To: Gilman, James (NIH/CC/OD) [E];Collins, Francis (NIH/OD) [E];Gottesman, Michael (NIH/OD) [E]; Tabak, Lawrence (NIH/OD) [E]; Schwetz, Tara (NIH/OD) [E] Holland, Steven (NIH/NIAID) [E]; Johnson, Alfred (NIH/OD) [E]; McGowan, Colleen Cc: (NIH/OD/ORS) [E];Schmitt, James (NIH/OD/ORS) [E] Subject: RE: COVID-19 messaging (b) (5) From: Gilman, James (NIH/CC/OD) [E] (b) (6) Sent: Friday, February 14, 2020 11:32 PM To: Collins, Francis (NIH/OD) [E] (b) (6) >; Gottesman, Michael (NIH/OD) [E] (b) (6); Tabak, Lawrence (NIH/OD) [E] (b) (6); Schwetz, Tara (NIH/OD) [E] (b) (6)>; Fauci, Anthony (NIH/NIAID) [E] (b) (6)> Cc: Holland, Steven (NIH/NIAID) [E] (b) (6) >; Johnson, Alfred (NIH/OD) [E] (b) (b) ; McGowan, Colleen (NIH/OD/ORS) [E] (b) (6); Schmitt, James (NIH/OD/ORS) [E] Subject: Re: COVID-19 messaging Jim From: "Collins, Francis (NIH/OD) [E]" (b) (b) > Date: Friday, February 14, 2020 at 8:04:30 PM To: "Gottesman, Michael (NIH/OD) [E]" (b) (6) >, "Tabak, Lawrence (NIH/OD) [E]" (b) (6)>, "Schwetz, Tara (NIH/OD) [E]" (b) (6)>, "Fauci, Anthony (b) (6) > (NIH/NIAID) [E]" Cc: "Holland, Steven (NIH/NIAID) [E]" (b)(6)>, "Johnson, Alfred (NIH/OD) [E]" (b) (6)>, "McGowan, Colleen (NIH/OD/ORS) [E]" < "Schmitt, James (NIH/OD/ORS) [E]" (b) (6), "Gilman, James (NIH/CC/OD) [E]" (b) (6)> Subject: RE: COVID-19 messaging (6) (5) This seems reasonable. Looping in Jim Gilman. FC From: Gottesman, Michael (NIH/OD) [E] < (b) (6)> Sent: Friday, February 14, 2020 6:03 PM

Fauci, Anthony (NIH/NIAID) [E]

Sat, 15 Feb 2020 12:55:47 +0000

From:

Sent:

To: Tabak, Lawrence (NIH/OD) [E] (b) (6) >; Schwetz, Tara (NIH/OD) [E] (b) (6) ; Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Cc: Holland, Steven (NIH/NIAID) [E] (b) (6) >; Johnson, Alfred (NIH/OD) [E] (b) (6) ; McGowan, Colleen (NIH/OD/ORS) [E] < (b) (6) >; Schmitt, James (NIH/OD/ORS) [E] < (b) (6) >

Subject: COVID-19 messaging

We have had many requests for additional guidance concerning staff potentially exposed to COVID-19.

OMS has prepared the attached message which has been reviewed by Steve Holland and HR.

The intent is to send this from OMS to all hands.

Michael

Fauci, Anthony (NIH/NIAID) [E] From: Sent: Sat, 15 Feb 2020 02:23:37 +0000 To: Holland, Steven (NIH/NIAID) [E] Subject RE: COVID-19 messaging Attachments: COVID-smh - with Fauci edits.docx Steve: (b) (5) See my tracked edits. (h) (5) Thanks, Tony From: Holland, Steven (NIH/NIAID) [E] (b) (d) > Sent: Friday, February 14, 2020 9:06 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) > Subject: FW: COVID-19 messaging Tony. Could you please look at the attached and make any edits you think would help. (6)(5) Steve Director, Division of Intramural Research National Institute of Allergy and Infectious Diseases National Institutes of Health Bldg. 10/11N248 MSC 1960 Bethesda, MD 20892-1960 (b) (6) voice 301-480-4507 fax

(6) (6) voice
Assistant to SD: Beth Schmidt

(b) (6) email

(b) (6) email

Assistant lab: Eva Portillo

From: "Gottesman, Michael (NIH/OD) [E]" (0)(6)>

Date: Friday, February 14, 2020 at 6:12 PM

To: "Schmitt, James (NIH/OD/ORS) [E]" (b) (6)

Cc: "Moss, Bradley (NIH/OD/ORS) [E]" (b) (6), Steven Holland

(b) (6)

Subject: Re: COVID-19 messaging

(b) (5)
This can wait until next week.

Michael

From: "Schmitt, James (NIH/OD/ORS) [E]" (b) (6)

Date: Friday, February 14, 2020 at 6:07 PM

To: "Gottesman, Michael (NIH/OD) [E]" < (6) (6) >

Subject: FW: COVID-19 messaging

I meant to copy you on this Michael. Jim

From: Schmitt, James (NIH/OD/ORS) [E] Sent: Friday, February 14, 2020 6:07 PM

To: Moss, Bradley (NIH/OD/ORS) [E] (b) (6) >; Bailin, Heike

(b) (6)

Cc: Newcomer, Derek (NIH/OD/ORS) [E] (b) (6)

(b) (6) >; Wheeland, Daniel (NIH/OD/ORF) [E] (b) (6);

McGowan, Colleen (NIH/OD/ORS) [E] (0) (6) >; Tosten, Timothy

(NIH/OD/ORS) [E] < (b) (6)

Subject: FW: COVID-19 messaging

Hi Brad.

It sounds like Dr. Gottesman wants this sent from OMS to everyone.

I don't know how to do that. Can you help us with this and how soon can it be sent?

I'm heading out of town and won't return to the clinic until Tuesday. Dr. Bailin will be in charge of OMS in my absence.

Jim

James M. Schmitt, M.D., M.S. Medical Director Occupational Medical Service, DOHS National Institutes of Health 10 Center Drive Bethesda, MD 20892-1584

From: Gottesman, Michael (NIH/OD) [E] <	(b) (6) >
Sent: Friday, February 14, 2020 6:03 PM	
To: Tabak, Lawrence (NIH/OD) [E]	(b) (6)>; Schwetz, Tara (NIH/OD) [E]
(b) (6); Collins, Francis (NIH/OD) [E]	(b) (6) >; Fauci, Anthony
(NIH/NIAID) [E] (b) (6)>	400000000000000000000000000000000000000
Cc: Holland, Steven (NIH/NIAID) [E]	(b)(6)>; Johnson, Alfred (NIH/OD) [E]
(b)(6); McGowan, Colleen (NIH/O	D/ORS) [E] (b) (6) >;
Schmitt, James (NIH/OD/ORS) [E]	(b) (6)>
Subject: COVID-19 messaging	

We have had many requests for additional guidance concerning staff potentially exposed to COVID-19. OMS has prepared the attached message which has been reviewed by Steve Holland and HR.

The intent is to send this from OMS to all hands.

Michael

From:	Fauci, Anthon	y (NIH/NIAID)	[E]	
Sent:	Sat, 15 Feb 20	020 02:08:57 +0	0000	
To:		tina (NIH/NIAID		
Cc:	Conrad, Patrio	tia (NIH/NIAID)	[E];Barasch, Kimberly (NIH,	/NIAID) [C];Marston,
Hilary (NIH/NIAID)	E];Eisinger, Robert	(NIH/NIAID) [I	E];Lerner, Andrea (NIH/NIAI	D) [E]
Subject:	RE: Rapid Inst	rument-free N	AAT for COVID-19	
Attachments:	VisbyMedical	_TechWatch_F	eb2020_nCoV_NIH.pdf	
See attachment a	s per prior e-mail			
From: Fauci, Antho				
Sent: Friday, Februa		A Company of the Comp		
To: Gary K. Schooln		(b)(6)>		
Cc: Conrad, Patricia	3		(b) (6)>; Barasch, Kimber	
	The second secon	n, Hilary (NIH/I	CONTRACTOR OF THE PROPERTY OF	(b)(6)>; Eisinger,
Robert (NIH/NIAID)			erner, Andrea (NIH/NIAID) [	
	(b)(6); Cassetti, Cr		1201 200	(b) (6)>
Subject: RE: Rapid i	nstrument-free NA	AT for COVID-	19	
	l Assistant, Patty	The state of the s	uss this with you. Please led here) to set up a muti	
From: Gary K. School	olnik)	(b) (5) >		
Sent: Friday, Februa	ary 14, 2020 5:27 P	M		
To: Fauci, Anthony	(NIH/NIAID) [E] <		(b) (6) >	
Cc: Adam de la Zero			- 62	(b) (6)
Subject: Rapid instr	ument-free NAAT	for COVID-19		
Dear Tony,				
In addition to my	rolo ar a Stanford	Atadical Col	and professor I am the Ch	inf Madical Officer of
			ool professor, I am the Ch	
			gnostics company focuse	
그림에서 어디를 잃게 그렇게 얼마나 먹다.			a rapid (~25 min sample-t	
그 마음, 여러하는 경에서 나를 느리하게 되었다.		device that o	does not require an instru	
and then discarde	a or recycled.			(b) (4)
				Cont.
				-
the street and address on				The
device is stable at	room temperatu	re for up to t	wo years and thus it could	be deployed widely.

We are seriously considering using this platform to develop a rapid test to detect COVID-19. Proof of principles that have been achieved toward that end are our demonstration that the device can use two-step RT-PCR to detect influenza A and B in NP swab samples. The main features of the device are described in the brief accompanying PDF.

I write now because we are unsure, if we were to produce a COVID-19 device, how it would be deployed, by whom it would be used and who might be willing to purchase it. I would be very grateful if you might be able to speak briefly with me and my colleagues about these open questions. I am convinced this device can meet a major unmet need in clinical care and disease control for this epidemic and we, as a group, want to make a difference. Your advice would be invaluable as we weigh the risks and benefits of pivoting the company to this application.

With all best wishes; I hope all is well with you and your family. gary

Gary Schoolnik, M.D.
Professor of Medicine
Stanford Medical School
Attending Physician (Internal Medicine, Infectious Diseases)
Stanford University Hospital
Chief Medical officer
Visby Medical

From: (b) (6)

Sent: Fri. 14 Feb 2020 18:45:53 -0500

To: Julia Belluz Subject: Re: call

My pleasure!

On Feb 14, 2020, at 6:10 PM, Julia Belluz < julia.belluz@vox.com>wrote:

Thank you so much for making the time to comment at what I know is a crushingly busy time. As usual don't hesitate to ping if you have any further comments or questions! Julia

https://www.vox.com/2020/2/14/21134473/coronavirus-outbreak-singapore-ussymptoms-pandemic

Sent from my iPhone

On Feb 14, 2020, at 1:21 PM, Fauci, Anthony (NIH/NIAID) [E]

Julia:

I just called you now (7:20 AM Washington, DC time) and got mvoice mail in German that I could not understand. You can call me at 60.60

Thanks,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

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

Phone: (b) (6) FAX: (301) 496-4409

E-mail: (b) (6)

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Fauci, Anthony (NIH/NIAID) [E] From: Sent: Fri, 14 Feb 2020 21:09:40 +0000 To: Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Your Expertise requested/COVID-19 Forum

# OK. Let us discuss. As long as it is remote...

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (b) (6)

FAX: (301) 496-4409

(b) (6) E-mail:

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(b) (6) From: Conrad, Patricia (NIH/NIAID) [E]

Sent: Friday, February 14, 2020 3:45 PM

To: NIAID OD AM <NIAIDODAM@niaid.nih.gov>

Subject: FW: Your Expertise requested/COVID-19 Forum

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 (b) (6)

301-496-4409 fax

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From: Roache, Christina < (b) (6) >

Sent: Friday, February 14, 2020 3:38 PM

To: Fauci, Anthony (NIH/NIAID) [E] (5) (6)
Cc: Conrad, Patricia (NIH/NIAID) [E] (6) (6)

Subject: Your Expertise requested/COVID-19 Forum

Dear Dr. Fauci,

You have been kind enough to be a panelist on our <u>Forums at the Harvard T.H. Chan School of Public Health</u>, and I wanted to see if you were available to participate remotely in a Forum that we are organizing on **March 2** about **COVID-19**.

The Forum will live stream on the websites of The World and The Forum, as well as on Facebook and YouTube.

The World will send a journalist to moderate and co-promote.

The Forum is called "The Coronavirus Outbreak: Tracking COVID-19", presented jointly with The World from PRX & WGBH.

Should you agree to participate, we ask that you join us remotely from 11:40am-1pm ET on March 2; the actual live webcast will be noon-1pm ET.

We have been active is covering this outbreak. We did a highly successful Facebook Live Q&A last week and are doing another Q&A next week.

As a reminder, Forum webcasts are one-hour long and are panel discussions, typically with 3-4 panelists, plus a moderator. As noted, these discussions are live streamed from our Leadership Studio at our school in front of a studio audience (about 40 seats) and an online audience. Anyone with an Internet connection can watch the live webcasts; no registration or fee is required.

Previous speakers in The Forum series have included Gina McCarthy, former EPA
Administrator; Anthony Foxx, then U.S. Secretary of Transportation; Eric Holder, then U.S.
Attorney General; Kathleen Sebelius, then U.S. Secretary of Health and Human Services;
Gordon Brown, former UK Prime Minister; as well as numerous former governors and key
public health policymakers and officials from a range of public and private sector entities.

The Forum live webcasts are also streamed on The Forum website, where they are accompanied by a live chat and online commenting, and on Facebook and YouTube. These webcasts are later posted as on-demand videos to our site and to Harvard's YouTube and iTunesU channels. We also make available podcasts, transcripts and other materials. Collectively, the programs and complementary content have resulted in nearly five million viewer engagements so far, and our website has received visits from more than 200 countries and territories and every U.S. state.

Please share your thoughts when you are able.

Cheers,

Christina Roache
Associate Director, Production and Web, The Leadership Studio
Harvard T.H. Chan School of Public Health

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri, 14 Feb 2020 20:23:04 +0000

 To:
 Clayton, Janine (NIH/OD) [E]

 Subject:
 RE: Sex differences in COVID-19

(b) (5) Not much at this point. Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: FAX: (301) 496-4409 E-mail: (b) (6) The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives. From: Clayton, Janine (NIH/OD) [E] < (b) (6) > Sent: Friday, February 14, 2020 3:06 PM (6) (6) To: Fauci, Anthony (NIH/NIAID) [E] Subject: Sex differences in COVID-19 Hi Tony,

(b) (5)

Janine

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri. 14 Feb 2020 20:21:51 +0000

To: Richard Allen Johnson Subject: RE: 2020.02.14 Friday

Dick:

Thanks for the note. I certainly appreciate your concerns about WHO. Not much sleep for me lately. Just like internship.

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone:
(b) (6)
FAX: (301) 496-4409

E-mail: (b) (6)

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behalf of the NIAID by one of its representatives.

From: Richard Allen Johnson (b) (6)

Sent: Friday, February 14, 2020 3:18 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Richard Allen Johnson

(6) (6)

Subject: 2020.02.14 Friday

Hi, Tony,

I am very distressed by the Face of the WHO. Their public face, their news updates, are of the quality of those of a third world country. I only hope that they function better than their news updates suggest. They need a world class public relations firm.

I am deeply concerned re Covid-19 in India (with a population of 1500 million) and Africa (population 100 million). News reports do not mention anything of this pandemic waiting to happen.

Hope that you are well and getting a good night's rest.

Best,

Dick

From:	Fauci, Anthony (NIH/NIAID	) [F]
Sent:	Fri, 14 Feb 2020 18:27:24 +	0.TF.
To:	Cassetti, Cristina (NIH/NIAI	
Subject:	FW: inhaled buformin for c	
Attachments:		(b) (4)
Please handle.		
Anthony S. Fauci, MD Director		
National Institute of A Building 31, Room 7A		ses
31 Center Drive, MSC National Institutes of	Health	
Bethesda, MD 20892- Phone: (b) (6		
FAX: (301) 496-4409 E-mail:	(6) (6)	
information. It should have received this e- other storage devices accept liability for an	d not be used by anyone wi mail in error please inform to . The National Institute of	chments is confidential and may contain sensitive no is not the original intended recipient. If you the sender and delete it from your mailbox or any Allergy and Infectious Diseases (NIAID) shall not the sender's own and not expressly made on
From: Steven Lehrer	(b) (6) >	
Sent: Friday, February	14, 2020 1:17 PM	
To: Fauci, Anthony (NI	A TO SECURE OF THE PARTY OF THE	(b)(6)>; Erbelding, Emily (NIH/NIAID) [E]
	0 (6) >	
Subject: 0	(4) for coronavirus	
Dr. Fauci,		
		(b) (4

NIH-001887

(b) (4)

Steven Lehrer, MD

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri, 14 Feb 2020 17:39:33 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]; Billet, Courtney (NIH/NIAID) [E]; Stover, Kathy

(NIH/NIAID) [E]; Folkers, Greg (NIH/NIAID) [E]

Subject: RE: for review: proposed responses for Italian media request

Nice Job. I have made one minor edit in the first response. Otherwise, it is ready to go. Thanks.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone:
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From: Routh, Jennifer (NIH/NIAID) [E] (b) (6) >

Sent: Friday, February 14, 2020 12:32 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Billet, Courtney (NIH/NIAID) [E] (b) (6) ; Stover, Kathy (NIH/NIAID) [E] (b) (6) Folkers, Greg (NIH/NIAID) [E] (b) (6) >

Subject: for review: proposed responses for Italian media request

and the same of th

Dr. Fauci -

This is not urgent for today. A reporter from the Italian health website Pazienti, it reached out to you directly with questions about coronavirus vaccine development. I have drafted proposed responses for your review attached and pasted below. I will send the final responses to the reporter attributed to you. Coronavirus vaccine: when will it be available? What are the difficulties?

The National Institutes of Health is on track to test an experimental messenger RNA (mRNA) vaccine in a Phase 1 clinical trial this spring. This first phase of clinical testing will involve giving the vaccine to healthy adults in the United States to see if it is safe and if it can induce an immune response in recipients. It is important to realize that the development of investigational vaccines and the clinical testing to establish their safety and effectiveness takes time. A vaccine against the novel coronavirus will likely not be widely available for at least a year.

### Could the Coronavirus mutate, if a vaccine cannot be found in time?

We are learning more about the novel coronavirus every day. At this time, we are not aware of any mutations that might affect vaccine development. Based on our experience with other coronaviruses, including SARS-CoV and MERS-CoV, it is unlikely—but not impossible—that the novel coronavirus will mutate in a way that would have an impact on the development of medical countermeasures. We are continuing to monitor this.

## Will the vaccine be the solution against Coronavirus?

A safe and effective vaccine would be an extremely valuable tool to help stop the spread of infection and prevent future outbreaks. However, proven public health practices of identifying cases, isolating patients, and tracing contacts must continue alongside a vaccination program.

Thanks, Jen

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: (b) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri, 14 Feb 2020 17:23:43 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: (b) (4)

Please handle. Thanks.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
FAX: (301) 496-4409

E-mail: (b) (6)

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From: Hardham, John M (0)(0)>

Sent: Friday, February 14, 2020 9:15 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: (b) (4).

Tony:

It was good to see you again at the ASM Biothreats Conference. We had worked together on the Medical Countermeasure Initiative when I was the Medical Officer for the DOD Chem Bio Program (under ASD Andrew Weber) several years ago.

(b) (4)

If you or your staff have any interest, please feel free to reach out to me.

Hope you have a wonderful day!

John

John M. Hardham, Ph.D. | Research Director, Global Biologics Research Director, Zoells Center for Transboundary and Emerging Diseases

Zoetis 333 Portage Street, KZO-300-204.3, Kalamazoo, MI 49007

Office: (b) (6) | Mobile: (b) (6) | (b) (6)

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From:	Fauci, Anthony (NIH/NIAID) [E]	
Sent:	Fri, 14 Feb 2020 15:52:49 +0000	
To:	Strauss, Nicole	
Cc:	Mascola, John (NIH/VRC) [E]; Graham, Barr	ney (NIH/VRC) [E];Conrad, Patricia
(NIH/NIAID) [E]		
Subject:	RE:	(6) (4)
9655006		

# Nicole:

Thank you for your note and interest. I will copy on this e-mail Drs. John Mascola and Barney Graham of our Vaccine Research Center who are developing the vaccine with Moderna so that they can respond directly to you. Best regards,

Tony
Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
FAX: (301) 496-4409
E-mail: (b) (6)

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From: Strauss, Nicole	(b) (6)			
Sent: Friday, February 14, 2020 10:37 AM	( )			
To: Fauci, Anthony (NIH/NIAID) [E]	-	(b) (6)		
Cc: Weisser, Karen	(b) (6)			
Subject:			(b) (4)	(b) (4)

Dear Dr. Anthony Fauci,

(b) (4

Best regards, Nicole



# Nicole Strauss

Pipeline Development & Innovation Lead
T: | (b) (6) | M: (b) (6)
500 Arcola Road, Collegeville, PA 19426
Website | LinkedIn

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 14 Feb 2020 14:22:00 +0000

To: Greg Folkers ( (b) (6)

Subject: NEJM

Attachments: NEJM Editorial - Fauci et al -1st draft - 02-13-2020.docx, nejmoa2001316.pdf

## Here it is.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)

Phone: (b) ( FAX: (301) 496-4409

E-mail: (b) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri, 14 Feb 2020 03:20:06 +0000

 To:
 Embry, Alan (NIH/NIAID) [E]

 Co:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Institutional request for information

### Thanks, Alan.

Dear Dr. Fried,

Answers to your questions are below.

### 1. Is the CDC or NIH overseeing the distribution of the live virus in the U.S.?

There is an interagency working group convened by the Assistant Secretary for Preparedness and Response overseeing samples, and NIH and CDC are central to this. Virus is being deposited in BEI Resources (a NIAID contract resource) for characterization, growth and distribution. The WA isolate is available now and a Hong Kong isolate may be added soon.

# 2. Will you be the sole source of distribution in the U.S., or will institutions be permitted to obtain it directly from other sources?

Assuming appropriate permits are in place, there is no limitation on an institution obtaining samples directly from BEI or other sources. In a public health emergency, the U.S. government seeks to make isolates available under a Simple Letter Agreement that does not impose IP restrictions on academics or developers (see attached language).

3. If it can be obtained from other sources, what sources will be permitted? For example, the China or Hong Kong CDC or University of Hong Kong?

Assuming appropriate permits and safety controls, there is no limitation on from where samples can be obtained. However, there may be intellectual property restrictions from some sources and your technology transfer office would need to negotiate if requested directly.

4. If you are to be the sole source, when would you expect to have a process for considering requests?

BEI resources already has a process for sharing in place and is currently sharing the viral isolate obtained from the first Washington case. NIAID anticipates that other viral isolates will be obtained soon, and BEI is committed to making those available to the scientific community as soon as possible. We (NIAID/ USG) do not expect to be the only source, but will likely be one of the main sources for this research resource based on experience with Zika.

5. If someone wishes to travel to China to work on the live virus, are there any travel restrictions other than the self isolation/quarantine already in place (and of course subject to change over time)? For that, contacting CDC directly would make sense. If you would like us to inquire, we can. For high

consequence viruses, use of proper PPE has been a mitigating factor in quarantine consideration.

Please feel free to contact me if you have additional questions.

Thanks, Alan

Alan Embry, Ph.D.
Chief, Respiratory Diseases Branch
Division of Microbiology and Infectious Diseases, NIAID, NIH
5601 Fishers Lane, Room 8E31
Rockville, MD 20892
(b) (6)

 From: Fauci, Anthony (NIH/NIAID) [E]
 (b) (6)

 Sent: Thursday, February 13, 2020 6:35 PM
 To: Fried, Linda P.
 (b) (6) >; Redfield, Robert R. (CDC/OD)
 (b) (6) >

 Cc: Conrad, Patricia (NIH/NIAID) [E] 
 (b) (6) ; Goldman, Lee
 (b) (6) >; Katznelson, Ira I.
 (b) (6) >; Katznelson, Ira I.
 (b) (6) >; Embry, Alan

 (NIH/NIAID) [E]
 (b) (6) ; Eisinger, Robert (NIH/NIAID) [E]
 (b) (6) >
 Subject: RE: Institutional request for information

### Linda:

There is a "sample sharing" working group involving NIH and CDC. I have copied both Hilary Marston and Alan Embry from NIAID who are involved in this group and will ask them by this e-mail to respond to items #1 through 4. Regarding returning travelers from China (item #5) if in Wuhan (Hubei province) within previous 14 days, they submit to institutional quarantine; if in non-Hubei province part of China, then they face self-isolation.

Hope that this is helpful.

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (5)
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From: Fried, Linda P. (b) (6)

Sent: Thursday, February 13, 2020 12:45 PM

To: Redfield, Robert R. (CDC/OD) (b) (6); Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6); Goldman, Lee (b) (6) >; Booth, Jane (b) (6) >; Katznelson, Ira I.

Subject: Institutional request for information

Dear Drs. Redfield and Fauci,

I am writing on behalf of Columbia University, which has received a request from Dr. Ian Lipkin to transfer live novel coronavirus from Hong Kong to his BSL3 facility at the University. As we evaluate his request, we note that he has approval from a CDC official to import the virus (see attached). However, as we consider the risks and benefits of Dr. Lipkin's proposal, we ask the two of you:

- 1. Is the CDC or NIH averseeing the distribution of the live virus in the U.S.?
- 2. Will you be the sole source of distribution in the U.S., or will institutions be permitted to obtain it directly from other sources?
- 3. If it can be obtained from other sources, what sources will be permitted? For example, the China or Hong Kong CDC or University of Hong Kong?
- 4. If you are to be the sole source, when would you expect to have a process for considering requests?
- 5. If someone wishes to travel to China to work on the live virus, are there any travel restrictions other than the self isolation/quarantine already in place (and of course subject to change over time)?

Thank you very much for your help with these important questions as we all try to do our best to contribute solutions to this health crisis.

With best regards, Linda Linda P. Fried, M.D., M.P.H.

Dean and DeLamar Professor of Public Health

Professor of Epidemiology

Mailman School of Public Health

Professor of Medicine, Vagelos College of Physicians and Surgeons

Senior Vice President, Columbia University Irving Medical Center

Columbia University

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri. 14 Feb 2020 03:00:23 +0000

To: Mansoura, Monique K.

Cc: Conrad, Patricia (NIH/NIAID) [E];Andrew W Lo;Cassetti, Cristina (NIH/NIAID) [E]

Subject: RE: A proposed solution to finance COVID-19 vaccines - Introducing MIT's

Professor Andrew Lo

Thanks, Monique. Please have Andrew send the proposal to Cristina Cassetti (copied here) and she can then brief me on it.

Best, Tony

From: Mansoura, Monique K. (6) (6)>

Sent: Thursday, February 13, 2020 10:36 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6)(6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6); Andrew W Lo < (b) (6) >

Subject: A proposed solution to finance COVID-19 vaccines - Introducing MIT's Professor Andrew Lo

Dr. Fauci.

The nation again is fortunate to have your leadership for this latest public health emergency. Thank you for all you are doing. I know you are extraordinarily basy, so I'll be brief.

I want to introduce you to MIT Sloan Professor Andrew Lo, a world leader in healthcare finance who has focused much of his work recently on accelerating biomedical innovation via novel financing structures. I have worked with him to explore financial engineering approaches to establish more durable public-private partnerships for medical countermeasures. The persistent challenges you articulated at the Aspen Institute event this week resonate loudly with Andrew and me.

He has proposal for COVID-19 that he would like to present to you. I defer to him to provide further information.

Respectfully, Monique

### MONIQUE K. MANSOURA, Ph.D., M.B.A.

Executive Director, Global Health Security and Biotechnology

The MITRE Corporation

202 Burlington Road | Bedford, MA | 01730-1420

Office: (b) (6)
Mobile: (b) (6)
Email: (b) (6)

The MITRE Corporation is a not-for-profit organization that operates federally funded research and development centers for the United States government. From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 14 Feb 2020 02:56:17 +0000

To: Greg Folkers ( (b) (6) )

Subject: FW: FYI – images of SARS-CoV-2 now up

Let us make some power point slides from these. Thanks.

From: Billet, Courtney (NIH/NIAID) [E] (b) (6) >

Sent: Thursday, February 13, 2020 1:22 PM
To: NIAID OD AM < NIAIDODAM@niaid.nih.gov>
Subject: FYI -- images of SARS-CoV-2 now up

https://www.niaid.nih.gov/news-events/novel-coronavirus-sarscov2-images https://www.flickr.com/photos/niaid/albums/72157712914621487 From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Fri, 14 Feb 2020 02:42:53 +0000

To: Conrad, Patricia (NIH/NIAID) [E]

Cc: Greg Folkers (b) (6)

Subject: FW: PBS'S FIRING LINE REQUEST // DR. ANTHONY S. FAUCI

Patty: Let us discuss.

Greg: Are they a big deal?

From: Melanie Starling <melanie@thedocumentarygroup.com>

Sent: Thursday, February 13, 2020 6:39 PM

To: NIAID NEWS (NIH/NIAID) < NIAIDNEWS@niaid.nih.gov>; Fauci, Anthony (NIH/NIAID) [E]

(b) (6)

Subject: PBS'S FIRING LINE REQUEST // DR. ANTHONY S. FAUCI

Importance: High

Good Evening,

Please see below for Dr. Anthony S. Fauci for PBS'S FIRING LINE WITH MARGARET HOOVER.

Due to a last minute cancellation, we are crashing on a deadline and need to know if he is able to join us ASAP.

I look forward to hearing your thoughts and all best, Melanie

### Melanie Starling

Firing Line with Margaret Hoover

Cell: + (6) (6

Email: melanie@thedocumentarygroup.com



Good Evening,

This is Melanie Starling writing on behalf of PBS'S FIRING LINE WITH MARGARET HOOVER.

FIRING LINE is the rare program in the political landscape that seeks a rigorous and earnest exchange of ideas, with the luxury to let the conversation breathe. Margaret has brought back the spirit of this venerated show, which aired from 1966 to 1999, that is lacking in today's polarized cable news ecosystem – at a time when we need it more than ever. One guest. 30 minutes. Airing to a thoughtful and engaged PBS audience.

# We would be honored to have Dr. Anthony S. Fauci join Firing Line for an interview.

Dr. Fauci has dedicated his career to understanding, preventing, and protecting people across the globe from infectious diseases, which is why we would be so honored to share our stage with him at this time. As the coronavirus continues to spread, we are interested in better understanding the deadly virus the world is racing to contain. Equally, we are interested in highlighting any other public health issues or policies close to Dr. Fauci's heart. Most importantly, with our program, we have the luxury of time – where we can truly delve into these issues in a substantive, nuanced manner that is missing in much of today's 24-hour news cycle.

# THE DETAILS FOR TAPING

TAPE DATE: TARGETING FEBRUARY 19TH - EVENING TAPING IS PREFERED

TAPE TIME: 45 MINUTES

LOCATION: NYC (WNET STUDIOS NEAR LINCOLN CENTER)
TRAVEL, HAIR, & MAKE-UP IS PROVIDED ON REQUEST.

FIRING LINE is carried nationwide on PBS with 99% market pick-up, and is suggested programming for PBS's 8:30 PM ET on Friday nights with multiple airings through the week. On Twitter, we have a growing 2.9M+ monthly impressions. Equally, as you know, PBS remains a coveted home for intellectual, elevated programming – and stands out as a top 5 outlet to reach persuadable voters.

### HIGHLIGHT REEL

FIRING LINE is produced by the Oscar-nominated Tom Yellin at The Documentary Group.

Please reach out to me if there is any interest. We will bend over backwards to get it done.

Thank you in advance for your consideration, and please feel free to reach out to me 24/7 with questions or concerns.

All the best,

### Melanie

### Melanie Starling

Firing Line with Margaret Hoover

Cell: (b) (6

Email: melanie@thedocumentarygroup.com

### ABOUT FIRING LINE WITH MARGARET HOOVER

Firing Line with Margaret Hoover is a refreshing reprisal of William F. Buckley's iconic PBS program, a smart, civil and engaging contest of ideas. The series maintains the character of the original, providing a platform that is diligent in its commitment to civility and the rigorous exchange of opinion. Firing Line with Margaret Hoover comes at a time when meaningful discourse is needed more than ever. Interviews and debates will highlight leading lights from the left and right, complemented by archival footage from the original Firing Line to remind viewers of longstanding conservative and liberal arguments, where they've been disproved or reinforced over time. It is an opportunity to engage in the debate about the America that we want to create for the 21st century — and summon Americans of every political persuasion to a rigorous examination of the choices we must make together in the challenging years ahead. Showrunner is Emmy, Dupont and Murrow-winning producer Alyssa Litoff.

### ABOUT MARGARET HOOVER

Margaret Hoover is an American political commentator. In addition, she is also an author, feminist, and gay rights activist. Currently, she works as a political commentator for CNN.

### HIGHLIGHTS ON FIRING LINE WITH MARGARET HOOVER

Speaker Paul Ryan, Sen. Ben Sasse (R-NE), Gov. Chris Christie, Gov. Mitch Daniels, Gov. John Kasich, Gov. Scott Walker, Rep. Alexandria Ocasio-Cortez (D-NY), Rep. Eric Swalwell (D-CA), Stacey Abrams, Donna Brazile, Gretchen Carlson, Caitlyn Jenner, Christine Lagarde, Peter Navarro, Oliver North, Andrew McCabe, Tom Stever, H.R. McMaster, Rep. Tulsi Gabbard, Ann Coulter, Tony Blair, José Andrés, Rep. Liz Cheney (R-WY), Rep. Jim Clyburn (D-SC), Rep. Pramila Javapal (D-WA), Sen. Ted Cruz (R-TX), Gen. Jim Mattis, Condoleezza Rice, Andrew Yang, Michael Bloomberg, Michael Moore, Paul Krugman, Amb. Nikki Haley, Adam Schiff (D-CA)

### Melanie Starling

PBS's Firing Line with Margaret Hoover

Cell: + (b) (6)

Email: melanie@thedocumentarygroup.com



From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 14 Feb 2020 02:36:46+0000

To: ncalio@airlines.org

Cc: Conrad, Patricia (NIH/NIAID) [E];Redfield, Robert R. (CDC/OD);Cetron, Marty

(CDC/DDID/NCEZID/DGMQ)

Subject: FW: Coronavirus Task Force

Attachments: Fauci A4A Letter to Coronavirus Task Force .pdf

### Nick:

Many thanks for sending this. The CDC would be very interested in your willingness to move in the direction of having complete contact information on passengers available to them. I am copying CDC Director Bob Redfield and his CDC colleague Marty Cetron on this e-mail. I am sure that one of them will contact you about this issue.

Best regards,

Tony

From: Calio, Nicholas <ncalio@airlines.org> Sent: Thursday, February 13, 2020 8:18 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Coronavirus Task Force

Dear Dr. Fauci,

Please see the attached letter.

Thank you,

Nick Calio

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 14 Feb 2020 02:09:44 +0000

To:

Conrad, Patricia (NIH/NIAID) [E]

Subject:

RE: Invitation: 388393 Santos (Coronavirus Preparedness Workshop)

Tell them that I turned down the same invitation and he should turn it down also. It is not a major event

From: Conrad, Patricia (NIH/NIAID) [E] (8) (6)

Sent: Thursday, February 13, 2020 8:21 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6) > Cc: Folkers, Greg (NIH/NIAID) [E] (6) (6)

Subject: FW: Invitation: 388393 Santos (Coronavirus Preparedness Workshop)

Please see below. You were invited to this – it was discussed in our daily meeting and we decided to decline it for you. we did decline it. would you recommend the same as they are now asking Dr Collins.

Pls advise.

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

(6) (6)
301-496-4409 fax

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From: Harris, Kara (NIH/NIAID) [E] (b) (6)>

Sent: Wednesday, February 12, 2020 4:18 PM

To: Conrad, Patricia (NIH/NIAID) [E] (b) (6):

Cc: Billet, Courtney (NIH/NIAID) [E] (b) (6) ; Haskins, Melinda (NIH/NIAID) [E]

(b) (6)

Subject: Invitation: 388393 Santos (Coronavirus Preparedness Workshop)

Hi, Patty -

Exec Sec would like Dr. Fauci's opinion on whether Dr. Collins should accept the attached invitation to speak at an upcoming Coronavirus Preparedness Summit & Workshop being held this June in Washington, DC. The conference is being organized by Syllabusx, a group of "international specialists in public health and emergency planning events and disaster recovery conferences."

Given the nature of the conference topics, do you concur with recommending Dr. Collins decline the invitation and refer to CDC?

Thanks for your input. Kara From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 13 Feb 2020 23:22:27+0000

To: Alison Galvani

Cc: Conrad, Patricia (NIH/NIAID) [E]
Subject: RE: Lancet special issue proposal

### Alison:

Thanks for the note. I really appreciate your kind invitation, but unfortunately, I will have to decline. My plate is already overflowing and I just cannot take on any additional editorial responsibilities. In addition, I am swamped with coronavirus "stuff" that is not going to end soon. I hope that you understand. Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
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E-mail: (b) (6)

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From: Alison Galvani (b) (6)
Sent: Wednesday, February 12, 2020 2:28 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: Lancet special issue proposal

Hi Tony,

I hope you are well.

(6) (4)

Thank you so much for your consideration.

Warmest regards, Alison

-

Alison Galvani, PhD

Director, Yale Center for Infectious Disease Modeling and Analysis (CIDMA)
Burnett and Stender Families Professor of Epidemiology
Yale School of Public Health
Yale School of Medicine
New Haven, CT 06520

(b) (b)

http://cidma.yale.edu/

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 13 Feb 2020 23:10:07 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Personal connection

Please set this up (5 minutes) for Monday.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
FAX: (301) 496-4409

E-mail: (b) (6)

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From: Conrad, Patricia (NIH/NIAID) [E] (6) (6)

Sent: Wednesday, February 12, 2020 8:58 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: FW: Personal connection

This guy called last night and seemed to know you – let me know if and where you want me to direct him.

Or maybe do a call with you on a quieter day - Monday on Pres day holiday?

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
(b) (6)
301-496-4409 fax

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From: Banne	r, Jon {PEP}	(b) (6) >	
Sent: Tuesda	y, February 11, 2020 9:	14 PM	
To:	(b) (6) Conrad, Patricia (NIH/NIAID) [E]		(6) (6)
Subject: Pers	ional connection		

Dear Dr. Fauci,

Jon Banner here. You may remember me from my days at ABC News, where I was Executive Producer of World News Tonight with Peter Jennings, Charlie Gibson, and Diane Sawyer. I was also Executive Producer of This Week with George Stephanopoulos and early on I was George Strait's producer. Back then, you were the most engaging, eloquent guests on the subject of HIV/AIDS and other life and death issues of our time, and your input was of enormous value to our viewers and the general public.

Today, I am President of the PepsiCo Foundation and EVP of Global Communications for the company. I was hoping you could help us identify an expert to provide similar insight and analysis for our company as we deal with the impact of the Wuhan coronavirus. While we would of course welcome your counsel, I recognize that you have a full plate of critical responsibilities with NIH and don't want to take up too much of your time.

If you have a few minutes for a quick call, I'd love to get your take and catch up. If not, I would deeply appreciate it if you could connect me with another expert over email.

Thanks very much, and hope you are doing well!

Warm regards,

lon

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 13 Feb 2020 22:47:23 +0000

 To:
 Eisinger, Robert (NIH/NIAID) [E]

Subject: FW: Institutional request for information

Attachments: CII 2020 CDC import permit.pdf

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (6) (6)
FAX: (301) 496-4409

E-mail: (b) (6)

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From: Fried, Linda P. (b) (6)

Sent: Thursday, February 13, 2020 12:45 PM

To: Redfield, Robert R. (CDC/OD) (b) (6) Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6); Goldman, Lee (b) (6); Booth, Jane (b) (6); Katznelson, Ira I.

Subject: Institutional request for information

Dear Drs. Redfield and Fauci,

I am writing on behalf of Columbia University, which has received a request from Dr. Ian Lipkin to transfer live novel coronavirus from Hong Kong to his BSL3 facility at the University. As we evaluate his request, we note that he has approval from a CDC official to import the virus (see attached). However, as we consider the risks and benefits of Dr. Lipkin's proposal, we ask the two of you:

- Is the CDC or NIH overseeing the distribution of the live virus in the U.S.?
- 2. Will you be the sole source of distribution in the U.S., or will institutions be permitted to obtain it directly from other sources?
- 3. If it can be obtained from other sources, what sources will be permitted? For example, the China or Hong Kong CDC or University of Hong Kong?
- 4. If you are to be the sole source, when would you expect to have a process for considering requests?

5. If someone wishes to travel to China to work on the live virus, are there any travel restrictions other than the self isolation/quarantine already in place (and of course subject to change over time)?

Thank you very much for your help with these important questions as we all try to do our best to contribute solutions to this health crisis.

With best regards, Linda

Linda P. Fried, M.D., M.P.H.

Dean and DeLamar Professor of Public Health

Professor of Epidemiology

Mailman School of Public Health

Professor of Medicine, Vagelos College of Physicians and Surgeons

Senior Vice President, Columbia University Irving Medical Center

Columbia University

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 13 Feb 2020 22:44:12 +0000

To: Stoffels, Paul [JJCUS]

Cc: Riccobene, Kim [JJCUS]; Van Hoof, Johan [JRDBE]; Conrad, Patricia (NIH/NIAID) [E]; Barasch, Kimberly (NIH/NIAID) [C]; Eisinger, Robert (NIH/NIAID) [E]; Marston, Hilary (NIH/NIAID) [E]; Lerner, Andrea (NIH/NIAID) [E]; Mascola, John (NIH/VRC) [E]; Erbelding, Emily (NIH/NIAID) [E]

Subject: RE: COVID-19 vaccine development

#### Paul:

Thanks for the note. I will have Patty Conrad (copied here) try to work something out for Feb. 21<sup>st</sup>. My schedule is at the mercy of the White House and the Congress and so I cannot guarantee anything right now.

Best Regards,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (b) (6)

FAX: (301) 496-4409

E-mail: (b) (6)

France Ctoffole Book [HCHC]

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From Stones, radi (acos)	346.845		
Sent: Thursday, February 13, 2020 9:42 AN	Λ		
To: Fauci, Anthony (NIH/NIAID) [E]	-	(b) (6)>	
Cc: Riccobene, Kim [JJCUS]	(b) (6)	; Van Hoof, Johan [JRDBE]	(b) (6)>
Subject: COVID-19 vaccine development	3		
Dear Tony,			
Four weeks ago our team kicked of the exp	eriment	al work on the development of a CC	
NAME OF BRIDE OF STREET			(b) (4)

00(4)

If you have time for a meeting on the 21<sup>st</sup> in the afternoon or a call in the course of the next 10 days, I would much very appreciate.

Feel free to call me or have you assistant connect with my assistant Kim Riccobene to set up a call. I will be in Europe till the 19<sup>th</sup>.

Best regards,

Paul

Paul Stoffels, MD Vice Chairman & CSO Johnson & Johnson

> (b) (6) (Mobile Europe) (Office US)

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Thu, 13 Feb 2020 03:16:08 +0000

To: Barasch, Kimberly (NIH/NIAID) [C]

Subject: FW: Run of show - 2/13, 9-10am White House Roundtable on COVID-19

Make sure that this is in my folder.

From; Selgrade, Sara (NIH/NIAID) [E] (b) (6) >

Sent: Wednesday, February 12, 2020 3:16 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: NIAID OCGR Leg < NIAIDOCGR Leg@mail.nih.gov>; Conrad, Patricia (NIH/NIAID) [E] (b) (6) Barasch, Kimberly (NIH/NIAID) [C] (b) (6) Billet, Courtney (NIH/NIAID) [E] (b) (6)

Subject: Run of show - 2/13, 9-10am White House Roundtable on COVID-19

Dr. Fauci,

Please see below for information we have received from HHS thus far regarding tomorrow's briefing on coronavirus at the White House. Patty has submitted your information via the WAVES link for the event. We are checking with HHS ASL to make sure your clearance has been processed.

We will share any additional information as we receive it. Please let me know if you have any questions.

Thanks, Sara

White House Congressional Roundtable on Coronavirus

Date: Thursday, February 13 Time: 9:00 – 10:00 a.m. Location: Roosevelt Room

#### Run of show:

 Acting Chief of Staff Mulvaney will open the proceedings and briefly frame all that we are doing and why we have asked the Members to assemble (to gain their insight and to seek their wisdom).

- Anne Schuchat will give a brief overview of current status and material issues.
- Anthony Fauci will give a brief explanation of our understanding of the virus and development of countermeasures.
- Brig Gen. Paul Friedrichs of DoD will provide a brief status report on force protection.
- Acting Chief of Staff Mulvaney will open the floor for questions and moderate the proceedings - possible that White House legislative affairs will stand in here (Eric Ueland or Mike McKenna).

### Expected participants:

### Members (confirmed RSVPs thus far)

Senator James Risch

Leader McCarthy

Rep. Kay Granger

Rep. Greg Walden

Rep. Nita Lowey

### Briefers

DHS - Alex Zemek

CDC-Dr. Anne Schuchat

NIAID—Dr. Tony Fauci

ASPR—Dr. Bob Kadlec

FDA—Dr. Steve Hahn

DHS - Ken Cuccinelli

NSC - Anthony Riggiero

NSC - Matt Pottinger

State – Stephen Biegun (tentative)

DOD - Brig Gen. Paul Friedrichs

From: (b) (6)

Sent: Wed, 12 Feb 2020 11:02:30 -0500

To: John Lauerman Subject: Re: Interview

I tried calling but the call would not go through

On Feb 12, 2020, at 6:15 AM, John Lauerman (BLOOMBERG/ NEWSROOM:) <jlauerman@bloomberg.net>wrote:

From: afauci@nlaid.nlh.gov At: 02/07/20 15:51:39 To: John Lauerman (BLOOMBERG/ NEWSROOM: ) Subject: RE: Interview

> Sorry John. I am totally tied up right now and besides, I am completely hoarse and can barely speak. Let us try some other time.

Anthony S, Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (6)(6)

FAX: (301) 496-4409

E-mail: (b)(6)

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From: John Lauerman (BLOOMBERG/ NEWSROOM:)

<jlauerman@blcomberg.net>

Sent: Monday, February 3, 2020 8:18 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Interview

Hi Dr. Fauci: How are you? I'm writing to see whether we can talk again for a few minutes. We're working on a biggish piece about the larger bio-security issue worldwide and what the coronavirus outbreak tells us about it. What can we do about the weakest links in disease control in poorer nations in Africa, Asia and elsewhere? The WHO today brought up the importance of access to health care along with spending on public health, and clearly this is an issue in poor counties. Is it also important in infectious disease in the US and if so, is it adequately recognized? Companies and research centers have made huge strides in quick development of vaccines and drugs; what can take it to the next level? Is there anything that could be done to attract more companies to this field? What kind of new technologies can help us track new viruses in the community? I've been talking with people using handheld nanopore sequencers to track coronavirus and Ebola; what else is out there? Do we need to do a better job of tracking the movement of people and goods? Also glad to get any other observations. Please give me a call today or tomorrow morning at 100 or let me know when and at what number to call you. Thanks and regards, look forward to hearing from you, JL

John Lauerman, Bloomberg News 3 Queen Victoria Street, London, UK

tel. +44 (0) 2035 251028 cell |

(6) (6)

http://www.bloomberg.com

http://www.bloomberg.com/prognosis

From: (b) (6)

Sent: Wed, 12 Feb 2020 10:24:06 -0500

To: Daniel Lucey

Subject: Re: Update IDSA Science Speaks post today # 10: PPE mass production and

POlyclonal/mAbs Rx PReP and PEP

#### Thanks dan

On Feb 12, 2020, at 9:34 AM, Daniel Lucey

(b) (6) >wrote:

Bob K., Tony and Bob (Redfield),

Given the news of health care personnel in Wuhan and Hubei being infected, and acute shortage of PPE for COVID-19, I posted these Q&A s on the ID Society America "Science Speaks" website as the 10th in a series of my updates since January 6th.

The final Question asks and answers that mass production of COVID-19 PPE should occur now.

Dan

Hong Kong Feb. 12, 2020

https://sciencespeaksblog.org/2020/02/12/immune-survivors-of-covid-19-protectiveantibody-for-treatment-and-prophylaxis/ From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Wed, 12 Feb 2020 15:23:15 +0000

Folkers, Greg (NIH/NIAID) [E]

To: Folkers, Greg (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E];Barasch, Kimberly (NIH/NIAID) [C]

Subject: Re: Business Council - Invitation to speak at the February 20-21, 2020 meeting

at the Ritz Carlton (22nd and M St. NW), Washington, D.C.

Attachments: image003.jpg, image004.jpg, image005.jpg

Okay. Go with it

On Feb 12, 2020, at 9:38 AM, Folkers, Greg (NIH/NIAID) [E] (6)(6)> wrote:

Will add

I would vote for: no slides -

I would send these three papers (all on director's page) - CoV, Ebola, Ending HIV

<image003.jpg>

Foreign Policy <image004.jpg>

<image005.jpg>

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)

Sent: Wednesday, February 12, 2020 9:11 AM

To: Folkers, Greg (NIH/NIAID) [E] (6) (6)

Cc: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Barasch, Kimberly (NIH/NIAID)

[C] (h) (6)

Subject: FW: Business Council - Invitation to speak at the February 20-21, 2020 meeting at

the Ritz Carlton (22nd and M St. NW), Washington, D.C.

Kim – pls add all to the folder thx

G – this needs to be added to matrix. IT was a "fireside chat" that we thought would not include slides but see below – they are ok with a few slides

Will need to discuss things to send and topics given the "theme"

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

(b) (6)
301-496-4409 fax

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From: Marlene Colucci <mcolucci@businesscouncil.com>

Sent: Tuesday, February 11, 2020 6:29 PM

To: Conrad, Patricia (NiH/NIAID) [E] < (b) (6)
Cc: Adrienne Ball <a href="mail@businesscouncil.com">a href="

<gauger@businesscouncil.com>

Subject: Re: Business Council - Invitation to speak at the February 20-21, 2020 meeting at the Ritz Carlton (22nd and M St. NW), Washington, D.C.

Patty,

I wanted to check back with you and Dr. Fauci on a few things in advance of his fireside chat with David Rubenstein on Friday, February 21.

 Are there any articles that Dr. Fauci thinks would be useful to send out to our CEOs in advance of the discussion (it may be something related to the Coronavirus or something that looks at the future of health and what CEOs should be thinking about in the next decade?

- The theme for our upcoming meeting is "The Next Decade Major trends in technology, geopolitics, politics, economy and health". I have attached a copy of our Draft CONFIDENTIAL and list of attendees for Dr. Fauci's reference.
- During his discussion with David Rubenstein, are there any slides he would like to use for reference? We do not use a lot of these but thought there might be slides that would aid in his discussion? Just let us know.

Warmest regards,

Marlene

### Marlene Colucci

DIRECTOR



T: 202-298-7650 C: (b)(6) F: 202-785-0296

On Feb 5, 2020, at 9:19 AM, Marlene Colucci <mcolucci@businesscouncil.com> wrote:

Thank you Patty for checking. As soon as I can find out whether Dr. Collins will also be a part of the discussion I will work on setting up that call. Ive been pressing their office so fingers crossed!

Marlene

Marlene Colucci

DIRECTOR



T: 202-298-7650 C: (b)(6) On Feb 5, 2020, at 9:01 AM, Conrad, Patricia (NIH/NIAID) [E]

### Good morning:

Dr. Fauci will not be able to attend the dinner the night before but wanted me to thank you for thinking of him.

Best, -patty

From: Marlene Colucci <mcolucci@businesscouncil.com>

Sent: Friday, January 31, 2020 2:00 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (0) (6)

David Rubenstein (b) (6): MaryPat

Decker (b) (6)

Subject: Business Council - Invitation to speak at the February 20-21, 2020 meeting at the Ritz Carlton (22nd and M St. NW), Washington, D.C.

Dear Dr. Fauci,

On behalf of our co-chairs for the winter meeting of The Business Council, David Rubenstein of The Carlyle Group and Ginni Rometty of IBM, we would like to formally invite you to participate in our meeting on February 20-21, 2020 in Washington, D.C. The theme of the meeting is "The Next Decade." (See formal invitation attached as well as list of CEO members).

We would like for you to participate in a 50 minute fireside chat with David Rubenstein (and possibly Dr. Francis Collins) to discuss the current coronavirus as well as what we should expect in the next decade. We want to give our CEOs insights into what the next 10 years will bring in terms of detection, diagnosis and treatment of diseases. All conversations are strictly off the record and closed press. We will cover all lodging and transportation.

As you know, The Business Council is comprised of the chief executive officers of the largest global corporations, representing all segments of the economy. We expect at least 150 CEO members, spouses and speakers to be in attendance. As a participant you and your spouse are also invited to join us for our special reception, dinner and speaker at the REACH (Kennedy Center) on Thursday, February 20 at 6:30pm. It is the best opportunity for you to meet our CEO members and spouses, speakers and other special guests in an informal atmosphere.

If you are interested and available, please let me know. We can also set up a very brief call with you to discuss any additional details and answer any questions you may have. We look forward to hearing from you and would be honored to have you participate with us again.

