

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From: Harper, Jill (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0BFD6DFB8E48482FB49A5F72ABFCBAC8-JHARPER]
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CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Harper, Jill (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bfd6dfb8e48482fb49a5f72abfcbac8-jharper]
Subject: RE: Professional Golf Association of America Inquiry

I agree with Courtney – NIAID should not be advising groups/industries on reopening. We should refer to CDC.

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Sent: Thursday, April 23, 2020 10:44 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
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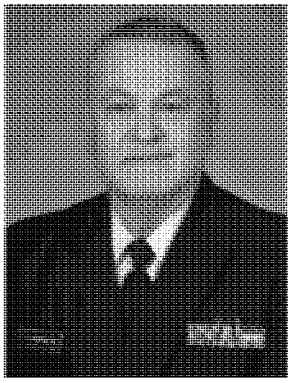


From: Chris Liedel <cliedel@usopm.org>
Sent: Thursday, April 23, 2020 10:29 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: jprice@pgahq.com
Subject: Professional Golf Association of America Inquiry

Dr. Morens,

My name is Chris Liedel and I serve as an independent director of the PGA.

Yesterday, I was given your contact information by the NIAID office as the best person to speak on how we might communicate with our constituency best practices for reopening the country in the coming weeks and months.

My reason for writing is to seek your advice and recommendations on important factors to consider for the sport of golf's response to this pandemic while we prepare a plan to return to participation in the game that is safe, respectful, and coordinated with institution's like yours.

Like every industry, we are evaluating a host of strategies -- ones for managing safeguards at professional tournaments; summer youth development programs; and ensuring current guidelines for social distancing and hygiene are respected.

The game's reach is extensive with two million workers in the industry and roughly 25 million players across the country. Our elite players on the tour have tremendous influence, and have the ability to broadcast the proper safeguards and message -- one that is consistent with your recommendations.

My goal is to have a brief call with you and our key personnel at the PGA to ensure we are supportive of your recommendations as we plan for the future.

Realizing the priorities of your team these days, is there a convenient time over the next couple of days that we could arrange a call to speak?

Thank you in advance, and thank you for what the NIAID is doing for our country during these unprecedented times.

Sincerely

Chris Liedel

Christopher A. Liedel

Chief Executive Officer

UNITED STATES
OLYMPIC & PARALYMPIC
MUSEUM

719-619-8700

P.O. Box 681

Colorado Springs, CO

80901

www.usopm.org

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/23/2020 2:52:57 PM
To: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: RE: Professional Golf Association of America Inquiry

Courtney and colleagues,

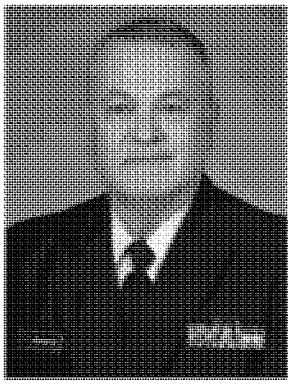
Just as an FYI, I have had these sorts of things funneled my way already, for example, at Tony's request I have spent huge amounts of time consulting with the global PEPSICO food production company, along with Gary Nabel and senior experts Bill Schaffner and Mike Levine. PEPSICO's concerns focus more and more on "reopening" issues, not only in the US but in their facilities in numerous countries.

I am not overly concerned about helping them, but we should be aware that there are places where PH practice and politics may collide or converge.

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>
Sent: Thursday, April 23, 2020 10:44 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: RE: Professional Golf Association of America Inquiry

I'll let front office speak to whether it's legit or not – it looks legit, and is in line with other similar requests from other sports and industries. But this begs a larger question about who should be consulting/speculating on reopening of the country or any given industry. Certainly ASF himself is well in tune with the latest discussions within the Task Force. But otherwise, I think we should be referring these inquiries to CDC. It's fundamentally public health guidance they are seeking.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, April 23, 2020 10:38 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: FW: Professional Golf Association of America Inquiry

Just checking to make sure this is legit. I have had several scam attempts in the past few weeks in which the person contact me said the front office forwarded to me.

TY,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
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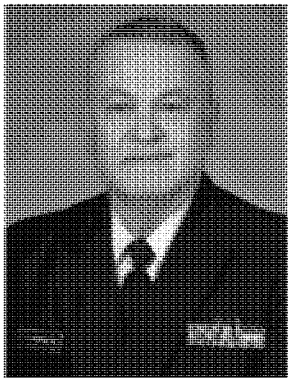

From: Chris Liedel <cliedel@usopm.org>
Sent: Thursday, April 23, 2020 10:29 AM
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Cc: jprice@pgahq.com
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Thank you in advance, and thank you for what the NIAID is doing for our country during these unprecedented times.

Sincerely

Chris Liedel

Christopher A. Liedel

Chief Executive Officer

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719-619-8700

P.O. Box 681

Colorado Springs, CO

80901

www.usopm.org

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 4/27/2020 3:23:38 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]
Subject: ACTION REQUIRED: FOI Case #53777 (Hancock)
Attachments: 53777Search.docx; FOIA Request Coronavirus

Please see the attached Program Search and FOIA request from Kayla Hancock for records related to coronavirus.

Best,
Marg

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Freedom of Information Office
5601 Fishers Lane, Room 6G50
Bethesda, Maryland 20892
Tel (301) 451-5109
Fax (301) 480-0904/ Email foia@niaid.nih.gov

National Institutes of Health
National Institute of Allergy
and Infectious Diseases
Bethesda, MD 20892

Memorandum

Date: April 27, 2020

To: Greg Folkers/Laurie Doepel, IOD
Anthony Fauci
Kimberly Barasch
Patricia Conrad
Hilary Marston
Hugh Auchincloss
Sharon Gilles
Gray Handley
David Morens

From: Margaret Moore
NIAID/OCGR/FOIA Office

Subject: Request for Records Pursuant to the Freedom of Information Act (FOIA)
REQUESTER: b6 (#53777)

Date Range: December 1, 2019 - March 21, 2020

Response Due: May 11, 2020

b6 (Accountable, US) has submitted a FOIA request for the following documents held by the individuals listed above:

- **Calendars for December 2019, and January – March 2020**
- **Correspondence with any White House staff**
- **Correspondence, memos, guidance, meeting notes or other relevant documents discussing the decision to remove COVID-19 testing numbers from the CDC website.**
- **Correspondence about nationwide testing capabilities and certifying state-based labs**
- **Correspondence about the CDC COVID-19 tests' contaminated reagents**
- **Correspondence, reports, memos, guidance, meeting notes or other relevant documents regarding the transport for Diamond Princess passengers that allowed infected passengers to fly to the US with uninfected passengers.**

A copy of the request is attached (Attachment #1).

In accordance with the FOIA, the NIAID FOIA office has 20 working days in which to make a determination to grant or deny access to the records. Please search all of your electronic and hard copy files as appropriate and provide a response using the following guidelines/checklist:

- ☐ 1 complete copy of all records responsive to the request with no markings (clean copy). The clean copy must include ALL of the documents regardless of whether they are all releasable. Either hard copies or electronic copies are acceptable.
    - Hard copies
        - Single sided
        - Reverse chronological order
        - No staples or paper clips
        - Duplicates removed
    - Electronic copies
        - Same as hard copies
        - .pdf, .doc, .xls, pps etc. files are fine
        - E-mail files should be in .pst or .msg format
        - CD, USB drive or e-mail

- ☐ 1 copy of records with your indications of what you believe should be withheld using one of the Exemptions to the FOIA (highlighted copy).
    - The FOIA is a disclosure statute with 9 Exemptions. At NIH, we essentially have 4 exemptions available to us. A detailed description and links to additional information is attached to this memo (Attachment 2). If the information does not meet one of these 4 Exemptions, it CANNOT be withheld.

- ☐ A completed NIAID Search and Review Worksheet for <u>each</u> person who searched for and reviewed documents (Attachment 3).

Please do NOT have individuals in your Office/Division send documents directly to the NIAID FOIA Office unless specifically asked to do so. All responsive documents should be returned to you for review and collating to ensure the consistency of the requested redactions, elimination of duplicates, and completeness of the response. If the requested documents do not exist, please provide a written statement that explains how you searched for the records (which office(s) were searched; what places were searched, i.e., desk, computers, files, and boxes; and how you searched, i.e., manually, electronically, etc). A no-records response gives the requestor the administrative right to appeal. The appeal will challenge how we searched for records. Therefore, a written statement of your search is very important.

Please note that NIAID is not required to create documents in response to a FOIA request. In addition, please let us know if you know of other NIAID individuals who have responsive records.

If you have any questions or concerns, we can be reached weekdays between 8:30 am to 5:00 pm at (301) 451-5109 or foia@niaid.nih.gov. Your assistance in this matter is greatly appreciated.

Attachment 1 – FOIA Request from b6
Attachment 2 – FOIA Exemptions
Attachment 3 – NIAID FOIA Search and Review Worksheet

Attachment 2: Exemptions from Disclosure under the FOIA

- **Exemption 3** is used for information that is not releasable because of a Federal statute other than the FOIA. One example that we have used in the recent past is the protection of information pertaining to the transport of biological agents under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Another example is that some portions of some financial disclosure documents are exempt from release under the Ethics in Government Act.

- **Exemption 4** is used for information such as trade secrets or proprietary information. Examples of trade secrets are: a formula for a drug or a design plan for a piece of equipment. This is information that is NOT in the public domain AND is commercial or financial in nature. Exemption 4 does not protect information simply because it is not published. Exemption 4 material will be identified by the grantee/contractor. The grantee/contractor will be required to articulate how the release of the information will cause SIGNIFICANT FINANCIAL HARM. The justification should include: 1) the names of actual competitors; 2) a detailed explanation of how the information could be used to cause financial harm; and 3) the dollar value of the harm. If the grantee/contractor requests that information be withheld under Exemption 4, the NIAID FOIA Office will then send the information to the designated program official to review and indicate either concurrence or revision. **As the content matter experts, it will be up to the designated NIAID program official to determine whether the requested information meets the criteria for withholding under Exemption 4.** SBIRs are handled slightly differently. If requested by the grantee, SBIR information is protected from disclosure for 4 years under Section 8(b)(2) of Policy Directive 15 U.S.C 638.

- **Exemption 5** is used for information that would be protected in civil litigation. There are four types of information that fall under Exemption 5:
    1) Deliberative Process: information must be predecisional AND express an opinion. We use this to protect information like unfunded grant applications, reviewers' comments, staff recommendations, nominations, etc.
    2) Attorney-work product: information prepared by an attorney in contemplation of litigation
    3) Attorney-client: request for advice from NIH Legal Counsel
    4) Government commercial interest: confidential business information generated by the government (this would include Intramural research with commercial value).

  Exemption 5 material is discretionary, meaning we can choose not to assert it. The older the information, the harder it is to protect under Exemption 5. If challenged, the US Attorney will not defend our use of Exemption 5 unless we can articulate the harm to NIH if the information is

released. PLEASE NOTE: Exemption 5 is only used for internal government documents. If anyone outside the government is included, it is no longer internal and not covered by Exemption 5.

- **Exemption 6** is used for personal information such as identifiable patient information, home phone numbers or addresses, dates of birth, social security numbers, Institutional Base Salary, etc. We have a standard list of items that we routinely withhold under Exemption 6.

NOTE: **Exemption 2** used to be available to withhold information "related solely to the internal personnel rules and practices of an agency." While this used to be interpreted very broadly, the US Supreme Court ruling in *Milner v. Department of the Navy* severely limited the use of this Exemption. NIH FOIA has determined that Exemption 2 is no longer available to us.

Exemption 7 protects from disclosure information in a law enforcement file under certain conditions. It is only used at the NIH level.

Attachment 3: NIAID FOIA Search and Review Worksheet

To: NIAID FOIA Specialist
From: _____
Date: _____
Re: FOIA Request Number 53777 b6

We were asked to search for materials that respond to the above-listed FOIA request. We were asked to respond by **May 11, 2020**. The following summarizes the results of this search:

_____

Section A
The search for responsive documents was conducted as follows:

Date someone began and completed looking: _____

Total time: It took _____ hours to search for material.

Rate 1: GS-01 – GS08 *Rate 2: GS09 – GS14* *Rate 3: GS15 and above*

Rate of searcher: 1, 2, or 3	Time spent (minutes)	Place(s) searched and why chosen to search

Total time: It took _____ hours to review the responsive documents.

Section B **Please check the appropriate line(s).**

___Responsive information was located and is attached. I have reviewed the enclosed records and find that no material should be withheld. I approve the release of the records.

___No responsive information was located; the places listed in Section B were searched. I have attached a memo further detailing the search.

___Information was located, but NIAID would be harmed if certain sections were released. I have compiled the information, identified these sections, and included a justification memo explaining the harm. The information and memo are attached.

APPROVAL FOR ACTION AS MARKED:

_____ _____
Name Date

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 9/10/2020 5:59:11 PM
To: Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]
CC: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]
Subject: RE: ACTION REQUIRED: FOI Case #54052 (b6 - Judicial Watch)

Hallelujah! And thanks. Another one bites the dust. May the rest soon follow. Thank you!

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ **301 496 2263** (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>
Sent: Thursday, September 10, 2020 1:01 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: FOI Case #54052 [b6] Judicial Watch)

Hello David. I wanted to let you know I talked to Marg about this today and she advised this FOI is closed. The NIH OD handled and we can stand-down on reviewing NIAID documentation.

Wanted to close the look with you.

With Appreciation,
Sharon

Sharon M. Gilles
Special Assistant to the Deputy Director
National Institute of Allergy and Infectious Diseases
The National Institutes of Health
31 Center Drive, MSC 2520 - Room 7A03B
Bethesda, Maryland 20892
Mobile: 240-338-5351

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, May 22, 2020 11:05 AM
To: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>
Subject: Re: ACTION REQUIRED: FOI Case #54052 [b6] Judicial Watch)

ShRon, that would be great if you dont mind! David

Sent from my iPhone
David M Morens
OD, NIAID, NIH

> On May 22, 2020, at 10:17, Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov> wrote:
>
> Hello David. I am not coordinating this response for everyone in OD. That said, I am happy to do this for you when I do it for Dr. Auchincloss. I am going to submit the request today. Please let me know if you would like me to do this FOI review for you as well.
>
> With Appreciation,
> Sharon
>
> Sharon M. Gilles
> Special Assistant to the Deputy Director

National Institute of Allergy and Infectious Diseases
The National Institutes of Health
31 Center Drive, MSC 2520 - Room 7A03B
Bethesda, Maryland 20892
Mobile: 240-338-5351

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Wednesday, April 29, 2020 9:58 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Doepel, Laurie (NIH/NIAID) [E] <laurie.doepel@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; McGowan, John J. (NIH/NIAID) [E] <jmcgowan@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Stumpo, Dante (NIH/NIAID) [E] <stumpod@niaid.nih.gov>; Green, Wade (NIH/NIAID) [E] <wade.green@nih.gov>
Cc: Billet, Courtney (NIH/NIAID) [E] <billetc@niaid.nih.gov>; NIAID FOIA Office <NIAIDFOIAOffice@mail.nih.gov>
Subject: ACTION REQUIRED: FOI Case #54052 [**b6**]- Judicial Watch)

Greg, Hugh, JJ, Cliff, Gray, David - Please see the attached Program Search and FOI request from Judicial Watch. We are asking you for records responsive to Item #1 only.

Dante, Wade – We are asking you for records responsive to Item #2 only.

Thank you.
Marg

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 4/29/2020 1:58:21 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; McGowan, John J. (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fd4549a1a37c41c78410c7c29e3d3c00-jmcgowan]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Stumpo, Dante (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a20fe9d9efea441daf55b22c2b76ef3e-stumpod]; Green, Wade (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=88fdd3b0456c40458e952e6c043b2a6b-williamswa]
CC: Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]
Subject: ACTION REQUIRED: FOI Case #54052 b6 Judicial Watch)
Attachments: Search54052.docx; PAL Request Form (1).pdf

Greg, Hugh, JJ, Cliff, Gray, David - Please see the attached Program Search and FOI request from Judicial Watch. We are asking you for records responsive to Item #1 only.

Dante, Wade – We are asking you for records responsive to Item #2 only.

Thank you.
Marg

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Freedom of Information Office
5601 Fishers Lane, Room 6G50
Bethesda, Maryland 20892
Tel (301) 451-5109
Fax (301) 480-0904/ Email foia@niaid.nih.gov

National Institutes of Health
National Institute of Allergy
and Infectious Diseases
Bethesda, MD 20892

Memorandum

Date: April 29, 2020

To: Greg Folkers/Laurie Doepel (Item #1 only)
Greg Folkers (Item #1 only)
Hugh Auchincloss (Item #1 only)
John McGowan (Item #1 only)
Cliff Lane (Item #1 only)
Gray Handley (Item #1 only)
David Morens (Item #1 only)

Dante Stumpo (Item #2 only)
Wade Green (Item #2 only)

From: Margaret Moore
NIAID/OCGR/FOIA Office

Subject: Request for Records Pursuant to the Freedom of Information Act (FOIA)
REQUESTER: b6 (#54052)

Date Range: January 1, 2013 to April 22, 2020

Response Due: May 13, 2020

b6 (Judicial Watch) has filed a request for the following:

1. **All internal NIAID communications regarding the Wuhan Institute of Virology in Wuhan, China. The requester was asked to identify the offices or staff members that he would like searched for internal communications related to the Wuhan Institute of Virology and responded "With regards to Item 1, I would like the internal communications of the following officials: Anthony Fauci, MD; Hugh Auchincloss, M.D; John J. McGowan, Ph.D.; H. Clifford Lane, M.D.; Robert W. Eisinger, Ph.D.; Gregory K. Folkers, M.S., M.P.H.; Gray Handley, M.S.P.H.; and David M. Morens, M.D..**
PLEASE NOTE: WE ARE INTERPRETING INTERNAL EMAILS TO MEAN EMAILS WITHIN NIAID ONLY.

2. **All agreements, contracts and related documents between NIAID and the Wuhan Institute of Virology.**

3. **All records, including agreements, funds disbursement records and related NIAID communications regarding a reported $3.7 million in grants provided by NIH to the Wuhan Institute of Virology. The requester confirmed that he is seeking a copy of the grant with the id number R01AI10964 "Understanding the Risk of Bat Coronavirus Emergence." This grant was not awarded to the Wuhan Institute of Virology, but rather to EcoHealth Alliance, Inc.**

A copy of the request is attached (Attachment #1).

In accordance with the FOIA, the NIAID FOIA office has 20 working days in which to make a determination to grant or deny access to the records. Please search all of your electronic and hard copy files as appropriate and provide a response using the following guidelines/checklist:

- ☐ 1 complete copy of all records responsive to the request with no markings (clean copy). The clean copy must include ALL of the documents regardless of whether they are all releasable. Either hard copies or electronic copies are acceptable.
  - Hard copies
    - Single sided
    - Reverse chronological order
    - No staples or paper clips
    - Duplicates removed
  - Electronic copies
    - Same as hard copies
    - .pdf, .doc, .xls, pps etc. files are fine
    - E-mail files should be in .pst or .msg format
    - CD, USB drive or e-mail

- ☐ 1 copy of records with your indications of what you believe should be withheld using one of the Exemptions to the FOIA (highlighted copy).
  - The FOIA is a disclosure statute with 9 Exemptions. At NIH, we essentially have 4 exemptions available to us. A detailed description and links to additional information is attached to this memo (Attachment 2). If the information does not meet one of these 4 Exemptions, it CANNOT be withheld.

- ☐ A completed NIAID Search and Review Worksheet for <u>each</u> person who searched for and reviewed documents (Attachment 3).

Please do NOT have individuals in your Office/Division send documents directly to the NIAID FOIA Office unless specifically asked to do so. All responsive documents should be returned to you for review and collating to ensure the consistency of the requested redactions, elimination of duplicates, and completeness of the response. If the requested documents do not exist, please

provide a written statement that explains how you searched for the records (which office(s) were searched; what places were searched, i.e., desk, computers, files, and boxes; and how you searched, i.e., manually, electronically, etc). A no-records response gives the requestor the administrative right to appeal. The appeal will challenge how we searched for records. Therefore, a written statement of your search is very important.

Please note that NIAID is not required to create documents in response to a FOIA request. In addition, please let us know if you know of other NIAID individuals who have responsive records.

If you have any questions or concerns, we can be reached weekdays between 8:30 am to 5:00 pm at (301) 451-5109 or foia@niaid.nih.gov. Your assistance in this matter is greatly appreciated.

Attachment 1 – FOIA Request from **b6**
Attachment 2 – FOIA Exemptions
Attachment 3 – NIAID FOIA Search and Review Worksheet

Attachment 2: Exemptions from Disclosure under the FOIA

- **Exemption 3** is used for information that is not releasable because of a Federal statute other than the FOIA. One example that we have used in the recent past is the protection of information pertaining to the transport of biological agents under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Another example is that some portions of some financial disclosure documents are exempt from release under the Ethics in Government Act.

- **Exemption 4** is used for information such as trade secrets or proprietary information. Examples of trade secrets are: a formula for a drug or a design plan for a piece of equipment. This is information that is NOT in the public domain AND is commercial or financial in nature. Exemption 4 does not protect information simply because it is not published. Exemption 4 material will be identified by the grantee/contractor. The grantee/contractor will be required to articulate how the release of the information will cause SIGNIFICANT FINANCIAL HARM. The justification should include: 1) the names of actual competitors; 2) a detailed explanation of how the information could be used to cause financial harm; and 3) the dollar value of the harm. If the grantee/contractor requests that information be withheld under Exemption 4, the NIAID FOIA Office will then send the information to the designated program official to review and indicate either concurrence or revision. **As the content matter experts, it will be up to the designated NIAID program official to determine whether the requested information meets the criteria for withholding under Exemption 4.** SBIRs are handled slightly differently. If requested by the grantee, SBIR information is protected from disclosure for 4 years under Section 8(b)(2) of Policy Directive 15 U.S.C 638.

- **Exemption 5** is used for information that would be protected in civil litigation. There are four types of information that fall under Exemption 5:
    1) Deliberative Process: information must be predecisional AND express an opinion. We use this to protect information like unfunded grant applications, reviewers' comments, staff recommendations, nominations, etc.
    2) Attorney-work product: information prepared by an attorney in contemplation of litigation
    3) Attorney-client: request for advice from NIH Legal Counsel
    4) Government commercial interest: confidential business information generated by the government (this would include Intramural research with commercial value).

  Exemption 5 material is discretionary, meaning we can choose not to assert it. The older the information, the harder it is to protect under Exemption 5. If challenged, the US Attorney will not defend our use of Exemption 5 unless we can articulate the harm to NIH if the information is released. PLEASE NOTE: Exemption 5 is only used for internal government documents. If anyone outside the government is included, it is no longer internal and not covered by Exemption 5.

- **Exemption 6** is used for personal information such as identifiable patient information, home phone numbers or addresses, dates of birth, social security numbers, Institutional Base Salary, etc. We have a standard list of items that we routinely withhold under Exemption 6.

NOTE: **Exemption 2** used to be available to withhold information "related solely to the internal personnel rules and practices of an agency." While this used to be interpreted very broadly, the US Supreme Court

ruling in *Milner v. Department of the Navy* severely limited the use of this Exemption. NIH FOIA has determined that Exemption 2 is no longer available to us.

Exemption 7 protects from disclosure information in a law enforcement file under certain conditions. It is only used at the NIH level.

Attachment 3: NIAID FOIA Search and Review Worksheet

To: NIAID FOIA Specialist
From: _____
Date: _____
Re: FOIA Request Number **54052** **b6**

We were asked to search for materials that respond to the above-listed FOIA request. We were asked to respond by **May 13, 2020**. The following summarizes the results of this search:

_____

Section A
The search for responsive documents was conducted as follows:

Date someone began and completed looking: _____

Total time: It took _____ hours to search for material.

Rate 1: GS-01 – GS08 *Rate 2: GS09 – GS14* *Rate 3: GS15 and above*

Rate of searcher: 1, 2, or 3	Time spent (minutes)	Place(s) searched and why chosen to search

Total time: It took _____ hours to review the responsive documents.

Section B **Please check the appropriate line(s).**

___Responsive information was located and is attached. I have reviewed the enclosed records and find that no material should be withheld. I approve the release of the records.

___No responsive information was located; the places listed in Section B were searched. I have attached a memo further detailing the search.

___Information was located, but NIAID would be harmed if certain sections were released. I have compiled the information, identified these sections, and included a justification memo explaining the harm. The information and memo are attached.

APPROVAL FOR ACTION AS MARKED:

_____ _____
Name Date

Submit New Request

Requester Details

To modify request details please update your requester profile or contact the our office for assistance.

b6

Judicial Watch
425 Third Street, S.W.
Suite 800
Washington, DC 20024

b6

Requester Default Category: Others

General Information

Institute or Center	NIAID
Institute or Center Name	NIAID
Request Type	FOIA
Requester Category	Educational/Non-Commercial/Scientific

Shipping Address

State (Other)

Request Information

Description	1. All internal NIAID communications regarding the Wuhan Institute of Virology in Wuhan, China. 2. All agreements, contracts and related documents between NIAID and the Wuhan Institute of Virology. 3. All records, including agreements, funds disbursement records and related NIAID communications regarding a reported $3.7 million in grants provided by NIH to the Wuhan Institute of Virology.
Date Range for Record Search:From	01/01/2013
Date Range for Record Search:To	04/22/2020
Consent	
Proof of Identity	

Fee Information

Willing to Pay All Fees	No
Willing Amount	$25
Fee Waiver Requested	Yes
Fee Waiver Request Reason	Judicial Watch, Inc. is a non-profit educational organization under Section 501(c)(3) of the Internal Revenue Code whose mission is to investigate, expose and educate the public about waste, fraud and abuse in the government.

Billing Address

State (Other)

Other Information

State (Other)

Expedite Information

Expedite Requested	No
Expedite Reason	

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/29/2020 6:44:43 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: Fwd: Skype interview on COVID-19 research for Dutch tv
Attachments: VERSLAGGEVING TECH2.docx; ATT00001.htm

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Rudy Bouma <Rudy.Bouma@nieuwsuur.nl>
> **Date:** April 29, 2020 at 14:26:59 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: FW: Skype interview on COVID-19 research for Dutch tv**
>
> Dear mr Morens,
>
> As a reporter for the leading Dutch current affairs program Nieuwsuur (Newshour, www.nieuwsuur.nl) I am covering social media and disinformation (see attachment).
>
> As you probably know, one of the most popular recent conspiracy theories is the claim that COVID-19 is a 'fabricated bioweapon'.
> A poll by Ipsos we set out concludes that 15% of the Dutch population believes in this claim (in a poll by Pew in the US it's even 30%).
>
> As I've understood that research by you and your team has concluded that COVID-19 most likely cannot be a manmade virus.
> https://www.forbes.com/sites/brucelee/2020/03/17/covid-19-coronavirus-did-not-come-from-a-lab-study-shows-natural-origins/
>
> I would very much to interview you tomorrow or Friday via Skype on this issue. Would this be possible? We would need about 15 minutes in your morningtime (because of the timedifference).
>
> P.S. I've also tried emailed Kristian Andersen but havent's have a reply yet and there's no operator picking up the phone.
>
> Nieuwsuur broadcasts daily on public channel 2 and can be compared to BBC Newsnight.
>
> Kind regards,

Rudy Bouma
reporter

Tel: +31 35 6774590
Mob: b6
Whatsapp / Signal / Telegram
Email: rudy.bouma@nieuwsuur.nl
Twitter: @rudybouma
www.rudybouma.nl
www.nieuwsuur.nl

NTR | NOS Nieuwsuur | Post office box 29200 | Hilversum, 1202MP The Netherlands

VERSLAGGEVING TECH

Tech-experts we interviewed previously:

Google / YouTube

Kristie Canegello, head of trust and safety Google and former deputy chief of staff for president Obama

Guillaume Chaslot, ex-programmer YouTube, currently AlgoTransparency.org

James Williams, former Google product strategist, currently tech-philosopher

Mo Gawdat, former chief business officer Google X and author Solve for happy

Facebook

Nick Clegg, VP Global Affairs Facebook and former deputy PM United Kingdom

Antonio Garcia Martinez, former product manager Facebook and author of Chaos Monkeys

Roger McNamee, early investor Facebook and author of 'Zucked: Waking up to the Facebook catastrophe

Siva Vaidhyanathan, author 'Anti-social Media: How Facebook disconnects People and undermines democracy'

Sandy Parakilas, former Platform Operations Officer Facebook, currently Center for Humane Technology

Dipayan Gosh, former privacy and foreign policy advisor Facebook, currently Fellow at Shorenstein Center on Media, Politics and Public Policy

Others

Tim Berners-Lee, inventor of the World Wide Web.

Andrew Keen, 'the anti-Christ of the internet', author

Craig Silverman, journalist Buzzfeed, expert desinformation

Jonathon Morgan, former adviser US State Department, founder Data for Democracy, CEO New Knowledge

James Bridle, author of New Dark Age, technology and the end of the future

Max Schrems, dataprivacy-activist & lawyer, sued Facebook

Vera Jourová, Eurocommisionary for Consumerrights

Sjarrel de Sharron, former content moderator Facebook

Paul Horner, creator of viral fakenews

REPORTS

Solutions for online desinformation 16-2-2020
https://nos.nl/nieuwsuur/artikel/2323356-nepnieuws-expert-enorm-veel-valse-informatie-rondom-het-coronavirus.html

Increase of desinformation by politicians on internet 3-10-2019
https://nos.nl/nieuwsuur/artikel/2304514-politici-plaatsen-steeds-vaker-desinformatie-op-sociale-media.html

Interview with Nick Clegg, VP Communications Facebook 30-6-2019
https://nos.nl/nieuwsuur/artikel/2291312-valt-facebook-te-fiksen-we-maken-nog-steeds-fouten.html

Hatespeech on 'big tech'-platforms 15 may 2019
https://nos.nl/nieuwsuur/artikel/2284748-christchurch-call-tegen-extremisme-op-internet-het-vuil-komt-altijd-terug.html

Hatespeech on 'alt tech'-platoforms – 18 may 2019
https://nos.nl/nieuwsuur/artikel/2285095-extremisten-zoeken-en-vinden-een-alternatief-op-alt-tech-websites.html

Combined long version for our YouTube-channel: mei 2019
https://www.youtube.com/watch?v=jIg1Yt7UpXA

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Profile Brenton Tarrant, Christchurch-attacker
https://twitter.com/rudybouma/status/1106874106669080577

30 years World Wide Web: how to repair it? (march 2019)
https://nos.nl/nieuwsuur/artikel/2275035-het-www-is-kapot-hoe-gaan-we-het-repareren.html

+++

YouTube censors Dutch organisations 1-7-2018
https://nos.nl/nieuwsuur/artikel/2244146-youtube-censureert-video-s-nederlandse-organisaties-kanaal-weer-op-zwart.html

Political parties DENK and PVV lose most fake followers after cleanup Twitter (july 2018)
https://nos.nl/nieuwsuur/artikel/2241321-twitters-grote-schoonmaak-wilders-en-denk-politici-verliezen-volgers.html

+++

Lyudmila Savchuck went undercover in 'trollfactory Saint Petersburg'
https://nos.nl/nieuwsuur/video/2239925-lyudmila-savchuk-ging-undercover-bij-een-trollenfabriek.html

The Cleaners of Social Media - mei 2018
https://nos.nl/nieuwsuur/video/2232003-reportage-de-opruimers-van-sociale-media.html

++++

Ex-managers Facebook speak out (april 2018)
https://nos.nl/nieuwsuur/artikel/2229568-oud-medewerkers-facebook-we-zijn-gewoon-genaaid-met-z-n-allen.html
https://twitter.com/Nieuwsuur/status/990690834096926720

Ex-managers and programmer Google/Youtube speak out(april 2018)
https://nos.nl/nieuwsuur/artikel/2229107-de-macht-van-google-paar-mensen-beinvloeden-mening-en-gedrag-van-miljarden.html
https://nos.nl
https://twitter.com/Nieuwsuur/status/989600701822058497/nieuwsuur/video/2229223-ex-medewerkers-google-spreken-zorgen-uit.html

Start Cambridge Analytica-affair Facebook (maart 2018)

https://nos.nl/nieuwsuur/artikel/2223232-uitlekken-gegevens-naar-trump-campagne-vooral-facebook-is-schuldig.html
https://nos.nl/nieuwsuur/video/2223234-hoe-kon-cambridge-analytica-zoveel-gegevens-vergaren.html

Learn to make fake news to recognise it (januari 2018)
https://nos.nl/nieuwsuur/artikel/2212019-zelf-nepnieuws-maken-om-het-daarna-beter-te-herkennen-dat-lijkt-te-werken.html

M'n ontmaskering van een MH17-twittertrol (januari 2018)
https://nos.nl/nieuwsuur/artikel/2212045-de-ontmaskering-van-een-twittertrol-natuurlijk-lieg-ik-over-mh17.html

Trolls & bots are influencing you (nov 2017)
https://nos.nl/nieuwsuur/artikel/2201690-trollen-en-bots-beinvloeden-ook-jouw-mening-zonder-dat-je-het-merkt.html
https://nos.nl/nieuwsuur/video/2201733-trollen-en-bots-beinvloeden-ook-jouw-mening.html
https://nos.nl/nieuwsuur/video/2201741-zo-werken-bots-en-trollen-op-sociale-media.html

Blog na een half jaar online nepnieuws spotten (april 2017)
https://nos.nl/nieuwsuur/artikel/2168554-dit-zijn-de-beelden-die-de-media-niet-mogen-laten-zien.html

I spoke to the creators of Fake News (maart 2017):
https://nos.nl/nieuwsuur/artikel/2164927-alternatieve-feiten-die-mensen-aan-het-denken-zetten.html
https://twitter.com/nieuwsuur/status/848082796702613504

(m.n.) PVV-politici die nepnieuws verspreiden op sociale media in aanloop verkiezingen (februari 2017)
https://nos.nl/nieuwsuur/artikel/2159802-nepnieuws-en-sociale-media-als-wapen-in-politieke-campagnes.html
https://nos.nl/nieuwsuur/video/2159922-nepnieuws-in-politieke-campagnes.html

Fake news election US and the makers of it in Macedonie (april 2017)
https://nos.nl/nieuwsuur/artikel/2148650-hoe-nepnieuws-dit-jaar-trending-werd.html?

+++

Eerste deel van m'n Twitter-serie over nepnieuws (2017)
https://twitter.com/i/moments/810792499749015552

Tweede deel van m'n Twitter-serie over nepnieuws (2017)
https://twitter.com/i/moments/836893378407198720

Selectie uit twee 1-200 (2017)
https://twitter.com/i/moments/836871548137058306

Twitter serie tweets over bots (2017)
https://twitter.com/i/moments/929739717704388609

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/29/2020 10:31:44 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: Fwd: Skype interview on COVID-19 research for Dutch tv
Attachments: VERSLAGGEVING TECH2.docx; ATT00001.htm

Hi guys, havent heard anything so am re sending. I have not replied to him but dont like to blow people off, so if i dont hear from you i will reply with a non committal response. D

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Rudy Bouma <Rudy.Bouma@nieuwsuur.nl>
> **Date:** April 29, 2020 at 14:26:59 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: FW: Skype interview on COVID-19 research for Dutch tv**
>
> Dear mr Morens,
>
> As a reporter for the leading Dutch current affairs program Nieuwsuur (Newshour, www.nieuwsuur.nl) I am covering social media and disinformation (see attachment).
>
> As you probably know, one of the most popular recent conspiracy theories is the claim that COVID-19 is a 'fabricated bioweapon'.
> A poll by Ipsos we set out concludes that 15% of the Dutch population believes in this claim (in a poll by Pew in the US it's even 30%).
>
> As I've understood that research by you and your team has concluded that COVID-19 most likely cannot be a manmade virus.
> https://www.forbes.com/sites/brucelee/2020/03/17/covid-19-coronavirus-did-not-come-from-a-lab-study-shows-natural-origins/
>
> I would very much to interview you tomorrow or Friday via Skype on this issue. Would this be possible? We would need about 15 minutes in your morningtime (because of the timedifference).
>
> P.S. I've also tried emailed Kristian Andersen but havent's have a reply yet and there's no operator picking up the phone.
>
> Nieuwsuur broadcasts daily on public channel 2 and can be compared to BBC Newsnight.

Kind regards,

Rudy Bouma
reporter

Tel: +31 35 6774590
Mob: b6
Whatsapp / Signal / Telegram
Email: rudy.bouma@nieuwsuur.nl
Twitter: @rudybouma
www.rudybouma.nl
www.nieuwsuur.nl

NTR | NOS Nieuwsuur | Post office box 29200 | Hilversum, 1202MP The Netherlands

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 5/4/2020 9:18:11 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; McGowan, John J. (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fd4549a1a37c41c78410c7c29e3d3c00-jmcgowan]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Chaitt, Doreen (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=db88824736e949fba779c0cb75fcece9-dchaitt]; Billet, Courtney (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7605eeb349ac41138b32fe3978e3986d-billetc]; Stover, Kathy (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c82722674ba14c2f969bd50dfa6a7af4-stoverk]; NIAID FOIA Office [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e92e362193948eea8ba5b9171f3769b-NIAID FOIA]
Subject: ACTION REQUIRED: FOI Case No. 54143 b6
Attachments: 54143Search.docx; NIAIDFOIADisinfectant (3).docx

Please see the attached Program Search and FOI request from b6 AP).

Best,
Marg

Sha

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Freedom of Information Office
5601 Fishers Lane, Room 6G50
Bethesda, Maryland 20892
Tel (301) 451-5109
Fax (301) 480-0904/ Email foia@niaid.nih.gov

National Institutes of Health
National Institute of Allergy
and Infectious Diseases
Bethesda, MD 20892

Memorandum

Date: April 13, 2020

To: Greg Folkers/Laurie Doepel for:
Dr. Anthony Fauci
Kimberly Barasch
Patricia Conrad
Laurie Doepel
Gregory Folkers
Dr. Robert W. Eisinger
Dr. Hilary Marston
Whitney Robinson

Sharon Gilles for:
Dr. Hugh Auchincloss
Sharon Gilles
Dr. Andrea M. Lerner
Whitney Robinson

Dr. H. Clifford Lane
Dr. John McGowan
Dr. David Morens

From: Margaret Moore
NIAID/OCGR/FOIA Office

Subject: Request for Records Pursuant to the Freedom of Information Act (FOIA)
REQUESTER: b6 (#54143)

Date Range: April 20, 2020 – May 4, 2020

Response Due: May 18, 2020

b6 *(AP) has submitted a request for copies of communications (including by CC, BCC or forward) to or from personnel (listed above):*

"Copies of documents that involve informal or formal policies, legislation, or legal authorities or responsibilities, for example: opening, closing or interim summaries/status reports; memoranda; official and/or unofficial policy statements; notes; meeting minutes or summaries; assessments, investigations or other reports; etc.

With regard to search criteria:

In general, searches should be broad enough to encompass any discussion (whether internal or external) of President Trump's remarks April 23 at the evening White House Coronavirus Task Force news conference. Electronic search terms used to find responsive records should include but not be limited to "disinfectant"; "injection"; "briefing"; "light"; "ultraviolet"; "UV"; "Lysol"; "bleach"; "deadly"; "dangerous"; "cleaning"; and "toxin."

A copy of the request is attached (Attachment #1).

In accordance with the FOIA, the NIAID FOIA office has 20 working days in which to make a determination to grant or deny access to the records. Please search all of your electronic and hard copy files as appropriate and provide a response using the following guidelines/checklist:

- ☐ 1 complete copy of all records responsive to the request with no markings (clean copy). The clean copy must include ALL of the documents regardless of whether they are all releasable. Either hard copies or electronic copies are acceptable.
    - Hard copies
        - Single sided
        - Reverse chronological order
        - No staples or paper clips
        - Duplicates removed
    - Electronic copies
        - Same as hard copies
        - .pdf, .doc, .xls, pps etc. files are fine
        - E-mail files should be in .pst or .msg format
        - CD, USB drive or e-mail

- ☐ 1 copy of records with your indications of what you believe should be withheld using one of the Exemptions to the FOIA (highlighted copy).
    - The FOIA is a disclosure statute with 9 Exemptions. At NIH, we essentially have 4 exemptions available to us. A detailed description and links to additional information is attached to this memo (Attachment 2). If the information does not meet one of these 4 Exemptions, it CANNOT be withheld.

- ☐ A completed NIAID Search and Review Worksheet for <u>each</u> person who searched for and reviewed documents (Attachment 3).

Please do NOT have individuals in your Office/Division send documents directly to the NIAID FOIA Office unless specifically asked to do so. All responsive documents should be returned to you for review and collating to ensure the consistency of the requested redactions, elimination of duplicates, and completeness of the response. If the requested documents do not exist, please

provide a written statement that explains how you searched for the records (which office(s) were searched; what places were searched, i.e., desk, computers, files, and boxes; and how you searched, i.e., manually, electronically, etc). A no-records response gives the requestor the administrative right to appeal. The appeal will challenge how we searched for records. Therefore, a written statement of your search is very important.

Please note that NIAID is not required to create documents in response to a FOIA request. In addition, please let us know if you know of other NIAID individuals who have responsive records.

If you have any questions or concerns, we can be reached weekdays between 8:30 am to 5:00 pm at (301) 451-5109 or foia@niaid.nih.gov. Your assistance in this matter is greatly appreciated.

Attachment 1 – FOIA Request from b6
Attachment 2 – FOIA Exemptions
Attachment 3 – NIAID FOIA Search and Review Worksheet

Attachment 2: Exemptions from Disclosure under the FOIA

- **Exemption 3** is used for information that is not releasable because of a Federal statute other than the FOIA. One example that we have used in the recent past is the protection of information pertaining to the transport of biological agents under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Another example is that some portions of some financial disclosure documents are exempt from release under the Ethics in Government Act.

- **Exemption 4** is used for information such as trade secrets or proprietary information. Examples of trade secrets are: a formula for a drug or a design plan for a piece of equipment. This is information that is NOT in the public domain AND is commercial or financial in nature. Exemption 4 does not protect information simply because it is not published. Exemption 4 material will be identified by the grantee/contractor. The grantee/contractor will be required to articulate how the release of the information will cause SIGNIFICANT FINANCIAL HARM. The justification should include: 1) the names of actual competitors; 2) a detailed explanation of how the information could be used to cause financial harm; and 3) the dollar value of the harm. If the grantee/contractor requests that information be withheld under Exemption 4, the NIAID FOIA Office will then send the information to the designated program official to review and indicate either concurrence or revision. **As the content matter experts, it will be up to the designated NIAID program official to determine whether the requested information meets the criteria for withholding under Exemption 4.** SBIRs are handled slightly differently. If requested by the grantee, SBIR information is protected from disclosure for 4 years under Section 8(b)(2) of Policy Directive 15 U.S.C 638.

- **Exemption 5** is used for information that would be protected in civil litigation. There are four types of information that fall under Exemption 5:
    1) Deliberative Process: information must be predecisional AND express an opinion. We use this to protect information like unfunded grant applications, reviewers' comments, staff recommendations, nominations, etc.
    2) Attorney-work product: information prepared by an attorney in contemplation of litigation
    3) Attorney-client: request for advice from NIH Legal Counsel
    4) Government commercial interest: confidential business information generated by the government (this would include Intramural research with commercial value).

  Exemption 5 material is discretionary, meaning we can choose not to assert it. The older the information, the harder it is to protect under Exemption 5. If challenged, the US Attorney will not defend our use of Exemption 5 unless we can articulate the harm to NIH if the information is released. PLEASE NOTE: Exemption 5 is only used for internal government documents. If anyone outside the government is included, it is no longer internal and not covered by Exemption 5.

- **Exemption 6** is used for personal information such as identifiable patient information, home phone numbers or addresses, dates of birth, social security numbers, Institutional Base Salary, etc. We have a standard list of items that we routinely withhold under Exemption 6.

NOTE: **Exemption 2** used to be available to withhold information "related solely to the internal personnel rules and practices of an agency." While this used to be interpreted very broadly, the US Supreme Court

ruling in *Milner v. Department of the Navy* severely limited the use of this Exemption. NIH FOIA has determined that Exemption 2 is no longer available to us.

Exemption 7 protects from disclosure information in a law enforcement file under certain conditions. It is only used at the NIH level.

Attachment 3: NIAID FOIA Search and Review Worksheet

To: NIAID FOIA Specialist
From: _____
Date: _____
Re: FOIA Request Number **54143** **b6**

We were asked to search for materials that respond to the above-listed FOIA request. We were asked to respond by **May 18, 2020**. The following summarizes the results of this search:

_____

Section A
The search for responsive documents was conducted as follows:

Date someone began and completed looking: _____

Total time: It took _____ hours to search for material.