Warmest regards,

Marlene

### Marlene Colucci

DIRECTOR



T: 202-298-7650 C: (b)(6) F: 202-785-0296



2 Author Albilianos II. Arbier Schweistere. IAMA. Published ordere presente (EL 2000) des 10 (1000) (jung 1020) (ES) ARREST

# On the Front Lines of the Trump Administration's Ebola Response

The United States has mounted a wide ranging response in the latest deadly outbreak as only it one.

STATES AND ADDRESS OF STREET, STREET,



Ending the Human Immunodeficiency Virus Pandemic: Optimizing the Prevention and Treatment Toolkits

Bohert W Essinger, Gargory N Endkern, Anthony S Fauci 🛎

Chekud Infrastrum Dimoso, Vaturne 66, Issue 12, 25 December 2015, Pages 2212-2217, https://doi.org/10.1093/ssi/covins

Published: 24 Datoler 2019 Article history +

January 23, 2020

Coronavirus Infections-More Than Just the

Common Cold

NIH-001935

# On the Front Lines of the Trump Administration's Ebola Response

The United States has mounted a wide-ranging response to the latest deadly outbreak, as only it, can.

MANUAL TITLE OF STREET STREET, STREET,



### Ending the Human Immunodeficiency Virus Pandemic: Optimizing the Prevention and

Treatment Toolkits 

Robert WEisunger, Geograph Kinders, Settung Niture 

ANNA 201027

Published: 24 Deloter 2019 Article history +

Chine of Advances Diseases, Volus NIH-001937; December 2019, Pages 2212-2217, May 27/10-1009/10-1009

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Wed, 12 Feb 2020 12:04:55 +0000

To: Cassetti, Cristina (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: epigar for Coronavirus assistance

Please handle. Thanks.

From: Daniel Goldberg <daniel@eng.us> Sent: Tuesday, February 11, 2020 11:18 PM

To: Fauci, Anthony (NIH/NIAID) [E] <afauci@niaid.nih.gov>

Subject: epigar for Coronavirus assistance

Dr. Fauci,

I wanted to reach out to see if epiqar (<a href="https://epiqar.com/">https://epiqar.com/</a>) can help your efforts with the Coronavirus- we are the only system in the world built for remote surgical help & interactive emergency surgeon support over the web browser.

epiqar has created the most advanced surgical video collaboration technology, allowing surgeons to consult and train remotely on a low-cost and easy-to-use online surgical collaboration platform and Cloud-archiving system built for the operating room. With the outbreak of Coronavirus, this has become more vital as surgeon mobility and access to critical surgical spaces in need of more help are severely limited, and specialists will not risk entering spreading viral hot zones.

Patient care isn't just a concern with the virus itself, but with the host of medical issues facing patients that will no longer be treated by local specialists easily, and facing <u>caregivers</u>: surgeon involvement from around the world is needed urgently.

Although epiqar is an American company, our rollout in recent months has been in France, making selected French institutions the most prepared in the world for remote video care. We obviously weren't anticipating the Coronavirus and now we're dedicated to delivering our technology to where the world needs it asap.

epiqar's parent company ENGAUGE (<a href="https://eng.us/">https://eng.us/</a>) is a state-of-the-art online healthcare company for surgeon training and has served clients such as Johnson & Johnson, Intuitive Surgical, and many other of the world largest & smallest medical device companies. ENGAUGE has helped surgeons all over the world have access to secure online training that has improved their understanding of the innovations in robotics and many of the latest surgical techniques and medical devices for best patient care.

I've linked a whitepaper below with details of the system's use. Please let me know if you would like to speak further and/or need anything additional.

Thanks,

### Danny

### www.epigar.com

## epigar | whitepaper

Daniel Goldberg CEO ENGAUGE www.eng.us

www.epigar.com

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EUROPE 44 2031399059

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Wed, 12 Feb 2020 00:16:12 +0000

To: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: AMA news interview request: What to tell your patients about COVID-19

#### Let us discuss.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)

Phone: (b) (6) FAX: (301) 496-4409

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From: Sara Berg <Sara.Berg@ama-assn.org> Sent: Tuesday, February 11, 2020 4:55 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)>

Subject: AMA news interview request: What to tell your patients about COVID-19

Dear Dr. Fauci,

My name is Sara Berg and I am a senior writer for the AMA. I am reaching out to you today because you have shared a lot of great information about COVID-19 with the JAMA network. I know you are very busy, but I was wondering if you would be available tomorrow or Thursday for a quick phone interview about what to tell patients who suspect they have COVID-19? This would be an AMA news article for physicians about what to tell patients. The CDC has a list of preventive steps:

https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html.

This would be what physicians should tell patients who suspect they have COVID-19. One tip might be "Call before you come in." Do you think this is something you would be available to participate in?

I look forward to hearing from you.

Thank you,



Sara Berg

Senior Communications Specialist Sara.Berg@ama-assn.org

Office: (312) 464-4104











AMA membership: Join or renew today!



 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 12 Feb 2020 00:13:52 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

 Subject:
 FW: 2019 nCoV brief fyi (2+ pages)

 Attachments:
 Brief 2019 nCoV host Se status.doc

Please handle. Thanks.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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From: Michalann Harthill (b) (6)
Sent: Tuesday, February 11, 2020 3:41 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)
Cc: Morens, David (NIH/NIAID) [E] (b) (6)

Subject: 2019 nCoV brief fyi (2+ pages)

Dear Dr. Fauci,

Please find attached, FYI, my synopsis Emergence of a novel coronavirus (2019-nCoV), Wuhan, Hubei Province, China: human host selenium-deficient status as a possible "driving" etiological determinant. (2 1/4 pages, ~70 refs, no graphics)

Best regards, Michal Harthill GHI, Inc., Frederick, MD (b) (6) From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Wed, 12 Feb 2020 00:05:00 +0000

To: (b) (6)

Subject: FW: take a look at figure 3 of the new nejm paper

Attachments: nejmoa2001316.pdf

### See Greg/David comment below.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
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From: Folkers, Greg (NIH/NIAID) [E] (b) (6)>

Sent: Tuesday, February 11, 2020 2:50 PM

To: NIAID OD AM <NIAIDODAM@niaid.nih.gov>

Subject: take a look at figure 3 of the new nejm paper

(6) (5)

Thanks david



From: Folkers, Greg (NIH/NIAID) [E]

Sent: Tuesday, February 11, 2020 10:04 AM
To: NIAID OD AM < NIAIDODAM@niaid.nih.gov >
Subject: this is the nejm paper discussed this a.m.

That asf is opining on

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 11 Feb 2020 23:58:00 +0000

To: NIAID OD AM

Subject: FW: Keynote Invitation: 3/20 CSIS Coronavirus Public Event

This could be good since it is local. Let us discuss.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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E-mail: (b) (6)

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From: Stephen Morrison <SMorriso@csis.org> Sent: Tuesday, February 11, 2020 1:20 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Anna Carroll <ACarroll@csis.org>; Samantha Stroman <SStroman@csis.org>; Conrad, Patricia

(NIH/NIAID) [E] (b) (6)

Subject: Keynote Invitation: 3/20 CSIS Coronavirus Public Event

Dear Dr. Fauci,

I hope this note finds you well. It is my pleasure to invite you to be the opening keynote speaker at a CSIS public event on coronavirus on Friday, March 20, 1:30-3:30 pm at CSIS (1616 Rhode Island Avenue NW). The event will focus on the science, economics, and politics of the coronavirus and will feature experts on Chinese and international politics and economics, as well as public health. We would ask you to speak approximately 1:30-2:00 pm. Your keynote would be followed by a panel discussion and a closing address, and we invite you to stay for as much of the event as you are able. Please find the full draft agenda and speakers for the event below for your reference.

We would be honored to have you participate in this important and timely event. Thank you for your consideration, and please let us know if you would like to discuss further or if we can answer any questions. We look forward to hearing from you.

Best, Steve

#### Draft Agenda:

#### 1:30-2:00 pm - Opening Keynote

Dr. Anthony Fauci, NIAID

Introduced by Steve Morrison, CSIS Global Health Policy Center

#### 2:00-2:50 pm - Panel Discussion

[The economics/business] Joyce Chang, JP Morgan (confirmed)

[The politics] Jude Blanchette, CSIS Freeman Chair in China Studies (confirmed)

[The foreign politics] Melanie Hart, Center for American Progress (to be invited), or Bonnie Glaser, CSIS China Power Project

[The public health] Steve Morrison, CSIS Global Health Policy Center (confirmed)

Moderator: Scott Kennedy, CSIS Trustee Chair in Chinese Business and Economics

#### 2:50-3:30 pm - Newsmaker Speech

Matt Pottinger, NSC (to be invited)

Moderator and Follow-up Interview: Bonnie Glaser, CSIS China Power Project

#### J. Stephen Morrison

Senior Vice President & Director, Global Health Policy Center Center for Strategic and International Studies (CSIS) 1616 Rhode Island Ave NW Washington D.C. 20036 (202) 775-3276 From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Tue, 11 Feb 2020 23:45:51 +0000

To: Lerner, Andrea (NIH/NIAID) [E]

Subject: FW: Pharmacist's/Prescriber's Letter Review Request - Coronavirus

Please take a look at this and respond for me.

Thanks, Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
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behalf of the NIAID by one of its representatives.

From: Jennifer Nieman < jnieman@pletter.com> Sent: Tuesday, February 11, 2020 11:00 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Pharmacist's/Prescriber's Letter Review Request - Coronavirus

Dear Dr. Fauci,

In the March 2020 issues of Pharmacist's Letter and Prescriber's Letter, we plan to write about coronavirus.

Pharmacist's and Prescriber's Letter is an independent advisory service for pharmacists and physicians. We are not affiliated with any other group, organization, or company. We are 100% subscriber supported. Our focus is providing practical, unbiased advice to subscribers on issues related to drug therapy. Each month we turn to experts like you to help us pin down the most relevant and important information to share with our readers. Our newsletter is well known for being concise and accurate. You will notice the excerpt we are sending you is relatively short.

We would be most appreciative if you would take just a few moments to review what we have written for accuracy and content. Please share any comments or suggestions for changes you may have on the article.

In order to incorporate your comments into the final Letter, please let me hear from you by Monday, Feb.

17th. I can be reached by email injeman@PLetter.com or phone (402) 660-4715.

I look forward to your reply.

### INFECTION CONTROL

The ongoing outbreak of the novel coronavirus will raise questions about how to limit the spread of respiratory infections.

Managing this situation is similar to outbreaks of SARS and MERS...since coronaviruses are spread by respiratory secretions.

Put the risk in perspective to calm worried patients...since it doesn't come close to the risk of influenza.

For example, over 35 MILLION U.S. patients got the flu last season...with about 500,000 hospitalizations and 34,000 deaths.

Emphasize getting a flu vaccine each year.

And use this coronavirus outbreak as an opportunity to stress infection control...since there's no treatment or vaccine yet.

Reinforce proper hand hygiene. Educate that handwashing with soap and water is the best way to get rid of germs. Advise washing for 20 seconds...about the time it takes to sing the ABC song.

Or recommend using a hand sanitizer with at least 60% alcohol if handwashing isn't practical. Many products contain this much.

But tell patients to be wary of efficacy claims. For example, hand sanitizers are shown to kill enveloped viruses. Coronaviruses are enveloped viruses...but they aren't specifically studied.

Tell patients to avoid touching their eyes, nose, and mouth.

Clear up confusion about masks. Emphasize that masks are for SICK patients...to help keep their germs from getting into the air.

But discourage surgical masks for most patients withOUT symptoms...there's no evidence they help. They're too loose to limit inhaling germs...and viruses can also get in through the eyes.

If patients ask about N95 respirators, tell them these require fitting and training before use. Save them for healthcare workers.

Caution that unnecessary mask use may contribute to shortages.

Continue to ask patients WITH respiratory symptoms to put a surgical mask on when they come to clinic.

And suggest that sick patients wear a mask at home if in close contact with infants, elderly, or immunocompromised patients.

Tell patients to discard masks when damp...and to use a fresh one at least daily.

Encourage patients to stay home when they're sick.

- https://www.who.int/emergencies/diseases/novel-coronavirus-2019
- 2. https://www.cdc.gov/coronavirus/2019-ncov/index.html
- 3. https://www.cdc.gov/flu/professionals/infectioncontrol/maskguidance.htm
- https://www.who.int/publications-detail/advice-on-the-use-of-masks-the-community-during-home-care-and-in-health-care-settings-in-the-context-of-the-novel-coronavirus-(2019-novy)-outbreak

Sincerely,

### Jennifer A. Nieman, PharmD, BCPS

Associate Editor, TRC Healthcare

M: 402-660-4715 E: inieman@pletter.com W: TRCHealthcare.com

Pharmacist's Letter | Prescriber's Letter | Natural Medicines | Pharmacy Technician's Letter | Pharmacy Technician University

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 11 Feb 2020 23:06:37 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

 Cc:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: [Dear Prof. Anthony Letter of Interview from China Science Daily]

Can we please get someone to fashion answers for me to edit and send to her.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone:
(b) (6)
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From: 韩扬眉 <ymhan@stimes.cn>

Sent: Monday, February 10, 2020 2:54 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: [Dear Prof. Anthony Letter of interview from China Science Daily]

Dear Prof. Anthony,

I am yangmei Han, a journalist from CHINA SCIENCE DAILY. China Science Daily

is

a newspaper in Chinese, published by The Chinese Academy of Sciences.

Recently, your article "Coronavirus Infections—More Than Just the Common Cold" mention about vaccines research in NIAID. We are interested and there are some questions and I want to get more informations.

What is the current research progress about vaccines in NIAID?

- 2. What are the factors restricting the development of vaccines? and did you break through them?
- 3. What is the standard of vaccine that can be injected to patients? and according your forecasting, how will it work?
- 4. Can this vaccines research play a role in the 2019-nCoV? Or as a treatment for a common infectious disease in the future?
- 5. Does vaccines have side effects? how can we restrain it?
- 6. If vaccines research success in a certain country. Will it be open to the world? if it will, what conditions will need for open?

if you could, we would like you reply as soon as possible Thank you very much I am looking forward to your reply!

Sincerely yours, Yangmei Han (Miss)

#### 韩扬眉

中国科学报社采访中心记者

邮箱:ymnan@stimes.cn;576942717@gg.com

电话: (6)(6)

地址:北京市海淀区中关村南一条乙中国科学报社

中国科学报社:由中国科学院、中国工程院、国家自然科学基金委员会和中国科学技术协会主办 。普及科学知识、倡导科学方法、传播科学思想、弘扬科学精神。 From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 11 Feb 2020 20:54:02 +0000

To: Natalie Rahhal

Subject: RE: Interview re: coronavirus patient characteristics

If this is true, which it might not be, there is no clear explanation for why right now. There will likely be studies coming out that say that the relative proportion of male:female is closer to 50:50. Even one of the ones that you quoted was 54%

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From: Natalie Rahhal < Natalie Rahhal@mailonline.com>

Sent: Tuesday, February 11, 2020 1:55 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)
Subject: Interview re: coronavirus patient characteristics

Hi Dr Fauci,

I'm sure you're extraordinarily busy right now, but I've seen several studies and reports that coronavirus seems to disproportionately strike men (making up 54-68% of cases, depending on which study you reference). I was wondering if you might have any comments to offer on why this might be?

Thank you,

Natalie A Rahhal

Acting US Health Editor



Daily Mail Online | 51 Astor Place, 9th floor, New York NY 10003

Tel: +1 212 402 9086 Mobile: (b) (6)

Twitter: https://twitter.com/natalier78?lang=en

Email: Natalie.rahhal@mailonline.com

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 11 Feb 2020 20:10:45 +0000

To: Nabel, Gary /US
Subject: RE: WHO meeting

Gary:
Thanks for the note.

Best,
Tony

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----Original Message---From: Nabel, Gary /US (6) (6)
Sent: Tuesday, February 11, 2020 1:19 PM
To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)
Subject: RE: WHO meeting

Not a problem. I just wanted you to know that I was willing to help.



Best Gary

----Original Message---From: Fauci, Anthony (NIH/NIAID) [E] (b) (6)
Sent: Monday, February 10, 2020 3:07 PM
To: Nabel, Gary /US 4 (b) (6)>

Subject: [EXTERNAL] RE: WHO meeting

EXTERNAL : Real sender is (b) (6)

I submitted your name to the group as one of my priority suggestions. I have no idea whom they will select.

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03

31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (301) 496-2263

FAX: (301) 496-4409 E-mail: afauci@niaid.nib.gov

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---Original Message----

From: Nabel, Gary/US (6) (6)

Sent: Monday, February 10, 2020 2:17 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: WHO meeting

Hi Tony

Thanks for taking the time to talk and help with the HIV trispecific work last week. I appreciate your efforts.

While I was there, you mentioned a WHO Coronavirus meeting you thought I should join. I'm happy to attend but have not yet received an invite. Sometimes WHO excludes companies from such meetings, which is unfortunate and to their detriment. In any case, please let me know if I can help in any way.

Best regards

Gary

Sent from my iPhone

From: (b) (6)

Sent: Tue, 11 Feb 2020 11:22:43 -0500

To: Martin Blaser

Cc: Conrad, Patricia (NIH/NIAID) [E];Cassetti, Cristina (NIH/NIAID) [E];Lane, Cliff

(NIH/NIAID) [E]

Subject: Re: SARS 2003, Influenza 2009 and the present

Marty:

Thanks for the note. Indeed, immune sera is foremost on our mind as are mAbs. Hope that all is well with you.

Best, Tony

> On Feb 11, 2020, at 9:55 AM, Martin Blaser (6) (6)>wrote:

Dear Tony,

I dont mean to bother you, but I have a suggestion, in case you have not considered it.

China will have hundreds of thousands of Coronavirus survivors. Their convalescent (immune) serum is valuable. China should try to collect it and give it as a good-will gesture to people around the world.

For moderately to seriously ill people, Immune serum should save many lives. If cases start to come here, we also should collect serum from survivors, but hopefully we will be very late in the pandemic, and it is not needed because of all of the others things you are doing.

Thank you for everything you and NIAID are doing!

Best wishes, Marty

(Just as in SARS, the Ro for nCo-2019 is higher in hospitals than in the community, but it still is too high in the community).

Martin J. Blaser, M.D.
Henry Rutgers Chair of the Human Microbiome
Professor of Medicine and Microbiology – RWJMS
Director, Center for Advanced Biotechnology and Medicine
Rutgers University
679 Hoes Lane West, Room 106A
Piscataway, NJ 08854

Office Phone: (6) (6)

Fax: 732-235-5318

Email: (b) (6

https://cabm.rutgers.edu

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Sent: Sunday, January 26, 2020 7:16 PM

To: Martin Blaser (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6)

Subject: RE: SARS 2003, Influenza 2009 and the present

Marty:

Many thanks. This is very helpful.

Best regards,

Tony

From: Martin Blaser (b) (6)

Sent: Saturday, January 25, 2020 9:35 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: SARS 2003, Influenza 2009 and the present

Webb G, Blaser MJ, Zhu H, Ardal S, Wu J. Critical role of nosocomial transmission in the Toronto SARS outbreak. Mathematical Biosciences and Engineering 2004; 1: 1-13. [PMID: 20369956] [Paper of the year, 2004]

Webb GF, Hsieh Y-H, Wu J, Blaser MJ. Pre-symptomatic influenza transmission, surveillance, and school closings: implications for novel influenza A (H1N1). Mathematical Modelling of Natural Phenomena 2010; 5:191-205.

Dear Tony,

Thanks for your JAMA piece on 2019-nCoV. Perhaps I can help in a small way:

In 2003, with SARS, the Ro was initially considered to be over 2, but in fact that was the conflation of the nosocomial and community rates. In the 2004 paper, we showed that nosocomial rate was much higher, and that the Ro in the community was between 1 and 2. A lower Ro in the community accounts for why moderate public health actions could move it toward extinction—and why it propagated in Beijing, but not Shanghai, in Toronto

but not in Vancouver--the Ro in North America became less than one pretty quickly.

To me, one important aspect is the control of respiratory transmission in the hospital, avoiding extensive nebulization/aerosolization, or doing so in negative pressure rooms, as for TB isolation.

(Treating patients with robots is a good idea!)

In the community, standard public health quarantine, contact tracing should be sufficient for starters.

Although hundreds of cases are reported in China, the actual number of infections is likely much higher. The 41 deaths are the tip of the iceberg of not 800 infections (5% fatality rate), but maybe 8,000 infections (0.5%). Although that rate is much better, if the mutating virus becomes very contagious—then the impact could be similar to 1918 flu. That's why containment is so important.—and although draconian, the Chinese government is doing the right thing (as far as we know).

When a new pathogen arrives, children often have mild disease but they are important vectors for transmission in the community, reaching many households. The second paper is the importance of closing schools to minimize transmission—This was for flu with a short (pre-symptomatic) incubation, but may be even more relevant for 2019-nCoV. It is much too early to even think of this in the USA, but it may come to this—and sooner will be better than later, when that time point comes.

Happy to help, any way that I can. Thank you for all you and NIAID are doing!!!

Best wishes, Marty

Martin J. Blaser, M.D. Henry Rutgers Chair of the Human Microbiome Professor of Medicine and Microbiology – RWJMS Director, Center for Advanced Biotechnology and Medicine Rutgers University 679 Hoes Lane West, Room 106A Piscataway, NJ 08854

Office Phone: (b) (6)

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Email: (b)(6)

https://cabm.rutgers.edu

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 11 Feb 2020 13:22:53 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Interview / Coronavirus vaccine - Pazienti.it

Have Jen Routh or someone prepare brief responses that I can check. Thanks.

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From: Alessandra Lucivero <alessandra.lucivero@pazienti.it>

Sent: Tuesday, February 11, 2020 5:35 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Cc: Camilla Mantegazza <camilla.mantegazza@pazienti.it>; Irene Bocca <irene.bocca@pazienti.it>

Subject: Interview / Coronavirus vaccine - Pazienti.it

Good morning prof. Fauci,

my name is **Alessandra Lucivero** and I'm the **Editorial Manager of <u>Pazienti.it</u>**, an Italian health website, followed by over 3 million users every month.

We would like to ask you some questions related to the Coronavirus vaccine.

We will publish the interview in Italian on our blog here: https://www.pazienti.it/news-di-salute.

#### The questions are:

- Coronavirus vaccine: when will it be available? What are the difficulties?
- Could the Coronavirus mutate, if a vaccine cannot be found in time?
- Will the vaccine be the solution against Coronavirus?

I hope you can be kind enough to answer my questions.

I look forward to hearing from you.

Thank you very much for your time.

Alessandra Lucivero

-

Alessandra Lucivero Responsabile editoriale alessandra.lucivero@pazienti.it



Il portale della salute dove farsi vedere da uno bravo.









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From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Tue, 11 Feb 2020 13:14:45 +0000

To: Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: Coronavirus Auto Termination

Attachments: Retrovirus Auto Termination.PDF

Please handle. Thanks.

Anthony S. Fauci, MD
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From: Pali Nazir (b) (0) >
Sent: Tuesday, February 11, 2020 4:32 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) Chun, Tae-Wook (NIH/NIAID) [E] (b) (6); Lane, Cliff (NIH/NIAID) [E] (b) (6); Lusso, Paolo (NIH/NIAID) [E] (b) (6) >; Sereti, Irini (NIH/NIAID) [E] (b) (6)

Subject: Coronavirus Auto Termination

Dear Mrs. / Sir,

We have a solution to the new recent global problem Coronavirus (2019-nCoV).

Best Regards, Dr. Pali Nazir 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 11 Feb 2020 13:12:28 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: coronaviruses

Please handle. Thanks.

Anthony S. Fauci, MD
Director
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Original Message		
From:	(b) (f)	
Sent: Tuesday, February 11, 20	020 8:01 AM	
Top	an account de production	(b) (6)
(NIH/NIAID) [C]≪	(b)(6)>; Fauci, Anthony (NIH/NIAID) [E]	Holbrook, Michael
Subject: coronaviruses	10 11 11 11 11 11 11 11 11 11 11 11 11 1	2,023

Hello.

Working as an occupational physician in France, I would like to draw your attention to the antiviral activity of proton pump inhibitors, including for the Gibbon Ape Leukemia virus, a virus which does not require acidification of endosomes for entry into cells, as is the case with coronaviruses.

Indeed, in 2015 Long et al. (1) found that «...The commonly used proton pump inhibitors, Omeprazole and Esomeprazole were also able to inhibit entry of all PVs tested but at higher drug concentrations than may be achieved in vivo...».

Using omeprazole and esomeprazole magnesium hydrate, prepared in sterile DMSO (Sigma), they concluded that a ... OM and ESOM appeared to decrease fluorescence, and therefore increase endosomal pH, only at a concentration of 200µM, higher than that required to inhibit PV entry. Moreover cellular toxicity was observed at this concentration after 24 hours...».

In 2016, Dowall et al. (2) found: « ... Whereas omeprazole and esomeprazole demonstrated in vitro activity against EBOV, the results were in line with a previous report using pseudotyped viruses where the values of drug concentration causing 50% inhibition (IC50) were in the region of 50 μM [10]. This suggested that doses required for potent inhibition would be difficult to achieve without concomitant and significant toxicity (the licenced dosing for 40 mg esomeprazole, 20 mg esomeprazole and 20 mg omeprazole generates median maximum plasma concentrations of 1.59–9.61 μM, 0.51–4.78 μM and 0.15–3.51 μM, respectively...».

However, omegrazole is marketed in a non-ionized form and must be ionized (in acidic environment) to be

transformed into an active molecule(3). It is the ionized form which establishes covalent bonds with the SH group of the cysteine of the a subunit of the proton pump.

The solution used in 2015 by Jason Long et al. was, as in 2016 by Dowall et al., DMSO(Dimethyl Sulfoxide).

DMSO is a polar and aprotic organic solvent with dissociation constant pKa = 35.1 This is probably an explanation for the surprising findings from these studies regarding proton pump inhibitors: Inhibition of viruses at 100 μM (at 50 μM esomeprazole for 4 of the 5 viruses tested) and increase in endosomal pH only at a concentration of 200 μM.

This is a situation which, from my point of view, does not reflect the human tissue situation, because in this situation omeprazole can be ionized in the intracellular space but also already in the extracellular space.

Besides, that's probably its advantage: to be ionized and activated where there is an acidic environment.

Without taking into account the tissue situation and the need that omeprazole must be ionized to be transformed into an active molecule, it would not be possible to explain the following publications, since it would be impossible to obtain tissue concentrations required:

- « Proton pump inhibitors as anti vacuolar-ATPases drugs: a novel anticancer strategy » (4)
- « Anti-Rhinovirus activity of lansoprazole, which was probably due to an endosomal anti-acidic mechanism »
   (5)
- « The use of omeprazole family compounds was associated with a lower probability of influenza-like illness »
  (6)
- « PPIs exert an antiviral function by effectively inhibiting virus-specific serine proteases » (7)
- Proton pump inhibitors for chronic obstructive pulmonary disease » (8)
- « The ngH,K-ATPase shares approximately 65% sequence homology with the gH,K-ATPase » (9)
- « Omeprazole blocked another P-type ATPase, ATP7A (Menkes protein) in human epidermal mélanocytes » (10)
- « pH-dependent antitumor activity of proton pump inhibitors » (11)
- « V-ATPase as a candidate target molecule or biomarker for cancer treatment and provide a potential role for omegrazole as a chemosensitizer in clear cell carcinoma of the ovary » (12)
- « Proton pump inhibitors such as omegrazole, used clinically to suppress gastric acidity in gastritis, are activated by acidic conditions and tend to decrease intracellular pH and increase the extracellular pH via inhibition of V-ATPases in a covalent interaction » (13)
- « proton pump inhibitors have been shown to be highly effective at inhibiting V-ATPases in vitro » (14)

Specifically at the pulmonary level, we observe concerning proton pump inhibitors:

« ...Since ATP12A shares approximately 65% identity with the gastric H+/K+-ATPase (ATP4A), we investigated the potential of using clinically approved ATP4A proton pump inhibitors (PPIs) for their ability to restore ASL pH in CF hAECs. We show that, despite not expressing ATP4A transcripts, acute exposure to the PPI esomeprezole, produced changes in intracellular pH that were consistent with the inhibition of H+ secretion, but this response was independent of ATP12A. More importantly, chronic exposure of CF hAECs to esomeprazole alkalinized the ASL without disrupting the epithelial barrier integrity, but this increase in ASL pH was consistent with a decrease in mRNA expression of ATP12A. We conclude that PPIs may offer a new approach to restore ASL pH in CF airways, which is independent of CFTR.... » (15)

- \* ...On the other hand, even though the gastric H+/K+-ATPase was not expressed in airway epithelial cells, exposure to esomeprazole acidified the cytosol and increased ASL pH of primary CF hAECs. We show that esomeprazole had a dual mechanism of action: acutely, it induced intracellular acidification in an ATP12A-independent manner but, chronic exposure, which importantly did not have any deleterious effect on epithelial integrity, was linked to decreased ATP12A mRNA levels. These results open up the possibility of repurposing PPIs as a new therapeutic approach for treating CF lung disease... » (15)
- « ...we found that the mRNA of ATP12A, the non-gastric H+/K+-ATPase, shares 70% identity with the gastric H+/K+-ATPase, ATP4A mRNA, which translates to around 65% identity in the protein products... » (15)
- Proton pump inhibitor therapy predisposes to increased risk of developing pneumonia » (16)
- « Na+/H+ Exchangers Are Required for the Development and Function of Vertebrate Mucociliary Epithelia » (17)
- « ATP4a is required for development and function of the Xenopus mucociliary epidermis a potential model to study proton pump inhibitor-associated pneumonia » (18)

# Regarding coronaviruses and Golgi complex:

- « ...Coronaviruses (CoVs) acquire their envelopes from the endoplasmic reticulum-Golgi intermediate compartment (...), also called the cis-Golgi network (...). The three main envelope proteins (S, M and E) are synthesized in the ER and move to the ERGIC/Golgi region where they orchestrate assembly of virus by interacting with the viral nucleocapsid (...). Once virions have budded into the lumen of the ERGIC, the ~120 nm particles must move through the host secretory pathway to be released from infected cells. Coronaviruses are believed to follow the constitutive secretory pathway for exocytosis, although only a few studies have addressed the release of virions. During infection, a progressive disruption of Golgi structure is observed, with swollen unstacked eisternae late in infection...»
- « ... Weak bases (which disrupt acidification), v-ATPase inhibitors, and expression of a pH activated proton channel all block a number of membrane trafficking steps (...) One mechanism for how luminal pH can affect vesicular trafficking involves a subunit of the membrane sector of the v-ATPase, which has been shown to act as a pH sensor in endosomes. This subunit undergoes a conformational change as the luminal pH drops, which recruits cytoplasmic machinery leading to subsequent vesicle formation...» (19)
- « ...Pharmacological and other manipulations of the pH gradient that result in neutralization of the lumen have all been shown to cause slow trafficking of cargo through the Golgi complex as well as alteration in Golgi morphology...»
- « ...Similar to M2, the infectious bronchitis virus (IBV) coronavirus E protein elicits multiple secretory pathway disruption phenotypes when overexpressed in mammalian cells... » (20)
- \* ...The envelope protein (E) of coronaviruses plays an important role in virus assembly (...) Using coronavirus infectious clones, it was shown that the transmissible gastroenteritis virus E protein is essential for virus production, and murine hepatitis virus lacking E protein is viable but extremely debilitated... »
- « ... The exact mechanism of coronavirus release after budding into the endoplasmic reticulum-Golgi intermediate compartment is not known. Large vacuoles containing budded virions are observed in infected cells, presumably en route to the plasma membrane where fusion of the vacuole results in release of virions... » (21, 22)
- \* ...It might be worth investigating whether ion-channel inhibitors, such as amantadine, or proton pump inhibitors specifically are able to inhibit this increase in Golgi pH. For now, though, it still remains to be seen whether CoV release is mediated by viroporin ion channel activity or through PPIs with host proteins of the secretory pathway... » (23)
- « V-ATPases are also important for transportation of newly synthesized acid hydrolases from Golgi to lysosomes » (24)

\*...cardiotonic steroids ouabain and bufalin, which are known not to affect the transport function of Na+,K+-ATPase, inhibited infection of cells with MHV, FIPV, Middle East respiratory syndrome (MERS)-CoV, and VSV, but not IAV, when the compounds were present during virus inoculation. Cardiotonic steroids were shown to inhibit entry of MHV at an early stage, resulting in accumulation of virions close to the cell surface and, as a consequence, in reduced fusion. In agreement with an early block in infection, the inhibition of VSV by CTSs could be bypassed by low-pH shock. Viral RNA replication was not affected when these compounds were added after virus entry. The antiviral effect of ouabain could be relieved by the addition of different Src kinase inhibitors, indicating that Src signaling mediated via ATP1A1 plays a crucial role in the inhibition of CoV and VSV infections...» (25)

In conclusion, in order to verify the possible efficacy of omeprazole and esomeprazole in the control of infection by coronaviruses:

 The equivalent of the maximum serum concentration that can be obtained in the human body should be used and tested in active (ionized) form in vitro.

Unlike an in vitro test, the human body is an open system, a dissipative system. However, local concentrations of the ionized form should not exceed serum concentrations of the inactive non-ionized form in the absence of active transport.

But the transformation from the non-ionized form to the ionized form could continue until the saturation of the reactions at the cellular level or until the depletion of the transformation capacity from the inactive form to an active form, linked to a change in acidity or the depletion of the inactive form.

- As omegrazole can modify or even inhibit the action of the M2 protein of the influenza virus at the cellular level (26), based on a computer simulation test, it would be desirable to check the interaction capabilities of omegrazole with protein E of the coronavirus. Protein E is likely to resemble the protein M2 in its mode of action.
- In the absence of a treatment recognized as effective in the context of a coronavirus infection and in the absence of data clearly demonstrating the ineffectiveness of omeprazole, personally, I would be tempted to take omeprazole after being in contact (at a distance of less than 2 to 3 meters) with people at risk of contamination or if I had the first symptoms, hoping for the inhibitory activity of omeprazole on P-type ATPases (27, 28) in the context of coronavirus exocytosis, in analogy to the action "off target on the endosomal vATPase" during endocytosis processes.

This step, if effective, will not prevent infection, but could lessen its importance, slow the process down and give the immune system a complementary option to defend itself...

Personal experience, using omeprazole in the context of seasonal respiratory viral infections since 2007, reminds me of the indication to divide the daily dose into two daily doses (omeprazole 10mg morning and evening is usually already effective for seasonal respiratory viral infections). According to the evolution and the importance of inflammatory state I associate an antihistamine, eg cetirizine.

In the context of the coronavirus, I would be tempted

- share the maximum permissible daily dose of omeprazole in 3 divided doses after being in contact with people at risk of contamination at a distance of less than 2 to 3 meters
- divide the daily dose of omegrazole into two daily doses in case of minor symptoms
- take the daily dose of omeprazole in a single dose if the symptoms worsen with repercussions on the general condition
- to resume the daily dose of omeprazole in two daily doses when the symptoms of severity diminish.

The effectiveness of esomeprazole may be greater than omeprazole.

Taking into account the aforementioned publications, it should not be forgotten that omeprazole will reduce secretions at the respiratory level. A positive effect on respiratory secretions during acute viral respiratory diseases which can become negative (by modifying the pH, the ciliary mobility and the volume of secretions) during prolonged use, thus promoting the risk of bacterial pneumonia (29).

The advantages and disadvantages may vary depending on the user phenotype of omeprazole with regard to cytochrome P 450 (30).

Best regards

Johannes Hambura

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Fauci, Anthony (NIH/NIAID) [E] From: Sent: Tue, 11 Feb 2020 12:52:45 +0000 To: Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: WTOP Request

OK by me. Please set it up.

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (b) (6)

FAX: (301) 496-4409

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(b) (6) > From: Conrad, Patricia (NIH/NIAID) [E]

Sent: Tuesday, February 11, 2020 7:37 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Fwd: WTOP Request

1040 before you depart for aspen event?

Sent from my iPhone

Begin forwarded message:

From: "Chesson, Joslyn" < ichesson@wtop.com> Date: February 11, 2020 at 7:16:26 AM EST

To: "Conrad, Patricia (NIH/NIAID) [E]" (b) (d) >

Subject: WTOP Request

Good morning,

Hoping Dr. Fauci has some availability this late morning and early afternoon to discuss the coronavirus and the quarantining on cruise ships.

We have 10:40a, 11:10a, and 12:10pm all open.

Let me know if any of those times work for him!

Thanks,

Joslyn Chesson Editor WTOP News (202) 895-5060 From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 11 Feb 2020 12:20:02 +0000

To: Lisa Monaco

Subject: RE: The Coronavirus Shows Why the U.S. Must Make Pandemic Disease a

National Security Priority - Lawfare

Lisa:

Thanks for the note and for sending this. Very nice piece! I hope that all is well with you. I miss very much our interactions.

Best regards,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

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----Original Message-----

From: Lisa Monaco < (b) (6)
Sent: Monday, February 10, 2020 8:09 PM
To: Lisa Monaco (b) (6)

Subject: The Coronavirus Shows Why the U.S. Must Make Pandemic Disease a National Security Priority - Lawfare

In case you missed this, my latest on the coronovirus.

https://www.lawfareblog.com/coronavirus-shows-why-us-must-make-pandemic-disease-national-security-priority

Sent from my iPad

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 10 Feb 2020 22:44:53 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]; Billet, Courtney (NIH/NIAID) [E]; Stover, Kathy

(NIH/NIAID) [E];Lerner, Andrea (NIH/NIAID) [E];Folkers, Greg (NIH/NIAID) [E]

Subject: RE: for review: responses for Washington Times

Attachments: responses to Washington Times 2.10.2020 AL - with Fauci tracked changes.docx

See my tracked changes in attached document. Thanks.

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From: Routh, Jennifer (NIH/NIAID) [E] (b) (6)

Sent: Monday, February 10, 2020 4:07 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Billet, Courtney (NIH/NIAID) [E]

(b) (6) ; Stover, Kathy (NIH/NIAID) [E] (b) (6) ; Lemer, Andrea (NIH/NIAID) [E] (b) (6) Folkers, Greg (NIH/NIAID) [E] (b) (6) >

Subject: for review: responses for Washington Times

Dr. Fauci -

The reporter Shen Wu Tan from the Washington Times reached out to us this morning with some questions about 2019-nCoV. I drafted proposed responses to these questions with input from Andrea. Please see attached. Please let me know if you have edits. I will send the final responses back to the reporter, and I will note they are attributed to you.

Thanks, Jen

Jennifer Routh [E]
News and Science Writing Branch
Office of Communications and Government Relations

National Institute of Allergy and Infectious Diseases (NIAID)

NIH/HHS

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 10 Feb 2020 20:22:28 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

Subject: FW: Wpost: Q&A with Anthony Fauci: Are we past the point of containment for

coronavirus?

# Let us discuss.

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From: Folkers, Greg (NIH/NIAID) [E] (b) (6)>

Sent: Monday, February 10, 2020 2:37 PM

Subject: Wpost: Q&A with Anthony Fauci: Are we past the point of containment for coronavirus?

Opinions

# Q&A with Anthony Fauci: Are we past the point of containment for coronavirus?



A man wears a protective mask while walking in

Wuhan, China, on Feb. 10. (Stringer/AFP/Getty Images)



By Robert Gebelhoff

Assistant editor and Opinions contributor

Feb. 10, 2020 at 2:22 p.m. EST

The latest strain of coronavirus continues to rage across China. Its death toll has surpassed 900, eclipsing the body count from China's SARS outbreak in 2002 and 2003.

To get a better sense of the disease and the U.S. government's response to it, we spoke to Anthony S. Fauci, immunologist and director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health. Below is a transcript of an interview with Fauci, edited for clarity and brevity.

Robert Gebelhoff: Right off the bat, what makes this virus different?

Anthony Fauci: Well, we have to be concerned whenever there's a virus that has — and I'm going to use a big word here — pathogenic potential. ... [The coronavirus] is brand-new, and there's no real underlying experience with it, so the general population is naive with regard to protection. And it has serious potential, because it's already spreading rapidly. It's the unknown aspect of something that already tells you it's a serious problem. We don't know where it's going.

Gebelhoff: Are we past the point of containment for this coronavirus?

Fauci: No, we're not. The short answer is we're not past the point of containment. But it really does have the potential to turn into a global pandemic. What we have now is a very serious epidemic in China. ... [But outside of China,] there is very little — but some — transmission from person to person. Once you get multiple countries that have sustained transmission from person to person, then it's beyond the situation where you can contain it. You can only mitigate it.

In the United States, we are clearly in the containment phase. ... And what we've done is we've identified. We've isolated. And we've done contact-tracing [identifying who might have come in contact with an infected person]. That seems to be successful. But once it it starts spreading all over the world ... then it's almost inevitable that it's going to start spreading here.

**Gebelhoff:** The Post <u>reported</u> last week that China withheld information from the public, including silencing medical professionals, and that this made the spread of the virus worse. How does the United States work with a government that we can't even trust to tell the truth to its people?

Fauci: That is an issue. And it's the reason why I have been saying that we need some of our people — CDC, NIH people — there on the ground, both helping and seeing with their own eyes exactly the extent of this. We want to be part of a [World Health Organization] convening group that goes there. But thus far, we've not been able to make that a reality.

Gebelhoff: And why's that?

Fauci: I don't know. We have asked. We have colleagues — scientific colleagues — in China that we've dealt with for years if not decades. Many of them have trained in the United States. And we know them as friends and as colleagues. They are the ones that are not holding back. ... But they're not the ones that make the official proclamations of what comes out. The solution to the problem in the question you're posing is that we really do want people there, so that we can not only help them but also provide some expertise that might supplement or complement their own expertise.

Gebelhoff: What does the United States do if [the coronavirus] does become a pandemic in the developing world?

Fauci: Well obviously we will try to help them to contain as best as possible. ... Right now, by definition, it is not truly a global pandemic. It is a very serious outbreak and epidemic in China, but the amount of sustained transmission outside of China is still minimal. ... But there are some countries where it is going to be very difficult to stop the evolution into sustained transmission. Obviously the [World Health Organization] and the global security network that we put up over the years will try to help those countries, but there's no guarantee that we'll be successful.

Gebelhoff: On that point, the head of the WHO has criticized travel bans and restrictions around the world as not helpful to stopping the outbreak. He said it was potentially "increasing fear and stigma." What

Fauci: Everyone agrees that travel bans and restrictions are almost never successful in completely stopping something is that invariably going to turn into a pandemic. ... What we are trying to do is to pause temporarily and give China enough time to put the lid on [this virus] to prevent it from becoming global and to give us a little more time to prepare. There's no indication or imagination that if this becomes a global pandemic that travel restrictions are going to mean anything. But they can mean something, as a temporizing activity.

Gebelhoff: What should the average person be doing right now about coronavirus?

Fauci: It's a good question. 1) They should realize at this point, it is a low risk. And 2) that risk can change, so pay attention to what's going on [and] to the ... announcements coming from the CDC. ... The things that you do for influenza — get vaccinated, wash your hands, avoid crowded places — are exactly the same things that you would do if we did get coronavirus here. So the question is, should we do anything different from what we're already doing? No. Should we all be wearing a mask? Absolutely not.

#### Read more:

The Post's View: The virus that shook China's system

Chen Guangcheng: Warning: Chinese authoritarianism is hazardous to your health David Ignatius: The coronavirus outbreak shows the vulnerability of the 'Chinese model' John M. Barry: Can this virus be contained? Probably not.

John Pomfret: The coronavirus reawakens old racist tropes against Chinese people



Robert Gebelhoff is an assistant editor for The Post's Opinions section. He has been with The Post since 2015. Follow

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 10 Feb 2020 20:18:24 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Subject: FW: Potential Treament Strategy to Reduce Motality Caused by Coronavirus

Infection

# NIAID inquiries, Please

Anthony S. Fauci, MD
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From: (b) (6)

Sent: Monday, February 10, 2020 3:02 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)

Subject: Potential Treament Strategy to Reduce Motality Caused by Coronavirus Infection

Dear Dr. Fauci:

One effective way to get things done is through the individuals like you at the frontline with authorities. I know that you are very busy, and I am sorry to bother you. You probably already knew what I'm going to say and appear to be so relaxed.

With the significant concern for the quick spread of coronavirus infection, I would like to propose a cellbased immunomodulation strategy to reduce the "cytokine storm", the main pathophysiological cause for the mortality. The scientific rationale regarding this strategy has been partially discussed in an article entitled "Extending the Horizon of Cell Based Immunotherapy by Understanding the Mechanisms of Action of Photopheresis" and other related articles on this topic.

Several potential treatment modality could be derived from this concept if more laboratory and clinical data support this motion, which include: (1) ozone therapy ( withdraw about 50 ml – 100 ml blood from patient in transfusion bag, mixing with small amount of ozone ex vivo and re-infuse back to patient in 30 minutes); (2) Cupping therapy (medically induced subcutaneous hemorrhage by heat and vacuums effects) to expose self antigens to the abundant dendritic cells in the subcutaneous tissue in order to reinforce the self antigen tolerance. The best timing for these interventions in theory would be at the

period of fever, viremia stage. These simple approaches can be incorporated with the other medical treatments and supportive care.

I cannot be certain, but want to help as a holistic physician. Thank you very much for reading this email and providing your insight as well as help.

Sincerely,

Ching Y. Voss, M.D.

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Mon, 10 Feb 2020 20:10:11 +0000

To: Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Invitation to Speak at US-Asia Institute Event: February 26, Washington DC

# Sorry. Cannot do. Congressional Hearing.

Anthony S. Fauci, MD
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From: Zev Moses <zev.moses@usasiainstitute.org>

Sent: Monday, February 10, 2020 2:21 PM

To: Oplinger, Anne (NIH/NIAID) [E] (b) (6) >; Fauci, Anthony (NIH/NIAID) [E]

(b) (6); Conrad, Patricia (NIH/NIAID) [E] (b) (6)

Subject: Invitation to Speak at US-Asia Institute Event: February 26, Washington DC

### Good afternoon,

E-mail:

The US-Asia Institute would like to formally invite Director Dr. Anthony Fauci to speak at an event on February 26 in Rayburn House Office Building, Room 2253, at 1:00 pm. Our formal invitation is attached.

This event will focus on the public health impacts of the novel coronavirus, the facts on the ground, trajectory of the virus, and work to contain the outbreak. The event aims to educate Congressional staff on these topics and to dispel rumors associated with the virus. We believe that Director Dr. Fauci's current research is vital to supporting productive and informative dialogue.

Please let us know if Director Dr. Fauci, or another NIAID representative, is available to participate in this event. We would be honored to host him or others from NIAID and our audience would be extremely interested to learn from your agency's research.

Sincerely, Zev Moses ..

Zev Moses | Director, International & Government Affairs US-Asia Institute 232 East Capitol St. NE Washington, D.C. 20003 202-544-3181 www.usasiainstitute.org 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 10 Feb 2020 19:19:42 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Invitation to Speak at the March 13-15 Trilateral Commission Meeting in

Washington, D.C.

Attachments: Dr. Anthony Fauci - Trilateral Plenary Meeting Speaking Invitation.pdf

Let us discuss. We do not need to bring before the OD AM group. I would like to do this if possible. It is an invitation from Meghan O'Sullivan who was one of the security crew from Bush 43.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
FAX: (301) 496-4409
E-mail: (b) (6)

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From: Richard Fontaine <rfontaine@trilateral.org> Sent: Monday, February 10, 2020 11:30 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Cc: Meghan O'Sullivan (b) (6) Torrey Taussig <ttaussig@trilateral.org>
Subject: Invitation to Speak at the March 13-15 Trilateral Commission Meeting in Washington, D.C.

Dear Dr. Fauci,

The Trilateral Commission will hold its invitation-only annual plenary meeting in Washington, D.C., on March 13-15, 2020. I would like to invite you to participate in a conversation at the meeting on responding to the coronavirus and global pandemics.

As you may know, the Trilateral Commission was launched by David Rockefeller in 1973 to think through the shared challenges and leadership responsibilities of the three principal industrialized democratic areas of the world: Europe, North American, and Japan (now Asia). Today, the Commission believes its original mission of bringing democratic countries together to tackle international challenges should once again be a major priority for our country and our partners. This year's plenary meeting is a major, three-day gathering of our global membership during which we will explore the theme "Democracy and Capitalism at a Crossroads."

Your participation would make a great difference if you are available. Attached to this email you will find an invitation from North American chair Meghan O'Sullivan. Please do let us know if you have any questions about the event or your potential role in it, and we hope that you are able to accept our invitation.

Best wishes,	
Richard	
Richard Fontaine	
Executive Director	

Trilateral Commission - North America

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 10 Feb 2020 18:52:31 +0000

To: Strauss, Eric M.

Cc: Conrad, Patricia (NIH/NIAID) [E]
Subject: RE: Heat kills novel Coronavirus

# Eric:

The following is all on background. Coronaviruses in general tend to circulate and infect predominantly in the winter season (Northern and Southern hemispheres have opposite seasons). We do not know for sure why this is the case; however, many believe that the enclosed spaces in winter (mostly indoor because it is cold) allows better spread of a respiratory borne virus. Also, some viruses tend to thrive in cold, dry weather as opposed to warm, moist weather. Remember, however, that when it is summer here, it is winter in Australia and Argentina. This may be the genesis of the information given to President Xi and President Trump that the virus may "go away" in the warm weather. However, this is a brand new virus with which we have no prior experience and it is entirely conceivable that seasonal changes will not have any impact on the spread. Hope that this is helpful.

Best, Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (6) (6)
FAX: (301) 496-4409

E-mail: (b) (6

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From: Strauss, Eric M. <Eric.M.Strauss@abc.com> Sent: Monday, February 10, 2020 12:27 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6) >

Subject: Heat kills novel Coronavirus

# Dr. Fauci:

We've been seeing a lot about people saying the heat will kill the novel coronavirus? Is this medically sound?

Trump discussed Coronavirus briefly: He said he had a long talk with President Xi two nights ago, and the Chinese president told him "the heat generally kills this kind of virus."

The president claimed the virus will go away in April as the seasons change: "The virus that we're talking about having to do a lot of people. We think that goes away in April with the heat," he said.

Eric M. Strauss, ABC News

Managing Editor, Medical Unit

www.ericmstrauss.com Phone: 212-456-2016

Connect on Social: T/I/F = @ericMstrauss

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 10 Feb 2020 18:08:29 +0000

To: Jon LaPook

Subject: FW: "Coronavirus is airborne, Chinese official confirms"

Attachments: Amoy Gardens and SARS.pdf

Jon:

Thanks for the note. See attachment for our future discussion.

Best, Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (b)(6)

Phone: (b) (b) FAX; (301) 496-4409

E-mail: (b) (6)

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----Original Message-----

From: Jon LaPook (b) (6)>

Sent: Monday, February 10, 2020 10:08 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Cc: amb@cbsnews.com; Kevin Finnegan <kpf@cbsnews.com>; Alturo Rhymes <RhymesA@cbsnews.com>; Jay

Shaylor Shaylor@cbsnews.com>; CBS LaPook <lapookj@cbsnews.com>

Subject: "Coronavirus is airborne, Chinese official confirms"

Hi Tony,

I need a Fauci brain dump.

You may have seen this:

https://www.nzherald.co.nz/world/news/article.cfm?c\_id=2&objectid=12307276

Is this news? Don't we already know that the virus spread via droplet transmission? This article says acrosol transmission means "it can float a long distance to the air and cause infection later when it is breathed in." That makes it sound like the kind of spread that happens with measles, where the virus can linger in a room and infect somebody 2 hours after somebody with measles leaves the room.

Tomorrow, I will be giving an hour and a half of affiliate debriefings on this virus. So we will be reaching millions of people. I'd love to get the latest and greatest public health message. Incidentally, Howard Zucker and the infectious disease folks at NYU Langone are very concerned about overloading our emergency rooms with patients who have upper respiratory infection symptoms. What is the right message? If somebody calls thinking they have coronavirus, do you tell them to come in – risking infection of others? Do they stay home and wait for symptoms to get worse? Of course, it would be great if you could send them a kit and happen to home testing. But that's nowhere in the near future, right?

Thanks, Jon

Jonathan LaPook, M.D. Chief Medical Correspondent, CBS News Professor of Medicine NYU Langone Health Twitter @DrLaPook From:

Fauci, Anthony (NIH/NIAID) [E] Mon, 10 Feb 2020 12:54:14 +0000

Sent: To:

Sciutto, Jim

Subject:

RE: Long time, no see!

## Jim:

Thanks for the note. All is well here except that I am not getting much sleep - coronavirus 24/7. I look forward to being on your show.

Best regards,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)

Phone: (b) ( FAX: (301) 496-4409

E-mail: (b) (6)

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From: Sciutto, Jim <Jim.Sciutto@cnn.com> Sent: Monday, February 10, 2020 7:43 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Long time, no see!