Rate 1: GS-01 – GS08 *Rate 2: GS09 – GS14* *Rate 3: GS15 and above*

Rate of searcher: 1, 2, or 3	Time spent (minutes)	Place(s) searched and why chosen to search

Total time: It took _____ hours to review the responsive documents.

Section B **Please check the appropriate line(s).**

___Responsive information was located and is attached. I have reviewed the enclosed records and find that no material should be withheld. I approve the release of the records.

___No responsive information was located; the places listed in Section B were searched. I have attached a memo further detailing the search.

___Information was located, but NIAID would be harmed if certain sections were released. I have compiled the information, identified these sections, and included a justification memo explaining the harm. The information and memo are attached.

APPROVAL FOR ACTION AS MARKED:

_____ _____
Name Date

AP

May 4, 2020

National Institute of Allergy and Infectious Diseases

National Institutes of Health

Re: Associated Press FOIA Request

Submitted via email: foia@niaid.nih.gov

Dear NIAID/NIH FOIA Staff,

Pursuant to the federal Freedom of Information Act, 5 U.S.C. § 552, I request the following information:

Records generated before and after comments that President Trump made about the possible effectiveness of certain approaches to treating coronavirus patients.

The timeframe for these records is April 20, 2020, through May 4.

The categories of records covered under this FOIA request include, but are not limited to, the following:

1) Copies of communication such as emails sent from the below, or any other work-related accounts, (including by CC, BCC or forward) to or from personnel in National Institute of Allergy and Infectious Diseases Office of the Director. The personnel to be included in this search are: Director Dr Anthony Fauci; Dr. Hugh Auchincloss, principal deputy director (hugh.auchincloss@nih.gov); Dr. John McGowan, deputy director for science management (john.mcgowan@nih.gov); Dr. H. Clifford Lane, deputy director for clinical research (cliff.lane@nih.gov); Kimberly Barasch, staff assistant (kimberly.barasch@nih.gov); Patricia Conrad, special assistant (patricia.conrad@nih.gov); Laurie Doepel, senior advisor (laurie.doepel@nih.gov); Gregory Folkers, chief of staff; Dr. Robert W. Eisinger, special assistant for scientific projects (robert.eisinger@nih.gov); Sharon Gilles, special assistant. (sharon.gilles@nih.gov); Dr. Andrea M. Lerner, medical officer (andrea.lerner@nih.gov); Dr. Hilary Marston, medical officer (hilary.marston@nih.gov); Dr. David Morens, senior scientific advisor and Whitney Robinson, staff assistant. (whitney.robinson@nih.gov).

2) Copies of documents that involve informal or formal policies, legislation, or legal authorities or responsibilities, for example: opening, closing or interim summaries/status reports; memoranda; official and/or unofficial policy statements; notes; meeting minutes or summaries; assessments, investigations or other reports; etc.

With regard to search criteria:

➔ In general, searches should be broad enough to encompass any discussion (whether internal or external) of President Trump's remarks April 23 at the evening White House Coronavirus

Task Force news conference. Electronic search terms used to find responsive records should include *but not be limited to* "disinfectant"; "injection"; "briefing"; "light"; "ultraviolet"; "UV"; "Lysol"; "bleach"; "deadly"; "dangerous"; "cleaning"; and "toxin."

- ➔ I request that email searches cover all current and archived/stored messages and folders, and that the searches be conducted by personnel not affiliated with the accounts, such as information technology specialists.

I would like to receive responsive records in electronic format and delivered electronically, for example as .PDF files via email. I also ask that responsive records be released on a rolling basis, that is, as they are ready and not held until all documents are processed. For example, memoranda or similar documents should not be held pending the collection and processing of email correspondence.

I am making this request as a reporter with The Associated Press and this request is made as part of newsgathering and not for commercial use.

I ask that you waive any and all applicable fees associated with this request. Through this request, I am gathering information on how the federal government responded to remarks President Trump made in the course of the coronavirus pandemic. Release of this information is in the public interest because it will contribute significantly to important public understanding of government operations and activities. If you deny this request for a fee waiver, please advise me in advance of the estimated charges if they are to exceed $10.

If my request is denied in whole or part, I ask that you justify all deletions by reference to specific exemptions of the Act. I will also expect you to release all segregable portions of otherwise exempt material. I reserve the right to appeal your decision to withhold any information or to deny a waiver of fees.

In the words of Richard Nixon, when government information is kept overly secret, "the people soon become ignorant of their own affairs, distrustful of those who manage them, and— eventually—incapable of determining their own destinies." *Ex. Ord. No. 11652, Mar. 8, 1972, 37 F.R. 5209.*

Lastly, I expect to receive a response to this request within 20 business days, as the statute requires.

As I am making this request as a journalist and the information is of timely value, I would appreciate your communicating with me by telephone at b6 or e-mail at b6 rather than by mail, if you have questions regarding this request.

I am a firm believer in the importance of open and regular communication on FOIA requests. Often this results in narrowing a request, meaning it is resolved more quickly. Please don't hesitate to contact me.

In the spirit of such cooperation and the presumption of disclosure, I look forward to your prompt response and thank you for your assistance.

Sincerely,

b6

Associated Press, 630 NE 6th Street, Gainesville, FL 32601

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 5/6/2020 10:45:14 AM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: DW News Enquiry

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: Nina Raddy <nina.raddy@dw.com>
Date: May 6, 2020 at 05:24:27 EDT
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: DW News Enquiry

Dear David Morens,

we at DW News are currently producing an explainer video on infectious diseases in the past century and I was hoping you could help with one of the crucial questions when it comes to the rise of infectious diseases.

In a study on Emerging infectious diseases in 2012 you mention how new infectious diseases are increasing, and that we are better prepared for them at the same time.

I am wondering if you would agree that emerging infectious diseases are on the rise, and if that also applies to the number of outbreaks and if so, where the data comes from. Especially if there is any recent data that goes beyond 2010 from organisations or studies.

Your take on this matter and any information or ideas on sources or who to contact would be extremely helpful.

Thank you and best regards from Berlin,

Nina

Nina Raddy

Webvideo Producer
DW News

Deutsche Welle (DW)
Voltastr. 6
13355 Berlin

T +49 17645801633
nina.raddy@dw.com

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 5/12/2020 4:53:26 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
Subject: RE: FOIA question

Both numbers work most of the time. I've got a conference call from 3-4 today but call anytime before 3 or after 4.

-----Original Message-----
From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, May 12, 2020 12:51 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: Re: FOIA question

OK, i am at Walter Reed now but will call later. Do you mean work during the day and home at night , or both numbers work any tome? Thanks, David

Sent from my iPhone
David M Morens
OD, NIAID, NIH

> On May 12, 2020, at 12:48, Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov> wrote:
>
> Hi David -- Call me anytime (301) 451-5109 (office) or b6 (home).
> Best,
> Marg
>
> -----Original Message-----
> From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
> Sent: Tuesday, May 12, 2020 12:41 PM
> To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
> Subject: FOIA question
>
> Marg, is there a time I might call you this week with a question about our spTe of recent FOIAs? Not urgent, just wNt to clarify. TY, david
>
> Sent from my iPhone
> David M Morens
> OD, NIAID, NIH

From: Oplinger, Anne (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=17C5B4D244B64F9EA2AFB118821BD9E2-AOPLINGER]
Sent: 5/13/2020 9:38:07 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: DAILY MAIL FOR DR. DAVID MORENS

FYi: Reuters is among outlets that have been doing factchecks on a claim that the 1968 flu didn't close down mass activities (like the 1969 Woodstock festival) the way covid-19 is. Ironically, this Reuters factcheck story was changed from "True" to "Partially True" to "Misleading" after the original posting, based on reader feedback! https://www.reuters.com/article/uk-factcheck-woodstock-pandemic-1968/misleading-claim-woodstock-took-place-in-the-middle-of-a-pandemic-idUSKBN22J2MJ

IMO, this should be punted as suggested based in part on the outlet.

Anne A. Oplinger
aoplinger@niaid.nih.gov
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases, NIH
MEDIA request phone 301-402-1663

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, May 13, 2020 5:30 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: DAILY MAIL FOR DR. DAVID MORENS

In theory I'd be happy to talk to this guy but I know NOTHING about the subject. I was a radio station music director and had 4 free tickets to Woodstock but (painfully) gave them away to four of our employees. I stayed back in Ann Arbor and got stoned and stayed that way for the whole time. I didn't get the H3N2 flu until 4 years later, in 1972. Maybe this could be punted to a historian like Howard Markel or better yet, Arnold Monto, both at U of Michigan d

From: Tate Delloye <Tate.Delloye@mailonline.com>
Sent: Wednesday, May 13, 2020 4:51 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: DAILY MAIL FOR DR. DAVID MORENS

Good Afternoon,

My name is Tate Delloye and I'm a features writer for DailyMail.com in New York City. I've been assigned to investigate this story about Woodstock during the 1969 H3N2 pandemic. There seems to be a lot of varying opinions of the truth and I would love to have the facts given to me from a professional. I understand that you and your colleagues must be incredibly busy during this time (I thank you tremendously for all your hard work)...but I was hoping that you might be able to spare a few minutes over the phone to answer a few questions? I promise not to take too much of your time, and would do it at your convenience of course! Please let me know if this is possible.

I look forward to it.

Yours gratefully,
Tate Delloye

Features Reporter
Daily Mail.com

Daily Mail Online 151 Astor Place, 9th floor, New York, NY 10003
(o) +1 212 379- 0696
(c) b6
Email: tate.delloye@mailonline.com

From: Folkers, Greg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=614C792839A146B9A8F87A1378519DBD-GFOLKERS]
Sent: 5/13/2020 9:39:03 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: DAILY MAIL FOR DR. DAVID MORENS

Here's what snopes says
https://www.snopes.com/fact-check/woodstock-occur-during-pandemic/

here's an old pic of david and his crew. I think that is david in the green hat

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, May 13, 2020 5:30 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: DAILY MAIL FOR DR. DAVID MORENS

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From: Tate Delloye <Tate.Delloye@mailonline.com>
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To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: DAILY MAIL FOR DR. DAVID MORENS

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I look forward to it.

Yours gratefully,
Tate Delloye

Features Reporter
DailyMail.com

Daily Mail Online 151 Astor Place, 9th floor, New York NY 10003
(o) +1 212 379- 0696
(c) b6
Email: tate.delloye@mailonline.com

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 6/1/2020 2:02:20 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: Request for interview for Audubon magazine

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: Carrie Arnold b6
Date: May 31, 2020 at 23:57:35 EDT
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: Request for interview for Audubon magazine

Dear Dr. Morens,

I'm a Virginia-based public health reporter and I'm currently working on a piece for Audubon magazine about infectious disease surveillance in migratory birds. I read some of your work on disease surveillance and evolution, and I was wanting to talk to you a bit more about the importance of surveillance and understanding how diseases jump from animals to humans, and how they evolve in this process.

Do you think you might have time to talk in the few days? Might there be a good time for me to call?

Thank you so much for your time and help.
Carrie Arnold

From: Taubenberger, Jeffery (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ACF689CC4F7B4E0B841A76D8FBB07F2B-TAUBENBERGE]
Sent: 6/22/2020 11:38:41 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Re: Your Nature Medicine paper – publication details
Attachments: Park et al Nat Med galley 2020.pdf

Hi Greg,

Thanks. As requested, here is the galley proof.

Best wishes,

Jeff

From: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>
Date: Monday, June 22, 2020 at 7:21 PM
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>, NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: "Taubenberger, Jeffrey (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
Subject: RE: Your Nature Medicine paper – publication details

thx, david
do u have a galley or proof u can share? Will keep it close-hold

---

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Monday, June 22, 2020 7:05 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Subject: Fwd: Your Nature Medicine paper – publication details

This is an important pPer with great implications For “universal vaccine” development. D

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
> **Date:** June 22, 2020 at 18:43:18 EDT
> **To:** "Park, Jaekeun (NIH/NIAID) [E]" <jaekeun.park@nih.gov>, "Kash, John (NIH/NIAID) [E]" <kashj@niaid.nih.gov>, "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>, "Memoli, Matthew (NIH/NIAID) [E]" <memolim@niaid.nih.gov>
> **Subject: Fwd: Your Nature Medicine paper – publication details**

From: "press@nature.com" <press@nature.com>
Date: Monday, June 22, 2020 at 6:00:28 PM
To: "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
Cc: "press@nature.com" <press@nature.com>
Subject: Your Nature Medicine paper – publication details

Dear Author,

Your paper, 'Pre-existing immunity to influenza virus hemagglutinin stalk might drive selection for antibody-escape mutant viruses in a human challenge model', has been scheduled for publication in *Nature Medicine* on **29 June 2020 at 16:00 (London time) , 29 June 2020 at 11:00 (US Eastern Time)** . The embargo will lift at this time. Please forward this information to any co-authors. You may also wish to make your media relations office aware of the forthcoming publication, in case they consider it appropriate to organize some internal or external publicity. We will be contacting them separately to inform them about your paper.

The DOI number for your paper will be 10.1038/s41591-020-0937-x. Once your paper has been published online, it will be available at the following URL: https://www.nature.com/articles/s41591-020-0937-x

Nature Research distributes embargoed mailings highlighting upcoming content to journalists six days in advance of publication. The titles of all papers will be listed on the mailing, along with the corresponding author's contact details, so you may receive media enquiries regarding your paper. Journalists also have embargoed access to all papers listed on our press mailings via the Nature Research press site.

You are free to discuss your paper with the media, but we ask you to do this no more than six days before the publication date, and to ensure that Nature Research's embargo conditions (http://www.nature.com/authors/policies/embargo.html) are understood by journalists and others. Journalists are permitted to show papers to independent specialists a few days in advance of publication, under embargo conditions, solely for the purpose of commenting on the work described. Journalists should credit *Nature Medicine* as the source of stories covered.

If further clarification is required, please consult our embargo policy (http://www.nature.com/authors/policies/embargo.html) or contact press@nature.com. You can also find further information on the author information page of the Nature Research press site: https://press.nature.com/authors

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If you wish to order reprints of your article, then please visit our online ordering page at: http://www.nature.com/reprints/index.html

For any queries concerning proofs or corrections, please contact the editorial production department.

Best wishes,

The Nature Research press office

nature medicine

LETTERS

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Pre-existing immunity to influenza virus hemagglutinin stalk might drive selection for antibody escape mutant viruses in a human challenge model

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The conserved region of influenza hemagglutinin (HA) stalk (or stem) has gained attention as a potent target for universal influenza vaccines[1–5]. Although the HA stalk region is relatively well conserved, the evolutionarily dynamic nature of influenza viruses[6] raises concerns about the possible emergence of viruses carrying stalk escape mutation(s) under sufficient immune pressure. Here we show that immune pressure on the HA stalk can lead to expansion of escape mutant viruses in study participants challenged with a 2009 H1N1 pandemic influenza virus inoculum containing an A388V polymorphism in the HA stalk (45% wild type and 55% mutant). High level of stalk antibody titers was associated with the selection of the mutant virus both in humans and in vitro. Although the mutant virus showed slightly decreased replication in mice, it was not observed in cell culture, ferrets or human challenge participants. The A388V mutation conferred resistance to some of the potent HA stalk broadly neutralizing monoclonal antibodies (bNAbs). Co-culture of wild-type and mutant viruses in the presence of either a bNAb or human serum resulted in rapid expansion of the mutant. These data shed light on a potential obstacle for the success of HA-stalk-targeting universal influenza vaccines—viral escape from vaccine-induced stalk immunity.

Conserved regions of viral pathogens have long been targets for developing broadly protective vaccines and therapeutic antibodies. Such vaccines and antibodies are especially needed to mitigate threats from influenza A viruses (IAVs), which undergo rapid evolution and antigenic drift, leading to escape from pre-existing immunity induced by infection or vaccination[7–9]. The unpredictable emergences of antigenically novel pandemic influenza viruses, which, in the past, have resulted in millions of deaths globally[10], could also ideally be prevented or mitigated by broadly protective (so-called 'universal') influenza vaccines[1,11,12].

Candidate universal influenza vaccines that target the HA stalk, initially proposed as a 'common neutralizing epitope' more than two decades ago[1], have shown protective efficacy in animal models[2–5] and are currently being evaluated in clinical trials (for example, ClinicalTrials.gov identifiers NCT03275389, NCT03300050 and NCT03814720). Importantly, the HA stalk antibodies have been shown to be associated with protection against influenza virus in humans with varying magnitudes depending on study settings[13–15]. The HA stalk is relatively conserved across the 18 HA IAV subtypes[16], presumably because 1) the HA stalk is under stricter structural constraints as it must undergo conformational changes during HA membrane fusion[17], and 2) the HA stalk region is also under lower antigenic drift pressure owing to its immuno-subdominance to HA head epitopes[16].

However, the HA stalk region clearly has plasticity. The stalk sequences of related HA subtypes are phylogenetically distinct[19], and HA stalk broadly neutralizing monoclonal antibodies (bNAbs) do not bind stalk epitopes from different HA subtypes with equal affinity[20]. Indeed, viruses possessing stalk escape mutations have been experimentally generated under immune pressure by bNAbs[21–25] or human serum[26], raising concerns about emergence of escape mutants under immune pressure narrowly targeting the HA stalk. However, it remains unclear if immune pressure applied to the HA stalk[13–15] could lead to the emergence of viable stalk escape mutants in humans.

This study examined selection of an HA stalk antibody escape mutant virus in human influenza challenge participants inoculated with a well-characterized IAV stock that contained a mixed population of viruses with a nonsynonymous single-nucleotide polymorphism (SNP) in the HA stalk (A388V)[27–29]. This variant had arisen spontaneously in Vero cell passage during good manufacturing practice (GMP) manufacture of the challenge inoculum. We investigated association between pre-existing anti-HA stalk immunity and

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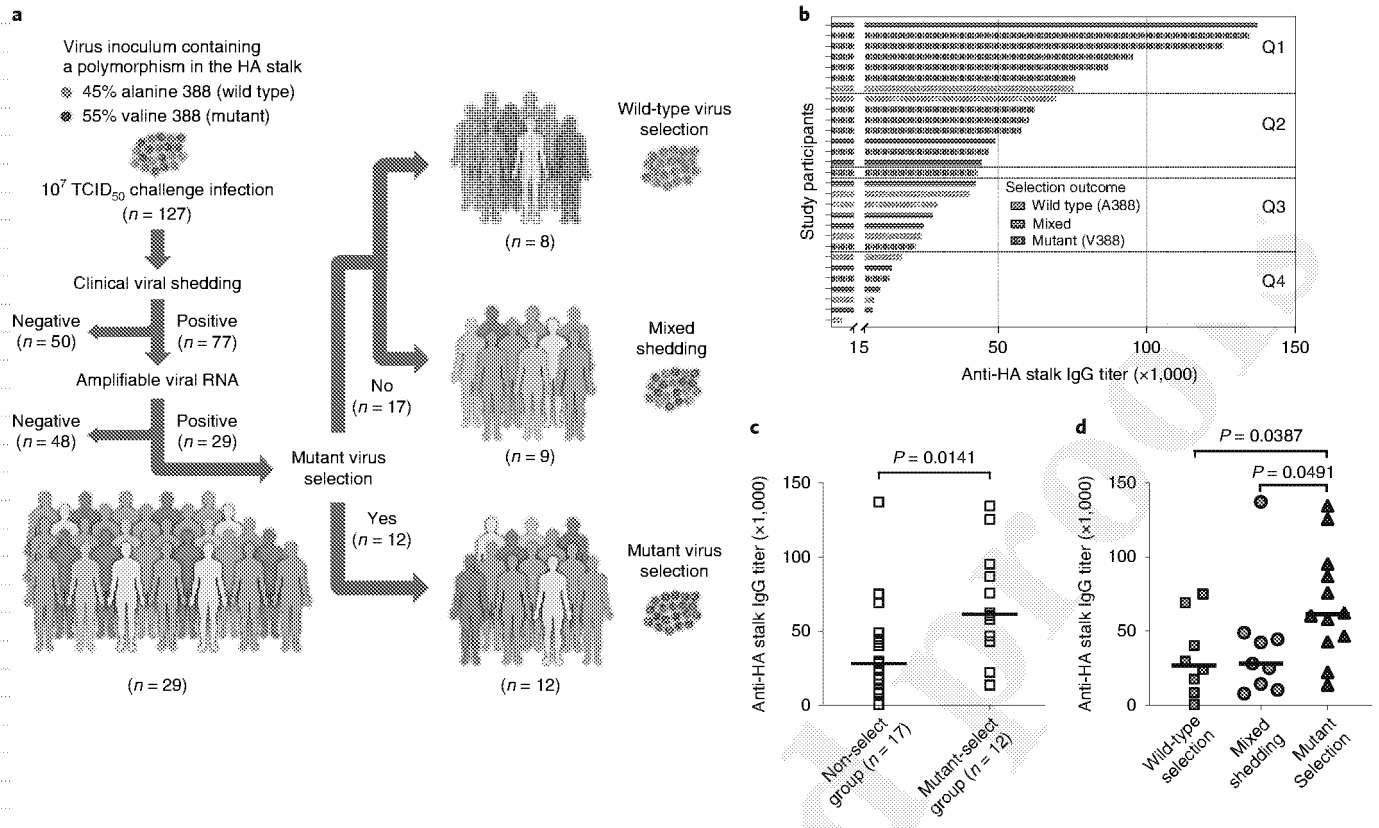

Fig. 1 | Association between pre-existing anti-HA stalk immunity and mutant virus selection in humans. a, Study design. Influenza human challenge study participants were challenged using a virus stock containing a polymorphism in the HA stalk: 45% wild-type (A388) and 55% mutant (V388) virus. Viral RNA was extracted from post-challenge nasal wash samples and analyzed for selection outcomes (that is, whether the participants selected for the wild-type or mutant virus) by a SNP assay using a set of MGB-based TaqMan probes. **b**, Participants with a successful determination of the selection outcome were arranged in a descending manner by the participants' pre-existing anti-HA stalk serum IgG titers measured using ELISA and divided into quartiles (Q1–Q4). Each bar represents an individual selection outcome by color (for example, a red bar represents a challenge study participant in which the mutant virus was selected during the viral challenge infection), and the length of each bar represents anti-HA stalk serum IgG titer of each participant. **c**, **d**, Participants were grouped depending on the selection outcome, and the stalk antibody titers from the mutant selection group were compared to other selection groups using a two-tailed nonparametric Mann–Whitney test. Median values are shown as a horizontal line.

selection of the V388 mutant virus during human viral challenge. The effect of the mutation on HA stalk local structure was studied, and the mutant virus was characterized in vitro and in vivo with and without immune pressure. Selection dynamics between the wild-type and mutant viruses were evaluated in vitro under immune pressure by a bNAb and human challenge participant serum.

Results

Human challenge with an HA A388V polymorphic virus. To investigate the relationship between pre-existing anti-HA stalk immunity and escape mutant virus selection during influenza challenge infection in humans, we analyzed pre-challenge serum for HA stalk antibody titers and post-challenge nasal wash samples for viral sequencing from 2009 H1N1 pandemic influenza (H1N1pdm) virus human challenge studies[15,27,28], which showed that pre-challenge antibody titers against the HA head, HA stalk and neuraminidase (NA) were all correlates of protection for viral shedding, whereas only anti-NA titers were correlated with reduction in symptoms. In these prior studies, participants were challenged with an influenza virus inoculum containing a polymorphism in the HA stalk at position 388 (position 1 being initial methionine)—approximately 45% wild-type (A388) and 55% mutant (V388) HA stalk as measured by deep sequencing analysis[29]. The A388V polymorphism had arisen spontaneously from the clonal starting virus (A388) during the six passages in certified Vero cells used for its GMP manufacture[27,29].

Association between pre-existing human serum anti-HA stalk immunity and A388V mutant virus expansion in challenge study participants. To determine the viral selection outcomes (that is, whether a study participant sample showed predominantly wild-type or mutant virus after challenge), viruses were analyzed from nasal wash samples obtained on days 2–9 after challenge using a SNP assay that reliably detects the minor population (either A388 or V388) present at 10% or higher frequency (Extended Data Fig. 1). SNP results were obtained from 29 participants who were confirmed positive for post-challenge viral shedding by clinical molecular testing[27,28,30] and whose nasal wash samples contained amplifiable viral RNA: 12 participants selected for the V388 mutant virus, eight selected for the A388 wild-type virus, and nine shed both wild-type and mutant viruses (Fig. 1a).

Study participants with higher pre-challenge anti-HA stalk antibody titers (Fig. 1b) tended to select for the mutant virus (colored in red), as compared to participants with moderate to lower antibody levels. For example, five of seven participants in the highest quartile (Q1) selected for the mutant virus, but only one of seven in the lowest quartile (Q4) selected for the mutant virus. To investigate the association between the anti-HA stalk antibody levels and the

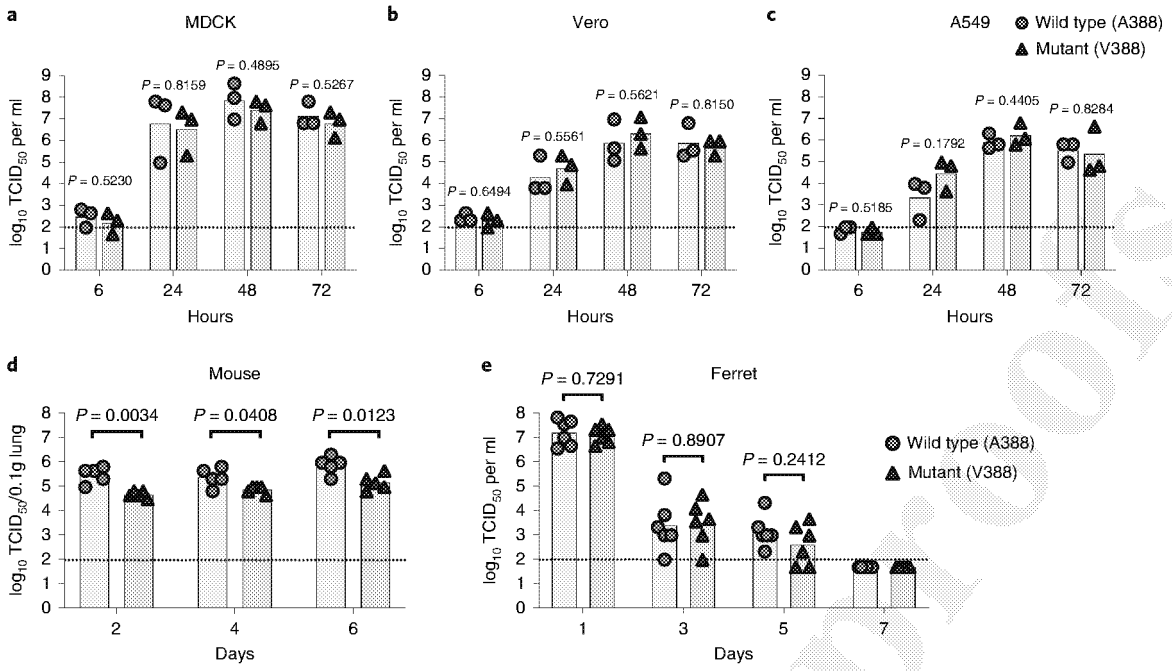

Fig. 2 | Effect of A388V stalk mutation on viral replicative fitness. Wild-type (A388) or mutant (V388) H1N1pdm viruses were generated by reverse genetics and characterized for the viral replicative fitness. To measure in vitro fitness, (**a**) MDCK, (**b**) Vero and (**c**) A549 cells were infected at 0.001 MOI. Supernatants were collected at 6, 24, 48 and 72 h after infection, followed by titration in MDCK cells. Each symbol indicates an individual measurement. All conditions were independently replicated a total of three times. Bars represent geometric means. For measuring in vivo fitness, (**d**) 7–8-week-old female BALB/c mice were intranasally infected with 10^3 $TCID_{50}$ of wild-type or mutant virus in a 50-µl inoculum; (**e**) 6–7-month-old female ferrets were intranasally infected with 10^5 $TCID_{50}$ of wild-type or mutant virus in a 1-ml inoculum. Each symbol in **d** and **e** represents an individual animal. Viral loads were titrated in MDCK from (**d**) mice lung homogenate ($n=5$) or (**e**) ferret nasal wash ($n=6$). Bars represent geometric mean titers. Dashed lines show the detection limit of the $TCID_{50}$ assay. An unpaired two-tailed Welch's *t*-test was used to compare the level of viral growth between the wild-type and mutant virus. log_{10}-transformed titers were used for the comparison.

mutant virus selection, participants were grouped into two categories by the selection outcomes: mutant-select group (V388 selection, $n=12$) or non-select group (A388 selection or mixed shedding, $n=17$). The pre-existing stalk antibody titers from the mutant-select group were significantly higher than that of the non-select group ($P=0.0141$; Fig. 1c). When the study participants were divided into three groups, the mutant-select group still showed higher stalk antibody levels than the participants with wild-type selection or mixed shedding with statistical significance (Fig. 1d). Hemagglutination inhibition (HAI) titers, ratios between HA stalk antibodies and total HA antibodies and age of the participants were not associated with the mutant virus selection (Extended Data Fig. 2a–e). Interestingly, most of the study participants analyzed in this study had very low HAI titers (Extended Data Fig. 2a), suggesting the possibility that HA stalk antibodies, in the absence of other protective antibodies (for example, HAI antibodies), might drive selection for antibody escape mutant viruses in humans.

Lack of effect of A388V stalk mutation on viral replication fitness and clinical disease. Because HA stalk mutations have often been shown to decrease viral fitness[23,25], we investigated the fitness of the A388V mutation using H1N1pdm viruses with A388 or V388 generated using a reverse genetics system. Replication kinetics of the viruses were evaluated in vitro using cell lines derived from different species (MDCK, canine origin; Vero, *Chlorocebus sp.* 'African green' monkey origin; A549, human origin) and in vivo in mice and ferrets. Viral growth kinetics in vitro between the two viruses were indistinguishable (Fig. 2a–c). Although the mutant virus showed modestly (<ten-fold) decreased viral replication in mice with statistical significance (Fig. 2d), no decreased fitness was observed in ferrets (Fig. 2e). Additionally, secondary analysis of the human challenge study[27,28] showed that clinical disease and shedding duration in participants who selected for the mutant virus were not different from study participants with other viral selection outcomes (Extended Data Fig. 2f–h).

A388V mutation induces a stalk conformational change that disrupts epitopes that bind different HA stalk monoclonal antibodies. The effect of the A388V mutation on stalk epitopes was investigated by measuring binding levels of various bNAbs to full-length wild-type or mutant HAs. Six well-characterized bNAbs (CR6261 (refs. [29,31]), CR9114 (ref. [32]), FI6V3 (ref. [33]), 70-1F02 (ref. [34]), C179 (ref. [1]) and CT149 (ref. [35])) all showed significant reduction in binding to the mutant HA compared to wild-type HA with varying degrees (Fig. 3a–f and Extended Data Figs. 3 and 4). FI6V3 showed the smallest reduction in binding of the bNAbs tested, suggesting that FI6V3 binding is less sensitive to the A388V mutation. Neutralizing globular head monoclonal antibodies EM-4C04 (ref. [34]) and 2–12C[36] retained binding to the A388V HA protein (Fig. 3g,h and Extended Data Fig. 3h). Notably, antibodies in human serum showed significantly decreased recognition of the mutant stalk construct (Fig. 3j and Extended Data Fig. 5), suggesting that the mutant virus would be less inhibited by human serum HA stalk antibodies.

Structural modeling indicated that the A388V mutation does not interface directly with bNAbs but would likely cause steric clashes against the bulky aromatic side chains of W365 and Y366 on the β-hairpin structure of the HA stalk (Fig. 3k–m). Given the reductions in antibody binding to this region, it is probable that the α-helix of the HA stalk, the target of all known stalk bNAbs[5], could bulge or rotate to accommodate the A388V mutation, resulting in structural changes. These results suggest that even a seemingly conserved stalk mutation (a methyl to an isopropyl side chain), and

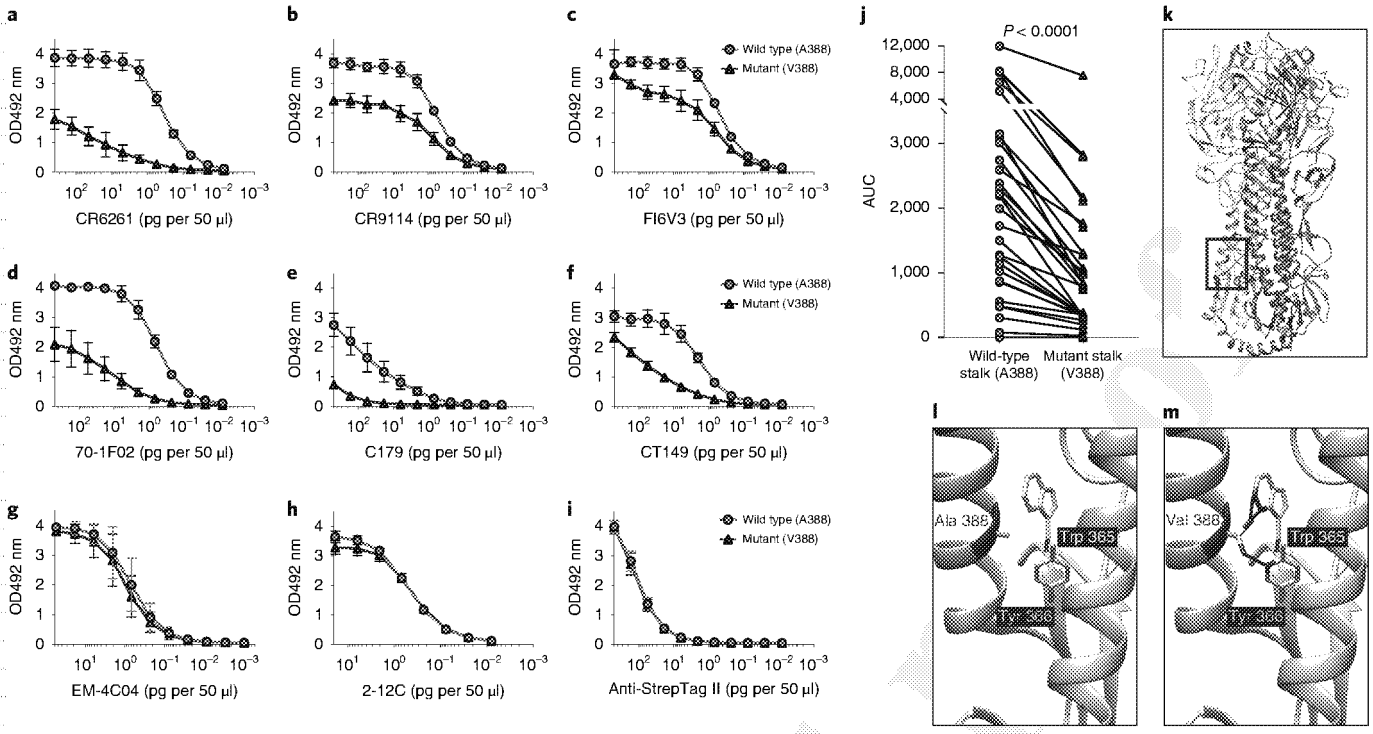

Fig. 3 | A significant conformational change to the HA stalk region induced by A388V mutation. Full-length HA and HA stalk-only proteins with or without A388V mutation were used for ELISA to measure conformational changes introduced by the A388V mutation. Six bNAbs binding to the HA stalk—(**a**) CR6261, (**b**) CR9114, (**c**) FI6V3, (**d**) 70-1F02, (**e**) C179 and (**f**) CT149—were used to detect changes in the HA stalk structure using the full-length wild-type or mutant HAs. Neutralizing monoclonal antibodies that bind to the HA globular head, (**g**) EM-4C04 and (**h**) 2-12C, were used to show the structural integrity of the purified HA proteins. **i**, Anti-Strep-tag II antibody was used to show that equal amounts of wild-type or mutant HAs were used. Graphs show mean and s.d. from three independent measurements (**a**–**i**, $n = 3$). **j**, Decreased recognition of the mutant stalk by serum from the study participants ($n = 29$) is shown as assayed using stalk-only constructs (wild type or mutant) that measure only HA stalk-binding antibodies while excluding HA head-binding antibodies. A two-tailed paired *t*-test was used to compare the AUCs. A structural analysis was performed with UCSF Chimera using a previously published 2009 H1N1 influenza virus HA structure (PDB ID: 3LZG). **k**, Each monomer of the trimeric HA structure was colored in beige, gray and green. The location of A388V mutation in the short α-helix of the HA stalk structure is highlighted in pink. An area surrounding the A388V mutation (red box) was magnified for (**l**) wild-type HA (A388) and (**m**) mutant HA (V388) for clarity. A388V mutation and adjacent amino acids (Trp 365, cyan; Tyr 366, orange) that are predicted to undergo steric clash are shown. Molecules expected to experience steric clash are highlighted in red. Blue lines indicate the predicted clashes between molecules.

while positioned inter-helically, could nonetheless substantially affect the structure and potentially confer resistance against stalk antibodies.

Increased resistance of the A388V mutant to bNAbs. Indeed, the mutant virus was significantly more resistant to CR6261 (refs. [20,31]) (eight-fold) and CR9114 (ref. [32]) (2.5-fold) neutralization compared to the wild-type virus in vitro (Fig. 4a,b). Effectiveness of FI6V3 (ref. [33]) was maintained (Fig. 4c). The varying degree of decreased effectiveness of different bNAbs to the mutant virus was consistent with the differential changes in binding levels of the bNAbs (Fig. 3a–f and Extended Data Fig. 4). The mutant virus also showed higher resistance to prophylactically injected CR6261 in mice than the wild-type virus (Fig. 4d). Although all doses of CR6261 substantially inhibited both viruses when compared to untreated controls, the mutant virus replicated to significantly higher levels than wild-type virus in mice with 1.0 mg kg^{-1} and 30.0 mg kg^{-1} of CR6261 HA stalk monoclonal antibody (Fig. 4d).

Kinetics and characteristics of in vitro selection of the mutant virus by a bNAb. To evaluate the effect of immune pressure on the selection of A388V mutant, wild-type and mutant viruses were mixed in different ratios (50:50 and 95:5) and cultured with or without immune pressure in vitro. A sub-neutralizing amount of CR6261 (approximately wild-type 95% maximal inhibitory concentration (IC_{95}) and mutant IC_{75}) was used to place the immune pressure. Although the initial ratios were well maintained without immune pressure (Fig. 4e,g), the growth kinetics of the viruses changed dramatically in the presence of the bNAb. When mixed in an equal ratio (50:50) and cultured under immune pressure, the mutant virus was rapidly expanded over the wild-type virus (Fig. 4f); when mixed at 5% under the same immune pressure, the mutant virus grew to levels similar to the wild-type virus in 72 h (Fig. 4h).

In vitro mutant virus selection by pre-existing human immunity. Next, we measured the effect of immune pressure placed by the study participants that could be associated with the in-human selection shown in Fig. 1. Serum samples from each selection group (Fig. 1a) were pooled and used to assess immune pressure in vitro. A mixture of viruses (45% wild type and 55% mutant) representing the virus inoculum used in our human challenge studies was cultured with pooled serum from each group. Although serum from the mutant-select group rapidly selected for the mutant virus (Fig. 4i), serum from the non-mutant-select groups allowed both viruses to grow (Fig. 4j,k), similarly to the control without serum (Fig. 4l). Selection pressure from individual serum samples was also measured. Interestingly, the wild-type virus was not selected

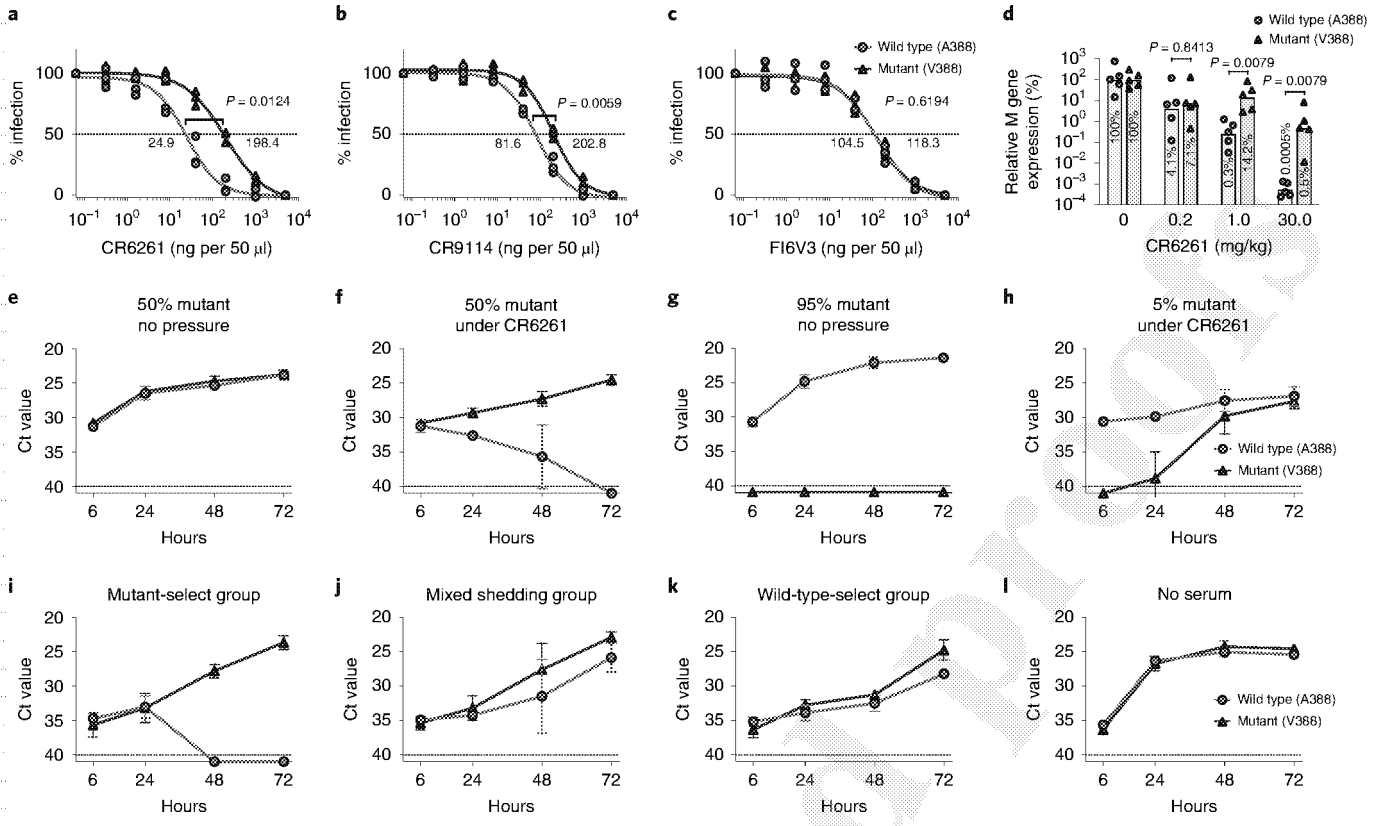

Fig. 4 | Increased resistance to broadly neutralizing antibodies by A388V mutation and its rapid selection by immune pressure. IC_{50} values of (**a**) CR6261, (**b**) CR9114 and (**c**) FI6V3 to the wild-type or mutant virus were measured three times independently ($n=3$). An unpaired two-tailed Welch's *t*-test was used to compare the IC_{50} values. **d**, 7–8-week-old female BALB/c mice were intranasally infected with 10^3 $TCID_{50}$ of wild-type or mutant virus 24 h after a prophylactic intraperitoneal injection of CR6261 antibody. At day 2 after infection, viral RNA levels from the mouse lung were quantified and compared to that of control mice not treated with antibodies. The level of viral RNA from control group was considered 100%. Each symbol represents an individual animal ($n=5$). Bars represent geometric means. A two-tailed nonparametric Mann–Whitney test was used. Selection dynamics under immune pressure were measured by co-culturing the viruses with CR6261 antibody. The virus mixture, consisting of 50% wild-type and 50% mutant virus, was cultured in the (**e**) absence or (**f**) presence of CR6261. The mixture consisting of 95% wild-type and 5% mutant virus was cultured in the (**g**) absence or (**h**) presence of CR6261 antibody. Serum samples from each selection group (Fig. 1a) were pooled and used to place immune pressure. The viruses were mixed to represent the challenge virus inoculum used in the human challenge studies (45% wild type and 55% mutant) and co-cultured with pooled serum from each group: (**i**) mutant-select group, (**j**) mixed shedding group, (**k**) wild-type-select group and (**l**) without serum as a control. Data from **e**–**l** are presented as the Ct value from the SNP assay, and dashed lines show the Ct value limit (Ct 40) of the SNP assay. To generate graphs, undetected signals were assigned a Ct value of 41. Graphs show mean and s.d. from three independent experiments ($n=3$).

under serum pressure; however, only the mutant virus was favored or selected under several serum samples, most frequently (in five of seven) under those with high stalk antibody titers (Extended Data Fig. 6a, Q1). Serum with high stalk antibody titers (Q1) showed a significantly higher level of selection pressure than serum from the lowest quartile (Extended Data Fig. 6b). Moreover, the level of stalk antibody titers correlated well with the amount of selection pressure (Extended Data Fig. 6c). These results suggest that the mutant virus expansion that occurred in study participants with high stalk antibody levels (Fig. 1) was, at least in part, caused by selection pressure placed by pre-existing stalk immunity.