Glad to have you on the show today. Looking forward. Hope all is well. Jim

Jim Sciutto

Newsroom Anchor & Chief National Security Correspondent

CNN

Email: jim.sciutto@cnn.com

Mobile: (b) (6

Twitter: @jimsciutto

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 10 Feb 2020 11:18:00 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Cc:
 Awwad, David (NIH/NIAID) [C]

Subject: FW: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

We did this before, but we cannot do it at 7:30 AM (6)(6). If they want to do it later in the day and we can fit them in, then fine. If not, that is OK too. Not the highest priority

From: Latika Chugh (WION) < latika.chugh@zeemedia.esselgroup.com>

Sent: Monday, February 10, 2020 6:05 AM

To: Awwad, David (NIH/NIAID) [C] (b) (6) >; Fauci, Anthony (NIH/NIAID) [E]

(b) (6)>; Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Cc: Conrad, Patricia (NIH/NIAID) [E] < (b) (6); Barasch, Kimberly (NIH/NIAID) [C]

(b) (6) >; Oplinger, Anne (NIH/NIAID) [E] (b) (6); Richa Sharma

(WION) <Richa.sharma@zeemedia.esselgroup.com>

Subject: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Dear Anthony S. Fauci,

M.D., NIAID Director

## Greetings from WION!

I would like to request for your time for an interview with us today for 10-15 minutes at 7:30 am Monday, in Maryland, USA via Skype.

It's regarding the update in the story of Coronavirus - The World Health Organization chief says there have been 'concerning instances' of onward transmission of coronavirus among people who hadn't been to China.

Waiting for your confirmation.

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## https://www.wionews.com/live-tv

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www.wionews.com

Look forward hearing from you.

Regards

Latika Chugh

WION TV , India

From: Awwad, David (NIH/NIAID) [C] (b) (6)>

Sent: Thursday, February 6, 2020 6:41 PM

To: Latika Chugh (WION) < latika.chugh@zeemedia.esselgroup.com>; KUMAR SUNNY

<KUMAR.SUNNY@zeemedia.esselgroup.com>

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Barasch, Kimberly (NIH/NIAID) [C]

(b) (6); Oplinger, Anne (NIH/NIAID) [E] (b) (6)>; Richa Sharma

(WION) < Richa.sharma@zeemedia.esselgroup.com>

Subject: RE: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Our pleasure. Thank you again.

David

David Awwad, Contractor
Customer Services Branch, NIH\NIAID\OCICB

NTT DATA Services Federal, LLC

Phone: (b) (6) (b) (6)

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From: Latika Chugh (WION) <a href="mailto:latika.chugh@zeemedia.esselgroup.com">latika.chugh@zeemedia.esselgroup.com</a> Sent: Thursday, February 6, 2020 8:06 AM To: Awwad, David (NIH/NIAID) [C] < (b) (6)>: KUMAR SUNNY < KUMAR.SUNNY@zeemedia.esselgroup.com> Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Barasch, Kimberly (NIH/NIAID) [C] (b) (6)>; Oplinger, Anne (NIH/NIAID) [E] (b) (6) >; Richa Sharma (WION) <Richa.sharma@zeemedia.esselgroup.com> Subject: Re: REQUEST FOR A TV INTERVIEW ON WION TV INDIA David. Many thanks for the Interview. He really added value in our show. We look forward to have his presence in future on WION. Regards Latika Chugh From: Awwad, David (NIH/NIAID) [C] (b) (6) Sent: Thursday, February 6, 2020 5:00 PM To: Latika Chugh (WION) <a href="mailto:latika.chugh@zeemedia.esselgroup.com">latika.chugh@zeemedia.esselgroup.com</a>; KUMAR SUNNY <KUMAR.SUNNY@zeemedia.esselgroup.com> Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (b) >; Barasch, Kimberly (NIH/NIAID) [C] (6) (6); Oplinger, Anne (NIH/NIAID) [E] (b) (6) >; Richa Sharma (WION) <Richa.sharma@zeemedia.esselgroup.com> Subject: RE: REQUEST FOR A TV INTERVIEW ON WION TV INDIA Thank you much. From: Latika Chugh (WION) < atika.chugh@zeemedia.esselgroup.com> Sent: Thursday, February 6, 2020 6:29 AM To: Awwad, David (NIH/NIAID) [C] (b) (6)>; KUMAR SUNNY <KUMAR.SUNNY@zeemedia.esselgroup.com> Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Barasch, Kimberly (NIH/NIAID) [C] (b) (6); Richa Sharma (b) (6); Oplinger, Anne (NIH/NIAID) [E] (WION) < Richa.sharma@zeemedia.esselgroup.com> Subject: Re: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Dear David,

It will be live Interview on WION with Dr. Fauci at 7 am Maryland Time for 10 -15 minutes only on Skype.

My colleague Mr. Sunny (marked in email) will patch the Skype sharp in 30 minutes from now.

Also, We have send you Skype Request from WION Skype Id some hours ago. I request you to please add us.

Regards

Latika Chugh

From: Awwad, David (NIH/NIAID) [C] < (b) (6)

Sent: Thursday, February 6, 2020 4:54 PM

To: Latika Chugh (WION) < latika.chugh@zeemedia.esselgroup.com>

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6)>; Barasch, Kimberly (NIH/NIAID) [C]

(b)(6); Oplinger, Anne (NIH/NIAID) [E] (b)(6)>

Subject: RE: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Let me know if you would like to connect a couple minutes earlier. I am on standby.

David

(b) (6) (cell)

David Awwad, Contractor

Customer Services Branch, NIH\NIAID\OCICB

NTT DATA Services Federal, LLC

Phone: (6) (6) (6)

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From: Latika Chugh (WION) < latika.chugh@zeemedia.esselgroup.com>

Sent: Wednesday, February 5, 2020 9:25 AM

To: Awwad, David (NIH/NIAID) [C] (b) (6)>

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (0); Barasch, Kimberly (NIH/NIAID) [C]

(6) (6)>;	Oplinger, Anne (NIH/NIAID	D) [E] (b) (6)					
ubject: Re: REQUEST FOR A T	V INTERVIEW ON WION TV	/ INDIA					
hanks							
ee you tomorrow							
atika : (6) (6)							
Set Outlook for Android							
rom: Awwad, David (NIH/NIA	U.C.B. in State 1	(b) (6)					
ent: Wednesday, February 5,							
o: Latika Chugh (WION) < latil	10.0001/0.00						
c: Conrad, Patricia (NIH/NIAI	0.1-9.00	(b) (6); Barasch, Kimberly (NIH/NIAID) [C]					
ubject: Re: REQUEST FOR A T	Oplinger, Anne (NIH/NIAID						
avject ne. negota i FORA I	THAT ENVIEW ON WION TV	THOR.					
kype Handle: Live:niaidithelp	or niaidithelp@outlook.co	m					
avid: (6) (6)							
ent from my iPhone							
On Feb 5, 2020, at 9:16	AM, Latika Chugh (WION)						
<a href="mailto:latika.chugh@zeemed">latika.chugh@zeemed</a>	lia.esselgroup.com> wrote:						
Yes,							
It completely fine wit	h us.						
Our Skype Id - wion re	ecord. Please share your	Skype id with us.					
We will be online at 7	AM ET TIME WHICH WI	ILL BE 5:30 PM OUR TIME IN IST.					
Regards							
Latika Chugh							
Producer, Wion							
India							
2	NAMES OF THE OWNER						
From: Conrad, Patricia Sent: Wednesday, Febr		(6) (6)					
	l) <latika.chugh@zeemedia< td=""><td>a esselgroup com&gt;</td></latika.chugh@zeemedia<>	a esselgroup com>					
Cc: Barasch, Kimberly (f		(b) (6)>; Awwad, David					

(NIH/NIAID) [C] (NIH/NIAID) [E]

Subject: FW: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Dr. Fauci can do a skype interview Thursday morning 7 am - 7:15 am ET by skype. Please let us know asap if that works.

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
(b) (6)
301-496-4409 fax

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From: Latika Chugh (WION) < latika.chugh@zeemedia.esseigroup.com>

Sent: Tuesday, February 4, 2020 5:15 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6):

Cc: Wion Guest Relations < wion.guestrelations@zeemedia.esselgroup.com>

Subject: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Dear Anthony S. Fauci, M.D., NIAID Director

## Greetings from WION!

World Is One News (WION)is an international English news channel from the Zee Media Group, India's premier television brand. WION is uniquely positioned as the 'Global Voice of India', presenting its own perspective on international issues of critical significance. WION is the preferred channel for most opinion makers across the world as they happily attend our shows bringing in credible viewpoints on many issues. WION is currently available in India, Indonesia, The Republic of Philippines, Australia, Vietnam, Hong Kong, UAE, Malaysia, Singapore and South Africa etc.

WION's shows have featured Indian Political scenario & global leaders speaking on issues facing their country and the world in general.

I would like to request for **your** time for an interview with us anytime soon today for **10-15 minutes**. We usually conduct Interview via **Skype**. Request you to share your Skype Id.

## It's regarding CORONAVIRUS.

Please let us know when is the best time for you to join us via Skype. Waiting for your confirmation.

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Look forward hearing from you.

Regards

Latika Chugh

WION TV , India

Zee Disclaimer: Confidentiality / Proprietary Note: This communication is confidential /proprietary and is intended for use only by the addressee. Zee Media Corporation Ltd. accepts no responsibility for any mistransmission of, orinterference with, this communication From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 10 Feb 2020 00:49:33 +00

Mon, 10 Feb 2020 00:49:33 +0000 Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: CNN Interview CONFIRMATION: Dr. Anthony Fauci

Thanks.

To:

From: Conrad, Patricia (NIH/NIAID) [E] (6) (6)

Sent: Sunday, February 9, 2020 7:46 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Fwd: CNN Interview CONFIRMATION: Dr. Anthony Fauci

Sent from my iPhone

Begin forwarded message:

From: "Griffin, Janelle" < Janelle Griffin@turner.com>

Date: February 9, 2020 at 5:54:23 PM EST

To: "Conrad, Patricia (NIH/NIAID) [E]" (b) (6)

Cc: "Stover, Kathy (NIH/NIAID) [E]" (b) (6), "Routh, Jennifer (NIH/NIAID) (E)" (b) (6), "Akinso, Woleola (NIH/OD) [E]" (b) (6),

"Greene, Nyja" < Nyja. Greene@turner.com>

Subject: CNN Interview CONFIRMATION: Dr. Anthony Fauci

Hello.

We're all set for tomorrow!

Dr. Fauci is confirmed for a live segment at 10:15a et on Newsroom w/Poppy Harlow & Jim Sciutto.

Please ensure he's scated no later than 10:05a et. (the show is aware that Dr. Fauci has a hard at 10:20a et)

Nyja Greene, cc'd on this email, will be your Atlanta based show point of contact tomorrow.

Any issues or changes please don't hesitate to reach out to her in the morning.

Monday's segment will focus on latest Coronavirus developments: Dr. Fauci covered the SARS outbreak almost 17 years ago- from what he's seeing now with the Coronavirus, how bad do think this could become? How does the Coronavirus compare/contrast with others like Ebola or Zika? How effective are quarantines in situations like this? What, if any, precautions should we be taking right now in America? Any thoughts/talking points you can send over from Dr. Fauci evening would be super helpful.

Patricia- thank you sooo much for all of your help with organizing. We really appreciate it and look forward to Dr. Fauci joining the show.

From: Conrad, Patricia (NIH/NIAID) [E]	(b) (6)>
Sent: Saturday, February 8, 2020 1:04 PM	
To: Griffin, Janelle <lanelle griffin@turner<="" th=""><th>com&gt;</th></lanelle>	com>
Cc: Stover, Kathy (NIH/NIAID) [E] <	(6) (6)>; Routh, Jennifer (NIH/NIAID) [E
(b) (6) Akinso, Woleol	a (NIH/OD) [E] (b) (6)>
Subject: Re: CNN Interview Request: Dr. A	nthony Fauci
Ok thx	
Sent from my iPhone	
On Feb 8, 2020, at 12:54 PM, Gnffin	n, Janelle < <u>Janelle.Griffin@tumer.com</u> >
wrote:	
Great- thank you!	
Let's keep things for a segment at 1	0:15a on Monday.
I'll be back in touch after my 6p sho evening.	w planning conference call Sunday
Thank so much Patricia 🔾	
From: Conrad, Patricia (NIH/NIAID) Sent: Saturday, February 8, 2020 12	To the second se
To: Griffin, Janelle < Janelle Griffin	
Cc: Stover, Kathy (NIH/NIAID) [E]	(b)(0); Routh, Jennifer
(NIH/NIAID) [E]	(b) (6); Akinso, Woleola (NIH/OD) [E]
(b) (6)>	Serve, Alimso, Wolcola (Alimbo) [c]
Subject: Re: CNN Interview Reques	t: Dr. Anthony Fauci
We can make the 9 am hour work t	oo. Pis let us know ASAP so I can make
sure our studio is available. When	will you have a final answer?
My cell is (6) (6) and am alw	vays on email which is better for me.
Sent from my iPhone	

On Feb 8, 2020, at 12:48 PM, Griffin, Janelle <a href="mailto:Janelle.Griffin@turner.com">Janelle.Griffin@turner.com</a>> wrote:

That's great- thanks Patricia! We'll add him to our calendar for 10:15a et.

If we needed to move him his segment to the 9a et hour would that also work?

May I have your cell number for my records?

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

(b)(6)>

Sent: Saturday, February 8, 2020 12:46 PM
To: Griffin, Janelle < Janelle. Griffin@turner.com>

Subject: Fwd: CNN Interview Request: Dr. Anthony Fauci

Hi Janelle

We can make this work - it would need to be from between 10 am - 1020 am hard stop.

Will that work?

It would need to be from our NIH Readycam studio with Videolink

Let me know if that works

From: Griffin, Janelle

<

Sent: Saturday, February 8, 2020 11:33 AM

To: Fauci, Anthony (NIH/NIAID) [E]

(b) (6)

Subject: CNN Interview Request: Dr. Anthony

Fauci

Importance: High

Good morning Dr. Fauci,

I hope this email finds you doing well.

I'm reaching out on behalf of Newsroom w/Poppy Harlow & Jim Sciutto hoping you can join for an interview.

Are you available to join CNN this Monday February 10<sup>th</sup> in the 10a et hour? This would be live for about 5-7 minutes to discuss developments regarding the coronavirus.

Please feel free to contact me via email or at (404) 452-7769 to let me know.

Thanks for your time- I look forward to hearing from you soon.

Janelle Griffin-Butts

Editorial Producer, CNN

Email: janelle.griffin@turner.com | Twitter:

mjaneflegCNN

From: (b) (6)

Sent: Sun, 9 Feb 2020 16:36:38 -0500

To: autotell

Subject: Re: Help Re: Novel Rx for Coronavirus

Thanks, Andy. Best regards, Tony

On Feb 9, 2020, at 4:29 PM, autotell (b)(6)>wrote:

Thank you my friend, hope it leads to something good for patients and the public.

I was at a meeting of the "Philosophical Society of Texas" this week end and meet with a lot of Bush alums like Don Evans and Margaret Spellings etc and Margaret was commenting on the coronavirus scare and how fortunate we are to have you there at NIH looking after us!! If you ever decide to relocate to Texas you have a fan club here!

All my best

Andy

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Sent: Sunday, February 9, 2020 7:24 AM

To: autotell| (0)(0)>

Subject: RE: Help Re: Novel Rx for Coronavirus

## Andy:

Thanks for the note. I will take a look at this and more importantly, I will run it by the people here at NIAID who are running the nCoV research initiative. I will get back to you with their and my assessment. I hope that all is well with you. We are doing a lot of late nighters here. Feels like my internship. 

Best regards,

Tony

From: autotell ( (b) (6)t>

Sent: Friday, February 7, 2020 2:50 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Fauci, Anthony (NIH/NIAID) [E]

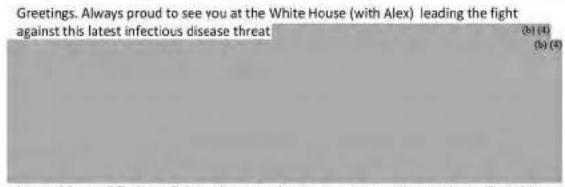
(b) (d)>

Cc: Xiaokui Zhang (b) (6) >; Robert Hariri

(b) (6) >

Subject: Help Re: Novel Rx for Coronavirus

Tony



I trust this email finds my Paisano happy and content as you continue to be a gift to this nation and the world. Please let me know you received this email.

My best to you and your family. Hope our paths cross soon

Andy

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 9 Feb 2020 18:23:24 +0000

 To:
 Folkers, Greg (NIH/NIAID) [E]

Subject: RE: Investigational compound remdesivir, developed by UAB and NIH

researchers, being used for treatment of novel coronavirus

WOW! I did not know that. Good talking point for press conferences.

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)

Sent: Sunday, February 9, 2020 1:13 PM

Subject: Investigational compound remdesivir, developed by UAB and NIH researchers, being used for

treatment of novel coronavirus

# Investigational compound remdesivir, developed by UAB and NIH researchers, being used for treatment of novel coronavirus

by Savannah Koplon

- February 07, 2020
- Print
- Email



Richard Whitley, M.D., Distinguished Professor at UAB and principal investigator

of the U19 grant

The investigational drug remdesivir, developed through research conducted through the Antiviral Drug Discovery and Development Center, or AD3C, and centered at the University of Alabama at Birmingham, is being used to treat select infected patients in the United States and in China who have been affected by the outbreak of novel coronavirus (2019-nCoV).

UAB was awarded a \$37.5 million, five-year U19 grant from the National Institute of Allergy and Infectious Diseases Centers of Excellence for Translational Research to study and develop treatment for high-priority emerging infections. Work has been taking place in earnest to develop drugs for emerging influenza, flaviviruses (dengue, West Nile virus and Zika), coronaviruses that cause SARS and MERS, and alphaviruses such as Venezuelan equine encephalitis virus and chikungunya. The grant is a multi-

institutional collaboration to accelerate drug discovery for these emerging infections and is a publicprivate partnership between academic institutions and Gilead Sciences.

Remdesivir, developed to treat the coronavirus causing MERS, was found to have significant activity against the 2019-nCoV strain when the outbreak began in the Chinese city of Wuhan. Importantly, remdesivir had demonstrated efficacy in treating other medically important coronaviruses MERS and SARS in cell culture and animal models. Based on the compassionate plea requests of treating physicians in the United States, Gilead Sciences released remdesivir for use in a few patients, although the drug has not yet been tested for safety or efficacy in these diseases. "The release of remdesivir for safety and efficacy studies is a major accomplishment for the AD3C – namely the U19 grant – as it shows significant and swift advance of antiviral drugs to help treat and respond to emerging infectious disease outbreaks on an international scale and, importantly, to anticipate the introduction of these infections in the United States," said Richard Whitley, M.D., Distinguished Professor at UAB and principal investigator of the U19 grant.

WATCH: UAB infectious disease experts provide information on the 2019 novel coronavirus.

Gilead Sciences and supporting researchers and clinicians are working with health authorities from the World Health Organization and in China to establish a placebo-controlled study to determine whether remdesivir is safe and effective in treating 2019-nCoV.

"This is a prime example of how the research we are conducting at UAB plays a critical role in treating patients on a global scale and our contribution of substantial scientific advances."

- Richard Whitley, M.D., UAB Distinguished Professor

"The collaboration between UAB, our colleagues at Southern Research, Vanderbilt University and the University of North Carolina, along with our pharmaceutical partner Gilead Sciences, is indicative of our collaborative approach to respond to outbreaks in real time, and in helping communities worldwide fight 2019-nCoV. This is a prime example of how the research we are conducting at UAB plays a critical role in treating patients on a global scale and our contribution of substantial scientific advances," Whitley continued.

Whitley expressed that the potential for mutation of 2019-nCoV means that UAB's AD3C and partners will need to build backup molecules for potential testing and treatment in the near future.

The World Health Organization has declared the 2019-nCoV outbreak a "public health emergency of international concern."

UAB is the lead institution for AD3C and research conducted; but the team unifies scientists experienced in virology, viral immunology, pathogenesis, medicinal chemistry and translation to human disease from UAB, University of North Carolina, Vanderbilt University, Emory University, Washington University, The University of Texas Medical Branch, Southern Research, the Emory Institute of Drug Discovery, the University of Colorado, Denver, and Oregon Health & Science University.

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 9 Feb 2020 18:20:45 +0000

To: Liz Szabo

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Plumbing as possible means of spread of coronaviruses

Attachments: Amoy Gardens and SARS.pdf

Liz:

Thanks for the note. I do not know enough about the plumbing system on the cruise ships to make any meaningful comments, certainly not any comments that could be attributable to me. And so, I will pass on this one, The best person to comment or opine on this would be Mart Cetron of CDC. FYI, in case you do not have it in front of you, I am attaching the original NEJM article on the Amoy Gardens Apartment story in Hong Kong with SARS.

Best regards,

Tony

From: Liz Szabo < LSzabo@kff.org>

Sent: Saturday, February 8, 2020 7:21 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Plumbing as possible means of spread of coronaviruses

HI Dr. Fauci,

I hope you're doing well. I know you must be very busy.

Our editor, Dr. Elizabeth Rosenthal, is wondering whether the new coronavirus might be spreading through plumbing on the cruise ship? She sent me these links, below, about how plumbing played a role in spreading SARS in the Amoy Gardens apartment complex in Hong Kong. Libby lived in China during the SARS outbreaks and remembers that the sinks there don't have the typical U-bend trap that sinks have here, which allows sewer gases and unpleasant odors to come through.

If plumbing is a risk for spreading coronaviruses, what could be done to protect passengers on cruise ships?

I'd love to hear your thoughts on this, even if just by email.

Thanks for your time.

Liz Szabo Kaiser Health News 571-201-9009

https://www.cbsnews.com/news/leaky-plumbing-linked-to-sars-spread/

https://www.cnn.com/2013/02/21/world/asia/sars-amov-gardens/index.html

https://plumbingconnection.com.au/new-report-proves-plumbing-link-to-sars/

https://www.infectioncontroltoday.com/personal-protective-equipment/sarsand-plumbing-role-sewage-plays-spreading-disease

https://jamanetwork.com/journals/jama/fullarticle/2761044?guestAcces sKey=f61bd430-07d8-4b86-a749-

bec05bfffb65&utm\_source=For\_The\_Media&utm\_medium=referral&u tm\_campaign=ftm\_links&utm\_content=tfl&utm\_term=020720 From: Fauci, Anthony (NIH/NIAID) [E] Sent: Sun, 9 Feb 2020 17:59:10 +0000 To: Tabak, Lawrence (NIH/OD) [E] Cc: Schwetz, Tara NIH/OD) [E]:Erbelding, Emily (NIH/NIAID) [E]:Conrad, Patricia (NIH/NIAID) [E]; Marston, Hilary (NIH/NIAID) [E]; Eisinger, Robert (NIH/NIAID) [E]; Lerner, Andrea (NIH/NIAID) [E]; Auchincloss, Hugh (NIH/NIAID) [C] (b) (b) Subject: RE: NCATs request re. Coronavirus Larry: (b) (5) Best, Tony From: Tabak, Lawrence (NIH/OD) [E] (b) (6)> Sent: Sunday, February 9, 2020 12:46 PM To: Fauci, Anthony (NIH/NIAID) [E] < (6) (6) (b) (6)> Cc: Schwetz, Tara (NIH/OD) [E] Subject: NCATs request re. Coronavirus Tony, (b)(0)

Larry

Thanks,

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 9 Feb 2020 17:53:04 +0000

To: Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: CNN Anderson Cooper Full Circle Request- Dr. Anthony Fauci

OK. Thanks.

From: Conrad, Patricia (NIH/NIAID) [E] (6) (6)>

Sent: Sunday, February 9, 2020 12:44 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Fwd: CNN Anderson Cooper Full Circle Request- Dr. Anthony Fauci

I am working on this.

Sent from my iPhone

Begin forwarded message:

From: "Varon, Sophie" <Sophie. Varon@turner.com>

Date: February 9, 2020 at 12:30:31 PM EST

To: "Conrad, Patricia (NIH/NIAID) [E]" (6) (6) >, "Fauci, Anthony

(NIH/NIAID) [E]" (b) (6)

Subject: CNN Anderson Cooper Full Circle Request- Dr. Anthony Fauci

Hello Dr. Fauci and Patricia,

I hope you're both doing well.

I'm reaching out to see if Dr. Fauci could be available for an interview with Anderson Cooper on Monday for his CNN digital program, Full Circle. Full Circle is an interesting platform because it allows us to take live viewer questions. This taped interview would air on Tucsday at 5PM and Anderson could tape tomorrow in the 4PM hour or after 5:45PM.

The topic is of course the Coronavirus.

Thank you for considering this request!

Sophie Varon

Editorial Producer, CNN AC360

cell- (b) (6)

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sun, 9 Feb 2020 17:52:22 +0000

To: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: CNN Anderson Cooper Full Circle Request- Dr. Anthony Fauci

If we can do this, I would be happy to.

From: Varon, Sophie <Sophie. Varon@turner.com>

Sent: Sunday, February 9, 2020 12:30 PM

To: Conrad, Patricia (NIH/NIAID) [E] (0) (6) >; Fauci, Anthony (NIH/NIAID) [E]

(6)-(6)

Subject: CNN Anderson Cooper Full Circle Request- Dr. Anthony Fauci

Hello Dr. Fauci and Patricia.

I hope you're both doing well.

I'm reaching out to see if Dr. Fauci could be available for an interview with Anderson Cooper on Monday for his CNN digital program, Full Circle. Full Circle is an interesting platform because it allows us to take live viewer questions. This taped interview would air on Tuesday at 5PM and Anderson could tape tomorrow in the 4PM hour or after 5:45PM.

The topic is of course the Coronavirus.

Thank you for considering this request!

Sophie Varon

Editorial Producer, CNN AC360

cell- (b) (6)

From: Fauci, Anthony (NIH/NIAID) [E] Sent: Sun, 9 Feb 2020 17:51:21 +0000 Hall, Bill (HHS/ASPA) To: Subject: FW: CNNI Interview with Dr. Anthony Fauci, Bill: This link below is for an interview that I gave for CNN International this morning. As we all know, it makes such a big difference when the interviewer knows the subject and asks good questions that this interviewer did. Would that they were all like her. Best regards, Tony From: Hynds, Joanna (NE) < Joanna Hynds@turner.com> Sent: Sunday, February 9, 2020 12:30 PM To: Conrad, Patricia (NIH/NIAID) [E] (8) (6)> Cc: Fauci, Anthony (NIH/NIAID) [E] < Subject: RE: CNNI Interview Request: Dr. Anthony Fauci, We are so glad to! Here is the clip https://we:tl/t-BOkVJSyQVB All the best, Joanna From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)> Sent: 09 February 2020 16:15 To: Hynds, Joanna (NE) < Joanna Hynds@turner.com> Cc: Fauci, Anthony (NIH/NIAID) [E] Subject: Re: CNNI Interview Request: Dr. Anthony Fauci, My pleasure- so glad we could make it work. Please do send us the the video segment Best, Patty. Sent from my iPhone On Feb 9, 2020, at 11:06 AM, Hynds, Joanna (NE) <a href="mailto:spanna.Hynds@turner.com">Joanna.Hynds@turner.com</a> wrote:

Dear Mr Fauci,

NIH-002028

I just wanted to thank you for your accommodation at such short notice for the earlier interview. I do apologise for the miscommunication on my part. We really enjoyed having you on the show! Thanks too to Patricia, for helping coordinate this all at last minute. I hope you both have a great evening. Many thanks again for your patience and understanding. If you would like a video segment of your hit I will gladly send you it on request. Best. Joanna From: Conrad, Patricia (NIH/NIAID) [E] (b) (5) Sent: 09 February 2020 14:26 To: Hynds, Joanna (NE) < Joanna. Hynds@turner.com> Cc: Pfeifer, Hazel < Hazel Pfeifer@turner.com>; Lovejoy, Hannah (NE) <Hannah.Lovejoy@turner.com>; Fauci, Anthony (NIH/NIAID) [E] (b) (6)> Subject: Re: CNNI Interview Request: Dr. Anthony Fauci, Do you have the hit time and contact info please send ASAP. Sent from my iPhone On Feb 9, 2020, at 8:38 AM, Hynds, Joanna (NE) <loanna.Hynds@turner.com> wrote: Perfect - we really appreciate this. I will get you these details ASAP. Does Dr Fauci need a car? Best, Joanna

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)> Sent: 09 February 2020 13:33 To: Hynds, Joanna (NE) < Joanna. Hynds@turner.com> Cc: Pfeifer, Hazel < Hazel. Pfeifer@turner.com>; Lovejoy, Hannah (NE) <Hannah,Lovejoy@turner.com>; Fauci, Anthony (NIH/NIAID) [E] (b) (6) Subject: Re: CNNI Interview Request: Dr. Anthony Fauci, Adding Dr Fauci here He can come to the WDC CNN studio. Please send us the exact live hit time as well as the studio address and on-site contact name, number and cell number ASAP. Dr Fauci cell is (b) (6) and you have mine. Thank you. Sent from my iPhone On Feb 9, 2020, at 8:21 AM, Hynds, Joanna (NE) Joanna.Hynds@turner.com> wrote: Dear Patricia. Just following up from our phone conversation, unfortunately I won't be able to facilitate a StudioGo truck for this interview. We are still really keen to get Dr Fauci on the show - will he be able to come to the bureau? I will be able to book him a car if he needs. Let me know what suits, Best, Joanna From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)> Sent: 09 February 2020 13:00

To: Hynds, Joanna (NE) < Joanna. Hynds@turner.com >
Subject: Re: CNNI Interview Request: Dr. Anthony Fauci,

For the trick- the location is northwest Washington DC. Near American university.

Sent from my iPhone

On Feb 9, 2020, at 7:51 AM, Conrad, Patricia (NIH/NIAID) [E] (0) (6)> wrote:

Please call me ASAP at (6) (6) for this request.

Sent from my iPhone

Begin forwarded message:

From: "Fauci, Anthony (NIH/NIAID)

[E]" (b) (6)>

Date: February 9, 2020 at 7:08:54

AM EST

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

(b) (6)

Subject: Fwd: CNNI Interview Request: Dr. Anthony Fauci,

Sent from my iPhone

Begin forwarded message:

From: "Hynds, Joanna

(NE)"

<loanna.Hynds@turner</pre>

.com>

Date: February 9, 2020 at 6:06:15 AM EST To: "Fauci, Anthony (NIH/NIAID) [E]"

(b) (6) >

Cc: "Tejera, Isabel

(Intern)\*

<isabel.Tejera@turner.c om>, "Lovejoy, Hannah (NE)"
<<u>Hannah.Lovejoy@turn</u>
er.com>

Subject: CNNI Interview Request: Dr. Anthony Fauci,

## Dear Dr Fauci,

I hope you are well I am reaching out from CNN International to enquire if you are available today to join us on **Connect the World** at **11aET** to discuss the coronavirus.

Might this be a possibility? It would be great to arrange this.

## Background on CNN

- CNN
   International reaches more than 250 million households worldwide including in the US via DIRECTV.
- CNN
   International is the number one international TV news channel according to all major media surveys across Europe, the Middle East and Africa, the Asia

- Pacific region and Latin America.
- In September 2019 CNN.com had 162 million unique readers globally per month and 114 million mobile readers a month, leading the BBC, Yahoo and New York Times.

Best,

## Joanna Hynds

## Planning Desk CNN International

+ 44 207 693 1640 (office)

+ (b)(f) (cell) joanna.hynds@turner.c om

<image001.png>

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From: Fauci, Anthony (NIH/NIAID) [E] Sent: Sun, 9 Feb 2020 17:34:16 +0000

To: Denise Ober

Subject: RE: HEART WRENCHING QUESTION! ♥®

The State Department and CDC travel alerts for China, which advise only absolutely essential travel, do not officially include Hong Kong and so there is no official restriction right now (but this could change), and there is no quarantine requirement upon returning from Hong Kong. However, this all could change quickly.

Original Message-

From: Denise Ober

Sent: Saturday, February 8, 2020 3:23 PM

To: Fauci, Anthony (NIH/NIAID) [E]

Subject: HEART WRENCHING QUESTION!

Dear Dr. Fauci.

I realize this is a long shot for you to answer this email. Please forgive me since Im sure you are so extremely busy and so very importantly needed at this time. I do apologize for taking even a moment from your high demand schedule. But thought I'd try to reach out anyway in case you did see this.

I saw an interview recently you had with Dr Baucher posted by JAMA. From your expertise and knowledge about the coronavirus thus far, if you had planned to travel to Thailand mid March via stop over at Hong Kong would you?

Thank you from my concerned heart!

Thank you for EVERYTHING you do and have done in the past!

Best to you, Denise Ober

Sent from my iPad

From: Fauci, Anthony (NIH/NIAID) [E] Sent: Sun, 9 Feb 2020 17:26:01 +0000 To: Cassetti, Cristina (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]: Erbelding, Emily (NIH/NIAID) [E]: Auchincloss,

Hugh (NIH/NIAID) [C] ( (b) (6); Barasch, Kimberly (NIH/NIAID) [C]; Greg Folkers

(b) (0); Marston, Hilary (NIH/NIAID) [E]; Eisinger, Robert (NIH/NIAID) [E]; Lerner,

Andrea (NIH/NIAID) [E]

Subject: FW: Help Re: Novel Rx for Coronavirus

(b) (4) in 2019-CoV Proposal 07Feb2020.docx Attachments:

## Cristina:

This is not just your ordinary person writing to us. This is Dr. Andrew von Eschenbach, former Director of NCI and Former Commissioner of FDA. I have no idea if this proposal has any merit; however, please have someone go over it carefully and put together a response. Also, only if appropriate, and feasible, see if there is any way we can be of assistance to him. Thanks. Best regards,

Tony

From: autotell	(b) (6)		
Sent: Friday, February 7, 2020 2:50 PN	1		
To: Fauci, Anthony (NIH/NIAID) [E]	(b) (6)>; Fauci, Anthony (NIH/NIAID) [E]		
(b) (6)			
Cc: Xiaokui Zhang	(b) (6)>; Robert Hariri	(b) (6)	
(b) (6)			
Subject: Help Re: Novel Rx for Corona	virus		

nfectious d	isease threat.		(b) (4) (b)

I trust this email finds my Paisano happy and content as you continue to be a gift to this nation and the world. Please let me know you received this email.

My best to you and your family. Hope our paths cross soon Andy

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 9 Feb 2020 17:17:07 +0000

 To:
 Stover, Kathy (NIH/NIAID) [E]

Cc: Billet, Courtney (NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E];Folkers, Greg

(NIH/NIAID) [E]

Subject: RE: FOR ASF REVIEW: Draft responses to questions from Italian news agency

See my edits in red.

From: Stover, Kathy (NIH/NIAID) [E] (0) (0) >

Sent: Friday, February 7, 2020 2:02 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Cc: Billet, Courtney (NIH/NIAID) [E] (b) (6); Conrad, Patricia (NIH/NIAID) [E]

(b) (6)>; Folkers, Greg (NIH/NIAID) [E] (b) (6)

Subject: FOR ASF REVIEW: Draft responses to questions from Italian news agency

Hi Dr. Fauci,

Below are draft responses to questions from a reporter with the Italian news agency ANSA. Please let me know if you have any suggested edits, and I'll move it along.

Thanks, Kathy

Enrica Battifoglia
Science and Technology Head Editor
ANSA news agency (Italian news)
Enrica.Battifoglia@ansa.it

Expected place of publication: ANSA Science web page (www.ansa.it/scienza)

Dear Professor Fauci,

I am Enrica Battifoglia of the Italian news agency ANSA, I already have had the pleasure to interview you several times at the AIDS world conferences.

I would like to ask you some questions about Coronavirus 2019-nCoV, to be published on the ANSA Science web page (<a href="www.ansa.it/scienza">www.ansa.it/scienza</a>), the main online science news resource in Italy with over 1.5M contacts each month. I am sure that your clarity and competence will be highly valuable to put some much-needed order among so many contrasting news and data, and would be much appreciated by our readers.

1. Do the current available data allow to understand the threat level of coronavirus 2019nCoV in terms of both lethality and diffusion speed, and about the possible evolution scenarios of the disease?

There is much that we do not know about the novel coronavirus. Currently, there have been more than 37,000 confirmed cases in China, and China has reported more than 800 deaths. As you know, there have been three confirmed cases in Italy to date. The reported case fatality rate (lethality) among the 37,000 cases that have come to the attention of the health care system is 2%. However, given that there are likely many more cases that are without symptoms or with minimal symptoms, the actual death rate is probably lower than 2%.

It is impossible to predict how the virus will evolve. It is our hope that the extraordinary containment measures that China has implemented will help **prevent** the outbreak from becoming a global pandemic. But given that the virus is present in 27 countries to date and can be transmitted from person-to-person, it may take a foothold and **evolve into a global pandemic**.

# 2) What exactly do we know about its modes of transmission, especially from people who do not yet have the symptoms?

Again, there is much that we do not know about the novel coronavirus, including its specific transmission abilities. Based on initial findings that have been reported, we suspect its transmission is similar to influenza and other respiratory viruses, namely that is transmitted through respiratory droplets when an infected person coughs or sneezes, and by touching surfaces, such as door handles, that recently have virus on them and then touching your face. There have also been reports that the virus is present in feces and vomit. However, it is still uncertain that the virus can be transmitted through this route:

Traditionally, most viruses are transmitted when someone has symptoms. With the novel coronavirus; however, there appears to be asymptomatic transmission occurring. We do not know how many cases are being driven by asymptomatic transmission or by those with symptoms. Typically, viruses are largely transmitted by infected people experiencing symptoms.

# 3) Are the genetic sequences provided by China enough to start working on a vaccine?

The genetic sequences provided by China enabled researchers to quickly develop a diagnostic that is being used to determine whether someone is infected with the novel coronavirus. The genetic information has also been useful in work to develop a preventive vaccine. The National Institute of Allergy and Infectious Diseases, part of the U.S. National Institutes of Health, is building on its experience with the SARS and MERS coronaviruses to better understand the virus as well as develop and test rapid point-of-care diagnostics, vaccines and treatments, including broad-spectrum antivirals and antibody therapies. In terms of vaccines specifically, we are

working with the biotechnology company Moderna and the Coalition for Epidemic Preparedness Innovation (CEPI) to develop a "messenger RNA" vaccine for the novel coronavirus. Other countries and companies are working to develop a vaccine as well.

4) What are the technical times to develop a working vaccine in terms of scientific research, and what are the approx times for the necessary legal certifications, and for industrial production and distribution?

In terms of our work with Moderna and CEPI to develop a vaccine, we anticipate having an experimental vaccine ready for Phase 1 clinical trials within 2 to 3 months. This Phase I clinical trial will involve administering the vaccine to a small number of healthy adults in the United States to see if it is safe and has some ability to induce an immune response. If that is successful and the outbreak has not ended, we will move to a larger Phase 2 clinical trial with the expectation of proving the efficacy (or not) of the vaccine within 1 to 1.5 years. If efficacious, it will still take additional months to produce enough vaccine to distribute widely...

In addition to this vaccine, NIAID is also supporting scientists and companies to develop other vaccine candidates.

5) 2019-nCov is the third Coronavirus aggressive for humans that has appeared in the East in the last 20 years and in 2009 the virus responsible for the flu pandemic too did come from China; what sort of preventive measures could be practicable to reduce the risk of repetition of these events?

To clarify, the 2009 H1N1 influenza virus was first reported in Mexico, not China.

Viruses affecting humans have occurred throughout history, from the Bubonic Plague to the 1918 flu. We cannot predict what emerging infectious diseases will occur nor prevent the unknown from occurring in the first place. What we can do is learn as much as we can about emerging viruses, so that we can rapidly develop safe and effective point-of-care diagnostics, treatments and vaccines to protect against infection.

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 9 Feb 2020 16:41:33 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Cowen Health Care Conference in Boston - China Pharma Market Panel -

March 2, 2020 in Boston

Please RSVP no.

From: Scala, Steve <Steve.Scala@cowen.com> Sent: Sunday, February 9, 2020 11:39 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Nadeau, Phil < Phil Nadeau@cowen.com>; Miner, Kathy < Kathy Miner@cowen.com>; Nedelcovych,

Michael <Michael.Nedelcovych@cowen.com>

Subject: Cowen Health Care Conference in Boston - China Pharma Market Panel - March 2, 2020 in

Boston

Hi Dr. Fauci

I am a pharmaceutical industry analyst at Cowen and Company, a New York City based investment company that specializes in health care. Each year we host a Health Care Conference in Boston in March that attracts 200+ companies and 1000+ investors. During this year's conference, we had planned to host a one-hour panel discussion on the evolution of and reforms within the China Health Care System and China Pharmaceutical market. However, given global concerns around Coronavirus, we have decided to focus the panel instead on the virus and the outlook for emerging treatments. This perspective is critical to health care companies and therefore the institutions that invest in them.

Our panel will take place during Cowen's 40th Annual Health Care Conference, which will be held at the Marriott Copiey Place in Boston on March 2-4, 2020. We plan to host this panel on Monday morning, March 2<sup>nd</sup>, between 9:05-10:05AM. Attendees at our conference include institutional investors from insurance companies, mutual funds, pension funds, banks, and other types of funds, mainly in the U.S. and EU.

Cowen would provide you an honorarium for your time during the one-hour panel. We propose an honorarium of \$1,500, and we reimburse conference-related travel expenses.

The discussion will be Q&A only and no presentation on your part is requested.

We look forward to hearing from you.

Sincerely,

Steve Scala

In line with best practices suggested for brokerage firms, Cowen has a policy regarding our interaction with subject matter experts such as yourself, and by accepting and participating in this engagement, you agree to the conditions of this policy, including that you will not knowingly disclose any material non-public and/or confidential information; that your current employer permits you to participate in our event; that you are not employed by any of the companies anticipated to be discussed; and that your participation will not cause you to knowingly violate any contract (e.g., employment contract or consulting contract), agreement (e.g., confidentiality agreement) or other duty of confidentiality (e.g., serving on a board of directors) that you may have.

#### COWEN

#### Steve Scala

Pharmaceutical Industry Analyst Equity Research

Cowen and Company, LLC
Two International Place, 28<sup>th</sup> FI.
Boston, MA 02110
617-946-3923
stave.scala@cowen.com
www.cowen.com

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 9 Feb 2020 16:41:04 +0000

 To:
 Folkers, Greg (NIH/NIAID) [E]

Cc: Billet, Courtney (NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Podcast: Newt's World Ep 56: China's Coronavirus http://bit.ly/2Sud2am

## Definitely for the Director's page

From: Folkers, Greg (NIH/NIAID) [E] < (b) (6)

Sent: Sunday, February 9, 2020 9:45 AM

Subject: Podcast: Newt's World Ep 56: China's Coronavirus http://bit.ly/2Sud2am

Is the Coronavirus the next global pandemic or will the disease be eradicated in a short period of time? Newt's guests, Dr. Anthony Fauci and Dr. Peter Daszak, provide the information you need to know about the Coronavirus crisis.



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From: (b) (6)

Sent: Sun, 9 Feb 2020 10:53:02 -0500 To: Conrad, Patricia (NIH/NIAID) [E]

Cc: Billet, Courtney (NIH/NIAID) [E];Routh, Jennifer (NIH/NIAID) [E]

Subject: Fwd: CNNI Interview Request: Dr. Anthony Fauci,

Done

#### Begin forwarded message:

From: "Hynds, Joanna (NE)" < Joanna. Hynds@tumer.com>

Date: February 9, 2020 at 9:49:21 AM EST

To: "Conrad, Patricia (NIH/NIAID) [E]" (0)(6)

Ce: "Pfeifer, Hazel" < Hazel.Pfeifer@turner.com>, "Lovejoy, Hannah (NE)" < Hannah.Lovejoy@turner.com>, "Fauci, Anthony (NIH/NIAID) [E]"

(b) (6) >

Subject: RE: CNNI Interview Request: Dr. Anthony Fauci,

Hi Patricia.

I have let DC know, Angie will be there to greet him at 10.20a and bring him straight up.

DC Number: +1 202 5100172.

Best,

Joanna

From: Conrad, Patricia (NIH/NIAID) [E] (6) (6) (6) >

Sent: 09 February 2020 14:42

To: Hynds, Joanna (NE) < Joanna. Hynds@turner.com>

Cc: Pfeifer, Hazel < Hazel. Pfeifer@turner.com>; Lovejoy, Hannah (NE)

<Hannah.Lovejoy@turner.com>; Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Re: CNNI Interview Request: Dr. Anthony Fauci,

We are good. 1030 am ET his is firm. He will arrive the wdc cnn studio at 820 am ET so if you can have someone meet him at the entrance lobby to get him upstairs quickly that would be helpful.

Sent from my iPhone

On Feb 9, 2020, at 9:39 AM, Hynds, Joanna (NE) Soanna.Hynds@turner.com>wrote:

Hi Patricia,

That would be perfect. I am so sorry on the miscommunication on my part.

We really appreciate you accommodating us at this short notice.

Best.

Joanna

From: Conrad, Patricia (NIH/NIAID) [E] (6)(6)>

Sent: 09 February 2020 14:35

To: Hynds, Joanna (NE) < Joanna. Hynds@turner.com>

Cc: Pfeifer, Hazel <hazel.Pfeifer@turner.com>; Lovejoy, Hannah (NE) <hannah.Lovejoy@turner.com>; Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: Re: CNNI Interview Request: Dr. Anthony Fauci,

Dr DrFauci can be there for a 1030 am hit

We need to know ASAP if this is firm and what the exact hit time

Sent from my iPhone

On Feb 9, 2020, at 9:26 AM, Hynds, Joanna (NE) < <u>Joanna Hynds@turner.com</u>>wrote:

Just wanted to let you know the Flash Studio will be DC G Studio CAM 23

Our Bureau Address is 820 First ST NE 20002 Washington

Please contact the bureau at +1-202-898-7911

Please arrive at 10.40, you will be on around 11 – I will update with exact hit time as soon as I have it.

Best,

Joanna

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

(b) (6)>

Sent: 09 February 2020 13:33

To: Hynds, Joanna (NE) < Joanna Hynds@turner.com>

Cc: Pfeifer, Hazel < Hazel. Pfeifer@turner.com>; Lovejoy, Hannah

(NE) <Hannah.Lovejoy@turner.com>; Fauci, Anthony

(NIH/NIAID) [E] < (b) (6)

Subject: Re: CNNI Interview Request: Dr. Anthony Fauci,

Adding Dr Fauci here

He can come to the WDC CNN studio. Please send us the exact live hit time as well as the studio address and on-site contact name, number and cell number ASAP. Dr Fauci cell is (6) (6) and you have mine.

Thank you.

Sent from my iPhone

On Feb 9, 2020, at 8:21 AM, Hynds, Joanna (NE) < Joanna Hynds@turner.com>wrote:

Dear Patricia,

Just following up from our phone conversation, unfortunately I won't be able to facilitate a StudioGo truck for this interview.

We are still really keen to get Dr Fauci on the show — will he be able to come to the bureau?

I will be able to book him a car if he needs.

Let me know what suits,

Best,

Joanna

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

(b) (6);

Sent: 09 February 2020 13:00

To: Hynds, Joanna (NE)

<loanna.Hynds@turner.com>

Subject: Re: CNNI Interview Request: Dr. Anthony

Fauci,

For the trick- the location is northwest Washington

DC. Near American university.

Sent from my iPhone

On Feb 9, 2020, at 7:51 AM, Conrad, Patricia (NIH/NIAID) [E]

(b) (6) > wrote:

Please call me ASAP at (6) (6) for this request.

Sent from my iPhone

Begin forwarded message:

From: "Fauci, Anthony (NIH/NIAID) [E]"

(p) (q)

Date: February 9, 2020 at 7:08:54 AM EST To: "Conrad, Patricia (NIH/NIAID) [E]"

(b) (f)

Subject: Fwd: CNNI Interview Request: Dr. Anthony Fauci,

# Sent from my iPhone

# Begin forwarded message:

# From: "Hynds, Joanna (NE)" <loanna.H ynds@tur ner.com> Date: February 9, 2020 at 6:06:15 AM EST To: "Fauci, Anthony (NIH/NIA) D) [E]" (b) (6) Cc: "Tejera, Isabel (Intern)" <isabel.Tej era@turn er.com>, "Lovejoy, Hannah (NE)" <Hannah.L ovejoy@t urner.com > Subject: CNNI Interview

Request: Dr. Anthony Fauci, Dear Dr Fauci,

I hope you are well! I am reaching out from CNN Internatio nal to enquire if you are available today to join us on Connect the World at 11aET to discuss the coronavir us.

Might this be a possibility ? It would be great to arrange this.

## Backgroun d on CNN

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an d

N e w Yo rk Ti m es

Best,

Joanna Hynds

Planning Desk CNN Internati onal + 44 207 693 1640 (office)

joanna.hy nds@turn er.com <image00 1.png>

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 9 Feb 2020 13:05:06 +0000

To: Kaplan, Edward H

Cc: Redfield, Robert R. (CDC/OD);Cetron, Marty (CDC/DDID/NCEZID/DGMQ);Messonnier, Nancy (CDC/DDID/NCIRD/OD)

Subject: RE: Coronavirus containment modeling Attachments: hcms\_Wuhan\_Feb7\_2020\_in\_Press.pdf

Ed:

Many thanks for sending the manuscript. I hope that all is well with you. Best regards,

Tony

----Original Message-----

From: Kaplan, Edward H (b) (6)>

Sent: Saturday, February 8, 2020 10:13 PM

To: Fauci, Anthony (NIH/NIAID) [E] 00 (6)>

Subject: Coronavirus containment modeling

Dear Dr. Fauci.

It has been many years since we corresponded regarding smallpox bioterrorism and vaccination control.

The attached paper on containing a community coronavirus outbreak from a few initial cases via isolation and quarantine might interest you. The news is mostly good - isolation and quarantine can get the transmission rate below epidemic threshold - but the key is rapid detection of infected persons. Also discussed are some ideas for alleviating congestion in the hospital. I hope that you find it helpful.

Best, Ed Kaplan

Edward H. Kaplan, Ph.D.

William N. and Marie A. Beach Professor of Operations Research Professor of Public Health Professor of Engineering Yale School of Management Box 208200 New Haven, Connecticut 06520-8200

Phone: (b) (6) e-mail: (b) (6)

http://faculty.som.yajc.edu/EdKaplan/

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 9 Feb 2020 12:40:23 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: CNNI Interview Request: Dr. Anthony Fauci,

I will do this and if they can bring a truck to the house like they did last time, it was great. Let us discuss.

From: Hynds, Joanna (NE) < Joanna Hynds@turner.com>

Sent: Sunday, February 9, 2020 6:06 AM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)

Cc: Tejera, Isabel (Intern) <isabel.Tejera@turner.com>; Lovejoy, Hannah (NE)

<Hannah,Lovejoy@turner.com>

Subject: CNNI Interview Request: Dr. Anthony Fauci,

Dear Dr Fauci,

I hope you are well! I am reaching out from CNN International to enquire if you are available today to join us on **Connect the World** at **11aET** to discuss the coronavirus.

Might this be a possibility? It would be great to arrange this.

### Background on CNN

- CNN International reaches more than 250 million households worldwide including in the US via DIRECTV.
- CNN International is the number one international TV news channel according to all major media surveys across Europe, the Middle East and Africa, the Asia Pacific region and Latin America.
- In September 2019 <u>CNN.com</u> had 162 million unique readers globally per month and 114 million mobile readers a month, leading the BBC, Yahoo and New York Times.

Best,

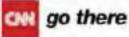
#### Joanna Hynds

#### Planning Desk CNN International

+ 44 207 693 1640 (office)

+ (b) (b) (cell)

joanna.hynds@turner.com



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From: (b) (6)

Sent: Sun, 9 Feb 2020 07:08:49 -0500 To: Conrad, Patricia (NIH/NIAID) [E]

Subject: Fwd: CNNI Interview Request: Dr. Anthony Fauci,

## Sent from my iPhone

## Begin forwarded message:

From: "Hynds, Joanna (NE)" < Joanna. Hynds atumer.com>

Date: February 9, 2020 at 6:06:15 AM EST

To: "Fauci, Anthony (NIH/NIAID) [E]" < (b) (6)

Cc: "Tejera, Isabel (Intern)" <isabel.Tejera@turner.com>, "Lovejoy, Hannah (NE)"

<Hannah.Lovejoy@turner.com>

Subject: CNNI Interview Request: Dr. Anthony Fauci,

Dear Dr Fauci,

I hope you are well! I am reaching out from CNN International to enquire if you are available today to join us on Connect the World at 11aET to discuss the coronavirus.

Might this be a possibility? It would be great to arrange this.

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- CNN International is the number one international TV news channel according to all major media surveys across Europe, the Middle East and Africa, the Asia Pacific region and Latin America.
- In September 2019 <u>CNN.com</u> had 162 million unique readers globally per month and 114 million mobile readers a month, leading the BBC, Yahoo and New York Times.

Best,

## Joanna Hynds

#### Planning Desk CNN International

+ 44 207 693 1640 (office)

+ (b) (6) (cell)

# go there

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 9 Feb 2020 03:33:50 +0000

To: Janet Tobias

Subject: RE: Background question

#### Janet:

Nothing definite on this. To my knowledge, no one has specifically looked at real cross-reactivity although there have been speculation that because there is about 80-90% homology between nCoV and SARS that there may be some use of the mAbs made against SARS for nCoV. I have not seen any data where people took sera from patients with nCoV and checked if it neutralized SARS and vice versa.

Best, Tony

---- Original Message-----

From: Janet Tobias < janet@ikanamedia.com> Sent: Saturday, February 8, 2020 6:27 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Background question

Dear Tony: I have a background question as I am wading through reading as much as possible on the 2019 coronavirus. Do we know if the antibodies that can neutralize SARS are also effective against the 2019 coronavirus? I may be completely off track, but just trying to think through some things I am reading.

Janet

Sent from my iPhone

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 9 Feb 2020 03:28:39 +0000

 To:
 Lenardo, Michael (NIH/NIAID) [E]

 Subject:
 RE: Hope you're doing well.

Thanks, Mike. Am hanging in there.

From: Lenardo, Michael (NIH/NIAID) [E] (b) (6) >

Sent: Saturday, February 8, 2020 5:18 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Hope you're doing well.

Hi Tony,

Was just leaving the lab and saw your car out in front of building 31. Hope you're doing well! I'm sure you're busy with the coronavirus crisis.

You continue to be my inspiration!

Best wishes, Mike

Michael Lenardo M.D.

NIH Distinguished Investigator

Chief, Molecular Development of the Immune System Section
Laboratory of Immune System Biology,

Director, Clinical Genomics Program,

National Institute of Allergy and Infectious Diseases

National Institutes of Health

Building 10, Room 11D14

10 Center Drive, MSC 1892

Bethesda, MD 20892-1892 USA

Tel: (b)(6)(O); (b)(6)(M)

FAX: 301-402-8530 Email: (6) (6)

ASSISTANT: Gloria Rodela

Tel: (b) (6)

Email: (b) (c)

From: Fauci, Anthony (NIH/NIAID) [E] Sent: Sat. 8 Feb 2020 20:54:52 +0000

(b) (6) To:

Subject: FW: Invite

Attachments: nejmoa2001316.pdf

Here it is. As discussed, let us re-read and convene sometime tomorrow to outline our approach.

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 (b) (6) Phone: FAX: (301) 496-4409

E-mail: (b) (6)

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From: Baden, Lindsey, M.D. <br/>
<br/>
lbaden@nejm.org> Sent: Saturday, February 8, 2020 12:51 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (b)>

Subject: Invite

#### Tony.

As I am sure you are aware we recently web released the attached paper providing some initial estimates of key transmission parameters associated with nCoV-2019 virus. It will soon be coming out in a print issue and we would like an editorial to go with it. Might you be willing/interested in authoring such a piece? Our editorials are typically about 800 words with up to 10 references. As soon as you provide it to us we will web release it and then link it with the attached article in an upcoming print issue. Are you interested?

Please confirm no potential COIs.

Thank you for considering,

Lindsey

Lindsey R. Baden, MD Deputy Editor New England Journal of Medicine This email message is a private communication. The information transmitted, including attachments, is intended only for the person or entity to which it is addressed and may contain confidential, privileged, and/or proprietary material. Any review, duplication, retransmission, distribution, or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is unauthorized by the sender and is prohibited. If you have received this message in error, please contact the sender immediately by return email and delete the original message from all computer systems. Thank you.

From:	Fauci, Anthony (NIH/NIAID) [E]
Sent:	Sat, 8 Feb 2020 17:44:45 +0000
To:	Robinson, Sae; Conrad, Patricia (NIH/NIAID) [E]
Cc:	naugenstein@wtop.com
Subject:	RE: request for info from WTOP's Neal Augenstein
Sae:	
I assume that	at this is taken care of with the interview that I just gave for WTOP today
Thanks,	
Tony	
From: Robinso	n, Sae <srobinson@wtop.com></srobinson@wtop.com>
Sent: Saturday	, February 8, 2020 7:57 AM
To: Conrad, Pa	tricia (NIH/NIAID) [E] (B) (6)>
Cc: Fauci, Anth	ony (NIH/NIAID) [E] (b) (6)
Subject: Re: re	quest for info from WTOP's Neal Augenstein
We will call at	11:20 am. Thank you both!
* # 2 F CO	
On Feb i wrote:	8, 2020, at 07:52, Conrad, Patricia (NIH/NIAID) [E] (6) (6) >
Dr Fauc	ci can be available for an interview between 11 am ET and 1130 am ET. Please call (b) (6) back up cell at (b) (6)
What is	the exact hit time?
Sent fro	m my iPhone
O	On Feb 8, 2020, at 7:42 AM, Fauci, Anthony (NIH/NIAID) [E]  (b) (6) > wrote:
	Active wrote.
S	ae:
9	Patty will get back to you today.
B	sest,
	onv
- 1	Ony
	rom: Robinson, Sae < <u>srobinson@wtop.com</u> >
	ent: Saturday, February 8, 2020 7:06 AM
T	o: Conrad, Patricia (NIH/NIAID) IEI 0000; Fauci.

Anthony (NIH/NIAID) [E] (6) (6)

Subject: Re: request for info from WTOP's Neal Augenstein

#### Good morning.

I'd like to follow up on yesterday's inquiry from our reporter Neal.

If Dr. Fauci is available to address the concerns of this cruise ship in Japan with Corona virus (re: air circulation system) today, we'd love him to have him on.

Unfortunately, the first available interview time is after 11 a.m.

If it works, please let me know. This time, we'd like to record an interview to be used for air so we have some flexibility.

Thank you!

Sae Robinson WTOP News 202-895-5060

> On Feb 7, 2020, at 12:59, Augenstein, Neal <a href="mailto:naugenstein@wtop.com">naugenstein@wtop.com</a>> wrote

Begin forwarded message:

From: "Conrad, Patricia (NIH/NIAID) [E]" (b)(6)>

Date: February 7, 2020 at 12:17:40 PM EST

To: "Augenstein, Neal" < naugenstein@wtop.com>
Subject: RE: request for info from WTOP's Neal

Augenstein

Dr Fauci asked that I respond – he is in back to back meeting today up until about 7 pm. If you want to speak with him tomorrow – we might be able to make that work

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

(b) (6) 301-496-4409 fax

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From: Augenstein, Neal <naugenstein@wtop.com>

Sent: Friday, February 7, 2020 8:29 AM To: Fauci, Anthony (NIH/NIAID) [E]

(b) (6)>

Subject: request for info from WTOP's Neal

Augenstein

Hi, Dr. Fauci. Hope you're well

Spoke with some passengers aboard the Diamond Princess cruise ship in Japan, where the number of coronavirus cases onboard are jumping. Can we do a brief interview re: thoughts on quarantining on board ship (with, I would assume a closed circulating air system) versus evacuating them?

I'm available at your earliest convenience. Or, if you'd like to just email some thoughts, that'd be great. Thanks and best. Neal Augenstein

Reporter

103.5FM and wtop.com

Washington, DC

(b) (6) cell

202-895-5060 newsroom

naugenstein@wtop.com

Twitter: @AugensteinWTOP

Skype: WTOPNealAugenstein

From:

Fauci, Anthony (NIH/NIAID) [E] Sat. 8 Feb 2020 17:30:45 +0000

Sent: To:

Awwad, David (NIH/NIAID) [C]; Folkers, Greg (NIH/NIAID) [E]

Cc:

NIAID OD AM

Subject: desktop? RE: David -- how do we put a link to the Coronavirus public folder on ASF'

Monday is fine.

From: Awwad, David (NIH/NIAID) [C] (b) (6) >

Sent: Saturday, February 8, 2020 12:11 PM

To: Folkers, Greg (NIH/NIAID) [E] (0) (6) >

Cc: NIAID OD AM <NIAIDODAM@niaid.nih.gov>

Subject: Re: David -- how do we put a link to the Coronavirus public folder on ASF' desktop?

I will add Monday, unless you want me to connect now.

Sent from my iPhone

On Feb 8, 2020, at 11:42 AM, Folkers, Greg (NIH/NIAID) [E] < 09(6) wrote:

<image001.jpg>

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From:

Fauci, Anthony (NIH/NIAID) [E] Sat, 8 Feb 2020 17:29:51 +0000

Sent:

Conrad, Patricia (NIH/NIAID) [E]

To: Subject:

FW: Fox and Friends video -- US confirms first American coronavirus death / AS

Fauci http://bit.ly/2tLtgne

Fyi. It came out well.

From: Folkers, Greg (NIH/NIAID) [E]

Sent: Saturday, February 8, 2020 11:34 AM

Subject: Fox and Friends video -- US confirms first American coronavirus death / AS Fauci

http://bit.ly/2tLtgne



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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 8 Feb 2020 17:24:25 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Cc:
 Barasch, Kimberly (NIH/NIAID) [C]

Subject: RE: CNN Interview Request: Dr. Anthony Fauci

I believe that we can do this if they do it early in the 10:00 AM segment on Monday. We may also be able to encroach a bit on Diane Rehm's podcast (10:30) since I believe that this is taped. I leave this up to you and so please get back to them and work it out if you can. Jim Sciutto (6)(6)). Thanks.

From: Griffin, Janelle < Janelle. Griffin@turner.com>

Sent: Saturday, February 8, 2020 11:33 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: CNN Interview Request: Dr. Anthony Fauci

Importance: High

Good morning Dr. Fauci,

I hope this email finds you doing well.

I'm reaching out on behalf of Newsroom w/Poppy Harlow & Jim Sciutto hoping you can join for an interview.

Are you available to join CNN this Monday February 10<sup>th</sup> in the 10a et hour?

This would be live for about 5-7 minutes to discuss developments regarding the coronavirus.

Please feel free to contact me via email or at (b) (6) to let me know.

Thanks for your time- I look forward to hearing from you soon.

Janelle Griffin-Butts Editorial Producer, CNN

Email: janelle.griffin@turner.com | Twitter: @janellegCNN

From: Sent: Fauci, Anthony (NIH/NIAID) [E] Sat, 8 Feb 2020 03:23:51 +0000

To:

Conrad, Patricia (NIH/NIAID) [E]

Subject:

RE: Details for "Fox & Friends" Tomorrow (Saturday) LIVE at 8:30am ET

I am OK with their coming to the house without a truck. I will call you in the AM.

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

(b) (6)>

Sent: Friday, February 7, 2020 7:42 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(0)(6)>

Subject: Fwd: Details for "Fox & Friends" Tomorrow (Saturday) LIVE at 8:30am ET

Am at dinner. Will call u later

Sent from my iPhone

Begin forwarded message:

From: "Zuccaro, Alexandra" <Alexandra.Zuccaro@FOXNEWS.COM>

Date: February 7, 2020 at 7:16:21 PM EST

To: "Conrad, Patricia (NIH/NIAID) [E]" (b) (6) >

Subject: RE: Details for "Fox & Friends" Tomorrow (Saturday) LIVE at 8:30am ET

They'll be at his house. Sorry, the truck wasn't available, but this will work just as well too!

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

(b) (d)

Sent: Friday, February 7, 2020 6:51 PM

To: Zuccaro, Alexandra <<u>Alexandra Zuccaro@FOXNEWS.COM</u>>

Subject: [EXTERNAL] Re: Details for "Fox & Friends" Tomorrow (Saturday) LIVE at 8:30am

ET

Will they set up outside his house or is this the trick that he goes into it for the interview?

Sent from my iPhone

On Feb 7, 2020, at 6:49 PM, Zuccaro, Alexandra <Alexandra.Zuccaro@foxnews.com> wrote:

Hi Everyone,

Babu Aryankalayil is set to arrive at	(6) (6)
around 7:30am/est tomorrow for our interview with Dr. please give Dr. Fauci a call on his cell about 15 minutes be and PL Numbers are below. Please let us know if you have	efore arrival. The IFB
please also let us know what REM this will be on.	
"Fox & Friends"	
DATE: Saturday, February 8 <sup>th</sup>	
CREW ARRIVAL TIME: 7:30am ET	
ADDRESS: (b) (d)	
LIVE TALK BACK: 8:35am ET – 8:40am ET with Pete Hegse & Jason Chaffetz	th, Emily Compagno,
Satellite Window: 0700-0800	
GUEST: Dr. Anthony Fauci	
TOPIC: CORONAVIRUS CRUISE SHIP LATEST	
GUEST CONTACT: Dr. Anthony Fauci, (b) (6) / Mec Conrad cell: (b) (6) cell: (b) (6)	dia contact Patricia
CREW CONTACT: Babu Aryankalayil, (6) (6) /	
F&F NYC CONTACTS:	
Technical Director: Todd Boone: Phone - (9) (6) e	mail:
todd.boone@foxnews.com	THE CONTRACTOR
F&F Control Room Contact: Tami Radabaugh, 00 Tami.Radabaugh@FOXNEWS.COM	(6) email:
PL: 800-369-5815, Camera and Tech: (6) (4) Produce	rs: (b) (4)
IFB: 800-369-6719	
ACQ and REM Coordinator: 212-301-3200	
NY Transmission: 212-301-3100 NY Sat Desk (Bookings) 212-301-3400	
A.M. Emergency Contact: Mary Carol Butterfield: Cell:	(b) (6) & NYC
Greenroom (212) 301-1983 email: Mary.Butterfield個FO	XNEWS.COM
Thanks,	
Alexandra Zuccaro	

#### "Fox & Friends"

Fox News Channel 1211 Avenue of the Americas, 2nd Floor New York, NY 10036

Cell: (b) (6)

Alexandra, Zuccaro@FOXNEWS.COM

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 7 Feb 2020 20:20:58 +0000

To: Mellors, John W

Cc: Conrad, Patricia (NIH/NIAID) [E];Barasch, Kimberly (NIH/NIAID) [C]

Subject: Re: Important Brief Conversation

Attachments: image001.gif

I know. Glad we could work it out

On Feb 7, 2020, at 11:48 AM, Mellors, John W (b) (6) > wrote:

Dear Tony,

Approval received from DHHS. The shipment of remdesivir to China is on it's way. No need to connect.

Thanks.

John

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Sent: Thursday, February 6, 2020 7:04:53 PM

To: Mellors, John W (9)(6)>

Cc: Conrad, Patricia (NIH/NIAID) [E] < (b) (6); Barasch, Kimberly

(NIH/NIAID) [C] (6) (6)

Subject: RE: Important Brief Conversation

John:

Please give me office a call tomorrow and they will set up a time to connect us.

Best, Tony

From: Mellors, John W (b) (6)

Sent: Thursday, February 6, 2020 5:38 PM
To: Fauci, Anthony (NIH/NIAID) [E] (0) (6)

Cc: Mellors, John W (6) (6) > Subject: Important Brief Conversation

Dear Tony, Cliff

Could we speak briefly about an important international coronavirus trial that is in jeopardy?

My mobile phone number is (b)(6)

John

John W. Mellors, M.D.
Chief, Division of Infectious Diseases
Distinguished Professor and Endowed Chair for Elimination of HIV and AIDS
University of Pittsburgh School of Medicine
Scaife Hall, Suite 818
3550 Terrace Street
Pittsburgh, PA 15261

Tel: (b) (6) Fax: 412 383-7982

E-mail: (b) (6)

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Like us

<image001.gif>



From:	Fauci, Anthony (NII	H/NIAID) [E]
Sent:	Fri, 7 Feb 2020 15:3	37:53 +0000
To:	(b) (b)	
Subject:	RE: NIH position on	travel to Singapore???
Go to CDC w	ebsite. There are no	travel alerts for Singapore and so for now it is
OK to travel		
Anthony S. Far Director National Institu Building 31, Ro 31 Center Drive National Institu Bethesda, MD Phone: FAX: (301) 496 E-mail:	nte of Allergy and Infectious from 7A-03 a, MSC 2520 rites of Health 20892-2520 (b) (6)	is Diseases
The information information. It have received other storage of accept liability	n in this e-mail and any of should not be used by any this e-mail in error please devices. The National Insti	its attachments is confidential and may contain sensitive yone who is not the original intended recipient. If you inform the sender and delete it from your mailbox or any itute of Allergy and infectious Diseases (NIAID) shall not that are the sender's own and not expressly made on itatives.
From:	Name and Address of the Owner, where	(b) (6)
Sent: Friday, Fe	bruary 7, 2020 9:03 AM	1000/14
Tax Farrel Antho	WALLEY AND LET	6)/6)-

What is the best source of up-to-date information and travel recommendations related to the coronavirus?

Thanks

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 7 Feb 2020 10:46:54 +0000

To: NIAID OD AM

Subject: FW: Royal Society of Medicine london

Let us discus.

----Original Message-

From: Ian Hosein 60 (6) Sent: Friday, February 7, 2020 5:20 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (a)

Subject: Royal Society of Medicine Iondon

#### Hello Dr Fauci,

By way of introduction, I was Jim MacLowry's last fellow at the NIH and have been working in the UK since then as a medical microbiologist and hospital epidemiologist.

I am the lead medical microbiologist at the Royal Society of Medicine in the UK and was wondering about your availability please to speak at a conference on emergent Coronavirus threats to be held at the RSM on November 24th coming?

The RSM is a unique educational charity here and we have councils covering all aspects of healthcare. The program is still developing but I wanted to check on your availability quickly- we have an academic fund to which I can apply to cover your trip but will need to do so soon.

It was both exciting and inspirational being a senior staff fellow at the NIH - my background is international;

00.05 and the international perspectives

at the NIH were so encouraging. All non- American fellows recognised the national strategic remit of the NIH for the US, but I have often wondered if an assessment has ever been made of how fellows like myself have brought the spirit of that institution to other nations.

With kind regards.

lan

Ian K Hosein MD FCAP FRCPath MBA Royal Society of Medicine London Mobile (b) (6)

Sent from my iPad

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri, 7 Feb 2020 03:56:15 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Comment on NEIM details of "asymptomatic" contact in Germany

Attachments: nejmc2001468\_appendix.pdf

Please set up a call. Happy to do over the weekend or Friday evening.

From: Ian Ingram <iingram@medpagetoday.com>

Sent: Thursday, February 6, 2020 1:34 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)>

Subject: Comment on NEJM details of "asymptomatic" contact in Germany

Hi Dr. Fauci,

I'm filling in for Molly Walker on the coronavirus beat while she's covering a meeting for MedPage Today, but I wanted to see if you could were available to offer your quick reaction to the Supplementary Index published today (attached) in the New England Journal of Medicine regarding the widely reported asymptomatic contact in Germany.

Looking at the patient's daily take on how she felt it's unclear to me whether this qualifies as symptomatic or not. I imagine this will be disputed. Best regards,

- lan

lan Ingram
Deputy Managing Editor
MedPage Today LLC
(b) (6)
iingram@medpagetoday.com

medpagetoday.com

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri. 7 Feb 2020 03:53:47 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Cc:
 Barasch, Kimberly (NIH/NIAID) [C]

Subject: FW: BuzzFeed News: 2019-nCoV vaccine development questions

Please set up a call with this person. Happy to do over the weekend.

From: Dan Vergano <an.vergano@buzzfeed.com>
Sent: Wednesday, February 5, 2020 3:18 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)
Cc: Stover, Kathy (NIH/NIAID) [E] (b) (6)

Subject: BuzzFeed News: 2019-nCoV vaccine development questions

Dr. Fauci,

As you may recall, I'm a science reporter at BuzzFeed News. We wonder if you might have any perspective (or might recommend someone to comment) for a novel coronavirus story we are writing for this weekend, regarding vaccine efforts.

In short, we wonder how you see an eventual vaccine playing a role in the future of the outbreak? CDC has described the virus as not mutating as much as influenza – does that suggest a vaccine would provide more than seasonal protection?

In the long term, we had a few other questions. Is this something you could see added to the MMR protocol for the general public, or only in regions where there are local outbreaks (is there an analogy to SARS or MERS vaccines in this contemplated use)? Is there any aspect of a race against time in vaccine development if this coronavirus is seasonal like influenza?

We are basically trying to understand where a vaccine fits into the future response to this new virus, we asked you these sort of questions about the Zika vaccine efforts and your perspective really helped a lot. Apologies for all the questions, if you had any perspective, we'd be grateful

Dan Vergano BuzzFeed News (b) (d)

cc: Kathy Stover

Dan Vergano | Science Desk (DC) | (6) (6)

**BuzzFeed News** 

1630 Connecticut Ave. 7th Floor, Washington DC 20009 Send secure tips -- contact.buzzfeed.com From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 7 Feb 2020 03:45:34 +0000

To: Folkers, Greg (NIH/NIAID) [E]

Subject: RE: ASF / please see table from 1-29-2019 NEJM paper on Wuhan cases

#### Very interesting!

N Engl J Med. 2020 Jan 29. doi: 10.1056/NEJMoa2001316. [Epub ahead of print]

# Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia.

Li Q<sup>1</sup>, Guan X<sup>1</sup>, Wu P<sup>1</sup>, Wang X<sup>1</sup>, Zhou L<sup>1</sup>, Tong Y<sup>1</sup>, Ren R<sup>1</sup>, Leung KSM<sup>1</sup>, Lau EHY<sup>1</sup>, Wong JY<sup>1</sup>, Xing X<sup>1</sup>, Xiang N<sup>1</sup>, Wu Y<sup>1</sup>, Li C<sup>1</sup>, Chen Q<sup>1</sup>, Li D<sup>1</sup>, Liu T<sup>1</sup>, Zhao J<sup>1</sup>, Li M<sup>1</sup>, Tu W<sup>1</sup>, Chen C<sup>1</sup>, Jin L<sup>1</sup>, Yang R<sup>1</sup>, Wang Q<sup>1</sup>, Zhou S<sup>1</sup>, Wang R<sup>1</sup>, Liu H<sup>1</sup>, Luo Y<sup>1</sup>, Liu Y<sup>1</sup>, Shao G<sup>1</sup>, Li H<sup>1</sup>, Tao Z<sup>1</sup>, Yang Y<sup>1</sup>, Deng Z<sup>1</sup>, Liu B<sup>1</sup>, Ma Z<sup>1</sup>, Zhang Y<sup>1</sup>, Shi G<sup>1</sup>, Lam TTY<sup>1</sup>, Wu JTK<sup>1</sup>, Gao GF<sup>1</sup>, Cowling BJ<sup>1</sup>, Yang B<sup>1</sup>, Leung GM<sup>1</sup>, Feng Z<sup>1</sup>.

DOI:10.1056/NEJMoa2001316

Characteristic	Before January 1 (N=47)	January 1 – January 11 (N = 248)	January 12 - January 22 (N = 130)
Median age (range) — yr	56 (26-82)	60 (21-89)	61 (15-89)
Age group — no./total no. (%)			
<15 ye	0/47	0/248	0/130
15-44 yr	12/47 (26)	39/248 (16)	33/130 (25)
45-64 yr	24/47 (51)	100/248 (43)	49/130 (38)
265 yr	11/47 (23)	103/248 (42)	48/130 (37)
Male sex — no./total no. (%)	31/47 (66)	147/248 (59)	62/130 (48)
Exposure history — no./total no. (%)			
Wet market exposure	30/47 (64)	32/196 (16)	5/81 (6)
Huanan Seafood Wholesale Market	26/47 (55)	19/196 (10)	5/81 (6)
Other wet market but not Huanan Seafood . Wholesale Market	4/47 (9)	13/196 (7)	olar.
Contact with another person with respiratory symptoms	14/47 (30)	30/196 (15)	21/83 (25)
No exposure to either market or person with respiratory symptoms	12/47 (26)	141/196 (72)	59/82 (73)
Health care worker — no. /total no. (%)	0/47	7/248 (3)	8/122 (7)

<sup>\*</sup> Reduced denominators indicate missing data. Percentages may not total 100 because of rounding.

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri, 7 Feb 2020 03:38:45 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Cc:
 Barasch, Kimberly (NIH/NIAID) [C]

Subject: FW: Latest

Please set up a call with David for the weekend.

From: davidwillman (b) (6)

Sent: Thursday, February 6, 2020 2:02 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Latest

#### Hi Tony,

I know you must be swamped by matters related to the coronavirus. Nonetheless, I'd really like to confer, even if briefly. Would you have any window by phone today, over the weekend or next week? I'll also call Kim Barasch, per your recent guidance.

I'm researching an article that will chiefly explore the status of the Defense Department's advanced development and manufacturing facility in Alachua, Florida. On a related note, I'm also curious re the three HHS/BARDA facilities.

Best, David

David Willman
Washington Post
202-334-7081 –desk
(b) (6) –mobile
301-656-3401 --alternate desk
david.willman@washpost.com
(b) (6)

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Fri. 7 Feb 2020 03:11:47 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

To: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Reporter working on coronavirus vaccine story

Let us discuss. Maybe over the weekend

From: Morris, Amanda <Amanda.Morris@gannett.com>

Sent: Thursday, February 6, 2020 4:11 PM

To: Fauci, Anthony (NIH/NIAID) [E] < 006

Subject: Reporter working on coronavirus vaccine story

Hi Anthony,

I hope this email finds you well! My name is Amanda Morris and I'm a bioscience reporter at the Arizona Republic, part of the USA Today network. I'm reaching out because I'm currently working on a story about how some ASU researchers (Brenda Hogue, Bert Jacobs and Shawn Chen) are trying to develop strategies to make a vaccine against the new coronavirus as well as a general platform they can use in the case of future new coronavirus strain outbreaks in humans.

I know globally there are many researchers trying to develop a vaccine for this new coronavirus, and that the NIH is working with Moderna to do so – and hopes to start testing with in a few months. I'm wondering if I can talk to you over the phone and ask a few questions about the work that NIH is doing, and what the broader challenges are for developing a vaccine? I'd like to have broader context about vaccines for our readers.

Please let me know as soon as possible. You can call or text me at 00(0) Thank you!

All my best, Amanda Morris

Bioscience Reporter for The Arizona Republic

Work phone: 602-444-8739

After hours and weekends, you can call or text my cell: (b) (6)

Email: amorris@gannett.com

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 7 Feb 2020 03:04:53 +0000

To: Mellors, John W

Cc: Conrad, Patricia (NIH/NIAID) [E];Barasch, Kimberly (NIH/NIAID) [C]

Subject: RE: Important Brief Conversation

John:

Please give me office a call tomorrow and they will set up a time to connect us.

Best, Tony

From: Mellors, John W (b) (6)
Sent: Thursday, February 6, 2020 5:38 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (6) (6)

Cc: Mellors, John W 69 (6)
Subject: Important Brief Conversation

Dear Tony, Cliff

Could we speak briefly about an important international coronavirus trial that is in jeopardy?

My mobile phone number is (b) (6)

John

John W. Mellors, M.D.
Chief, Division of Infectious Diseases
Distinguished Professor and Endowed Chair for Elimination of HIV and AIDS
University of Pittsburgh School of Medicine
Scaife Hall, Suite 818
3550 Terrace Street
Pittsburgh, PA 15261

Tel: (b) (6) Fax: 412 383-7982

E-mail (0)(6)

Visit our Division website: <a href="http://www.dept-med.pitt.edu/ID/">http://www.dept-med.pitt.edu/ID/</a> Read the "ID Pitt Stop" blog: <a href="https://idpittstop.wordpress.com">https://idpittstop.wordpress.com</a>

Like us

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 7 Feb 2020 03:01:07 +0000

To: Howard Bauchner

Subject: RE: Subtitled Coronavirus Video

Howard:

Thanks for the feedback.

Best, Tony

From: Howard Bauchner < Howard. Bauchner@jamanetwork.org>

Sent: Thursday, February 6, 2020 6:39 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: FW: Subtitled Coronavirus Video

Tony

First live stream/podcast now with Chinese interpretation. URL below.

Second live stream/podcast will be put up tomorrow. URL below.

Couple big thank yous from prominent science writers – NYT/WSJ – said learned more listening to you for 30 minutes then everything they read in the last few weeks.

My response when you have a very wise scientist, who hears the question and answers the question, and has 40+ years of experience we should listen and learn.

Be well.

HCB

Howard Bauchner, MD Editor in Chief of JAMA and the JAMA Network

Please respect the confidentiality of this email

Listen to my chats with authors

From: Karen Adams-Taylor < Karen. Adams-Taylor@ama-assn.org>

Date: Thursday, February 6, 2020 at 4:59 PM

To: Howard Bauchner < Howard Bauchner@jamanetwork.org>, Annette Flanagin

<Annette.Flanagin@jamanetwork.org>, Michael Berkwits

<Michael.Berkwits@jamanetwork.org>, Tom Easley <Tom.Easley@ama-assn.org>, Brian Shields
<Brian.Shields@ama-assn.org>, Betsy Solaro <Elizabeth.Solaro@ama-assn.org>, Sean O'Donnell

<Sean.O'Donnell@ama-assn.org>, Tiffany Jones <<u>Tiffany.Jones@ama-assn.org</u>> Subject: Subtitled Coronavirus Video

The 1/27 Fauci subtitled video is now live: <a href="https://jamanetwork.com/journals/jama/pages/coronavirus-alert">https://jamanetwork.com/journals/jama/pages/coronavirus-alert</a> The 2/6 Fauci update video will go to the translator tomorrow.

-Karen

\*\*\*\*

#### Karen Adams-Taylor

Vice President, Publishing Production Operations

### JAMA Network"

330 N Wabash Ave, Ste 39300, Chicago, IL 60611

T (b) (6) jamanetwork.com From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri. 7 Feb 2020 03:00:35 +0000

To: Greg Folkers (b) (6) (8) (Billet, Courtney (NIH/NIAID) [E]; Routh,

Jennifer (NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Subtitled Coronavirus Video

fyi

From: Howard Bauchner < Howard.Bauchner@jamanetwork.org>

Sent: Thursday, February 6, 2020 6:39 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: FW: Subtitled Coronavirus Video

Tony

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My response when you have a very wise scientist, who hears the question and answers the question, and has 40+ years of experience we should listen and learn.

Be well.

**HCB** 

Howard Bauchner, MD Editor in Chief of JAMA and the JAMA Network

Please respect the confidentiality of this email

Listen to my chats with authors

From: Karen Adams-Taylor < Karen. Adams-Taylor@ama-assn.org>

Date: Thursday, February 6, 2020 at 4:59 PM

To: Howard Bauchner < Howard Bauchner@jamanetwork.org>, Annette Flanagin

<Annette.Flanagin@jamanetwork.org>, Michael Berkwits

<Michael.Berkwits@jamanetwork.org>, Tom Easley <Tom.Easley@ama-assn.org>, Brian Shields

<Brian.Shields@ama-assn.org>, Betsy Solaro <Elizabeth.Solaro@ama-assn.org>, Sean O'Donnell

<Sean.O'Donnell@ama-assn.org>, Tiffany Jones <Tiffany Jones@ama-assn.org>

Subject: Subtitled Coronavirus Video

The 1/27 Fauci subtitled video is now live: <a href="https://iamanetwork.com/journals/jama/pages/coronavirus-alert">https://iamanetwork.com/journals/jama/pages/coronavirus-alert</a> The 2/6 Fauci update video will go to the translator tomorrow.

-Karen

-Karen

Karen Adams-Taylor

Vice President, Publishing Production Operations

JAMA Network

330 N Wabash Ave, Ste 39300, Chicago, IL 60611

T (b) (6)
jamanetwork.com

From: (b) (6)

Sent: Thu, 6 Feb 2020 15:09:43 -0500 To: Folkers, Greg (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]; Eisinger, Robert (NIH/NIAID) [E]; Lerner, Andrea

(NIH/NIAID) [E];Marston, Hilary (NIH/NIAID) [E]

Subject: Re: ASF --- Morens + Daszak +Taubeneberger paper

I agree. I will not be a co-author

On Feb 6, 2020, at 1:59 PM, Folkers, Greg (NIH/NIAID) [E]



So the question to you – do you want to be part of this? ie be a coauthor

I would vote no – it wud look weird to add you as a coauthor now. Plus, plate too full......

Disclaimer: Any third-party material in this email has been shared for internal use under fair use provisions of U.S. copyright law, without further verification of its accuracy/veracity. It does not necessarily represent my views nor those of NIAID, NIH, HHS, or the U.S. government.

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 6 Feb 2020 17:36:11 +0000

To: (b) (6)
Ce: (b) (6)

Subject: RE: nCoV: Heads-up

#### Thanks, Jim.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone:
(b) (6)
FAX: (301) 496-4409
E-mail (b) (6)

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From: (b) (6)

Sent: Thursday, February 6, 2020 10:33 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: (b) (c Subject: nCoV: Heads-up

Tony: As per below, we wanted to give you a heads up that (b) (4)

. We will keep you updated. Best. John and Jim

## French drugmaker Sanofi working on coronavirus initiative

# CHINA-HEALTH/SANOFI (PIX): French drugmaker Sanofi working on coronavirus initiative

PARIS, Feb 6 (Reuters) - French drugmaker Sanofi will announce a new coronavirus initiative within the next two weeks, its chief executive said on Thursday, adding that it wants to present something concrete and not add to "fantasies".

At least a dozen drugmakers are working on vaccines or antivirals to help those infected with the fast-spreading virus that has killed more than 500 people in China, but several have warned that development of treatments will take time.

"We have seen a flurry of activities from other companies," CEO Paul Hudson told a news conference after Sanofi published 2019 results on Thursday.

"We are one of the few companies that has the expertise to know when it is just a fantasy, or when it could be real. In the next week or two, you will see something more confirmatory about the approach we will take."

Hudson declined to give further details.

Sanofi had already said it was sharing its expertise and data acquired from other outbreaks with the Coalition for Epidemic Preparedness Innovations (CEPI), which is working with biotech businesses to try to develop a vaccine candidate for the coronavirus.

Britain's GlaxoSmithKline is also collaborating with CEPL

"The objective here is not a newspaper headline, it is real work that will make a difference," Hudson said.

(Reporting by Matthias Blamont Writing by Sarah White Editing by David Goodman)

From:

Fauci, Anthony (NIH/NIAID) [E] Thu, 6 Feb 2020 16:28:04 +0000

Sent:

hiattf@washpost.com

To:

Redfield, Robert R. (CDC/OD); Fauci, Anthony (NIH/NIAID) [E]

Subject:

Proposed OpEd

Attachments:

Redfield and Fauci - Coronavirus OpEd - 02-06-2020 - FINAL.docx

#### Fred:

I hope that all is well with you.

(b) (6)

(b) (6). Within this context, Bob Redfield and I have written an OpEd on the government response to the novel coronavirus outbreak. Would the *Post* have any interest in this? Many thanks.

Best regards,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

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

Phone:

FAX: (301) 496-4409

E-mail: (b) (6)

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From: Sent:

Fauci, Anthony (NIH/NIAID) [E] Thu, 6 Feb 2020 14:34:57 +0000

To:

Billet, Courtney (NIH/NIAID) [E]

Cc:

Conrad, Patricia (NIH/NIAID) [E];Folkers, Greg (NIH/NIAID) [E];Marston, Hilary

(NIH/NIAID) [E];Routh, Jennifer (NIH/NIAID) [E];Stover, Kathy (NIH/NIAID) [E]

Subject:

RE: Requested coronavirus talking points for press conference

Attachments:

Talking Points for NIAID Director Dr. Fauci - press conference - 02-06-2020 -

Fauci Press remarks with tracked edits.docx

### Oooops! Forgot the attachment. Here it is.

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 (b) (6) Phone: FAX: (301) 496-4409

(b) (6) E-mail:

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From: Fauci, Anthony (NIH/NIAID) [E] Sent: Thursday, February 6, 2020 9:34 AM To: Billet, Courtney (NIH/NIAID) [E] (b) (6) >; Folkers, Greg (NIH/NIAID) [E] Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Marston, Hilary (NIH/NIAID) [E] (b) (6); Routh, Jennifer (b) (6); Stover, Kathy (NIH/NIAID) [E] (b) (6)> (NIH/NIAID) [E] Subject: RE: Requested coronavirus talking points for press conference

Here is my revised and updated press remarks with my tracked edits showing. Please accept edits, do a spell and grammar check and resubmit. Also, put a copy in my folder. Thanks.

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520

Phone:

(b) (d)

FAX: (301) 496-4409

E-mail: (b) (6)

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From: Billet, Courtney (NIH/NIAID) [E] (b) (6)

Sent: Thursday, February 6, 2020 9:16 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Folkers, Greg (NIH/NIAID) [E]

(b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Routh, Jennifer (NIH/NIAID) [E] (b) (6); Stover, Kathy (NIH/NIAID) [E] (b) (6)

Subject: FW: Requested coronavirus talking points for press conference

HHS has asked us for your talking points for the press conference by 11am. We were planning to resubmit these. As was the case last time, this is a placeholder for the WH to know the outlines of what you would say. This is not a script.

Is it OK for us to send this to Bill?

From: Selgrade, Sara (NIH/NIAID) [E] (b) (6) >

Sent: Thursday, February 6, 2020 8:37 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) ; Billet, Courtney (NIH/NIAID) [E] (b) (6); Folkers, Greg (NIH/NIAID) [E] (b) (6)

Subject: Requested coronavirus talking points for press conference

Dr. Fauci,

Attached please find the requested talking points from your last coronavirus press conference.

Please let us know if you need anything else.

Thanks, Sara

From: Fauci, Anthony (NIH/NIAID) [E] Sent: Thu, 6 Feb 2020 10:58:13 +0000

Collins, Francis (NIH/OD) [E] To:

Cc Cassetti, Cristina (NIH/NIAID) [E]; Erbelding, Emily (NIH/NIAID) [E]; Conrad,

Patricia (NIH/NIAID) [E]

Subject: RE: Follow up on Addis Meeting

#### Francis:

Thanks for the note. Best to have Trevor have his program person who will be leading this effort contact Cristina Cassetti in DMID. Cristina and Emily Erbelding could do all of the necessary and appropriate coordination.

Thanks,

Tony

(b) (6) From: Collins, Francis (NIH/OD) [E]

Sent: Thursday, February 6, 2020 4:56 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: FW: Follow up on Addis Meeting

See reference to coronavirus research in the note from Trevor. How would you like to coordinate this?

FC

From: Trevor Mundel (b) (6) > Sent: Wednesday, February 5, 2020 10:55 PM To: Collins, Francis (NIH/OD) [E] (b) (6) (b) (6); Glass, Roger (NIH/FIC) [E] < Cc: Eiss, Robert (NIH/FIC) [E] (b) (b) > Kedest Tesfagiorgis <

Subject: Re: Follow up on Addis Meeting

That would be great Francis. You might have seen our announcement this morning on the Coronavirus reponse funding and \$60M of the 100 is for R&D especially therapeutics rather than vaccines so we might want a quick call in the next few days to think about how we coordinate this - I've been in touch with Jeremy as well. Trevor

Trevor Mundel, MD, PhD President, Global Health Program.

F+1.206.494.7041

(b) (b)

(b) (6)

**Executive Assistant** 

Office of the President, Global Health

V (b) (6) M (b) (6) E (b) (6)

Bill & Melinda Gates Foundation www.gatesfoundation.org

From: Collins, Francis (NIH/OD) [E] (b) (6)>

Sent: Wednesday, February 5, 2020 3:11 PM

To: Trevor Mundel

Cc: Eiss, Robert (NIH/FIC) [E]; Glass, Roger (NIH/FIC) [E]

Subject: RE: Follow up on Addis Meeting

Hey Trevor,

This is an excellent development. How about I send you a proposal of possible CARI TPs for Elioda – in the next 24 hours?

#### Francis

From: Trevor Mundel (b) (6)

Sent: Wednesday, February 5, 2020 4:43 PM

To: Tumwesigye Elioda (b) (6) >; Collins, Francis (NIH/OD) [E] (b) (6) >

Cc: (b) (6)

Subject: Re: Follow up on Addis Meeting

That's great to hear Elioda and congratulations, many thanks for letting us know. We will certainly get back to you shortly to enlist your help with the CARI initiative at AU level.

Warm regards,

Trevor

From: Tumwesigye Elioda (6) (6) >

Sent: Wednesday, February 5, 2020 1:16 PM

To: Trevor Mundel: Francis Collins

Cc: (b) (6)

Subject: Follow up on Addis Meeting

Dear Trevor,

Greetings from Uganda and indeed Africa. It was pleasure meeting you at the Grand Challenges Meeting in Ethiopia late last year. While there you, Francis Collins and I among others discussed the CARI Initiative and the need to support research, entrepreneurship and innovation in a big way in Africa. We also explored the mechanism for CARI Funding. We were also looking for a mechanism to reach the Committee of Ten (C10) Heads of State and Government championing Education, Science and Technology in Africa.

Well allow me to inform you that on 13th Dec 2019, I was elected to chair for 2 years the Ministers of Education and of Science and Technology in all the 55 Members States in Africa. We do this under the Specialized Technical Committee on Education, Science and Technology (STC-EST). This Saturday on 8th Feb in Addis, as chair of the ST -EST I will attend and speak at the Meeting of the above-mentioned C10.

The purpose of this message is to let you know of my added responsibilities and related opportunities as well as seek for any update or latest information regarding the CARI initiative. I look forward to intensified communication and collaboration.

#### Regards

Dr. Elioda Tumwesigye Minister Science, Technology and Innovation Republic of Uganda

Tel: (b) (6)

Sent from my iPad

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Thu, 6 Feb 2020 04:10:50 +0000

To: Cassetti, Cristina (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Pandemic Threat Reduction

Similar e-Omail from Dr. Tubb.

From: Richard Tubb (0)(6) > Sent: Thursday, January 30, 2020 11:35 AM

To: (b) (ii) Fauci, Anthony (NIH/NIAID) [E]

(b) (6)

Subject: Fwd: Pandemic Threat Reduction

# Good morning Tony.

Given your most recent appointment, I wanted to show you the courtesy of letting you know what I have already provided to senior leaders at the White House regarding a possible mitigating strategy until the definitive solution to the CoV is available and implemented. The string below includes additional information as to how titanium dioxide can fit into both the White House and the National/International solutions, and the open-source website for the company. Please keep in mind that because this product is already approved and in use in the EU for a variety of commercial uses, the data provided does not specifically address the applications I, and you, are interested in. However, with a deep understanding of the White House mission, I can say that there is not a big leap in that thought migration.

Dr. Jackson has already provided the same material to some of your White House Commission colleagues. I will also be reaching out to another friend of mine from the Bush-now-Trump Administration, Steve Biegun. I encourage your representatives to meet with the company leadership and scientists while they are in the US next week. Please let me know if you have any questions that I can address. Thank you for once again stepping up to the plate for our Country.

v/r

Dick

ps...I remembered this morning where you and I last spoke--Bush (41) funeral.

(b) (b) >

From: Richard Tubb

Date: Thu, Jan 30, 2020 at 8:54 AM Subject: Re: Pandemic Threat Reduction

Good morning Gentlemen,

I just spoke with Ronny and believe I need to offer A relevant update and one point of explanation.

First, the company's joint venture partner in India is meeting with the Indian government as we speak. It appears likely that in light of the news of India's introduction to the corona virus the government will utilize their "National Catastrophe Budget" to expedite the funding necessary to secure and execute a contract with this company.

Secondly, I will attach the open source web site for the company to provide you background information that, out of respect for your time and for the sake of brevity, I left out of yesterday's note. It's important to note a couple of things:

This product is already proved and is in use in the EU with all the approvals appropriate for the same.

Secondly, in our language, this is a "standoff productr"—I.e. you apply it once and it continues to decontaminate and disinfect in the background for up to 1-5 years before retreating. (Depending on the type of use, normal daily cleaning using their cleaning solution—that is cheaper and more effective than what the application normally would use, e.g. in a hotel—continues). The chemical treats anything organic, i.e. bacteria, viruses, VOC, bio threats, etc. because it is a catalyst, it is neither used up, nor

does it produce microbial resistance or superbugs. It decontaminates and disinfects surfaces (e,g, airplanes and government critical infrastructures) and the air around the surface (and HVAC filters and air handlers).

The leadership will be in DC next week. I highly encourage any and all potential stakeholders make time to meet with them while they are here. To that end, I had already emailed Dr. Fauci (with whom I worked a great deal on similar chalenges during the Bush Administration) before the announcement of his participation on the new coronavirus commission. I will also reach out to an old friend and colleague Steve BIEGUN now that he is in the commission. Please feel free to forward the information to others as you deem appropriate.

Thanks,

Dick Tubb

#### https://act.global/

Ps...once again, in my haste to get this to you, via iPad, please forgive typos and other apparent crimes against the dictionary.

Sent from my iPad

On Jan 29, 2020, at 3:15 PM, Richard Tubb

(b) (6) > wrote:

# Gentlemen, Brothers, and Others...

This is Dick Tubb, writing on behalf of Admiral Jackson and Dr. Hofmann (both copied herein). It feels like "old times"--I'm undecided as to whether they are good old times, or otherwise. Regardless, it does feel like we've been down a very similar road before. Perhaps we can apply some of the lessons-learned to the inevitable problems ahead.

In light of the current and evolving threat presented by the corona virus, I am writing to you as a courtesy to inform you of a project that Admiral Jackson, Dr. Hofmann, and I have been consulting on. We believe so strongly in the technology, people, and potential that we have been consulting pro bono and currently have no financial stake in the project. While not developed specifically designed for such purposes, I increasingly believe that until a vaccination and treatment for the corona virus is available, this technology may be the last best chance in containing, and eradicating the virus, thereby protecting the homeland, our economy, the Continuity of the Presidency, an Enduring Constitutional Government, our people and our Country. Moreover, reverting to my "lessons-learned, problems-ahead" statement, even after this crisis is over, and a vaccine and treatment procured, it will only be a matter of time until "next time." This letter is proof-positive of that reality. My experiences, especially in the early 2000's (e.g. anthrax and other biothreats, SARs, etc.) underpin my beliefs.

The technology that provides the solution, both now and in the future, involves a unique formulation of a photo catalytic nano titanium dioxide solution (the Air Force guys will, of course, understand what that means, so you non-Air Force folks, just buy them a beer and they'll explain it to you) that is safer, more effective, and more cost effective than any other solution. It was developed and approved in the EU, and I have asked the senior leadership of the company to come to Washington DC next week. Dr. Hofmann and I spent the day yesterday with a Chinese "titan" respected by and with access to the most senior government officials, academic and medical giants, and investment and industry captains. I have encouraged, and he has agreed in principal, to follow our recommendations as they relate to their largest airline, and their key facilities.

In short, our strategic priority is to first fortify the weak link in the pandemic chain: the airlines. Doing so will provide the time necessary to isolate, contain, and ultimately destroy the threat at its source (Wuhan), and in its home (China). As President Bush so commonly stated about a very different threat, we need to fight the battle over there, so that we don't have to fight the battle here. Although President Bush was a true believer in the threat of a pandemic, I believe this threat, and the

threats that are surely to follow are, in reality, many, many times greater than the threat he envisioned when making that statement. By fighting a possible impending pandemic at its source we will preserve and protect the safety and confidence of our people, and the strength of our economy.

Once we have interrupted the threat supply chain, we can then shore up our critical infrastructure using the same technology and process, then assist the Chinese in addressing their challenges, and protect our international allies elsewhere. In that vein, in addition to the Chinese, I have also discussed this technology and strategy with senior proxies for another of my former patients, His Royal Highness, the Crown Prince of Saudi Arabia, and his father, the King.

As I noted above, I have asked the leadership of the company to come to Washington (from Germany and Denmark) next week for a variety of meetings. While Admiral Jackson will be "tied up in Texas" for the foreseeable future, please let me know if you would like to meet with myself or Dr. Hofmann, or the company

leadership while they are here, to learn more.

Thank you and my best to you all as you plan for and continue to protect our Country,

Very Respectfully,

Dick Tubb

ps. For your SA, I have also attached below the latest sit rep on the coronavirus.

Richard J. Tubb, MD Brigadier General (retired) White House Physician Emeritus

## Shoreland's Travax News Alert Service— Abbreviated

China: More than 2,800 Cases of 2019-nCoV in 30 Provinces/Municipalities, Mainly in Wuhan; Cases Exported to 16 Countries

#### WHAT'S NEW

According to regional health authorities, more than 1,800 additional, confirmed cases (including 25 deaths) of pneumonia caused by 2019 novel coronavirus (2019-nCoV) have been reported since January 27, 2020, throughout the country, mainly in the provinces of Hubei (1,291), Guangdong (207), Zhejiang (173), Henan (168), and Hunan (143) and in the cities of Chongqing (132), Beijing (19), and Shanghai (13). Most new cases had a travel history to Wuhan. Almost all the recent deaths occurred in Hubei Province. Twenty more patients have recovered and been

discharged. More than 4,600 confirmed cases (including > 100 deaths) have occurred since December 8, 2019.

A total of 13 additional, exported, confirmed cases have been reported (through January 28, 2:00 p.m. EST) since Monday, January 27. More than 25 cases have been exported in the past 7 days. Cases reported since Monday arrived in the following countries on the dates shown: Singapore (January 19 and 23), Taiwan (January 22), Japan (January 20 and 21), France (arrival date unknown), and Thailand (arrival dates unknown). All of these cases had travel history to Wuhan or contact with an ill person from Wuhan while in China.

In addition to these exported cases, 7 locally acquired cases have been reported since Monday in Germany (4), Japan, Taiwan and Vietnam. The cases in Japan, Taiwan, and Vietnam reported contact with an obviously ill person from China. In Germany all 4 cases had close contact in a business seminar with an apparently asymptomatic Chinese woman on January 21 (who previously had contact with relatives from Wuhan); the women states symptom onset was on a flight to Shanghai on January 23, and she was later confirmed to have 2019-nCoV. Incubation periods in these cases have been as short as 3 days. In light of the secondary cases in Germany in a business setting, the most cautious approach of having arrivals stay at home or in a hotel for 14 days after their last possible exposure in China is increasingly justified.

Updated travel advisories include: 1) Australia: reconsider travel to China; 2) Canada: avoid all travel to Hubei Province; 3) Finland: avoid nonessential travel to Hubei Province; 4) France: avoid all travel to Hubei Province; 5) Germany: avoid nonessential travel to China and avoid all travel to Hubei Province; 6) India: avoid all nonessential travel to China; 7) New Zealand: avoid all travel to Hubei Province; 8) Taiwan: avoid all nonessential travel to China.

Singapore now denies entry to residents of Hubei Province and those who have traveled there in the past 14 days.

Mongolia and 3 regions (Amur Oblast, Khabarovsk Kray, Yevreyskaya Oblast) in Far Eastern Federal District, Russia have closed their land borders with China.

Bangladesh, Canada, India, Kazakhstan, Russia, and South Korea are arranging flights to repatriate their respective citizens from Wuhan. These persons will be closely monitored and present little threat of onward transmission.

All tourist attractions in Tibet Autonomous Region have been closed.

Current influenza vaccination is recommended to decrease the risk of simple influenza being mistaken for 2019-nCoV upon return.

Infection control supplies have been depleted in medical facilities in the smaller cities in central China; the situation is critical in many areas and resupply is uncertain.

#### OVERALL RISK ASSESSMENT

The epidemic in China is months from peaking. A report indicates that just prior to the cordoning off of Wuhan, over 5 million residents (many potentially infectious) left for other parts of China, and many thousands left for Hong Kong, Singapore, Thailand, and Japan. Exported cases have so far been to countries likely to be capable of controlling (but not preventing) ongoing transmission, which will inevitably occur. In light of the secondary cases in Germany in a business setting, the most cautious approach of having arrivals stay at home or in a hotel for 14 days after their last possible exposure in China is increasingly justified.

Based on increasing data on virology, clinical presentation, and transmission, this coronavirus closely resembles SARS-CoV in many behaviors. Fortunately, sequential sequencing of viral isolates over time indicate no significant new viral mutations; mutations often increase transmission or virulence. WHO assesses the risk of this event to be very high in China, high at the regional level, and high at the global level. The closing of Wuhan airport and the major cities of Hubei province have yet to stem the flow of exported cases. The originally implicated animal market, now closed indefinitely, bears little relevance to the ongoing situation. Whether the market was the focus of a species jump from animals to humans or merely one of multiple amplification settings for initial cases is increasingly unclear. The degree of human-to-human spread outside of Hubei province remains unclear. A reproductive number, Ro, is estimated at 1.4-2.5 by Chinese authorities and up to 5.5 by other scientists. An Ro greater than 1 indicates that each case leads to more than 1 subsequent case, making control much more difficult. The spectrum of disease manifestations in a large cohort study has yet to be disclosed; a severe case rate of 20% has been consistent. The existence of mildly symptomatic and asymptomatic infectious cases could increase the risk of global spread. Case fatality is impossible to ascertain at present, and lesser or greater clinical virulence compared to MERS-CoV or SARS-CoV remains speculative.

See 2019 Novel Coronavirus Outbreak for detailed information.

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## 2019 Novel Coronavirus Outbreak Report comprehensive

Last updated January 28, 2020.

#### What's New

According to regional health authorities, more than 1,800 additional, confirmed cases (including 25 deaths) of pneumonia caused by 2019 novel coronavirus (2019-nCoV) have been reported since January 27, 2020, throughout the country, mainly in the provinces of Hubei (1,291), Guangdong (207), Zhejiang (173), Henan (168), and Hunan (143) and in the cities of Chongqing (132), Beijing (19), and Shanghai (13). Most new cases had a travel history to Wuhan. Almost all the recent deaths occurred in Hubei Province. Twenty more patients have recovered and been discharged. More than 4,600 confirmed cases (including > 100 deaths) have occurred since December 8, 2019.

A total of 13 additional, exported, confirmed cases have been reported (through January 28, 2:00 p.m. EST) since Monday, January 27. More than 25 cases have been exported in the past 7 days. Cases reported since Monday arrived in the following countries on the dates shown: Singapore (January 19 and 23), Taiwan (January 22), Japan (January 20 and 21), France (arrival date unknown), and Thailand (arrival dates unknown). All of these cases had travel history to Wuhan or contact with an ill person from Wuhan while in China.

In addition to these exported cases, 7 locally acquired cases have been reported since Monday in Germany (4), Japan, Taiwan, and Vietnam. The cases in Japan, Taiwan, and Vietnam reported contact with an obviously ill person from China. In Germany, all 4 cases had close contact in a business seminar with an apparently asymptomatic Chinese woman on January 21 (who previously had contact with relatives from Wuhan); the woman states symptom onset was on a flight to Shanghai on January 23, and she was later confirmed to have 2019-nCoV. Incubation periods in these cases have been as short as 3 days. In light of the secondary cases in Germany in a business setting, the most cautious approach of having arrivals stay at home or in a hotel for 14 days after their last possible exposure in China is increasingly justified.