Discussion

In this study of H1N1 human challenge participants, selection of a stalk mutation that was associated with little to no loss of viral fitness or lessened clinical disease correlated with pre-challenge HA stalk serum antibody titers (Figs. 1 and 4 and Extended Data Fig. 6). This raises the possibility that immunity elicited by HA stalk-targeting influenza vaccines could result in expansion of HA stalk escape mutant viruses, in a manner analogous to the well-documented antigenic drift that occurs under population immune pressure at multiple HA and NA epitopes, possibly limiting the effectiveness of HA stalk-targeting 'universal' influenza vaccines.

The A388V stalk mutation of the 2009 H1N1pdm virus was first reported by Tan et al. in association with selection pressure applied using bNAb 6F12 (ref. [22]). Anderson et al. further investigated the escape potential of the A388V mutation[26]. In the same study, an escape V41I mutant was generated under immune pressure by human serum[26] without losing viral fitness, suggesting that influenza viruses are capable of escaping polyclonal immune pressure targeting the conserved HA stalk region. Doud et al.[37] suggested that tolerated stalk mutations predominantly result in 'modest' (<ten-fold) effect on neutralization. Interestingly, both A388V and V41I[37] mutations are also consistent with this hypothesis as they did not reduce, or only minimally reduced, viral fitness and had a less than ten-fold effect on neutralization. It will be important to investigate if these modest stalk mutation(s) would decrease vaccine efficacy and if stalk antibodies could be elicited in humans high enough to control mutations with these moderate effects.

The association between loss/retention of viral fitness and stalk mutations is not fully understood: some data show that stalk mutations are associated with loss of viral fitness, resulting in a decrease

in viral pathogenicity in mice[23,26] or an increase in sensitivity to anti-viral drugs[25]. However, an escape mutant that seemed to retain full viral fitness in vitro and in mice has also been reported[26]. The A388V mutation might cause subtle loss in viral fitness in humans that is below the threshold of detection in our small study and/or cause reduced transmissibility. However, it is important to note that around 40% of the study participants (12 of 29) selected for the V388 mutant virus after the viral challenge (Fig. 1), and only the mutant virus was selected under human serum, not the wild-type virus (Extended Data Fig. 6). This raises important questions about using current in vitro and in vivo models for measuring viral fitness because these experimental systems do not consider pre-existing immunity and might be less relevant for studying the complex characteristics of human IAV infection.

Although we showed that human intra-host expansion of the mutant virus occurred within a matter of days, selection characteristics on a population scale might not be easily predicted from this result. The emergence and establishment of an escape mutant would require multiple transmission events, in which the virus sequentially encounters different immune pressures, including pressures that select against it. Furthermore, it remains inconclusive whether selection for the V388 mutant virus that occurred in some study participants (Fig. 1), and in vitro under the participant serum (Fig. 4i and Extended Data Fig. 6), was driven by higher levels of stalk antibodies (Fig. 1c,d) or was due to fundamental differences in stalk antibody repertoire between the study participants. Further investigation of antibody repertoires on individual levels[38] will be required to reveal underlying mechanisms of the mutant virus selection in humans. Moreover, although the present study was not designed to measure the effect of imprinting[39] on HA stalk antibody responses and its possible role in the mutant virus selection, this will be important to examine in future studies.

To date, stalk escape mutations have been reported very infrequently in human IAV surveillance. For example, only five of approximately 25,000 human H1N1pdm HA sequences reported in the Influenza Research Database (https://www.fludb.org) carry the A388V mutation. However, these surveillance data suggest that stalk escape mutations such as A388V do arise spontaneously in nature. Possible explanations for the limited occurrence of stalk escape mutations include that current population-scale immune pressures to the HA stalk might not trigger or expand stalk escape mutations, which, in general, are not probable to confer evolutionary advantage under low immune pressure to them. Furthermore, the most frequently used system for global influenza virus surveillance (that is, passaging original clinical samples in MDCK cells or embryonated chicken eggs followed by Sanger consensus sequence analysis) might fail to detect these mutations while they are circulating at low level. Although stalk escape mutations have been infrequently reported, this study suggests that increased anti-HA stalk immunity without other types of antibodies (for example, HA inhibition and/or NA inhibition) can select for HA stalk escape mutants in people without apparent loss of fitness.

This study brings into question the generally supported concept[40] that escape mutation(s) in the conserved HA stalk would not emerge in response to immune selective pressure. This concept derives from observations that the influenza HA stalk is under strict constraints owing to viral fitness costs imposed by mutations and from the hypothesis that broad human polyclonal immune responses would recognize multiple stalk epitopes. It is thought that these attributes would prevent viral escape in humans. Our study, however, demonstrated minimal to no loss of replicative fitness associated with the A388V escape mutation in vitro, in vivo and in humans. Moreover, human serum placed 'biased', rather than broad, immune pressures that rapidly expanded the A388V mutant in vitro. High level of stalk antibody titers was also associated with the mutant virus selection both in humans and in vitro. Although our study suggests that V388 mutation would be substantially more resistant to multiple potent bNAbs, or to currently existing human serum antibodies in general, the neutralization efficacy of FI6V3 antibody was not affected by the A388V mutation. This suggests that current stalk vaccination strategies could be strengthened if it could induce specific types of stalk antibodies in the face of potential emergence of escape mutants.

In conclusion, this study sheds light on a potential obstacle for the success of universal influenza vaccines exclusively targeting the HA stalk. It will be important to investigate if new universal influenza vaccine strategies could generate a broader and higher antibody response than conventional vaccination or natural infection, to provide broader protection even against escape mutants. Further investigation is needed to understand the population-level dynamics of HA stalk immunity and viral mutation for HA stalk-targeting vaccine strategies to become truly 'universal' against ever-evolving influenza viruses.

Online content

Any methods, additional references, Nature Research reporting summaries, source data, extended data, supplementary information, acknowledgements, peer review information; details of author contributions and competing interests; and statements of data and code availability are available at https://doi.org/10.1038/s41591-020-0937-x.

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Methods

Influenza human challenge study, sample collection, RNA extraction and determination of anti-HA stalk titers. Clinical samples were obtained from previously performed influenza virus human challenge studies[27,28]. The studies were approved by the National Institute of Allergy and Infectious Diseases (NIAID) Institutional Review Board and performed at the National Institutes of Health (NIH) Clinical Center (ClinicalTrials.gov identifiers NCT01646138 and NCT01971255; see Life Sciences Reporting Summary). Written informed consent was obtained from all study participants. Volunteers were intranasally inoculated with 10^7 $TCID_{50}$ of A/California/04/2009 (H1N1) virus (H1N1pdm) in a 1-ml inoculum as previously described[27,28]. The challenge virus stock was generated under a GMP and accumulated a polymorphism at position 388 (position 1 being initial methionine): 45% wild-type (A388) and 55% mutant (V388) HA measured by deep sequencing analysis[29]. Serum samples used for analyzing pre-existing immunity were collected right before the challenge inoculation. Nasal wash samples were collected daily after challenge until samples were confirmed negative for viral shedding for two consecutive days using BioFire FilmArray Respiratory Panel (BioFire Diagnostics)[30]. Nasal wash samples that were confirmed positive for influenza virus were selected for viral RNA isolation to be analyzed using the SNP assay (A388 versus V388). RNA isolation was performed using InnuPure C16 touch system (catalog no. 845-00020-2, Analytik Jena) with innuPREP Virus DNA/RNA Kit-IPC16 (catalog no. 845-IPP-7016096, Analytik Jena). RNA was extracted from 200 µl of nasal wash samples and resuspended in 100 µl of elution buffer. Anti-HA stalk IgG antibody titers were determined as previously described using serum samples from the study participants[13].

SNP assay. SNP (A388 versus V388) was determined using minor groove binder (MGB)-based TaqMan probes combined with multiplex quantitative polymerase chain reaction (qPCR). Primers and MGB probes were initially designed using Primer Express Software v3.0 (catalog no. 4363991, Thermo Fisher) and further modified to increase specificity. Primer and MGB probe sequences and concentrations used for the SNP assay are listed in Supplementary Table 1. The VIC-labeled TaqMan probe is designed to detect the wild-type (A388) sequence (gcc), and the FAM-labeled TaqMan probe is designed to detect the mutant (V388) sequence (gtc). The MGB probes were synthesized by Thermo Fisher. TaqMan Fast Virus 1-Step Master Mix (catalog no. 4444432, Thermo Fisher) was used for the SNP assay along with QuantStudio 6 Flex qPCR System (catalog no. 4485699, Thermo Fisher).

SNP determination of clinical nasal wash samples was done using the SNP assay after an initial one-step reverse transcription PCR (RT–PCR) amplification of the influenza HA stalk region. Primers listed in Supplementary Table 1 were used for the initial RT–PCR amplification. SuperScript IV One-Step RT–PCR System (catalog no. 12594100, Thermo Fisher) was used for high-fidelity RT–PCR amplification (cycle conditions: 53 °C for 10 min; 98 °C for 2 min; 35 cycles of 98 °C for 10 s, 60 °C for 10 s, 72 °C for 20 s; 72 °C for 5 min) following the manufacturer's instruction using 5 µl of the viral RNA from clinical nasal wash samples purified as described above. One microliter of the RT–PCR product was used for SNP determination using TaqMan Fast Virus 1-Step Master Mix (catalog no. 4444432, Thermo Fisher) and presence/absence experiment mode of the QuantStudio 6 Flex qPCR System. The following cycle was used: 60 °C for 30 s (pre-read stage); 95 °C for 20 s; 40 cycles of 95 °C for 3 s, 65.5 °C for 30 s; 60 °C for 30 s (post-read stage). ΔRn for VIC (detecting wild type) and ΔRn for FAM (detecting mutant) were collected simultaneously and used to determine the presence or absence of the wild-type or mutant sequences. Rn was defined as the intensity of the reporter dye normalized to the passive reference ROX dye. ΔRn was defined as: Rn (post-PCR read) − Rn (pre-PCR read). RNA extracted from the wild-type and mutant H1N1pdm viruses was mixed at varying ratios (10:0, 9:1, 1:9 and 0:10) and processed identically along with the viral RNA from clinical nasal wash samples; the ΔRn values of the control RNA mixtures were used to determine the clinical sample polymorphism (Extended Data Fig. 1a–c). Specifically, the wild-type virus was considered to be present when the VIC ΔRn value of the sample was greater than that of the 1:9 control mixture (10% wild type). The mutant virus was considered to be present when the FAM ΔRn value of the sample was greater than that of the 9:1 mixture (10% mutant). When both viruses were present, the sample was considered to have mixed polymorphism (mixed shedding). The wild-type and mutant H1N1pdm viruses used to provide the control RNA were generated using a 12-plasmid reverse genetics system[31] with all viral segments derived from the H1N1pdm virus. The SNP determination of clinical nasal wash samples was repeated three times (initial RT–PCR amplification as well as the following SNP determination) to ensure reliability of the data. Of those three repeats, each SNP (wild type or mutant) had to be detected at least twice to be counted toward the determination of the selection outcome; a SNP amplified only once out of three repeats was not counted. For example, when the wild-type sequence was detected three times and the mutant sequence was detected only once, the sample was considered as wild type only. Also, the SNP result from the latest time point was used to determine the selection outcome of a study participant. For example, when both viruses were detected from day 3 nasal wash, but only the mutant virus was detected from day 4 and 5 nasal wash, the study participant was considered to have selected for the mutant virus.

SNP assay was also used to track in vitro selection dynamics from using extracted RNA without the initial one-step RT–PCR amplification. RNA from virus culture media was extracted as described above using the InnuPure C16 touch system using 50 µl of virus culture media and resuspended in 50 µl of elution buffer. Two microliters of the extracted RNA was used for the SNP assay using the standard curve experiment mode of the QuantStudio 6 Flex qPCR System. The following cycle was used: 50 °C for 5 min; 95 °C for 20 s; 40 cycles of 95 °C for 3 s, 65.5 °C for 30 s. The results are reported as cycle threshold (Ct) values. The SNP assay, both for the clinical nasal wash samples and the in vitro selection experiment, was validated for accuracy under various conditions using the wild-type or mutant H1N1pdm viruses generated as described above. Viral RNA from wild-type and mutant viruses, isolated as described above, was mixed in varying ratios from 10:0 (0% mutant virus) to 0:10 (100% mutant virus) and diluted to represent varying viral loads: $10^{3.0}$, $10^{4.0}$ and $10^{5.5}$ $TCID_{50}$ per ml for the two-step SNP assay of clinical nasal wash samples (Extended Data Fig. 1a–c); $10^{4.0}$, $10^{5.5}$ and $10^{7.0}$ $TCID_{50}$ per ml for the SNP assay using RNA from virus cultures (Extended Data Fig. 1d–f).

Evaluation of viral fitness in vitro and in vivo. Wild-type (A388) and mutant (V388) H1N1pdm viruses were generated using a reverse genetics system as described above and passaged twice in MDCK cells before being tested for viral fitness. To measure viral fitness in vitro, MDCK, Vero and A549 cells were seeded in 96-well plates and infected with 0.001 multiplicity of infection (MOI) of the wild-type or mutant viruses when cells were 90–100% confluent. After 60 min, virus inoculum was removed, and fresh virus growth media was added. For MDCK and Vero cells, the virus growth medium was prepared by adding Antibiotic-Antimycotic (catalog no. 15240062, Thermo Fisher) and 6- (1-tosylamido-2-phenyl) ethyl chloromethyl ketone (TPCK)-treated trypsin (catalog no. T1426, Millipore Sigma) at a final concentration of 1 µg ml^{-1} to DMEM (catalog no. 11995065, Thermo Fisher). For A549 cells, F-12K Medium (catalog no. 30-2004, ATCC) was used instead of DMEM. After 6, 24, 48 and 72 h, the supernatant was collected, clarified by centrifugation and titrated in MDCK cells using $TCID_{50}$ assay, and the Reed–Muench method[42] was used for the $TCID_{50}$ calculation. For measuring viral fitness in mice, 7–8-week-old female BALB/c mice were intranasally infected with 10^3 $TCID_{50}$ of wild-type ($n=15$) or mutant ($n=15$) virus in 50 µl of phosphate-buffered saline (PBS). At 2 ($n=5$), 4 ($n=5$) and 6 ($n=5$) d post challenge (dpc), mice were euthanized using CO_2, and lungs were harvested and homogenized in PBS using a tissue homogenizer (Omni International). Viral loads were titrated in MDCK cells using $TCID_{50}$ assay as described above. For measuring viral fitness in ferrets, 6–7-month-old female ferrets were intranasally infected with 10^5 $TCID_{50}$ of wild-type ($n=6$) or mutant ($n=6$) virus in 1 ml of PBS. At 1, 3, 5 and 7 dpc, ferrets were lightly anesthetized using isoflurane, and nasal washes were collected using 1 ml of PBS. Viral loads were titrated in MDCK cells using $TCID_{50}$ assay as described above. All animal experiments were conducted under protocols approved by the Animal Care and Use Committee at the NIAID, NIH. See the Life Sciences Reporting Summary for further information on the in vivo study replication.

Production of full-length HA and HA stalk-only proteins. Full-length wild-type (A388) and mutant (V388) H1N1pdm HA proteins were designed as previously described[43] with a Strep-tag II instead of hexahistidine tag used in the reference study (Extended Data Fig. 7). The wild-type and mutant stalk-only constructs were designed based on a stalk-only construct that has been successfully used as a universal influenza vaccine candidate[2] as well as to measure stalk-binding antibody levels in human serum[13]. Two minor modifications were added: 1) a carboxy-terminal T4 trimerization domain for increased stability[43,44] and 2) Strep-tag II, instead of hexahistidine tag, for purification (Extended Data Fig. 7). Both the full-length HA and stalk-only constructs were produced in Sf9 insect cells using the Bac-to-Bac baculovirus expression system (catalog no. 10359016, Thermo Fisher) and purified using Strep-Tactin Sepharose (IBA) as previously described[13]. A Bicinchoninic Acid Protein Assay Kit (catalog no. 23225, Thermo Fisher) was used for protein quantification for both full-length HA and stalk-only constructs.

ELISA using full-length HAs. To measure the effect of the A388V mutation on the HA structure, full-length wild-type or mutant HAs, produced as described above, were diluted in PBS (3 µg ml^{-1}) and added to 96-well ELISA plates (50 µl per well) (catalog no. 456537, Thermo Fisher). The plates were incubated overnight at 4 °C followed by the addition of blocking buffer (1% bovine serum albumin (BSA) in PBS, 100 µl per well). After 30 min at room temperature, the plates were washed three times with wash buffer (0.05% Tween 20 in PBS). Six bNAbs that bind to HA stalk were used for the ELISA: CR6261 (refs. [20,33]) (a gift from Janssen Pharmaceutica), CR9114 (ref. [33]) (catalog no. PABX-119, Creative Biolabs), FI6V3 (ref. [35]) (catalog no. PABL-214, Creative Biolabs), 70-1F02 (ref. [34]) (a gift from Dr. Rafi Ahmed, Emory Vaccine Center), C179 (ref. [1]) (catalog no. M145, Takara Bio) and CT149 (ref. [2]) (catalog no. PABL-213, Creative Biolabs). Two neutralizing monoclonal HA head-binding antibodies, EM-4C04 (ref. [36]) (a gift from Dr. Rafi Ahmed, Emory Vaccine Center) and 2–12C[36] (a gift from Dr. Alain Townsend, University of Oxford), were used to show the structural integrity of the

purified full-length HA proteins. Anti-Strep-tag II antibody (catalog no. Ab76949, Abcam) was used to confirm that equal amounts of wild-type or mutant HAs were used for ELISA. Antibodies were serially diluted in antibody diluent (1% BSA and 0.05% Tween 20 in PBS) and added to the washed plates. After incubation (room temperature, 2 h), the plates were washed three times, and 1:10,000 diluted horseradish peroxidase (HRP)-conjugated anti-human IgG antibody (catalog no. Ab 205630, Abcam) was added (100 µl per well) for CR6261, CR9114, FI6V3, 70-1F02, CT149, EM-4C04 and 2–12C. HRP-conjugated anti-mouse IgG antibody (catalog no. A28177, Thermo Fisher) and anti-rabbit IgG antibody (catalog no. A16110, Thermo Fisher) were 1:10,000 diluted and used for C179 and anti-Strep-tag II antibody, respectively. After incubation (room temperature, 1 h), the plates were washed six times followed by 30 min of room temperature incubation with HRP substrate solution (100 µl per well) prepared by adding a 10-mg o-phenylenediamine dihydrochloride tablet (catalog no. P8287, Millipore Sigma) to 20 ml of phosphate citrate buffer preparation (catalog no. P4922, Millipore Sigma). The reaction was stopped by adding 1 M sulfuric acid (100 µl per well), and the optical density was measured at 492 nm (OD492). Area under the curve (AUC) values were calculated using Prism8 software v.8.3.0 (GraphPad Software). The baseline for AUC calculation was set as 0.1 to exclude nonspecific signals from the AUC calculation. The OD492 of 0.1 is approximately two times the OD492 value from the control wells that were treated equally but without the primary antibodies.

ELISA using HA stalk-only constructs. Wild-type and mutant stalk-only constructs were produced and purified as described above to specifically measure antibodies recognizing the mutant stalk in human serum while excluding head-binding antibodies. To measure the structural differences between the wild-type and mutant HA stalk-only construct, ELISA and the following AUC calculation was performed using serially diluted bNAbs (CR6261, CR9114, FI6V3, 70-1F02, C179 and CT149) as described above with one modification. The stalk-only constructs were diluted in PBS at 1 µg ml^{-1} for coating ELISA plates, rather than 3 µg ml^{-1}. To show that the stalk-only A388V construct closely represents the stalk structure in the full-length A388V HA, the magnitude of the structural differences between the respective wild-type and mutant constructs was compared by ELISA and the following AUC calculation as described above. To measure the change in human serum's ability to recognize the mutant stalk structure, the serum samples obtained from the influenza human challenge study were analyzed using ELISA. Pre-challenge serum samples were serially diluted (initial 1:200 dilution followed by four-fold serial dilution) and analyzed using ELISA and following AUC calculation as described above. Reciprocal dilutions (dilution factors) of the serum were used as x values for the AUC calculation.

Structural modeling. A structural analysis was performed with UCSF Chimera[45] using a previously published 2009 H1N1 influenza virus HA structure (PDB ID: 3LZG)[46]. Structural editing was performed using the Rotamers option in UCSF Chimera. Molecules expected to undergo steric clash upon A388V mutation were predicted using the default clash parameter in UCSF Chimera.

Flow cytometry. MDCK cells were infected at 1 MOI of wild-type (A388) or mutant (V388) H1N1pdm viruses generated by reverse genetics. Twenty-four hours after infection, cell culture supernatant was discarded and cells were washed twice with PBS and treated with trypsin-EDTA (catalog no. 25200056, Thermo Fisher) for 10 min at 37 °C. The cells were then harvested, and the trypsin was neutralized by adding an equal volume of PBS supplemented with 5% fetal bovine serum. After centrifugation (300g for 5 min), the supernatant was discarded, and cells were fixed by resuspending in Fixative Solution (catalog no. R37814, Thermo Fisher) for 15 min at room temperature. Fixed cells were filtered using a 40-µm cell strainer (catalog no. 352340; Corning Life Sciences) to remove clumped cells. Filtered cells were spun (300g for 5 min), the supernatant was removed and the cells were washed twice with flow cytometry buffer (1% BSA, 0.1% sodium azide in PBS) using centrifugation (300g for 5 min) and resuspended in the flow cytometry buffer. Six stalk-binding bNAbs (CR6261, CR9114, FI6V3, 70-1F02, C179 and CT149) were conjugated with fluorescein isothiocyanate (FITC) using a FITC Conjugation Kit (catalog no. Ab 102884, Abcam). EM-4C04, a monoclonal antibody binding to the HA globular head, was conjugated with R-phycoerythrin (R-PE) using an R-PE Conjugation Kit (catalog no. Ab102918, Abcam). Anti-influenza nucleoprotein (NP) antibody (catalog no. MAB8257, Millipore Sigma) was conjugated with allophycocyanin (APC) using an APC Conjugation Kit (catalog no. Ab201807, Abcam) and used for gating. The estimated concentrations of the conjugated antibodies were 0.83 mg ml^{-1} for all antibodies. Cells were stained with an antibody mixture—one of the FITC-conjugated stalk-binding bNAbs (CR6261, CR9114, FI6V3, 70-1F02, C179 or CT149), the R-PE-conjugated HA head-binding antibody (EM-4C04) and the APC-conjugated NP antibody. For the staining, 0.5×10^6 cells were resuspended in 50 µl of the diluted antibody mixture (1:100 for stalk antibodies, 1:500 for EM-4C04 and 1:500 for NP antibody). Data were collected using BD LSR II (BD Biosciences) and FACSDiva software (version 6.2, BD Biosciences) and analyzed using FlowJo v.10.6.1 (BD Biosciences). The flow cytometry was independently repeated three times.

Measuring viral resistance to a broadly neutralizing antibody. The effect of the A388V mutation on the increase of viral resistance to three bNAbs (CR6261, CR9114 and FI6V3) was measured using wild-type (A388) and mutant (V388) H1N1pdm viruses generated by reverse genetics. To measure the IC_{50} value of CR6261, CR9114 and FI6V3 to each virus, an ELISA-based microneutralization assay[47] was performed using five-fold serially diluted bNAbs. The percentage of infection was normalized to the lowest antibody concentration, and the IC_{50} values were determined using a nonlinear least square regression model (variable slope, four parameters) using Prism8 software v.8.3.0 (GraphPad Software). To compare viral resistance in vivo, 7–8-week-old female BALB/c mice were intranasally infected with 10^3 $TCID_{50}$ of wild-type or mutant virus in 50 µl of PBS 24 h after a prophylactic intraperitoneal injection of CR6261 antibody at 0.2 mg kg^{-1}, 1.0 mg kg^{-1}, 30.0 mg kg^{-1} or a saline control (200 µl per animal). To rule out the possibility of ex vivo neutralization of the viruses by CR6261 during tissue processing, viral titers were quantified using qPCR. Groups of five mice were euthanized at day 2 after challenge, lungs were collected and homogenized in Trizol and total RNA was isolated following the manufacturer's protocol (Thermo Fisher) and purified using the RNeasy Mini Kit (Qiagen). Reverse transcription of total RNA was performed using the Superscript III First-Strand cDNA Synthesis Kit (catalog no. 18080051, Thermo Fisher) primed with an equal mix of oligo(dT) and the Uni12 influenza A specific primer: 5′-AGCRAAAGCAGG-3′. The influenza matrix (M) gene was quantified using primers and probe previously published[48] (Supplementary Table 1). The average ($n = 5$) level of influenza M gene RNA (normalized to GAPDH; catalog no. 4352932E. Thermo Fisher) from CR6261-treated and infected mice was normalized to M gene RNA level in control mice (antibody untreated, infected mice) using the ΔΔCt method.

In vitro selection study. The effect of monoclonal and polyclonal immune pressure on the selection of the mutant virus was measured by co-culturing the wild-type and mutant viruses under selection pressure by bNAb CR6261 or human serum. To measure the selection dynamics under CR6261, reverse genetics-generated wild-type and mutant H1N1pdm viruses were mixed in different ratios (50:50 and 95:5) while maintaining the combined viral titer at 2×10^5 $TCID_{50}$ per ml. CR6261 antibody was diluted to a final concentration of 10 µg ml^{-1}. Supplemented medium used for virus and CR6261 antibody dilution was made by supplementing 100 ml of DMEM (Thermo Fisher) with 10 ml of 7.5% BSA (catalog no. 15260037, Thermo Fisher), 1.1 ml of Antibiotic-Antimycotic (catalog no. 15240062, Thermo Fisher) and 110 µl of TPCK-treated trypsin (1 µg ml^{-1}, Millipore Sigma). Diluted viruses at different ratios were mixed with an equal volume of diluted CR6261 antibody and incubated at 37 °C for 1 h and then added to MDCK cells at 90–100% confluency in 96-well plates (100 µl per well). Supernatants from three wells were pooled for analysis at 6, 24, 48 and 72 h after infection. Viral RNA was extracted and analyzed using the SNP assay as described above.

To assess the immune pressure placed by polyclonal human serum, serum samples were divided into three groups based on the selection outcomes according to the SNP assay results (Fig. 1). Equal volumes of serum from each group were pooled and used to place immune pressure. Reverse genetics-generated wild-type and mutant H1N1pdm viruses were mixed to represent the challenge virus used in the human challenge studies (45% wild type and 55% mutant) while maintaining the combined viral titer at 2×10^5 $TCID_{50}$ per ml. The mixed viruses were incubated with an equal volume of 1:50-diluted human pooled serum. After incubation (37 °C, 1 h), the virus and antibody mixtures were added to MDCK cells at 90–100% confluency in six-well plates (800 µl per well). Supernatants were collected for analysis at 6, 24, 48 and 72 h after infection (70 µl per collection). Viral RNA was extracted, and the selection dynamics were analyzed using the SNP assay as described above. Individual serum samples were also analyzed for the selection pressure. Individual serum samples were 1:50 diluted and mixed with an equal volume of wild-type and mutant virus mixture (50:50, 2×10^5 $TCID_{50}$ per ml combined viral titer) followed by incubation at 37 °C for 1 h and then added to MDCK cells at 90–100% confluency in six-well plates (800 µl per well). Supernatants were collected for analysis at 48 and 72 h after infection (70 µl per collection). Viral RNA was extracted using 50 µl of supernatant, and the selection dynamics were analyzed using the SNP assay as described above. Serum samples with a higher level of neutralizing antibodies, not allowing measurable viral growth, were further diluted at 1:100 or 1:200 to allow viruses to grow. A 1:200 dilution was used for the serum samples that neutralized viruses at 1:100. To investigate the association between the level of stalk antibodies and the level of immune pressure selecting for the mutant virus, mutant selection index of individual serum samples was calculated by the ΔΔCt method normalized to controls cultured without serum: ΔCt wild-type = Ct wild-type control − Ct wild-type with serum; ΔCt mutant = Ct mutant control − Ct mutant with serum; ΔΔCt = ΔCt mutant − ΔCt wild-type; mutant selection index = ΔΔCt × dilution factor (50, 100 or 200). All the in vitro selection studies were repeated three times independently.

Statistical analyses. Anti-HA stalk antibody titers were compared between the mutant selection group and other groups using a nonparametric two-tailed Mann–Whitney test (Fig. 1c,d). A two-tailed unpaired Welch's t-test was used to compare differences in in vitro and in vivo viral growth kinetics on the $\log_{10}$-transformed

titers (Fig. 2). A two-tailed paired *t*-test was used to compare the recognition of the wild-type and mutant stalk by individual human serum using AUCs (Fig. 3j). A two-tailed unpaired Welch's *t*-test was used to compare differences in IC_{50} values (Fig. 4a–c). IC_{50} curves were generated using a nonlinear least square regression model (variable slope, four parameters) using Prism8 software v.8.3.0 (GraphPad Software). A nonparametric two-tailed Mann–Whitney test was used for in vivo viral replication under CR6261 (Fig. 4d). The difference in HAI titers, ratios between HA stalk antibodies and total HA antibodies, age and birth year of the participants, days and number of symptoms and days of shedding between the mutant selection group and other groups were compared using a nonparametric two-tailed Mann–Whitney test. (Extended Data Fig. 2). The level of selection pressure (mutant selection index) between samples from different quartiles was compared using nonparametric one-way analysis of variance (Kruskal–Wallis test) and Dunn's test as a post hoc test (Extended Data Fig. 6b). Correlation between the anti-stalk serum IgG titer and the mutant selection index was analyzed by calculating nonparametric two-tailed Spearman's rank correlation analysis. The best-fit line was plotted using simple linear regression analysis. All statistical analyses were performed using Prism8 software v.8.3.0 (GraphPad Software).

Reporting Summary. Further information on research design is available in the Nature Research Reporting Summary linked to this article.

Data availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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Author contributions

J.-K.P., M.J.M., J.C.K. and J.K.T. conceived and designed the study. J.-K.P., Y.X., M.D.R., L.A.R., S.F., A.M.M., A.D.F., M.A.G., N.A.B., L.Q., X.Y. and K.S. generated the laboratory data. S.R., R.A., L.C., A.H. and M.J.M. designed and performed the primary clinical study. J.-K.P., A.H., Y.X., M.D.R., D.M.M., K.-A.W., M.J.M., J.C.K. and J.K.T. interpreted the data. J.-K.P., D.M.M., K.-A.W., M.J.M., J.C.K. and J.K.T. wrote the manuscript. All authors critically reviewed the paper and approved of the final version of the paper for submission.

Competing interests

All authors declare no competing financial or non-financial interests.

Additional information

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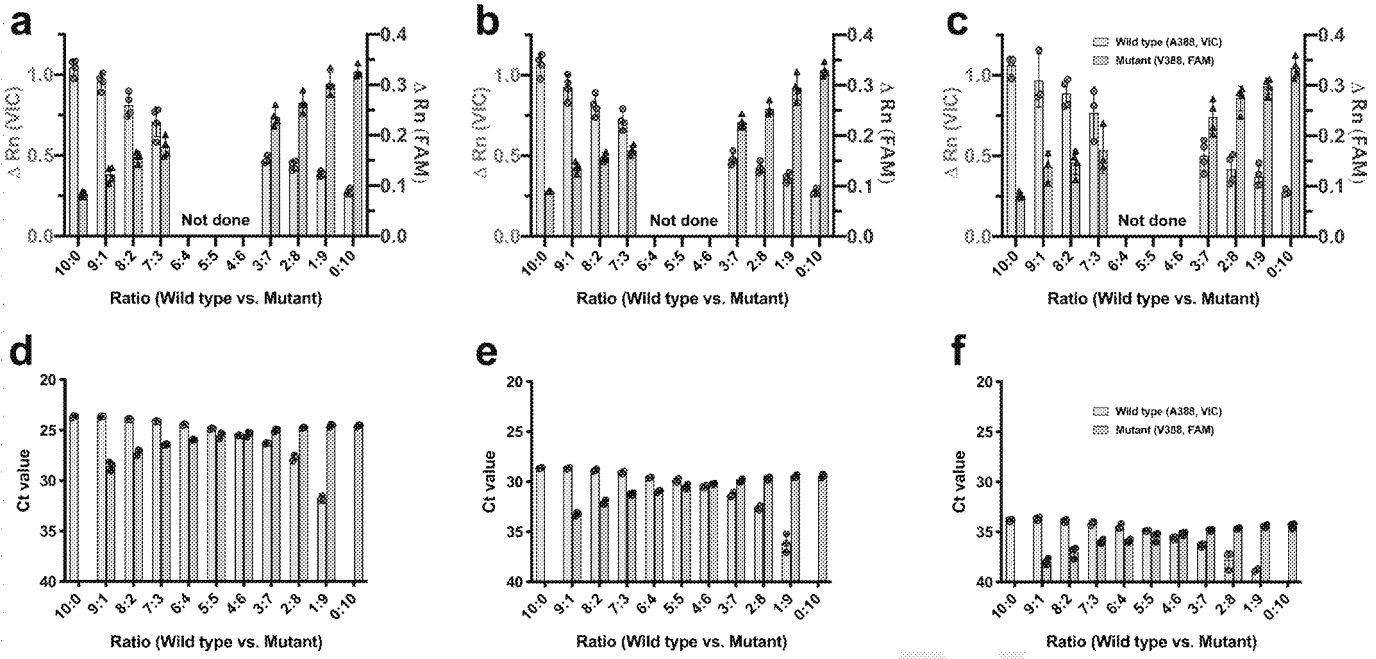
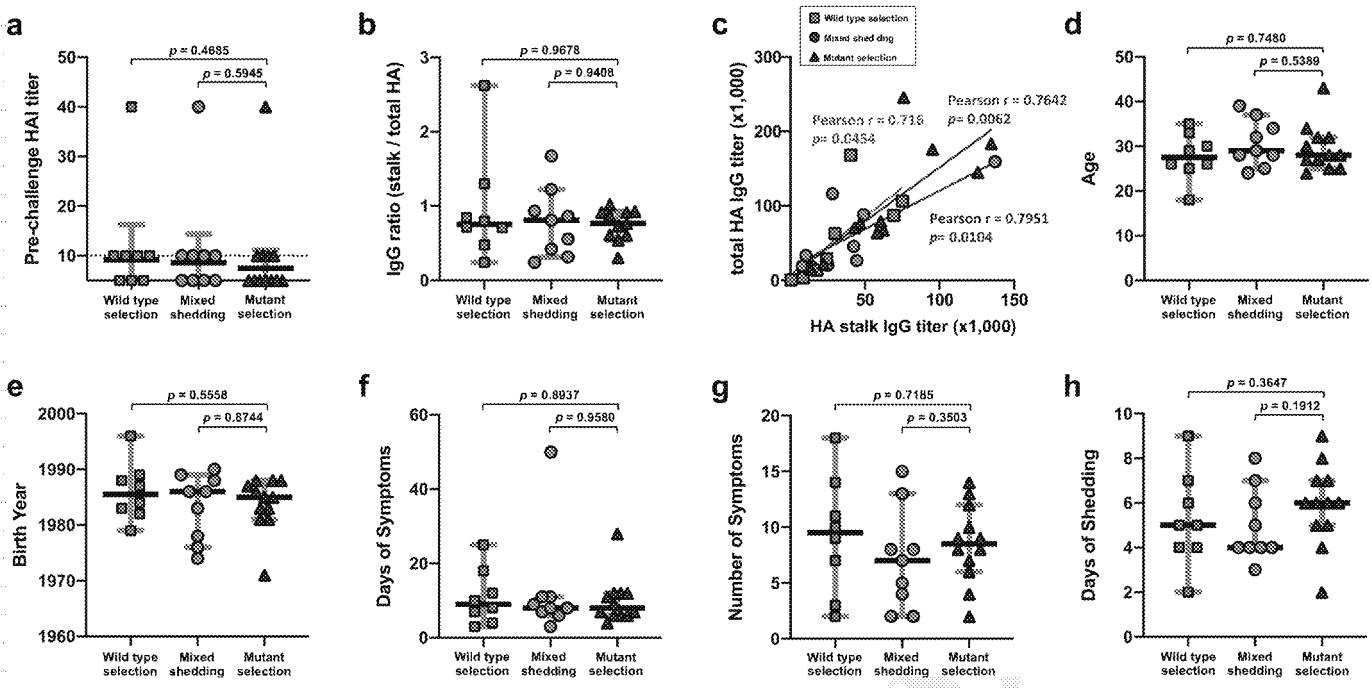
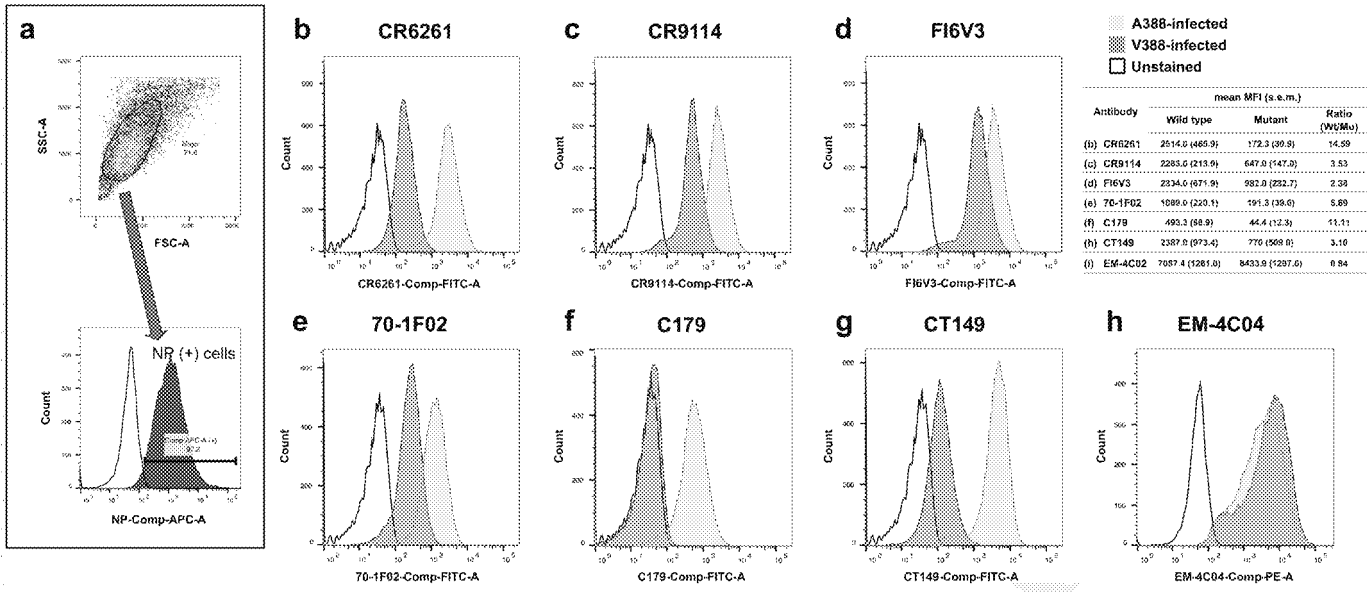


Extended Data Fig. 1 | A Single Nucleotide Polymorphism (SNP) assay using minor groove binder (MGB)-based TaqMan probes for detecting wild-type (A388) or mutant (V388) genes in various conditions. A SNP assay was developed for detecting wild-type (A388) or mutant (V388) HA genes in various conditions utilizing a set of Minor Groove Binder (MGB)-based TaqMan probes. VIC-labeled probe detecting the wild-type (A388) and a FAM-labeled probe detecting the mutant (V388). The SNP assay was validated using a mixed viral genome from the 2009 H1N1pdm wild-type (A388) and the mutant (V388) viruses. Viral RNA was mixed in varying ratios from 10:0 (0% mutant virus) to 0:10 (100% mutant virus). For the validation of two-step SNP assay for analyzing nasal wash samples from the human challenge study, mixed viral RNA was diluted to represent varying viral loads of (**a**) $10^{5.5}$ $TCID_{50}$/ml, (**b**) $10^{4.0}$ $TCID_{50}$/ml, and (**c**) $10^{3.0}$ $TCID_{50}$/ml. Prepared viral RNA was analyzed by the two-step SNP assay (see Methods). Blue and red bars indicate the ΔRn value of wild-type and mutant virus, respectively. Graphs show mean ΔRn value and standard deviation from 4 independent experiments (a-c, n = 4). For the validation of one-step SNP assay used to analyze selection dynamics *in vitro*, mixed viral RNA was diluted to represent varying viral loads of (**d**) $10^{7.0}$ $TCID_{50}$/ml, (**e**) $10^{5.5}$ $TCID_{50}$/ml, and (**f**) $10^{4.0}$ $TCID_{50}$/ml. Prepared viral RNA was analyzed by the one-step SNP assay (see Methods). Blue bars indicate the threshold cycle (Ct) values representing the amount of wild-type (A388) virus. Red bars represent the amount of mutant (V388) virus. Graphs show mean Ct value and standard deviation from 3 independent experiments (d-f, n = 3). Results show that the SNP assay reliably detects minor population, either wild-type or mutant, existing as low as 10% across the various viral loads.

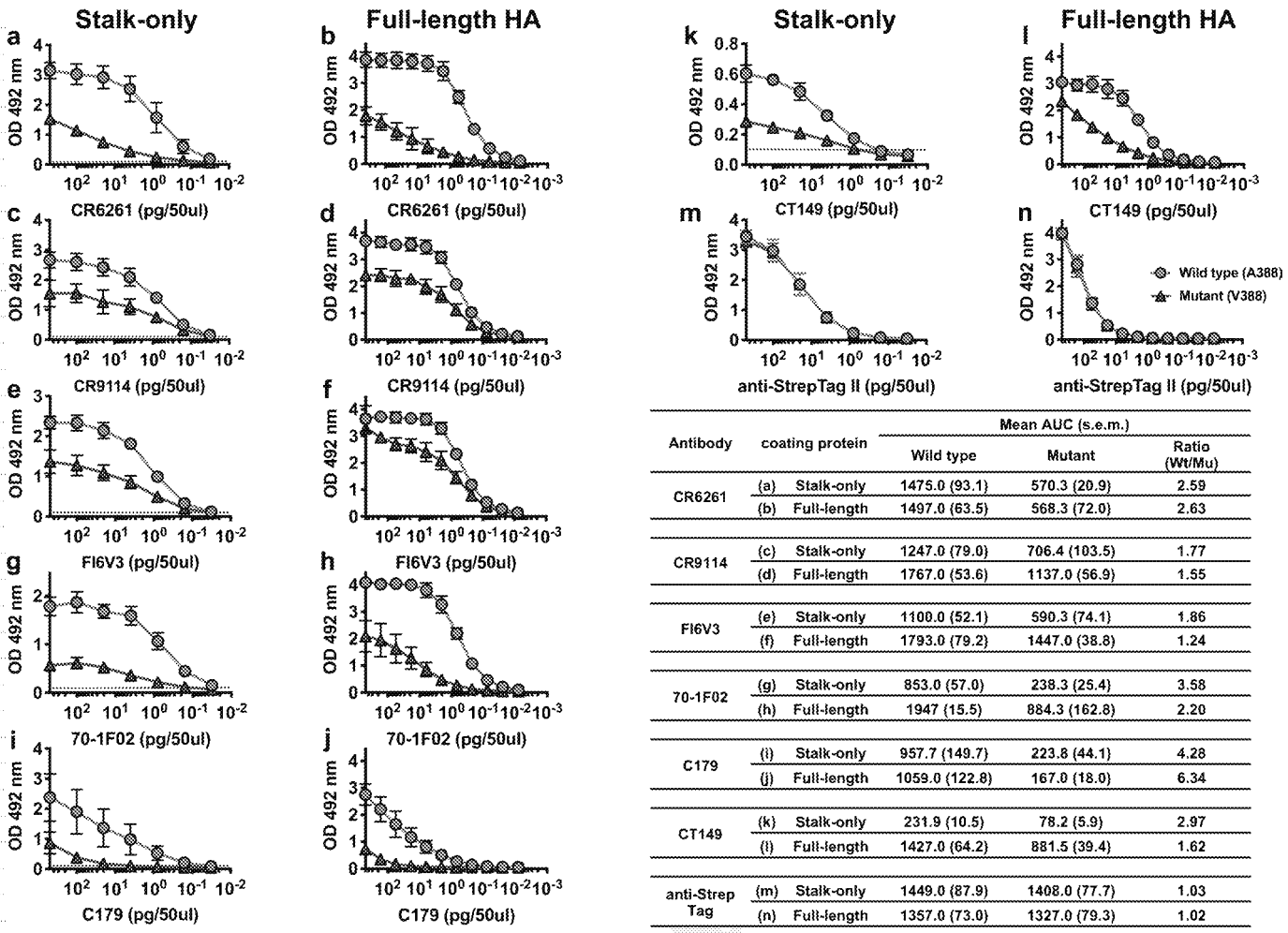


Extended Data Fig. 2 | Comparison of different parameters between study participants with different selection outcomes. Different parameters were compared between groups to find possible correlates of the selection outcomes. **a**, Pre-challenge serum hemagglutination inhibition (HAI) titers were compared. Black horizontal lines and grey error bars represent geometric mean titer and 95% CI, respectively. Dashed line shows the detection limit. **b**, The fraction of HA stalk antibodies relative to total HA antibodies was compared. The ratio is a calculation of serum anti-stalk IgG and anti-full-length HA IgG titers measured by ELISA. **c**, Serum IgG titer data (anti-stalk and anti-total HA) generated in (**b**) were used to analyze the correlation between the stalk and total HA antibody titers in each selection group. A two-tailed Pearson's correlation coefficient (Pearson's r) was used for the analysis. The positive correlation between the stalk antibody titers and total HA titers may explain the lack of difference in stalk/total HA antibody ratio between groups seen in (**b**). To find a possible role of immunological imprinting on the selection outcomes, (**d**) age of the participants at the study enrollment and (**e**) birth year was compared. To find potential loss in viral fitness in humans caused by the A388V mutation, (**f**) days of symptoms, (**g**) number of symptoms, and (**h**) duration of shedding after the challenge infection were compared between groups. Black horizontal lines and grey error bars represent median value and 95% CI, respectively (**b,d,e-h**). A two tailed nonparametric Mann-Whitney test was used to compare parameters from the mutant selection group to other selection groups. Each symbol represents an individual study participant and their selection outcome (wild-type selection, n = 8; mixed shedding, n = 9; mutant selection, n = 12).