Updated travel advisories include: 1) Australia: reconsider travel to China; 2) Canada: avoid all travel to Hubei Province; 3) Finland: avoid nonessential travel to Hubei Province; 4) France: avoid all travel to Hubei Province; 5) Germany: avoid nonessential travel to China and avoid all travel to Hubei Province; 6) India: avoid all nonessential travel to China; 7) New Zealand: avoid all travel to Hubei Province; 8) Taiwan: avoid all nonessential travel to China.

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Mongolia and 3 regions (Amur Oblast, Khabarovsk Krai, Jewish Autonomous Oblast) in Far Eastern Federal District, Russia have closed their land borders with China.

Bangladesh, Canada, India, Kazakhstan, Russia, and South Korea are arranging flights to repatriate their respective citizens from Wuhan. These persons will be closely monitored and present little threat of onward transmission. All tourist attractions in Tibet Autonomous Region have been closed.

Current influenza vaccination is recommended to decrease the risk of simple influenza being mistaken for 2019-nCoV upon return.

Infection control supplies have been depleted in medical facilities in the smaller cities in central China; the situation is critical in many areas and resupply is uncertain.

## Overall Risk Assessment

The epidemic in China is months from peaking. A report indicates that just prior to the cordoning off of Wuhan, over 5 million residents (many potentially infectious) left for other parts of China, and many thousands left for Hong Kong, Singapore, Thailand, and Japan. Exported cases have so far been to countries likely to be capable of controlling (but not preventing) ongoing transmission, which will inevitably occur. In light of the secondary cases in Germany in a business setting, the most cautious approach of having arrivals stay at home or in a hotel for 14 days after their last possible exposure in China is increasingly justified.

Based on increasing data on virology, clinical presentation, and transmission, this coronavirus closely resembles SARS-CoV in many behaviors. Fortunately, sequential sequencing of viral isolates over time indicates no significant new viral mutations; mutations often increase transmission or virulence. WHO assesses the risk of this event to be very high in China, high at the regional level, and high at the global level. The closing of Wuhan airport and the major cities of Hubei province have yet to stem the flow of exported cases. The originally implicated animal market, now closed indefinitely, bears little relevance to the ongoing situation. Whether the market was the focus of a species jump from animals to humans or merely one of multiple amplification settings for initial cases is increasingly unclear. The degree of human-to-human spread outside of Hubei province remains unclear. A reproductive number, Ro, is estimated at 1.4-2.5 by Chinese authorities and up to 5.5 by other scientists. An R<sub>0</sub> greater than 1 indicates that each case leads to more than 1 subsequent case, making control much more difficult. The spectrum of disease manifestations in a large cohort study has yet to be disclosed; a severe case rate of 20% has been consistent. The existence of mildly symptomatic and asymptomatic infectious cases could increase the risk of global spread. Case fatality is impossible to ascertain at present, and lesser or greater clinical virulence compared to MERS-CoV or SARS-CoV remains speculative.

### Current Disease Situation

More than 4,600 confirmed cases (976 severe and critical cases and 106 deaths) have occurred since December 8, 2019, in the provinces of Hubei (> 2,700; mainly in Wuhan), Guangdong (207), Zhejiang (173), Henan (168), Hunan (143), and Anhui (106); in the cities of Chongqing (132), Beijing (91), and Shanghai (66); and in 21 other provinces throughout the country. An additional 6,900 suspected cases have been reported since January 21, 2020. In the setting of a large outbreak and with increased delays in testing, a high proportion of suspected cases will evolve into confirmed cases. Seventy-nine cases have been discharged. Two-thirds of the cases are male. The youngest case is 10 years old and the oldest is 89; more than 70% of cases are over 40 years old, but the co-morbidity profiles of most cases are unknown.

The number of persons becoming infected with the virus has been doubling every six days. The outbreak in China is not approaching peak, and modeling indicates that is months away.

# **Exported Cases**

Seventy-seven imported cases of 2019-nCoV (confirmed after arrival) presented at international ports of entry January 6-25 in 16 countries. Of these cases, more than 25 cases arrived in the past 7 days.

All 77 cases had exposure in Wuhan or exposure to ill persons from Wuhan in China and symptom onset dates after December 31, 2019; none had visited the implicated market.

Australia (5 cases): One case traveled while asymptomatic aboard China Southern Airlines flight CZ231 to Melbourne, Victoria State on January 19 and was hospitalized on January 23. Contact tracing is underway; movement around Melbourne was limited prior to isolation. The remaining 4 cases traveled while asymptomatic aboard flights to Sydney, New South Wales State on January 6, 18, 20, and 23, and were hospitalized on January 15, 20, and 24. One of the patients had limited movement around Sydney prior to isolation; movement history for the other 3 cases is unknown.

Cambodia (1 case): The case traveled while asymptomatic to the city of Sihanoukville on January 23, 2020, and developed symptoms on January 25.

Canada (2 cases): Both cases (a couple) traveled aboard China Southern Airlines flight CZ311 to Toronto, Ontario Province on January 22. The first case was symptomatic while traveling and was hospitalized on January 23. The second case was under self-isolation and was confirmed on January 27. Contact tracing is underway; patient movement around Toronto was limited prior to isolation.

France (4 cases): Two cases traveled while asymptomatic aboard a flight to Paris on January 18, and 1 case traveled aboard a flight to Bordeaux on January 22. Travel history for the fourth case in unknown. All cases were hospitalized.

Hong Kong (8 cases): Three cases traveled while symptomatic on January 19 and 25; the first aboard a train to West Kowloon, the second aboard a flight to Hong Kong International Airport, and the third to Lo Wu Control Point. Four of the cases traveled while asymptomatic aboard trains on January 19 and 22. The last case traveled with diminished symptoms aboard a train on January 23. All cases were hospitalized.

Japan (6 cases): Two cases traveled while symptomatic; the first aboard a flight to Kanagawa Prefecture on January 6 and the second aboard a flight to Tokyo on January 19. The first was hospitalized on January 10 and discharged on January 15 following recovery, and the second was hospitalized on January 22. Another 2 cases traveled while asymptomatic: the first aboard a flight to Tokyo on January 18 and the second aboard a flight to Aichi Prefecture on January 22. The first was hospitalized on January 23, and the second was hospitalized on January 24. The remaining 2 cases arrived on January 20 and 21 in Aichi and Tokyo prefectures.

Macau (7 cases): The first case traveled while asymptomatic aboard a train and a bus on January 19, and the second case traveled while symptomatic (travel method unknown) on January 22. The first case was hospitalized on January 19 and the second case on January 21. The third case traveled aboard a ferry on January 23 and was immediately hospitalized. Three cases traveled (methods unknown) on January 22; all were hospitalized. The last case traveled while asymptomatic on January 23 and was hospitalized January 27.

Malaysia (4 cases): The first case traveled while asymptomatic aboard a bus to Johor Baharu on January 22 and was hospitalized on January 23. The remaining 3 cases traveled (method unknown) to Johor Baharu on January 23; all were hospitalized.

Nepal (1 case): The case traveled to Kathmandu on January 5, was hospitalized on January 13, and was discharged on January 17 following recovery.

Singapore (7 cases): All 7 cases traveled while asymptomatic aboard flights on January 18, 19, 20, 21, 22, and 23.

South Korea (4 cases): Two cases traveled while symptomatic to Incheon International Airport and to Gimpo International Airport on January 19 and 23, and both were immediately hospitalized. The remaining cases traveled while asymptomatic on January 20 and were hospitalized on January 25.

Sri Lanka (1 case): The case traveled while asymptomatic on January 29, 2020, and developed symptoms on January 25.

Taiwan (7 cases): The cases arrived on January 20, 21, 22, and 25; at least 3 cases arrived at Taiwan Taoyuan International Airport.

Thalland (14 cases): Three cases traveled while symptomatic to Suvarnabhumi Airport on January 8, 13, and 19 and were hospitalized; the travel history of the fourth case is unknown. The fifth case traveled to Bangkok on January 21 and was hospitalized on January 23. The travel histories of the remaining 9 cases are unknown.

U.S. (5 cases): Two cases traveled while asymptomatic: the first to O'Hare International Airport on January 13 and the second to Seattle-Tacoma International Airport on January 15. The first was hospitalized several days after arrival, and the second was hospitalized on January 19. The remaining 3 cases were reported in Maricopa County, Arizona and Los Angeles and Orange counties, California; information on the patients' travel histories are unknown. Contact tracing for all cases is underway. The first case reported limited movement around Chicago prior to hospitalization; movement history for the other 2 cases in unknown.

Vietnam (1 case): The case arrived in Hanoi on January 13 and was hospitalized on January 22 in Ho Chi Minh City.

In addition to these exported cases, 7 locally acquired cases have been reported since Monday in Germany (4), Japan, Taiwan, and Vietnam. The cases in Japan, Taiwan, and Vietnam reported contact with an obviously ill person from China. In Germany, all 4 cases had close contact in a business seminar with an apparently asymptomatic Chinese woman on January 21 (who previously had contact with relatives from Wuhan); the woman states symptom onset was on a flight to Shanghai on January 23, and she was later confirmed to have 2019-nCoV. Incubation periods in these cases have been as short as 3 days.

# Entry/Exit Screening

In a reversal of long-standing policy, WHO now recommends that all countries implement temperature screening at points of entry for passengers arriving from 2019nCoV-affected countries. Screening should be accompanied by dissemination of riskcommunication messages at points of entry to later capture asymptomatic persons who are in the incubation phase.

In early January, some exit screening was implemented at Wuhan Tianhe International Airport (nonstop flights to Istanbul, London, New York, Osaka, Paris, Rome, San Francisco, Tokyo, and major hubs throughout Southeast Asia), as well as at 3 major rail stations in Wuhan. More restrictive screening was instituted on January 15 in Hubei until cessation of international flights on January 23. Despite exit screening at all international airports in China in the past week, significant numbers of cases continue to be exported.

Entry screening at international ports of entry has been or is being implemented as noted below, and anyone with fever and respiratory symptoms who has been to 2019-nCoV-affected areas in the previous 14 days will be detained and isolated at these locations:

Algeria: Houari Boumediene Airport, Mohamed Boudiaf International Airport, Oran Ahmed Ben Balla Airport

Burma (Myanmar): Yangon International Airport

Egypt: Cairo International Airport (all flights from China)

Hong Kong: All border checkpoints, including Hong Kong International Airport and the railway station in West Kowloon

India: Bengaluru, Chennai, Delhi, Hyderabad, Kochi, Kolkata, and Mumbai international airports (all flights from China and Hong Kong)

Italy: Leonardo da Vinci-Fiumicino Airport

Iran: Tehran Imam Khomeini International Airport (all flights from China)

Macau: Macau International Airport

North Macedonia: Skopje International Airport (connecting flights from Asia)

Qatar: Hamad International Airport (all flights from China)

Russia: Moscow, Irkutsk Oblast, and Yekaterinburg international airports and points of

entry in Amur Oblast

Singapore: Changi Airport

South Africa: O.R. Tambo International Airport (all flights from China)

South Korea: Incheon International Airport

Taiwan: All international airports

Thailand: Krabi, Suvarnabhumi, Don Mueang, Phuket, and Chiang Mai airports

Turkey: All international airports (all flights from China)

United Arab Emirates: Abu Dhabi International Airport and Dubai International Airport (all flights from China)

U.K.: Heathrow International Airport

U.S.: Twenty points of entry, including Hartsfield-Jackson Atlanta International Airport, John F. Kennedy International Airport, Los Angeles International Airport, O'Hare International Airport, and San Francisco International Airport. Travelers from Wuhan may have their temperatures taken and/or be required to complete a symptom questionnaire; travelers with symptoms (fever, cough, difficulty breathing) will be detained for additional assessment.

Australia, Bahrain, Bangladesh, Belarus, Canada, Cote d'Ivoire, Ghana, Indonesia, Japan, Kazakhstan, Kenya, Kyrgyzstan, Madagascar, Malaysia, Nepal, Nigeria, North Korea, Philippines, Saudi Arabia, Serbia, Senegal, Sri Lanka, Tajikistan, Tunisia, Vietnam: Airports and other ports of entry

## Travel Advisories

The following countries and/or organizations have published travel recommendations:

Avoid All Travel to Hubei Province: Australia, Canada, China (see below), France, Germany, Japan, Mexico, New Zealand, U.K., U.S.

Avoid Nonessential Travel to Hubei Province: Finland, Ukraine

Avoid All Travel to China: None at present

Avoid Nonessential Travel to China: Australia, Germany, India, Taiwan, U.S.

No Advisory: WHO

#### Travel Restrictions

Different levels of travel restrictions are in effect:

No Flights from China: Finnair Airlines (flights from Beijing and Nanjing), Air Seoul

No Flights from Wuhan: Wuhan Airport is closed to all international and domestic flights.

Land Borders with China Closed: Kyrgyzstan, Mongolia, North Korea, Russia (Amur Oblast, Khabarovsk Krai, Jewish Autonomous Oblast in Far Eastern Federal District); high speed rails and ferry services suspended in Hong Kong

No Residents from Hubei Province: Hong Kong, Macau, and Singapore (including visitors in past 14 days), Malaysia, and Taiwan

Internal Travel Restrictions in China: Major cities in Hubei Province have instituted a travel ban on occupants of their cities, suspending urban buses, subways, ferries, and long-distance passenger transport from the cities, including flights and trains, and closing intercity roads. Interprovince shuttle buses in major areas have stopped. Many bars, restaurants, shops, and museums are closed in Hubei Province, Guangdong, and many other affected areas. Major tourist attractions have closed in Beijing, Shanghai, Sanya (Hainan Province), Hong Kong, and Tibet Autonomous Region, China has stopped all inbound and outbound tour groups but not individual travel. Internal travel for the Lunar New Year Holiday has been severely limited by the government, and public gatherings are forbidden. The reopening of schools and universities has been postponed in many areas. Shanghai has temporarily closed all nonessential workplaces. Visitors from Hubei Province will be actively monitored for 14 days in Haikou, Hainan Province.

No Flights from 2019-nCoV-Affected Countries: Travelers going to Samoa must spend at least 14 days in a country free of 2019-nCoV and undergo medical clearance prior to travel to Samoa.

Australia, Bangladesh, Belgium, Canada, France, Germany, India, Japan, Kazakhstan, Morocco, Netherlands, Russia, South Korea, Spain, Thailand, U.K., and U.S. are arranging flights to repatriate their respective citizens from Wuhan. These persons will be closely monitored and present little threat of onward transmission.

## Transmission

The detailed epidemiology of possible causative animal exposures and zoonotic transmission remains unclear. Many (27 of 41) earlier cases were directly linked to South China Seafood City market in Jianghan District, which sold seafood and other wildlife (including birds). More than 580 environmental samples, without indication as to whether animal tissue was included, were collected from the implicated market. Of these, 33 tested positive for 2019-nCoV, indicating that the market was an-or the-origin point of the large-scale outbreak. Thirty-one of the positive samples (94%) were collected from the western part of the market, where wildlife was traded. The first published epi-curve shows that the symptom onset date of the first patient identified in the outbreak was December 1, 2019. The patient reported no exposure to the implicated market; no epidemiological link has been detected between this case and later cases. This finding raises the possibility of an initial jump of 2019-nCoV directly from bat to human, with subsequent initial human-to-human propagation within the seafood market.

Infected intermediate animal hosts, if they exist, may still be present in the supply chain. South China Seafood City market, now closed indefinitely, remained in operation through December 31, 2019. Other points of infection would be likely because many subsequent cases had no contact with the implicated market. Chinese authorities have now stated that human-to-human transmission is in the fourth generation in Wuhan and at least the second generation elsewhere (mostly in clusters). A reproductive number, R<sub>0</sub>, is estimated at 1.4–2.5by Chinese authorities and at up to 5.5 by some scientists. An R<sub>0</sub>greater than 1 indicates that each case leads to more than 1 subsequent case, making control much more difficult. R<sub>0</sub> is not a constant number and changes with the ongoing circumstances and evolution of an outbreak. One published cluster study indicates asymptomatic shedding (but not transmission) by a single patient. Sequence data from several small clusters indicate identical virus in all subjects within the cluster.

More than 47,800 close contacts remain under surveillance (> 1,200 have been released), and contact tracing is ongoing in affected provinces and municipalities. However, not all contacts are being ascertained or monitored adequately. As many as 16 health care workers (HCWs) have been confirmed as infected by at least 1 case in Wuhan in a potential super-spreading event, but overall infectivity for HCWs has not been established. No case of 2019-nCoV has been attributed to transmission on an aircraft.

The survival rate of the virus on surfaces or in the environment is unknown. Disinfection processes that are effective for other zoonotic coronaviruses should be followed for now. Clean daily all "high-touch" surfaces, such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tables, and bedside tables. Also, clean any surfaces that may have blood, bodily fluids, and/or secretions or excretions on them. Use a diluted bleach solution or a household disinfectant with a label that says "EPA-approved." To make a bleach solution, add 15 mL (1 tablespoon) of bleach to 1 L (1 quart) of water; for a larger supply, add 80 mL (2 oz) of bleach to 4 L (1 gallon) of water.

# Clinical Manifestations

Most cases have reportedly exhibited symptoms of fever, respiratory compromise, and bilateral pneumonia with diffuse, ground glass-like infiltrates on chest x-ray or CT scan. Unlike SARS-CoV, upper respiratory illness symptoms (rhinorrhea, sneezing, sore throat) and diarrhea are not common. Overall, about 20% of the cases have been severe or critical, including pneumonia, respiratory failure, and in some cases death. The existence of asymptomatic cases has not been ascertained. No known treatment exists for 2019-nCoV, although remdesivir will be available shortly from the U.S. CDC for compassionate use. Usual antiviral drugs, including oseltamivir (Tamiflu), baloxavir, ribavirin, and acyclovir, are ineffective. Steroids should not be used. Based on earlier literature, the combined use of lopinavir and ritonavir is under study in China. Current influenza vaccination is recommended to decrease the risk of simple influenza being mistaken for 2019-nCoV upon return.

In a small cohort of 41 patients (median age was 49 years; interquartile range: 41-58) conducted early in the epidemic (presentation before January 2), the most common symptoms at onset of illness were fever (98%), cough (76%), and myalgia or fatigue (44%). Dyspnea developed in 55% of patients at a median of 8 days. All cases except 1 had bilateral pneumonia. Milder cases had chest CTs that showed bilateral ground-glass opacity with subsegmental areas of consolidation, whereas ICU patients had bilateral lobar and subsegmental areas of consolidation. Only 66% of cases (even in this early cohort) had been exposed to the South China Seafood City market. The case-fatality rate was estimated to be 15%, but more severe cases tend to predominate early in an epidemic. Limited data from another published cluster study indicate a 3- to 6-day incubation period similar to SARS-CoV and clinical and radiologic features similar to SARS-CoV cases in 2003. Another report indicates an incubation period ranging from 1 to 14 days.

# Virology

2019-nCoV was initially isolated from 1 case and entirely sequenced; this information was published internationally by Chinese scientists on January 10. Electron microscopy of 1 specimen demonstrated classic coronavirus particles, 2019-nCoV is the seventh

member of the family of coronaviruses that infect humans. Novel coronaviruses from Wuhan, together with 2 bat-derived SARS-like strains, form a distinct clade in lineage B of the subgenus sarbecovirus. 2019-nCov is a group 2b coronavirus (as are MERS-CoV and SARS-CoV), with a whole genome similarity of up to 80% to SARS-CoV but with a similarity between different gene segments ranging from 60% to 90%. 2019-nCoV exhibits a 96.5% similarity to the known bat coronavirus precursors in the same viral clade.

Sequence data allowed national laboratories to rapidly develop diagnostic kits, which are now available in most developed countries and most Asian countries. HKU1, NL63, 229E, and OC43 are human coronaviruses that are detected by some routine multiplex PCR panels used in routine clinical practice. These coronaviruses are associated with minor upper respiratory infections and viral pneumonia, but unlike SARS-CoV, MERS-CoV, and 2019-nCoV, these agents are not associated with major outbreaks or severe respiratory distress syndrome. 2019-nCoV is not reactive in these tests. The findings so far strongly favor (but do not prove) causation. 2019-nCoV has been shown to use the same cell-entry receptor as SARS-CoV. Viral loads appear to be highest in lower respiratory tract specimens, which should be the primary specimen obtained. Prediction of human-to-human transmissibility from sequence data is difficult because coronaviruses vary widely in their transmissibility; coronaviruses acquired from animals generally have some potential for human-to-human transmission. Evidence from subsequent whole genome sequences acquired over the last several weeks show little genetic variation, indicating that the virus jumped from an animal reservoir to humans within the last few months. Identical recent mutations in epidemiologically unlinked cases support sustained human-to-human transmission,

# Criteria for Testing of Suspected Cases

## U.S. CDC

Persons meeting the following criteria (clinical features and epidemiologic risk) for suspected cases of 2019-nCoV will be considered persons under investigation (PUI):

- Fever and symptoms of lower respiratory illness (e.g., cough, shortness of breath) plus a history of travel to Wuhan or close contact with a PUI for 2019-nCoV while that person was ill in the past 14 days before symptom onset
- Fever or symptoms of lower respiratory illness (e.g., cough, shortness of breath) plus close contact with an ill, laboratory-confirmed 2019-nCoV case in the past 14 days before symptom onset

HCWs entering the room with a PUI should use standard precautions, contact precautions, airborne precautions, and eye protection (e.g., goggles or a face shield).

PUIs for 2019-nCoV should be asked to wear a surgical mask as soon as they are identified and be evaluated in a private room with the door closed, ideally an airborneinfection isolation room if available.

### Prevention

Travelers going to Wuhan should avoid animals (alive or dead), animal markets, products that come from animals (such as uncooked meat), and contact with illappearing persons. Quality of infection control at medical facilities in Wuhan is uncertain, and those with minor medical problems should avoid busy medical settings. Infection control supplies have been depleted in medical facilities in the smaller cities in central China; the situation is critical in many areas and resupply is uncertain. Travelers who develop fever and respiratory symptoms within 14 days of travel to Wuhan should immediately be isolated, and public health authorities should be alerted.

# Employees, Students, Visitors, All Others Coming from Wuhan

Whether asymptomatic individuals infected with 2019-nCoV are infectious to others is unknown. Influenza viruses can be transmitted 1 to 2 days prior to symptom onset. SARS-CoV did not transmit until 4 days after symptom onset, which led to its eradication because all contacts with fever could be promptly identified and isolated.

If 2019-nCoV is similar to SARS-CoV, asymptomatic arrivals from Wuhan should selfmonitor by taking a temperature reading immediately prior to coming into the workplace or school for 14 days after their last exposure in Wuhan. Arrivals with fever at any time should self-report to public health authorities (or telephone ahead before presenting to a hospital) and should wear a mask as soon as possible. A more stringent approach would require that an employee, student, or visitor—upon arrival to a workplace or school—be instructed to perform an additional temperature check in the presence of medical personnel to ensure compliance with local self-monitoring requirements. In addition, prior to any gathering of ≥ 2 persons, attendees could be required to perform additional self-monitoring.

Based on advanced information and employee or visitor medical screening, additional preventive measures may be required (e.g., increased ventilation, larger meeting rooms with more personal space per participant, disinfection of work areas and lavatories, and provision of alcohol wipes).

The most cautious approach would be for arrivals to stay at home or in a hotel for 14 days after their last possible exposure in China. To date, all known cases exported to other countries had either visited Wuhan or had contact with an ill person from Wuhan while in China.

Sent from my magical iPad!

On Jan 29, 2020, at 2:46 PM, Richard Tubb < <a href="mailto:bg.richard.tubb@gmail.com">bg.richard.tubb@gmail.com</a> wrote:

Richard J. Tubb, MD Brigadier General (retired) White House Physician Emeritus From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Thu, 6 Feb 2020 04:03:31 +0000

To: Howard Bauchner

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: RE:

Study+claiming+new+coronavirus+can+be+transmitted+by+people+without+symptoms+was+flawed

Thanks, Howard. Talk soon.

----Original Message-----

From: Howard Bauchner < Howard Bauchner@jamanetwork.org>

Sent: Wednesday, February 5, 2020 6:37 AM

To: Fauci, Anthony (NIII/NIAID) [E] (b) (6)-Ce: Conrad, Patricia (NIH/NIAID) [E] (b) (6)

Subject: RE: Study+claiming+new+coronavirus+can+be+transmitted+by+people+without+symptoms+was+flawed

The author of our case-series - proof today will send to you - is an ICU doc in Wuhan - trained with Derek Angus - he has been great - but I have asked him about himself, his family - we loss track of the personal - which is so important.

I have had a few "emergencies" like this - at BCH - with Jerry Klein - some infectious disease outbreaks; a couple major car accidents; etc. Also worked at the Berhorst Clinic in Guatemala in 1978 (before there was global health) numerous 5-10-15 people emergencies - always end though - for you this is the pandemic that never stops giving.

Try to take a break; have a good glass of Claret on me.

HCB

----Original Message-----

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Sent: Wednesday, February 05, 2020 5:31 AM

To: Howard Bauchner < Howard Bauchner a jamanetwork.org > Ce; Conrad, Patricia (NIH/NIAID) [E] 00(6)>

Subject: RE: Study+claiming+new+coronavirus+can+be+transmitted+by+people+without+symptoms+was+flawed

[Warning External Email]

Howard:

Your outline looks fine. Am hanging in there. Feels like my internship and first year residency when I was on every other night and every other weekend, but actually never left the hospital because the patients were so sick. Best;

Tony

----Original Message----

From: Howard Bauchner < Howard.Bauchner@jamanetwork.org>

Sent: Wednesday, February 5, 2020 6:23 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: RE: Study+claiming+new+coronavirus+can+be+transmitted+by+people+without+symptoms+was+flawed

Likely come up tomorrow in our discussion - not NEIM paper but just the concept.

Outline if OK with you

What's up in China
What's up around the world
What's up in US
And then more specific questions
Is this more like H1N1 than MERS
Can we really know mortality risk (denominator problem).
Incubation period
How "infectious"
News on treatment
Quarantine working
Sound OK?
You surviving - worried a bit about your workload.
HCB
Original Message From: Fauci, Anthony (NIH/NIAID) [E] < (6) (6) > Sent: Wednesday, February 05, 2020 5:20 AM To: Howard Bauchner <- Howard Bauchner <- Bau
[Warning External Email]
The paper was flawed, Embarrassment for NEJM. However, the concept is correct. Spoke in detail to the Director of the Chinese CDC (confidential) and they are seeing asymptomatic transmission (low level) in China.
Original Message From: Howard Bauchner/ajamanetwork.org> Sent: Wednesday, February 5, 2020 6:15 AM To: Fauci, Anthony (NIH/NIAID) [E] (6) Subject: FW: Study+claiming+new+coronavirus+can+be+transmitted+by+people+without+symptoms+was+flawed
Tony
Suspect you saw this. Big problem if true - rushing to publication - leads to big mistakes.
нсв

To: Howard Bauchner < Howard Bauchner@jamanetwork.org>; Phil Fontanarosa

<Phil.Fontanarosa@iamanetwork.org>

Subject: Study+claiming+new+coronavirus+can+be+transmitted+by+people+without+symptoms+was+flawed

[Warning External Email]

Assume you saw, but.

https://urldefense.proofpoint.com/v2/url?u=https-3A www.sciencemag.org\_news\_2020\_02\_paper-2Dnon-2Dsymptomatic-2Dpatient-2Dtransmitting-2Dcoronavirus-

2Dwrong&d=DwlFAg&c=iqeSLYkBTKTEV8nJYtdW\_A&r=CpYvDJwppPNcFUZ7y8a6zr8BltWA4gtfRWytiKfF oVM&m=4xruNHFPsXovMmiMLZW-

iD9OzCNhiiGOKmtHhrZcP8c&s-afNfNjVB5xiV3y8BiCPHkwBnAiRXsktAbH1rM9a3jPY&c-

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 6 Feb 2020 03:59:46 +0000

To: Auchincloss, Hugh (NIH/NIAID) [C] (N) (6)

Subject: FW: touching base about Texas Biomedical Research Institute

Please take care of this.

From: Larry Schlesinger (b) (6)

Sent: Wednesday, February 5, 2020 8:42 AM

To: Auchincloss, Hugh (NIH/NIAID) [E] (0)(6)>; Fauci, Anthony (NIH/NIAID) [E]

(6) (6)

Subject: touching base about Texas Biomedical Research Institute

Hi Tony and Hugh.

I know that I am writing to you at a busy time during yet another infectious disease outbreak that is rapidly evolving. However, I wanted to send you a brief note to update you about the transformational change going on in the landscape of our free standing institute with its new, sharply defined goal to be the global leader in eradicating infectious disease threats in the world. I know that you are familiar with us.

I have been leading the institute since June of 2017 and currently finishing year one of a 10 year board-approved plan of growth in our scientists, educational programming and campus modernization. I believe that you are aware that we house the only private BSL4. We also just opened our newest of 5 BSL3 facilities, this newest one being nearly 8000 sq. ft. with capacity for ~100 NHPs, small animals, a complete aerosol suite and a PET CT. We also house the SNPRC, now under the leadership of Deepak Kaushal (who replaced Robert Lanford) and with the largest marmoset colony as a result of restructuring our building facilities (in addition to our other species).

Please check out our newly designed website: www.txbiomed.org.

The bottom line is that I left university life to lead an organization that is determined to not only discover critical, new fundamental science but also effectively and efficiently bring it full forward to create portfolios for the FDA through our business model, nimbleness, regulated science culture (GLP level), longstanding public and private partners through contract science (esp. BARDA), culture and community support.

We want to help! Please let us know if and how we can contribute to this outbreak and undoubtedly others going forward.

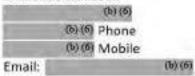
I truly appreciate your leadership. The country gets the voice of reason on infectious disease outbreaks through your public efforts. I enjoyed learning more about this during my time on council.

Best.

Larry

Larry Schlesinger, MD
Professor
President and CEO
Texas Biomedical Research Institute
8715 W. Military Drive, San Antonio, TX 78227
Email: (6) (6)
Teamwork | Integrity | Diversity | Excellence | Safety

Executive assistant:



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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu. 6 Feb 2020 03:49:36+0000

To: Robert Knobler

Cc: Cassetti, Cristina (NIH/NIAID) [E]; Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Potential Approach to Wuhan Coronavirus

Bob:

Thanks for your note. It was good to hear from you. I am copying Cristina Cassetti on this e-mail. Cristina directs the extramural coronavirus research activities. Perhaps you two can connect to discuss research opportunities.

Best, Tony

----Original Message----

From: Robert Knobler (b) (6)
Sent: Wednesday, February 5, 2020 10:55 AM

To: Fauci, Anthony (NIH/NIAID) [E] 09 (9)

Subject: Potential Approach to Wuhan Coronavirus

Dear Dr. Fauci,

You likely do not recall meeting me when I was looking at potential fellowships in 1978, however, I never forgot your enthusiasm. I went out to San Diego and worked with Mike Oldstone, between 1979 and 1984.

I did study a mouse coronavirus while there, mouse hepatitis virus (MHV). I focused on genetic resistance, and eventually described a mouse locus for susceptibility, which coded for the MHV receptor.

Lacking the correct receptor or blocking binding of the virus spike protein to the receptor with monoclonal antibodies blocked infection.

On to the present problem of human coronaviruses. Vaccines will take a long time for the current crisis. The angiotensin converting enzyme 2 receptor has been identified as the relevant human coronavirus receptor in earlier studies of SARS and MERS human coronavirus outbreaks. I am writing to suggest the investigation of ARBs as potential blocking agents to either reduce or completely block infection. Perhaps this can be checked, if correct, there may still be sufficient untainted supplies of ARBs, such as irbesartan, available, or production can be scaled up, if this truly is the eve of a pandemic.

Wishing you success in this endeavor. I am willing to contribute in any way I can. Please feel free to contact me by e-mail or my cell phone.

I also did do clinical trials while with Mike, and then when I joined the neurology faculty of Jefferson in Philadelphia. I have been out on my own since December 1998, but I have never lost my interest in this work. For another time, I also have some novel ideas on how HIV becomes AIDS, as well. Ironically, these ideas were based upon observations I made during my analysis of MHV.

All the Best.

Robert L Knobler, MD, PhD

(b) (6

From:

Fauci, Anthony (NIH/NIAID) [E] Thu, 6 Feb 2020 03:28:54 +0000

Sent: To:

Cohen, Elizabeth

Subject:

RE: treatment protocols

The Chinese are putting together protocols to test certain drugs such as remdesivir.

From: Cohen, Elizabeth <Elizabeth.Cohen@turner.com>

Sent: Wednesday, February 5, 2020 3:19 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(b) (6)

Subject: treatment protocols

Hi Tony,

We were wondering if there are any particular protocols being suggested for treating the Wuhan coronavirus cases in the US. Are there discussions among the teams caring for these patients about the best approach?

Many thanks.

Best, Elizabeth

Elizabeth Cohen, MPH

CNN Senior Medical Correspondent

From:

Fauci, Anthony (NIH/NIAID) [E] Thu, 6 Feb 2020 02:54:42 +0000

Sent: To:

Cassetti, Cristina (NIH/NIAID) [E]

Subject:

FW: Corona virus/sepsis treatment

Attachments:

CBR Baum Satz (5).pdf, Kim Brechbiel Satz.pdf, Kim supplement-01.doc,

REFERENCES Corona Virus.docx

Please handle.

From: stanley satz

(6) (6)

Sent: Wednesday, February 5, 2020 7:20 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(6) (6)>

Subject: Corona virus/sepsis treatment

Dear Dr. Fauci,



Best regards,

Stanley Satz, Ph.D. Chairman and Chief Scientific Officer

Advanced Innovative Partners, Inc.

Professor, Florida Atlantic University, University of Miami School of Medicine

www.advancedinnovativepartners.com www.bionucleonics.com



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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 6 Feb 2020 02:54:19 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Cc: Haskins, Melinda (NIH/NIAID) [E]; Billet, Courtney (NIH/NIAID) [E]

Subject: FW: Dr. Levitt summarizes CDC 2019-nCoV Committee Report released today 5

Feb 2020

Attachments: M and M Wuhan Virus.pdf

See me about getting someone to prepare a response.

From: Robert Levitt (6) (6) > Sent: Wednesday, February 5, 2020 7:50 PM

To: Azar, Alex (OS/IOS) (0)(0)>; Fauci, Anthony (NIH/NIAID) [E] (0)(0)

Subject: Dr. Levitt summarizes CDC 2019-nCoV Committee Report released today 5 Feb 2020.

Dear Secretary Azar and Dr. Fauci,

I have read carefully the CDC's report issued this morning on the Wuhan virus (2019-nCoV) epidemic originating in Wuhan, Hubei Province, PRC. The Report was prepared by CDC's best Ph.D.s, M.D.s, and D.V.M.s. See the pdf attached above for the complete report.

Below I have recorded what I think the most important facts in the report for Secretary Azar and other federal officials who must stop the spread of 2019-nCoV in the U.S. by identifying all infected persons and their contacts. I have also added my personal thoughts on how to stop the spread of this novel coronavirus and a personal fear I have communicated to Secretary Azar in the past:

- President Trump signed an order preventing entry into the U.S. of any person who has traveled to mainland China (PRC). Exceptions include U.S. citizens and permanent residents and their families. Thank you Mr. Trump.
- -- CDC maintains an office in the PRC. So information from Wuhan, Hubei, PRC, should be 'real time'.
- Enhanced screening of persons entering the U.S. is taking place at 18 ports and 5 airports. The number of ports and especially airports needs to be increased. The Report states that 14,000 Chinese enter the U.S. daily. If the 5 airports receive 85% of these Chinese, then 2,100 Chinese enter the U.S. daily at other airports without enhanced screening.
- CDC has developed its own RT-PCR test to detect 2019-nCoV in respiratory specimens. I have read case reports where state laboratories have required too much proof of suspected Wuhan virus from clinicians before performing RT-PCR testing of specimens. CDC should provide their improved RT-PCR test to all states and HHS should insure that all states have sufficient equipment and trained personnel for rapid turn-around time.

- CDC has grown the 2019-nCoV virus. CDC should expedite distribution of the grown virus to researchers with verified credentials and vetting in a safe and monitored procedure.
- CDC recommends that persons suspected by clinicians of having 2019-nCoV be placed in a separate room with a N95 face mask so that they are not in range of other patients. HCW should wear personal protection: gloves, gown, face shield or N95 mask and goggles.
- Clinicians have identified 8 of the current 11 patients infected with 2019-nCoV in the U.S.
   CDC is doing a terrific job in getting the message out to clinicians and the public.

Sent from Outlook

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 6 Feb 2020 00:56:18 +0000

To: Mak, Tak

Cc: Cassetti, Cristina (NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: An Idea

### Tak:

Thanks for the note. It likely will be more efficient if I refer you to the program people in my Institute who could go over these data with you and then get me involved later. The reason that is that I am doing 18 hours pe day (seriously) as part of the White House Task Force and it would very difficult for me to fit in a meeting to go over data. I have copied Dr. Cristina Cassetti who runs our coronavirus extramural research program. I will ask her by this e-mail to contact you to have our people discuss your work with you.

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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(b) (6)
FAX: (301) 496-4409
E-mail: (b) (6)

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From: Mak, Tak < (b) (6)
Sent: Wednesday, February 5, 2020 7:30 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: An Idea

Dear Tony,

It has been a while since we discussed science. (b) (4)

# Best regards, Tak

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 6 Feb 2020 00:00:36 +0000

To: Jeremy Farrar; Collins, Francis (NIH/OD) [E]
Cc: Josie Golding; Tabak, Lawrence (NIH/OD) [E]

Subject: RE: Prevalence of infection and stage of the epidemic in Wuhan

# Jeremy:

I left out an important name for the coronavirus evolution working group. Please include her: Pardis Sabeti at the Broad Institute of MIT and Harvard Thanks,

Tony

E-mail:

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20692-2520
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(b) (6)

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From: Fauci, Anthony (NIH/NIAID) [E] Sent: Wednesday, February 5, 2020 5:25 PM

To: Jeremy Farrar < (b) (6) >; Collins, Francis (NIH/OD) [E] (b) (6)

Cc: Josie Golding < (b) (6) >; Tabak, Lawrence (NIH/OD) [E]

(9) (9

Subject: RE: Prevalence of infection and stage of the epidemic in Wuhan

## Jeremy:

Thanks for the note. Looks like things are moving along with WHO. I will list below a number of names for potential members of the working group to examine the evolutionary origin of the 2019-nCoV in addition to the individuals who were on the call with us last Saturday:

Harold Varmus - Weill Comell Medical Center - New York City

Feng Zhang – MIT (CRISPR expert)

Joseph DeRisi - Chan Zuckerberg (CZ) BioHub (he's paying close attention to the Wuhan strain vs other bat viruses and the SARS virus) Don Ganem - University of California at San Francisco (UCSF) and the CZ BioHub (knows more about hepadnaviruses but an outstanding clinical and basic virologist)

John Coffin - Tufts and National Cancer Institute, NIH (worked out the confusion over the

alleged Chronic Fatigue Syndrome retrovirus that proved to be a xenotropic MLV)

Eugene Koonin - NCBI/National Libreary of Medicine, NIH;

https://www.ncbi.nlm.nih.gov/research/groups/koonin/)

Wayne Hendrickson – Columbia University and the New York Structural Biology Center Gary Nabel – Sanofi (Boston)

Best regards, Tony

E-mail:

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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(b) (6)

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From: Jeremy Farrar (b) (6)
Sent: Wednesday, February 5, 2020 6:21 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Collins, Francis (NIH/OD) [E]

(b) (6) >

Cc: Josie Golding (b) (6

Subject: Re: Prevalence of infection and stage of the epidemic in Wuhan

Francis and Tony

#### Couple of things:

- I spoke again with WHO this morning. I believe they have listened and acted. Let me know if
  you agree
  - At the WHO meeting next week they will set up the Group who will "look at the origins and evolution of 2019n-CoV"
  - They have asked for names to sit on that Group please do send any names

- We can have a call this week with a core group of that to frame the work of the Group including – if you could join?
- o I think this puts it under the umbrella of WHO, with action this week and into next
- With names to be put forward into the Group from us and pressure on this group from your and our teams next week.
- The team will update the draft today and I will forward immediately they will add further comments on the glycans

Does that sound	reasonable to	you?
-----------------	---------------	------

Jeremy

From: "Fauci, Anthony (NIH/NIA	(ID) [E]"	(b) (6)
Date: Tuesday, 4 February 2020	at 13:18	
To: Francis Collins <	(b) (6) >, Jeremy Farrar	(6) (6)
Subject: RE: Prevalence of infec	tion and stage of the epi	demic in Wuhan
??	(b) (4)	
Anthony S. Fauci, MD		
Director	200-110-1-COLD-SOCOTON	
National Institute of Allergy and	Infectious Diseases	
Building 31, Room 7A-03		
31 Center Drive, MSC 2520 National Institutes of Health		
Bethesda, MD 20892-2520		
Phone: (b) (6)		
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From: Collins, Francis (NIH/C	(b) (6)	
Sent: Tuesday, February 4, 2	020 6:12 AM	
To: Jeremy Farrar	(b) (6)	
Cc: Fauci, Anthony (NIH/NIAI	D) [E] (b) (6)	
Subject: RE: Prevalence of in	fection and stage of the epidemic in W	/uhan
NAME OF STREET OF STREET STREET, STREE		

Francis

From: Jeremy Farrar (b) (6) Sent: Tuesday, February 4, 2020 6:08 AM To: Collins, Francis (NIH/OD) [E] (b) (b) > (b) (6)> Cc: Fauci, Anthony (NIH/NIAID) [E] Subject: Re: Prevalence of infection and stage of the epidemic in Wuhan On 4 Feb 2020, at 10:58, Collins, Francis (NIH/OD) [E] (b) (b) > wrote: (b) (4) Very thoughtful analysis. (b) (4) Francis (6) (6) From: Jeremy Farrar Sent: Tuesday, February 4, 2020 2:01 AM (b) (6) >; Collins, Francis (NIH/OD) [E] To: Fauci, Anthony (NIH/NIAID) [E] Subject: FW: Prevalence of infection and stage of the epidemic in Wuhan Please treat in confidence - a very rough first draft from Eddle and team - they will send on the edited, cleaner version later. Pushing WHO again today (b) (6) > From: Edward Holmes Date: Tuesday, 4 February 2020 at 06:33 (b) (6)> To: Jeremy Farrar Subject: Re: Prevalence of infection and stage of the epidemic in Wuhan Here's our summary so far. Will be edited further.

(b) (4)

It's fundamental science and completely neutral as written. Did not mention other anomalies as this will make us look like loons. As it stands it is excellent basic science think, which is a service in itself.

## PROFESSOR EDWARD C. HOLMES FAA FRS

ARC Australian Laurente Fellow

# THE UNIVERSITY OF SYDNEY

Marie Bashir Institute for Infectious Diseases & Biosecurity, School of Life & Environmental Sciences and School of Medical Sciences, The University of Sydney | Sydney | NSW | 2006 | Australia

T (b) (6)

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 20:52:29 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Subject:
 FW: note to Patty — and Tony Fauci

Let us discuss. Steve is a good guy, but I do not want to kill myself trying to do too many thingsdat the same time.

Anthony S. Fauci, MD
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From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)>

Sent: Wednesday, February 5, 2020 3:27 PM
To: NIAID OD AM <NIAIDODAM@niaid.nih.gov>
Subject: FW: note to Patty -- and Tony Fauci

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

(6) (6)

301-496-4409 fax

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From: Steve Clemons <sclemons@thehill.com> Sent: Wednesday, February 5, 2020 3:20 PM

To: Conrad, Patricia (NIH/NIAID) [E] (0) (6)

Subject: note to Patty -- and Tony Fauci

Greetings Patty and Tony -- I see you on TV constantly guiding us through the terrain on our preparedness for outbreaks such as what we have seen in China. I want to see if I can add one more request to your pile to think about....and I am trying to see if what I am suggesting might work right before your Aspen talk next Tuesday at noon.

In addition to my great role at The Hill, I am host of a new show called "The Bottom Line" on Al Jazeera English that runs four times a week on their global network and is garnering between 100k-200k views a week on YouTube in the US. The show is doing really well and is a 24 minute panel discussion of three experts on a single topic that I facilitate. I would love to have you, Tony, be the anchor commentator on what we should do not only on the coronavirus but in general on the infrastructure of pandemic preparedness in the country — sort of a shorter form of that great PBS show you did called Invisible Killers.

We would want to tape in our studio at 21st and M Streets NW from 11:00 am - 11:30 am (we don't go over), or I could move it 15 to 30 minutes earlier if you like next Tuesday, 11 February. I know you have to be at Aspen at noon (I was invited too) — so I could take you if you like.

I realize that this may be too much. — but in these times, I think it's important to get smart commentary and analysis out there — and I think I can add a couple hundred thousand eyeballs and ears to the millions you are already reaching. The producers are also able to provide car and driver (6) (4)

Hope this might work my friend. I may send a short form of this to your cell phone.

Call me if you want to chat, either of you, at (b) (6).

all best, STEVE



Steve Clemons Editor at Large, The Hill 1625 K Street NW. Suite 900

Washington, DC 20006 Tel. +1 202 628.8500 Cell (6) (6)

Cell (b) (6) Email: SClemons@TheHil.com

Follow me on Twitter @SCClemons

From: (b) (d)

Sent: Wed, 5 Feb 2020 10:33:15 -0500
To: Conrad, Patricia (NIH/NIAID) [E]

Subject: Fwd: NTV Broadcasting Interview Request

FYI

# Begin forwarded message:

From: Сефербеков Хаджи-Мурат Караханович <HSeferbekov@ntv.ru>

Date: February 5, 2020 at 10:21:15 AM EST

To: "Fauci, Anthony (NIH/NIAID) [E]" (b) (6) >

Subject: NTV Broadcasting Interview Request

Mr. Fauci, my name is Murat, I am a producer of "Week Summary" for NTV Broadcasting company.

We would like to film a brief interview with you about coronavirus, and different hypotheses about its appearance. We want to solve the problem with mass disinformation about this virus, and need a professional opinion.

Will it be possible to do this at 6th, or 7th of February?

Best regards, Seferbekov Murat NTV Broadcasting Company 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 14:36:13 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Interview request by BBC Chinese

Anthony S. Fauci, MD
Director
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From: Tsung-Hsien Lee <zach.lee@bbc.co.uk> Sent: Wednesday, February 5, 2020 8:21 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Interview request by BBC Chinese

Dear Dr Anthony S Fauci,

This is Zachary from BBC Chinese.

I am now writing a piece regarding the treatment of people in isolation or quarantine over coronavirus in different countries.

Most of the countries told the public where the people evacuated from Wuhan reside for quarantine and some drew local's protests. They expressed concern over close vicinity and some even went to protest in these places.

Others like Taiwan, the authority decided to keep the quarantine location confidential. The reason is to avoid unnecessary worrisome and let people rest well.

I would like to have an interview with you by e-mail or Skype phone with you to give some insights or comments on this issue.

If you could be quoted, the questions are as below

#### 1. Why does the government tell the public the quarantine location? Is it necessary? Or why not?

- 2. Many residents protested because they don't want the quarantine Center for Coronavirus in their neighborhood. Do they need to worry about it?
- 3. What is your suggestion regarding the location of quarantine those people from Wuhan. And what is essential for Quarantine Center for Coronavirus?

Thank you very much for your time. Zachary Lee BBC Chinese

To: Subject:	Harper, Jill (NIH/NIA RE: Approps TA: DO	AID) [E] DE Reimbursement for Coronavirus Super Computing
		2008
		(0)(3)
Author & Fou	al 880	
Anthony S. Fau Director	CI, MID	
CONTRACTOR DATE OF THE PARTY OF	te of Allergy and Infectious	s Diseases
Building 31, Ro		
31 Center Drive	The state of the s	
National Institu		
Bethesda, MD 2 Phone:	(b) (6)	
FAX: (301) 496-	100 P 20 P	
E-mail:	(b) (6)	
information. It have received to other storage de accept liability	should not be used by any his e-mail in error please in evices. The National Instit	its attachments is confidential and may contain sensitive yone who is not the original intended recipient. If you inform the sender and delete it from your mailbox or any tute of Allergy and Infectious Diseases (NIAID) shall not hat are the sender's own and not expressly made on tatives.
	II (NIH/NIAID) [E]	(b) (6)
	February 29, 2020 9:43 AM	141 Mars
	ny (NIH/NIAID) [E]	(6) (6) >
	inda (NIH/NIAID) [E]	(6) (6)
Subject: Ke: App	rops (A: DOE Reimburseme	ent for Coronavirus Super Computing
Tony,		
100		(b)
Thanks, Jill		
Hill		
From: "Harner I	ill (NIH/NIAID) [E]"	(b) (6)

Fauci, Anthony (NIH/NIAID) [E]

Sun, 1 Mar 2020 01:17:02 +0000

From:

Sent:

Date: Friday, February 28, 2020 at 5:33:38 PM

To: "Fauci, Anthony (NIH/NIAID) [E]" (6) (6)> Subject: Fwd: Approps TA: DOE Reimbursement for Coronavirus Super Computing		
Tony, I will call you about this in a minute		
From: "Haskins, Melinda (NIH/NIAID) [E]"	(6) (6)	
Date: Friday, February 28, 2020 at 5:24:43 PM		
To: "Mitchell, Michelle (NIH/OD) [E]"	(6) (6) >	
Cc: "NIAID OCGR Leg" < NIAIDOCGRLeg@mail.nih.gov>, "		
(b) (6) "Harper, Jill (NIH/NIAID)		
S. (NIH/NIAID) [E]" (b) (6) "Billet, ( (b) (6) , "Shapiro, Neil (NIH/OD) [E]"	Courtney (NIH/NIAID) [E]" (6) (6)	
Subject: Re: Approps TA:	0) (5)	
Subject ne. Approps In.	70000	
	(6)	
Sent from my iPhone		
On Feb 28, 2020, at 5:17 PM, Mitchell, Michelle (N	VIH/OD) [E] (b) (6)>	
wrote:		
Hi Melinda,		
to the second second second		
Would you let me know what you all think of this	language?	
71		
Thanks.		
****		
MM		
From: Friedel, Laura (Appropriations)	(b) (6)>	
Sent: Friday, February 28, 2020 5:13 PM		
To: Haskins, Melinda (NIH/NIAID) [E]	(h)(6)>; Mitchell, Michelle	
(NIH/OD) [E] (b) (6)		
Subject: RE: DOE Reimbursement for Coronavirus	Super Computing	
Control to control of the party of the control of t	Control of the Contro	
Any progress on this Michelle? Here is language t	hat I'm thinking of,	
For an additional amount for "National	11	
For an additional amount for "National	Institute of a herov and interfigue	

For an additional amount for "National Institute of Allergy and Infectious Diseases", to prevent, prepare for, and respond to SARS-CoV-2, a virus strain mutating therefrom ("coronavirus"), or other emerging or reemerging infectious disease threats, domestically or internationally, \$xxx,000,000, to remain available

until September 30, 2024: [Provided, That up to \$99,500,000 of such amounts may be transferred to the Department of Energy to provide support and access to scientific user facilities, including equipment, enabling technologies, and personnel associated with the operations of those scientific user facilities:]

Laura Friedel
Majority Clerk
Committee on Appropriations
Subcommittee on Labor, HHS and Education
136 Dirksen Senate Office Building
Washington, DC 20510

From: Friedel, Laura (Appropriations)
Sent: Friday, February 28, 2020 3:13 PM

To: Haskins, Melinda (NIH/NIAID) [E] (b) (6)>; Michelle Mitchell

(b) (6)

Subject: DOE Reimbursement for Coronavirus Super Computing

Hi,

Dept. of Energy is looking for \$99.5 million. They are concerned that NIH will use their super computers for coronavirus (which NIH doesn't pay for) and displace paying customers. What is the expectation that NIH will need to use DOE super computers? We would include additional funds (please make sure TF knows I would not take his funds and give to DOE), but this seems extremely high to me and I was trying to understand the need from your perspective for these super computers. Happy to jump on the phone if that is easier, but need this as fast as you can get it to me please — within the next hour or so. Language is below. Thank you!

- Sec. \_\_\_\_\_, (a) Funds appropriated in this title may be made available to restore amounts, either directly or through reimbursement, for obligations incurred by agencies of the Department of Health and Human Services for the purposes provided herein prior to the date of enactment of this Act. This subsection shall not apply to obligations incurred by the Infectious Diseases Rapid Response Reserve Fund.
- (b) Funds appropriated in this title [may/shall] be used when [awarding/to award] grants and cooperative agreements in fiscal year 2020 to reimburse State or local costs incurred for the purposes provided herein after January 20, 2020, and prior to the issuance of such awards.
- [(c) Funds appropriated in this title shall be transferred to other federal agencies for costs related to medical screening for coronavirus including any costs

incurred through a grant, cooperative agreement, other transaction, or contract and, once transferred, may be used to reimburse obligations incurred for such purposes prior to enactment of this Act.]