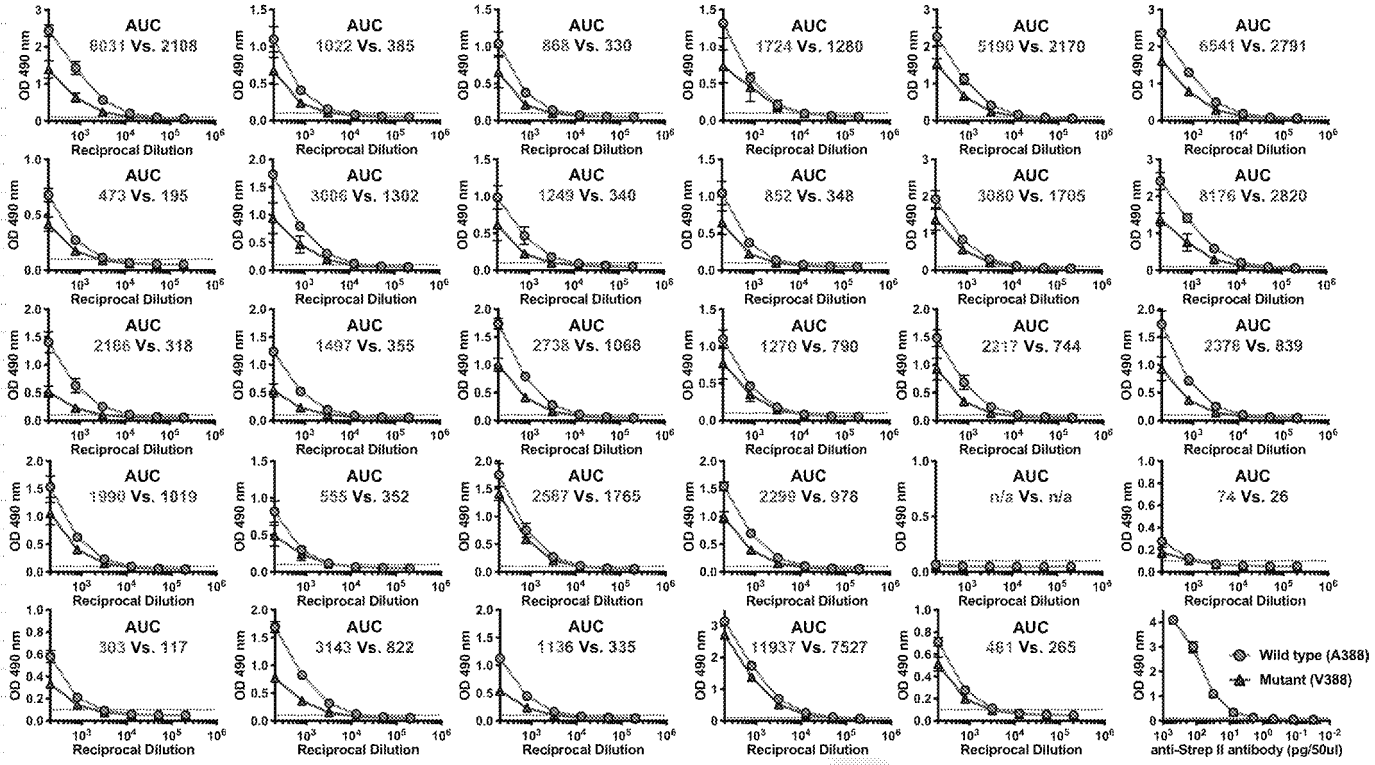
Antibody	mean MFI (s.e.m.) Wild type	Mutant	Ratio (Wt/Mu)
(b) CR6261	2514.0 (465.9)	172.3 (30.9)	14.59
(c) CR9114	2285.0 (213.9)	647.0 (147.0)	3.53
(d) FI6V3	2334.0 (671.9)	982.0 (232.7)	2.38
(e) 70-1F02	1089.0 (220.1)	191.3 (39.0)	5.69
(f) C179	493.3 (58.9)	44.4 (12.3)	11.11
(h) CT149	2387.0 (973.4)	770 (569.0)	3.10
(i) EM-4C02	7057.4 (1281.0)	8433.9 (1297.0)	0.84

Extended Data Fig. 3 | A significant conformational change to the HA stalk region induced by A388V mutation. MDCK cells were infected with 1 multiplicity of infection (MOI) of wild-type (A388) or mutant (V388) H1N1pdm viruses generated by reverse genetics. 24 hours after infection, cells were harvested, and the expression of wild-type and mutant HA was measured by flow cytometry to evaluate the effect of the A388V mutation on the HA stalk epitopes. **a**, A representative example of the gating strategy. Dead cells and debris were excluded based on FSC/SSC cell dot plot. Anti-influenza nucleoprotein (NP) antibodies conjugated with allophycocyanin (APC) were used for gating. Only infected cells, expressing NP, were used for the analysis. Broadly neutralizing antibodies binding to the HA stalk, (**b**) CR6261, (**c**) CR9114, (**d**) FI6V3, (**e**) 70-1F02, (**f**) C179, and (**g**) CT149 were conjugated with fluorescein isothiocyanate (FITC). A monoclonal antibody that binds to the HA globular head, (**h**) EM-4C04, was conjugated with r-phycoerythrin (R-PE). Each stalk-binding antibody was mixed with the head-binding EM-4C04 antibody and NP antibody, and the antibody mixtures were used to stain cells expressing the wild-type or mutant HA. Histograms are colored differently to show different experimental groups: Blue - cells infected with wild-type (A388) virus; Pink - cells infected with mutant (V388) virus; Black - unstained cell control. Representative histograms from three independent experiments are shown. The summary table shows the average median fluorescence intensity (MFI) and standard error of mean (s.e.m.) of the three independent experiments.

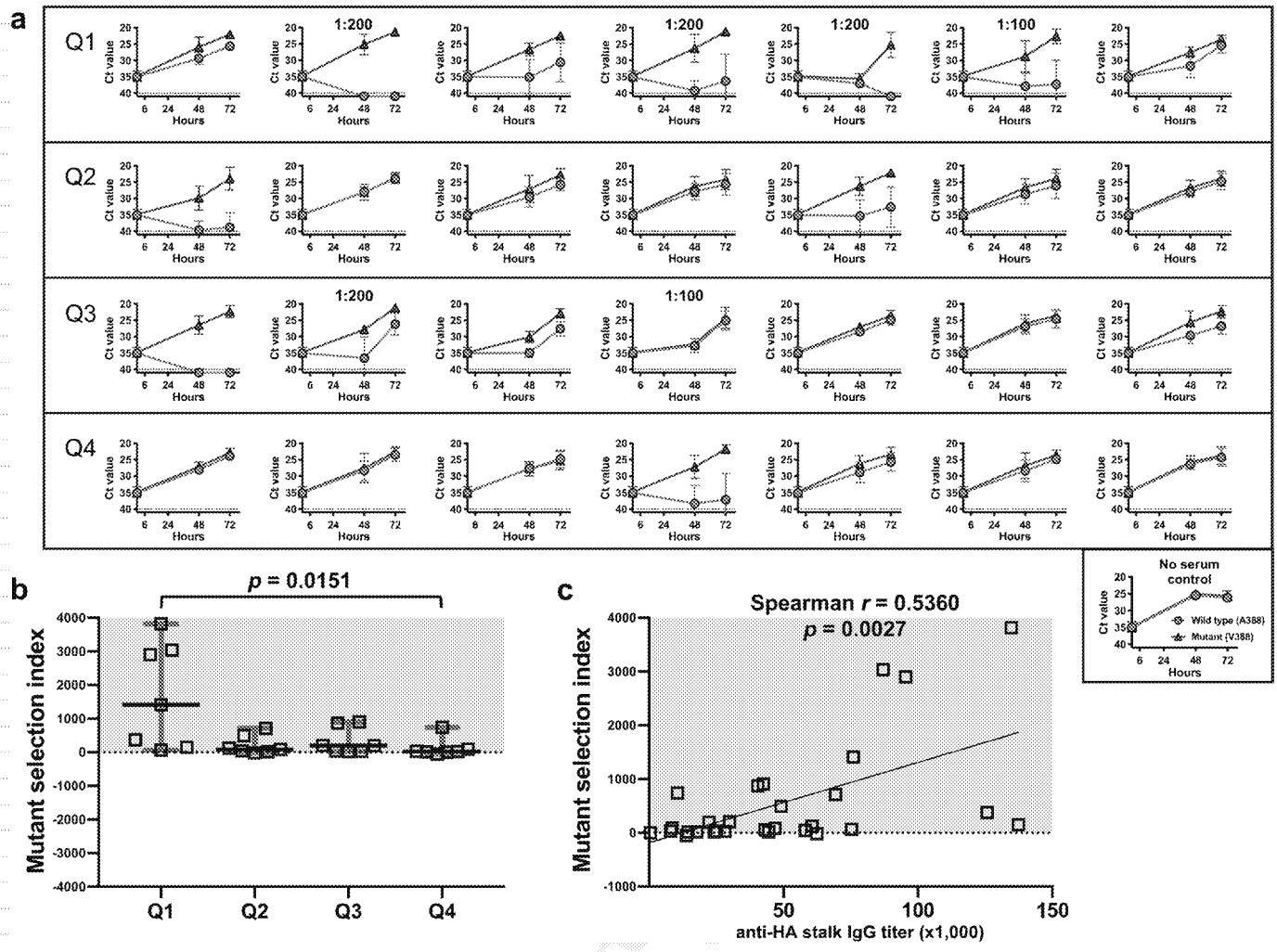


Antibody		coating protein	Mean AUC (s.e.m.) Wild type	Mutant	Ratio (Wt/Mu)
CR6261	(a)	Stalk-only	1475.0 (93.1)	570.3 (20.9)	2.59
	(b)	Full-length	1497.0 (63.5)	568.3 (72.0)	2.63
CR9114	(c)	Stalk-only	1247.0 (79.0)	706.4 (103.5)	1.77
	(d)	Full-length	1767.0 (53.6)	1137.0 (56.9)	1.55
FI6V3	(e)	Stalk-only	1100.0 (52.1)	590.3 (74.1)	1.86
	(f)	Full-length	1793.0 (79.2)	1447.0 (38.8)	1.24
70-1F02	(g)	Stalk-only	853.0 (57.0)	238.3 (25.4)	3.58
	(h)	Full-length	1947 (15.5)	884.3 (162.8)	2.20
C179	(i)	Stalk-only	957.7 (149.7)	223.8 (44.1)	4.28
	(j)	Full-length	1059.0 (122.8)	167.0 (18.0)	6.34
CT149	(k)	Stalk-only	231.9 (10.5)	78.2 (5.9)	2.97
	(l)	Full-length	1427.0 (64.2)	881.5 (39.4)	1.62
anti-Strep Tag	(m)	Stalk-only	1449.0 (87.9)	1408.0 (77.7)	1.03
	(n)	Full-length	1357.0 (73.0)	1327.0 (79.3)	1.02

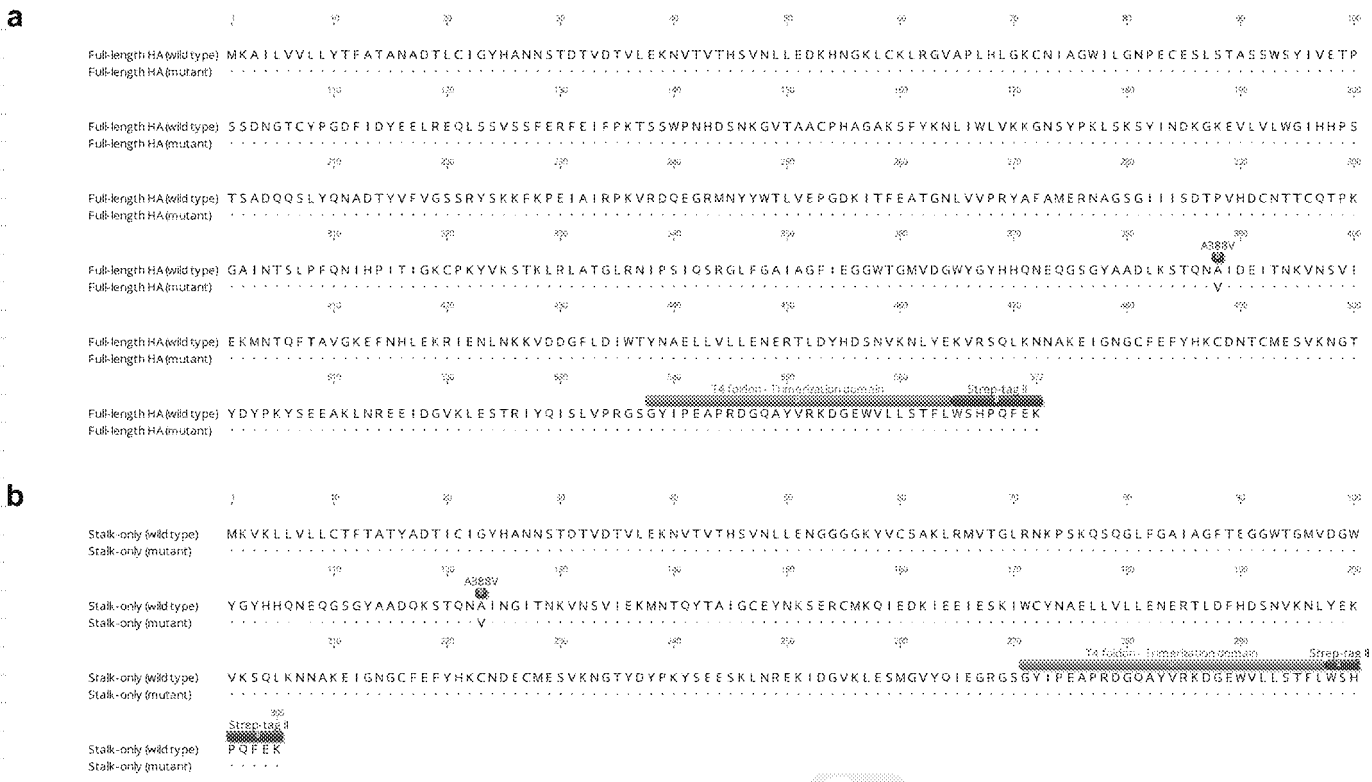
Extended Data Fig. 4 | Comparison between stalk-only and full-length HA construct. Stalk-only constructs with or without the A388V mutation (See Extended Data Fig. 7b for the amino acid sequence) were produced to measure the level of antibodies recognizing the mutant stalk in human serum while excluding head-binding antibodies (Fig. 3j). To confirm that the stalk-only construct with A388V mutation appropriately represents the natural A388V stalk structure, the level of decrease in broadly neutralizing monoclonal antibodies (bNAbs) binding was compared between the stalk-only construct and the full-length HA. ELISA was performed using serially diluted (**a,b**) CR6261, (**c,d**) CR9114, (**e,f**) FI6V3, (**g,h**) 70-1F02, (**I,j**) C179, and (**k,l**) CT149. (**m,n**) Anti-StrepTag II antibody was used to show that equal amounts of wild-type and mutant antigen were used for the analysis. The AUC was calculated using GraphPad Prism8 (v.8.3.0). The AUC for the full-length HAs (**b**,**d**,**f**,**h**,**j**,**l**) was calculated using the data from Fig. 3. Graphs show mean and standard deviations from three independent measurements. The summary table shows the mean OD492 values and standard error of mean (s.e.m.) of the three independent measurements. The comparison result (summarized in the table) shows that the A388V stalk-only construct closely represents the natural stalk structure of the full-length A388V HA.



Extended Data Fig. 5 | AUC calculation using wile-type and mutant stalk-only construct. Raw ELISA data used to generate Fig. 3j are shown. Stalk-only constructs with or without the A388V mutation (See Extended Data Fig. 7b for the amino acid sequence) were used to measure changes in the level of antibodies recognizing the wild-type (A388) of mutant (V388) stalk in human serum. Twenty-nine pre-challenge serum samples from the influenza human challenge study participants were serially diluted and used for the ELISA. The AUC was calculated using GraphPad Prism8 (v.8.3.0) with the baseline value of 0.1 (approximately 2 times the OD492 value from the control wells). Blue lines and numbers show the ELISA data and the AUC, respectively, obtained using the wild-type (A388) stalk construct. Red lines and numbers show the ELISA data and the AUC, respectively, obtained using the mutant (V388) stalk construct. Graphs show mean and standard deviations from three independent measurements.



Extended Data Fig. 6 | Association between the stalk antibody titers and selection pressure measured *in vitro*. Selection pressure placed by individual human sera was measured using pre-challenge serum from the influenza human challenge study participants. **a**, An equal mixture of the wild-type (A388) and mutant (V388) virus was cultured with 1:50 diluted serum samples. Sera from Q1, Q2, Q3 and Q4 from Fig. 1 (n = 7 per quartile) were used. Culture supernatants were collected at 48 and 72 hours after infection followed by viral RNA extraction. The selection dynamics were measured using a Single Nucleotide Polymorphism (SNP) assay utilizing a set of Minor Groove Binder (MGB)-based TaqMan probes; VIC-labeled probe detects the wild-type (A388); FAM-labeled probe detects the mutant (V388). Data are presented as the threshold cycle (Ct) value from the SNP assay. Dashed lines show the Ct value limit (Ct 40) of the SNP assay. A Ct value of 41 was given to undetected signals to generate graphs. Error bars represent standard deviations from three independent experiments. The final dilution is noted on the individual graph if higher than 1:50. **b**, Mutant selection index was calculated based on data from (**a**) by ΔΔCt method using controls cultured without serum (see Methods). A mutant selection index higher than 0 (pink area) indicates a serum sample selected for the mutant virus. An index lower than 0 (blue area) indicates a serum sample selected for the wild-type virus. Horizontal lines show median values and error bars represent 95% CI. The indexes between samples from different quartiles were compared using nonparametric one-way analysis of variance (Kruskal-Wallis test) and Dunn's test as a post-hoc test. **c**, Correlation between the anti-stalk serum IgG titer and the selection index of 29 sera samples were analyzed by calculating two-tailed Spearman's rank correlation coefficient (Spearman r). The best-fit line was plotted using simple linear regression analysis. Statistical analyses were performed using GraphPad Prism8 (v.8.3.0).



Extended Data Fig. 7 | Sequence of wild-type and mutant full-length HA or HA stalk-only constructs. Amino acid sequences of (**a**) full-length HA and (**b**) stalk-only proteins with or without A388V mutation are shown. A388V mutation, HA trimerization domain, and StrepTag II sequence are highlighted. Consensus amino acid sequences are shown in dots.

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Q7:	Please check the edits in this sentence in the Abstract: "The A388V mutation conferred resistance to some of the potent HA stalk broadly neutralizing monoclonal antibodies (bNAbs)."
Q8:	Please check the edits here: "A sub-neutralizing amount of CR6261 (approximately wild-type 95% maximal inhibitory concentration (IC95) and mutant IC75) was used to place the immune pressure."
Q9:	Please check that all funders have been appropriately acknowledged and that all grant numbers are correct.
Q10:	If applicable, please ensure accession codes are scheduled for release on or before this article's scheduled publication date, and update the database record with publication details from this article once available.
Q11:	Please check that the Competing Interests declaration is correct as stated. If you declare competing interests, please check the full text of the declaration for accuracy and completeness.

nature research

Corresponding author(s): Jeffery K. Taubenberger

Last updated by author(s): Apr 24, 2020

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For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

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☐	☒	The exact sample size (*n*) for each experimental group/condition, given as a discrete number and unit of measurement
☐	☒	A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
☐	☒	The statistical test(s) used AND whether they are one- or two-sided *Only common tests should be described solely by name; describe more complex techniques in the Methods section.*
☒	☐	A description of all covariates tested
☐	☒	A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
☐	☒	A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
☐	☒	For null hypothesis testing, the test statistic (e.g. *F*, *t*, *r*) with confidence intervals, effect sizes, degrees of freedom and *P* value noted *Give P values as exact values whenever suitable.*
☒	☐	For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
☒	☐	For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
☐	☒	Estimates of effect sizes (e.g. Cohen's *d*, Pearson's *r*), indicating how they were calculated

Our web collection on statistics for biologists contains articles on many of the points above.

Software and code

Policy information about availability of computer code

Data collection	No custom codes were used in this study. Commercial softwares used in this study include: Microsoft Excel version 16.26, FACSDiva Software version 6.2, FlowJo v.10.6.1, GraphPad Prism8 version 8.3.0, QuantStudio real time PCR software version 1.1, BioTek Gen5 version 3.03 (used for ELISA plate reading)
Data analysis	GraphPad Prism8 (ver 8.3.0) for Mac OSX was used to perform statistical analysis on the data collected. Detailed data analysis methods are described in the Figure legends and Methods. FlowJo v.10.6.1 was used to analyze flow cytometry data.

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors/reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Research guidelines for submitting code & software for further information.

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All manuscripts must include a data availability statement. This statement should provide the following information, where applicable:

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- A description of any restrictions on data availability

Data are available upon request. Materials that can be shared will be released via a Material Transfer Agreement.

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Life sciences study design

All studies must disclose on these points even when the disclosure is negative.

Sample size	The sample size for the study participants used in this study was based on the number of study participants from which the viral sequence was successfully determined. We analyzed samples from all the participants that had tested positive for viral shedding (n=77) by a clinical microbiology lab test (nested-PCR-based) at the time of the clinical challenge studies. From these 77 positive samples, we were able to amplify the region and obtain the selection result from 29 study participants from banked, archived frozen samples (See Figure 1a). All of these study participants and the corresponding analyses are included in the manuscript without any exclusion. 15 mice were used per each group to analyze viral growth kinetics. Of these mice, 5 mice were used each day (Day 2, 4, and 6) for viral titration in the lungs (n=5). Based on the lung viral load data from our previous mouse experiments, a sample size of 4 was expected to have 80% power to detect a 10-fold difference in viral titers between groups at an alpha of 0.05. 6 ferrets were used per each group to analyze viral growth kinetics. Nasal wash samples were collected for viral titration at days 1, 3, 5, and 7 (n=6). Based on the lung viral load data from our previous ferret experiments, a sample size of 6 was expected to have 80% power to detect a 10-fold difference in viral titers between groups at an alpha of 0.05.
Data exclusions	Study participants with no amplifiable amount of RNA were excluded from the analysis. No data were omitted from reporting.
Replication	All in vitro experiments were independently replicated a total of three times (n=3). All data were presented without an exclusion. For in vivo mouse experiments, five animals were used per a group as presented in Figure 2d (n=5). A previous experiment was performed using 3 to 4 mice in a group (n=3 or 4), and the lung viral load was measured using qPCR rather than TCID50 assay. In contrast to the data reported in Figure 2d, the previous experiment failed to detect a statistically significant difference in the viral growth kinetics between the wild-type and mutant viruses. This is potentially due to the insufficient number of animals used (low power) and/or different ways of measuring the viral load (qPCR vs TCID50). The final report of this experiment (Figure 2d) includes 5 animals per group and utilized TCID50, rather than qPCR, according to reviewers' suggestions, and shows a statistically significant difference between groups. For in vivo ferret experiments, six animals were used per group as presented in Figure 2e (n=6). A previous experiment was performed using 3 ferrets in a group (n=3), and the lung viral load was measured using qPCR rather than TCID50 assay. Same as the data reported in Figure 2e, the previous ferret experiment did not show a difference between the growth kinetics of the wild-type and mutant viruses. The final report of this experiment (Figure 2e) includes an increased number of animals for the increased power of the study, and also used TCID50 assay, rather than qPCR, according to a reviewer's suggestion.
Randomization	Study participants were allocated into different groups according to the viral selection results (Fig. 1). Animals were randomized upon arrival and assigned to cages by husbandry staff and the groups were assigned sequentially based on rack numbers.
Blinding	Samples were assigned a numerical code during data collection and unblinded upon the completion of the data collection.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☐	☒ Antibodies
☐	☒ Eukaryotic cell lines
☒	☐ Palaeontology
☐	☒ Animals and other organisms
☐	☒ Human research participants
☐	☒ Clinical data

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☐	☒ Flow cytometry
☒	☐ MRI-based neuroimaging

Antibodies

Antibodies used	1. Goat anti-human IgG (HRP-conjugated) (polyclonal; Abcam; catalog no. Ab 205630) 2. Goat anti-mouse IgG (HRP-conjugated) (polyclonal; ThermoFisher; catalog no. A28177) 3. Goat anti-rabbit IgG (HRP-conjugated) (polyclonal; ThermoFisher; catalog no. A16110) 4. CR6261 (clone number CR6261; provided by Janssen Pharmaceutical Companies) 5. CR9114 (clone number CR9114; Creative Biolabs; catalog no. PABX-119) 6. FI6V3 (clone number FI6V3; Creative Biolabs; catalog no. PABL-214) 7. 70-1F02 (clone number 70-1F02; provided by Dr. Rafi Ahmed, Emory Vaccine Center) 8. C179 (clone number C179; Takara Bio; catalog no. M145) 9. CT149 (clone number CT149; Creative Biolabs; catalog no. PABL-213) 10. EM-4C04 (clone number EM-4C04; provided by Dr. Rafi Ahmed, Emory Vaccine Center) 11. 2-12C (clone number 2-12C; provided by Dr. Alain Townsend, University of Oxford, United Kingdom) 12. Anti-influenza nucleoprotein (NP) antibody (clone number A1; MilliporeSigma; catalog no. MAB8257)
Validation	1. Goat anti-human IgG (HRP-conjugated) (Abcam; catalog no. Ab 205630) - Cross-adsorbed to Human IgM and IgA, to minimize non-specific signal 2. Goat anti-mouse IgG (HRP-conjugated) (ThermoFisher; catalog no. A28177) - minimal cross-reactivity with rabbit, rat, human, bovine, guinea pig and donkey IgG 3. Goat anti-rabbit IgG (HRP-conjugated) (ThermoFisher; catalog no. A16110) - cross- adsorbed against bovine, goat, human, 4. CR6261: Throsby, M., et al. (https://www.ncbi.nlm.nih.gov/pubmed/19079604), Ekiert, D.C., et al. (https://www.ncbi.nlm.nih.gov/pubmed/19251591) 5. CR9114: Dreyfus, C., et al. (https://www.ncbi.nlm.nih.gov/pubmed/22878502) 6. FI6V3: Corti, D., et al. (https://www.ncbi.nlm.nih.gov/pubmed/21798894) 7. 70-1F02: Wrammert, J., et al. (https://www.ncbi.nlm.nih.gov/pubmed/21220454) 8. C179: Okuno, Y., et al. (https://www.ncbi.nlm.nih.gov/pubmed/7682624) 9. CT149: Wu, Y., et al. (https://www.ncbi.nlm.nih.gov/pubmed/26196962) 10. EM-4C04: Wrammert, J., et al. (https://www.ncbi.nlm.nih.gov/pubmed/21220454) 11. 2-12C: Huang, K.Y., et al. (https://www.ncbi.nlm.nih.gov/pubmed/26011643) 12. Anti-influenza nucleoprotein (NP) antibody (https://www.who.int/influenza/gisrs_laboratory/manual_diagnosis_surveillance_influenza/en/)

Eukaryotic cell lines

Policy information about cell lines

Cell line source(s)	MDCK, Vero, and A549 cells are purchased from ATCC. Sf9 insect cells are purchased from Thermo Fisher Scientific.
Authentication	not authenticated
Mycoplasma contamination	not tested for mycoplasma contamination
Commonly misidentified lines (See ICLAC register)	not commonly misidentified lines

Animals and other organisms

Policy information about studies involving animals; ARRIVE guidelines recommended for reporting animal research

Laboratory animals	Mouse - BALB/cJ (7-8-week-old female, The Jackson Laboratory, Stock no. 000651) Ferret (6-7-month-old female, TRIPLE F FARMS)
Wild animals	not used
Field-collected samples	not used
Ethics oversight	All animal experiments were conducted under protocols approved by the Animal Care and Use Committee (ACUC) at the National Institute of Allergy and Infectious Diseases (NIAID), National Institute of Health (NIH).

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Human research participants

Policy information about studies involving human research participants

Population characteristics	All the study participants were healthy and young (18-43 years old, Average age 29.4) with no health issues. While these recruitment criteria were imperative considering the nature of the intervention (influenza virus challenge) and to minimize the risk of adverse events (AEs), it is possible that the clinical observations and analyses of the current report may not be fully representative of the larger population as a whole. Detailed population characteristics for the primary clinical trials can be found from ClinicalTrials.gov and our previous

	publications. - ClinicalTrials.gov Identifiers NCT01646138 and NCT01971255 - Memoli, M.J. et al. Clin Infect Dis 60, 693-702 (2015) - Memoli, M.J. et al. MBio 7, e00417-00416 (2016)
Recruitment	Detailed recruitment strategy for the primary clinical trials can be found from ClinicalTrials.gov and our previous publications. - ClinicalTrials.gov Identifiers NCT01646138 and NCT01971255 - Memoli, M.J. et al. Clin Infect Dis 60, 693-702 (2015) - Memoli, M.J. et al. MBio 7, e00417-00416 (2016)
Ethics oversight	Primary clinical trials were approved by the National Institute of Allergy and Infectious Diseases Institutional Review Board and conducted in accordance with the provisions of the Declaration of Helsinki and good clinical practice guidelines.

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Clinical data

Policy information about clinical studies

All manuscripts should comply with the ICMJE guidelines for publication of clinical research and a completed CONSORT checklist must be included with all submissions.

Clinical trial registration	ClinicalTrials.gov Identifiers for the primary clinical trials from which samples analyzed in this study were derived: NCT01646138, NCT01971255
Study protocol	Detailed study protocols for the primary clinical trials can be found from ClinicalTrials.gov and our previous publications. - ClinicalTrials.gov Identifiers NCT01646138 and NCT01971255 - Memoli, M.J. et al. Clin Infect Dis 60, 693-702 (2015) - Memoli, M.J. et al. MBio 7, e00417-00416 (2016)
Data collection	The primary clinical trials (ClinicalTrials.gov Identifiers NCT01646138 and NCT01971255) were conducted using an inpatient setting at the National Institutes of Health Clinical Center (Bethesda, MD, USA). These studies were conducted from 2012 to 2015.
Outcomes	Primary outcome measure: - Number (or percentage) of patients with Mild to Moderate Influenza Disease (MMID) Secondary outcome measures: - Clinical disease severity score - Duration of shedding (Days) - Duration of symptoms (Days) - Number of symptoms - Number of participants with Influenza Symptoms Participants were evaluated daily for the symptoms by study physicians. A validated participant-directed questionnaire, called FLUPRO, was also used to measure the clinical disease severity score. Participants had 4 follow-up visits over 8 weeks. The viral shedding was determined from the nasal wash samples collected daily using BioFire FilmArray Respiratory Panel. Detailed outcomes for the primary clinical trials can be found from ClinicalTrials.gov and our previous publications. - ClinicalTrials.gov Identifiers NCT01646138 and NCT01971255 - Memoli, M.J. et al. Clin Infect Dis 60, 693-702 (2015) - Memoli, M.J. et al. MBio 7, e00417-00416 (2016)

Flow Cytometry

Plots

Confirm that:

☒ The axis labels state the marker and fluorochrome used (e.g. CD4-FITC).

☒ The axis scales are clearly visible. Include numbers along axes only for bottom left plot of group (a 'group' is an analysis of identical markers).

☒ All plots are contour plots with outliers or pseudocolor plots.

☐ A numerical value for number of cells or percentage (with statistics) is provided.

Methodology

Sample preparation	MDCK cells were infected at 1 multiplicity of infection (MOI) of wild-type (A388) or mutant (V388) H1N1pdm viruses generated by reverse genetics. 24 hours after infection, cell culture supernatant was discarded, cells were washed twice with PBS and treated with Trypsin-EDTA (catalog no. 25200056; ThermoFisher) for 10min at 37°C. The trypsin-treated cells were harvested, and the trypsin was neutralized by adding an equal volume of PBS supplemented with 5% FBS. After centrifugation (300 x g, 5min), the supernatant was discarded, and cells were fixed by resuspending in Fixative Solution (catalog no. R37814; ThermoFisher) for 15min at room temperature. Fixed cells were filtered using 40µm cell strainer (catalog no. 352340; Corning

	Life Sciences, USA) to remove clumped cells. Filtered cells were spun (300 x g, 5min), the supernatant was removed, and the cells were washed twice with flow cytometry buffer (1% BSA, 0.1% sodium azide in PBS) using centrifugation (300 x g, 5min), and resuspended in the flow cytometry buffer. Detailed method for the staining is described in the Methods.
Instrument	Becton Dickinson LSR II
Software	FACSDiva Software (version 6.2), FlowJo v.10.6.1,
Cell population abundance	At least 1.5x10E4 events were acquired for each sample.
Gating strategy	Small debris and dead cells that have low SSC/FSC values were excluded from analysis. Anti-influenza nucleoprotein (NP) antibodies conjugated with APC were used to stain influenza-infected cells. Cells with positive for the APC signal were gated and used for analysis.

☒ Tick this box to confirm that a figure exemplifying the gating strategy is provided in the Supplementary Information.

From: Taubenberger, Jeffery (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ACF689CC4F7B4E0B841A76D8FBB07F2B-TAUBENBERGE]
Sent: 6/22/2020 11:13:01 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Taubenberger, Jeffery (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=acf689cc4f7b4e0b841a76d8fbb07f2b-taubenberge]
Subject: Re: Your Nature Medicine paper – publication details

Thanks David

From: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Date: Monday, June 22, 2020 at 7:04:49 PM
To: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>, "NIAID COGCORE" <COGCORE@mail.nih.gov>
Cc: "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
Subject: Fwd: Your Nature Medicine paper – publication details

This is an important pPer with great implications For "universal vaccine" development. D

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
> **Date:** June 22, 2020 at 18:43:18 EDT
> **To:** "Park, Jaekeun (NIH/NIAID) [E]" <jaekeun.park@nih.gov>, "Kash, John (NIH/NIAID) [E]" <kashj@niaid.nih.gov>, "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>, "Memoli, Matthew (NIH/NIAID) [E]" <memolim@niaid.nih.gov>
> **Subject: Fwd: Your Nature Medicine paper – publication details**
>
> ---
>
> **From:** "press@nature.com" <press@nature.com>
> **Date:** Monday, June 22, 2020 at 6:00:28 PM
> **To:** "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
> **Cc:** "press@nature.com" <press@nature.com>
> **Subject:** Your Nature Medicine paper – publication details
>
> Dear Author,
>
> Your paper, 'Pre-existing immunity to influenza virus hemagglutinin stalk might drive selection

for antibody-escape mutant viruses in a human challenge model', has been scheduled for publication in *Nature Medicine* on **29 June 2020 at 16:00 (London time) , 29 June 2020 at 11:00 (US Eastern Time)** . The embargo will lift at this time. Please forward this information to any co-authors. You may also wish to make your media relations office aware of the forthcoming publication, in case they consider it appropriate to organize some internal or external publicity. We will be contacting them separately to inform them about your paper.

The DOI number for your paper will be 10.1038/s41591-020-0937-x. Once your paper has been published online, it will be available at the following URL:
https://www.nature.com/articles/s41591-020-0937-x

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Best wishes,

The Nature Research press office

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Sent: 6/29/2020 12:29:43 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: COG -- fyi two lengthy Morens-Fauci papers in the works (~4k words each, i think)

Thanks, david

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Monday, June 29, 2020 8:29 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: COG -- fyi two lengthy Morens-Fauci papers in the works (~4k words each, i think)

Greg, the Cell piece has NOT yet been submitted because we are awaiting an image touch up from the Weddles. Also, Tony wants to see the final version and consider addition of an extra paragraph on a possible 1889 coronavirus emergence. But hopefully that will all happen soon. david

From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Monday, June 29, 2020 8:25 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: COG -- fyi two lengthy Morens-Fauci papers in the works (~4k words each, i think)

Invited EID commentary for Cell	Cell	2020		David ASF	Invited ASF has reviewed
COVID-19 and 1918 influenza pandemic comparison	AJPH	2020		David ASF	Invited; ASF has reviewed

- I think the Cell piece has been submitted and the AJPH one will be very shortly
- Both are very good reads with some fresh ideas/perspectives
- Both might be considered for a media note of some sort

From: Folkers, Greg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=614C792839A146B9A8F87A1378519DBD-GFOLKERS]
Sent: 7/3/2020 2:04:52 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Doepel, Laurie (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7e395d705fce4852a2579e5a9e1b5e11-ldoepel]; Eisinger, Robert (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bad2a8c45514ee48985880de66674ad-eisinger]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Lerner, Andrea (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53254f4fb04e4bcbabe37940b4b41887-fennellyam]; Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]
Subject: FOIA to NIAID Seeking Electronic Communications Regarding Terminating EcoHealth Alliance's Bat Coronavirus Grant

Fyi
"Robert" Schofield

https://www.americanoversight.org/document/foia-to-niaid-seeking-electronic-communications-regarding-terminating-ecohealth-alliances-bat-coronavirus-grant

July 2, 2020

VIA EMAIL

Robert Schofield
National Institute of Allergy and Infectious Diseases
Room 6G51
5601 Fishers Lane
Rockville, MD 20857
foia@niaid.nih.gov

Re: Freedom of Information Act Request

Dear FOIA officer:

Pursuant to the Freedom of Information Act (FOIA), 5 U.S.C. § 552, and the implementing regulations of your agency, 45 C.F.R. Part 5, American Oversight makes the following request for records.

In late April, the National Institute of Health (NIH) cancelled a grant previously awarded to EcoHealth Alliance, purportedly on the grounds that "NIH does not believe the current project outcomes align with the program goals and agency priorities."[1] This action, apparently at the direction of the White House, came after news reports suggested that the group was funding the Wuhan Institute of Virology.[2] Prior to the funding cancellation, however, the president of EcoHealth Alliance had confirmed to NIH that none of its current funding had been sent to the Institute, that it had not entered into a contract with the Institute, and that it would comply with any federal requirements.[3] The EcoHealth Alliance's focus—studying coronaviruses in bats—is also consistent with the NIH's strategic plan for studying novel coronaviruses.[4] Leading scientists and scientific societies

[1] Sarah Owermohle, *Trump Cuts U.S. Research on Bat-Human Virus Transmission over China Ties*, Politico (Apr. 27, 2020, 7:02 PM), https://www.politico.com/news/2020/04/27/trump-cuts-research-bat-human-virus-china-213076.
[4] David Lim & Brianna Ehley, *Fauci Says White House Told NIH to Cancel Funding for Bat Virus Study*, Politico (July 23, 2020, 5:41 PM),

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 7/4/2020 1:21:29 AM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Taubenberger, Jeffery (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=acf689cc4f7b4e0b841a76d8fbb07f2b-taubenberge]
Subject: RE: COG --- might be good for a media note when it comes out FW: AJPH ms. submitted 07 03 2020: comparing 1918 pandemic and COVID-19 pandemic

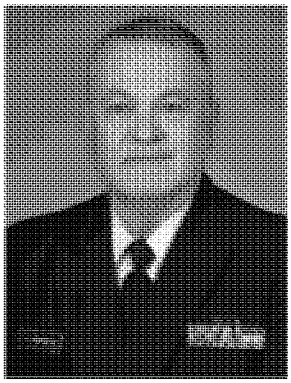
That sounds like an endorsement "Writ Large"…. Hope U R right….

TY,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Friday, July 3, 2020 9:19 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Subject: RE: COG --- might be good for a media note when it comes out FW: AJPH ms. submitted 07 03 2020: comparing 1918 pandemic and COVID-19 pandemic

I liked it. I have now read a zillion comparisons between 1918 and COVID and this is fresher and less derivative than others.

I think the tone is good for AJPH which has a lot of readers who are not ID docs or virologists.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, July 3, 2020 9:07 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Subject: RE: COG --- might be good for a media note when it comes out FW: AJPH ms. submitted 07 03 2020: comparing 1918 pandemic and COVID-19 pandemic

Really?, thanks, I hope you are "righter" than I am. I must admit I am least happy with this of anything I've written in the past few years because the architecture makes forced comparisons that have a tweedle-dee tweedled-dum feeling. This is one where with more time I would have done a lot more editing. Also, because so little is known about COVID-19, there is a whole lotta "it's too early to know" text….

1. We will see what the reviewers think. A paper like this, with so many open ends, invites the Charge of the Reviewers' Light Brigade….

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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Building 31, Room 7A-03
31 Center Drive, MSC 2520
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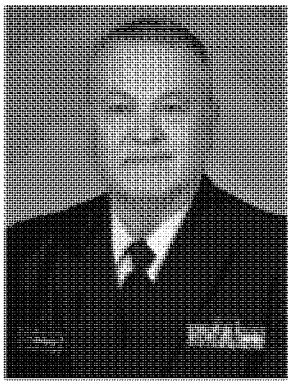
☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Friday, July 3, 2020 8:52 PM

To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Subject: COG --- might be good for a media note when it comes out FW: AJPH ms. submitted 07 03 2020: comparing 1918 pandemic and COVID-19 pandemic

Good writing and insights imho

A Centenary Tale of Two Pandemics:

The 1918 Influenza Pandemic and COVID-19

David M. Morens, MD[1]
Jeffery K. Taubenberger, MD, Ph.D.[2]
Anthony S. Fauci, MD[1]

[1]Offfice of the Director

[2]Viral Pathogenesis and Evolution Section
Laboratory of Infectious Diseases

National Institute of Allergy and Infectious Diseases
National Institutes of Health
Bethesda, Maryland USA

It was the best of times when renowned artist Marilee Shapiro Asher finally left the hospital, in April 2020, after five days struggling with COVID-19 (caused by SARS-CoV-2) [1]. We know that Asher is glad to be home, looking forward to returning to her studio and her exhibitions, because she has already written about what it was like surviving an eerily similar respiratory illness as a six-year-old girl: her most vivid memory was not the days in bed, but finally being allowed to get up one morning and join her family at the breakfast table, a joyous event signaling recovery.

That joyous breakfast was in 1918, when Marilee survived the so-called "Spanish" influenza, estimated to have killed at least 50 million people worldwide, apparently the deadliest single event in human history [2]. Asher, now in her 108th year, is among a dwindling cohort of 1918 pandemic survivors who not only still remember it, but who are now facing another lethal pandemic: COVID-19. Childhood memories like Asher's are supplemented by an enormous body of medical,

scientific, public heath, and societal information concerning that earlier pandemic. It is worth reflecting on this body of collective memory as we tentatively proceed into the dark uncertainty of another pandemic that threatens, if unchecked, to be just as deadly. From the vantage point of an additional century of medical and social progress, it is hoped that we have mastered the lessons of history lest we find that it has repeated itself.

The 1918 influenza pandemic. Before 1918, influenza was a poorly understood disease of unknown cause. The 1918 pandemic appeared suddenly in a few populous cities including in China and in Northern Europe in July-August 1918. It rebounded over most of the world in September-November 1918, featuring from one to several additional recurrences beginning in late 1918-early 1919 [2-4]. In the United States, an estimated 675,000 people died in the first year, equivalent to about 2.16 million deaths in today's much larger population, an approximate one per cent case-fatality ratio [2]. The

exposivity of the pandemic was staggering. Bodies were sometimes "stacked like cord wood" in hospitals, or by roads outside of cemeteries; coffins had to be mass produced on a large scale [Figure 1].

Over a few years, the 1918 pandemic settled into a pattern of less fatal annual seasonality. Human influenza A viruses were first isolated in 1933 [5]. At that time, isolation materials from the 1918 pandemic were thought not to exist; however, decades later (1996-2005) the viral genome was fully sequenced from RNA fragments in pathological materials of pandemic victims; soon therafter it was reconstructed as a fully infectious virus and studied experimentlly [5]. Viral descendants of the 1918 "founder" virus are still circulating today as seasonal influenza A viruses; subsequent pandemics in 1957, 1968, and 2009 all resulted from genetic updating of the 1918 virus via a mutational mechanism called gene segment reassortment [6,7]. Over the period of a century, viral descendants of this single emergent virus have caused tens of millions of additional deaths, adding to the tragic losses of 1918.

It is anticipated that such influenza viral descendants will undoubtedly complicate the ongoing COVID-19 pandemic as different regions of the world experience their seasonal influenza outbreaks. As we are in the early stages of the COVID-19 pandemic, we cannot predict with certainty whether the virus will persist as the 1918 influenza virus did, or die out in the face of growing herd immunity.

1918 influenza and COVID-19: clinical and pathological comparisons. Although caused by unrelated viruses, the two diseases are remarkably similar in their clinical features [Table]. Both are respiratory viruses transmitted/acquired via respiratory inoculation, and both emerged in global populations with little or no pre-existing immunity. Typical signs and symptoms of both full-blown diseases include fever, chills, fatigue, muscle aches, nasal congestion/rhinorrhea, headache, and cough, with variable sore throat, dyspnea, and nausea, vomiting or diarrhea. Both diseases feature many mild, atypical, and

asymptomatic infections, but also complicating, sometimes fatal, pneumonias in about 2% of those clinically ill.

Typical influenza pneumonia in 1918 occurred in a bronchopneumonic pattern association with secondary bacterial pneumonias caused by pathogens carried silently in the upper respiratory tract, including *Staphylococcus aureus*, *Streptococcus pneumoniae*, and *Streptococcus pyogenes* [8]. Initial autopsy data from COVID-19 patients suggest an almost identical histologic picture of viral damage with, however, fewer clear bronchopneumonic patterns and fewer secondary bacterial pneumonias, perhaps in part reflecting use of broad-spectrum antibiotics, not available in 1918.

In both diseases, severe primary viral pneumonias have been associated histologically with diffuse alveolar damage, hyaline membrane formation, and often pulmonary edema [Figure 2, references 9,10]. Autopsy studies of COVID-19 patients reveal widespread medium and small vessel thromboses [11]; pulmonary small vessel thrombosis was prominent in 1918 influenza as well

[12,13]; however, it has been less frequently observed in more recent influenza autopsies (e.g., during the 2009 H1N1 pandemic [14,15]).

Important pathological differences between the two infections [Table] include the following: influenza infects primarily by binding to sialic acid receptors found on respiratory epithelial cells, whereas SARS-CoV-2 infects various cells of the respiratory tract, gastrointestinal enterocytes, and arterial and venous endothelial cells, as well as arterial smooth muscle cells, presumably by binding to ACE2 receptors [16]. Since influenza is not typically associated with viremia, live influenza virus has little direct interaction with the systemic immune system, explaining in part why natural and vaccine-induced protective immunity against influenza is often imperfect. Preliminary data from COVID-19, however, suggest viremia and systemic infection of multiple organs, which can potentially elicit protective immunity more durable than that of influenza, although duration of COVID-19 protection remains to be determined.

1918 influenza and COVID-19: epidemiologic comparisons.

Viral origin. It is extremely difficult to know the exact origin of any pandemic disease, because emerging infectious agents arise via host-switching from an animal to a human, after which successful adaptation associated with human-to-human transmission occurs [17-19]. This process necessarily takes time: by the time the new disease is eventually recognized, its beginnings are unlikely to be discovered. In this regard, it is noteworthy that over many centuries, from the 1500s until the modern era, almost all influenza pandemics were first recognized in Asia/Southeast Asia, and then spread Westward to Europe and, at some point after the 16th century, from Europe to the Western Hemisphere. Since some of the earliest evidence of the existence of the 1918 pandemic came from China, this same historical pattern remains plausible, although the geographic origin of the 1918 pandemic remains unknown.

When the 1918 pandemic was first recognized it was robustly emerging almost simultaneously in large populous cities all over the

globe, in both the Northern and Southern Hemisphere. This pattern indicates that rather than spreading from city to city along travel routes, many regions of the world must have been seeded by the virus previously. Presumably, the relatively slow global spread of infections by ship, rail, and other means of human travel went undetected until international metropolitan mortality data began to show excess repiratory mortality increases. From these large cities, the disease spread outward to smaller towns and to rural areas.

Because of modern international air travel, COVID-19 spread considerably more rapidly than 1918 pandemic influenza; however, the patterns of spread were probably very similar: 1) local emergences and initial spread that went undetected because of low case-fatality, followed by 2) local, national, and eventually international movement of infectious persons, leading to seeding of cases in crowded metropolitan areas, followed by 3) clusters of respiratory disease

mortality that were eventually detected in sensitive metropolitan mortality data, followed quickly by 4) massive global emergence.

SARS-CoV-2 was first detected in Wuhan, Hubei Province, China, and spread simultaneously outward within China and via international air routes. It is highly likely that SARS-CoV-2 emerged from within a tight phylogenetic cluster of *Sarbecoviruses* infecting *Rhinolophus* (horseshoe) bats found mostly in Southwest China and contiguous areas of the Lao PDR, Myanmar and Vietnam [19]. How the virus got to the place of its initial detection, 850 miles away in Wuhan, remains unknown; possible explanations include the mobility and long distance ranges of various bat species, undetected cross-infection from *Rhinolophus* to other bat species, or infection and movement of secondary animal hosts.

<u>Mechanism of viral emergence: animal to human viral host-switching</u>. The 1918 pandemic "founder" virus was genetically very similar, in sequences of all 8 genes, to avian viruses that then existed,

and that still exist, in the global reservoir of wild waterfowl (*Anseriformes*). It is unknown whether an avian virus host-switched directly into humans, or first switched into a different host, perhaps another mammal, and from there to humans [20-22]. However, phylogenetic analysis of the human virus suggest that emergence must have occurred in or shortly before 1918.

SARS-CoV-2 is very close genetically to numerous enzootic *Sarbecoviruses* of *Rhinolophus* bats found in Southwest China, suggesting one of three possibilities: 1) either an as-yet undiscovered enzootic *Sarbecovirus* identical to SARS-CoV-2 emerged into humans directly; 2) a different but closely-related *Sarbecovirus* emerged directly into humans and spread silently for some period of time, accumulating new mutations as it adapted to human transmission; or 3) humans were infected via an intermediate animal host that had originally been infected by a *Rhinolophus*-transmitted *Sarbecovirus*. Recent data suggest the latter possibility is less likely [20,21,23]. 1918 influenza and

SARS-CoV-2 thus share the same origin-mysteries of direct versus indirect emergence from a natural animal host, and of extent of post-emergence genetic adaptation to humans.

1918 influenza and COVID-19 are among the deadliest examples of viral emergences from the animal-human interface. How this happens and what we can do to prevent it from happening are among the most important areas of research in the area of emerging infections (24]. The host-switching ability of both viruses may be an established evolutionary mechanism: both 1918 influenza and SARS-CoV-2 are promiscuous in their ability to infect mammals, facilitating broad epidemicity/epizooticity. In 1918 the human virus was quickly transmitted to pigs, while housecats were sometimes infected by their owners (as seen in prior influenza pandemics). A century later, humans and pigs are still frequently exchanging their influenza viruses. Unexpected deaths of chimpanzees and gorillas in 1918 were thought to be due to influenza. Horses, dogs, seals, and other animals have also

been involved in influenza virus exchanges. SARS-CoV-2 has infected cats, dogs, minks, and other animals; closely related SARS-like viruses have infected pangolins (*Manis javanica*, a species of ant eater). Such efficient intra- and inter-species exchanges may have enhanced evolution and survival of both viruses.

Viral transmission. Both viruses are transmitted by the respiratory route via large droplets, fine particle (<5μm) aerosols, or by hands or fomites contaminated with respiratory secretions. Although definitifive data from 1918 are lacking, it seems likely that, as is true for SARS-CoV-2, both viruses are spread by silent transmission: that is, transmission by pre-symptomatic (incubating) people, by asymptomatic people, by people with mild or atypical symptoms who are not recognized as being potentially infectious and, less commonly, by people who have recovered from illness but may still be excreting virus [23,25]. Unlike influenza, SARS-CoV-2 infects enteric cells, but gastro-intestinal transmission has not yet been shown to be important.

Preliminary evidence suggests roughly equivalent effects of environmental variables on spread of both viruses, e.g., effects of airflow, temperature and humidity. This has important implications for COVID-19 public health control measures such as social distancing, controlling airflow in hospitals, nursing homes, and work places.

Regarding seasonality, 1918 influenza arrived first in the early summer, and did not spread globally until September-October 1918. When it did so, it aggressively emerged not only in the Northern Hemisphere but also in the Southern Hemisphere, e.g., in South Africa and in New Zealand. Five hundred years of observation suggests that influenza pandemics can appear at any time of year, but when they arrive in summer they are likely to be somewhat blunted until they rebound more forcefully in the fall; when pandemics arrive at other times of year, summers seem to temporarily slow viral spread. This pattern was seen in both the 1957 and 2009 influenza pandemics; in the United States, both pandemics arrived in the spring, slowed down

in the summer, and then picked up in the fall. The presumed reasons for this pattern include physical effects of temperature and humidity on viral spread, and more summer hours spent outdoors where airflow is optimal and crowding usually less extreme. To date, seasonal effects on COVID-19 spread have not been well documented.

Patterns of morbidity and mortality. In all circumstances studied over the last 130 years, except in 1918-1920, patterns of age-specific morbidity, mortality, and case-fatality for pandemic influenza have been similar. Because influenza pandemics emerge when all or most of the global population lacks immunity to the pandemic virus, moderately high attack rates within the first year, usually between 30-60% of the population, are common. Age-specific morbidity patterns have been highly similar for known influenza pandemics, featuring peak morbidity rates in school-aged children and young adults, slightly lower rates in both very young children and in adults 30-55, and much lower rates at older ages [Figure 3]. This pattern presumably reflects

exposure risks related to school, work, and other congregating activities, as well as the possibility of prior exposure to related influenza viruses by the older age group.

Overall influenza mortality varies significantly, with some pandemic viruses being highly pathogenic (approximate 1% case-fatality in the United States in the 1918 pandemic versus 0.05% case-fatality in the 2009 pandemic). The elderly, people with serious respiratory, cardiac, metabolic and other diseases, and pregnant women, are always at elevated mortality risk with influenza.

With the exception of 1918-1920, pandemic and seasonal influenza exhibits a characteristic mortality pattern. Age-specific influenza mortality is classically "U-shaped", with elevated mortality in infants/young toddlers and the elderly, but with very low mortality at all ages in between. A different pattern was seen in 1918-1920: a "W-shaped" pattern [Figure 3] featured a third mortality peak in 20-40-year

olds. This pattern, never seen before or since, disappeared entirely in the early 1920s. It remains unexplained.

In the early stages of the COVID-19 pandemic, morbidity and mortality patterns are still not fully established, in part because of the relatively high percentage of asymptomatic infections coupled with under-diagnosis of cases. Overall case- and infection-fatality ratios, which are population structure-dependent, have been estimated from as high as 3% to well below 1% [26]. Speculative theories to explain low morbidity and mortality in the young include 1) protection afforded by prior and recent exposure to circulating endemic coronaviruses, two of which – HCoV-HKU1 and HCoV-OC43 – are β-coronaviruses, albeit not closely related to SARS-CoV2; 2) increased exposures to other infectious agents that stimulate generic innate immune responses; or 3) immune enhancement mechanisms [2,7,23].

In contrast to influenza, which causes high mortality and high fetal loss, significant COVID-19 mortality in pregnant women and their

fetuses is only now beginning to become better appreciated, although the extent of materal and fetal risks remain to be fully established [27-30]. In 1918, as in 2020, mortality was higher in the poor, in African Americans and Native Americans, in health care workers, and in workers in crowded occupations. These patterns, observed for most infectious diseases, reflect societal inequalities and inadequate occupational safety measures.

Since descendants of the 1918 influenza virus persist to this day [31], a question arises about whether SARS-CoV-2 will do the same. Furthermore, a possibility to be considered is whether similar to influenza it will elicit a weakly protective immune response and then circumvent that response with further viral evolution by antigenic drift or other mechanisms such as recombination. Descendants of the 1918 virus still circulate; we can only speculate whether SARS-CoV-2 or its descendants will still be circulating in 2120.

Public health responses. In 1918, fundamental knowledge of sanitation, hygiene, and principles of disease transmission were almost as well understood as they are today. Mechanisms of respiratory spread and means of preventing respiratory transmission were particularly well understood [Figure 4]. The dangerous effects of crowding in public places, closed air flow in buildings, and the need to socially distance were likewise fully appreciated. This knowledge had been accumulating since the beginning of the sanitary movement in the 1840s, was greatly advanced by acceptance of a "germ theory" in the 1870s, and had been publicly visible since the 1880s in international public health efforts to control the spread of tuberculosis, then a major killer.

Masks, coughing etiquette, use of clean handkerchiefs, proscription of spitting, placement of spittoons in saloons, isolation of the ill, avoidance of congregation, closing of sports events, theaters, schools and churches, were all employed [Figure 4]. In the pandemics of

both 1918 and 2020, public health officials recommended wearing face masks. As neither N95 nor modern surgical masks were available in 1918, newspapers printed illustrated instructions on making home-made masks using cloth handkerchiefs and string. Both pandemics prompted fanciful improvisations, including morbid art that seemed to mock death; others made masks for domestic pets [Figure 4]. In both pandemics, cases in domestic cats occurred. In 1918 some professional, collegiate, and other sports events were closed, but in other cases athletes went on playing with or without masks [Figure 4].

Church gatherings and even court proceedings were held outdoors, even in the streets. Self- and forced-isolation were common. Just as Boccaccio and friends had done more than five centuries earlier, during the 1348 epidemic of bubonic/pneumonic plague, in 1918 citizens took their own public health actions, such as isolating themselves away from crowds, work, and school. After he was rejected for U. S. military service, future novelist William Faulkner fled to Canada

for air force training: the Royal Canadian Air Force locked down (quarantined) Faulkner and the other trainees for a period of time during the pandemic. In the COVID-19 pandemic, many more people are able to self-isolate at home because of teleworking and more extensive food delivery services.

Public health programs in the United States in 1918 were largely state- and city-based. The key pandemic decision makers were governors, mayors, local health departments, and sometimes nurses and volunteers. Because the pandemic spread so rapidly across the United States [32], there was little time for planning or coordination. In smaller towns the pandemic abruptly emerged, peaked and was receding or gone within three or four weeks. Different public health response plans were improvised on the spot. Some were more effective than others; mortality varied greatly from one place to the next. Many citizens defied public health recommendations.

Associations between strictness of public health measures and low mortality were immediately noted and much discussed in 1918, especially in cities such as Philadelphia, where allowing a large parade was credited with mortality resurgence. Modern analyses are consistent with the beneficial effects of stricter measures [33]. Inactivated bacterial vaccines, intended to prevent death from influenza-associated secondary bacterial pneumonia, which caused the vast majority of pandemic deaths, were widely used in 1918, and seem to have been moderately effective in preventing death [34,35].

Similarities between the public health responses in 1918 and 2020 are many. National and international public health approaches to both pandemics varied widely, with predictable and unpredictable successes and failures. COVID-19 public health responses rely on the basic strategies of 1918: public "lock down", social distancing, hygiene, and self-isolation. In 2020 we also have PCR and serologic testing to identify the virus and its immune fingerprints, as well as contact

tracing, well understood in 1918 but not widely used, probably in part because pandemic explosivity led to an overwhelming number of unmanaged cases. In 2020 we have bacterial vaccines for two of the bacteria (*Streptococcus pneumoniae* and *Haemophilus influenzae* type B) associated with fatal secondary pneumonias in 1918 [8]. Development of a SARS-CoV-2 vaccine seems to offer the most realistic hope of ending the pandemic in the immediate future.

Diagnosis and treatment. Since the viral cause of the 1918 pandemic was unknown, diagnosis was clinical and treatment largely supportive. This was the first major disease emergence in which the new technique of diagnostic radiology was used, particularly in the United States military [36]. Although most physicians did not have access to diagnostic X-rays, they were often remarkably skilled at using auscultation, percussion, eliciting tactile fremitus, and observation of respiration, among other diagnostic skills. Oxygen was often available and used. Appearance of so-called "heliotrope cyanosis" of the

prominent facial parts [32], although not unique to the 1918 pandemic, was recognized as a terminal event associated with profound hypoxia due to loss of gas exchange together with metabolic acidosis.

Those who survived bacterial pneumonias often developed life-threatening empyemas, requiring difficult clinical and surgical management [37]. In an era in which therapeutic successes for various other diseases had been achieved with immune plasmas obtained from hyper-immunized horses, goats, or other animals, some influenza patients were treated, with apparent success, using human convalescent plasmas [38], as is now the case with COVID-19. Then as now, the pandemics brought out wishfully repurposed drugs that had little chance of success (e.g., quinine in 1918, hydroxychloroquine in 2020). Then as now, irrational and often harmful remedies enticed the hopeful (enemas and laxatives in 1918, bleach, disinfectants, and colloidal silver in 2020).

Lacking antivirals and antibiotics, support care was the mainstay of treatment, with an emphasis on attentive nursing care, considered the most effective way to save lives. Nurses from the Red Cross and other agencies, as well as volunteer nurses, mostly women with little or no prior training, went into homes, especially in poorer neighborhoods, to tend to the sick; they were widely regarded as pandemic heroes, as are frontline healthcare workers in 2020.

The COVID-19 pandemic arrives at a time in which remarkable medical advances create a diagnostic and therapeutic world unimagined in 1918: rapid viral diagnostics, X-rays and MRIs, blood gasses and chemistries, antibiotics, antivirals, ICUs with ventilators and monitors, and extracorporeal membrane oxygenation. However, even with the very best care, many patients who survive the period of SARS-CoV-2 replication and cellular damage still do not survive. Lack of complete understanding of the natural history and pathogenesis of COVID-19 stands in counterpoint to the high level of understanding of

the mechanisms of secondary bacterial pneumonia in 1918, even though, ironically, treatment options were few in that era. COVID-19 causes pneumonia; however unlike influenza it also damages a wide range of organ systems including vascular and neurological, and may be associated with aberrant immune responses that differ from those of influenza, often complicated by microthrombi in lungs and other organs associated with thromboembolic phenomena. Our understanding of the natural history and pathogenesis of COVID-19 is just beginning.

Research. The 1918 pandemic occurred at the dawn of the era of virology. Viruses as we know them today had been characterized only as "filter-passing agents", sub-microscopic entities of some sort that were able to cause diseases after passage through porcelain filters that trapped bacteria [5]. Although a descendant of the 1918 human influenza virus was not officially isolated until 15 years after the pandemic, it seems likely that in 1918 two research groups, one in

Tunisia and the other in Japan, actually did isolate the virus, but had no way to maintain the agent via continuous passage in humans or animals, or via freezing [39,40]. Human challenge studies were conducted using human secretions; however, results were problematic. The 1918 pandemic came and went so quickly that comprehensive research programs could not be set up in time.

In contrast, complete genomes of the SARS-CoV-2 virus were made public in early January, and as of late June 2020 many thousands of genome sequences have already been published. *In vitro* culture and initiation of *in vivo* experimental animal modeling have occurred rapidly, followed by extensive basic and clinical testing of diagnostic assays, therapeutics, and vaccines together with studies on natural history and pathogenesis. The rapidity with which important scientific knowledge about COVID-19 has accrued in just a few months would have astonished scientists in 1918.

Psychological and psychosocial effects: how have individuals and societies responded? Then as now, photographs show images of horror: stacked bodies, rows of grave markers, and open pits into which bodies are thrown [Figure 1]. People are dying alone, in their own homes, with no one to comfort them in their final hours.

It has often been said that the 1918 pandemic was quickly forgotten, reflecting a global exercise in intentional amnesia; however, a closer look at the legacy of 1918 suggests otherwise. For example, the pandemic inspired many artists. Dying in their Vienna apartment of influenza pneumonia, painter Egon Schiele's last work was a drawing of his wife Edith Harms, six months pregnant [Figure 5]; she died hours after the drawing. Schiele survived more than two days; before dying he arranged with friend Marta Fein to take an artistic photograph at the moment of his death [4]. There is also the self-portraits of painter Edvard Munch suffering from influenza in his own bedroom; Thomas Wolfe's wrenching account of the death of his beloved brother

Benjamin, written down in exacting autobiographical detail (*Look Homeward Angel*); Katherine Anne Porter's haunting tale of her own survival (*Pale Horse, Pale Rider*), unfolding dream-like toward a tragic ending; the surge in the dada art movement in response to the horrors of the War and the pandemic; the hedonistic escapism of the Roaring Twenties; the exhaustingly comprehensive files of millions of photos, letters, diaries, and recollections that still survive today, and that still speak to us. The 1918 pandemic was never really forgotten. We just forgot that we had never forgotten it.

It will probably be a long time until we can fairly look back to compare and contrast all of the effects of these centenary pandemics. Both came at times of upheaval, periods in which dramatic changes seemed inevitable, but in what direction could not be predicted. In 1918, the world had been stunned by the carnage of the Great War (around 40 million deaths), including the senseless deaths of a whole generation of young men, leaving widows, fatherless children, and

broken grieving families. Shock, disbelief, anhedonia, and dark cynicism prevailed. Then, just at the war's end, the pandemic came, lightening-like, killing tens of millions more.

The year 1918 marked the last year of the deadliest war, and the first year of the deadliest pandemic in human history, up to that time. Looking back across the last century, we can see that the "War to End All Wars" did not, in fact, end wars, and that the deadliest pandemic did not end deadly pandemics. A century later, tragic wars and tragic pandemics are still occurring, and we are still struggling to deal with them. We retain a hope that we can one day end wars, pandemic diseases, and many other human ills, but in mid-2020, as the COVID-19 pandemic still spreads, it is hard for many to be optimistic.

Like global wars, pandemics are clearly existential threats. Even in the midst of fear and loss, such deadly challenges can bring out the best in us. The children who survived the 1918 pandemic grew up to become "The Greatest Generation"; they fashioned the beginnings of a

world more just than the world they had found. If 2020 seems the worst of times, we can still look back, as did Marilee Shapiro Asher, down a long path seeded with hope.

4,503 words

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VARIABLE	1918 INFLUENZA	2019 COVID-19
Infectious Agent	Novel respiratory virus	Novel respiratory virus
Mechanism of Emergence	Host-switching	Host-switching
Source of Emergence	Wild waterfowl (*Anseriformes*)	Wild bat
Cell receptor	Sialic acids on respiratory epithelia	ACE2 receptor on multiple cells, multiple organs
Viral pre-adaptation	Virus pre-adapted or quickly adapted to human spread	Virus pre-adapted or quickly adapted to human spread
Clinical & Pathological Disease		
Clinical	Upper respiratory disease, pneumonia No viremia, no systemic disease	Upper respiratory disease, pneumonia Viremia with systemic disease, vascular
Complications	Secondary bacterial pneumonia, empyema	Secondary bacterial pneumonia less frequent; Multisystem disease
Pulmonary Pathology	Viral pneumonia, DAD, edema Micro-thrombi, variable hemorrhage in some Aberrant immune response Massive neutrophilic infiltrates in some	Viral pneumonia, DAD, edema Micro-thrombi, variable hemorrhage in some Aberrant immune response Neutrophilic infiltrate less frequent
Epidemiology		
Pre-existing immunity	Possible immunity in older persons	Prior immunity status not yet certain
Mortality	Case-fatality about 1% in United States Higher mortality in infants, elderly, chronically ill Pregnant women/fetuses Mortality peak in adults 20-40 years old	Case-fatality estimated around 1% in United States Children and young adults: lower incidence & severity No extreme mortality in pregnant women/fetuses? No mortality peak in adults 20-40 years old
Morbidity	Morbidity peak in school-aged children	Low morbidity in children & young adults
Origin & Spread	Spread by travel, from big cities, spread outward R_0 estimated to be about 1-2 Spread by droplet, aerosol, hands and fomites Asymptomatic carriers probable Super-spreaders probable Induces full or partial protective immunity Persisted by means of viral evolution	Spread by travel, from big cities, spread outward R_0 about 1-2, but varies greatly Spread by droplet, aerosol, hands and fomites Asymptomatic carriers Super-spreaders Induction of full or partial protective immunity not established Persisted potential not yet established
Public Health Responses	Closures, isolation, social distancing, masks Bacterial vaccines	Closures, isolation, social distancing, masks Bacterial vaccines, seeking viral vaccines
Treatment	Supportive care, plasma therapy, no ICUs No antibiotics or antivirals Quack and untried remedies	Supportive care, plasma therapy, ICUs Antibiotic, antivirals, glucocorticoids Quack and untried remedies
Psycho-Social Reactions	Widespread disease fear Common defiance of public health recommendations Altruism and helping others was common	Widespread disease fear Common defiance of public health recommendations Altruism and helping others was common

Table. Comparing pandemics: 1918 influenza and 2019 COVID-19. Text in red indicates differences between the pandemics of 1918 and 2019.

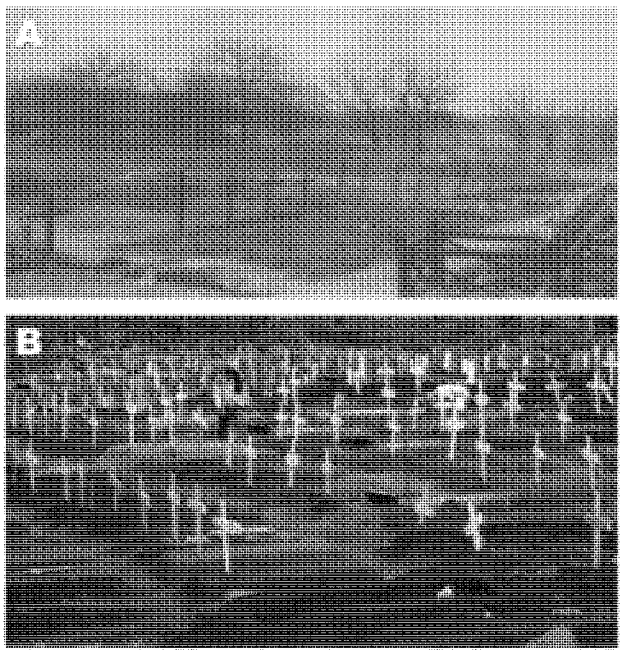

Figure 1. Both the 1918 and the 2020 pandemics featured hastily assembled cemeteries, mass graves, and collections of unburied bodies. A. 1918 gravesite. B. 2020 gravesite.

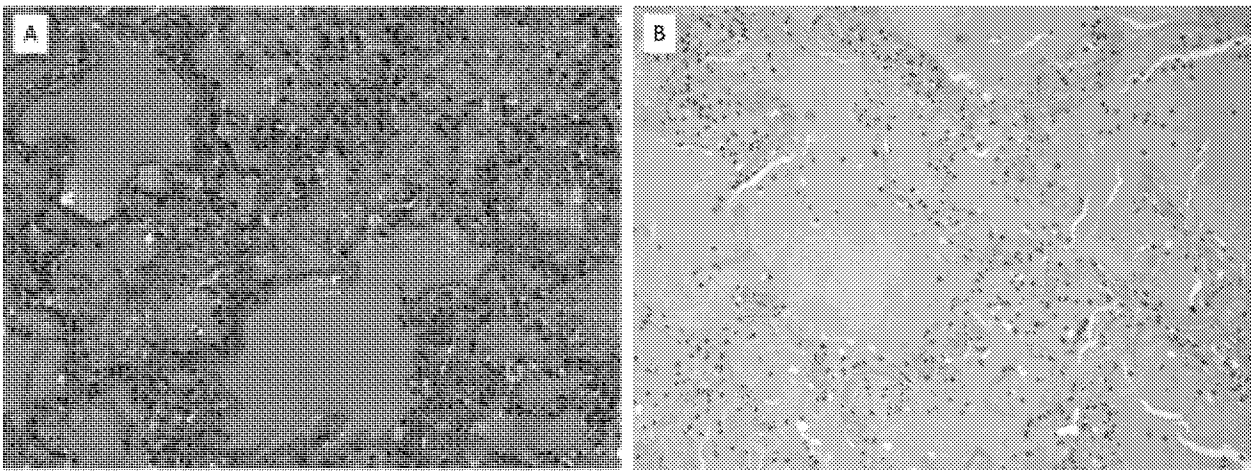

Figure 2. Representative pulmonary histopathology of fatal 1918 influenza (A) and fatal SARS-CoV-2 (B) showing acute diffuse alveolar damage with pulmonary edema and hyaline membranes [9,10]. The histologic patterns are virtually indistinguishable.

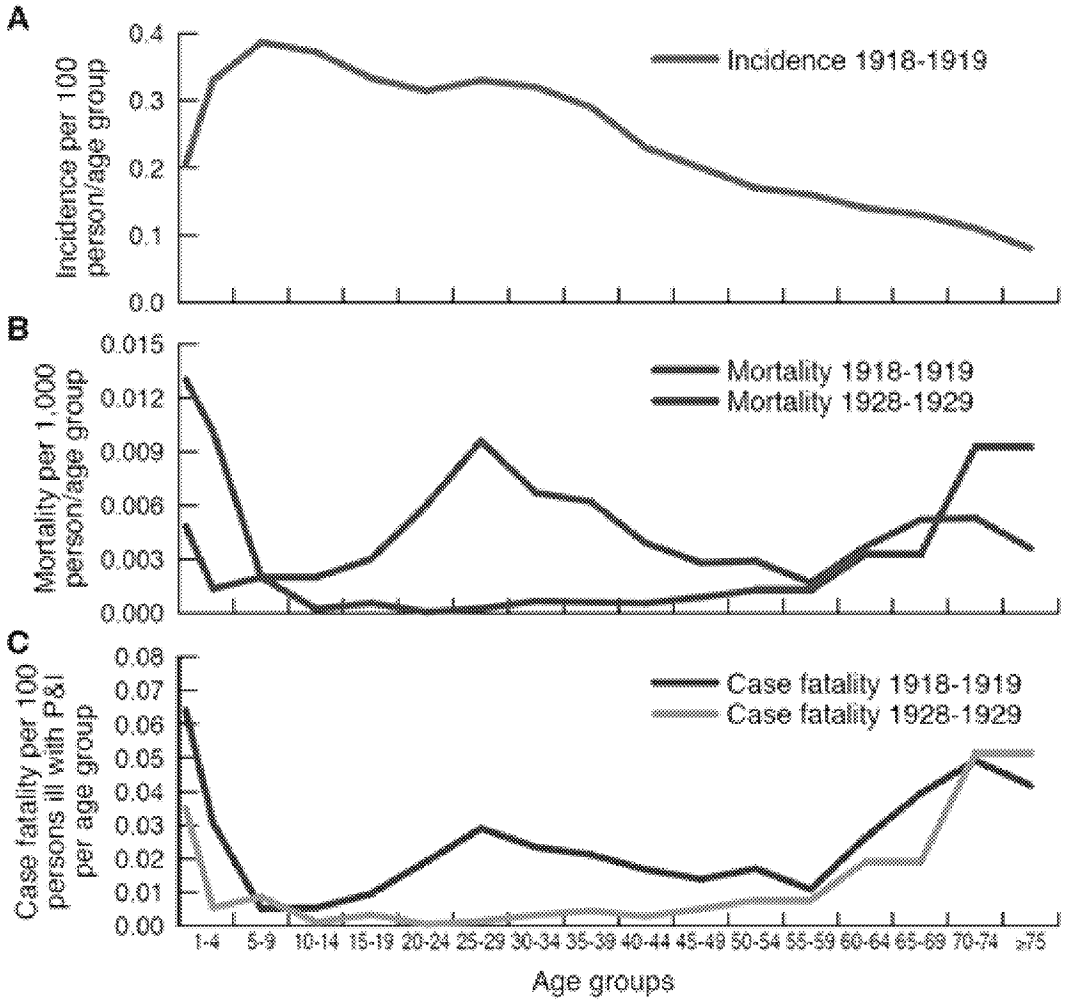

Figure 3. **Age-specific morbidity and mortality of influenza in 1918-1919 and, for comparison, in 1928-1929, as determined by U.S. "P and I" data**. (**A**) Incidence, per 100 persons ill with pneumonia and/or influenza per age group; (**B**) mortality per 1000 persons per age group; (**C**) case-fatality; all from 1918-1919 and 1928-1929 data of [7]. Figures **B** and **C** compare the W-shaped curves of age-specific mortality and case-fatality seen in 1918-1919 with more typical U-shaped curves from 1928-1929. Between 1889 and the present time, U-shaped curves have been seen in all pandemics and seasonal epidemics except for 1918 and the several years thereafter. Morbidity and mortality data reflecting diagnoses of pneumonia and/or influenza (so-called "P and I") are still widely used today for epidemiologic purposes, e.g., for estimating total influenza deaths during periods of influenza prevalence, because incomplete morbidity reporting and imperfect death certificate accuracy greatly underestimate infections and deaths from influenza and its secondary bacterial complications. National or large-population data permitting similar calculations for COVID-19 are not yet available.

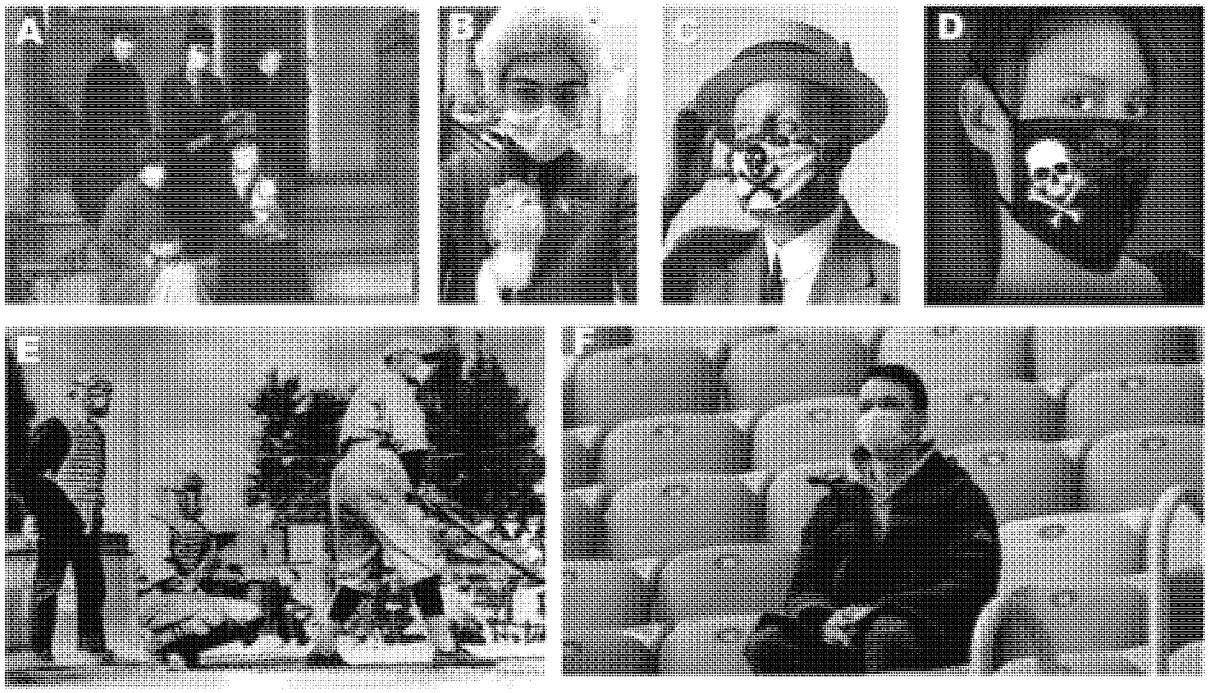

Figure 4. Wearing of face masks, 1918 and 2020. In the pandemics of both 1918 (influenza) and 2020 (COVID-19), public health officials recommended wearing face masks for both casual outings and at sports events and other large gatherings. A & B. Masked pet owners and pets, circa 1918 (A) and 2020 (b). C and D. Fanciful masks seem to mock the pandemic's "grim reaper" circa 1918 (C) and 2020 (B). E and F. In 1918, some sports events were canceled but others went on, often with masked players and/or spectators (E). In 2020, most live sports events have been canceled or played without live spectators.

Figure 5. The 1918 pandemic inspired many artists. A. Dying in their Vienna apartment of influenza pneumonia, painter Egon Schiele's last artistic work was a drawing of his wife Edith Harms, six months pregnant. She died hours after the drawing. B. A 2020 illustration by Peter Ryan captures the anxieties of COVID-19 spread.

From: Folkers, Greg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=614C792839A146B9A8F87A1378519DBD-GFOLKERS]
Sent: 7/16/2020 3:42:55 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Lerner, Andrea (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53254f4fb04e4bcbabe37940b4b41887-fennellyam]; NIAID FOG [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c7f1a141b6df464a9db84d6c41ed1e88-NIAID FOG]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: coggers/foggers And also, Dr. [Anthony] Fauci today has said that the incubation period for this disease could be longer than just two weeks."

Not sure
I have not heard him speak about that either, on podcasts or other….

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, July 16, 2020 11:42 AM
To: Lerner, Andrea (NIH/NIAID) [E] <andrea.lerner@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID FOG <fog@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: coggers/foggers And also, Dr. [Anthony] Fauci today has said that the incubation period for this disease could be longer than just two weeks."

Is it possible that she meant the period of excretion of the virus after infection? That can be many weeks…

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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National Institutes of Health
Building 31, Room 7A-03
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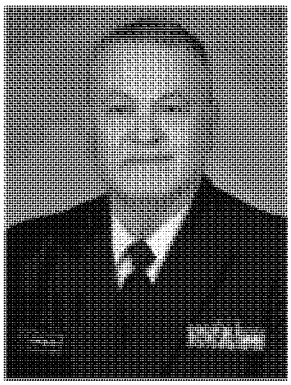
301 496 4409
dm270q@nih.gov



From: Lerner, Andrea (NIH/NIAID) [E] <andrea.lerner@nih.gov>
Sent: Thursday, July 16, 2020 11:35 AM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; NIAID FOG <fog@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: Re: coggers/foggers And also, Dr. [Anthony] Fauci today has said that the incubation period for this disease could be longer than just two weeks."

No—my understanding of this is the same as what you wrote.

From: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>
Date: Thursday, July 16, 2020 at 11:17 AM
To: NIAID FOG <fog@niaid.nih.gov>, NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: coggers/foggers And also, Dr. [Anthony] Fauci today has said that the incubation period for this disease could be longer than just two weeks."

Any idea what she is talking about?
I have not heard asf discuss an incybation period for covid-19 being longer that 2 weeks (though it happens….) – average is 4-5 days; ranege, 2-15 days

https://thehill.com/homenews/media/507608-chuck-todd-there-is-no-editorial-view-on-any-msnbc-daytime-newscasts

I attended a number of those rallies, everybody was wearing a mask, hand sanitizer was handed out," Tur retorted. "And we just saw the images of those rallies. People were not wearing masks inside the president's rally. There was not social distancing being practiced. We saw the signs that were removed from seats. You can say you handed out hand sanitizer and gave out masks, they weren't wearing them. And also, Dr. [Anthony] Fauci today has said that the incubation period for this disease could be longer than just two weeks."

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 7/23/2020 1:43:48 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: URGENT question from MacKenzie, New Scientist

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: "b6
Date: July 23, 2020 at 08:25:53 EDT
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Cc: "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>, "tom.monath@crozetbiopharma.com" <tom.monath@crozetbiopharma.com>, James Leduc <jwleduc@utmb.edu>, "calisher@cybersafe.net" <calisher@cybersafe.net>, "Breman, Joel (NIH/FIC) [V]" <bremanj@mail.nih.gov>, "bhahn@pennmedicine.upenn.edu" <bhahn@pennmedicine.upenn.edu>, "keusch@bu.edu" <keusch@bu.edu>, "laura.kramer@health.ny.gov" <laura.kramer@health.ny.gov>
Subject: URGENT question from MacKenzie, New Scientist

I am resending with URGENT in the subject as advised by Dr. Morens's automated plea regarding the deluge of Covid-related email he (like many) is receiving. I totally sympathise. I don't know if you regard a journalist's deadline as particular cause for urgency under the circumstances. But I realised I had forgotten to tell you that this article is due this coming Monday. I would be grateful for anything you can get back to me with about how we might bring about your timely recommendations.

Best, deb

From: b6
Sent: 23 July 2020 14:18
To: dm270q@nih.gov
Cc: taubenbergerj@niaid.nih.gov; tom.monath@crozetbiopharma.com; jwleduc@utmb.edu; calisher@cybersafe.net; bremanj@mail.nih.gov; bhahn@pennmedicine.upenn.edu; keusch@bu.edu; laura.kramer@health.ny.gov
Subject: question from MacKenzie, New Scientist

Dear Dr. Morens et al. -

Hello! Congratulations on your very important article, Origin of Covid-19 and why it matters. I just wrote a book on Covid-19, https://www.hachettebookgroup.com/titles/debora-mackenzie/covid-19/9780306924231/, "Covid-19: the pandemic that never should have happened and how to stop the next one". In it I say virtually everything you have said in your article – naturally, because as you say yourselves, it is what scientists have been saying for years about pandemic risk. I could produce this book as fast as I did because I have spoken about pandemic risk for the past 20-plus years with those scientists – including more than half of you!

I am just writing an article for my usual publication, New Scientist, pegged on the book, in which I am looking at precisely this – why the warnings went unheeded. You don't really go into that in the article. Why do you think they did?

I think it is simply no one's job, and in no one's budget, to respond, beyond the sporadic interests of individual scientists. In particular we have no mechanism to develop counter-measures for predicted diseases with as yet no market value. You do not go into detail about how we should now systematically ensure better surveillance or countermeasures R&D. We will also need structures to target the increased funding you rightly mention in accountable ways that will make governments invest more than they have so far in the WHO. Do we beef up the WHO? Do we need new multinational structures?

I address this query to all of you, not just Dr. Morens, although he was named as the corresponding author, as I imagine you might all have ideas about this, and it wasn't really in the paper. I would like to really look at how we might make this happen.

I would also love to know what might have inspired your comparison of the need to control disease on a global basis to the nuclear and chemical weapons treaties!

I would, as always, be grateful for any observations on these matters any of you might get a moment to send me, however brief. If you would like to talk, just say when and how, otherwise emails gratefully received. If you need off the record I always honour that.

Thank you for writing such a great article!
Yours
Deb MacKenzie

Debora MacKenzie
Science journalist
Mobile b6
Landli
Email
Twitter @debmackenzie1
Skype debora.mackenzie1

Author, Covid-19: the pandemic that never should have happened and how to stop the next one.
Hachette/Bridge Street Press 2020
Geneva correspondent, New Scientist

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 7/27/2020 2:01:46 PM
To: Pekoc, Ken (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=85745a97ba4c428c9233bbc76e326d49-kpekoc]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: NIAID Media Inquiries [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cf09df89320340168420b798f4ee9ae0-NIAIDMedial]
Subject: RE: Reuters interview request

Great, thanks!