- (d) Up to \$99,500,000 of the funds appropriated in this title may be transferred to the Department of Energy to provide support and access to scientific user facilities, including equipment, enabling technologies, and personnel associated with the operations of those scientific user facilities.
- (e) If any funds have been reprogrammed or transferred from an appropriation, as described in the notification submitted by the Secretary to the Committees on Appropriations of the House of Representatives and the Senate on February 2, 2020, prior to the date of enactment of this Act, such amounts shall be reprogrammed or transferred back to that appropriation within 45 days of the date of enactment of this Act.

Laura Friedel
Majority Clerk
Committee on Appropriations
Subcommittee on Labor, HHS and Education
136 Dirksen Senate Office Building
Washington, DC 20510

(b) (6)

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 13 Feb 2020 22:36:17 +0000

To: Messonnier, Nancy (CDC/DDID/NCIRD/OD)

Subject: RE: NAS

# Nancy:

The official USG group will be convened by NAS. Bob Kadlec is the person with direct knowledge of that. In addition, there is an ad hoc group informally led by Jeremy Farrar of Wellcome Trust. This group has about 15 people, all of whom are highly respected scientists, mostly evolutionary biologists who are convening by e-mail and conference calls (I have been on 2 of these calls since Jeremy invited me) to look at all of the bat, pangolin and human coronavirus sequences to try and determine the evolutionary origin. This is not my area of expertise and so I have backed off and am leaving it all to Jeremy.

Best, Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
FAX: (301) 496-4409
E-mail: (b) (6)

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From: Messonnier, Nancy (CDC/DDID/NCIRD/OD) (b) (6) >

Sent: Thursday, February 13, 2020 5:28 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: RE: NAS

Thanks. Is someone convening them?

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Sent: Thursday, February 13, 2020 5:07 PM

To: Messonnier, Nancy (CDC/DDID/NCIRD/OD) (6) (6)
Subject: RE: NAS

Nancy:

It is not a report. It is a letter from NAS to OSTP saying that it is important to bring together a group of experts to study the evolutionary origin the COVID19. I am attaching it here. I have no idea if it has been widely distributed and so please keep it internal.

Best, Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
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(b) (6)

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From: Messonnier, Nancy (CDC/DDID/NCIRD/OD) (6) (6)

Sent: Thursday, February 13, 2020 1:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: NAS

Either you or Bob Kadlec made reference to a NAS report on the origins of SARS – COV2. (1996)

Thanks.

Nancy

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Thu, 13 Feb 2020 22:06:37 +0000

To: Messonnier, Nancy (CDC/DDID/NCIRD/OD)

Subject: RE: NAS

Attachments: NASEM Response to OSTP re Coronavirus\_February 6 2020.pdf

## Nancy:

It is not a report. It is a letter from NAS to OSTP saying that it is important to bring together a group of experts to study the evolutionary origin the COVID19. I am attaching it here. I have no idea if it has been widely distributed and so please keep it internal.

Best, Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
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From: Messonnier, Nancy (CDC/DDID/NCIRD/OD) (6) (6) >

Sent: Thursday, February 13, 2020 1:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: NAS

Either you or Bob Kadlec made reference to a NAS report on the origins of SARS – COV2. 69 (5)

Thanks.

Nancy

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 6 Feb 2020 15:21:22 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]; Folkers, Greg (NIH/NIAID) [E]; Routh, Jennifer

(NIH/NIAID) [E];Stover, Kathy (NIH/NIAID) [E]

Subject: RE: Redfield/Fauci nCoV op-ed

Attachments: Coronavirus OpEd - Redfield and Fauci - 02-06-2020.docx

## Here it is.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (6) (6)
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E-mail: (6) (6)

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From: Billet, Courtney (NIH/NIAID) [E] (b) (6) Sent: Wednesday, February 5, 2020 3:43 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (b) > Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6); Folkers, Greg (NIH/NIAID) [E] (b) (6)>; Routh, Jennifer (NIH/NIAID) [E] (b) (6); Stover, Kathy (6) (6) > (NIH/NIAID) [E] Subject: FW: Redfield/Fauci nCoV op-ed Here is the op-ed as cleared by WH. Any issues with this? (b) (5) From: Brennan, Patrick (OS/ASPA) < (b) (6) Sent: Wednesday, February 5, 2020 3:39 PM To: Routh, Jennifer (NIH/NIAID) [E] (b) (6); Lepore, Loretta (CDC/OD/OCS) (b) (6) Cc: Fine, Amanda (NIH/OD) [E] (b) (6) Galatas, Kate (CDC/OD/OADC) (b) (6)>; Bonds, Michelle E. (CDC/OD/OADC) (b)(6)>; Conrad, Patricia (NIH/NIAID) (b) (6)>; Billet, Courtney (NIH/NIAID) [E] (b) (b); McGowan, Robert (Kyle) (CDC/OD/OCS) (b) (6) >; Campbell, Amanda (CDC/OD/OCS)

Stecker, Judy (OS/IOS) (b) (6); Murphy, Ryan (OS/ASPA) Pratt, Michael (OS/ASPA) (b) (b) Oakley, Caitlin B. (OS/ASPA) (b) (6) >; Hall, Bill (HHS/ASPA) < (b) (6)>; Myles, Renate (NIH/OD) [E] (b) (6); Burklow, John (NIH/OD) [E] (b) (6)>; Stover, Kathy (NIH/NIAID) (6) (6) (E) Subject: RE: Redfield/Fauci nCoV op-ed Attached is a tracked changes version and a clean version of what cleared the WH - they had a few sentences they would like to be added (which, in the tracekd changes version, I have added comments to explain who suggested it and in some cases why), but almost all of these edits are non-substantive. Assuming CDC and NIAID are good with these (feel free to modify the additions as needed), you all are good to pitch this as you wish -From: Routh, Jennifer (NIH/NIAID) [E] (b) (6) Sent: Sunday, February 2, 2020 6:11 PM To: Lepore, Loretta (CDC/OD/OCS) < (b) (6)> Cc: Fine, Amanda (NIH/OD) [E] (b)(6)>; Galatas, Kate (CDC/OD/OADC) (b) (6) >; Brennan, Patrick (OS/ASPA) (b) (6) >; Bonds, Michelle E. (b) (6) >; Conrad, Patricia (NIH/NIAID) [E] (CDC/OD/OADC) (b) (6)>; Billet. Courtney (NIH/NIAID) [E] < (b)(6)>; McGowan, Robert (Kyle) (CDC/OD/OCS) (b) (6)>; Campbell, Amanda (CDC/OD/OCS) (b) (6)>; Stecker, Judy (OS/IOS) (b) (6)>; Murphy, Ryan (OS/ASPA) (b) (6)>; Pratt, Michael (OS/ASPA) (b) (6)>; Oakley, Caitlin B. (OS/ASPA) (b) (6) >; Hall, Bill (HHS/ASPA) (b) (6); Myles, Renate (NIH/OD) [E] (b) (6); Burklow, John (NIH/OD) [E] (b) (b); Stover, Kathy (NIH/NIAID) [E] (6) (6) Subject: RE: Redfield/Fauci nCoV op-ed All – attached is a track changes draft and a clean version with input from NIAID and Dr. Fauci. Thanks. Jen 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: Disclaimer: The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete if from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases shall not accept liability for any statements made that are sender's own and not expressly made on behalf of the NIAID by one of its representatives.

From: Lepore, Loretta (CDC/OD/OCS)

Sent: Sunday, February 2, 2020 2:39 PM

To: Fine, Amanda (NIH/OD) [E]; Galatas, Kate (CDC/OD/OADC); Brennan, Patrick (OS/ASPA); Bonds, Michelle E. (CDC/OD/OADC); Conrad, Patricia (NIH/NIAID) [E]; Billet, Courtney (NIH/NIAID) [E] Cc: McGowan, Robert (Kyle) (CDC/OD/OCS); Campbell, Amanda (CDC/OD/OCS); Stecker, Judy (OS/IOS); Murphy, Ryan (OS/ASPA); Pratt, Michael (OS/ASPA); Oakley, Caitlin B. (OS/ASPA); Hall, Bill (HHS/ASPA); Myles, Renate (NIH/OD) [E]

Subject: RE: Redfield/Fauci nCoV op-ed

#### Good afternoon all,

I am forwarding the op-ed drafted by CDC and reviewed by Dr. Redfield for review by Dr. Fauci and our colleagues at NIH.

Please reach out with any questions.

Best, Loretta

```
From: Fine, Amanda (NIH/OD) [E]
                                                      (b) (6)
Sent: Friday, January 31, 2020 6:36 PM
To: Galatas, Kate (CDC/OD/OADC)
                                              (b) (6) >; Brennan, Patrick (OS/ASPA)
                      (b) (6)>; Bonds, Michelle E. (CDC/OD/OADC)
                                                                              (b) (6)>; Conrad, Patricia
                                      (b) (6); Billet, Courtney (NIH/NIAID) [E]
(NIH/NIAID) [E]
                                                                                              (b) (6)>;
Lepore, Loretta (CDC/OD/OCS)
                                          (6) (6)>
Cc: McGowan, Robert (Kyle) (CDC/OD/OCS)
                                                         (b) (6); Campbell, Amanda (CDC/OD/OCS)
           (b) (6)>; Stecker, Judy (OS/IOS)
                                                              (b) (6); Murphy, Ryan (OS/ASPA)
                      (b) (6); Pratt, Michael (OS/ASPA)
                                                                            (b) (6); Oakley, Caitlin B.
(OS/ASPA) <
                                 (b) (6)>; Hall, Bill (HHS/ASPA) <
                                                                            (b) (6)>; Myles, Renate
(NIH/OD) [E]
                                (b) (6)
Subject: RE: Redfield/Fauci nCoV op-ed
+ Renate Myles for awareness
                                                  (b) (6)
From: Galatas, Kate (CDC/OD/OADC)
Sent: Friday, January 31, 2020 6:34 PM
To: Brennan, Patrick (OS/ASPA) <
                                                       (b) (6)>; Bonds, Michelle E. (CDC/OD/OADC)
             (b) (6); Fine, Amanda (NIH/OD) [E] <
                                                                  (b) (6)>; Conrad, Patricia (NIH/NIAID) [E]
                     (b) (0)>; Billet, Courtney (NIH/NIAID) [E]
                                                                              (b) (6)>; Lepore, Loretta
(CDC/OD/OCS)
Cc: McGowan, Robert (Kyle) (CDC/OD/OCS)
                                                        (b) (6) >; Campbell, Amanda (CDC/OD/OCS)
           (b) (6)>; Stecker, Judy (OS/IOS) <
                                                              (b) (6); Murphy, Ryan (OS/ASPA)
                     (b) (6) >; Pratt, Michael (OS/ASPA)
                                                                             (b) (6) Oakley, Caitlin B.
(OS/ASPA)
                                  (b) (6); Hall, Bill (HHS/ASPA)
                                                                               (b) (6)
Subject: Re: Redfield/Fauci nCoV op-ed
```

## Hi, Patrick -

We've put this in motion — once it's cleared thru CDC, we will send back to this group so NIH comms can move thru with their editing/revisions.

Let me know if that sounds OK. We will likely not have a cleared version out of CDC until late Saturday at the earliest.

Take care, Kate

# Get Outlook for IOS

From: Brennan, Patri	ck (OS/ASPA) <	(6) (6)	
Sent: Friday, January	31, 2020 5:31:46 PM		
To: Bonds, Michelle E	. (CDC/OD/OADC)	(b) (6)>; Fine, Amanda	a (NIH/OD) [E]
(b)	6)>; Conrad, Patricia (NIH/NIA	AID) [E] <	(b)(6)>; Billet, Courtney
(NIH/NIAID) [E]	(b) (6)>; Lepore, Lo	oretta (CDC/OD/OCS)	(h)(6)>
Cc: McGowan, Robert	(Kyle) (CDC/OD/OCS)	(b) (6); Campbel	I, Amanda (CDC/OD/OCS)
(b) (6) >; Ste	cker, Judy (OS/IOS)	(b) (6); Murs	phy, Ryan (OS/ASPA)
	(6) (6); Pratt, Michael (OS/ASI	PA)	(b) (6); Oakley, Caitlin B.
(OS/ASPA)	(b) (b)>; Hall, Bill (H	HS/ASPA)	(b) (6)>; Galatas, Kate
(CDC/OD/OADC)	(b) (6)>	A STORES AND EAST	
Subject: Redfield/Fau	ci nCoV op-ed		

CDC and NIH folks,

Per some discussion after the presser, we'd like Dr. Redfield and Dr. Fauci to pen an op-ed regarding the reasons/thinking behind the policy announced today. I assume the right building blocks for it would be the remarks they made today – which I believe you all should have the copy/notes for? I have the Secretary's, which we'll be sending around/posting shortly and I'll make sure to re-up it here so you all have it.

It would be great to have a draft of this cleared to get to the WH over the weekend. (I anticipate fasterthan-average clearance from them!)

Please let me know how I can help with this.

Best, Patrick

#### Patrick Brennan

Director of Speechwriting
Department of Health and Human Services
Office: (b) (6) | Cell (b) (6)

Predecisional/deliberative communication

From:	Fauci, Anthony (NIH/NIAID) [E]		
Sent:	Tue, 11 Feb 2020 12:54:11 +0000		
To:	(b) (6)		
Subject:	FW: Following Up If We can Be of A	ny Assistance	
FYI			
Anthony S. Fauci, M Director			
Building 31, Room 7 31 Center Drive, MS	C 2520		
National Institutes of Bethesda, MD 20892 Phone: (b)	-2520		
FAX: (301) 496-4409 E-mail:			
information. It shou have received this e other storage device accept liability for a	his e-mail and any of its attachments Ild not be used by anyone who is no -mail in error please inform the send es. The National Institute of Allergy ny statements made that are the send by one of its representatives.	t the original into ler and delete it and Infectious D	ended recipient. If you from your mailbox or any iseases (NIAID) shall not
From: Kadlec, Robe	rt (OS/ASPR/IO)	(b) (6)>	
	uary 11, 2020 7:28 AM	- Contraction	
To:	(b) (6).		
Cc:	(6) (6) Elvander, Erika (OS/OGA	U I	(b) (6); Lamana,
Joseph (OS/ASPR/E		No. 1	(6) (6); Disbrow, Gary
(OS/ASPR/BARDA)	The state of the s	Kevin (OS/ASPR,	CONTROL OF THE PARTY OF THE PAR
Act of Charles and Assessment Applications	(b) (6)>; Fauci, Anthony (NIH/NIAID)	SERVICE OF COMMUNICATION	(b) (6)
	ing Up If We can Be of Any Assistan		10.00
deployment of our	heard from Jun the news that your team. We are moving expeditiousl e increasing numbers of cases on t	y to get them th	ere to assist. In light of මග
			(b)

Again, we are grateful and excited that we have the opportunity to work together.

Kanpail

Bob

From: Kadlec, Robert (OS/ASPR/IO)

Sent: Monday, February 10, 2020 8:14 PM

To: (b) (6)

Cc: (b) (6); Elvander, Erika (OS/OGA) (b) (6); Lamana,

Joseph (HHS/ASPR/OEM) (6) (6)

(6) (6)

Subject: Following Up If We can Be of Any Assistance

#### Dear Dr. Suzuki -

I hope this finds you I good health and expect that you are deeply involved in the events of coronavirus in your region. I understand from various communications with the MHLW that is considering ending the quarantine early and releasing passengers from the Diamond Princess, especially those who are 80 years of age or older. Given the media reports and public perception there is pressure to do this. However, as medical experts, you and I both know that days 3 – 8 are within the normal incubation period and these new positives do not likely represent shipboard transmission. As such, HHS is willing to coordinate U.S. medical experts who can engage with English language media explaining and reassuring the passengers, crew, and public.

Regarding support for the quarantine, ASPR is ready to deploy a team of 3-5 people quickly, and as many 12 people to Japan to support as suggested in the previous call. If we can assist you and your team in managing the Americans currently in quarantine please let me know. If there is other support do let me know and ASPR will work to assist. As we've talked for the past 18 months about such a scenario, this may not be the one we envisioned, but it is a perfect case as we can clearly identify the Americans, they are in a contained area. Our mutual efforts and planning have paid unexpected dividends.

I am available to discuss via teleconference at your convenience. I am grateful for all MHLW has done to support this complicated response on top of your work supporting repatriation and domestic monitoring of your own citizens. We are grateful for Dr. Sugihara's herculean information sharing efforts and the rest of your MHLW team support during this event; it

validates of the importance of our ongoing liaison program and the long term benefits of our mutual commitment to each other's public health security

Please remain well and I look forward to see you again soon.

Best wishes and warm regards.

Dr Bob Kadlec ASPR From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Mon, 10 Feb 2020 18:43:59 +0000

To: Propose Patrick (OS (ASPA)

To: Brennan, Patrick (OS/ASPA)

Cc: Hall, Bill (HHS/ASPA);Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Draft of email

Attachments: 2 10 20 email - with Fauci edits.docx

Here is the document with my tracked changes.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)
FAX: (301) 496-4409

E-mail: (b) (6)

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From: Brennan, Patrick (OS/ASPA) (6) (6)

Sent: Monday, February 10, 2020 1:26 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6) >

Cc: Hall, Bill (HHS/ASPA) < Bill.Hall@HHS.GOV>

Subject: Draft of email

Dr. Fauci – below and in the attached is our proposed draft response, and then Cuccinelli's email text below for context. We're waiting on a potential detail/point or two from ASPR that may help flesh it out a bit but we'll see if we actually need it. Thank you!

<< File: 2 10 20 email.docx >>

Draft HHS response

Fellow task force members,

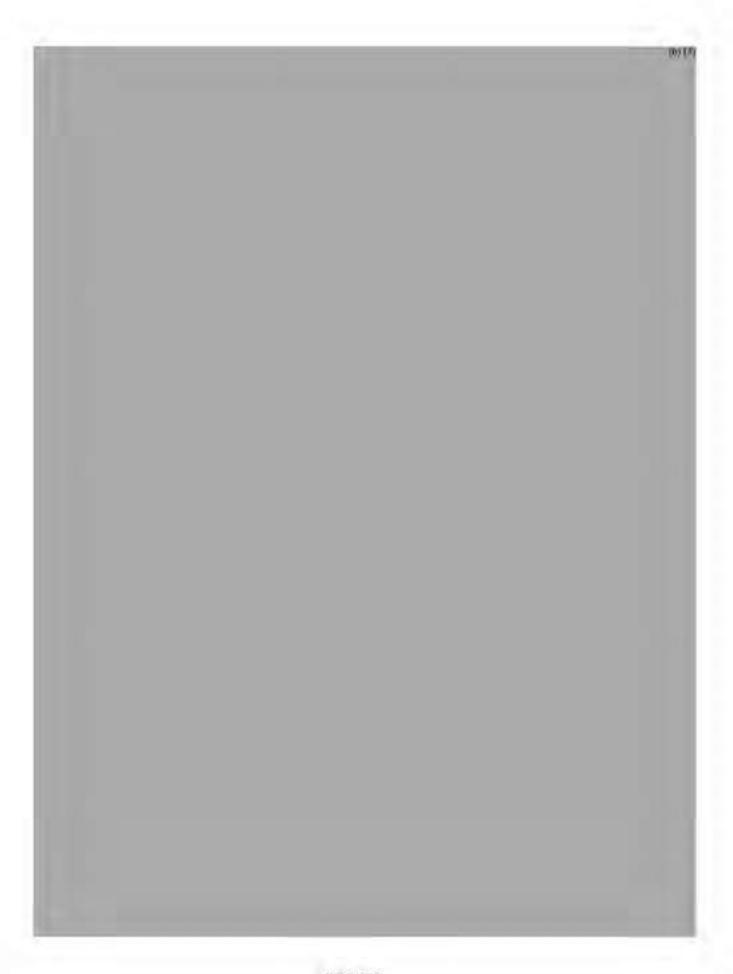
Thanks for your message, Ken, and I look forward to our discussion today.



Looking forward to discussing more later today.

Ken





I look forward to speaking with you all again this afternoon.

## Patrick Brennan

Director of Speechwriting
Department of Health and Human Services
Office: (b) (6) | Cell: (b) (6)

Programme and the second	Charles Street Vive Landson	Total Andreas Maria	
From:	Fauci, Anthony (NIH/N		
Sent:	Sun, 9 Feb 2020 23:54	:27 +0000	
To:	(b) (6)		Dan Sakramen - J. Zahr abend (Confession)
Subject:	FW: WHO advance tes	am on coronavirus on way	to China - Tedros tweet
Building 31, Rot 31 Center Drive National Institut Bethesda, MD 2 Phone: FAX: (301) 496-4 E-mail: The Information Information. Its	te of Allergy and Infectious I om 7A-03 , MSC 2520 tes of Health 0892-2520 (b) (6) 4409 (b) (6)	attachments is confident	
accept liability f		te of Allergy and Infectiou t are the sender's own an	s Diseases (NIAID) shall not
accept liability f behalf of the Nu From: Grigsby, G	evices. The National Institution any statements made that AID by one of its representationarrett (HHS/OS/OGA) <	te of Allergy and Infectiou t are the sender's own an	s Diseases (NIAID) shall not
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From: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Sent: Sunday, February 9, 2020 6:24 PM

To: Grigsby, Garrett (HHS/OS/OGA) (b) (6) >; Harrison, Brian (HHS/IOS)

(b) (6) >

Cc: Kerr, Lawrence (HHS/OS/OGA) < (b) (6) >: Elvander, Erika (OS/OGA) (b) (6); Zebley, Kyle (HHS/OS/OGA) < (b) (6)>; Redfield, Robert R. (b) (6)>; Abram, Anna (CDC/OD) (b) (6) >: Kadlec, Robert (OS/ASPR/IO) (b) (6) (FDA/OC) (b) (6)>; Bright, Rick (OS/ASPR/BARDA) Subject: RE: WHO advance team on coronavirus on way to China - Tedros tweet

(b) (5)

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: FAX: (301) 496-4409

E-mail: (b) (6)

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From: Grigsby, Garrett (HHS/OS/OGA) < (b) (6) Sent: Sunday, February 9, 2020 6:03 PM To: Harrison, Brian (HHS/IOS) (b) (6) Cc: Kerr, Lawrence (HHS/OS/OGA) (b) (6); Elvander, Erika (OS/OGA) (b) (6); Zebley, Kyle (HHS/OS/OGA) (b) (6)>; Redfield, Robert R. (CDC/OD) (b) (6): Fauci, Anthony (NIH/NIAID) [E] < (b) (6)>; Kadlec, Robert (OS/ASPR/IO) (b) (6)>; Abram, Anna (FDA/OC) (b) (6) >; Bright,

Rick (OS/ASPR/BARDA) < (b) (6)

Subject: FW: WHO advance team on coronavirus on way to China - Tedros tweet

Brian – more clarity from "the horse's mouth" on this advance trip...see below.

From: Grigsby, Garrett (HHS/OS/OGA) Sent: Sunday, February 9, 2020 6:01 PM

To: SCHWARTLANDER, Bernhard F. (b) (6)

Cc: SIMONSON, Stewart (b) (6)>

Subject: RE: WHO advance team on coronavirus on way to China - Tedros tweet

Many thanks, Bernard! I know I'll be asked, so I will pass your email up the chain...

# Take care and thanks again!

From: SCHWARTLANDER, Bernhard F.

Sent: Sunday, February 9, 2020 5:59 PM

To: Grigsby, Garrett (HHS/OS/OGA) (6) (6) >

Cc: SIMONSON, Stewart (b) (6)

Subject: Re: WHO advance team on coronavirus on way to China - Tedros tweet

#### Hi Garrett,

We have three people on the way to Beijing who will work with our Chinese counterparts on finalizing the TOR and composition of the joint WHO - China mission. As you are much aware, the US has given us a number of names who will be able and willing to join such a mission. We have received similar proposals from other countries and will now match the "long list" of experts with the required specific expertise.

(b) (6)

We are hoping to have more clarity over the coming days and will obviously keep you in the loop. The overall number will be kept at a level to make sure that the team is fully operational.

With my warmest wishes

Bernhard

Dr Bernhard Schwartländer Chef de Cabinet World Health Organization

On 9 Feb 2020, at 23:24, Grigsby, Garrett (HHS/OS/OGA) (b) (6) wrote:

Bernard,

Hope you had a good weekend.

I'm reaching out to get more clarity on the WHO experts team issue – please see article below. I've heard everything from an advance group of one or two individuals to 15 people discussed in the article. I haven't heard any word about US people, and I was just with Dr Redfield late this afternoon and he was in the dark too.

Any additional information will be deeply appreciated.

## Thanks!

From: Kerr, Lawrence	(HHS/OS/OGA)	(b) (6) >
Sent: Sunday, Februar	y 9, 2020 5:03 PM	-1.00
To: Grigsby, Garrett (H	HS/OS/OGA) <	(b) (6); Zebley, Kyle
(HHS/OS/OGA) < (b) (6) >; Elvand		, Erika (OS/OGA)
Annaharan and A	(b) (6); Tracy Carson	(b) (6)>
Subject: WHO advance	e team on coronavirus on w	ray to China - Tedros tweet

February 9, 2020 / 4:01 PM / Updated an hour ago

# UPDATE 1-WHO advance team on coronavirus on way to China - Tedros tweet

#### Stephanie Nebehay

By Stephanie Nebehay

GENEVA, Feb 9 (Reuters) - An advance team of international experts led by the World Health Organization (WHO) has left for Beijing to help investigate China's coronavirus epidemic, the Geneva-based agency said on Sunday.

WHO director-general Tedros Adhanom Ghebreyesus, who made a trip to Beijing for talks with President Xi Jinping and Chinese ministers in late January, returned with an agreement on sending an international mission.

But it has taken nearly two weeks to get the government's green light on its composition, which was not announced, other than to say that WHO veteran Dr. Bruce Aylward, a Canadian epidemiologist and emergencies expert, was heading it.

"I've just been at the airport seeing off members of an advance team for the @WHO-led #2019nCoV international expert mission to #China, led by Dr Bruce Aylward, veteran of past public health emergencies," Tedros said in a tweet from Geneva.

Dr. Sylvie Briand, who accompanied Tedros last month and stayed behind for talks with top Chinese health officials, told Reuters last week that they were discussing a list of experts with China.

"Because it is a joint mission, they need to be on board, it's not just an international group going there. We have about 15 people," said Briand, director of Global Infectious Hazard Preparedness at WHO.

China raised the death toll from the coronavirus outbreak to 811 on Sunday, passing the number killed globally by the SARS epidemic, as authorities made plans for millions of people returning to work after an extended Lunar New Year break.

The virus, which has spread to two dozen countries, has killed some 2% of more than 37,550 cases worldwide, with 99 percent of infections in China, WHO figures show. The WHO declared the outbreak a global emergency on Jan. 30, days after the Chinese central government imposed a lockdown on 60 million people in Hubei province and its capital Wuhan, epicentre of the virus that emerged in December in a seafood market.

Tedros said on Saturday that he hoped the team would include experts from the U.S. Centers for Disease Control (CDC).

"It has to be meaningful on the ground," Lawrence Gostin, professor of global health law at Georgetown Law, said in an interview in Geneva this week.

Gostin called for a "genuine partnership with transparent flows of information and accountability for the response", adding that there should be a strong CDC presence. "CDC has got no peer in terms of its experience and technical expertise in dealing with international outbreaks," he said.

"But the other benefit is the smart diplomacy, what it could signal is that despite all of our differences in ideology, trade, politics, that when faced with a common threat to humanity, we come together as a human community to tackle it," Gostin said.

Reporting by Stephanie Nebehay; Editing by Pravin Char, Kirsten Donovan

Our Standards:The Thomson Reuters Trust Principles.

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Fri, 7 Feb 2020 03:55:22 +0000

To: Shapiro, Neil (NIH/OD) [E];Collins, Francis (NIH/OD) [E];Tabak, Lawrence

(NIH/OD) [E];Johnson, Alfred (NIH/OD) [E];Hallett, Adrienne (NIH/OD) [E]

Cc: Shaya, Cecile (NIH/OD) [E]

Subject: RE: Coronavirus - HHS Supplemental Table - Close Hold

		0
From: Shapiro, Neil (NIH/OD) [E]	100001000000000000000000000000000000000	
Sent: Thursday, February 6, 2020		
To: Collins, Francis (NIH/OD) [E]		
	sson, Alfred (NIH/OD) [E]	(b) (6)->; Hallett, Adrienne
(NiH/OD) [E]	(b) (6); Fauci, Anthony (NIH/NIAID) [E]	(b) (6)
Cc: Shaya, Cecile (NIH/OD) [E]	(b) (6)	
Subject: RE: Coronavirus - HHS S	upplemental Table - Close Hold	
I'll ask, unless Tony knows.		(6)(5)
Neil		
From: Collins, Francis (NIH/OD) [	E] (b) (6)	
Sent: Thursday, February 6, 2020	0 4:59 PM	
To: Shapiro, Neil (NIH/OD) [E]	(b) (d); Tabak, Lawrence (N	IH/OD) [E]
(b) (6)>; John	nson, Alfred (NIH/OD) [E] <	(b) (6) >; Hallett, Adrienne
(NIH/OD) [E]	(b)(6) >; Fauci, Anthony (NIH/NIAID) [E]	(6) (6)
Cc: Shaya, Cecile (NIH/OD) [E]	(b) (6)>	
Subject: RE: Coronavirus - HHS S	upplemental Table - Close Hold	
		(6) (5)
FC		
From: Shapiro, Neil (NIH/OD) [E]	(b) (6)>	
Sent: Thursday, February 6, 2020	3:22 PM	
To: Collins, Francis (NIH/OD) [E]	(b) (6); Tabak, Lawrence (N	IIH/OD) [E]
(b) (6) >; John	nson, Alfred (NIH/OD) [E]	(0)(6)>; Hallett, Adrienne
(NIH/OD) [E]	(b) (6) Fauci, Anthony (NIH/NIAID) [E]	(b) (6)
Cc: Shaya, Cecile (NIH/OD) [E]	(b) (6)	10,000
Subject: FW: Coronavirus - HHS S	Supplemental Table - Close Hold	
Incompany (Balance	SOME ASSESSED OF THE SECURITY OF A STANDARD OF THE	

ASFR provided the pdf attachment and the explanation below. They emphasized on the phone too that this is very close hold.

(b) (5),
(b) (5)

Neit

From: Cabezas, Miriam (HHS/ASFR) (b) (6)> Sent: Thursday, February 6, 2020 2:32 PM To: Kelly, Alison (CDC/OCOO/OFR/OA) (b) (6) >; Berger, Sherri (CDC/OCOO/OD) (b) (6); Shapiro, Neil (NIH/OD) [E] (b) (6)>; Shaya, Cecile (NIH/OD) [E] (b) (6)>; Petillo, Jay (OS/ASPR/MFHC) (b) (6) >; Dubay, Johanna (OS/ASPR/MFHC) (b) (6)>: Cc: Goyle, Suraj (OS/ASFR) < (b) (6)>; Falisi, Angela (OS/ASFR) White, RaeShawn (OS/ASFR) (b) (6)>; Cormier, Justin (HHS/ASFR) Subject: Coronavirus - HHS Supplemental Table - Close Hold

Information in this email is close hold.

Good afternoon -

Attached you will find CDC, ASPR, and NIH specific totals that were provided to OMB last night. We want to make sure you have awareness of the activities that are identified across these three agencies. Let us know if you have any questions. This information should not be shared broadly.

Miriam

From: Fauci, Anthony (NIH/NIAID) [E] Sent: Fri, 7 Feb 2020 03:38:07 +0000 Marston, Hilary (NIH/NIAID) [E] To: RE: \*\* Time-Sensitive Clearance \*\* DUE BY 3:30 TODAY- Coronavirus - Minister Subject: Ma of China Response Letter - 00430215 Please take care of this on my behalf. Thanks. (b).(6) From: Marston, Hilary (NIH/NIAID) [E] Sent: Thursday, February 6, 2020 3:11 PM (b) (6); Handley, Gray (NIH/NIAID) [E] To: Harris, Kara (NIH/NIAID) [E] (b) (6) >: Lerner, Andrea (NIH/NIAID) [E] (6) (6) >; Eisinger, Robert <h (6) (6)>; (NIH/NIAID) [E] < (b) (6) >; Harper, Jill (NIH/NIAID) [E] McGowan, John J. (NIH/NIAID) [E] (b) (6); Billet, Courtney (NIH/NIAID) [E] (b) (6)>; Auchincloss, Hugh (NIH/NIAID) [E] Cc: NIAID OCGR Correspondence < NIAIDOCGR Correspondence @mail.nih.gov >; Gilles, Sharon (b) (6) Fauci, Anthony (NIH/NIAID) [E] (NIH/NIAID) [E] Conrad, Patricia (NIH/NIAID) [E] (b) (6)> Subject: RE: \*\* Time-Sensitive Clearance \*\* DUE BY 3:30 TODAY- Coronavirus - Minister Ma of China Response Letter - 00430215 (b) (2) From: Harris, Kara (NIH/NIAID) [E] (b) (6) > Sent: Thursday, February 6, 2020 3:00 PM To: Handley, Gray (NIH/NIAID) [E] (b) (6) Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Lerner, Andrea (NIH/NIAID) [E] (b) (6); Eisinger, Robert (NIH/NIAID) [E] (b) (6) Harper, Jill (NIH/NIAID) [E] < (b) (6) (b) (6) >; Billet, Courtney (NIH/NIAID) [E] McGowan, John J. (NIH/NIAID) [E] < (b) (6)>; Auchincloss, Hugh (NIH/NIAID) [E] < Cc: NIAID OCGR Correspondence <NIAIDOCGRCorrespondence@mail.nih.gov>; Gilles, Sharon (NIH/NIAID) [E] (b) (6)

Subject: FW: ** Time-Sensitive Response Letter - 00430215	Clearance ** DUE B	Y 3:30 TODAY- Coroni	avirus - Minister Ma	of China
Importance: High				
All-				
Please see the note below from Correspondence by 3:30 p.m. I				ts only.
Thank you,				
Kara				
From: Malliou, Ekaterini (OS/IO	05)	(6) (6)>		
Sent: Thursday, February 6, 202	CONTRACTOR OF THE PROPERTY OF THE PARTY OF T	11 5-25-25		
To: Stannard, Paula (HHS/IOS)		(b) (6); Hoffmann, La	uren (CDC/OD/OCS	5)
(b) (6) >; Clark, Cynth	nia K. (CDC/OD/OCS)	(b) (6); Stir	nson, Brian (HHS/O	GC)
(b) (6) Cha	ing, William (HHS/O	GC)	(b) (6)>; Barry, Da	niel I
(HHS/OGC) <	(b)(6)>; Shuy, Bryan	(OS/ASPR/IO)	(b) (6); B	ird,
Catherine (OS/OGC)	(b) (6) OS	OGC-IO <controldes< th=""><th>k.OGCIO@hhs.gov&gt;</th><th>; ASPR Exec</th></controldes<>	k.OGCIO@hhs.gov>	; ASPR Exec
Sec (OS/ASPR) < ASPRExecSec@	hhs.gov>			
Cc: Steele, Danielle (HHS/IOS)		(b) (b) (Agnew, Ann (i	HHS/IOS)	
(b) (6) >; Hawki	ins, Jamar (HHS/OS)	29-17-18-18-18-18-18-18-18-18-18-18-18-18-18-	(b) (6); Horska, Ka	terina
(HHS/IOS)	(b) (б) >; Varnado, N	lartina (FDA/OC)	THE RESERVE OF THE RESERVE OF	(b) (6);
Zebley, Kyle (HHS/OS/OGA)	(b) (6)	; Allen-Gifford, Patric	e (NIH/OD) [E]	(b) (b)
Subject: Clearance Due 6pm (2,	/6): ** Time-Sensitiv	e ** Coronavirus - Mi	nister Ma of China	Response
Letter - 00430215				
Please find attached for your	clearance a respon	se to Minister Ma's	letter to the Secre	tary, and a
recent conversation with him				(b) (5)
Please note that the Sceretary	has already review	ved and edited the a	ttached response	
We appreciate your expedite	d review and clears	nce by 6pm today,	2/6.	
Thank you,				
Kat				
***************************************	********			
Ekaterini (Kat) Malliou, DrPH, MI	PH			
Senior Policy Coordinator				
Immediate Office of the Secretary,			es	
200 Independence Ave SW, Suite	619H, Washington, DC	20201, USA		

From: (b) (6)

 Sent:
 Thu, 6 Feb 2020 18:56:07 -0500

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Cc:
 Billet, Courtney (NIH/NIAID) [E]

Subject: Re: FROM CAITLIN OAKLEY - Atlantic reporter responded

Please schedule call for tomorrow.

On Feb 6, 2020, at 4:17 PM, Conrad, Patricia (NIH/NIAID) [E]

See below – the reporter responded to Caitlyn – not Courtney – he can speak today or tomorrow. Do you want to call tonight or have me schedule for tomorrow?

Tomorrow is quite full but can make it happen...let me know

Yes, happy to talk today or tomorrow.

I'm at

If Dr. Fauci is available, that would be great.

Best.

Peter Nicholas

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

(60,60)

301-496-4409 fax

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From: Oakley, Caitlin B. (OS/ASPA) < (b) (6)>

Sent: Thursday, February 6, 2020 4:12 PM

To: Billet, Courtney (NIH/NIAID) [E] < I6) (6) >; Conrad, Patricia (NIH/NIAID)

(E) (b) (6)

Subject: FW: follow up re: Coronavirus story

# Caitlin B. Oakley

Deputy Assistant Secretary, National Spokesperson Office of the Assistant Secretary for Public Affairs U.S. Department of Health and Human Services

(b) (6)

From: Peter Nicholas cholas@theatlantic.com>

Sent: Thursday, February 6, 2020 3:00 PM

To: Oakley, Caitlin B. (OS/ASPA) (b) (6) >

Subject: Re: follow up re: Coronavirus story

Hi.

Yes, happy to talk today or tomorrow.

I'm at (b) (c). If Dr. Fauci is available, that would be great.

Best.

Peter

On Thu, Feb 6, 2020 at 11:09 AM Oakley, Caitlin B. (OS/ASPA)

(b) (6) wrote:

Following up on this....does today work?

And I know Dr. Fauci's office is trying to get in contact as well. He's a member of the taskforce. Can we make this happen?

#### Caitlin B. Oakley

Deputy Assistant Secretary, National Spokesperson Office of the Assistant Secretary for Public Affairs U.S. Department of Health and Human Services From: Oakley, Caitlin B. (OS/ASPA)

Sent: Wednesday, February 5, 2020 3:55 PM

To: pnicholas@theatlantic.com

Cc: Hall, Bill (HHS/ASPA) (6) (6) >

Subject: follow up re: Coronavirus story

Peter—Thanks for the chat yesterday. Have a few folks that I'd like to get you on the phone with about your piece. Would you have time to chat with Bill Hall and I later today?

And when is your deadline for the piece?

Talk soon,

# Caitlin B. Oakley

Deputy Assistant Secretary, National Spokesperson Office of the Assistant Secretary for Public Affairs U.S. Department of Health and Human Services 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 6 Feb 2020 15:21:22 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]; Folkers, Greg (NIH/NIAID) [E]; Routh, Jennifer

(NIH/NIAID) [E];Stover, Kathy (NIH/NIAID) [E]

Subject: RE: Redfield/Fauci nCoV op-ed

Attachments: Coronavirus OpEd - Redfield and Fauci - 02-06-2020.docx

## Here it is.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (6) (6)
FAX: (301) 496-4409
E-mail: (6) (6)

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From: Billet, Courtney (NIH/NIAID) [E] (b) (6) Sent: Wednesday, February 5, 2020 3:43 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (b) > Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6); Folkers, Greg (NIH/NIAID) [E] (b) (6)>; Routh, Jennifer (NIH/NIAID) [E] (b) (6); Stover, Kathy (6) (6) > (NIH/NIAID) [E] Subject: FW: Redfield/Fauci nCoV op-ed Here is the op-ed as cleared by WH. Any issues with this? (b) (5) From: Brennan, Patrick (OS/ASPA) < (b) (6) Sent: Wednesday, February 5, 2020 3:39 PM To: Routh, Jennifer (NIH/NIAID) [E] (b) (6); Lepore, Loretta (CDC/OD/OCS) (b) (6) Cc: Fine, Amanda (NIH/OD) [E] (b) (6) Galatas, Kate (CDC/OD/OADC) (b) (6)>; Bonds, Michelle E. (CDC/OD/OADC) (b)(6)>; Conrad, Patricia (NIH/NIAID) (b) (6)>; Billet, Courtney (NIH/NIAID) [E] (b) (b); McGowan, Robert (Kyle) (CDC/OD/OCS) (b) (6) >; Campbell, Amanda (CDC/OD/OCS)

Stecker, Judy (OS/IOS) (b) (6); Murphy, Ryan (OS/ASPA) Pratt, Michael (OS/ASPA) (b) (b) Oakley, Caitlin B. (OS/ASPA) (b) (6) >; Hall, Bill (HHS/ASPA) < (b) (6)>; Myles, Renate (NIH/OD) [E] (b) (6); Burklow, John (NIH/OD) [E] (b) (6)>; Stover, Kathy (NIH/NIAID) (6) (6) (E) Subject: RE: Redfield/Fauci nCoV op-ed Attached is a tracked changes version and a clean version of what cleared the WH - they had a few sentences they would like to be added (which, in the tracekd changes version, I have added comments to explain who suggested it and in some cases why), but almost all of these edits are non-substantive. Assuming CDC and NIAID are good with these (feel free to modify the additions as needed), you all are good to pitch this as you wish -From: Routh, Jennifer (NIH/NIAID) [E] (b) (6) Sent: Sunday, February 2, 2020 6:11 PM To: Lepore, Loretta (CDC/OD/OCS) < (b) (6)> Cc: Fine, Amanda (NIH/OD) [E] (b)(6)>; Galatas, Kate (CDC/OD/OADC) (b) (6) >; Brennan, Patrick (OS/ASPA) (b) (6) >; Bonds, Michelle E. (b) (6) >; Conrad, Patricia (NIH/NIAID) [E] (CDC/OD/OADC) (b) (6)>; Billet. Courtney (NIH/NIAID) [E] < (b)(6)>; McGowan, Robert (Kyle) (CDC/OD/OCS) (b) (6)>; Campbell, Amanda (CDC/OD/OCS) (b) (6)>; Stecker, Judy (OS/IOS) (b) (6)>; Murphy, Ryan (OS/ASPA) (b) (6)>; Pratt, Michael (OS/ASPA) (b) (6)>; Oakley, Caitlin B. (OS/ASPA) (b) (6) >; Hall, Bill (HHS/ASPA) (b) (6); Myles, Renate (NIH/OD) [E] (b) (6); Burklow, John (NIH/OD) [E] (b) (b); Stover, Kathy (NIH/NIAID) [E] (6) (6) Subject: RE: Redfield/Fauci nCoV op-ed All – attached is a track changes draft and a clean version with input from NIAID and Dr. Fauci. Thanks. Jen 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: Disclaimer: The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases shall not accept liability for any statements made that are sender's own and not expressly made on behalf of the NIAID by one of its representatives.

From: Lepore, Loretta (CDC/OD/OCS)

Sent: Sunday, February 2, 2020 2:39 PM

To: Fine, Amanda (NIH/OD) [E]; Galatas, Kate (CDC/OD/OADC); Brennan, Patrick (OS/ASPA); Bonds, Michelle E. (CDC/OD/OADC); Conrad, Patricia (NIH/NIAID) [E]; Billet, Courtney (NIH/NIAID) [E] Cc: McGowan, Robert (Kyle) (CDC/OD/OCS); Campbell, Amanda (CDC/OD/OCS); Stecker, Judy (OS/IOS); Murphy, Ryan (OS/ASPA); Pratt, Michael (OS/ASPA); Oakley, Caitlin B. (OS/ASPA); Hall, Bill (HHS/ASPA); Myles, Renate (NIH/OD) [E]

Subject: RE: Redfield/Fauci nCoV op-ed

#### Good afternoon all,

I am forwarding the op-ed drafted by CDC and reviewed by Dr. Redfield for review by Dr. Fauci and our colleagues at NIH.

Please reach out with any questions.

Best, Loretta

```
From: Fine, Amanda (NIH/OD) [E]
                                                      (b) (6)
Sent: Friday, January 31, 2020 6:36 PM
To: Galatas, Kate (CDC/OD/OADC)
                                              (b) (6) >; Brennan, Patrick (OS/ASPA)
                      (b) (6)>; Bonds, Michelle E. (CDC/OD/OADC)
                                                                              (b) (6)>; Conrad, Patricia
                                      (b) (6); Billet, Courtney (NIH/NIAID) [E]
(NIH/NIAID) [E]
                                                                                              (b) (6)>;
Lepore, Loretta (CDC/OD/OCS)
                                          (6) (6)>
Cc: McGowan, Robert (Kyle) (CDC/OD/OCS)
                                                         (b) (6); Campbell, Amanda (CDC/OD/OCS)
           (b) (6)>; Stecker, Judy (OS/IOS)
                                                              (b) (6); Murphy, Ryan (OS/ASPA)
                      (b) (6); Pratt, Michael (OS/ASPA)
                                                                            (b) (6); Oakley, Caitlin B.
(OS/ASPA) <
                                 (b) (6)>; Hall, Bill (HHS/ASPA) <
                                                                            (b) (6)>; Myles, Renate
(NIH/OD) [E]
                                (b) (6)
Subject: RE: Redfield/Fauci nCoV op-ed
+ Renate Myles for awareness
                                                  (b) (6)
From: Galatas, Kate (CDC/OD/OADC)
Sent: Friday, January 31, 2020 6:34 PM
To: Brennan, Patrick (OS/ASPA) <
                                                       (b) (6)>; Bonds, Michelle E. (CDC/OD/OADC)
             (b) (6); Fine, Amanda (NIH/OD) [E] <
                                                                  (b) (6)>; Conrad, Patricia (NIH/NIAID) [E]
                     (b) (0)>; Billet, Courtney (NIH/NIAID) [E]
                                                                              (b) (6)>; Lepore, Loretta
(CDC/OD/OCS)
Cc: McGowan, Robert (Kyle) (CDC/OD/OCS)
                                                        (b) (6) >; Campbell, Amanda (CDC/OD/OCS)
           (b) (6)>; Stecker, Judy (OS/IOS) <
                                                              (b) (6); Murphy, Ryan (OS/ASPA)
                     (b) (6) >; Pratt, Michael (OS/ASPA)
                                                                             (b) (6) Oakley, Caitlin B.
(OS/ASPA)
                                  (b) (6); Hall, Bill (HHS/ASPA)
                                                                               (b) (6)
Subject: Re: Redfield/Fauci nCoV op-ed
```

## Hi, Patrick -

We've put this in motion — once it's cleared thru CDC, we will send back to this group so NIH comms can move thru with their editing/revisions.

Let me know if that sounds OK. We will likely not have a cleared version out of CDC until late Saturday at the earliest.

Take care, Kate

# Get Outlook for IOS

From: Brennan, Patri	ck (OS/ASPA) <	(6) (6)	
Sent: Friday, January	31, 2020 5:31:46 PM		
To: Bonds, Michelle E	. (CDC/OD/OADC)	(b) (6)>; Fine, Amanda	a (NIH/OD) [E]
(b)	6)>; Conrad, Patricia (NIH/NIA	AID) [E] <	(b)(6)>; Billet, Courtney
(NIH/NIAID) [E]	(b) (6)>; Lepore, Lo	oretta (CDC/OD/OCS)	(h)(6)>
Cc: McGowan, Robert	(Kyle) (CDC/OD/OCS)	(b) (6); Campbel	I, Amanda (CDC/OD/OCS)
(b) (6) >; Ste	cker, Judy (OS/IOS)	(b) (6); Murs	phy, Ryan (OS/ASPA)
	(6) (6); Pratt, Michael (OS/ASI	PA)	(b) (6); Oakley, Caitlin B.
(OS/ASPA)	(b) (b)>; Hall, Bill (H	HS/ASPA)	(b) (6)>; Galatas, Kate
(CDC/OD/OADC)	(b) (6)>	A STORES AND EAST	
Subject: Redfield/Fau	ci nCoV op-ed		

CDC and NIH folks,

Per some discussion after the presser, we'd like Dr. Redfield and Dr. Fauci to pen an op-ed regarding the reasons/thinking behind the policy announced today. I assume the right building blocks for it would be the remarks they made today – which I believe you all should have the copy/notes for? I have the Secretary's, which we'll be sending around/posting shortly and I'll make sure to re-up it here so you all have it.

It would be great to have a draft of this cleared to get to the WH over the weekend. (I anticipate fasterthan-average clearance from them!)

Please let me know how I can help with this.

Best, Patrick

#### Patrick Brennan

Director of Speechwriting
Department of Health and Human Services
Office: (b) (6) | Cell (b) (6)

Predecisional/deliberative communication

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Thu, 6 Feb 2020 14:54:16 +0000

To: Billet, Courtney (NIH/NIAID) [E]:Folkers, Greg (NIH/NIAID) [E]:Marston, Hilary

(NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E];Routh, Jennifer (NIH/NIAID) [E]

Subject: RE: ASF: rAzar/Pompeo op-ed

Attachments: 2 5 20 pompeo azar op-ed State - with Fauci tracked edits..docx

# Here are my tracked edits. Thanks.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (6) (6)
FAX: (301) 496-4409

E-mail: (b) (6)

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From: Billet, Courtney (NIH/NIAID) [E] < (b) (6) >

Sent: Thursday, February 6, 2020 7:31 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Folkers, Greg (NIH/NIAID) [E] (b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >

Subject: ASF: rAzar/Pompeo op-ed

Sending to all of you simultaneously, in the interest of time. Our comments are due back at noon.

From: "Brennan, Patrick (OS/ASPA)" < (b) (b)> Date: Thursday, February 6, 2020 at 1:23:26 AM To: "Routh, Jennifer (NIH/NIAID) [E]" (b) (6) >, "Bonds, Michelle E. (CDC/OD/OADC)" (b) (6)>, "Fine, Amanda (NIH/OD) [E]" (b) (6), "Galatas, Kate (CDC/OD/OADC)" (b) (6) , "Conrad, Patricia (NIH/NIAID) [E]" (b) (6) >, "Kane, Elleen (b) (6) >, "Michael, Gretchen (OS/ASPR/OEA)" (OS/ASPR/OEA)" (b) (6), "Billet, Courtney (NIH/NIAID) [E]" (b) (6) >, "Lepore, Loretta (CDC/OD/OCS)" (b) (6), "McGowan, Robert (Kyle) (CDC/OD/OCS)" (b) (d) "Campbell, Amanda (CDC/OD/OCS]" (b) (6) >, "Zebley, Kyle (HHS/OS/OGA)"

(b) (i	>, "Chang, William (HHS	/OGC)"	(b) (6), "Keveney, 5	Sean
(HHS/OGC)"	(b) (6) >, "Grigs	by, Garrett (HHS/OS/OGA)"		(b) (6)
Cc: "Billet, Courtney ( Deputies@hhs.gov>	NIH/NIAID] [E]"	(b) (6) >, "ASPA-Depu	rties" < <u>ASPA</u> -	
Subject: For review b	y noon Thurs: revised Aza	r/Pompeo op-ed		
Hi all,				
Attached is a largely i	new draft of the Azar/Por	mpeo op-ed that		(b) (f)
Name of the last o	100	The state of the s	(b) (3) I've n	nade a
couple additions and	edits to their new version	n, which I've tracked/flagger	i.	
NIAID, CDC, and OGC	, please let me know if the	his looks OK by noon tomor	row. Thank you!	
Best,				
Patrick				

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 6 Feb 2020 14:24:54 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Cc: Folkers, Greg (NIH/NIAID) [E]; Conrad, Patricia (NIH/NIAID) [E]; Routh, Jennifer

(NIH/NIAID) [E];Marston, Hilary (NIH/NIAID) [E];Stover, Kathy (NIH/NIAID) [E]

Subject: RE: ASF: for review, Azar coronavirus presser remarks

Attachments: Secretary's remarks with minor Fauci edits docx

Here are my edits for Azar's press comments

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone:
(a) (6)
FAX: (301) 496-4409
E-mail:

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From: Billet, Courtney (NIH/NIAID) [E] (b) (6)

Sent: Thursday, February 6, 2020 7:29 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Folkers, Greg (NIH/NIAID) [E] (b) (6); Conrad, Patricia (NIH/NIAID) [E]

(b) (6); Routh, Jennifer (NIH/NIAID) [E] (b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6); Stover, Kathy (NIH/NIAID) [E] (b) (6)

Subject: ASF: for review, Azar coronavirus presser remarks

Pls see Secretary's remarks for press conf and let us know if anything glaring needs to be fixed.

They also would like talking points from us, covering what you would say. These are really just a placeholder. We could resubmit what we sent last time. Is there anything new you would anticipate saying?