David

David M. Morens, M.D.
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Senior Advisor to the Director
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National Institutes of Health
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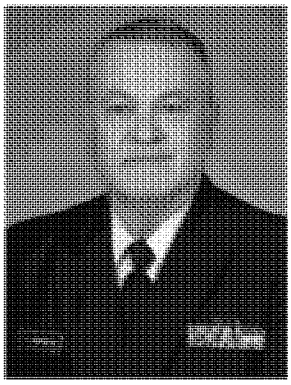
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Pekoc, Ken (NIH/NIAID) [E] <kpekoc@niaid.nih.gov>
Sent: Monday, July 27, 2020 9:55 AM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: NIAID Media Inquiries <mediainquiries@niaid.nih.gov>
Subject: RE: Reuters interview request

This is approved Dr. Morens.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Sunday, July 26, 2020 2:06 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: Reuters interview request

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

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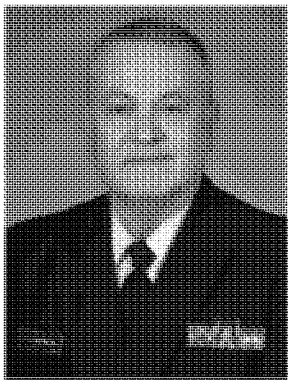
dm270q@nih.gov



From: Deborah Nelson b6
Sent: Sunday, July 26, 2020 12:11 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Reuters interview request

Dr. Morens, I'm working on a long-form story for Reuters on scientists' search for the origins of SARS-CoV-2. Marc Suchard strongly recommended the perspective piece you co-authored, "The Origin of COVID-19 and Why It Matters." I wanted to follow up on what the paper calls "pandemic near misses," the clack of urgency/interest about them, and whether/how that has changed with the pandemic going forward. Would you have time to talk by phone or Zoom this week?

Best regards,
Deb

Deborah Nelson
Reuters
b6

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 7/28/2020 1:53:10 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: interview request

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: "Naik, Gautam" <gautam.naik@spglobal.com>
Date: July 28, 2020 at 07:18:32 EDT
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: interview request

Dear Dr. Morens

I am writing a feature article about the need for ramped-up pathogen surveillance, especially at large industrial animal farms, in order to reduce the risks of novel zoonotic diseases and future pandemics. The story is focused on the large food producers, such as Tyson and JBS, which I cover as part of my beat. My understanding is that routine novel pathogen surveillance among their animals is rarely done. I read your perspective piece, The Origin of COVID-19 and Why It Matters. It touches on many of the issues I am writing about. Would you be free for a quick phone interview sometime in the next few days?

A bit of background: I write for S&P's news service, which is an independent part of the bigger S&P group, known for its ratings and indexing business. We publish about 550 articles every day, with a news staff of 350 people, and compete with Bloomberg, the FT, WSJ and other business media. Our 180,000 paying online subscribers encompass financial institutions, companies, academia and other influential institutions. Non-subscribers access our content via Twitter, LinkedIn, Facebook and other social media platforms.

I look forward to hearing from you.
Gautam

Gautam Naik
Senior Reporter – Consumer

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S&P Global

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 8/27/2020 7:34:21 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; NIAID BUGS [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=413397dc81fb4708a2f98d19aec3166e-NIAID BUGS]; NIAID OD AM [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8b9ef66c6c774c23bbe00d03479ce7c3-NIAID OD AM]
Subject: RE: COG and BUGS Q re NIAID CREID

How about: "REDICT on steroids"???

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
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National Institutes of Health
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☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
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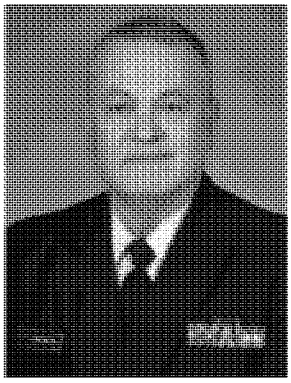
dm270q@nih.gov



From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Thursday, August 27, 2020 2:21 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>; NIAID BUGS <BUGS@niaid.nih.gov>; NIAID OD AM <NIAIDODAM@niaid.nih.gov>
Subject: COG and BUGS Q re NIAID CREID

At least one reporter has asked how/if this compares to PREDICT

https://en.wikipedia.org/wiki/PREDICT_(USAID)
https://www.nytimes.com/2019/10/25/health/predict-usaid-viruses.html

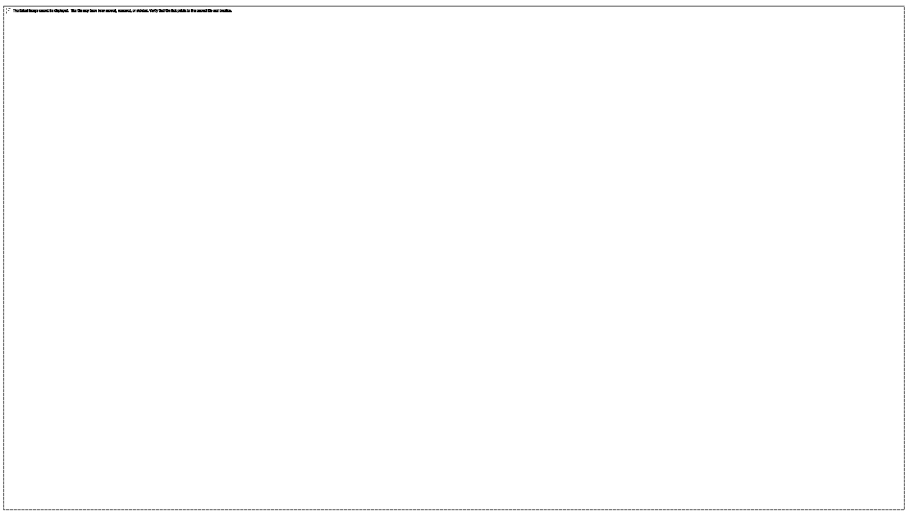
what would you say?

FOR IMMEDIATE RELEASE
Thursday, Aug. 27, 2020

Media Contact: Anne A. Oplinger
(301) 402-1663
NIAIDNews@niaid.nih.gov

NIAID Establishes Centers for Research in Emerging Infectious Diseases
Global Network to Focus on Spillover Potential

The National Institute of Allergy and Infectious Diseases (NIAID), one of the National Institutes of Health, today announced that it has awarded 11 grants with a total first-year value of approximately $17 million to establish the Centers for Research in Emerging Infectious Diseases (CREID). The global network will involve multidisciplinary investigations into how and where viruses and other pathogens emerge from wildlife and spillover to cause disease in people. NIAID intends to provide approximately $82 million over 5 years to support the network.



CREID homepage
Credit: NIAID

"The impact of the COVID-19 pandemic serves as a potent reminder of the devastation that can be wrought when a new virus infects humans for the first time," said NIAID Director Anthony S. Fauci. "The CREID network will enable early warnings of emerging diseases wherever they occur, which will be critical to rapid responses. The knowledge gained through this research will increase our preparedness for future outbreaks."

Each Center in the network will involve collaborations with peer institutions in the United States and 28 other countries. Research projects will include surveillance studies to identify previously unknown causes of febrile illnesses in humans; find the animal sources of viral or other disease-causing pathogens; and determine what

genetic or other changes make these pathogens capable of infecting humans. CREID investigators also will develop reagents and diagnostic assays to improve detection of emerging pathogens and study human immune responses to new or emerging infectious agents. Overall, the breadth of research projects in the CREID network will allow for study of disease spillover in multiple phases of the process: where pathogens first emerge from an animal host; at the borders between wild and more populated areas, where human-to-human transmission occurs; and, finally, in urban areas, where epidemic spread can occur.

Each Center will focus efforts on one or more regions of the world. In Central and South America, for example, studies will include investigations of several arthropod-borne viruses ("arboviruses") including the ones that cause Zika virus disease, chikungunya and dengue. In East and Central Africa, focus pathogens will include Rift Valley fever virus and the coronavirus that causes Middle East respiratory syndrome. In West Africa, in addition to arboviruses, projects are slated on Ebola virus and Lassa virus. In Asia and Southeast Asia, investigators will conduct research on coronaviruses and arboviruses. In every region, investigators will be poised to study any newly emerging pathogen, dubbed "pathogen X."

An award to RTI International in Research Triangle Park, North Carolina, in collaboration with Duke University, Durham, North Carolina, will fund a CREID Coordinating Center. This center will support network-wide activities such as data management, outbreak research response and quality control for biospecimens, assays and reagents. It will also administer a pilot research program for early career investigators.

For more information about the CREID network, visit https://creid-network.org.

The Coordinating Center, 10 CREIDs, principal investigators, Center name, research regions and grant numbers are:

Donald Brambilla, Ph.D., RTI International, Research Triangle Park, North Carolina
Tony Moody, M.D., Duke University School of Medicine, Durham, North Carolina
CREID Coordinating Center; 1 U01AI151378-01

Kristian Andersen, Ph.D., Scripps Research Institute, La Jolla, California
West African Emerging Infectious Disease Research Center (WAEIDRC)
West Africa; 1 U01 AI151812-01

Peter Daszak, Ph.D., EcoHealth Alliance, Inc., New York, New York
Emerging Infectious Diseases-South East Asia Research Collaboration Hub (EID-SEARCH)
Southeast Asia; 1 U01 AI151797-01

Eva Harris, Ph.D., University of California, Berkeley
American and Asian Centers for Arboviral Research and Enhanced Surveillance (A2CARES)
Central and South America, South Asia; 1 U01 AI151788-01

Christine K. Johnson, VMD, Ph.D., University of California, Davis, School of Veterinary Medicine
EpiCenter for Emerging Infectious Disease Intelligence (EEIDI)
Central Africa and South America; 1 U01 AI151814-01

M. Kariuki Njenga, DVM. Ph.D., Washington State University, Pullman
Center for Research in Emerging Infectious Diseases-East and Central Africa (CREID-ECA)
East and Central Africa; 1 U01 AI151799-01

Anavaj Sakuntabhai, M.D., Ph.D., Institut Pasteur, Paris, France
Pasteur International Center for Research on Emerging Infectious Diseases (PICREID)
West and Central Africa and Southeast Asia; 1 U01 AI151758-01

Nikos Vasilakis, Ph.D., University of Texas Medical Branch, Galveston
Coordinating Research on Emerging Arboviral Threats Encompassing the Neotropics (CREATE-NEO)
Central and South America; 1 U01 AI151807-01

Wesley C. Van Voorhis, M.D., Ph.D., University of Washington, Seattle
United World Antiviral Research Network (UWARN)
South America, West and South Africa, Middle East, and Asia; 1 U01 AI151698-01

David Wang, Ph.D., Washington University School of Medicine, St. Louis, Missouri
Center for Research in Emerging Infectious Disease-Epidemiology, Surveillance, Pathogenesis (CREID-ESP)
Asia, East Africa; 1 U01 AI151810-01

Scott C. Weaver, Ph.D., University of Texas Medical Branch, Galveston
West African Center for Emerging Infectious Diseases (WAC-EID)
West Africa; 1 U01 AI151801-01

NIAID conducts and supports research—at NIH, throughout the United States, and worldwide—to study the causes of infectious and immune-mediated diseases, and to develop better means of preventing, diagnosing and treating these illnesses. News releases, fact sheets and other NIAID-related materials are available on the NIAID website.

About the National Institutes of Health (NIH): NIH, the nation's medical research agency, includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical, and translational medical research, and is investigating the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit www.nih.gov.

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NIH...Turning Discovery Into Health®

National Institute of Allergy and Infectious Diseases (NIAID)
http://www.niaid.nih.gov

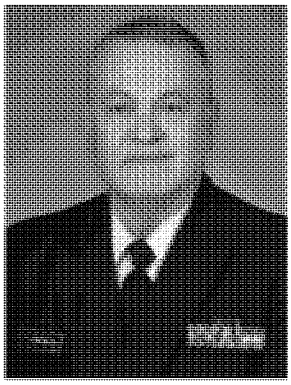
From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 8/28/2020 8:13:41 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: FW: BuzzFeed News: Request for comment / Cell Perspectives paper

OK to talk to this guy?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Dan Vergano <dan.vergano@buzzfeed.com>
Sent: Friday, August 28, 2020 4:06 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Conrad, Patricia (NIH/NIAID) [E] <conradpa@niaid.nih.gov>
Subject: BuzzFeed News: Request for comment / Cell Perspectives paper

Dr. Morens,

I'm a science reporter at BuzzFeed News. We wonder if you might comment on your recent perspectives paper in Cell (link below) authored with Dr. Fauci. We are looking at a news story next week on the essay.

"Evidence suggests that SARS, MERS, and COVID-19 are only the latest examples of a deadly barrage of coming coronavirus and other emergences," the paper concludes. We wonder if this is telling readers that other pandemics with similar disruptive potential as the current one are likely to be a more regular feature of life in the 21st Century? Everyone in virology seems to expect a bird flu pandemic, and the coronavirus well seems to be wide open in the last 20 years. Should we be expecting to go through this every decade, or sooner?

The paper also calls for "living in more thoughtful and creative harmony with nature," as well. What sort of steps would this mean -- how would this change how we live? Would you have any time to comment next week? It seems like good information to get to our readers.

Any help appreciated,

Dan Vergano
BuzzFeed News
b6 (cell)

cc: P. Conrad, NIAID

link: https://www.cell.com/cell/fulltext/S0092-8674(20)31012-6#%20

| *On CARES Act work sharing program through 2020 |
Dan Vergano
Science Desk (DC)
b6
BuzzFeed News
111 E. 18th St., 13th Floor
NY, NY 10003
Send secure tips -- contact.buzzfeed.com

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 9/2/2020 8:36:29 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: climate change and pandemics / USA TODAY

Reporter wants to ask Qs about climate change and disease

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
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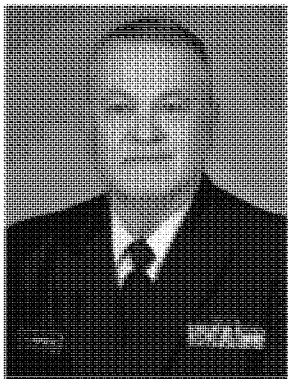
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Rice, Doyle <drice@usatoday.com>
Sent: Wednesday, September 2, 2020 2:02 PM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: climate change and pandemics / USA TODAY

Dr. Morens:

Hello. Doyle Rice here, a reporter at USA TODAY.

I saw the article in Buzz Feed News today about your Cell paper on emerging pandemic diseases, and will be writing a story about it and how climate change may affect future pandemics. I had a few questions for you about the topic. My questions include:

How might climate change have affected COVID-19?
What are some of the diseases that are worsened by climate change?
How might climate change impact or exacerbate future pandemics?

Thanks for any help you can provide. E-mail responses would be fine, or we could chat about this on the phone if you prefer.

Doyle Rice
Weather/Science Reporter
USA TODAY
@USATODAYWeather
https://www.usatoday.com/staff/2647905001/doyle-rice/

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 9/3/2020 5:45:25 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Enquiry from New Scientist

Hardy-Har-Har!

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

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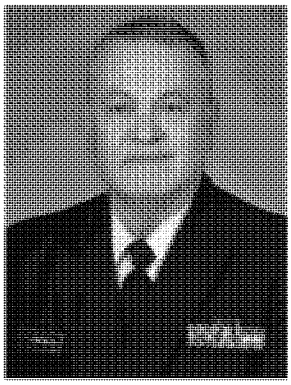

From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Thursday, September 3, 2020 1:21 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Enquiry from New Scientist

Here is david predicting the next pandemic

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, September 3, 2020 11:43 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: Fwd: Enquiry from New Scientist

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** David Adam **b6**
> **Date:** September 3, 2020 at 09:11:30 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Enquiry from New Scientist**
>
> David
> My name is David Adam and I am a science journalist in London. I am writing because I am researching

an article for New Scientist magazine about efforts to predict and prepare for the next pandemic. I know you have thought and spoken about this subject and I wondered if we could speak briefly. Perhaps we could arrange a phone call for one day next week?
Thanks!
David

From: Routh, Jennifer (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E3B5BBA3619344E38037CA94A71473A8-ROUTHJ]
Sent: 9/9/2020 12:48:37 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: From MIT Technology Review (China) Deep Tech - About questions of ChAdOx1-S vaccine developed by Oxford University and AstraZeneca in COVID-19

Thanks for forwarding. NSWB team on duty – please refer reporter to AstraZeneca. Thanks.

Jennifer Routh [E]
News and Science Writing Branch
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases (NIAID)
NIH/HHS
31 Center Drive Room 7A17C
Bethesda, MD 20892
Direct: (301) 496-8327
jennifer.routh@nih.gov

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, September 9, 2020 7:43 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: Fwd: From MIT Technology Review (China) Deep Tech - About questions of ChAdOx1-S vaccine developed by Oxford University and AstraZeneca in COVID-19

Someone following the vaccine story, like Barney, might be better suited to reply? DMM

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** 宋冉 <songran@deeptechchina.com>
> **Date:** September 9, 2020 at 01:26:23 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: From MIT Technology Review (China) Deep Tech - About questions of ChAdOx1-S vaccine developed by Oxford University and AstraZeneca in COVID-19**
>
> Dear Dr. Morens,
>
> Hope this letter finds you well.
> This is Susan Song, a Life Sciences Reporter at MIT Technology Review (China) DeepTech. I'd be honored to get in touch with you via email!
> Today, this trail of COVID-19 vaccine - ChAdOx1-S developed by AstraZeneca and Oxford University has been stopped. The reason is that volunteers in this trial had serious adverse effects, but this details has been released. Please click the link to check more details:

https://www.cnbc.com/2020/09/08/astrazeneca-shares-fall-after-coronavirus-vaccine-study-is-put-on-hold.html.

With regard to this thing, we have some questions to consult you:
1. What's your idea of this information? What effect will this result bring for this research progress in the world?
2. Based on previous results reseased by AstraZeneca, this company said that the adverse effects caused by ChAdOx1-S in trail II didn't imperil the life and its security is controlled. Therefore, which indication changes did cause this current result in this trial?
3. The ChAdOx1-S adopts chimpanzee adenovirus vector and Chinese team choosed the recombinant adenovirus vector. Is the virus vector one of reasons of these adverse effects?
4. Which reflection and alert will this thing bring to Chinese vaccine research in COVID-19?

Thank you so much. I look forward to hearing from you. Have a great life.
Kind regards,
Susan

搜索

复制

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 9/11/2020 7:13:42 PM
To: Pekoc, Ken (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=85745a97ba4c428c9233bbc76e326d49-kpekoc]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: approved RE: Canadian Broadcasting Corporation interview request

OK, thanks!

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
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Building 31, Room 7A-03
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☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
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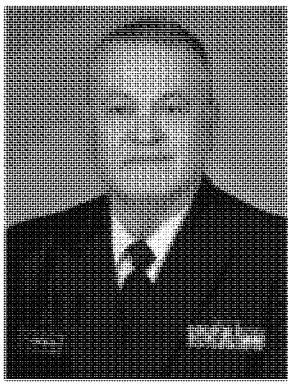
dm270q@nih.gov



From: Pekoc, Ken (NIH/NIAID) [E] <kpekoc@niaid.nih.gov>
Sent: Friday, September 11, 2020 3:13 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: approved RE: Canadian Broadcasting Corporation interview request

Hi Dr. Morens … fine to arrange this interview.

From: Pekoc, Ken (NIH/NIAID) [E] <kpekoc@niaid.nih.gov>
Sent: Friday, September 11, 2020 10:24 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Canadian Broadcasting Corporation interview request

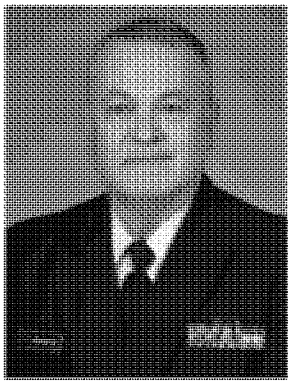
Will seek clearance. Thanks

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, September 11, 2020 10:01 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: Canadian Broadcasting Corporation interview request

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Katie Geleff <katie.geleff@cbc.ca>
Sent: Friday, September 11, 2020 11:34 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Canadian Broadcasting Corporation interview request

Hey there David,

I'm a journalist with Canada's public broadcaster CBC on our flagship evening radio program "As It Happens." We air across Canada and over 100 public radio stations in the US.

How are you?

I was hoping we could connect to chat about your paper on how we're entering a "pandemic era." This would be with the potential of setting up a phone interview for our show.

What's the best number to reach you at, and when might you have some availability?

Looking forward to discussing.

Thanks,
Katie

--

Katie Geleff
Associate Producer
CBC Radio *As it Happens*
b6

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 9/25/2020 1:19:37 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: Media Request

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Katie Dangerfield <Katie.Dangerfield@globalnews.ca>
> **Date:** September 25, 2020 at 09:17:46 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Media Request**
>
> Hi David,
>
> My name is Katie Dangerfield and I am an online reporter with Global News in Canada. I am wondering if you are free for a quick phone interview today about the study that was posted on MedRxiv, saying COVID-19's mutations may have made it more contagious and have an ability to get around masks.
> https://www.medrxiv.org/content/10.1101/2020.09.22.20199125v1
>
> If you are free for a quick interview let me know.
>
> Thank you for your time,
>
> Katie Dangerfield

From: Folkers, Greg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=614C792839A146B9A8F87A1378519DBD-GFOLKERS]
Sent: 10/20/2020 8:34:11 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Media Inquiry for AFP news agency -- Misleading information on masks and bacterial pneumonia

David was only wee lad in 1918
It cant be his fault

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, October 20, 2020 4:28 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: Fwd: Media Inquiry for AFP news agency -- Misleading information on masks and bacterial pneumonia

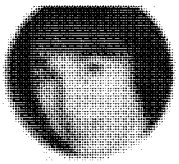
Does this need to be cleared?

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Manon JACOB <Manon.JACOB@afp.com>
> **Date:** October 20, 2020 at 16:08:23 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Media Inquiry for AFP news agency -- Misleading information on masks and bacterial pneumonia**
>
> Dear Dr Morens,
>
> My name is Manon Jacob. I am a fact-checking journalist with AFP news agency.
>
> I am currently looking into this viral claim that says the paper you contributed to with Dr Fauci, on the 1918 influenza pandemic, is proof that masks cause bacterial pneumonia and therefore were responsible for the majority of deaths during the 1918 pandemic.
>
> Would you be willing to comment on this claim and help us clarify why this is factually inaccurate ? Your contribution would be greatly appreciated to help us put the misleading claims to rest.
>
> Thanks very much for your time and consideration.
>
> Best regards,

Manon Jacob
Journalist
1500 K Street NW - 20005 Washington D.C.
Tel: + b6



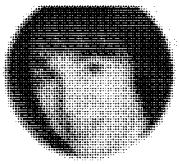
Colleen Huber, NMD
@ColleenHuberNMD

The unmasked buried the masked in the "Spanish Flu."

What did people in #masks die from?
Bacterial pneumonia.

Who knew this and wrote about it in 2008?
Dr. Anthony Fauci.

> **Colleen Huber, NMD** @ColleenHub... · Oct 15
>
> Dr. Fauci neglected to let the public know that he was co-author on a paper that found this:
>
> 1918-1919 pandemic deaths were mostly from bacterial pneumonia. (See Endnote 17 in our paper.)
>
> Why did that happen? #Masks
>
> researchgate.net/publication/34...



Colleen Huber, NMD
@ColleenHuberNMD

The unmasked buried the masked in the "Spanish Flu."

What did people in #masks die from?
Bacterial pneumonia.

Who knew this and wrote about it in 2008?
Dr. Anthony Fauci.

> **Colleen Huber, NMD** @ColleenHub... · Oct 15
> Dr. Fauci neglected to let the public know that he was co-author on a paper that found this:
>
> 1918-1919 pandemic deaths were mostly from bacterial pneumonia. (See Endnote 17 in our paper.)
>
> Why did that happen? #Masks
>
> researchgate.net/publication/34..

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 10/21/2020 4:30:58 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Documentary on Dr. Fauci's work for PBS, The AP

OK to go ahead?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
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☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
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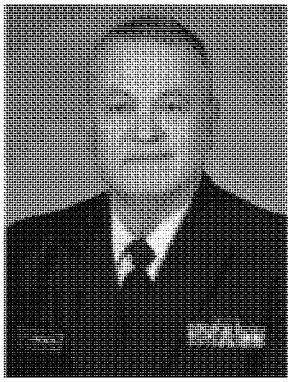

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, October 20, 2020 5:54 PM

To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: Fwd: Documentary on Dr. Fauci's work for PBS, The AP

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Sally Heims <sheims@southfloridapbs.org>
> **Date:** October 20, 2020 at 17:52:36 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Documentary on Dr. Fauci's work for PBS, The AP**
>
> Dear Dr. Morens,
>
> I'm a writer/producer working on a one-hour documentary on the life and work of Dr. Fauci.
>
> This is a project for South Florida PBS, The Associated Press, and HITN -TV.
>
> Here is the trailer:
> https://app.frame.io/presentations/f0b2868e-0a96-4160-b4a7-34ba4b634385
>
> I interviewed (the very kind and wise) Dr. Vicky Harden, and asked her if she could recommend someone who could talk about Dr. Fauci and the work he did with the many Presidents he has served over his career.
>
> (Or any other information you'd like to share about Dr. Fauci that would contribute to our program.)
>
> We are conducting all of our interviews remotely.
>
> I know there's a team for clearance at NIH.
>
> We are interviewing Dr. Gallin on Friday.
>
> Next week is open for interviews.
>
> Thank you for considering,
>
> Kindly,
> Sally

Sally Heims
Producer Filmaker r
Office: **561-222-7617**
Email: sheims@southfloridapbs.org

SOUTH FLORIDA PBS
WPBT • WXEL

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 10/22/2020 8:22:18 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request b6 4094

Oh yeah, sorry, yes granted!

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ **301 496 2263** (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, October 22, 2020 4:11 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

Still need you to send me an email granting permission for the search.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:55 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

Maybe you all deserve a raise for putting up with this.... Don't know how you do it, my work is stressful enough....

David

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From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:53 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

They didn't get responses and now they're all suing for records.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:50 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

Guess this will never end.....?....

David

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From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:38 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Corbett, Kizzmekia (NIH/VRC) [E] <kizzmekia.corbett@nih.gov>; Mascola, John (NIH/VRC) [E] <jmascola@mail.nih.gov>; Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Cc: Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Daucher, Marybeth (NIH/NIAID) [E]

<mdaucher@niaid.nih.gov>; Schmidt, Beth (NIH/NIAID) [E] <bschmidt@niaid.nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

Dear All: Seeking permission to ask CIT to search for emails **to, from or cc**: Anthony Fauci, Greg Folkers, David Morens, Jeffrey Taubenberger, Cliff Lane, Barney Graham, Kizzmekia Corbett or John Mascola **to or from** covidmail@who.eop.gov OR containing terms ("covid mail" OR "covidmail" OR "covidmail@who.eop.gov")

Date range for the Search: January 15 – October 22, 2020

We would like to run the searches together. If you would like a copy of your pst file please let me know and we can send it to you for review.

A copy of the original request is attached.

Thanks for your help.
Marg
Margaret Moore
NIAID FOIA Office

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 10/22/2020 9:46:41 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee8[illegible]6b1c281f7aa-mamoore]
Subject: Re: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

Given that there is no "there" there, this is a bit demoralizing. Thank you for hanging in there, we all appreciate it. D

Sent from my iPhone
David M Morens
OD, NIAID, NIH

On Oct 22, 2020, at 15:53, Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov> wrote:

They didn't get responses and now they're all suing for records.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:50 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request b6 54094

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From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:38 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Corbett, Kizzmekia (NIH/VRC) [E] <kizzmekia.corbett@nih.gov>; Mascola, John (NIH/VRC) [E] <jmascola@mail.nih.gov>; Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Cc: Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Daucher, Marybeth (NIH/NIAID) [E] <mdaucher@niaid.nih.gov>; Schmidt, Beth (NIH/NIAID) [E] <bschmidt@niaid.nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
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Date range for the Search: January 15 – October 22, 2020

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A copy of the original request is attached.

Thanks for your help.
Marg
Margaret Moore
NIAID FOIA Office

From: Taubenberger, Jeffery (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ACF689CC4F7B4E0B841A76D8FBB07F2B-TAUBENBERGE]
Sent: 10/22/2020 8:30:16 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Corbett, Kizzmekia (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c92b68cae9c6422bba3c1e3f9beadf5d-corbettk]; Mascola, John (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f78b40a596b4ca4a2850a429d1ae3f2-jmascola]; Taubenberger, Jeffery (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=acf689cc4f7b4e0b841a76d8fbb07f2b-taubenberge]
CC: Parrish, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]; Schmidt, Beth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c94cef3b3ed242eb98ba7a34ee9100ad-bschmidt]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]
Subject: Re: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

You have my permission.
Thanks, Jeffery Taubenberger

From: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>
Date: Thursday, October 22, 2020 at 3:40:54 PM
To: "Moore, Marg (NIH/NIAID) [E]" <mmoore@niaid.nih.gov>, "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>, "Lane, Cliff (NIH/NIAID) [E]" <clane@niaid.nih.gov>, "Graham, Barney (NIH/VRC) [E]" <bgraham@mail.nih.gov>, "Corbett, Kizzmekia (NIH/VRC) [E]" <kizzmekia.corbett@nih.gov>, "Mascola, John (NIH/VRC) [E]" <jmascola@mail.nih.gov>, "Taubenberger, Jeffery (NIH/NIAID) [E]" <taubenbergerj@niaid.nih.gov>
Cc: "Parrish, David (NIH/NIAID) [E]" <david.parrish@nih.gov>, "Daucher, Marybeth (NIH/NIAID) [E]" <mdaucher@niaid.nih.gov>, "Schmidt, Beth (NIH/NIAID) [E]" <bschmidt@niaid.nih.gov>, "Schofield, Robin (NIH/NIAID) [E]" <robin.schofield@nih.gov>
Subject: RE: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094

Marg
Permission granted for Dr Fauci and me

Thanks

Greg

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Thursday, October 22, 2020 3:38 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Corbett, Kizzmekia (NIH/VRC) [E] <kizzmekia.corbett@nih.gov>; Mascola, John (NIH/VRC) [E] <jmascola@mail.nih.gov>; Taubenberger, Jeffery (NIH/NIAID) [E] <taubenbergerj@niaid.nih.gov>
Cc: Parrish, David (NIH/NIAID) [E] <david.parrish@nih.gov>; Daucher, Marybeth (NIH/NIAID) [E] <mdaucher@niaid.nih.gov>; Schmidt, Beth (NIH/NIAID) [E] <bschmidt@niaid.nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
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Date range for the Search: January 15 – October 22, 2020

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Thanks for your help.
Marg
Margaret Moore
NIAID FOIA Office

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 10/22/2020 7:38:01 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Corbett, Kizzmekia (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c92b68cae9c6422bba3c1e3f9beadf5d-corbettk]; Mascola, John (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f78b40a596b4ca4a2850a429d1ae3f2-jmascola]; Taubenberger, Jeffery (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=acf689cc4f7b4e0b841a76d8fbb07f2b-taubenberge]
CC: Parrish, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]; Schmidt, Beth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c94cef3b3ed242eb98ba7a34ee9100ad-bschmidt]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]
Subject: ACTION REQUIRED: PERMISSION for CIT Search Request: b6 54094
Attachments: PAL Request Form for 54094.pdf

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Thanks for your help.
Marg
Margaret Moore
NIAID FOIA Office

Submit New Request

Requester Details

To modify request details please update your requester profile or contact the our office for assistance.

b6
ProPublica
641 S St NW
Washington, DC 20001
Phone 1 b6
b6

Requester Default Category: Media

General Information

Institute or Center	NIAID
Institute or Center Name	NIAID
Request Type	FOIA
Requester Category	Media

Shipping Address

State (Other)

Request Information

Description	•Any and all emails sent or received by any of the following NIAID officials: o Director Anthony Fauci oGregory K. Folkers, Chief of Staff to the Director oDavid M. Morens, Senior Advisor to the Director oJeffery K. Taubenberger, Chief of the Viral Pathogenesis and Evolution Section, Laboratory of Infectious Diseases oHenry Clifford Lane, Deputy Director for Clinical Research and Special Projects oDr. Barney Graham, Deputy Director, Vaccine Research Center oDr. Kizzmekia Corbett, Research Fellow, Vaccine Research Center oDr. John Mascola, Director, Vaccine Research Center involving (including sent to, sent from, cc'd with, forwarded from/to, replied from/to) the following email address: ocovidmail@who.eop.gov and/or any email sent or received by any of the above-named NIAID officials containing any of the following non-case-sensitive terms: o"covid mail" o"covidmail" o"covidmail@who.eop.gov" Please limit this search to records created between January 15, 2020 and the date on which this is processed. With all responsive records, please include any email attachments and all email messages contained in the thread/chain with the responsive record. [See attached for full description.]
Date Range for Record Search:From	
Date Range for Record Search:To	

Fee Information

Willing to Pay All Fees	No
Willing Amount	$25
Fee Waiver Requested	Yes ,FOIA_ProPublica _NIAID %22Covid Mail%22 communications.pdf
Fee Waiver Request Reason	See attached.

Billing Address
State (Other)

Other Information
State (Other)

Expedite Information

Expedite Requested	Yes ,FOIA_ProPublica _NIAID %22Covid Mail%22 communications.pdf
Expedite Reason	See attached.

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 11/3/2020 9:39:23 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]
CC: Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; Smith, Steven T (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a2563e1fdfc43719928186e141f6dec-smithsteve]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Feldmann, Heinrich (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f4bacd16b7d4c22803a843ca5c33312-feldmannh]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Embry, Alan (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=882a18a10a134c49acac21cb83fd599d-embrya]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]; Bryant, Paula (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=49840b0edb284bd2a7c92c0f6268ee41-bryantpr]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Miers, Sarah (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=edb14b99d9ec49e695cd1ae80dd504d7-smiers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]
Subject: Re: ACTION REQUIRED: FOIA Case #55344- Seeking Permission for CIT Search of emails
Attachments: NIH WHO FOIA 11.3.20 (5).pdf

Marg, approved.... i think this will be a dead end. D

Sent from my iPhone
David M Morens
OD, NIAID, NIH

On Nov 3, 2020, at 15:57, Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov> wrote:

Please see the attached FOIA request from **b6** (US Right to Know) seeking records between named NIAID employees and WHO **concerning the origins of COVID-19 and/or SARS-CoV-2**. We are seeking permission to have CIT run a search on your email for:

"Communications between Joe Employee and the domain who.int containing the terms ("origin" NEAR10 (Covid-19 OR SARS-CoV-2)) AND (Tedros Adhanom Ghebreyesus OR Soumya Swaminathan OR Vaseeharan Sathiyamoorthy OR Dale Fisher OR Michael Ryan OR Mike Ryan OR Bruce Aylward OR

Wannian Liang OR Xiaoping Dong OR Hitoshi Takahashi OR Maria van Kerkhove OR Bin Wang OR Yong Zhang OR Lei Zhou OR Kwok-Yung Yuen OR Jeremy Farrar OR Sophia Kabir OR George Gao)"

The date range for the search is: September 1, 2019 – November 3, 2020

Please email me your approval for the search. NIH FOIA will process this request. If you would like, we can provide you with a copy of the results of the search of your email.

Best,
Marg
Margaret Moore
NIAID FOIA Office

U.S. RIGHT TO KNOW

November 3, 2020

Gorka Garcia-Malene
Building 31 Room 5B35
9000 Rockville Pike
Bethesda, MD 20892

RE: Freedom of Information Act request

Dear Mr. Garcia-Malene:

This is a request under the Freedom of Information Act, 5 U.S.C. § 552, et seq., to the National Institutes of Health (NIH) pertaining to the following employees of the National Institute of Allergy and Infectious Diseases (NIAID):

1. **Hilary D. Marston**, Medical Officer and Policy Advisor for Pandemic Preparedness, Office of the Director
2. **Steven Smith**, Office of Global Research
3. **F. Gray Handley**, Associate Director for International Research Affairs
4. **David M. Morens**, Senior Scientific Advisor, Office of the Director
5. **Joyelle Dominique**, Acting Director, Office of Global Research
6. **Hugh Auchincloss**, NIAID Principal Deputy Director
7. **Heinz Ulrich Feldmann**, Senior Investigator, Disease Modeling and Transmission Section
8. **Barney Graham**, Deputy Director, Vaccine Research Center
9. **Alan Embry**, Chief of the Respiratory Diseases Branch, Division of Microbiology and Infectious Diseases
10. **Erik Stemmy**, Program Officer in the Respiratory Diseases Branch, Division of Microbiology and
    Infectious Diseases
11. **Paula Bryant**, Director, Office of Biodefense, Research Resources and Translational Research

We request copies of records created, received and/or in the possession of NIH, including cross-references that reflect communications – whether in writing or verbal communications that were later reduced to writing (including any emails and their attachments, non-email correspondence, or other forms of communication) – between the above-named employees of the NIH and the World Health Organization (WHO) **concerning the origins of COVID-19 and/or SARS-CoV-2**. WHO experts have been working to identify the origins and source of SARS-CoV-2, which causes COVID-19, but have been reticent to disclose their findings. We would like to ascertain what NIH officials know about the origins of SARS-CoV-2 from interactions with their WHO counterparts.

Part I. We request communications containing any of the following key names:

- Tedros Adhanom Ghebreyesus
- Soumya Swaminathan
- Vaseeharan Sathiyamoorthy
- Dale Fisher
- Michael Ryan OR Mike Ryan
- Bruce Aylward
- Wannian Liang
- Xiaoping Dong
- Hitoshi Takahashi
- Maria van Kerkhove
- Bin Wang
- Yong Zhang
- Lei Zhou
- Kwok-Yung Yuen
- Jeremy Farrar
- Sophia Kabir
- George Gao

The time period covered by this request is from September 1, 2019 to the present.

Please narrow the search results to exclude any published papers, media articles, organizational newsletters or other widely available published materials.

We request that you disclose these documents and materials as they become available to you, without waiting until all the documents have been assembled. If documents are denied in whole or in part, please specify which exemption(s) is (are) claimed for each passage or whole document denied. Give the number of pages in each document and the total number of pages pertaining to this request and the dates of documents withheld. We request that excised material be "blacked out" rather than "whited out" or cut out and that the remaining non-exempt portions of documents be released as provided under the Freedom of Information Act.

Please advise of any destruction of records and include the date of and authority for such destruction. As we expect to appeal any denials, please specify the office and address to which an appeal should be directed.

We are making this request on behalf of U.S. Right to Know, a 501(c)(3) nonprofit public health research organization. The records disclosed pursuant to this request will be used in the preparation of articles for dissemination to the public. Accordingly, we request that you waive all fees in the public interest because furnishing of the information sought by this request will primarily benefit the public.

Please send the documents electronically in PDF format to b6 at b6

If you need additional information please call, rather than write, b6. He can be reached at b6

Thank you so much for your help in filling this request.

Sincerely,

b6

Staff Scientist

Executive Director

From: Feldmann, Heinrich (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7F4BACD16B7D4C22803A843CA5C33312-FELDMANNH]
Sent: 11/4/2020 12:12:48 AM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; Smith, Steven T (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a2563e1fdfc43719928186e141f6dec-smithsteve]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Embry, Alan (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=882a18a10a134c49acac21cb83fd599d-embrya]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]; Bryant, Paula (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=49840b0edb284bd2a7c92c0f6268ee41-bryantpr]
CC: Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Miers, Sarah (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=edb14b99d9ec49e695cd1ae80dd504d7-smiers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]
Subject: RE: ACTION REQUIRED: FOIA Case #55344- Seeking Permission for CIT Search of emails

Go ahead. Thanks for letting me know.

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Tuesday, November 3, 2020 1:57 PM
To: Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>; Smith, Steven T (NIH/NIAID) [E] <smithsteve@niaid.nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Dominique, Joyelle (NIH/NIAID) [E] <joyelle.dominique@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Feldmann, Heinrich (NIH/NIAID) [E] <feldmannh@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Embry, Alan (NIH/NIAID) [E] <embrya@niaid.nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>; Bryant, Paula (NIH/NIAID) [E] <paula.bryant@nih.gov>
Cc: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>; Miers, Sarah (NIH/NIAID) [E] <smiers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Daucher, Marybeth (NIH/NIAID) [E] <mdaucher@niaid.nih.gov>
Subject: ACTION REQUIRED: FOIA Case #55344- Seeking Permission for CIT Search of emails

Please see the attached FOIA request from **b6** (US Right to Know) seeking records between named NIAID employees and WHO **concerning the origins of COVID-19 and/or SARS-CoV-2**. We are seeking permission to have CIT run a search on your email for:

"Communications between Joe Employee and the domain who.int containing the terms ("origin" NEAR10 (Covid-19 OR SARS-CoV-2)) AND (Tedros Adhanom Ghebreyesus OR Soumya Swaminathan OR Vaseeharan Sathiyamoorthy OR Dale Fisher OR Michael Ryan OR Mike Ryan OR Bruce Aylward OR Wannian Liang OR Xiaoping Dong OR Hitoshi Takahashi OR Maria van Kerkhove OR Bin Wang OR Yong Zhang OR Lei Zhou OR Kwok-Yung Yuen OR Jeremy Farrar OR Sophia Kabir OR George Gao)"

The date range for the search is: September 1, 2019 – November 3, 2020

Please email me your approval for the search. NIH FOIA will process this request. If you would like, we can provide you with a copy of the results of the search of your email.

Best,
Marg
Margaret Moore
NIAID FOIA Office

From: Bryant, Paula (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=49840B0EDB284BD2A7C92C0F6268EE41-BRYANTPR]
Sent: 11/4/2020 2:44:16 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; Smith, Steven T (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a2563e1fdfc43719928186e141f6dec-smithsteve]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Feldmann, Heinrich (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f4bacd16b7d4c22803a843ca5c33312-feldmannh]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Embry, Alan (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=882a18a10a134c49acac21cb83fd599d-embrya]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]
CC: Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Miers, Sarah (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=edb14b99d9ec49e695cd1ae80dd504d7-smiers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]
Subject: RE: ACTION REQUIRED: FOIA Case #55344- Seeking Permission for CIT Search of emails

Yes, I approve the search….and would like to see any results you might find for me.

Thanks,
Paula

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Tuesday, November 3, 2020 3:57 PM
To: Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>; Smith, Steven T (NIH/NIAID) [E] <smithsteve@niaid.nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Dominique, Joyelle (NIH/NIAID) [E] <joyelle.dominique@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Feldmann, Heinrich (NIH/NIAID) [E] <feldmannh@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Embry, Alan (NIH/NIAID) [E] <embrya@niaid.nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>; Bryant, Paula (NIH/NIAID) [E] <paula.bryant@nih.gov>
Cc: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>; Miers, Sarah (NIH/NIAID) [E] <smiers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Daucher, Marybeth (NIH/NIAID) [E] <mdaucher@niaid.nih.gov>
Subject: ACTION REQUIRED: FOIA Case #55344- Seeking Permission for CIT Search of emails

Please see the attached FOIA request from b6 (US Right to Know) seeking records between named NIAID employees and WHO **concerning the origins of COVID-19 and/or SARS-CoV-2**. We are seeking permission to have CIT run a search on your email for:

"Communications between Joe Employee and the domain who.int containing the terms ("origin" NEAR10 (Covid-19 OR SARS-CoV-2)) AND (Tedros Adhanom Ghebreyesus OR Soumya Swaminathan OR Vaseeharan Sathiyamoorthy OR Dale Fisher OR Michael Ryan OR Mike Ryan OR Bruce Aylward OR Wannian Liang OR Xiaoping Dong OR Hitoshi Takahashi OR Maria van Kerkhove OR Bin Wang OR Yong Zhang OR Lei Zhou OR Kwok-Yung Yuen OR Jeremy Farrar OR Sophia Kabir OR George Gao)"

The date range for the search is: September 1, 2019 – November 3, 2020

Please email me your approval for the search. NIH FOIA will process this request. If you would like, we can provide you with a copy of the results of the search of your email.