From: "Brennan, Patrick (OS/ASPA)"	(b) (6) >
Date: Wednesday, February 5, 2020 at 11:25:33 PM	The second secon
To: "Routh, Jennifer (NIH/NIAID) [E]"	(6)(6)>, "Bonds, Michelle E. (CDC/OD/OADC)"
(b) (6) >, "Galatas, Kate (CDC/OD/OADC)"	(b) (6), "Fine, Amanda (NIH/OD) [E]"
(b) (6)>, "Conrad, Patricia (NIH/NIAID)	[E]" (b) (6) >, "Kane, Elleen

(OS/ASPR/OEA)"	(b) (6)>, "Michael,	Gretchen (OS/ASPR/OEA)	)"
	(b) (6) >, "Billet, Courtney (NII-	I/NIAID) [E]" <	(b) (6), "Steele,
Danielle (HHS/IOS)	(b) (6) >, "Ar	bes, Sarah (HHS/ASL)"	(b) (6) >
"Moughalian, Jen (I	HHS/ASFR)" <	(b) (6)>, "Shuy, Caitrin (H)	HS/ASFR)"
atomorphism II	(6) (6), "Caliguiri, Laura (FDA/OC)"		(b) (6)>, "Janik, Heather
(FDA/OC)"	(b) (6) >, "Lepore, L	oretta (CDC/OD/OCS)"	(b) (6),
"McGowan, Robert	(Kyle) (CDC/OD/OCS)"	(b) (6) >, "Campbell, Ama	nda (CDC/OD/OCS)"
(6)(6), *	Zebley, Kyle (HHS/OS/OGA)"	(b) (6), "Cha	ing, William (HHS/OGC)
100	(h)(o)>, "Keveney, Sean (HHS/OC	SC)"	b) (6) >, "Pence, Laura
(HHS/ASL)"	(b) (b) "Grigsby, Garre	ett (HHS/OS/OGA)"	(6) (6) >
Cc: "Billet, Courtne	y (NIH/NIAID) [E]"	(b) (6) >, "Stover, Kathy (	NIH/NIAID) [E]"
(	6)(6)>, "ASPA-Deputies" <aspa-de< td=""><td>eputies@hhs.gov&gt;</td><td></td></aspa-de<>	eputies@hhs.gov>	
Subject: For review	by 11 AM Thurs: Sec. Azar coron	avirus presser remarks	

Hi all,

Attached are draft remarks for the Secretary to deliver tomorrow evening at the scheduled press conference on coronavirus – after which the plan is for Dr. Redfield and then Dr. Fauci, and then whoever from State and DHS (I think?) to speak.

## Can CDC, NIAID, OGC, FDA, and ASPR let me know if this looks OK by 11 AM tomorrow?

And once CDC and NIAID have their draft TPs, it would be great to see those as well.

Thank you!

- Patrick

Fauci, Anthony (NIH/NIAID) [E] From: Sent: Thu, 6 Feb 2020 03:59:18 +0000 To: Grigsby, Garrett (HHS/OS/OGA); Lane, Cliff (NIH/NIAID) [E] Cc: Marston, Hilary (NIH/NIAID) [E]; Zebley, Kyle (HHS/OS/OGA); Kerr, Lawrence (HHS/OS/OGA); Burr, Mara (HHS/OS/OGA); Levine, Maya (OS/OGA); Mciff, Colin (HHS/OS/OGA); Arboleda, Nelson (HHS/OS/OGA); Alexander, Thomas (OS/OGA) Subject: RE: Coronavirus collaborating center Yes. Thanks you. -----Original Message-----From: Grigsby, Garrett (HHS/OS/OGA) (b) (d) > Sent: Wednesday, February 5, 2020 8:42 AM To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Lane, Cliff (NIH/NIAID) [E] (b) (6) -Ce; Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Zebley, Kyle (HHS/OS/OGA) (b) (6)>; Kerr, Lawrence (HHS/OS/OGA) (b) (6) >; Burr, Mara (b) (6): Mciff, Colin (HHS/OS/OGA) (b) (6) >; Levine, Maya (OS/OGA) (HHS/OS/OGA) < (b) (6) Arboleda, Nelson (HHS/OS/OGA). (b) (6): Alexander, Thomas (OS/OGA) (td) (d) > Subject: FW: Coronavirus collaborating center Importance: High Drs F & L, Confirming that you want me to reply in the affirmative asap...? ----Original Message-----From: Lamourelle, Gabrielle (HHS/OS/OGA) (b) (b): Sent: Wednesday, February 5, 2020 6:50 AM To: Grigsby, Garrett (HHS/OS/OGA) (b) (b): Meiff, Colin (HHS/OS/OGA) (b) (6); Kerr, Lawrence (HHS/OS/OGA) (b) (6) -; Burr, Mara (HHS/OS/OGA) (b) (6) >; Elvander, Erika (OS/OGA) (b) (6) > (b) (6) >; Smith, Steven T (Geneva) (b) (6); Stewart, Jessica L. Ce: Tracy Carson (b) (6); Levine, Maya (OS/OGA) (b) (b) >; Wood, Rachel (HHS/OS/OGA) (HHS/OS/OGA) (b) (6); Fernandez, Jose (OS/OGA) (b) (s) Subject: FW: Coronavirus collaborating center Importance: High Dear Garrett and all. I have received the hard copy of the attached letter from Matias Tuler (WHO Collaborating Centers team) with the request that we review and provide a reply as quickly as possible. The letter, as usual form, says they will go forward in 8 weeks if they hear no objection from us. Given the coronavirus situation (b) (5) If you have any questions, let me know.

Thank you, Gabrielle

----Original Message-----

From: TULER, Matias 00 60 Sent: Wednesday, February 5, 2020 9:35 AM To: Lamourelle, Gabrielle (HHS/OS/OGA) -

Cc: OGA Multilateral <OGAmultilateral@hhs.gov>

Subject: RE: Coronavirus collaborating center

Dear Gabrielle,

Many thanks for the email.

I sent you an email with the letter just after we talked. I do not know if you received it. I am attaching the letter to this email again, just in case.

Thank you very much in advance.

Best regards,

Matias

Metias Tuler

Programme Manager

WHO Collaborating Centres, and WHO Expert Advisory Panels and Committees World Health Organization

Geneva , Switzerland

Office: (b) (6)

Web: http://www.who.int/collaboratingcentres/information/en/

http://www.who.int/about/collaborations/expert\_panels/en/

Follow WHO on Facebook, Twitter, YouTube, Instagram

----Original Message-----

From: Lamourelle, Gabrielle (HHS/OS/OGA)

(b) (6)

Sent: Wednesday, February 5, 2020 9:17 To: TULER, Matias (b) (6)

Cc: OGA Multilateral <OGAmultilateral@hhs.gov>

Subject: Coronavirus collaborating center

Dear Matias,

Thank you for sharing the hard copy of the Coronavirus collaborating center letter. Please send me an electronic copy as well and I will send back immediately to our office for a rapid reply.

With best wishes, Gabrielle Lamourelle

Deputy Director, Multilateral Relations HHS Office of Global Affairs

HITS OTHER OF ORDORI ATTAILS

Sent from my iPhone

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Thu, 6 Feb 2020 02:55:19 +0000

 To:
 Kerr, Lawrence (HHS/OS/OGA)

 Cc:
 Grigsby, Garrett (HHS/OS/OGA)

Subject: RE: Spoke with Soumya re: evolutionary origin of nCoV

I do not see any problem with your doing this. Go for it.

Best, Tony

From: Kerr, Lawrence (HHS/OS/OGA) (N/O)>

Sent: Wednesday, February 5, 2020 7:18 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6)(6)>
Cc: Grigsby, Garrett (HHS/OS/OGA) (6)(6)>
Subject: Spoke with Soumya re: evolutionary origin of nCoV

Dr. Fauci,



I welcome your advice please. Much thanks,

Larry

From: (b) (6)

Sent: Wed, 11 Mar 2020 19:30:25 -0400

To: John M Jessup

Subject: Re: You are great - a thought

Kim:

Thanks for the note. That is exactly what the cdc is starting to do.

Best,

Tony

On Mar 11, 2020, at 7:22 PM, John M Jessup

(b) (6) > wrote:

Tony,

We have seen each other over the decades. I am the (60) from NCI who decreid the lack of information about Eboal since it was limited to fruit bats as a reservoir.

An idea about testing. Maryland still has testing limited to subjects with symptoms who have contact with people from affected areas or who really ill with a respiratory infection

Why not forget the contacts and test those with flu-like symptoms without the need for contacts but instead test for flu and if that is negative move on to covid-19.

That would still be a tremendous demand so ... go to a formal two-tier test where PCR is done with approved PCR primers and if that is positive then the confirmation is with a FDA test for covid-19.

There are a lot of manufacturers of PCR primers, most clinical labs have PCR machines so that screening tests ought to be supported without a lengthy FDA clearance if it winnows the number of patients who need a formal test.

You are terrific. Keep it up with common sense as opposed to whatever the top of the administration suggests. I bet that the primer manufacturers would be supportive.

Kim

J. Milburn Jessup, MD, FACS Research Scientist Division of Research Washington DC VAMC 50 Irving Street NW Washington, DC 20422

(b) (6) or

(10.(6)

Affiliate Professor - Systems Biology

College of Science George Mason University (6) (6)

(b) (6) Diagnostics Ev aluation Branch, CDP, DCTD, NCI, NIH

From: (b) (6)

Sent: Wed, 5 Feb 2020 08:56:13 -0500

To: Baden, Lindsey, M.D.

Cc: Marston, Hilary (NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E];Lerner, Andrea

(NIH/NIAID) [E];Lane, Cliff (NIH/NIAID) [E];Morens, David (NIH/NIAID) [E]

Subject: Re: favor

(b) (6), (b) (4)

On Feb 5, 2020, at 8:29 AM, Baden, Lindsey, M.D. <a href="mailto:slope-wrote:">lbaden@nejm.org</a>>wrote:

Tony,	
	(b) (6); (b) (4)
Lindsey	
From: "Fauci, Anthony (NIH/NIAID) [E]"	(b) (6)
Date: Tuesday, February 4, 2020 at 7:06 PM	
To: "Baden, Lindsey, M.D." < lbaden@nejm.org>	
Cc: "Marston, Hilary (NIH/NIAID) [E]"	(b) (6) "Conrad, Patricia
(NIH/NIAID) [E]" (b) (6), "Lern	er, Andrea (NIH/NIAID) [E]"
(b)(6), "Lane, Cliff (NIH/NIAID)	[E]" (b) (6)/>,
"Morens, David (NIH/NIAID) [E]"  Subject: RE: favor	(b) (6) >
Lindsey:	
	(b) (6), (b) (4
Best regards,	

Tony

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

31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: FAX: (301) 496-4409 E-mail: (b) (6) The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives. From: Baden, Lindsey, M.D. < lbaden@nejm.org> Sent: Tuesday, February 4, 2020 3:35 PM (b) (6) To: Fauci, Anthony (NIH/NIAID) [E] Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6); Conrad, Patricia (b) (6) (NIH/NIAID) [E] Subject: Re: favor Tony (and Hilary), Much appreciated. (b) (6), (b) (4) Thank you, Lindsey From: "Fauci, Anthony (NIH/NIAID) [E]" (b) (6) Date: Tuesday, February 4, 2020 at 2:16 PM To: "Baden, Lindsey, M.D." < lbaden@neim.org> Cc: "Marston, Hilary (NIH/NIAID) [E]" < (b) (6), "Conrad, Patricia (b) (6) (NIH/NIAID) [E]" Subject: RE: favor Lindsay: (h) (6), (b) (4) Tony Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases

Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (b) (6) FAX: (301) 496-4409

E-mail: (6) (6)

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From: Baden, Lindsey, M.D. < lbaden@neim.org>
Sent: Tuesday, February 4, 2020 12:31 PM

To: Fauci, Anthony (NIH/NIAID) [E]

Subject: favor

Tonv,

(b) (b)

Thank you for considering,

Lindsey

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received this message in error, please contact the sender immediately by return email and delete the original message from all computer systems. Thank you.

From: (b) (6)

Sent: Wed, 5 Feb 2020 08:41:40 -0500

To: Baden, Lindsey, M.D.

Subject: Re: favor

Thanks, Lindsey. I am always happy to help in any way I can

On Feb 5, 2020, at 8:32 AM, Baden, Lindsey, M.D. <a href="mailto:sep-wrote:">lbaden@nejm.org</a>>wrote:

#### Tony,

On a different note, as the spread of the nCoV-2019 virus is so complex and fast moving, any advice on how we at the *Journal* can help in the response would be great. Your advice is always appreciated as we all try to get it right and be responsive. Lindsey

a contract of the contract of

# Lindsey:

(b) (6), (b) (4)

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520

FAX: (301) 496-4409 (b) (6) The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives. From: Baden, Lindsey, M.D. < lbaden@neim.org> Sent: Tuesday, February 4, 2020 3:35 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) (b) (6); Conrad, Patricia Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6)> (NIH/NIAID) [E] Subject: Re: favor Tony (and Hilary), Much appreciated (b) (6), (b) (4) Thank you, Lindsey (b) (6) From: "Fauci, Anthony (NIH/NIAID) [E]" Date: Tuesday, February 4, 2020 at 2:16 PM To: "Baden, Lindsey, M.D." < baden@neim.org> Cc: "Marston, Hilary (NIH/NIAID) [E]" (b) (6), "Conrad, Patricia (b) (6) (NIH/NIAID) [E]" Subject: RE: favor Lindsay: (b) (6), (b) (4) Tony Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520

Phone:

National Institutes of Health Bethesda, MD 20892-2520

(b) (6)

Phone:

FAX: (301) 496-4409

E-mail: (b) (6)

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From: Baden, Lindsey, M.D. < lbaden@neim.org>

Sent: Tuesday, February 4, 2020 12:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: favor

Tony,

(b) (6), (b) (4)

Thank you for considering,

Lindsey

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 11:52:41 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Subject:
 FW: INTERVIEW- A HABER/ A NEWS

For discussion.

From: GULSEN EDA ULUSOY <EDA.ULUSOY@ahaber.com.tr>

Sent: Wednesday, February 5, 2020 3:23 AM

To: Fauci, Anthony (NIH/NIAID) [E] (0)(6)

Subject: INTERVIEW- A HABER/ A NEWS

Dear Mr. Fauci,

This is Eda Ulusoy from Turkey's number one ranking news channel A Haber/ A News.

We would like to take few minutes of your time and kindly ask if we could possibly have the opportunity to make a Skype interview with you about China coronavirus outbreak.

We can have the interview this week or next week. I can arrange it according to your programme.

It will only take 15 minutes of your time.

We would really appreciate if we can make this interview.

Thank you for your kind consideration.

I'm looking forward to your reply.

Sincerely,

Eda Ulusoy Correspondent 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 11:52:11 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Interview invitation from Dialogue CGTN

et us discuss.

From: Bai Jacinta (b) (6)
Sent: Wednesday, February 5, 2020 2:58 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6) >; Fauci, Anthony (NIH/NIAID) [E]

(b) (d) >

Subject: Interview invitation from Dialogue CGTN

Dear Mr. Fauci,

This is Jacinta from Dialogue, CGTN of China Central Television. I hope this email finds you well.

I'm reaching out to ask if you have time for a satellite interview at 5:30 am on Feb 6, Thursday, DC time. I read the interview to you on New York Times and sincerely wish that you could share more with our global audience. It would be our honor to have you on.

Topics will cover the evolution of coronavirus and its mortality rate, difficulties in controlling the outbreak, cooperation in international communities, prevention measures and so on.

Please kindly let me know if you are available for the show. I'll send the proposed questions beforehand and book the closest studio for you.

Appreciate it!

Best, Jacinta Bai Dialogue, CGTN From:

Fauci, Anthony (NIH/NIAID) [E] Wed, 5 Feb 2020 11:34:46 +0000

Sent: To:

Ho, David D.

Cc:

Conrad, Patricia (NIH/NIAID) [E]; Barasch, Kimberly (NIH/NIAID) [C]

Subject:

RE: 2019-nCoV

# David:

Thanks for the note. Please have your office contact my Special Assistant, Patty Conrad (copied here) to set up a call. I down at the Congress and White House most of the day, but we can probably squeeze a call in between meetings.

Best, Tony

From: Ho, David D.

(b) (6) >

Sent: Tuesday, February 4, 2020 12:48 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(b) (6) >

Subject: 2019-nCoV

Tony,

Greetings. As you can see below, our institute has moved. We are now part of Columbia.

Do you have a brief moment to chat about the new coronavirus?

Best.

David

David D. Ho, M.D.

Director, Aaron Diamond AIDS Research Center Clyde and Helen Wu Professor of Medicine Birector, Wu Family China Conter Columbia University Vagelos College of Physicians and Surgeons 701 W. 168<sup>81</sup> Street, HKSC 1102 New York, NY 10032

From: Fauci, Anthony (NIH/NIAID) [E] Sent: Wed, 5 Feb 2020 11:17:05 +0000 Collins, Francis (NIH/OD) [E] To: Harper, Jill (NIH/NIAID) [E]; Johnson, Martin S. (NIH/NIAID) [E]; Conrad, Patricia Cc (NIH/NIAID) [E]; Tabak, Lawrence (NIH/OD) [E]; Shapiro, Neil (NIH/OD) [E]; McGowan, John J. (NIH/NIAID) (b) (6) ;Auchincloss, Hugh (NIH/NIAID) [C] Subject: RE: Coronavirus Francis: (b) (5) Happy to discuss further. Thanks, Tony From: Collins, Francis (NIH/OD) [E] (b) (d) Sent: Wednesday, February 5, 2020 5:58 AM To: Fauci, Anthony (NIH/NIAID) [E] (b) (b) Cc: Tabak, Lawrence (NIH/OD) [E] (6) (6) >; Shapiro, Neil (NIH/OD) [E] (b) (6) Subject: FW: Coronavirus Importance: High Hey there Tony, (6) (5) Thanks, Francis From: Shapiro, Neil (NIH/OD) [E] (b) (b) > Sent: Tuesday, February 4, 2020 8:31 PM To: Collins, Francis (NIH/OD) [E] < (b) (6) >; Tabak, Lawrence (NIH/OD) [E] (b) (d)>; Johnson, Alfred (NIH/OD) [E] (b) (6); Wolinetz, Carrie (b) (6) >; Hallett, Adrienne (NIH/OD) [E] (NIH/OD) [E] (6)(6)

Schwetz, Tara (NIH/OD) [E]

Subject: RE: Coronavirus Importance: High (0)(3) From: Shapiro, Neil (NIH/OD) [E] Sent: Tuesday, February 4, 2020 4:46 PM To: Collins, Francis (NIH/OD) [E] (b) (6) >; Tabak, Lawrence (NIH/OD) [E] (b) (6); Johnson, Alfred (NIH/OD) [E] (b) (b)>; Wolinetz, Carrie (b) (6); Hallett, Adrienne (NIH/OD) [E] (NIH/OD) [E] (b) (6) (b)-(6) Schwetz, Tara (NIH/OD) [E] Cc: Shaya, Cecile (NIH/OD) [E] (b) (b) Subject: RE: Coronavirus Francis, (b) (5)

(6) (6)

Cc: Shaya, Cecile (NIH/OD) [E]

Neil

(NIH/OD) [E] (NIH/OD) [E] (Subject: RE: Coronavirus  I'm sending them the first part, thanks.  From: Collins, Francis (NIH/OD) [E] (NIH/OD)  Sent: Wednesday, January 29, 2020 5:23 AM  To: Tabak, Lawrence (NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] (NIH/OD)	(b) (6)>; Wolinetz, Carrie (b) (6)>
(NIH/OD) [E] (NIH/	H/OD) [E]
(NIH/OD) [E] (NIH/OD) [E] Subject: RE: Coronavirus  I'm sending them the first part, thanks.  From: Collins, Francis (NIH/OD) [E] (NIH/OD)  Sent: Wednesday, January 29, 2020 5:23 AM  To: Tabak, Lawrence (NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] (NIH/OD)	(b) (6) >  H/OD) [E]  ; Wolinetz, Carrie
Subject: RE: Coronavirus  I'm sending them the first part, thanks.  From: Collins, Francis (NIH/OD) [E] < (b) (6)  Sent: Wednesday, January 29, 2020 5:23 AM  To: Tabak, Lawrence (NIH/OD) [E] (b) (6) Shapiro, Neil (NIH/OD) [E] (b) (6) Johnson, Alfred (NIH/OD) [E] (b) (6)	; Wolinetz, Carrie
From: Collins, Francis (NIH/OD) [E] < (b) (6)  Sent: Wednesday, January 29, 2020 5:23 AM  To: Tabak, Lawrence (NIH/OD) [E] (b) (6) Shapiro, Neil (NIH/OD) [E] (b) (6) Johnson, Alfred (NIH/OD) [E]	; Wolinetz, Carrie
Sent: Wednesday, January 29, 2020 5:23 AM  To: Tabak, Lawrence (NIH/OD) [E] (b) (6) Shapiro, Neil (NIH  (b) (6) Johnson, Alfred (NIH/OD) [E] (b) (6) >	; Wolinetz, Carrie
To: Tabak, Lawrence (NIH/OD) [E] (b) (6) Shapiro, Neil (NIH (b) (6) Johnson, Alfred (NIH/OD) [E] (b) (6) Shapiro, Neil (NIH/OD)	; Wolinetz, Carrie
(6) (6) Johnson, Alfred (NIH/OD) [E] (9) (6) >	; Wolinetz, Carrie
	Control of the Contro
(AULI (OD) IEI	(b) (b)
(NIH/OD) [E] (NIH/OD) [E] (NIH/OD) [E] Subject: RE: Coronavirus	
	(0) (4)
FC	
From: Tabak, Lawrence (NIH/OD) [E] (0) (6)	
Sent: Tuesday, January 28, 2020 6:25 PM	
To: Shapiro, Neil (NIH/OD) [E] (b) (b) (collins, Francis (NIH/OD)	[E]
(b) (6) >; Johnson, Alfred (NIH/OD) [E] (b) (6);	Wolinetz, Carrie
(NIH/OD) [E] (NIH/OD) [E]	(6) (6)
Subject: Re: Coronavirus	
(b)(5)	
Larry	
From: "Shapiro, Neil (NIH/OD) [E]" (b) (6)>	
Date: Tuesday, January 28, 2020 at 5:31 PM	
To: Francis Collins (%) (%), "Tabak, Lawrence (NIH/OD) [E]"	
(b)(6)>, "Johnson, Alfred (NIH/OD) [E]" <	(b) (6)
"Wolinetz, Carrie (NIH/OD) [E]" < 0) (6) >, "Hallett, Adrie	CONTRACTOR OF THE PARTY OF THE
(6) (6)	(1.1.1)
Subject: Coronavirus	
Senten corollation	



Neil

From:

Fauci, Anthony (NIH/NIAID) [E] Wed, 5 Feb 2020 04:18:25 +0000

Sent: To:

Conrad, Patricia (NIH/NIAID) [E]

Subject:

RE: Business Council - Invitation to speak at the February 20-21, 2020 meeting

at the Ritz Carlton (22nd and M St. NW), Washington, D.C.

# No dinner.

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >

Sent: Tuesday, February 4, 2020 11:21 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Barasch, Kimberly (NIH/NIAID) [C] (8) (6)

Subject: FW: Business Council - Invitation to speak at the February 20-21, 2020 meeting at the Ritz

Carlton (22nd and M St. NW), Washington, D.C.

See highlight – will you and 60 (6) attend the dinner. Pls advise.

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

(b) (6)

301-496-4409 fax

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From: Marlene Colucci <mcolucci@businesscouncil.com>

Sent: Friday, January 31, 2020 2:00 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] 6) (6); David Rubenstein <a href="mailto:David.Rubenstein@carlyle.com">David.Rubenstein@carlyle.com</a>; MaryPat Decker <a href="mailto:marypat.decker@carlyle.com">MaryPat.decker@carlyle.com</a>

Subject: Business Council - Invitation to speak at the February 20-21, 2020 meeting at the Ritz Carlton

(22nd and M St. NW), Washington, D.C.

Dear Dr. Fauci,

On behalf of our co-chairs for the winter meeting of The Business Council, David Rubenstein of The Carlyle Group and Ginni Rometty of IBM, we would like to formally invite you to participate in our meeting on February 20-21, 2020 in Washington, D.C. The theme of the meeting is "The Next Decade." (See formal invitation attached as well as list of CEO members).

We would like for you to participate in a 50 minute fireside chat with David Rubenstein (and possibly Dr. Francis Collins) to discuss the current coronavirus as well as what we should expect in the next decade. We want to give our CEOs insights into what the next 10 years will bring in terms of detection, diagnosis and treatment of diseases. All conversations are strictly off the record and closed press. We will cover all lodging and transportation.

As you know, The Business Council is comprised of the chief executive officers of the largest global corporations, representing all segments of the economy. We expect at least 150 CEO members, spouses and speakers to be in attendance.

As a participant you and your spouse are also invited to join us for our special reception, dinner and speaker at the REACH (Kennedy Center) on Thursday, February 20 at 6:30pm. It is the best opportunity for you to meet our CEO members and spouses, speakers and other special guests in an informal atmosphere.

If you are interested and available, please let me know. We can also set up a very brief call with you to discuss any additional details and answer any questions you may have. We look forward to hearing from you and would be honored to have you participate with us again.

Warmest regards,

Marlene

# Marlene Colucci

DIRECTOR



T: 202-298-7650 C: 000 F: 202-785-0296 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 04:17:19 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

 Cc:
 Billet, Courtney (NIH/NIAID) [E]

Subject: FW: Comment on story about how confident people feel about their govt's

response to a health epidemic

Please try to draft a response for me. Thanks.

From: Rajeshni Naidu-Ghelani <Rajeshni.Naidu-Ghelani@ipsos.com>

Sent: Tuesday, February 4, 2020 12:23 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)

Subject: Comment on story about how confident people feel about their govt's response to a health

epidemic

Hi Dr. Fauci,

I hope all is well. I'm working on a news story tied to the coronavirus outbreak and tying it to how people responded to a recent global lpsos poll about the threat of a major health epidemic in their country in the next 12 months. <a href="https://www.ipsos.com/sites/default/files/ct/news/documents/2019-11/a-more-dangerous-world-fear-2019.pdf">https://www.ipsos.com/sites/default/files/ct/news/documents/2019-11/a-more-dangerous-world-fear-2019.pdf</a>

I was hoping to get your comments on this, considering your expertise in infectious disease control. Below are some questions. If you could respond via email, that would be great as I am on a tight deadline to get this story up. If it's easier to give you a call, I can do that as well. Please let me know what works best. The story will be published on Ipsos.com, on social media and our various country websites. Thank you and I look forward to your response.

- In our survey of more than 18,500 people in 28 countries done in late last summer, more than half (51%) of people said there was threat of a major health epidemic in their country in the next 12 months with people in emerging markets at the top of the list. Are you surprised by this result? It's among the highest reading for this question since the Ebola outbreak in 2014 when the percentage climbed to 59%.
  - 2. The U.S. is the only developed country in the top 10 list where most people think a major health epidemic will occur. Why do you think this is?
  - 3. A follow up question to the previous one is how confident people are that their government could protect them or respond effectively if such an outbreak was to occur. Over half globally said they were confident in their gov't's response. Do you think people have a lot of trust in those in power to do the right thing in times of an outbreak?
  - 4. Seven of the top 10 countries where people had the most confidence in govts are in the developed world. How important are developed healthcare systems when it comes to outbreaks like the coronavirus?
  - 5. Likewise, many countries at the bottom of this list are emerging markets. What can govts in these countries do to ease peoples' fears on how they are or will handle an outbreak like the coronavirus?

6. How difficult is it for governments and health officials to prevent the spreading of a virus like this before it becomes a pandemic? What measures can be taken?

Please free to add any additional information that you think may be relevant. I hope to hear from you soon.

Regards, Rajeshni



 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 04:12:18 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

Cc: Billet, Courtney (NIH/NIAID) [E];Stover, Kathy (NIH/NIAID) [E];Conrad, Patricia

(NIH/NIAID) [E]; Folkers, Greg (NIH/NIAID) [E]

Subject: RE: for review: responses for Elemental news site (not urgent)

I made some modifications. You can send it. Thanks.

Subject: for review: responses for Elemental news site (not urgent)

Dr. Fauci -

This request is not urgent for today. The reporter Rob Britt (writes for Elemental, a health and wellness news site) reached out to you directly on Sunday with some questions about 2019-nCoV. I have drafted proposed responses for you in red below. Please let me know if you have edits. I will send responses back to the reporter attributed to you.

Thanks, Jen

> From: Rob Britt (6) (6) Sent: Sunday, February 2, 2020 5:10 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: Coronavirus - reporter's questions

Hi Dr. Fauci: We are updating <u>our coronavirus story</u> periodically, keeping it factual and level-headed, and I have seen your comments on NPR Friday and in the NY Times over the weekend, so I hope you could comment very briefly for our story:

— What's your expectation for whether this will become a pandemic? The novel coronavirus outbreak will likely become a pandemic. We know the virus is very transmissible. The infection continues to accelerate and there is efficient transmission in china. If sustained transmission also occurs in other countries throughout the world, the outbreak would fulfill the definitive of a pandemic

- Pandemic does not necessarily equate to a terrible situation, compared to, say bad flu seasons. What's your expectation on the potential severity of this coronavirus?
  It is difficult to predict the severity at this time. Even if the mortality rate of a virus remains low, if it is easily transmissible, the global impact can be significant.
- And your suggestion to people in the U.S. who might be very concerned?

We are treating the emergence of a novel coronavirus as a very serious public health threat. However, the risk to the general American public remains low at this time. We understand that people may be worried. We ask that people not let fear or panic guide their actions.

Thanks for any help you can provide. Cheers,

Rob

Robert Roy Britt

Top Writer on Medium in Science & Health.

Contributor to OneZero (science) & Elemental (health).

Former editor-in-chief of Live Science and Space.com.

(b) (6)

(b) (6)

Fauci, Anthony (NIH/NIAID) [E] From: Sent: Wed, 5 Feb 2020 04:06:33 +0000 To: Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: For Dr. Anthony Fauci (NIAID/NIH) - forward of my email letter to Dr.

Gregory Poland (Mayo Clinic) regarding Chinese 15 minute Coronavirus test and other concerns

Please handle.

----Original Message-----

From: Jon M Sent: Tuesday, February 4, 2020 4:55 PM

To: Fauci, Anthony (NIH/NIAID) [E]

Subject: For Dr. Anthony Fauci (NIAID/NIH) - forward of my email letter to Dr. Gregory Poland (Mayo Clinic)

regarding Chinese 15 minute Coronavirus test and other concerns

From: Jon M < (b) (c)

To: ocpostoffice@niaid.nih.gov

Subject: Attention Meylin - Forward of my email lietter to Dr Gregory Poland (Mayo Clinic) for Dr Anthony Fauci

(NIAID/NIH)

Date: Feb 4, 2020 1:45 PM

Hello Meylin,

Thank you for taking my call yesterday and forwarding the following email I sent to Dr. Gregory Poland care of his assistant, Joseph Roberts, to Dr. Fauci.

Jon Markowitz

From: Jon M (b) (6)

Subject: JOE - We spoke on phone today ... Please forward my email with reference links to Dr. Gregory Poland

Date: Feb 4, 2020 12:57 PM

Hello Joseph Roberts (Mayo Clinic),

We spoke on phone today...

Please forward my email with reference links to Dr. Gregory Poland Thank you, Jon Markowitz

Feb 4, 2020

Dear Dr. Gregory Poland

I saw your appearance Feb 3 on a CNBC news program: https://www.youtube.com/watch?v=Wq33oZdQ-R4

'We're basically at a pandemic now'. Mayo Clinic physician on coronavirus

Fyi, I am not a doctor, nurse or medical student nor do I work in the medical field. I am a musician. I am 65 years old and live in Los Angeles.

A news article published on rt.com Feb 31, 2020 (see link below) announced the Chinese have developed a 15 minute test for the Coronavirus, yet I've not seen or heard about this news anywhere else. I had heard there were efforts here to develp a faster test than what is being employed currently by the CDC, but believe its critical the

White House arrange for the new Chinese test to be available in the US everywhere immediately.

This news should have been mentioned by NIH doctor Anthony Fauchi at the White House Briefing on Jan 31, 2020 but was not, nor was it mentioned by Mayor Di Blasio on Feb 1 at Bellevue Hospital in NY.

At this point, the NIH, CDC and White House should have already obtained the Chinese 15 minute test for the virus and implement at all US medical centers and airports receiving travelers from the infectious regions.

Due to the exponential growth of infection rates from 'seed' individuals who are asymptomatic but don't know they are infectious, whether returning from infection zones or are infected by others already here, I am hoping you and other infectious disease experts waste no time in vigorously pursuading the White House, NIH, CDC and all other agencies as to the necessity to test ALL travelers (not just those who are symptomatic) coming into the country by air and sea with the Chinese 15 minute test as well as pull out all the stops to develop an even quicker test that's portable.

As the numbers of infections increases exponentially in the US and other countries this next 2 to 4 weeks from increasing numbers of asymptomatic 'seed' individuals unknowingly spreading the disease, we are certainly on the precipice of an unstopable runaway epidemic.

What is also desperately needed from the federal government are frank and honest recommendations regarding what is necessary to prevent becoming infected such as:

surgical or construction respirators that seal to the face, eye protection goggles, nitrile exam gloves, sanitizer wipes along with specific protocols on how not to bring the virus particles back to ones car, home and possessions.

It is imperative that manufacturing of EFFECTIVE respirator masks or equivalent non-disposable respirators be ramped up to huge scale. Without adequate numbers of these, exam gloves and eye protection this country will not be capable of containing this epidemic.

Below this article, I've pasted in a number of useful youtube links of relevant and timely information in reference.

Thank you very much for your attention to this issue.

Jon Markowitz Los Angeles

References:

https://www.rt.com/news/479705-china-develop-coronavirus-rapid-test/ China develops rapid Coronavirus test that works in under 15 MINUTES 31 Jan, 2020 10:48

Scientists in China have reportedly developed an express test which can detect the 2019-nCoV novel coronavirus in under fifteen minutes, in a major breakthrough which will hopefully help stem the tide of infection.

Experts from a tech company based in Wuxi in eastern China's Jiangsu Province, working with the National Institute for Viral Disease Control and Prevention, developed the rapid nucleic test kit in just ten days, according to the Xinhua news agency.

The test takes between eight and 15 minutes to produce a result and is currently being mass-manufactured at a rate of 4,000 kits per day, with the city government in Wuxi exploring efforts to boost production even further.

The first batch of kits has reportedly already been deployed to the frontlines at the epicentre of the outbreak, Wuhan, in Hubei province.

https://www.youtube.com/watch?v=Wg33oZdQ-R4

'We're basically at a pandemic now': Mayo Clinic physician on coronavirus 114,173 views •Feb 3, 2020 CNBC Television

# https://www.youtube.com/watch?v=VdUi\_kwuw7I

11 confirmed US coronavirus cases, experts warn of pandemic | ABC News 157,773 views •Feb 3, 2020 ABC News

#### https://www.youtube.com/watch?v=8Hjy3UfaTSc

Coronavirus Epidemic Update 9: Fecal-Oral Transmission, Recovery vs Death Rate 129,190 views •Feb 3, 2020 MedCram

#### https://www.youtube.com/watch?v=GpbUoLvpdCo

Coronavirus Outbreak Update 8: Travel Ban, Spread Outside of China, Quarantine, & MRSA 329,919 views

\*Feb 2, 2020

MedCram

# https://www.youtube.com/user/MEDCRAMvideos/videos

MedCram youtube channel

[Dr. Roger Seheult - https://www.medcram.com/]

#### https://www.youtube.com/watch?v=z05ZrMfKU/Dc

Coronavirus, Contagion and Complications 228,007 views •Feb 2, 2020 Dr. John Campbell

# https://www.youtube.com/watch?v=u7D3AoNdp84

Wuhan virus compared to MERS and SARS 45,569 views •Feb 3, 2020 Dr. John Campbell

#### https://www.youtube.com/user/Campbellteaching/videos

Dr. John Campbell youtube channel

#### https://www.youtube.com/watch?v= zezkLZN194

Mayor de Blasio Holds Media Availability 334 views Feb 1, 2020 NYC Mayor's Office

# https://www.youtube.com/watch?v=oMI-9Kvoj7Q

Coronavirus: U.S. Declares Public Health Emergency, Will Quarantine China Travelers [White House Briefing] 121,648 views \*Streamed live on Jan 31, 2020

QuickTake by Bloomberg

Fauci, Anthony (NIH/NIAID) [E] From: Sent: Wed, 5 Feb 2020 04:03:41 +0000 To: Cassetti, Cristina (NIH/NIAID) [E] Subject: FW: coronavirus Attachments: Wuhan Coronavirus Vaccine.docx Please handle. From: John Howard (b) (6)> Sent: Tuesday, February 4, 2020 6:05 PM To: Fauci, Anthony (NIH/NIAID) [E] (6) (6) Subject: coronavirus Dear Dr., Fauchi, I understand you are leading an effort on the Wuhan Coronavirus. I am writing to enquire how we may help in this effort. (b) (4) (b) (4)

Thanks for your attention regarding this matter.

Sincerely,

John Howard, PhD President ABI (b) (6) 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 03:49:07 +0000

 To:
 Fleisher, Thomas (NIH/CC/DLM) [V]

Subject: RE: Question

# No problem.

From: Fleisher, Thomas (NIH/CC/DLM) [V] (6)(6) >

Sent: Tuesday, February 4, 2020 9:37 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)>

Subject: Re: Question

#### Tony,

Would you be willing to have your statement "we are in the middle of influenza season..." included in the Academy's online Practice Matters email Thursday going out to all members (attributed to you) along with a link to the CDC website devoted to Coronavirus?

Thanks, Tom

From: "Fauci, Anthony (NIH/NIAID) [E]" < (b) (6) >

Date: Tuesday, February 4, 2020 at 3:14:47 PM

To: "Fleisher, Thomas (NIH/CC/DLM) [V]" (b) (6) > Cc: "Conrad, Patricia (NIH/NIAID) [E]" (b) (6) >

Subject: RE: Question

#### Tom:

Right now nothing specific to communicate except that we are still in the middle of an influenza season and the things that we do to prevent spread of flu (i.e. hand washing, social distancing from crowds) are the same things that we would do if we have transmissions of nCoV here.

Best,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
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From: Fleisher, Thomas (NIH/CC/DLM) [V] (b) (6) >

Sent: Tuesday, February 4, 2020 1:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: Question

#### Tony,

I was asked if there is any message that the A&I community should receive in regards to the current Coronavirus outbreak in China and potential impact on the US. I recognize the CDC and state medical boards are releasing updates and recommendations but the question posed to me was is there anything AAAAI should communicate to our members? Thank you for considering this question.

Regards,

Tom

From:

Fauci, Anthony (NIH/NIAID) [E] Wed, 5 Feb 2020 03:48:11 +0000

Sent: To:

Sylvia Burwell

Subject:

RE: A couple of quick questions.

#### Sylvia:

Masks are really for infected people to prevent them from spreading infection to people who are not infected rather than protecting uninfected people from acquiring infection. The typical mask you buy in the drug store is not really effective in keeping out virus, which is small enough to pass through the material. It might, however, provide some slight benefit in keep out gross droplets if someone coughs or sneezes on you. I do not recommend that you wear a mask, particularly since you are going to a vey low risk location. Your instincts are correct, money is best spent on medical countermeasures such as diagnostics and vaccines.

Safe travels. Best regards, Tony

From: Sylvia Burwell

(b) (6)>

Sent: Tuesday, February 4, 2020 10:24 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(b) (6)

Subject: A couple of quick questions.

Begin forwarded message:

From: Sylvia Burwell

(b) (6)

Date: February 4, 2020 at 9:35:03 PM EST

To: Sylvia Burwell (b) (6)

Subject: Fwd: Advice re a donation

EXTERNAL EMAIL: Use caution with links and attachments.

Begin forwarded message:

From: Sylvia Burwell

(6) (6)

Date: February 4, 2020 at 9:33:47 PM EST To: Tony Fauci (b) (6) >

Subject: Fwd: Advice re a donation

Tony

Two quick questions

- I am traveling to 60 (6) Folks are suggesting I take a mask for the airport. Is this something I should do.
- 2. Please see below. Do the Chinese have needs for support right now? Would money be better spent on diagnostics or vaccine work?

Thanks!

Sylvia

Begin forwarded message:

From: Richard Falkenrath (6) (6)

Date: February 4, 2020 at 5:27:32 PM EST To: (6) (6) Sylvia Mathews Burwell

(b) (6)

Subject: Advice re a donation

Hi Sylvia

I hope this find you well.

Quick question, a little bit from left field, but drawing on your experience at Gates and HHS. Ray Dalio and Bridgewater are interested in making a very sizable donation to help China deal with the global public health challenge arising from the new coronavirus. Any suggestions of where we should look to donate the funds?

Richard

(b) (6

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Wed, 5 Feb 2020 00:42:06 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Subject:
 FW: Interview with Voice of America

Let us discuss.

E-mail:

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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(b) (6)

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Dear Dr. Fauci,

I'm Chief of Voice of America's Thai Services. We met at the Thai Embassy on a Mahidol Award ceremony years ago.

I'm now working on a news story about how developing countries equip themselves with medical readiness and policy responsiveness in the wake of the coronavirus outbreak. I'm interested in this aspect because when I looked at Global Health Security Index, Thailand was ranked the highest in its ability to tackle epidemics ahead of Japan, Korea and Singapore. It's also by far the highest among developing countries.

I'm curious to find out about contributing factors for developing countries' readmess to effectively handle an outbreak like coronavirus. There may be some essential aspects each country can learn from one another during this outbreak and I hope that this story could shed lights on that.

If you are free in the coming days, I would like to have an interview with you, if possible, on Skype. I would really appreciate the opportunity to speak with you again.

Thank you, Rattaphol

Rattaphol "Ahn" Onsanit Chief of VOA Thai Sent from my iPhone

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Wed, 5 Feb 2020 00:31:31 +0000

To: Messonnier, Nancy (CDC/DDID/NCIRD/OD)

Subject: FW: WSJ In Japan, a local bus driver in his 60s tested positive after he drove

tourists from Wuhan, none of whom had exhibited severe symptoms

Nancy:

See yellow highlight below. Did they misquote the CDC?

Thanks,

Tony

Anthony S. Fauci, MD Director

National Institute of Allergy and Infectious Diseases

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From: Folkers, Greg (NIH/NIAID) [E] (0)(0)>

Sent: Tuesday, February 4, 2020 12:12 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: WSJ In Japan, a local bus driver in his 60s tested positive after he drove tourists from Wuhan,

none of whom had exhibited severe symptoms

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)>

Sent: Monday, February 3, 2020 1:50 PM

Subject: WSJ: Experts Race to Figure Out How Contagious the Coronavirus Is

# Experts Race to Figure Out How Contagious the Coronavirus Is

The outbreak of novel coronavirus appears more contagious than seasonal flu and is on par with SARS in 2002 and 2003, studies say



China says that as of Saturday there were 4,109 infected people in the city of Wuhan. Photo: china daily/Reuters

By

Chao Deng and

Jeremy Page

Updated Feb. 2, 2020 7:34 pm ET

BEIJING—Public-health experts around the world have been crunching numbers about the advance of China's dangerous new coronavirus to estimate how far and fast it could spread.

Studies published in recent days say the new virus appears to be more contagious than seasonal flu and on par with the similar pathogen behind <u>an outbreak</u> of severe acute respiratory syndrome in 2002 and 2003. The new virus' mortality rate, however, is far below that of SARS.

China says that as of Sunday there were 5,142 infected people in Wuhan, the locked-down city where the outbreak began. Some scientists estimate based on statistical models that the number could be in the tens of thousands.

As health authorities race to control the outbreak, they are also <u>scrambling to figure out</u>, based on imperfect data, how the virus is transmitted, the length of the incubation period and the degree to which people without symptoms can spread the disease.

China's health commission says incubation is generally between three and seven days, with the longest period being 14 days, and that people can spread the virus before appearing ill. That makes a two-week

quarantine an important prevention measure—and casts doubt on the efficacy of temperature checks, the main screening method at immigration and other checkpoints.

"For a given level of transmissibility, more asymptomatic transmission makes a disease harder to control," said Christl A. Donnelly, a professor at University of Oxford and Imperial College London. The U.S. Centers for Disease Control and Prevention, which warns against nonessential travel to China, says it isn't clear how easily or sustainably the virus is spreading between people, but notes its ability to spread from infected patients without symptoms to close contacts within about 6 feet.

A study led by a researcher from Boston's Northeastern University—using mathematical probability models based on travel patterns and confirmed international cases—estimated the median number of infections in Wuhan at 31,200 as of Wednesday, compared with that day's official tally of 2,261. Professors at the University of Hong Kong using similar methods published a study in the Lancet on Friday that estimated there were 75,815 infected in Wuhan as of Jan. 25, when official counts were still in the hundreds.

"We think only 1 in 20 people who are getting infected are actually being diagnosed" in Wuhan, said Jonathan M. Read, lead author of a study from Britain's Lancaster University that also put Wuhan numbers in the tens of thousands as of Jan. 22. "It's quite a bit more transmissible than seasonal flu." Several recent studies published by scientists estimate that each person infected will, on average, infect two to three others. Epidemiologists call that the reproduction number.

A reproduction number over 2 suggests an epidemic will expand rapidly, while below 1 suggests the problem is dwindling. Estimates of the reproduction number differ widely, with some studies using probability models and others based on regression analysis of cases over different time periods. Still, "they all point in the same direction," said Christian L. Althaus, an epidemiologist at the University of Bern in Switzerland who co-wrote a study estimating the basic reproduction number of the virus at 2.2. "There is a potential threat of a global pandemic if this reproduction number cannot be reduced." In Japan, a local bus driver in his 60s tested positive after he drove tourists from Wuhan, none of whom had exhibited severe symptoms. In Germany, four employees at an auto-parts supplier contracted the virus after attending a training session with a colleague from China, according to the company. The Chinese woman didn't exhibit symptoms, but started feeling ill on her flight home, where she tested positive for the new coronavirus.

A study published in the New England Journal of Medicine study by Chinese authors including at the Chinese Center for Disease Control and Prevention says the virus spread between people as early as mid-December. The researchers analyzed 425 patients, with more than half of the cases linked to the Huanan seafood wholesale market where authorities believe the virus first spread to humans from wild animals.

The researchers started identifying and collecting cases around the start of the year, by interviewing patients, relatives and other close contacts. They estimated the reproduction number at 2.2 and said that the majority of patients weren't hospitalized until after five days of being ill.

Researchers of recent studies cautioned that even their estimates of the virus' reproduction number are based on early and incomplete data and only assess its potential to spread before travel restrictions and other control measures begin. Thereafter, the reproduction number can vary depending on those measures' effectiveness and other circumstances of the outbreak.

Chinese officials have said the outbreak could peak or even begin to subside by Feb. 8, though some overseas experts have suggested the outbreak might not peak for several weeks.

They note that the reproduction number doesn't necessarily predict an outbreak's severity, as many other factors come into play. Measles, for example, has a reproduction number of 12 to 18, but doesn't spread that fast because there is a widely used vaccine.

As yet, there are no vaccines for the new coronavirus, so Chinese authorities are relying on physical intervention measures, including locking down entire cities and forced quarantine.

Recent studies indicate that stringent control measures will be needed not just in China, but in several other countries, to curtail the outbreak.

"This is unprecedented both in terms of the virus and the control measures that have been put in place," says Adam Kucharski, associate professor at the London School of Hygiene and Tropical Medicine.

—Raffaele Huang, Miho Inada and Ruth Bender contributed to this article.

Write to Chao Deng at <a href="mailto:Chao.Deng@wsj.com">Chao.Deng@wsj.com</a> and Jeremy Page at <a href="mailto:jeremy.page@wsj.com">jeremy.page@wsj.com</a> Copyright ©2019 Dow Jones & Company, Inc. All Rights Reserved. 87990cbe856818d5eddac44c7b1cdeb8

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Wed, 5 Feb 2020 00:05:35 +0000

To: Baden, Lindsey, M.D.

Cc: Marston, Hilary (NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E];Lerner, Andrea

(NIH/NIAID) [E] (b) (6); Morens, David (NIH/NIAID) [E]

Subject: RE: favor

Attachments: (b) (6) (b) (4)

Lindsey:

(b) (6) (d)

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
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E-mail: (b) (6)

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From: Baden, Lindsey, M.D. < lbaden@nejm.org> Sent: Tuesday, February 4, 2020 3:35 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Marston, Hilary (NIH/NIAID) [E] (6) (6)>; Conrad, Patricia (NIH/NIAID) [E]

(b) (6)

Subject: Re: favor

Tony (and Hilary),

Much appreciated. (b) (6) (b) (4)

Thank you, Lindsey

From: "Fauci, Anthony (NIH/NIAID) [E]" (b) (6) Date: Tuesday, February 4, 2020 at 2:16 PM To: "Baden, Lindsey, M.D." < lbaden@nejm.org> Cc: "Marston, Hilary (NIH/NIAID) [E]" (b) (0)>, "Conrad, Patricia (NIH/NIAID) [E]" < Subject: RE: favor Lindsay: (b) (6), (b) (4) Tony Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: FAX: (301) 496-4409 (b) (6) E-mail: The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives. From: Baden, Lindsey, M.D. < baden@nejm.org> Sent: Tuesday, February 4, 2020 12:31 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) Subject: favor

Tony.

(b) (6), (b) (4)

Thank you for considering,

Lindsey

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From: Sent:

Fauci, Anthony (NIH/NIAID) [E] Tue, 4 Feb 2020 22:59:29 +0000

To:

Lane, Cliff (NIH/NIAID) [E]

Subject:

RE: favor

# Thanks. Safe travels

Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 (b) (6) Phone:

FAX: (301) 496-4409

(b) (6) E-mail:

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From: Lane, Cliff (NIH/NIAID) [E] (b)(6)>

Sent: Tuesday, February 4, 2020 4:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] < a (b) (6) Cc: Marston, Hilary (NIH/NIAID) [E] (6)(6)

Subject: Re: favor

(b) (6), (b) (4)

(b) (6) > wrote: On Feb 4, 2020, at 9:13 PM, Lane, Cliff (NIH/NIAID) [E]

(b) (6), (b) (4)

On Feb 4, 2020, at 8:46 PM, Fauci, Anthony (NIH/NIAID) [E] (b) (6) wrote: (b) (6), (b) (4) Thanks. Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 (b) (6) Phone: FAX: (301) 496-4409 (b) (6) E-mail The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this email in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives. From: Baden, Lindsey, M.D. <a href="mailto:lbaden@neim.org">baden@neim.org</a> Sent: Tuesday, February 4, 2020 3:35 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) Cc: Marston, Hilary (NIH/NIAID) [E] < (b) (6) >; Conrad, Patricia (NIH/NIAID) [E] (b) (G) Subject: Re: favor Tony (and Hilary), Much appreciated. (b) (6), (b) (4) Thank you, Lindsey (b) (6) > From: "Fauci, Anthony (NIH/NIAID) [E]" Date: Tuesday, February 4, 2020 at 2:16 PM To: "Baden, Lindsey, M.D." < lbaden@neim.org> Cc: "Marston, Hilary (NIH/NIAID) [E]" (b) (6)

(b) (6)

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

Subject: RE: favor

( facilities and	
Lindsay:	(b) (6), (b) (4)
Tony	
Anthony S. Fauci, MD	
Director	
National Institute of Allergy and Infectious Diseases	
Building 31, Room 7A-03	
31 Center Drive, MSC 2520	

National Institutes of Health Bethesda, MD 20892-2520 Phone: (b) (6) FAX: (301) 496-4409

E-mail: (b) (6)

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From: Baden, Lindsey, M.D. < baden@neim.org>
Sent: Tuesday, February 4, 2020 12:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: favor

Tony, (b) (6), (b) (4)

Thank you for considering,

Lindsey

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(b) (6), (b) (4)

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 21:28:48 +0000

 To:
 Seder, Robert (NIH/VRC) [E]

Subject: (b) (6)

Bob:

(b)(6) I am drowning here in

coronavirus. Hope to talk to you soon.

Best,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
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National Institutes of Health
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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 21:01:39 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Subject:
 FW: Media Request: CBC News

FYI

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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From: Adam Miller <adam.miller@cbc.ca> Sent: Tuesday, February 4, 2020 3:55 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Media Request: CBC News

Hi Dr. Fauci,

I'm a senior writer with Canada's public broadcaster, CBC News, and I'm working on a national feature story about the containment efforts of the coronavirus outbreak and what future scenarios could be possible with the coronavirus globally.

You spoke with my colleague Kelly Crowe by phone recently, and I'm hoping you could spare a few minutes by phone to talk about the possibility and implications of the outbreak becoming endemic.

Would it be possible to speak briefly by phone this week? I would only need a few minutes of your time and your expertise would be very beneficial for Canadians in their understanding of this story.