Best,
Marg
Margaret Moore
NIAID FOIA Office

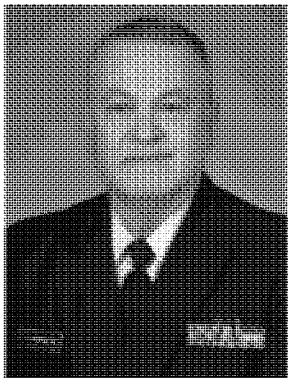
From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 11/17/2020 2:17:41 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]
Subject: RE: ACTION REQUIRED: FOIA Case #55344 (AMENDED) - Seeking Permission for CIT Search of emails

Marg, still fine with me, thank you,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Tuesday, November 17, 2020 8:26 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: FOIA Case #55344 (AMENDED) - Seeking Permission for CIT Search of emails

Thanks David. I neglected to amend the search dates. Correct dates are September 1, 2019 – November 16, 2020.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, November 17, 2020 8:25 AM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Cc: Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>; Smith, Steven T (NIH/NIAID) [E] <smithsteve@niaid.nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Dominique, Joyelle (NIH/NIAID) [E] <joyelle.dominique@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Feldmann, Heinrich (NIH/NIAID) [E] <feldmannh@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Embry, Alan (NIH/NIAID) [E] <embrya@niaid.nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>; Bryant, Paula (NIH/NIAID) [E] <paula.bryant@nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Daucher, Marybeth (NIH/NIAID) [E] <mdaucher@niaid.nih.gov>; Miers, Sarah (NIH/NIAID) [E] <smiers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Schmidt, Beth (NIH/NIAID) [E] <bschmidt@niaid.nih.gov>
Subject: Re: ACTION REQUIRED: FOIA Case #55344 (AMENDED) - Seeking Permission for CIT Search of emails

Ok with me, thank you

Sent from my iPhone
David M Morens
OD, NIAID, NIH

On Nov 17, 2020, at 07:50, Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov> wrote:

Please see the attached **amended** FOIA request from **b6** (US Right to Know) seeking records between named NIAID employees and WHO **concerning the origins of COVID-19 and/or SARS-CoV-2**. The requester has amended her original request by listing search terms. We are seeking permission to have CIT run a search on your email for:

Communications between Joe Employee and the domain who.int containing the terms ("WHO-China Joint Mission" OR "Wuhan Institute of Virology" OR "WIV" OR "Wuhan NIH" OR "EcoHealth Alliance" OR "EHA" OR "Ecohealth" OR ("SARS-CoV-2" AND "animal origin") OR ("SARS-CoV-2" AND "animal source") OR ("COVID" AND "animal origin") OR ("COVID" AND "animal source") OR "OIE/FAO/WHO Origins group" OR "Independent Panel for Pandemic Preparedness and Response") AND ("Tedros Adhanom Ghebreyesus" OR "Soumya Swaminathan" OR "Vaseeharan Sathiyamoorthy" OR "Michael Ryan" OR "Mike Ryan" OR "Bruce Aylward" OR "Wannian Liang" OR "Xiaoping Dong" OR "George Gao" OR "Wang Linfa" OR "Ian Lipkin" OR "Dale Fisher" OR "Hitoshi Takahashi" OR "Maria van Kerkhove" OR "Bin Wang" OR "Yong Zhang" OR "Lei Zhou" OR "Kwok-Yung Yuen" OR "Jeremy Farrar" OR "Sophia Kabir")

The date range for the search is: September 1, 2019 – November 3, 2020

Please email me your approval for the search. NIH FOIA will process this request. If you would like, we can provide you with a copy of the results of the search of your email.

Thank you.

Marg
Margaret Moore
NIAID FOIA Office

From: Bryant, Paula (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=49840B0EDB284BD2A7C92C0F6268EE41-BRYANTPR]
Sent: 11/17/2020 1:17:24 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; Smith, Steven T (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a2563e1fdfc43719928186e141f6dec-smithsteve]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Feldmann, Heinrich (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f4bacd16b7d4c22803a843ca5c33312-feldmannh]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Embry, Alan (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=882a18a10a134c49acac21cb83fd599d-embrya]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]
CC: Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]; Miers, Sarah (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=edb14b99d9ec49e695cd1ae80dd504d7-smiers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Schmidt, Beth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c94cef3b3ed242eb98ba7a34ee9100ad-bschmidt]
Subject: RE: ACTION REQUIRED: FOIA Case #55344 (AMENDED) - Seeking Permission for CIT Search of emails

You have my permission

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Tuesday, November 17, 2020 7:50 AM
To: Marston, Hilary (NIH/NIAID) [E] <hilary.marston@nih.gov>; Smith, Steven T (NIH/NIAID) [E] <smithsteve@niaid.nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Dominique, Joyelle (NIH/NIAID) [E] <joyelle.dominique@nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Feldmann, Heinrich (NIH/NIAID) [E] <feldmannh@niaid.nih.gov>; Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>; Embry, Alan (NIH/NIAID) [E] <embrya@niaid.nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>; Bryant, Paula (NIH/NIAID) [E] <paula.bryant@nih.gov>
Cc: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>; Daucher, Marybeth (NIH/NIAID) [E] <mdaucher@niaid.nih.gov>; Miers, Sarah (NIH/NIAID) [E] <smiers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Schmidt, Beth (NIH/NIAID) [E] <bschmidt@niaid.nih.gov>
Subject: ACTION REQUIRED: FOIA Case #55344 (AMENDED) - Seeking Permission for CIT Search of emails

Please see the attached **amended** FOIA request from b6 US Right to Know) seeking records between named NIAID employees and WHO **concerning the origins of COVID-19 and/or SARS-CoV-2**. The

requester has amended her original request by listing search terms. We are seeking permission to have CIT run a search on your email for:

Communications between Joe Employee and the domain who.int containing the terms ("WHO-China Joint Mission" OR "Wuhan Institute of Virology" OR "WIV" OR "Wuhan NIH" OR "EcoHealth Alliance" OR "EHA" OR "Ecohealth" OR ("SARS-CoV-2" AND "animal origin") OR ("SARS-CoV-2" AND "animal source") OR ("COVID" AND "animal origin") OR ("COVID" AND "animal source") OR "OIE/FAO/WHO Origins group" OR "Independent Panel for Pandemic Preparedness and Response") AND ("Tedros Adhanom Ghebreyesus" OR "Soumya Swaminathan" OR "Vaseeharan Sathiyamoorthy" OR "Michael Ryan" OR "Mike Ryan" OR "Bruce Aylward" OR "Wannian Liang" OR "Xiaoping Dong" OR "George Gao" OR "Wang Linfa" OR "Ian Lipkin" OR "Dale Fisher" OR "Hitoshi Takahashi" OR "Maria van Kerkhove" OR "Bin Wang" OR "Yong Zhang" OR "Lei Zhou" OR "Kwok-Yung Yuen" OR "Jeremy Farrar" OR "Sophia Kabir")

The date range for the search is: September 1, 2019 – November 3, 2020

Please email me your approval for the search. NIH FOIA will process this request. If you would like, we can provide you with a copy of the results of the search of your email.

Thank you.

Marg
Margaret Moore
NIAID FOIA Office

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 11/17/2020 12:50:26 PM
To: Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; Smith, Steven T (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a2563e1fdfc43719928186e141f6dec-smithsteve]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Feldmann, Heinrich (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f4bacd16b7d4c22803a843ca5c33312-feldmannh]; Graham, Barney (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=171892ff532b4c208a546e6fc7e87b8a-bgraham]; Embry, Alan (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=882a18a10a134c49acac21cb83fd599d-embrya]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]; Bryant, Paula (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=49840b0edb284bd2a7c92c0f6268ee41-bryantpr]
CC: Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]; Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Daucher, Marybeth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4bafd57f651d449e9e7d972a3c46cb58-mdaucher]; Miers, Sarah (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=edb14b99d9ec49e695cd1ae80dd504d7-smiers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Schmidt, Beth (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c94cef3b3ed242eb98ba7a34ee9100ad-bschmidt]
Subject: ACTION REQUIRED: FOIA Case #55344 (AMENDED) - Seeking Permission for CIT Search of emails
Attachments: NIH FOIA #55344 11.16.20 .pdf

Please see the attached **amended** FOIA request from **b6** (US Right to Know) seeking records between named NIAID employees and WHO **concerning the origins of COVID-19 and/or SARS-CoV-2**. The requester has amended her original request by listing search terms. We are seeking permission to have CIT run a search on your email for:

Communications between Joe Employee and the domain who.int containing the terms ("WHO-China Joint Mission" OR "Wuhan Institute of Virology" OR "WIV" OR "Wuhan NIH" OR "EcoHealth Alliance" OR "EHA" OR "Ecohealth" OR ("SARS-CoV-2" AND "animal origin") OR ("SARS-CoV-2" AND "animal source") OR ("COVID" AND "animal origin") OR ("COVID" AND "animal source") OR "OIE/FAO/WHO Origins group" OR "Independent Panel for Pandemic Preparedness and Response") AND ("Tedros Adhanom Ghebreyesus" OR "Soumya Swaminathan" OR "Vaseeharan Sathiyamoorthy" OR "Michael Ryan" OR "Mike Ryan" OR "Bruce Aylward" OR "Wannian Liang" OR "Xiaoping Dong" OR "George Gao" OR "Wang Linfa" OR "Ian Lipkin" OR "Dale Fisher" OR "Hitoshi Takahashi" OR "Maria van Kerkhove" OR "Bin Wang" OR "Yong Zhang" OR "Lei Zhou" OR "Kwok-Yung Yuen" OR "Jeremy Farrar" OR "Sophia Kabir")

The date range for the search is: September 1, 2019 – November 3, 2020

Please email me your approval for the search. NIH FOIA will process this request. If you would like, we can provide you with a copy of the results of the search of your email.

Thank you.

Marg
Margaret Moore
NIAID FOIA Office

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 11/19/2020 8:59:28 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: Fwd: Voice Mail (57 seconds)
Attachments: audio.mp3

This is actually in part about the founder of nih, so we nih might want to have some input into it, maybe the nih history office if not niaid. May be worth discussing in od

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: THOMAS PORTER <+19176216916>
Date: November 19, 2020 at 15:43:27 EST
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: Voice Mail (57 seconds)
Reply-To: b6 <noreply@skype.voicemail.microsoft.com>

I talked her Morens. My name is Charlotte Porter. I'm a producer with Pbs's historical documentary series American Experience and I was calling because we are making a film based on David Randles book Last Black Death of the Golden Gate, and we wanted to ask you if you might be an advisor on that film. I'm sure you're very busy these days, but just wanted to check in to see if that was something you might be interested in. My phone number is b6 or you can reach me via email at Charlotte Porter. Sorry Charlotte underscore porter@wgbh.org. Thank you so much and I look forward to hearing from you, bye.

You received a voice mail from THOMAS PORTER

Thank you for using Transcription! If you don't see a transcript above, it's because the audio quality was not clear enough to transcribe.

Set Up Voice Mail

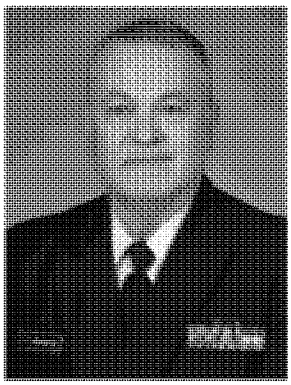
From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 12/10/2020 6:59:57 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; NIAID OCGR Leg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4a048ca325c54cdb832595236e710800-NIAID OCGR]; NIAID OD AM [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8b9ef66c6c774c23bbe00d03479ce7c3-NIAID OD AM]
Subject: RE: RT news (formerly Russia Today) is running with a story trying on Pfizer vaccine and Bells Palsy.

Although of course this is within the range of expected, and not significant, one has to at least think about immune stimulation from a vaccine causing release of latent HSV or VZV from 7th nerve ganglia. Some cases of Bell's palsy have been related to latent HSV…

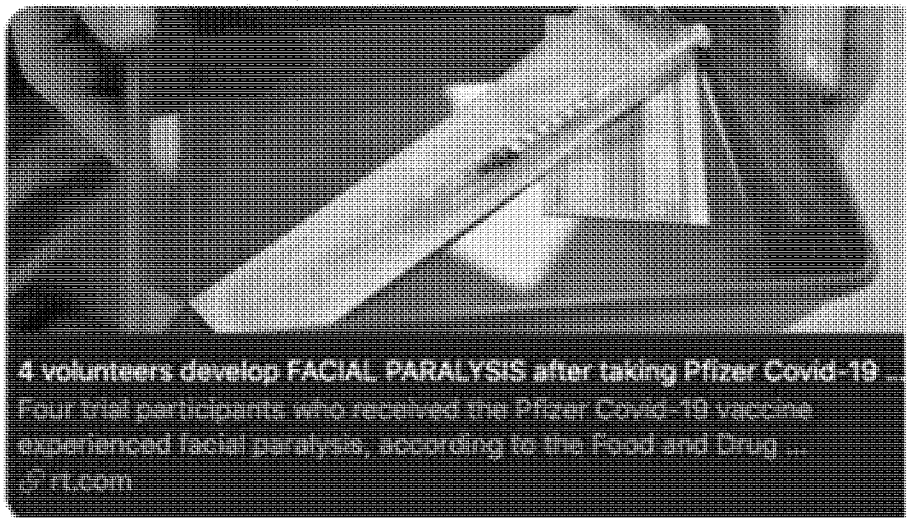
David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Thursday, December 10, 2020 1:44 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>; NIAID OCGR Leg <NIAIDOCGRLeg@mail.nih.gov>; NIAID OD AM <NIAIDODAM@niaid.nih.gov>
Subject: RT news (formerly Russia Today) is running with a story trying on Pfizer vaccine and Bells Palsy.



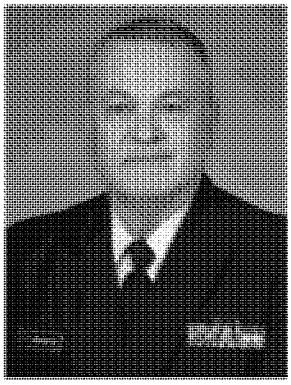
From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 2/12/2021 9:59:23 PM
To: Oplinger, Anne (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17c5b4d244b64f9ea2afb118821bd9e2-aoplinger]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: RE: (Quammen request)

Anne, any follow up on this? He still wants to talk to me..... TY,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Oplinger, Anne (NIH/NIAID) [E] <aoplinger@niaid.nih.gov>
Sent: Wednesday, January 13, 2021 11:32 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject: RE: (Quammen request)

Hi David,
If you would share David Quammen's email, I can seek clearance for you to do this (if you do indeed want to do it) and can also write it up in standard fashion for Dr. Fauci's consideration.

Anne A. Oplinger
aoplinger@niaid.nih.gov
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases, NIH
MEDIA request phone 301-402-1663

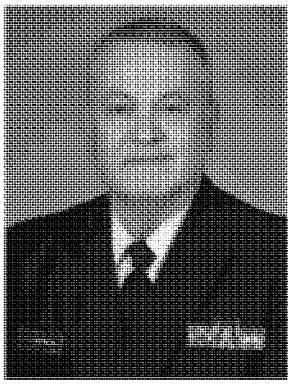
From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, January 13, 2021 10:14 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Cc: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Subject:

Hi, I got an email from author/science writer David Quamman. He's writing a "historical" book on COVID-19, in which he wants to interview 20 leaders about their personal thoughts, experiences, and so on, not all just science but things in our own lives and families/friends and communities. Tony and I are on the list, as well as a number of other folks most of whom we know. He wrote me first along with a few others, and plans to contact Tony soon. I assume this would need to be cleared for both of us?

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 1/18/2021 2:52:09 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
CC: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]
Subject: Fwd: Anthony Fauci

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: Martin Fletcher b6
Date: January 18, 2021 at 09:50:32 EST
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: Anthony Fauci

Dear Dr Morens,

This is a slightly cheeky approach, but Robert Costello at the National Museum of Natural History suggested you might be a good person to talk to and I hope you will not mind me contacting you.

I'm a British journalist. I have been commissioned to write a long article on Anthony Fauci and his work for the weekend magazine of the Daily Telegraph in London. I have an appointment to talk to him for 30 minutes next week, but before doing so I'm keen to speak to people who know him well and have worked closely with him during the present pandemic.

I was wondering whether you would be willing and able to spare me a few minutes? We could talk on-the-record on on background, whichever you prefer, and at any time that is convenient for you.

By way of background, I'm a former foreign correspondent and foreign editor of The London Times, a newspaper for which I worked for 30 years. I now write lengthy features on a freelance basis for various publications including The Times, Telegraph, Financial Times and New Statesman. My website address is below should you need to know more about me or my work.

Best wishes,

Martin

Martin Fletcher
b6 martinanthonyfletcher.com

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 1/21/2021 6:25:41 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: npr query

Hi guys, see the ask below. This is following up on something I did with Rob maybe a couple months ago….

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
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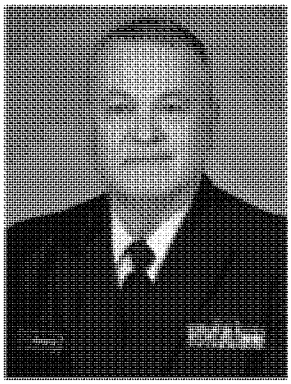

From: Rob Stein <RStein@npr.org>
Sent: Thursday, January 21, 2021 9:18 AM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: npr query

Hi,
Hope you've been well. I'm working on a story about the new variants. Any chance you might have some time to record an interview?
Rob

Rob Stein
Correspondent / Senior Editor
Science Desk
rstein@npr.org
b6
@robsteinnews
1111 North Capitol St. NE
Washington, DC 20002

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 2/21/2021 7:35:44 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: E484K mutation

Questions from Rob at NPR, who we have all done interviews with in the past. See below. I already told him off the record that there were too few data, so far, to predict anything.

He nevertheless asked me to seek clearance to speak with me….

TY

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Rob Stein <RStein@npr.org>
Sent: Saturday, February 20, 2021 9:26 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: E484K mutation

Hi,
I'm working on a story about the E484K mutation.
Wondering how much of a concern you think it might pose to the US?
Rob

[redacted] Rob Stein | *Correspondent/Senior Editor*| rstein@npr.org | b6 | @robsteinnews

From: Folkers, Greg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=614C792839A146B9A8F87A1378519DBD-GFOLKERS]
Sent: 2/24/2021 6:39:59 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Eisinger, Robert (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bad2a8c45514ee48985880de66674ad-eisinger]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Parrish, David (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Bartok, Lauren (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd8665ec7a7645deb5c1b0dafecbbd14-bartokle]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]
Subject: RE: PERMISSION for CIT Search: FOI Case #54052 b6

MM

Permission granted

TY

Greg

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Wednesday, February 24, 2021 1:36 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Eisinger, Robert (NIH/NIAID) [E] <robert.eisinger@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Parrish, David (NIH/NIAID) [C] <david.parrish@nih.gov>; Bartok, Lauren (NIH/NIAID) [E] <lauren.bartok@nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>
Subject: PERMISSION for CIT Search: FOI Case #54052 b6

b6 (Judicial Watch) submitted a FOIA request last April regarding internal communications about the Wuhan Institute of Virology (attached). The case was closed by NIH FOIA. The requester appealed and the case is now active again.

I am seeking your permission to ask CIT to search for all emails ((from (Anthony Fauci OR Hugh Auchincloss OR John J. McGowan OR H. Clifford Lane OR Robert W. Eisinger OR Gregory K. Folkers OR Gray Handley OR David M. Morens) to the domain niaid.nih.gov) OR ((to (Anthony Fauci OR Hugh Auchincloss OR John J. McGowan OR

H. Clifford Lane OR Robert W. Eisinger OR Gregory K. Folkers OR Gray Handley OR David M. Morens) from the domain niaid.nih.gov)

Containing the term "Wuhan Institute" OR WIV

For the time period 01/01/2013 To 04/22/2020

In your response to this email, please let me know if you would like a copy of the results of your search.

Thank you.
Marg

From: Auchincloss, Hugh (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9304C753BB9E422C977DDDAB54DA924B-AUCHINCLOSS]
Sent: 2/24/2021 6:50:24 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Eisinger, Robert (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bad2a8c45514ee48985880de66674ad-eisinger]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Parrish, David (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Bartok, Lauren (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd8665ec7a7645deb5c1b0dafecbbd14-bartokle]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]
Subject: RE: PERMISSION for CIT Search: FOI Case #54052 b6

perrmission granted

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Wednesday, February 24, 2021 1:36 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Eisinger, Robert (NIH/NIAID) [E] <robert.eisinger@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Parrish, David (NIH/NIAID) [C] <david.parrish@nih.gov>; Bartok, Lauren (NIH/NIAID) [E] <lauren.bartok@nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>
Subject: PERMISSION for CIT Search: FOI Case #54052 b6

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Containing the term "Wuhan Institute" OR WIV

For the time period 01/01/2013 To 04/22/2020

In your response to this email, please let me know if you would like a copy of the results of your search.

Thank you.
Marg

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 2/25/2021 3:14:36 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Eisinger, Robert (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bad2a8c45514ee48985880de66674ad-eisinger]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]
CC: Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Parrish, David (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Bartok, Lauren (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd8665ec7a7645deb5c1b0dafecbbd14-bartokle]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]
Subject: RE: PERMISSION for CIT Search: FOI Case #54052 **b6**

OK with me, thanks

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ **301 496 2263** (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Wednesday, February 24, 2021 1:36 PM
To: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Auchincloss, Hugh (NIH/NIAID) [E] <auchinclossh@niaid.nih.gov>; Lane, Cliff (NIH/NIAID) [E] <clane@niaid.nih.gov>; Eisinger, Robert (NIH/NIAID) [E] <robert.eisinger@nih.gov>; Handley, Gray (NIH/NIAID) [E] <handleygr@niaid.nih.gov>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Parrish, David (NIH/NIAID) [C] <david.parrish@nih.gov>; Bartok, Lauren (NIH/NIAID) [E] <lauren.bartok@nih.gov>; Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>
Subject: PERMISSION for CIT Search: FOI Case #54052 b6

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Containing the term "Wuhan Institute" OR WIV

For the time period 01/01/2013 To 04/22/2020

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Marg

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 2/24/2021 6:35:35 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Auchincloss, Hugh (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9304c753bb9e422c977dddab54da924b-auchincloss]; Lane, Cliff (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d7e368a3137473bbce161547a82f2de-clane]; Eisinger, Robert (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bad2a8c45514ee48985880de66674ad-eisinger]; Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
CC: Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]; Parrish, David (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e43d7d2d97b44074abbca871c2e0fdd2-parrishdb]; Bartok, Lauren (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd8665ec7a7645deb5c1b0dafecbbd14-bartokle]; Schofield, Robin (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ecfbb2ae42c41668cc1f07d73e3525c-schofieldrl]
Subject: PERMISSION for CIT Search: FOI Case #54052 b6
Attachments: PAL Request Form (1).pdf; RE: NIH FOIA - Assignment notification from NIH FOIA Public Portal-Tracking # 54052

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Containing the term "Wuhan Institute" OR WIV

For the time period 01/01/2013 To 04/22/2020

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Thank you.
Marg

Submit New Request

Requester Details

To modify request details please update your requester profile or contact the our office for assistance.

b6

Judicial Watch

425 Third Street, S.W.

b6

Washington, DC 20024

b6

Requester Default Category: Others

General Information

Institute or Center	NIAID
Institute or Center Name	NIAID
Request Type	FOIA
Requester Category	Educational/Non-Commercial/Scientific

Shipping Address

State (Other)

Request Information

Description	1. All internal NIAID communications regarding the Wuhan Institute of Virology in Wuhan, China. 2. All agreements, contracts and related documents between NIAID and the Wuhan Institute of Virology. 3. All records, including agreements, funds disbursement records and related NIAID communications regarding a reported $3.7 million in grants provided by NIH to the Wuhan Institute of Virology.
Date Range for Record Search:From	01/01/2013
Date Range for Record Search:To	04/22/2020
Consent	
Proof of Identity	

Fee Information

Willing to Pay All Fees	No
Willing Amount	$25
Fee Waiver Requested	Yes
Fee Waiver Request Reason	Judicial Watch, Inc. is a non-profit educational organization under Section 501(c)(3) of the Internal Revenue Code whose mission is to investigate, expose and educate the public about waste, fraud and abuse in the government.

Billing Address

State (Other)

Other Information

State (Other)

Expedite Information

Expedite Requested	No
Expedite Reason	

From: Hoffman, Hillary (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3869FE27631B4DCDB698193593F46102-HOFFMANHE]
Sent: 3/17/2021 3:07:59 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Origin of COVID-19 - Possible Interview

Hi Dr. Morens,

Thanks for sending. I'll write back to this reporter and ask her to send a fresh request to the press office once the WHO report is available – we can at that time better assess whether it makes sense for you or another NIAID expert to speak with the media about it.

Best,
Hillary

Hillary Hoffman, Ph.D., Writer/Editor
Office of Communications and Government Relations, NIAID, NIH
5601 Fishers Lane #6G38
Rockville, MD 20852
240-627-3695
hillary.hoffman@nih.gov

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, March 16, 2021 6:26 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: Fwd: Origin of COVID-19 - Possible Interview

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Mariana Lenharo <mariana.lenharo@columbia.edu>
> **Date:** March 16, 2021 at 18:21:42 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Origin of COVID-19 - Possible Interview**
>
> Dear Dr. Morens,
>
> I hope you are doing well. It's been a few months since we spoke for the article on the origins of SARS-CoV-2.
>
> Now, as the WHO mission to study the origins of the virus is about to publish their report, I'm planning to write a new article on the topic to analyze the mission's conclusions.

I was wondering if you would be available for a new interview on this topic once the full report is published (it should be either this week or the next one).

I'm very interested to get a sense of how the scientific community is evaluating the mission's effort into finding the origin of SARS-CoV-2.

Thank you so much,

Mariana Lenharo
Science and Health Journalist
T: b6
Email | Twitter | LinkedIn | Portfolio

On Wed, Oct 21, 2020 at 11:02 AM Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov> wrote:

Thanks, you did a great job!

David

David M. Morens, M.D.
CAPT, United States Public Health Service

Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Mariana Lenharo <mariana.lenharo@columbia.edu>
Sent: Wednesday, October 21, 2020 9:18 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Re: FW: approved RE: (Origin of COVID-19 article) FW: Possible interview - Dr. David M. Morens

Dear Dr. Morens,

The story for which I interviewed you was published this morning. Here is the link: https://elemental.medium.com/why-covid-19s-origin-story-is-still-a-mystery-46b0b336f122

Thank you again for the collaboration and I hope to be able to interview you again for future stories.

Kind regards,

Mariana

[redacted]

On Wed, Sep 30, 2020 at 1:07 PM Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov> wrote:

I will be at b6 my cell.... ty

David

David M. Morens, M.D.
CAPT, United States Public Health Service

Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
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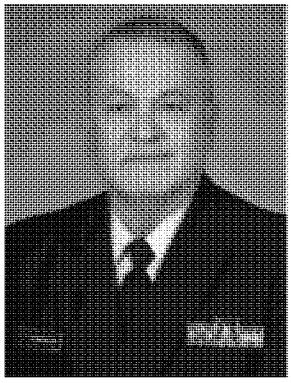

From: Mariana Lenharo <mariana.lenharo@columbia.edu>
Sent: Tuesday, September 29, 2020 2:44 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>

Subject: Re: FW: approved RE: (Origin of COVID-19 article) FW: Possible interview - Dr. David M. Morens

Thank you, Dr. Morens. How about we schedule the call for tomorrow, Wednesday, at 12:30?

Should I reach you at your office number (301 496 2263)?

Thank you very much!

Best,

Mariana

On Tue, Sep 29, 2020 at 3:04 PM Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov> wrote:

> Mariana, it looks like I have tomorrow from about 1215 to 130
>
> Late Thu might work after 4 or 5, not sure when earlier meeting will be done.
>
> Friday looks good except about 1 to about 4
>
> David
>
> **David M. Morens, M.D.**
> CAPT, United States Public Health Service

Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
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Building 31, Room 7A-03
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☎ 301 496 2263 (assistants: Kimberly Barasch; Whitney Robinson)
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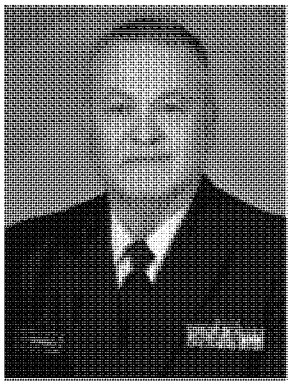

From: Mariana Lenharo <mariana.lenharo@columbia.edu>
Sent: Tuesday, September 29, 2020 12:37 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Re: FW: approved RE: (Origin of COVID-19 article) FW: Possible interview - Dr. David M. Morens

Dear Dr. Morens,

Thank you so much for getting back to me. I have a pretty open schedule in the next few days. These are the times I'll be available:

Wednesday: anytime after 8 am

Thursday: from 8 am to 9 am OR anytime after 1 pm

Friday: from 8 am to 3 pm

Please let me know if any of those work for you and how would you prefer to be contacted at that time.

Thank you.

Kind regards,

Mariana Lenharo

Science and Health Journalist

T. b6

Email | Twitter | LinkedIn | Portfolio

On Tue, Sep 29, 2020 at 1:03 PM Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov> wrote:

> Hi Mariana,
>
> Our media office indicated you would like to speak to me at some point this week. Let me know when. I am always busy and moving between various offices and meetings, bu5t I do have spaces of free time here and there. In general, mid afternoons, eg, from 130 until 330 or later, are not good....

TY

David

David M. Morens, M.D.
CAPT, United States Public Health Service

Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
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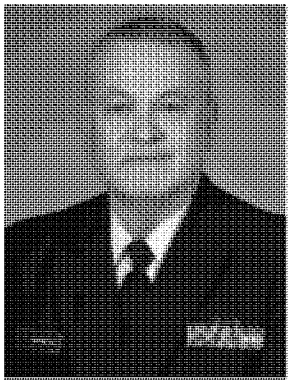

From: Mariana Lenharo <mariana.lenharo@columbia.edu>
Sent: Monday, September 28, 2020 2:50 PM

To: NIAID NEWS (NIH/NIAID) <NIAIDNEWS@niaid.nih.gov>
Subject: Possible interview - Dr. David M. Morens

Hello!

My name is Mariana Lenharo, I'm a science and health journalist and I'm working on a story about the work of scientists investigating the origin of the Covid-19 pandemic. This story will be published in Elemental (https://elemental.medium.com/), a Medium publication focused on science-backed health coverage.

As I was reading about this topic, I came across this very interesting article, "The Origin of COVID-19 and Why It Matters" and I'd love to interview one of the authors, Dr. David M. Morens. This would be a 20-30-minute interview by phone/skype/zoom preferably this week. Please let me know if you think this would be possible.

Thank you very much!

Kind regards,

Mariana Lenharo

Science and Health Journalist

T b6

Email | Twitter | LinkedIn | Portfolio

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 4/14/2021 4:18:31 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: interview request from Science News

Importance: High

David

David M. Morens, M.D.
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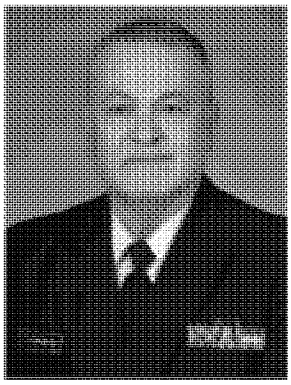


From: Aimee Cunningham <acunningham@sciencenews.org>
Sent: Wednesday, April 14, 2021 11:05 AM

To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Cc: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: interview request from Science News
Importance: High

Dr. Morens, We spoke in 2017 about zika for "Zika hasn't been in the news much, but that doesn't mean it's gone."

Now I'm working on a piece on the 1918 influenza and COVID-19 pandemics. It's part of a series of pieces on infectious diseases that I'm writing for Science News' "Century of Science," a project to celebrate our publication's centennial this year.

I've been reading your articles on the history of the 1918 pandemic. Would you be available to talk further about the 1918 flu and COVID-19? I'm interested in discussing what we knew/didn't know scientifically then and now, the legacy of the 1918 flu virus, what kind of lasting impact we might expect from SARS-CoV-2, the differences and similarities in the clinical picture from each virus, how past experiences could help (and what's still unknowable) when we think about preparing for future pandemics, and so forth. If that works for you, how is your schedule for a phone call (30 min, maybe 45 if that's doable for you) the remainder of this week and next?

Thank you,

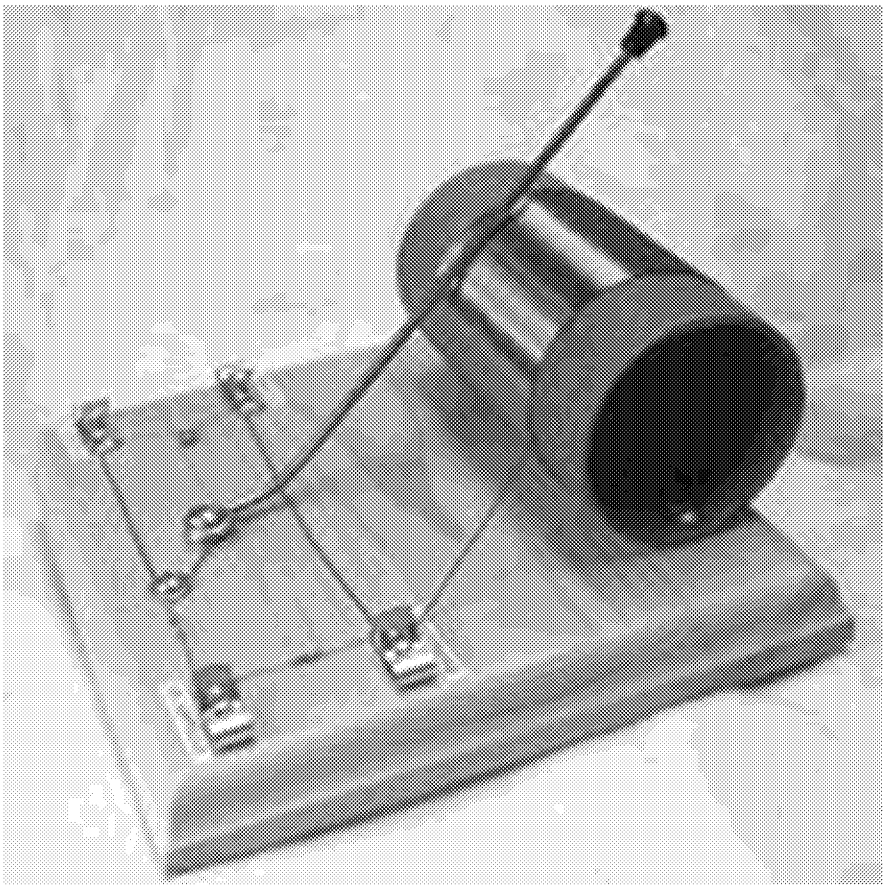
Aimee Cunningham
Biomedical Writer
Science News
www.sciencenews.org

Science News, published since 1921, is the magazine of the Society for Science

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 5/3/2021 6:58:31 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Hoffman, Hillary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3869fe27631b4dcdb698193593f46102-hoffmanhe]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: Twitter handles to be included in AJTMH announcement of our influenza flu paper

HAH: when I was a kid, they didn't even HAVE transistor radios!

But I did make a crystal radio with copper wire wrapped around a tube. It looked like a crummy version of the one below.



And we also had string-and-tin can telephones! Not kidding. I once made one with two Campbells soup cans, as in the picture below. You'd be surprised how well they work....

David

David M. Morens, M.D.
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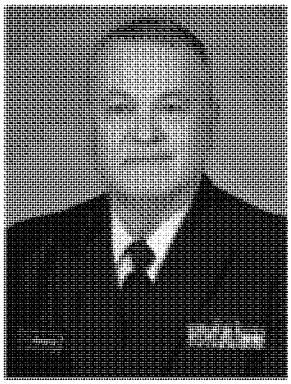

From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Monday, May 3, 2021 10:54 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Hoffman, Hillary (NIH/NIAID) [E] <hillary.hoffman@nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Twitter handles to be included in AJTMH announcement of our influenza flu paper

When David and I were kids this was the state of the art

No twitter handles

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Monday, May 3, 2021 10:43 AM
To: Hoffman, Hillary (NIH/NIAID) [E] <hillary.hoffman@nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Twitter handles to be included in AJTMH announcement of our influenza flu paper

I guess so.... Is that what is done nowadays? I definitely live in the dark ages, I guess.

David

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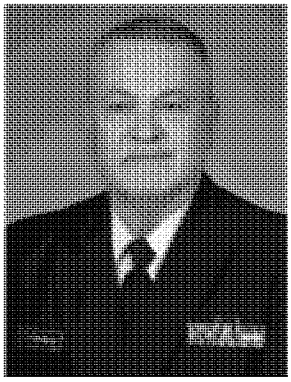
dm270q@nih.gov



From: Hoffman, Hillary (NIH/NIAID) [E] <hillary.hoffman@nih.gov>
Sent: Monday, May 3, 2021 10:04 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: RE: Twitter handles to be included in AJTMH announcement of our influenza flu paper

Hi David,

It would be fine to provide NIAID's institutional Twitter handle (@NIAIDNews), but not required. Sounds like the journal plans to tweet about the paper and tag the authors and/or their institutions.

Best,
Hillary

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Monday, May 3, 2021 9:54 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: Twitter handles to be included in AJTMH announcement of our influenza flu paper

Hi, see email below. I have no idea what this means but it sounds like ASTMH wants to "promote" a manuscript re CDC influenza prevention guidelines on which I am a co-author. They are asking for twitter accounts? I have one but have never once used it.... Should I ignore? TY

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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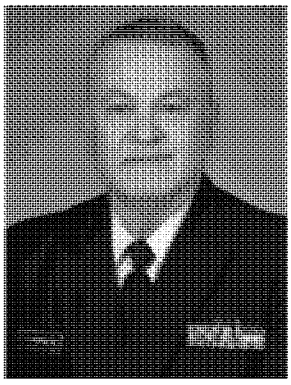

From: Vicari, Dr. Andrea (WDC) <vicarian@paho.org>
Sent: Monday, May 3, 2021 8:55 AM
To: Daniel.Olson@childrenscolorado.org; Andrus, Jon <JON.ANDRUS@CUANSCHUTZ.EDU>; Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Azziz-Baumgartner, Eduardo (CDC/DDID/NCIRD/ID) <eha9@CDC.GOV>; Stephen.berman@cuanschutz.edu
Subject: Twitter handles to be included in AJTMH announcement of our influenza flu paper

Good morning

AJTMH plans to promote our article on social media when it goes online (possibly this week).

Please let me know **today the Twitter handles** (whether personal or institutional) that you'd like them to tag.

Thank you,
Andrea

From: Vicari, Dr. Andrea (WDC)
Sent: Wednesday, April 14, 2021 9:49 AM
To: Daniel.Olson@childrenscolorado.org; Alba Vilajeliu [b6]; Andrus, Jon <JON.ANDRUS@CUANSCHUTZ.EDU>; Ropero, Mrs. Alba Maria (WDC) <roperoal@paho.org>; dmorens@niaid.nih.gov; [b6] eha9@cdc.gov; Stephen.berman@cuanschutz.edu
Subject: Manuscript from CU meeting on seasonal influenza accepted by the AJTMH

Dear colleagues

I'm happy to report that AJTMH accepted our manuscript.

As only minor revisions were requested, I have taken the liberty to make with the help of Dan and Jon. I confirm that the revised manuscript has now been submitted.

Thank you again for all your work and collaboration.

With best regards,
Andrea

From: Vicari, Dr. Andrea (WDC)
Sent: Tuesday, March 23, 2021 8:55 PM
To: Daniel.Olson@childrenscolorado.org; Alba Vilajeliu [b6]; Andrus, Jon <JON.ANDRUS@CUANSCHUTZ.EDU>; Ropero, Mrs. Alba Maria (WDC) <roperoal@paho.org>; dmorens@niaid.nih.gov; [b6] eha9@cdc.gov; Stephen.berman@cuanschutz.edu
Subject: Manuscript from CU meeting on seasonal influenza submitted to AJTMH

Dear colleagues

The manuscript previously submitted to AJPH was not accepted. It has now been submitted to the AJTMH (see attachment).

Kindly return to me the attached authorship agreement form filled out and signed.

Many thanks to David Olson who reformatted the manuscript for submission to AJTMH.

Thank you again for your collaboration.

With best regards,
Andrea

From: Vicari, Dr. Andrea (WDC)
Sent: Tuesday, December 29, 2020 3:50 PM
To: 'Daniel.Olson@childrenscolorado.org' <Daniel.Olson@childrenscolorado.org>; Alba Vilajeliu [b6]; 'Andrus, Jon' <JON.ANDRUS@CUANSCHUTZ.EDU>; Ropero, Mrs. Alba Maria (WDC) <roperoal@paho.org>; 'dmorens@niaid.nih.gov' <dmorens@niaid.nih.gov>; [b6] 'eha9@cdc.gov' <eha9@cdc.gov>; 'Stephen.berman@cuanschutz.edu' <Stephen.berman@cuanschutz.edu>
Subject: Manuscript from CU meeting on seasonal influenza submitted to AJPH

Dear all

Just to let you know that our paper has been submitted to the American Journal of Public Health (see attachment).

Many thanks to everyone for your contribution and suggestions/edits during the last 10 days.

Best wishes,
Andrea

From: Vicari, Dr. Andrea (WDC)
Sent: Saturday, December 19, 2020 3:14 PM
To: Daniel.Olson@childrenscolorado.org; Vilajeliu, Dra. Alba (WDC) <vilajelmar@paho.org>; Andrus, Jon <JON.ANDRUS@CUANSCHUTZ.EDU>; Ropero, Mrs. Alba Maria (WDC) <roperoal@paho.org>; dmorens@niaid.nih.gov; [b6] eha9@cdc.gov; Stephen.berman@cuanschutz.edu
Subject: Manuscript from CU meeting on seasonal influenza, October 26-30
Importance: High

Dear colleagues

On behalf of the team who revised the report draft from the CU expert consultation on seasonal influenza of end October, I would like to share the attached manuscript. It is intended for the American Journal of Public Health and we had to make difficult decisions on the content length and the number of authors and references to conform to the expected format (analytical essay). We would like to submit the manuscript before Christmas to assure it is published before the 2021 Southern hemisphere influenza season.

Consequently, I would like to ask kindly **by Tuesday, December 22, for your consent** to list you as author. If positive, please review carefully how you want to be listed (names and middle initial, degrees, and affiliations under "Authors", "About the authors" and "Acknowledgments") and communicate potential conflicts of interest.

If you had changes to the manuscript content, I would be most grateful that you make them directly in the text with track changes. Any suggestion to add substantial text should come with a clear indication on what to delete.

Apologies for requesting a rushed feedback.

Thank you for your continued support and best regards,
Andrea

Andrea Vicari
Advisor, Epidemic-prone Disease Epidemiology

Team lead, Influenza
Epidemiology & surveillance lead, PAHO COVID-19 IMS
Health Emergencies

PAHO/WHO | Tel +1 202-258-6985

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 5/10/2021 10:52:53 AM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; NIAID OCGR Leg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4a048ca325c54cdb832595236e710800-NIAID OCGR]; NIAID OD AM [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8b9ef66c6c774c23bbe00d03479ce7c3-NIAID OD AM]
Subject: RE: Fox: Sen. Johnson calls out Fauci after NIAID funded Wuhan lab research: Why were we 'cooperating with China?' https://fxn.ws/3ty7rjV

All this is what I was worried about when I spoke with Tony a couple weeks ago. It doesn't matter that NIAID didn't do anything wrong. This is about fact-twisting as a form of attack, and it may keep getting worse.

David

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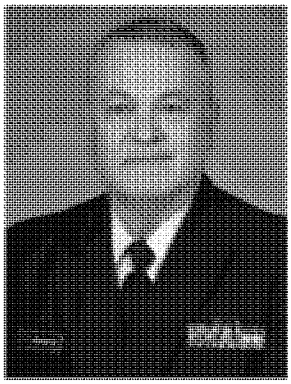

From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Sunday, May 9, 2021 12:39 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>; NIAID OCGR Leg <NIAIDOCGRLeg@mail.nih.gov>; NIAID OD AM <NIAIDODAM@niaid.nih.gov>
Subject: Fox: Sen. Johnson calls out Fauci after NIAID funded Wuhan lab research: Why were we 'cooperating with China?' https://fxn.ws/3ty7rjV

Published 15 mins ago

Sen. Johnson calls out Fauci after NIAID funded Wuhan lab research: Why were we 'cooperating with China?'

Claims about gain-of-function research have been controversial

By Evie Fordham | Fox News

Sen. Ron Johnson, R-Wisc., says the mainstream media is 'advocating for the extreme left wing of the American political spectrum,' which he argues is 'very dangerous' and 'really hurting this country.'

Sen. Ron Johnson, R-Wis., questioned why the National Institute of Allergy and Infectious Diseases headed by Dr. Anthony Fauci was funding certain research at China's Wuhan Institute of Virology.

"Anthony Fauci continued to apparently fund gain-of-function research and cooperate with the Wuhan lab," Johnson told "Sunday Morning Futures." "He had to know full well that the Wuhan lab, just like any organization in China, is connected to the Communist Party of China as well as the People's Liberation Army. So what were we doing cooperating with China?"

WUHAN 'LAB LEAK' CORONAVIRUS THEORY IN FOCUS AS REPUBLICANS DEMAND ANSWERS

"I agree with Sen. [Rand] Paul, these are some serious questions, and we need some answers but, again, I've been trying to get answers out of federal agencies for years and I'm not holding my breath," he continued.

Security personnel gather near the entrance of the Wuhan Institute of Virology during a visit by the World Health Organization team in Wuhan in China's Hubei province on Wednesday, Feb. 3, 2021. (AP Photo/Ng Han Guan) (AP)

The funding made its way to countries including China through U.S.-based EcoHealth Alliance, a group that says its purpose is to prevent pandemics.

PolitiFact has labeled claims that NIAID funding was tied to experiments that may have led to the coronavirus pandemic "false," adding that NIH and EcoHealth Alliance denied any funds went to gain-of-function research.

Calls for more information come after the White House said it believes that China has "not been transparent" in releasing its findings on the origins of COVID-19, as part of a report it wrote in collaboration with the World Health Organization.

The report dismissed claims that COVID-19 had escaped from a lab in Wuhan and instead called the theory of zoonotic transmission, or transfer of infection from animals to humans, "likely to very likely."

Rep. Mike Gallagher, R-Wis., has pressed Fauci for more information on the cause of the pandemic.

"Dr. Fauci was just on 'Meet the Press' and Chuck Todd didn't ask him a single question about the origin of COVID-19 and whether taxpayer dollars went to gain of function research in Wuhan. This is the most important question facing the world, yet few in the media are asking it," Gallagher wrote on Twitter on Sunday.

Fox News' Angelica Stabile and Brooke Singman and the Associated Press contributed to this report.

From: Oplinger, Anne (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=17C5B4D244B64F9EA2AFB118821BD9E2-AOPLINGER]
Sent: 6/4/2021 2:32:29 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: RE: waning immunity

I can see why Rob Stein would want to get you on tape—I think your answers are great. If you do want to talk to Rob, I can reach out to him to seek deadline, etc and to engage with the reporter in our standard way. Then, I'll seek clearance. Do you want to talk to him on the record, David?

Anne A. Oplinger
aoplinger@niaid.nih.gov
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases, NIH
MEDIA request phone 301-402-1663

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Friday, June 4, 2021 10:27 AM
To: NIAID COGCORE <COGCORE@mail.nih.gov>
Subject: FW: waning immunity

Hi all, Rob asks to speak with me yet again on the issue of waning vaccine-induced COVID immunity, see his email below. I normally talk with him off the record to get him up to speed, but occasionally he wants to go on the record....

TY,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Rob Stein <RStein@npr.org>
Sent: Thursday, June 3, 2021 9:17 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: Re: waning immunity

Thanks! Any chance we could record an interview about this?

Rob Stein | *Correspondent/Senior Editor*| rstein@npr.org | b6 | @robsteinnews

On Jun 3, 2021, at 3:55 PM, Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov> wrote:

Rob, well it is complicated, but the easiest thing to say is that we are pretty sure we're OK for now, but if immunity fades we'll know when we know. There are so many variables going into this that we don't know or can't control, or both. Among many others:

Immunity is not an all or none thing. Vaccinating a hundred people is like giving a hundred kids swimming lessons, some will instantly excel, others will struggle, some will never learn and everything in between. For those who do learn, some will forget quickly, others never, and others in between

Duration of immunity and protection, as well as robustness of protection, have huge inter-individual variation, and the bases of protection vary as well, e.g., IgA dominant, IgG dominant, T cell dominant, etc.

Immune protection is likely to be highly age dependent, such that healthy young adults may prove to be better protected than older folks.

Some countries have 3 or more different vaccines and what is true for one vaccine may not be true for another.

Many vaccinated people had been infected before vaccination, and others will be infected silently after vaccination, so we almost never know how many times someone's been vaccinated: 2 vaccinations, 2 vax plus a natural infection, and so on.

There are already many variants and to the extent that vaccines don't perfectly match some variants, even if they initially protect against them, the chances for breakthroughs may be different.

So far, some of the variants seem to be harder to neutralize in vitro with post vaccination serums, suggesting the possibility of neut escape and loss of protection in real life, but so far this hasn't been seen or documented in terms of loss of protection. Some/many people DO get reinfected naturally, so we assume that the problem will be at least as sever after a vaccine (v. natural infection). And since the vaccines are not perfect, it is hard to know whether breakthroughs are the normal kind, or are related to immune escape. To see this takes long, complicated expensive epidemiologic studies that are rarely undertaken unless there is an emergency reason.

Whether escape happens in the future is pure speculation. We can't assume that what is true for influenza is also true for covid. Flu always mutates to get around population immunity, which is why we need a new vaccine every 1-3 years. So far, covid has mutated to be more transmissible but not to escape population immunity. Can it, and will it do so in the future? No one has the slightest idea. But if that does happen it will probably not be detected instantly, because break throughs will be limited to certain types of folks and not others (see above). Also remember, that a lot of people (5-10% for the mRNA vaccines, much higher for the others) who get vaccinated never get protected in the first place, or have only limited protection, so we understand that the difference between number of people infected + number fully vaccinated is not the same, and probably very different.

Sorry to be Always saying we don't know, and it's complicated, but that's what it is. We just have to learn as we go along.

d

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
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National Institutes of Health
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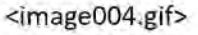
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov

From: Rob Stein <RStein@npr.org>
Sent: Thursday, June 3, 2021 3:22 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: waning immunity

Hi,
I'm wondering how we'll know whether immunity from vaccination has started to wane enough to require a booster. Any chance you happen to know if or how anyone is monitoring that?
Rob


Rob Stein | Correspondent / Senior Editor | rstein@npr.org **b6** @robsteinnews

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 6/4/2021 7:54:56 PM
To: Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Routh, Jennifer (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e3b5bba3619344e38037ca94a71473a8-routhj]; NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; NIAID FOG [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c7f1a141b6df464a9db84d6c41ed1e88-NIAID FOG]
CC: Fine, Amanda (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=61290b74aa9a44358954c45439ffdeb6-fineab]; Wojtowicz, Emma (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=45c6610aca6e44a08d497630425e5ecd-wojtowiczem]
Subject: RE: (ASF, GoF) RE: Request for comment - Fox News

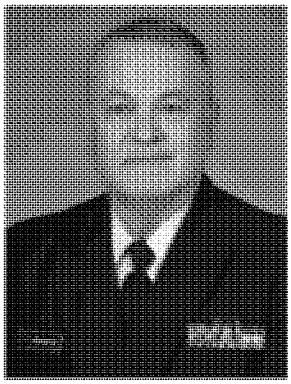
Very good point. "Reverse genetics" is one of those weasel terms that means anything and nothing, e.g., "high throughput", "wait – what?", and "Let's have a conversation" that go epidemic precisely because they don't mean anything, as in "er", ummm", "uh", and so on.

If someone needs to communicate about reverse genetics it needs to be a working molecular virologist who does it every day. We have some of those but it might not be worth their time.

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>
Sent: Friday, June 4, 2021 3:00 PM
To: Routh, Jennifer (NIH/NIAID) [E] <jennifer.routh@nih.gov>; NIAID COGCORE <COGCORE@mail.nih.gov>; NIAID FOG <fog@niaid.nih.gov>
Cc: Fine, Amanda (NIH/OD) [E] <amanda.fine@nih.gov>; Wojtowicz, Emma (NIH/OD) [E] <emma.wojtowicz@nih.gov>
Subject: RE: (ASF, GoF) RE: Request for comment - Fox News

I vote for #1

As u know reverse genetics is kind of a loosely defined term that refers to some molecular tools commonly used by virologists and vaccinologists
https://en.wikipedia.org/wiki/Reverse_genetics

anything we say will turn into a gotcha

From: Routh, Jennifer (NIH/NIAID) [E] <jennifer.routh@nih.gov>
Sent: Friday, June 4, 2021 2:45 PM
To: NIAID COGCORE <COGCORE@mail.nih.gov>; NIAID FOG <fog@niaid.nih.gov>
Cc: Fine, Amanda (NIH/OD) [E] <amanda.fine@nih.gov>; Wojtowicz, Emma (NIH/OD) [E] <emma.wojtowicz@nih.gov>
Subject: RE: (ASF, GoF) RE: Request for comment - Fox News

Adding COGCORE to this one. I am sure they will do a great job covering reverse genetics. Some possible options for NIAID:

1) We don't respond.
2) We respond saying no one is available from NIH to go on the show and we have nothing further to add.
3) We provide some sort of response that says it would not be reasonable to infer this, and no one is available from NIH to go on the show.

I don't think worth our time to explain reverse genetics to this show because the narrative will not change regardless of what we do here.

Jennifer Routh [E]
News and Science Writing Branch
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases (NIAID)
NIH/HHS
31 Center Drive Room 7A17C
Bethesda, MD 20892

Direct: (301) 496-8327
jennifer.routh@nih.gov

From: Medoff, Zev <Zev.Medoff@FOX.COM>
Sent: Thursday, June 3, 2021 2:50 PM
To: Wojtowicz, Emma (NIH/OD) [E] <emma.wojtowicz@nih.gov>; Fine, Amanda (NIH/OD) [E] <amanda.fine@nih.gov>; Myles, Renate (NIH/OD) [E] <mylesr@mail.nih.gov>
Subject: Request for comment - Fox News

Good afternoon,

I am reaching out on behalf of the Sunday night Fox News show "The Next Revolution with Steve Hilton." This weekend's program will include a segment on the origins of the COVID-19 pandemic and if it may have started as the result of a lab leak from a gain-of-function research project at the Wuhan Institute of Virology, with these new details:

- In 2012, Dr. Fauci said: "What historically investigators have done, is to actually create gain-of-function by making mutations, passage adaptation, or other newer genetic techniques, such as **reverse genetics**..."
- A 2014 project funded by the NIAID, that went to WIV through EcoHealth Alliance, reads: "Predictive models of host range (i.e. emergence potential) will be tested experimentally using **reverse genetics**..."
- A 2017 published study that lists the 2014 project ID in its funding section contains the sentence, "Using the **reverse genetics** technique we previously developed for WIV1, we constructed a group of infectious bacterial artificial chromosome (BAC) clones..."

I would like to request a comment on the 'reverse genetics' technique mentioned by Dr. Fauci as a gain-of-function research technique, and if it's reasonable to infer, based specifically off these comments, that the 2014 project and 2017 published study did indeed involve gain-of-function research. I don't mean to rehash our previous correspondence on this topic, but that was before these 2012 comments surfaced, which connect the 2014 project and 2017 study more closely to gain-of-function research.

Kindly respond with a comment by 3PM ET Saturday (6/5/2021) so that the show team can include it in the segment. Additionally, if Dr. Fauci, Dr. Collins, or an NIH representative would like to be a guest on Sunday's show (which will be live from 9PM ET – 10PM ET) to discuss the topic, please let me know as well and I can connect you with the show's booker.

Many thanks,
Zev

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 6/7/2021 6:54:03 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]
Subject: FW: ALWAYS SEARCHING
Attachments: Cover Art 1.jpg; Always Searching - Ep 00 - Trailer V1.mp3

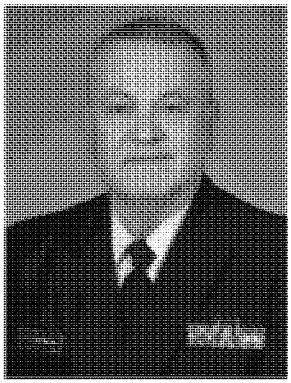
Not sure this needs clearance, but running by you anyway. I already spoke with Hugh about this and he thinks its fine.

Sara is an old friend of me and also Greg, former medical Director of NASA, and also served in both the Clinton and Bush WHs, also an endocrinologist, women's health expert, and author. She is starting up a podcast on health issues particularly aimed at women's health.....

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Saralyn Mark <smark@igiant.org>
Sent: Monday, June 7, 2021 1:57 PM
To: David Morens [b6] Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: ALWAYS SEARCHING

Dr. Morens (David)--I'm delighted to invite you to be my first guest on my podcast, "ALWAYS SEARCHING" with Dr. Saralyn Mark. Please find attached the teaser for this podcast. We will focus on cutting edge issues in healthcare as well as in medical innovation. I am ALWAYS SEARCHING for answers to complex questions to keep us healthy.

In your role as a physician/scientist and medical advisor at the NIH, you will provide a unique perspective on a variety of issues from Covid-19 to finding balance in a world filled with stress and uncertainty. Your professional and personal journey will enlighten our audience.

We will work around your busy schedule. I hope that you will join me on this new adventure to educate the public.

Best-Sara

Saralyn Mark, MD

President

iGIANT®

b6

www.igiant.org

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 6/8/2021 6:20:18 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Anthony Fauci b6 ; Taubenberger, Jeffery (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=acf689cc4f7b4e0b841a76d8fbb07f2b-taubenberge]
Subject: Fwd: Production Notice: New Embargo Date for AJPH-202135538 "A Centenary Tale of Two Pandemics: The 1918 Influenza Pandemic and COVID-19. Part II"

Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

From: Katie Poe <Katie.Poe@apha.org>
Date: June 8, 2021 at 14:11:26 EDT
To: "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
Subject: Production Notice: New Embargo Date for AJPH-202135538 "A Centenary Tale of Two Pandemics: The 1918 Influenza Pandemic and COVID-19. Part II"

Dear David M. Morens,

Thank you for your continued patience during this difficult period. Although we are still experiencing significant delays due to COVID-19, we're finally able to set June 10, 2021, at 4 pm EST as the new publish ahead of print date for your article. You may share this date and time as the embargo date with your communications and promotions teams, and with any journalists who wish to write a news story about your work. Once posted online, your article will appear in the First Look section of the journal website until the formal issue posts online on June 22.

Again, we apologize again for the delay, and we greatly appreciate your patience during this time.

Please let us know if you have any questions.

Katie Poe, MA
Journal Production Coordinator
American Public Health Association
b6
katie.poe@apha.org

From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 6/8/2021 8:34:51 PM
To: NIAID COGCORE [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b70a78249dbb49d28fa4c19f5de18c4d-NIAID COGCO]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Anthony Fauci b6 ; Taubenberger, Jeffery (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=acf689cc4f7b4e0b841a76d8fbb07f2b-taubenberge]
Subject: Fwd: Production Notice: New Embargo Date for AJPH-202135538 "A Centenary Tale of Two Pandemics: The 1918 Influenza Pandemic and COVID-19. Part II"

Colleagues, translation in plain English: this is part 2 of our 2 part article

Part 1 went up online a few weeks ago but not yet out in print

Part 2 will go up on 6/10
and then on 6/22 the print versions of both (I think)...

The whole ajph staff came down with covid- 19 as this paper set
was going to press and they are apologetically flustered, flummoxed, floored, flabbergasted, and conceivably a few other F words, about it

But the papers look good and have already attracted a copycat paper (under review). Libby Higg's group has asked me to present the paper's ideas to their international group on 6/21

d
Sent from my iPhone
David M Morens
OD, NIAID, NIH

Begin forwarded message:

> **From:** Katie Poe <Katie.Poe@apha.org>
> **Date:** June 8, 2021 at 14:11:26 EDT
> **To:** "Morens, David (NIH/NIAID) [E]" <dmorens@niaid.nih.gov>
> **Subject: Production Notice: New Embargo Date for AJPH-202135538 "A Centenary Tale of Two Pandemics: The 1918 Influenza Pandemic and COVID-19. Part II"**
>
> Dear David M. Morens,
>
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Katie Poe, MA
Journal Production Coordinator
American Public Health Association
b6
katie.poe@apha.org

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 6/28/2021 6:03:39 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
Subject: RE: ACTION REQUIRED: NIH FOIA from Congressman Steube

Thanks David.

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Monday, June 28, 2021 1:50 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: NIH FOIA from Congressman Steube

Marg, I don't seem to have any emails at all to either Peter or to Tony regarding the email in question. I don't even have a copy of the email to me. Usually I delete these kind of things every week or so because my inbox gets full. I do tend to save manuscripts, but nothing shows up related to this. Sorry.

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
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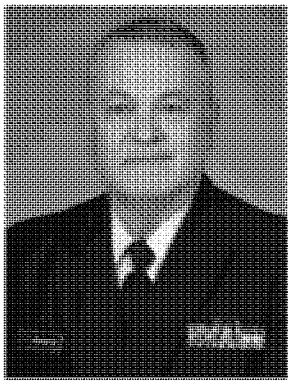


From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Monday, June 28, 2021 1:01 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Erbelding, Emily (NIH/NIAID) [E] <emily.erbelding@nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>
Cc: DMID FOIA Group <DMIDFOIA@mail.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>
Subject: ACTION REQUIRED: NIH FOIA from Congressman Steube

Hello All - NIH FOIA received a request from Congressman Steube (last attachment). Please see Items 2 & 3 of Mr. Steube's request. NIH FOIA is asking if David Morens, Emily Erbelding and/or Erik Stemmy replied directly to Peter Daszak in response to his April 18, 2020 email (redacted and unredacted copies attached) to ASF and David. If you could search your sent emails and forward any responsive email(s) and attachments you may have sent to Peter Daszak to me that would be appreciated. If you did not reply directly to Peter Daszak please let me know.

NIH FOIA needs your responses by cob on June 30, 2021.

Thank you.
Marg

From: Moore, Marg (NIH/NIAID) [E]
Sent: Friday, June 25, 2021 9:59 AM
To: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <GFOLKERS@niaid.nih.gov>
Cc: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>
Subject: ACTION REQUIRED: NIH FOIA from Congressman Steube

GF/Sharon: Please see the email below and attachments from Karen Lampe (NIH FOIA) and advise. NIH FOIA is proposing that these records be re-released with the b7 (investigation) redaction removed.

From: Lampe, Karen (NIH/OD) [E] <karen.lampe@nih.gov>
Sent: Friday, June 25, 2021 9:45 AM
To: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: NIH FOIA from Congressman Steube

Good Morning to you both. As you are probably aware, Congressman Steube has submitted the attached request for an unredacted version of the three page email between Dr. Fauci and Peter Daszak that was released to Buzzfeed last fall. At the time of that original release, the b7a redactions that we made to the document were warranted; however, to the best of our knowledge they are not now supportable. Gorka has looked at the record and would like to re-release without the b7 redactions in place, using the congressman's request to do so. We've received the ok from OD leadership to do this but are now seeking the ok from your IC. Once we have that, this will go to the OGC and AUSA on the Buzzfeed case for their decision on the matter because this directly affects their case. If they agree with this plan of

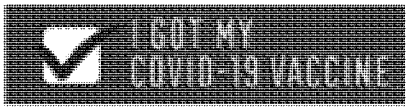
action, then it will go to HHS Oversight and the WH for their ok. HHS Oversight should be able to determine if this particular record has any bearing on any investigation that is currently open which would make the b7a redaction box still supportable.

If everyone agrees to release without redaction, the records will go first to Buzzfeed and ICAN (who've been receiving the Buzzfeed documents 15 days after Buzzfeed does), then Damien Paletta. We will answer Congressman Steube's request and post the entire Leopold collection in the FOIA reading room (as we're required to do by law once we've received 3 requests for the same set of documents).

Please let me know if you have any questions or concerns.

Thanks,

Karen E. R. Lampe, Ph.D.
Freedom of Information Office
National Institutes of Health
karen.lampe@nih.gov



From: Stemmy, Erik (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=585133D3FA194F06AA618678B2817C22-STEMMYEJ]
Sent: 6/28/2021 5:14:03 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Erbelding, Emily (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e976ebf7b14142fbb3c5c294efb334fe-erbeldingej]
CC: DMID FOIA Group [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b4bed6950c6f44e9b9bf6d29aef58de5-DMID FOIA G]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]
Subject: RE: ACTION REQUIRED: NIH FOIA from Congressman Steube

Hi Marg,
I searched and did not respond to the message referenced below. Let me know if you need anything else.

Erik

Erik J. Stemmy, Ph.D.
Program Officer
Respiratory Diseases Branch
Division of Microbiology and Infectious Diseases NIAID/NIH/HHS
Email: erik.stemmy@nih.gov
Pronouns: He/Him/His

Getting ready to publish? Share the good news with your program officer asap! NIAID may be able to help publicize your article. And, remember to list your NIAID grant or contract number in the publication.
****

From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Monday, June 28, 2021 1:01 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Erbelding, Emily (NIH/NIAID) [E] <emily.erbelding@nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>
Cc: DMID FOIA Group <DMIDFOIA@mail.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>
Subject: ACTION REQUIRED: NIH FOIA from Congressman Steube

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To: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <GFOLKERS@niaid.nih.gov>
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To: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: NIH FOIA from Congressman Steube

Good Morning to you both. As you are probably aware, Congressman Steube has submitted the attached request for an unredacted version of the three page email between Dr. Fauci and Peter Daszak that was released to Buzzfeed last fall. At the time of that original release, the b7a redactions that we made to the document were warranted; however, to the best of our knowledge they are not now supportable. Gorka has looked at the record and would like to re-release without the b7 redactions in place, using the congressman's request to do so. We've received the ok from OD leadership to do this but are now seeking the ok from your IC. Once we have that, this will go to the OGC and AUSA on the Buzzfeed case for their decision on the matter because this directly affects their case. If they agree with this plan of action, then it will go to HHS Oversight and the WH for their ok. HHS Oversight should be able to determine if this particular record has any bearing on any investigation that is currently open which would make the b7a redaction box still supportable.

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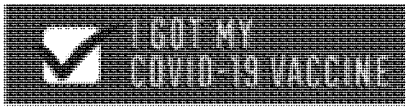
Please let me know if you have any questions or concerns.

Thanks,

Karen E. R. Lampe, Ph.D.
Freedom of Information Office
National Institutes of Health
karen.lampe@nih.gov



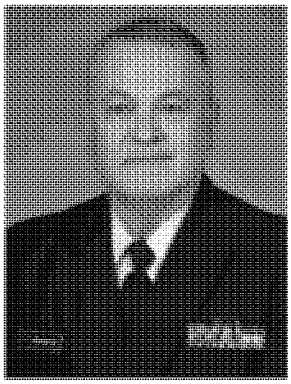
From: Morens, David (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12DE367CC65C42879EA45D128710A383-DMORENS]
Sent: 6/28/2021 5:43:52 PM
To: Moore, Marg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e52e0eb26d140ee829256b1c281f7aa-mamoore]; Erbelding, Emily (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e976ebf7b14142fbb3c5c294efb334fe-erbeldingej]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]
CC: DMID FOIA Group [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b4bed6950c6f44e9b9bf6d29aef58de5-DMID FOIA G]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]
Subject: RE: ACTION REQUIRED: NIH FOIA from Congressman Steube

Hi Marg, I had forgotten about this email but now that I see it, it does ring a bell. I doubt I have anything but will do a computer search now.

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health
Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520

☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov



From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Monday, June 28, 2021 1:01 PM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>; Erbelding, Emily (NIH/NIAID) [E] <emily.erbelding@nih.gov>; Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>
Cc: DMID FOIA Group <DMIDFOIA@mail.nih.gov>; Folkers, Greg (NIH/NIAID) [E] <gfolkers@niaid.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>
Subject: ACTION REQUIRED: NIH FOIA from Congressman Steube

Hello All - NIH FOIA received a request from Congressman Steube (last attachment). Please see Items 2 & 3 of Mr. Steube's request. NIH FOIA is asking if David Morens, Emily Erbelding and/or Erik Stemmy replied directly to Peter Daszak in response to his April 18, 2020 email (redacted and unredacted copies attached) to ASF and David. If you could search your sent emails and forward any responsive email(s) and attachments you may have sent to Peter Daszak to me that would be appreciated. If you did not reply directly to Peter Daszak please let me know.

NIH FOIA needs your responses by cob on June 30, 2021.

Thank you.
Marg

From: Moore, Marg (NIH/NIAID) [E]
Sent: Friday, June 25, 2021 9:59 AM
To: Gilles, Sharon (NIH/NIAID) [E] <sharon.gilles@nih.gov>; Folkers, Greg (NIH/NIAID) [E] <GFOLKERS@niaid.nih.gov>
Cc: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>
Subject: ACTION REQUIRED: NIH FOIA from Congressman Steube

GF/Sharon: Please see the email below and attachments from Karen Lampe (NIH FOIA) and advise. NIH FOIA is proposing that these records be re-released with the b7 (investigation) redaction removed.

From: Lampe, Karen (NIH/OD) [E] <karen.lampe@nih.gov>
Sent: Friday, June 25, 2021 9:45 AM
To: Schofield, Robin (NIH/NIAID) [E] <robin.schofield@nih.gov>; Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: NIH FOIA from Congressman Steube

Good Morning to you both. As you are probably aware, Congressman Steube has submitted the attached request for an unredacted version of the three page email between Dr. Fauci and Peter Daszak that was released to Buzzfeed last fall. At the time of that original release, the b7a redactions that we made to the document were warranted; however, to the best of our knowledge they are not now supportable. Gorka has looked at the record and would like to re-release without the b7 redactions in place, using the congressman's request to do so. We've received the ok from OD leadership to do this but are now seeking the ok from your IC. Once we have that, this will go to the OGC and AUSA on the Buzzfeed case for their decision on the matter because this directly affects their case. If they agree with this plan of

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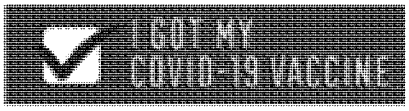
Please let me know if you have any questions or concerns.

Thanks,

Karen E. R. Lampe, Ph.D.
Freedom of Information Office
National Institutes of Health
karen.lampe@nih.gov



From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 6/28/2021 5:01:24 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]; Erbelding, Emily (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e976ebf7b14142fbb3c5c294efb334fe-erbeldingej]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]
CC: DMID FOIA Group [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b4bed6950c6f44e9b9bf6d29aef58de5-DMID FOIA G]; Folkers, Greg (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=614c792839a146b9a8f87a1378519dbd-gfolkers]; Gilles, Sharon (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=339880516bcd4cdbb7320d229399d09d-gillessm]
Subject: ACTION REQUIRED: NIH FOIA from Congressman Steube
Attachments: Pages from 8.31.20 production_Redacted.pdf; Pages from 8.31.20 production boxed.pdf; NIH FOIA 6_5_21-combined.pdf

Hello All - NIH FOIA received a request from Congressman Steube (last attachment). Please see Items 2 & 3 of Mr. Steube's request. NIH FOIA is asking if David Morens, Emily Erbelding and/or Erik Stemmy replied directly to Peter Daszak in response to his April 18, 2020 email (redacted and unredacted copies attached) to ASF and David. If you could search your sent emails and forward any responsive email(s) and attachments you may have sent to Peter Daszak to me that would be appreciated. If you did not reply directly to Peter Daszak please let me know.

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Freedom of Information Office
National Institutes of Health
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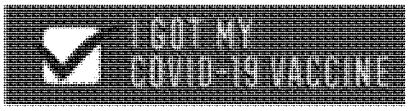


From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 19 Apr 2020 03:29:42 +0000
To: Peter Daszak
Subject: RE: Thank you for your public comments re COVID-19's origins

Peter:
Many thanks for your kind note.
Best regards,
Tony

From: Peter Daszak (b) (6)
Sent: Saturday, April 18, 2020 9:43 PM
To: Morens, David (NIH/NIAID) [E] (b) (6); Fauci, Anthony (NIH/NIAID) [E] (b) (6)>
Cc: Stemmy, Erik (NIH/NIAID) [E] (b) (6)>; Erbelding, Emily (NIH/NIAID) [E] (b) (6)>; Aleksei Chmura (b) (6)
Subject: Thank you for your public comments re COVID-19's origins
Importance: High

Tony (cc'ing David so that you might pass this on to Tony once he has a spare second)

As the PI of the R01 grant publicly targeted by Fox News reporters at the Presidential press briefing last night, I just wanted to say a personal thankyou on behalf of our staff and collaborators, for publicly standing up and stating that the scientific evidence supports a natural origin for COVID-19 from a bat-to-human spillover, not a lab release from the Wuhan Institute of Virology.

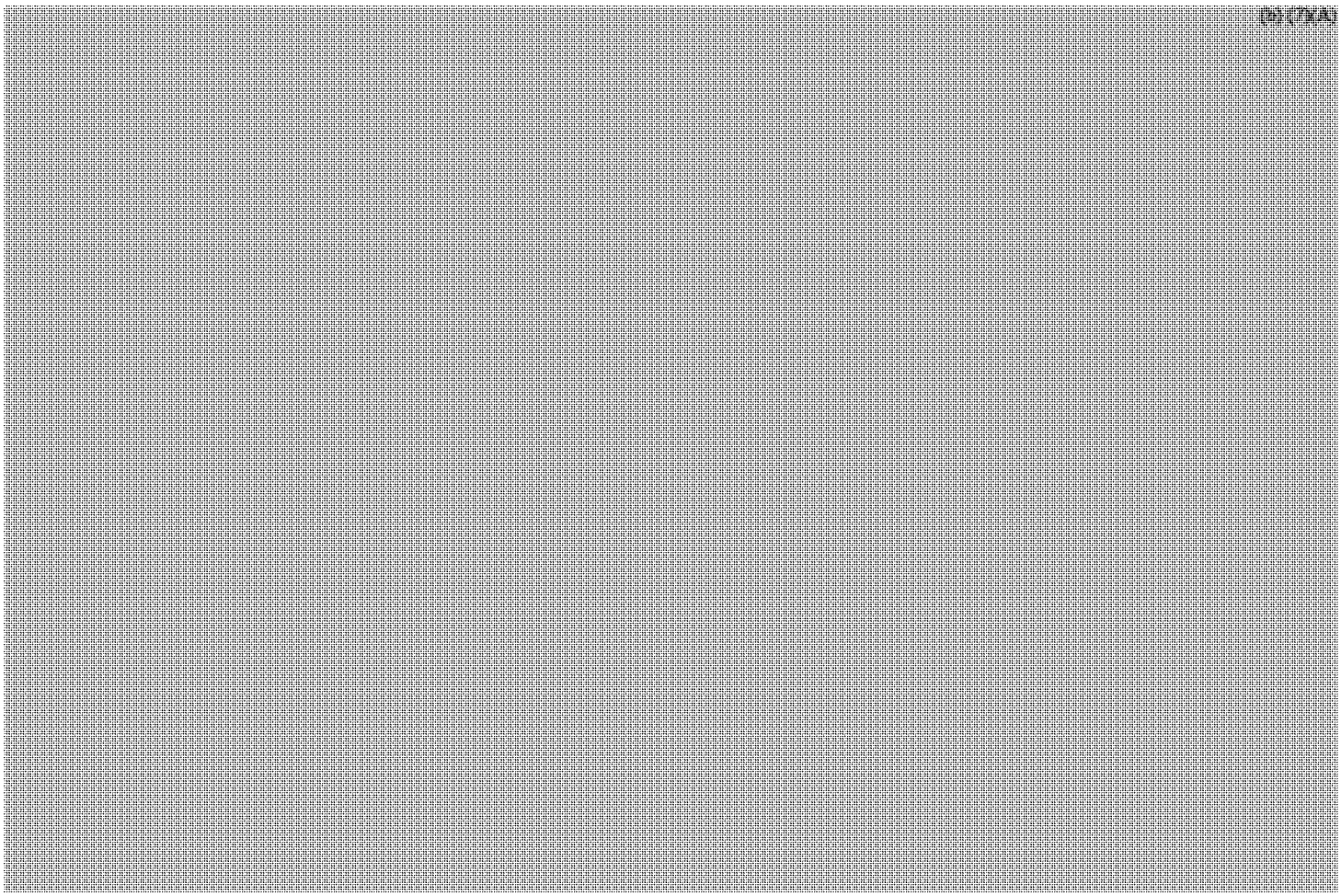
(b) (7)(A)

From my perspective, your comments are brave, and coming from your trusted voice, will help dispel the myths being spun around the virus' origins.

Once this pandemic's over I look forward thanking you in person and let you know how important your comments are to us all.

Cheers,

Peter



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Sent: Saturday, April 18, 2020 9:43 PM
To: Morens, David (NIH/NIAID) [E] <DMORENS@niaid.nih.gov>; Fauci, Anthony (NIH/NIAID) [E] <AFAUCI@niaid.nih.gov>
Cc: Stemmy, Erik (NIH/NIAID) [E] <erik.stemmy@nih.gov>; Erbelding, Emily (NIH/NIAID) [E] <emily.erbelding@nih.gov>; Aleksei Chmura <chmura@ecohealthalliance.org>
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It's been a very hard few months as these conspiracy theorists have gradually become politicized and hardened in their stance. Especially because the work we've been doing in collaboration with Chinese virologists has given us incredible insight into the risks that these viruses represent, so that we can directly help protect our nation from bat-origin coronaviruses. We're fighting to keep the communications open with our Chinese colleagues, so that we can better address future pandemics like COVID-19.

From my perspective, your comments are brave, and coming from your trusted voice, will help dispel the myths being spun around the virus' origins.

Once this pandemic's over I look forward thanking you in person and let you know how important your comments are to us all.

Cheers,

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Peter Daszak
President

EcoHealth Alliance
460 West 34th Street
New York, NY 10001
USA

Tel.: +1-212-380-4474
Website: www.ecohealthalliance.org
Twitter: @PeterDaszak

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation

W. GREGORY STEUBE
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JUDICIARY

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PUNTA GORDA OFFICE
226 TAYLOR ST. #230
PUNTA GORDA, FL 33950

Congress of the United States
House of Representatives
Washington, DC 20515

June 5, 2021

National Institute for Health
Freedom of Information Act Office
Building 31, Room 5B35
31 Center Drive, MSC 2107
Bethesda, MD 20892-2107

This is a request under the Freedom of Information Act (FOIA).

Copies of the documents identified and requested below have been previously released in response to a FOIA request by a member of the news media. In those previously released copies, email addresses were redacted under Exemption 6 and other information was redacted under Exemption 7(A). As a Member of Congress, pursuant to 5 U.S.C. § 552(d), I request a copy of these documents with all information unredacted except for information redacted under Exemption 6.

I request that a copy of the following documents be provided:

1. An email from Peter Daszak to Anthony Fauci and David Morens, with three other recipients carbon copied, sent on April 18, 2020 at 9:43 P.M. The subject of the email is "Thank you for your public comments re COVID-19's origins." A previously released, redacted version of this email is attached for identification purposes. I request a copy of this document with all information unredacted except for information redacted under Exemption 6.

2. Any replies to the email identified above, with all information unredacted except for information redacted under Exemption 6.

3. Any attachments that were sent with the email identified above or in reply to it, with all information unredacted except for information redacted under Exemption 6.

I request a waiver of all fees. Should there be associated fees, please contact my office. My staff can respond to any questions at 202-225-5792.

Sincerely,

W. Gregory Steube
Member of Congress

Enclosures

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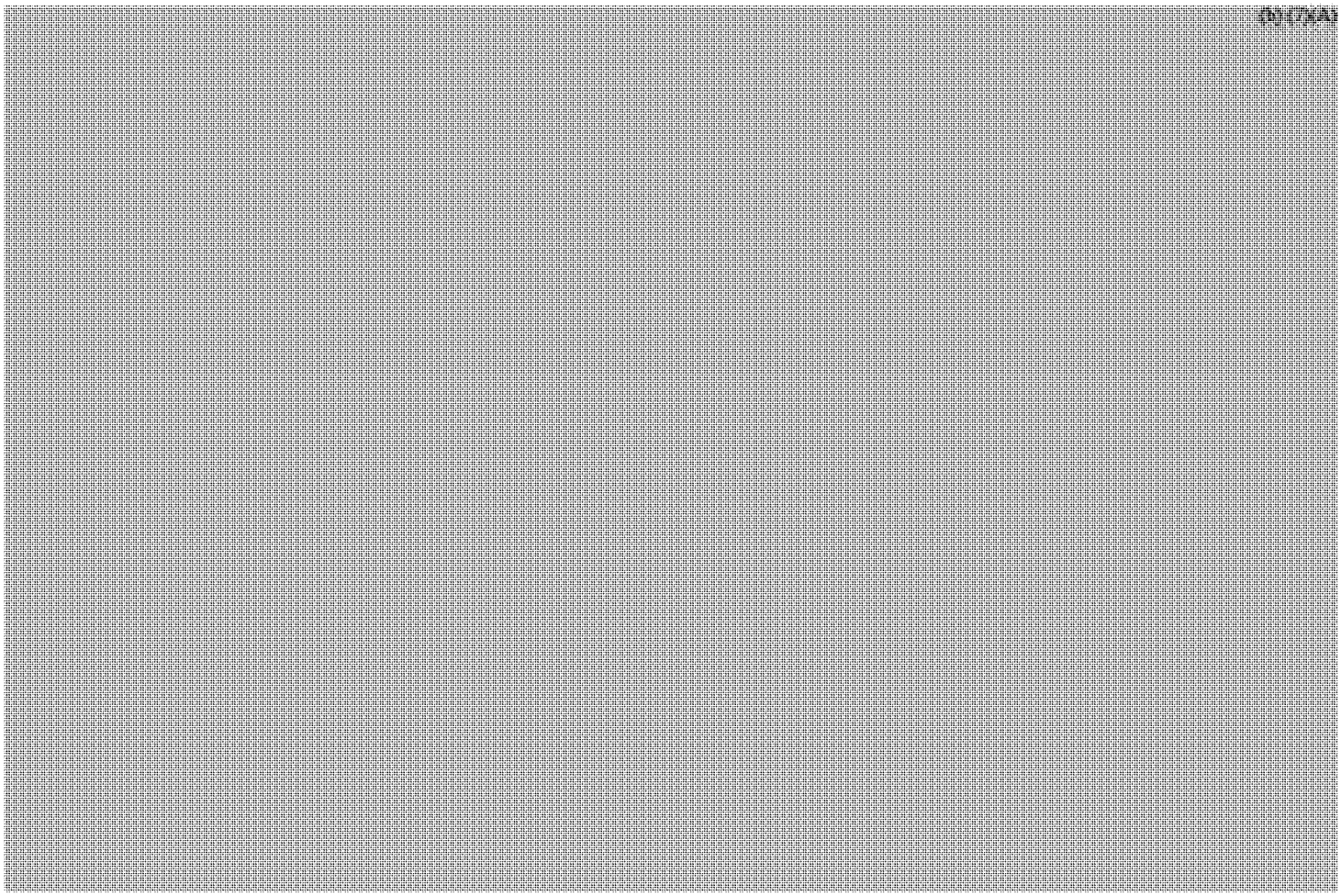

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Sent: 6/29/2021 2:15:31 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
Subject: RE: ACTION REQUIRED: Litigation #53738 b6

Thank you.

-----Original Message-----
From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Tuesday, June 29, 2021 10:10 AM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject: RE: ACTION REQUIRED: Litigation #53738 b6

Hi Marg, I just replied after going over the doc

david

David M. Morens, M.D.
CAPT, United States Public Health Service Senior Advisor to the Director Office of the Director National Institute of Allergy and Infectious Diseases National Institutes of Health Building 31, Room 7A-03
31 Center Drive, MSC 2520
Bethesda, MD 20892-2520
B 301 496 2263 (assistant: Whitney Robinson) W 301 496 4409
3 dm270q@nih.gov

-----Original Message-----
From: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Sent: Tuesday, June 29, 2021 9:32 AM
To: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Subject: ACTION REQUIRED: Litigation #53738 b6

You have been sent a secure message/file(s).

To access the secure message/file(s), click on the following link or copy and paste the link into the browser.

Sender : Moore, Marg (NIH/NIAID) [E]
Link : https://secureemail.nih.gov/bds/Login.do?id=A06777588890&p1=dej28upsbhiiigjjjkblhcehefj20

Sent To : Morens, David (NIH/NIAID) [E]
Cc : Folkers, Greg (NIH/NIAID) [E]; Gilles, Sharon (NIH/NIAID) [E]
Expires : 7/30/21, 12:00:00 AM EDT

NIH SecureEmail Service, brought to you by the NIH Central Email Service.
*Proven*Trusted*

From: Moore, Marg (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6E52E0EB26D140EE829256B1C281F7AA-MAMOORE]
Sent: 8/25/2021 11:45:02 PM
To: Morens, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12de367cc65c42879ea45d128710a383-dmorens]
Subject: RE:

Thank you for your humor and for always being so kind David.

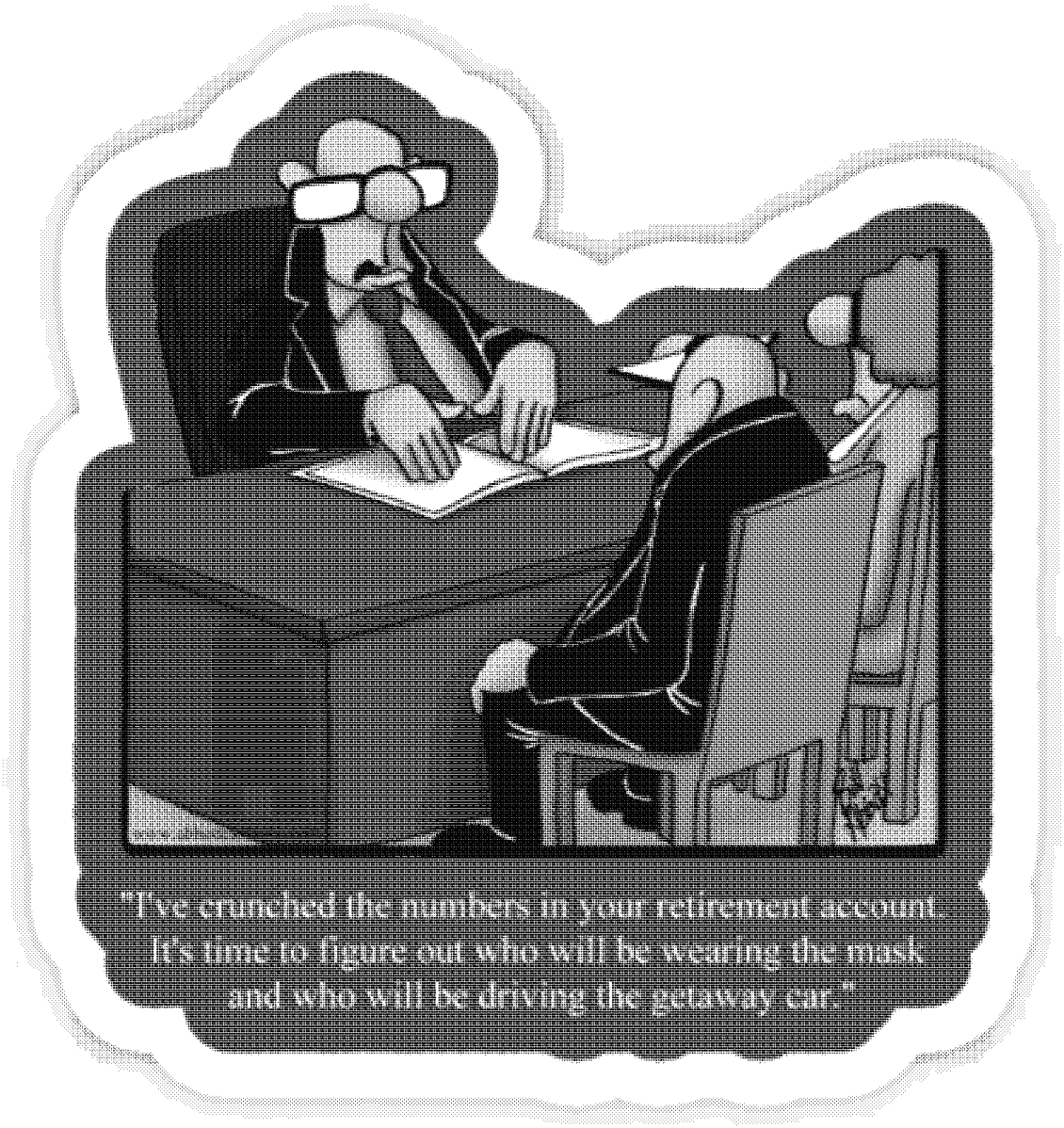
Take good care of yourself.
Xo
Marg

From: Morens, David (NIH/NIAID) [E] <dmorens@niaid.nih.gov>
Sent: Wednesday, August 25, 2021 3:50 PM
To: Moore, Marg (NIH/NIAID) [E] <mmoore@niaid.nih.gov>
Subject:

Hey Marg, I just heard you are going to be retiring and although I am bummed that our NIAID corporate IQ, as well as our corporate sense of humor, is headed from a big drop, still, I wish you well and hope thAt you will now PARTY HARD, right? Plus, if I ever need a professional comedienne, I hope I can still call on you.

Thans for trying to keep me sane all these years. It didn't exactly work, but I know you tried.

I thought I would pass on some advice I got from my retirement guy, see below, who says I need to work to age 92 to be able to pay off my ex, or else…..:



All the best of the best in your retirement, you are the absolute freaking greatest!!!!!!!!!!

Mahalo,

David

David M. Morens, M.D.
CAPT, United States Public Health Service
Senior Advisor to the Director
Office of the Director
National Institute of Allergy and Infectious Diseases
National Institutes of Health

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☎ 301 496 2263 (assistant: Whitney Robinson)
301 496 4409
dm270q@nih.gov