Thanks very much,

Adam

Adam Miller

Senior Digital Writer

**CBC News** 

Desk: 416-205-5719 Cell: (b) (6) Twitter: @adamsmiller



From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 4 Feb 2020 20:46:18 +0000

To: (b) (6)

Subject:

FW: favor

Attachments: (b) (6), (b) (4)

(b) (6) (b) (f) Thanks.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
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From: Baden, Lindsey, M.D. <lbaden@nejm.org>

Sent: Tuesday, February 4, 2020 3:35 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6); Conrad, Patricia (NIH/NIAID) [E]

(b) (6)

Subject: Re: favor

Tony (and Hilary),

Much appreciated. (b) (6) (b) (4)

Thank you, Lindsey

From: "Fauci, Anthony (NIH/NIAID) [E]" (b) (6)

Date: Tuesday, February 4, 2020 at 2:16 PM

To: "Baden, Lindsey, M.D." < baden@nejm.org>

Cc: "Marston, Hilary (NIH/NIAID) [E]" (b) (6) >, "Conrad, Patricia (NIH/NIAID)

[E]" (b) (6)

Subject: RE: favor

Lindsay:

(b) (6), (b) (4)

# Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
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From: Baden, Lindsey, M.D. < baden@nejm.org>
Sent: Tuesday, February 4, 2020 12:31 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: favor

Tony,

(b) (6), (b) (4)

Thank you for considering,

Lindsey

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 19:36:10 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: Delivery Status Notification (Failure)

# Please take a look and handle.

Anthony S. Fauci, MD
Director
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From: Robert Knobler (b) (6) > Sent: Tuesday, February 4, 2020 1:36 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

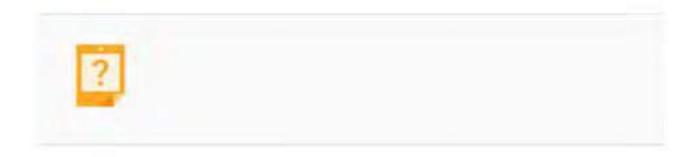
Subject: Fwd: Delivery Status Notification (Failure)

From: Mail Delivery Subsystem

Date: Tue, Feb 4, 2020 at 1:30 PM

Subject: Delivery Status Notification (Failure)

To: (b) (6)



(b) (6)

# Address not found

Your message wasn't delivered to 6000 because the address couldn't be found, or is unable to receive mail.

The response from the remote server was:

550 #5.1.0 Address rejected.

------ Forwarded message ------From: Robert Knobler (b) (6)

Cc:
Bcc:

Date: Tue, 4 Feb 2020 13:29:23 -0500 Subject: Potential Coronavirus Prophylaxis

Dear Dr. Fauci,

You likely do not recall meeting me when I was looking at potential fellowships in 1978, however, I never forgot your enthusiasm. I went out to San Diego and worked with Mike Oldstone between 1979 and 11984. I did study a mouse coronavirus while there, mouse hepatitis virus (MHV). I focused on genetic resistance, and eventually described a mouse locus for susceptibility, which coded for the MHV receptor. On to the present problem of human coronaviruses. Vaccines will take a long time for the current crisis. The angiotensin convertin enzyme 2 receptor has been identifed as the relevant human coronavirus receptor. I am writing to suggest the investigation of ARBs as potential blocking agents to either reduce or completely block infection. Perhaps this can be checked. There may still be sufficient untainted supplies of ARBs, such as irbesartan, available, or production can be scaled up, if this truly is the eve of a pandemic. Wishing you success in this endeavor. I am willing to contribute in any way I can. Please feel free to contact me by e-mail or my cell phone.

I did do clinical trial while with Mike, and then when I joined the

neurology faculty of Jefferson in Philadelphia. I have been out on my own since December 1998, but I have never lost my interest in this work. I have some novel ideas on how HIV becomes AIDS, as well. All the Best,

Robert L Knobler, MD, PhD

(b) (6)

(b) (6) Cell

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 4 Feb 2020 15:54:25 +0000
To: (e) (iii)

Subject: FW: STAT: Quick retraction of a faulty coronavirus paper was a good moment

for science http://bit.ly/389QguM

# Heather:

As per our recent conversation. This is your story (see below).

Best,

Tony

Anthony S. Fauci, MD
Director
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Building 31, Room 7A-03
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Bethesda, MD 20892-2520
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# The Watchdogs

# Quick retraction of a faulty coronavirus paper was a good moment for science

By Ivan Oransky and Adam Marcus February 3, 2020



Hyacinth Empinado/STAT

As fears of the <u>novel coronavirus 2019-nCoV</u> continued to spread last Friday, an inflammatory new paper appeared on bioRxiv, a preprint server, where scientists post work that hasn't been vetted. Titled "<u>Uncanny similarity of unique inserts in the 2019-nCoV spike protein to HIV-1 gp120 and Gag</u>," the paper claimed to find similarities between the new coronavirus and HIV, the virus that causes AIDS. The use of the word "uncanny" in the title, together with "unlikely to be fortuitous" in the abstract, led some to think that the authors were suggesting the virus had somehow been engineered by humans. The paper, from academic institutions in New Delhi, India, was critical and alarming, if true. Except that it wasn't.

The paper was almost immediately withdrawn, but not before plenty of handwringing from researchers who complained that the appearance of such shoddy work on a preprint server without vetting by peer reviewers is precisely why the hoary old model of science publishing is better at keeping junk science out of the literature.

Except that's not true, either. The old model has its advantages, to be sure, but it, too, is prone to the menace of pseudoscience, bad data, and other flaws — despite traditional academic journals' army of peer reviewers. And when these publications publish bad or erroneous research, it can take months or years for the papers to be corrected or retracted — if they ever are.

In contrast, the reaction from the scientific community to the bioRxiv paper was swift. In a nutshell, commenters on bioRxiv and Twitter said, the author's methods seemed rushed, and the findings were at most a coincidence. By Saturday morning, bioRxiv had placed a <u>special warning</u> on all papers about coronavirus. Later Saturday, the authors commented on their paper, saying they were withdrawing it. And on Sunday, a <u>more formal retraction</u> appeared: "This paper has been withdrawn by its authors. They intend to revise it in response to comments received from the research community on their technical approach and their interpretation of the results."

All of that happened before a single news outlet with any reach covered the paper, as best we can tell. But none of it was quite fast enough for some critics. "This is why preprints can be bad," said one scientist on Twitter. That scientist, Michael Shiloh, said he had even used bioRxiv to post preprints. "What bugs me about this preprint is that had this manuscript undergone legitimate peer review, these flaws would have led to a swift rejection and it wouldn't be contributing to the conspiracy theories and fear surrounding this outbreak," Shiloh continued.

History suggests that Shiloh's confidence in peer review's ability to suss out pseudoscience may be a bit misplaced. The fraudulent 1998 paper that set off the vaccine-autism scare was published in The Lancet, one of the world's leading peer-reviewed medical journals. Other examples — including a paper by an

intelligent design advocate questioning the validity of the second law of thermodynamics as it pertained to evolution — abound. Papers claiming a link between autism and vaccines pop up nearly every year.

# Preprints can fill a void in times of rapidly changing science

And even when peer-reviewed journals do realize they've been had, retractions can take months or years. The Lancet took 12 years. Another journal took five years to retract a paper claiming that HIV did not cause AIDS. We could go on, and the list includes papers that have never even been corrected. Those who claim preprint servers are dangerous because they lack peer review — bioRxiv has a perfunctory screening process — sometimes acknowledge that journals have had to speed up their game to meet the pressures of an outbreak like coronavirus, or SARS in the early part of this century. Angela Cochran, president of the Society for Scholarly Publishing, a trade group for publishers, said on Twitter: "Earlier this week, folks celebrated that coronavirus papers were popping up in preprint servers. Now there is a reminder not to use them to guide clinical practice because they haven't been reviewed. Journals ARE reviewing coronavirus papers and getting [them] pub'd quickly."

Kent Anderson, another publishing industry veteran, put it more bluntly: "Journals Win The Coronavirus Race."

Publishers have been looking for ways to score points against — and shut down — preprints for at least half a century. Journals have speedily published a number of important papers on the new coronavirus already, no doubt. Publishing industry champions are often quick to say that speedy peer review does not mean sloppy peer review — even in cases that require massive corrections.

It now turns out that one of the world's leading peer-reviewed medical journals, the New England Journal of Medicine, <u>published a letter</u> last week about apparent coronavirus transmission from an asymptomatic person that <u>turns out to be wrong</u>. Such letters to the editor are not typically peerreviewed, or at least not as rigorously as a full study. But it's a glaring example of how a peer-reviewed journal can end up getting things wrong. Now we get to wait and see how long it takes NEJM to correct the record.

We'll see whether peer-review champions, who are often unwilling — with some <u>notable and welcome</u> <u>exceptions</u> — to acknowledge how slow and ineffective correction in science can be, note this apparent failure of one of their gatekeepers. Doing so might, after all, make some people question the <u>expensive</u> <u>subscription deals universities agree to with publishers</u>, as well as the article processing charges that can run into the thousands of dollars for open access publications.

Peer review can add a valuable filter. But those who work in publishing seem to be so wedded to the existing process that they can't admit its <u>flaws</u> — or that it might be a good idea to also embrace preprint servers that could upend their business models. Just like in politics, maybe it's time to agree that the publishing process is a messy one, and stop using single episodes, free of context, to score points against one's rivals.

This article has been updated with information about a flawed report in the New England Journal of Medicine.

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From:

Fauci, Anthony (NIH/NIAID) [E] Tue, 4 Feb 2020 15:03:33 +0000

Sent: To:

Mascola, John (NIH/VRC) [E]; Graham, Barney (NIH/VRC) [E]; Erbelding, Emily

(NIH/NIAID) [E]

Cc:

Conrad, Patricia (NIH/NIAID) [E];Marston, Hilary (NIH/NIAID) [E];Eisinger, Robert

(NIH/NIAID) [E];Lerner, Andrea (NIH/NIAID) [E]

Subject:

Universal coronavirus vaccine

(0) (5)

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue. 4 Feb 2020 14:32:42 +0000

To: Greg Folkers ( (b) (6) ;Marston, Hilary (NIH/NIAID)

[E]; Eisinger, Robert (NIH/NIAID) [E]; Lerner, Andrea (NIH/NIAID) [E]

Subject: FW: Coronavirus

Attachments: JVP200014(1).pdf, Coronavirus clean version 2-3-2020pbf-DCA.docx,

JVP200011(1).pdf

# FYI. Confidential for now

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
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Bethesda, MD 20892-2520
Phone: (6) (6)

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E-mail: (b) (6)

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From: Howard Bauchner < Howard.Bauchner@jamanetwork.org>

Sent: Tuesday, February 4, 2020 9:19 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6) >

Subject: FW: Coronavirus

Tony

See attachment – accepted case series – likely to be published Friday – after we talk – but likely to mention it on Thursday – thought you should see it.

HCB

From: Howard Bauchner

Sent: Tuesday, February 04, 2020 7:23 AM

To: Annette Flanagin < Annette. Flanagin@jamanetwork.org >; Christiansen, Stacy

<stacy.christiansen@jama-archives.org>; Christopher Muth <<a href="mailto:Christopher.Muth@jamanetwork.org">Christopher.Muth@jamanetwork.org</a>;

Demetrios Kyriacou < Demetrios Kyriacou@jamanetwork.org>; Edward Livingston

(b) (6) >; Fontanaros, Phil <phil.fontanarosa@jama-archives.org>;

Golub, Robert <robert.golub@jama-archives.org>; Gregory Curfman

```
<Gregory.Curfman@jamanetwork.org>; howard.bauchner@jama-archives.org; Jody Zylke
<Jody.Zylke@jamanetwork.org>; McDermott, Mary
                                                                                (b) (6)>; Mike Berkwits
<michael.berkwits@jamanetwork.org>;
                                                                     (b) (6); Anne Cappola
                             (b) (6) >; Basch, Ethan Martin
                                                                             (b) (6) >; David Mark
<David.Mark@jamanetwork.org>; Demetrios Kyriacou <Demetrios.Kyriacou@jamanetwork.org>; Derek
Angus
                        (b) (6) >; Feero, Greg
                                                                               (b) (6) >; George O'Connor
                 (b) (6) Goff, Donald
                                                          (b) (6)>; Jeff Saver
              (b) (6); Joynt Maddox, Karen
                                                                                            (b) (6) Preeti
Malani
                              (b) (0) >; Robert Golub < Robert Golub@jamanetwork.org >; Saitz, Richard
             (b) (6) Schrag, Deborah, M.D.
                                                                                                 (b) (6):
Tom Cole
                            (b) (6)>; Winkelmayer, Wolfgang C.
                                                                                     (b) (d)
Armstrong, Katrina, M.D.
                         ; Cutler, David
                                                                                              (b) (6); Eric
                                     (b) (6) >; Goldman, Lee
                                                                                      (b)(6)>;
Peterson, M.D.
                                                                                         (b) (6) >: Josh
                     (b) (6) John Wong Eu Li (Div Head, Med Dept)
Sharfstein
                                   (b) (6) >; Julie Freischlag, M.D.
                                                                                         (b) (6); Merchant,
                                      (b) (6) >; 'Rodgers, Griffin (NIH/NIDDK) [E]'
Raina
                                                 (b) (6); Steven E. Nissen
                                                                                      (b) (6)>; Vokes,
                                                                                          (b) (6) Zeke
Everett [MED]
Emanuel
                             (b) (6) >: Andy Josephson
                                                                                 (b) (6)
                                                                                               (b) (6)
                                                   (b) (f) Bonow, Robert, M.D.
                                (b) (6); Dimitri A. Christakis, MD, MPH
                                                                                              (b) (6)
Bressler, Neil
                                                            (b) (6) >; Fred Rivara, MD
               >; Disis, Nora <
                                                    (b) (6); Ongur, Dost <</p>
                                                                                                 (b) (6)
                        ; Rita Redberg, MD
                                                                       (b) (6)>; Shinkai, Kanade
```

Subject: Coronavirus

So a quick update.

Attached is a VP that will go up tomorrow – information for clinicians by Carlos del Rio and Preeti. They worked on it this weekend – thanks to both.

Attached is a VP from Don and Ken Shine that came in before the epidemic/pandemic – but is definitely related. Going up this week.

```
Attached is the largest case-series yet – from Wuhan – old colleague of Derek's. (b) (6) (b) (d)

– it will be published on Friday. A big thank you to Phil and Derek.
```

A RL has also been accepted - it will go up Thursday.

I cannot thank Stacy and her team (and publishing) – everyone has been working overtime to process manuscripts in record time, put up a microsite; add CME for US clinicians; etc. Mike (and his team) and Ed have been a big help.

As we have done in the past everything will be free to the world.

I am interviewing Tony Fauci again on Thursday – the last podcast, video has close to 150K views – Tony – as I have said many times – is a national treasure.

(b) (4)

All that said we are definitely interested in novel research report (many can be research letters). Just let me know.

HCB

Howard Bauchner, MD Editor in Chief, JAMA and The JAMA Network

Email: howard.bauchner@jamanetwork.org

Telephone: 312-464-2400

Please respect the confidential nature of this email.

For my chats with authors please see: <a href="https://jamanetwork.com/journals/jama/pages/jama-author-interviews">https://jamanetwork.com/journals/jama/pages/jama-author-interviews</a>

From:

Fauci, Anthony (NIH/NIAID) [E] Tue, 4 Feb 2020 14:09:40 +0000

Sent:

Billet, Courtney (NIH/NIAID) [E]; Conrad, Patricia (NIH/NIAID) [E]

To:

Haskins, Melinda (NIH/NIAID) [E];NIAID OD AM

Subject:

RE: Thanks and filming

I am leaving it up to you all to determine what is doable, feasible and/or appropriate. We can discuss at our OD AM meeting.

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

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

Phone:

(b) (6)

FAX: (301) 496-4409 E-mail:

(b) (6)

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From: Billet, Courtney (NIH/NIAID) [E] (b) (6)

Sent: Tuesday, February 4, 2020 8:42 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Conrad, Patricia (NIH/NIAID) [E]

(b) (6)>

Cc: Haskins, Melinda (NIH/NIAID) [E] (b) (0) >; NIAID OD AM

<NIAIDODAM@niaid:nih.gov> Subject: RE: Thanks and filming

Just to keep in mind:

(b) (4), (b) (5)

(b) (4), (b) (5)

From: Fauci, Anthony (NIH/NIAID) [E] (6)(6)

Sent: Tuesday, February 4, 2020 6:42 AM

To: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; NIAID OD AM

<NIAIDODAM@niaid.nih.gov>

Cc: Haskins, Melinda (NIH/NIAID) [E] (b) (6)>

Subject: RE: Thanks and filming

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)> Sent: Tuesday, February 4, 2020 6:35 AM To: NIAID OD AM < NIAIDODAM@niaid.nih.gov> Cc: Haskins, Melinda (NIH/NIAID) [E] (h) (6) Subject: Fwd: Thanks and filming For discussion. (6) (4) (6) (5) Sent from my iPhone Begin forwarded message: From: Janet Tobias < anet@ikanamedia.com> Date: February 4, 2020 at 6:28:24 AM EST (6) (6) To: "Conrad, Patricia (NIH/NIAID) [E]" Cc: "Robinson, Whitney (NIH/NIAID) [C]" (b) (6) "Barasch, Kimberly (NIH/NIAID) [C]" (6)(6)> Subject: Re: Thanks and filming (b) (4) Janet Sent from my iPhone On Feb 3, 2020, at 12:27 PM, Conrad, Patricia (NIH/NIAID) [E] (b) (6) > wrote: Just called you, sorry crazy morning Call me at hey can pull me from a meeting 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
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From: Janet Tobias < janet@ikanamedia.com > Sent: Monday, February 3, 2020 8:43 AM

To: Conrad, Patricia (NIH/NIAID) [E] (6) (6) >

Subject: Re: Thanks and filming

Patty can I call you quickly about something-will take 3 minutes.

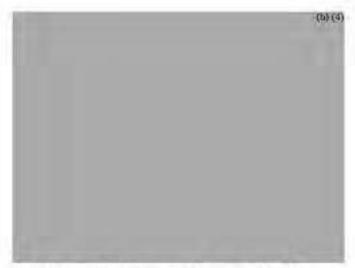
Sent from my iPhone

It's been super busy. Will group with others tomorrow and get back to you.

Sent from my iPhone

On Jan 30, 2020, at 7:51 PM, Janet Tobias <janet@ikanamedia.com> wrote:

Hi Patty: Thanks for arranging the phone call. (6)(4)



Never a dull moment in your world!

Janet

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue. 4 Feb 2020 13:58:53 +0000

To: Sylvia Burwell

Subject: RE: Travel restriction policy

Thanks, Sylvia. I miss our late night phone calls during the Ebola and Zika crises. It was tough, but we got it right.

Anthony S. Fauci, MD
Director
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From: Sylvia Burwell (b) (6)
Sent: Tuesday, February 4, 2020 8:32 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6) >

Subject: RE: Travel restriction policy

Tony,

Thanks so much for sending this AND for your very valuable time on Sunday.

Our students that returned last week are in self-quarantine...

Let me know if I can be helpful to you in any way.

Best,

Sylvia

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Sent: Monday, February 3, 2020 7:04 PM

To: Sylvia Burwell (b) (6)

Subject: Travel restriction policy

### EXTERNAL EMAIL: Use caution with links and attachments.

# Sylvia:

You probably already have this information, but here is the official policy as pe our recent discussion (see link).

https://china.usembassy-china.org.cn/proclamation-on-suspension-of-entry-as-immigrants-andnonimmigrants-bof-persons-who-pose-a-risk-of-transmitting-2019-novel-coronavirus/

# Best regards,

Tony

Anthony S. Fauci, MD
Director
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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 13:07:15 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Phone interview request from Seoul, Korea

Let us discuss.

Anthony S. Fauci, MD
Director
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From: The Scoop tbs eFM (b) (6)

Sent: Tuesday, February 4, 2020 6:06 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: (b) (6)

Subject: Phone interview request from Seoul, Korea

Hello, Dr. Anthony Fauci.

This is Seyoung, a writer of an English radio show, The Scoop, in Seoul, South Korea.

We deliver local and international trending news to English speaking listeners around the world.

We'd like to invite you to talk with us on the phone for a special interview regarding the novel coronavirus outbreak.

If you are interested and available to talk to us through a phone call at 10:30 am Friday or Saturday this week, OR

sometime between 9:30 and 10:30 am next Monday, please let us know.

And if you're not available for the given time, please also let us know other times feasible for you.

The interview will run for about 10 minutes and you'll get your questions in advance.

If you could provide your knowledge that is essential especially at this time, it'll be highly appreciated.

I look f	forward to hearing from you soon.
Thank	you very much.
Seyour	ng Lee

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 13:05:59 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: 2019-nCoV: potential infection on CD4 cells.

Attachments: Insert positions in HIV gp120.pdf

Please have someone respond to this person.

Anthony S. Fauci, MD
Director
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From: (b) (6) Sent: Tuesday, February 4, 2020 2:07 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: 2019-nCoV: potential infection on CD4 cells.

Dear Dr. Fauci.

As you realized the Indian researcher published a paper few days ago entitled "Uncanny similarity of unique inserts in the 2019-nCoV spike protein to HIV-1 gp120 and Gag", which was latterly withdrawn due to the controversial indication. I did a quick SWISS-MODEL online calculation. Page 1-3 of the attachment show the flexible loops of insertion "1", "2", and "3" originally from V4, V5 and V1 of HIV-1 gp120, respectively. But they are in presence on the spike protein of both bat and 2019 coronavirus (page 4 and 6). These insertions are potential CD4 binding domains (no proof yet but highly likely) and spatially won't interfere with ACE-2 binding domain (both SARS and 2019 coronavirus target ACE-2, page 5 and 6). In another word, the 2019 virus could be potentially dual-targeting, infecting the lung and potentially CD4 T cells too (like HIV, see page 6)!

It is VERY URGENT to have clinicians follow up the confirmed cases such as by isolating their CD4 cells and doing RT-PCR. Please reach out to them. Research labs including mine after obtaining Spike protein of 2019-nCoV shall examine its interaction with CD4.

Thank you for your immediate attention. Please keep me anonymous.

God bless us,



From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Tue, 4 Feb 2020 12:36:50 +0000

To: Collins, Francis (NIH/OD) [E]

Subject: names for WHO working group

## Francis:

Derek Kan, Acting Deputy Director of OMB and a member of the President's Coronavirus Task Force called me last night and in a very nice way said he would like to send me a list of names for consideration to be on the working groups to examine the evolution of the nCoV. He worked as an executive in biotech prior to joining the USG and knows these individuals well. They are all people that we know and so I am just passing them on to you for our consideration.



Thanks, Tony

Anthony S. Fauci, MD
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From:

Fauci, Anthony (NIH/NIAID) [E] Tue, 4 Feb 2020 11:43:36 +0000

Sent: To:

Conrad, Patricia (NIH/NIAID) [E]

Subject:

FW: REQUEST FOR A TV INTERVIEW ON WION TV INDIA

Let us discuss.

From: Latika Chugh (WION) < latika.chugh@zeemedia.esselgroup.com>

Sent: Tuesday, February 4, 2020 5:15 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b)

Cc: Wion Guest Relations <wion.guestrelations@zeemedia.esselgroup.com>

Subject: REQUEST FOR A TV INTERVIEW ON WIGH TV INDIA

Dear Anthony S. Fauci, M.D., NIAID Director

# Greetings from WION!

World Is One News (WION) is an international English news channel from the Zee Media Group, India's premier television brand. WION is uniquely positioned as the 'Global Voice of India', presenting its own perspective on international issues of critical significance. WION is the preferred channel for most opinion makers across the world as they happily attend our shows bringing in credible viewpoints on many issues. WION is currently available in India, Indonesia, The Republic of Philippines, Australia, Vietnam, Hong Kong, UAE, Malaysia, Singapore and South Africa etc.

WION's shows have featured Indian Political scenario & global leaders speaking on issues facing their country and the world in general.

I would like to request for your time for an interview with us anytime soon today for 10-15 minutes. We usually conduct Interview via Skype. Request you to share your Skype Id.

# It's regarding CORONAVIRUS.

Please let us know when is the best time for you to join us via Skype. Waiting for your confirmation.

# CLICK HERE TO WATCH WION LIVE :

https://www.wionews.com/live-tv

Live TV, News | wionews.com

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# www.wionews.com

Look forward hearing from you.

Regards

Latika Chugh

WION TV, India

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From:

Fauci, Anthony (NIH/NIAID) [E] Tue, 4 Feb 2020 03:02:57 +0000

Sent: To:

Shalimar Adorno

Cc:

Conrad, Patricia (NIH/NIAID) [E];Barasch, Kimberly (NIH/NIAID) [C]

Subject:

RE: Message from Dr. Jim Yong Kim

## Shalimar:

Thank you for your note. I certainly will speak with Dr. Kim. My schedule is packed due to the coronavirus situation, and so please contact my Special Assistant, Patty Conrad (copied here and at 6000 to squeeze in a time that works for Jim and me. Thank you. Best regards,

Tony

From: Shalimar Adorno <

(6) (6)

Sent: Monday, February 3, 2020 6:33 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(6):(6)

Subject: Message from Dr. Jim Yong Kim

Good evening Dr. Fauci,

I am writing on behalf of Dr. Jim Yong Kim who would like to have a call with you tomorrow.

Can you please advise if you have any availability?

Kindly,

Shallmar Adorno
Assistant Vice President
Global Infrastructure Partners
1345 Avenue of the Americas, 30<sup>th</sup> Floor
New York, NY 10105
T (6) (6)

(b) (6)

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 01:14:05 +0000

 To:
 Collins, Francis (NIH/OD) [E]

Subject: RE: Coronavirus

Thanks, Francis. (b)(5)

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
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From: Collins, Francis (NIH/OD) [E] (b) (6) >

Sent: Monday, February 3, 2020 7:26 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: FW: Coronavirus

From: Shapiro, Neil (NIH/OD) [E] (b) (6)

Sent: Monday, February 3, 2020 6:02 PM

To: Collins, Francis (NIH/OD) [E] < 6) (6) Tabak, Lawrence (NIH/OD) [E]

(b)(6); Johnson, Alfred (NIH/OD) [E] (b)(6) Wolinetz,

Carrie (NIH/OD) [E] (b) (0) >; Hallett, Adrienne (NIH/OD) [E]

(b) (t

Cc: Shaya, Cecile (NIH/OD) [E] (b) (6)

Subject: RE: Coronavirus

```
From: Shapiro, Neil (NIH/OD) [E]

Sent: Monday, February 3, 2020 4:05 PM

To: Collins, Francis (NIH/OD) [E]

(b) (6) >; Johnson, Alfred (NIH/OD) [E]

(b) (6) >; Hallett, Adrienne (NIH/OD) [E]

(c) (6)

Cc: Shaya, Cecile (NIH/OD) [E]

(b) (6)

Subject: RE: Coronavirus
```



(6) (5) FC From: Shapiro, Neil (NIH/OD) [E] (6)(6)> Sent: Monday, February 3, 2020 11:33 AM (b) (6) >; Tabak, Lawrence (NIH/OD) [E] To: Collins, Francis (NIH/OD) [E] (b)(6)>; Johnson, Alfred (NIH/OD) [E] (b) (b); Wolinetz, (b)(6)>; Hallett, Adrienne (NIH/OD) [E] Carrie (NIH/OD) [E] (b) (6) Cc: Shaya, Cecile (NIH/OD) [E] < Subject: Coronavirus Importance: High (5) (2

Neil

From:

Fauci, Anthony (NIH/NIAID) [E] Tue, 4 Feb 2020 01:08:37 +0000

Sent: To:

Kai Kupferschmidt

Cc:

Greg Folkers (b) (6); Billet, Courtney (NIH/NIAID) [E]; Conrad,

Patricia (NIH/NIAID) [E]

Subject: RE: coronavirus quick question

### Kai:

Error in my statement to you. I meant to say that ".....most transmissions occur from someone who is symptomatic" – not asymptomatic. I am really tired. Not much sleep these days.

Best,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 Phone: (b) (6)

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From: Kai Kupferschmidt

(b) (6)

Sent: Monday, February 3, 2020 7:37 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (d)>

Cc: Folkers, Greg (NIH/NIAID) [E] (6) (6); Billet, Courtney (NIH/NIAID) [E]

<br/>
<br/>
dilletc@niaid.nih.gov>

Subject: Re: coronavirus quick question

Thanks Tony,

this is interesting and I'm sorry I didn't have more time to get a comment from you. I can only imagine your workload at the moment. I will include comment from you now.

Best

Kai

Sorry that I got to this so late. I have been swamped. I just read your story in Science. It is unfortunate that they did not interview the patient. Obviously, this changes the conclusion of the paper. My comment: "There's no doubt after reading [the NEJM] paper that asymptomatic transmission is occurring" was made because there has been a lot of discussion among Chinese investigators that asymptomatic infection is occurring in Wuhan City and Hubei Province, yet no publication came out and said this. Since this was the first publication supposedly documenting this phenomenon, that is why I referred to the paper and made my comment. It is unfortunate that this error was published, but it still does not really change anything. Rather than rely on rumors, this evening I telephoned one of my colleagues in China who is a highly respected infectious diseases scientist and health official. He said that he is convinced that there is asymptomatic infection and that some asymptomatic people are transmitting infection. The NEJM paper may be incorrect, but according to reputable Chinese scientists, my statement is correct. Having said that, I have been saying for some time that even if asymptomatic infection occurs, it is very unlikely to be a major driver of the outbreak since most transmissions occur from someone who is asymptomatic.

Best regards, Tony 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Tue, 4 Feb 2020 00:37:32 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

 Subject:
 RE: Tony and Conronavirus

Set up a call for me with Ed Henry

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
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Original Message
From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)
Sent: Monday, February 3, 2020 12:28 PM
To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Folkers, Greg (NIH/NIAID) [E]

Subject: FW: Tony and Conronavirus

Firm for Feb 11

E-mail:

ASF will you cancel DDCF or do I need to? Please advise

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

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----Original Message---From: Katz, Ruth <Ruth.Katz@aspeninstitute.org>
Sent: Monday, February 3, 2020 12:20 PM

To: Conrad, Patricia (NIH/NIAID) [E]

Ce: Katz, Ruth < Ruth.Katz@aspeninstitute.org>

Subject: RE: Tony and Conronavirus

We have a room on the 11th. Ron is available and holding the date. Think time would work for you guys. Time would be over lunch. Attendees arrive around 11:30 to grab lunch. Program starts at noon and runs to about 1-1:15. Of course, Tony is more than welcome to come in time for lunch. But he need not actually arrive until shortly before noon so we can mike him up.

(b) (d)

I might also try to get someone from CDC to round out the discussion. But if only Tony and Ron, we will run with it. Also need to line up the moderator. But that shouldn't be a problem. Would run options by you first.

Our comms team is really interested in pushing this --

Ruth

#### RUTH J. KATZ

Vice President, Aspen Institute

Executive Director, Health, Medicine and Society Program The Aspen Institute

ruth.katz@aspeninstitute.org 202-736-5827

----Original Message-----

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

(b) (6)

Sent: Monday, February 3, 2020 11:57 AM

To: Katz, Ruth <Ruth.Katz@aspeninstitute.org> Subject: RE: Tony and Conronavirus

If you have a room and Mr. Klain is available on Feb 11 - please fet me know. Best between 11 am - 3 or 4 pm

Let me know

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

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----Original Message----

From: Katz, Ruth < Ruth.Katz@aspeninstitute.org>

Sent: Monday, February 3, 2020 11:43 AM

To: Conrad, Patricia (NIH/NIAID) [E] - (b) (6)

Cc: Katz, Ruth < Ruth.Katz@aspeninstitute.org>

Subject: RE: Tony and Conronavirus

Hi Patty.

Thanks so much and understand completely. Can only imagine how crazed you all must be.

Definitely don't want to do this without Tony. If next week doesn't work, please send some potential options. Getting a room can be the real challenge here. So I'd like to at least reserve space and cancel if need be. Also trying to coordinate with Ron Klain who is very eager to participate.

Let me know if I should definitely cancel our space for February 11 or continue to hold for now.

Thanks again for everything!

Ruth

RUTH J. KATZ

Vice President, Aspen Institute

Executive Director, Health, Medicine and Society Program The Aspen Institute

ruth.katz@aspeninstitute.org 202-736-5827

----Original Message-----

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

(6)(6)

Sent: Monday, February 3, 2020 11:36 AM

To: Katz, Ruth < Ruth.Katz@aspeninstitute.org>

Subject: RE: Tony and Conronavirus

Hi Ruth - circling back - hope we can make this work - will get back to you in a day or two....

Patricia L. Conrad

Public Health Analyst and

Special Assistant to the Director

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

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----Original Message-----

From: Conrad, Patricia (NIH/NIAID) [E] Sent: Monday, February 3, 2020 8:40 AM

To: Katz, Ruth < Ruth.Katz@aspeninstitute.org >-

Subject: RE: Tony and Conronavirus

Hi - sorry for the delay - its been insanely busy.

He would love to do this but our schedule has been changing literally by the minute - so much so that we have had to cancel meetings, events and 2 trips he had scheduled for out of town last week. So - while he would love to do this and would make himself available...it might be better to do later when things hopefully quiet down a bit.

Defer to you tho as to when you want to do your event. Happy to chat more ....

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
60 (6)

Disclaimer:

301-496-4409 fax

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----Original Message-----

From: Katz, Ruth < Ruth.Katz@aspeninstitute.org>

Sent: Friday, January 31, 2020 5:33 PM

To: Conrad, Patricia (NIH/NIAID) [E]

(b) (f)

Cc: Katz, Ruth < Ruth.Katz@aspeninstitute.org >

Subject: Re: Tony and Conronavirus

Hi Patty,

Sorry to bother you. Just checking in to see if you have any update. We continue to hold the date and room.

Thanks so much. Hope all is well-

Ruth

Sent from my iPhone

On Jan 27, 2020, at 2:45 PM, Conrad, Patricia (NIH/NIAID) [E]

(b) (6) >> wrote:

Hi ruth - will get back to you as soon as we can

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

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From: Katz, Ruth <Ruth.Katz@aspeninstitute.org<mailto:Ruth.Katz@aspeninstitute.org>>

Sent: Monday, January 27, 2020 4:25 PM

To: Conrad, Patricia (NIH/NIAID) [E]

(b) (b)

Cc: Katz, Ruth < Ruth Katz@aspeninstitute.org < mailto: Ruth Katz@aspeninstitute.org >>>

Subject: Tony and Conronavirus

Hi Patry,

Hope all is well and that your 2020 is off to a good, if no doubt, busy start.

Contacting you directly because you have always been my best "go to" person when it comes to Tony and activities at the Institute. Hope you can be of help again.

I would like to do a Public Health Grand Rounds session on the coronavirus here at our Aspen DC offices –
hopefully on February 11 (from 12 until about 1:15pm; lunch is made available to attendees). Ron Klain, former
Obama Ebola ezar — is available — and hope Tony might be as well. Tony and Ron are my first two choices.
Perhaps we might add someone from CDC. I suspect we could get some good press, especially if Tony is in the
lineup.

Know how terribly busy Tony is, but hope this might be a possibility. Any chance?

As always, many thanks -

All best, Ruth

RUTH J. KATZ

Vice President, Aspen Institute Executive Director, Health, Medicine and Society Program The Aspen Institute

ruth katz@aspeninstitute.org<mailto:ruth.katz@aspeninstitute.org> 202-736-5827 From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Tue, 4 Feb 2020 00:29:06 +0000

To: Kai Kupferschmidt

Cc: Greg Folkers (b) (b) (b) (Billet, Courtney (NIH/NIAID) [E]

Subject: RE: coronavirus quick question

## Kai:

Sorry that I got to this so late. I have been swamped. I just read your story in Science. It is unfortunate that they did not interview the patient. Obviously, this changes the conclusion of the paper. My comment: "There's no doubt after reading [the NEJM] paper that asymptomatic transmission is occurring" was made because there has been a lot of discussion among Chinese investigators that asymptomatic infection is occurring in Wuhan City and Hubei Province, yet no publication came out and said this. Since this was the first publication supposedly documenting this phenomenon, that is why I referred to the paper and made my comment. It is unfortunate that this error was published, but it still does not really change anything. Rather than rely on rumors, this evening I telephoned one of my colleagues in China who is a highly respected infectious diseases scientist and health official. He said that he is convinced that there is asymptomatic infection and that some asymptomatic people are transmitting infection. The NEJM paper may be incorrect, but according to reputable Chinese scientists, my statement is correct. Having said that, I have been saying for some time that even if asymptomatic infection occurs, it is very unlikely to be a major driver of the outbreak since most transmissions occur from someone who is asymptomatic.

Best regards, Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
Phone: (b) (6)

Phone: (b) (6) FAX: (301) 496-4409

E-mail: (b) (6)

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accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives.

From: Kai Kupferschmidt	(b) (6)	
Sent: Monday, February 3, 2020 11:47 AM		
To: Fauci, Anthony (NIH/NIAID) [E]	AID) [E] (b) (6)>	
Subject: coronavirus quick question		

Tony,

do you have 5 minutes for a quick phone call? Writing a story about the German paper claiming an asymptomatic case. Turns out the woman did have symptoms. You gave the paper a lot importance, so really wanted to get your reaction on this.

Cheers Kai

Kai Kupferschmidt contributing correspondent "Science" (b) (6)

twitter: @kakape

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 3 Feb 2020 22:28:34 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Subject: FW: Coronavirus - reporter's questions

## NIAID inquiries, please.

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
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National Institutes of Health
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From: Rob Britt (b) (6)
Sent: Sunday, February 2, 2020 5:10 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: Coronavirus - reporter's questions

Hi Dr. Fauci: We are updating <u>our coronavirus story</u> periodically, keeping it factual and level-headed, and I have seen your comments on NPR Friday and in the NY Times over the weekend, so I hope you could comment very briefly for our story:

- -- What's your expectation for whether this will become a pandemic?
- -- Pandemic does not necessarily equate to a terrible situation, compared to, say bad flu seasons. What's your expectation on the potential severity of this coronavirus?
- And your suggestion to people in the U.S. who might be very concerned?

Thanks for any help you can provide.

Cheers, Rob

Robert Roy Britt

Top Writer on Medium in Science & Health.

Contributor to OneZero (science) & Elemental (health).

Former editor-in-chief of Live Science and Space.com.

(b) (6)

(b) (6)

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 3 Feb 2020 22:27:31 +0000

To: Seth Lederman

Cc: Erbelding, Emily (NIH/NIAID) [E]; Cassetti, Cristina (NIH/NIAID) [E]

Subject: RE: New NHP data on our vaccine for smallpox & monkeypox

## Seth:

I am swamped with coronavirus stuff, and so I am forwarding this to Emily Erbelding to take a look and respond. Thanks. Best regards,

Tony

E-mail:

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
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From: Seth Lederman (6)(6) >

behalf of the NIAID by one of its representatives.

Sent: Friday, January 31, 2020 11:05 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: New NHP data on our vaccine for smallpox & monkeypox

Dear Tony,

I enjoyed your corona virus presentation at ASM Biothreats, and understand why you couldn't linger.

I'm writing with an update on our horsepox-based vaccine program. On Wednesday, we presented a poster on our further work with TNX-801 (horsepox) as a potential vaccine for smallpox and monkeypox. We found that vaccination of cynos with TNX-801 resulted in sterilizing immunity (no lesions) in 8/8 animals compared to a synthesized ACAM-like vaccinia which resulted in protection, but lesions on 2/3 animals. More complete information is on the poster attached, which is available on our website at (https://content.equisolve.net/tonixpharma/media/10929ac27f4fb5f5204f5cf41d59a121.pdf ). The press release is also attached and available on our website at (https://ir.tonixpharma.com/press-releases/detail/1186).



We'd welcome the opportunity to discuss the data with you and your team.

Best, Seth

Seth Lederman, MD | Chief Executive Officer

Tonix Pharmaceuticals Holding Corp. | NASDAQ: TNXP

509 Madison Avenue - Suite 1608, New York, NY 10022

Tel (b) (6) | Fax 212 923 9700

(b) (6) | www.TgciaPharma.com

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 3 Feb 2020 22:21:41 +0000

To: Steinberg, Danielle

Cc: Conrad, Patricia (NIH/NIAID) [E];Billet, Courtney (NIH/NIAID) [E]

Subject: RE: PBS Nature inquiry about Coronavirus

## Danielle:

Many coronaviruses exist in animal reservoirs, particularly in bats. Remember that for the SARS outbreak in 2002, bats infected palm civet cats who were sold in live/wet markets and the civet cats spread the virus to human. Same for MERS bats to camels to humans. You ask that there have been animal markets for a long time, and so why now. The fact is that this is likely pure chance +/- more interactions in the human-animal interface. Animal viruses mutate and most of the time the mutations have no significant impact on virus transmission to humans. Sometimes they mutate and allow single "dead end" transmissions to individual humans with no efficiency in going human to human and so we get individual infections and no outbreak as we have seen with H5N1 and H7N9 influenzas that jump from chickens to humans but do not go from human to human. And then rarely, animal viruses mutate and the mutation allows them not only to jump species to humans, but to also efficiently spread from human to human. That is what we saw in SARS and now we see this with 2019-nCoV, which seems to have adapted itself very well to human to human transmission, as per what is happening in China.

I hope that this is helpful.

Best regards,

Tony

Anthony S. Fauci, MD

Director

National Institute of Allergy and Infectious Diseases

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

Phone: (b) (6) FAX: (301) 496-4409

E-mail: (b) (6)

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From: Steinberg, Danielle <SteinbergD@thirteen.org>

Sent: Friday, January 31, 2020 2:20 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: PBS Nature inquiry about Coronavirus

Hi Dr. Fauci,

Hari Sreenivasan of PBS NewsHour suggested I reach out to you with a specific nature question that we're writing about. I hope you'll be able to give us some insights — I'm sure you're extremely busy!

We're wondering about the impact of animals on the virus and specifically, why now? Presumably, China has been using animal markets/wildlife trade in these exact ways for a while, so what changed or is different now to cause this illness and outbreak? Any other information you can provide on how animals are involved would be greatly appreciated.

Thank you!

Best, Danielle Steinberg

Danielle Steinberg | Digital Lead, NATURE | +1 (212) 560-3049 (office)

WNET | 825 Eighth Avenue 14<sup>th</sup> Fl. | New York, NY 10019-7435

pbs.org/nature | Facebook | Twitter | Instagram | YouTube

From: Sent: Fauci, Anthony (NIH/NIAID) [E] Mon, 3 Feb 2020 16:43:08 +0000 Conrad, Patricia (NIH/NIAID) [E]

To:

Barasch, Kimberly (NIH/NIAID) [C]

Subject:

FW: Bloomberg Radio 2/4

This is Bloomberg and so if we can do this, let us try. If it is too much of a hassle then say sorry no. Thanks.

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

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

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From: Jameelah D Robinson (BLOOMBERG/ NEWSROOM:) < jrobinson158@bloomberg.net>

Sent: Monday, February 3, 2020 11:23 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: Bloomberg Radio 2/4

Hi Dr. Fauci!

I Hope this email finds you well. I'm emailing to see if you can join Tom Keene, Bloomberg Suveillance Anchor/Editor-at-Large on his radio show tomorrow morning as a PHONER at 8:00am or 8:15am Et to discuss the Coronavirus. Please let me know if we can make this happen. Many thanks!

### -Jameelah

Jameelah Robinson, M.S. Bloomberg Surveillance Television & Radio

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app and the Bloomberg Professional Service. http://Bloomberg.com/tv/

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From: Fauci, Anthony (NIH/NIAID) [E] Sent: Mon, 3 Feb 2020 15:17:23 +0000 Walensky, Loren D., M.D., Ph.D.; Glimcher, Laurie, M.D.; Auchincloss, Hugh To: (NIH/NIAID) [E] Subject: RE: Wuhan nCoV Inhibitors Loren: Thanks for the note. (b) (6) Best regards, Tony Anthony S. Fauci, MD Director National Institute of Allergy and Infectious Diseases Building 31, Room 7A-03 31 Center Drive, MSC 2520 National Institutes of Health Bethesda, MD 20892-2520 (b) (6) Phone: FAX: (301) 496-4409 E-mail: The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institute of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statements made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives. From: Walensky, Loren D., M.D., Ph.D. (b) (d) Sent: Sunday, February 2, 2020 11:28 PM (b) (6)>; Fauci, Anthony (NIH/NIAID) [E] To: Glimcher, Laurie, M.D. (b) (6); Auchincloss, Hugh (NIH/NIAID) [E] (b) (6) Subject: RE: Wuhan nCoV Inhibitors (b) (4)

PS: Dr. Fauci,	(b) (6)	
Thank you again for any guidance you c	can provide so that we can try to be of help.	
Best,		
Loren		
Loren D. Walensky, M.D., Ph.D.		
Professor of Pediatrics Principal Investigator, Linde Program in	Cancer Chemical Biology	
Attending Physician in Pediatric Oncolo		
Director, Harvard/MIT MD-PhD Program	T0	
Dana-Farber Cancer Institute / Harvard	Medical School	
450 Brookline Avenue, LC3216 Boston, MA 02215		
Office: (b) (6)		
Fax: 617-582-8240		
Email: (b) (	(6)	
Twitter: (6)(6)		
From: Glimcher, Laurie, M.D.	(b) (6)	
Sent: Sunday, February 2, 2020 9:33 PA		
To: Anthony (NIH/NIAID) Fauci	(6) (6) Hugh Jr Auchincloss	
Cc: Walensky, Loren D.,M.D.,Ph.D.	(6)(6)	
Subject: Fwd: Wuhan nCoV Inhibitors	000110	
Tony and Hugh,		
Loren Walensky is a superb physician-si	cientist at Dana-Farber	(b) (4)
in a law and	ALL SCHOOL RE	
If this is of interest to you, please let m	e know or contact him directly.	
Many thanks, Laurie		
Laurie H. Glimcher, M.D.		
President and CEO		

Dana-Farber Cancer Institute Richard and Susan Smith Professor of Medicine Harvard Medical School

450 Brookline Avenue, Dana 1628 Boston, MA 02215

(b) (6) tel. 617,632,2161 fex

(b) (6)

# Begin forwarded message:

From: "Walensky, Loren D., M.D., Ph.D." < (b) (c)

Subject: Wuhan nCoV Inhibitors

Date: January 30, 2020 at 7:23:54 PM EST

To: "Glimcher, Laurie, M.D." (b) (6) >





Thanks so much, Loren

Loren D. Walensky, M.D., Ph.D.
Professor of Pediatrics
Principal Investigator, Linde Program in Cancer Chemical Biology
Attending Physician in Pediatric Oncology
Director, Harvard/MIT MD-PhD Program
Dana-Farber Cancer Institute / Harvard Medical School
450 Brookline Avenue, LC3216
Boston, MA 02215

Office: (b) (6 Fax: 617-582-8240

Email: (6) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 3 Feb 2020 15:12:39 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

 Cc:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: ANSA news agency

Please get someone to provide answers for me to send to this person. I do not have time to do it myself,

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
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From: Battifoglia Enrica < Enrica. Battifoglia@ansa.it>

Sent: Monday, February 3, 2020 5:37 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: ANSA news agency

Dear Professor Fauci,

I am Enrica Battifoglia of the Italian news agency ANSA, I already have had the pleasure to interview you several times at the AIDS world conferences.

I would like to ask you some questions about Coronoravirus 2019-nCoV, to be published on the ANSA Science web page (<a href="www.ansa.it/scienza">www.ansa.it/scienza</a>), the main online science news resource in Italy with over 1.5M contacts each month. I am sure that your clarity and competence will be highly valuable to put some much-needed order among so many contrasting news and data, and would be much appreciated by our readers.

1) Do the current available data allow to understand the threat level of coronarivus 2019-nCoV in terms of both lethality and diffusion speed, and about the possible evolution scenarios of the disease?
2) What exactly we know about its modes of transmission, especially from people who do not yet have the symptoms?
3) Are the genetic sequences provided by China enough to start working on a vaccine?
What are the technical times to develop a working vaccine in terms of scientific research, and what are the approx times for the necessary legal certifications, and for industrial production and distribution?
4) 2019-nCov is the third Coronavirus aggressive for humans that has appeared in the East in the last 20 years and in 2009 the virus responsible for the flu pandemic too did come from China: what sort of preventive measures could be practicable to reduce the risk of repetition of these events?
Thank you so much for your time your attention!
Kindest Regards
Enrica Battifoglia Science and Technology Head Editor
ANSA News Agency

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From:

Fauci, Anthony (NIH/NIAID) [E] Mon. 3 Feb 2020 15:10:32 +0000

Sent: To:

Joe Palca

Subject:

RE: Coronavirus vaccine

## Joe:

Thanks for the note. The has nothing to do with the validity of the test. We see this with other viruses when you look at shedding. When there is a low titer of virus, any specific site (in this case a nose or throat swab) may vary between positive and negative even though the person is clearly still infected. It could be that the virus is there in the throat at one point and cleared at another and comes back again. Alternatively, it may be that the virus is always there, but at different titers and at some points it is present below the sensitivity of the test, even though the test is in general quite sensitive.

Hope that this is helpful.

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
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E-mail: (b) (6)

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From: Joe Palca < JPalca@npr.org>

Sent: Monday, February 3, 2020 9:30 AM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6) >

Subject: FW: Coronavirus vaccine

From: Joe Palca

Sent: Monday, February 3, 2020 9:13 AM

To: 'anthony.facui@nih.gov' (6)(6)>

Cc: 'Deatrick, Elizabeth (NIH/NIAID) [C]' (0) (6) >: Scott Hensley

(b) (6)

Subject: RE: Coronavirus vaccine

HI Tony,

It's been nice hearing you on the various press conferences...can't believe we're still both doing this.

Have a question about something Redfield said in Friday in the White House briefing about nCoV. He said using their PCR assay, the virus can be detectable one day, then not the next, then detectable.

I'm curious about this. I see a few possibilities:

- 1. The test isn't as sensitive as CDC hopes
- 2. The sample was taken from different places
- 3. With low viral titer, it may seem like the virus "disappears" from one day to the next.
- The virus may be hanging out in the terminal bronchioles, and only pop up to the upper respiratory system from time to time.

Am I on the right track? Would you have a few minutes today to record an interview with me?

Joe

From: (b) (6)

Sent: Mon, 3 Feb 2020 05:45:35 -0500
To: Conrad, Patricia (NIH/NIAID) [E]

Subject: Fwd: Interview request (Seoul, Korea)

Sent from my iPhone

Begin forwarded message:

From: 차현나 (b)(6)>

Date: February 3, 2020 at 2:29:21 AM EST

To: "Fauci, Anthony (NIH/NIAID) [E]" (b) (b) >

Subject: Interview request (Seoul, Korea)

Dear Dr. Fauci.

I am Mrs. Hyun-Na Cha of TBS, metropolitan radio station of Seoul, South Korea, I am the director of currunt-issue radio show of TBS and I'd like to have a telephone interview with you on my radio program about coronavirus issue all over the world. As Korea is a very close country to China and many people are very concerned about this issue.

I would like to hear your opinion as a world authority on this issue.

The time for phone interview would be about 6 a.m. at Maryland time and I want to proceed it through an English-Korean interpreter.

I would appreciate it if you could reply to me if you are possible.

The host of my program is a political expert who is a Ph.D. from MIT, Dr.Kim.

Respectfully.

Mrs. Hyun-na Cha

(b) (6)

TBS, Seoul, Korea

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 3 Feb 2020 03:47:33 +0000

To: Howard Schatz

Subject: RE: If too busy then pass---I'd understand

Too soon to predict. It probably will evolve into a widespread infection (pandemic) with lower mortality than we are now seeing (2%). More similar to 2009 H1N1 flu than SARS even though the virus (coronavirus) is in the same family of viruses as SARS.

----Original Message---From: Howard Schatz < (b) (6)
Sent: Friday, January 31, 2020 8:51 AM
To: Fauci, Anthony (NIH/NIAID) [E] (0) (6)
Subject: If too busy then pass---I'd understand

Tony,

New Coronavirus: saw you on national news with a dozen others at DT's table yesterday,

Seems like this new one though serious and very contagious is not as lethal (40:1 ?) as SARS, others.

What is your current thinking on it?

Hope all is well, otherwise.

Thanks,

howard

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Mon, 3 Feb 2020 03:45:59 +0000

 To:
 Auchincloss, Hugh (NIH/NIAID) [E]

Subject: FW: Wuhan nCoV Inhibitors

Attachments: (b) (4)

Please handle this. Thanks.

From: Glimcher, Laurie, M.D. (b) (6) >

Sent: Sunday, February 2, 2020 9:33 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Auchincloss, Hugh (NIH/NIAID) [E]

(6) (6)

Cc: Walensky, Loren D., M.D., Ph.D. (6)

Subject: Fwd: Wuhan nCoV Inhibitors

Tony and Hugh,

Loren Walensky is a superb physician-scientist at Dana-Farber

(b) (4)

If this is of interest to you, please let me know or contact him directly.

Many thanks,

Laurie

Laurie H. Glimcher, M.D.
President and CEO
Dana-Farber Cancer Institute
Richard and Susan Smith
Professor of Medicine
Harvard Medical School

450 Brookline Avenue, Dana 1628

(b) (6) tel. 617.632.2161 fax

(5) (6)

Begin forwarded message:

From: "Walensky, Loren D., M.D., Ph.D." (b) (6) >

Subject: Wuhan nCoV Inhibitors

Date: January 30, 2020 at 7:23:54 PM EST

To: "Glimcher, Laurie, M.D." (b) (6)



Thanks so much, Loren

Email

Loren D. Walensky, M.D., Ph.D.
Professor of Pediatrics
Principal Investigator, Linde Program in Cancer Chemical Biology
Attending Physician in Pediatric Oncology
Director, Harvard/MIT MD-PhD Program
Dana-Farber Cancer Institute / Harvard Medical School
450 Brookline Avenue, LC3216
Boston, MA 02215
Office: (6)16)
Fax: 617-582-8240

(b) 162

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Sent:	Mon, 3 Feb 202	20 02:10:49 +0000			
To:	Cassetti, Cristina (NIH/NIAID) [E]				
Subject:	FW: Homozygo	ous for Alpha-1 antitrypsin and	coronavirus?		
Please handle.					
From: Ulrica Möls	stad	0)(6)>			
	oruary 2, 2020 9:07 PM	1			
	y (NIH/NIAID) [E]	(0) (6)>			
Cc: Ulrica Mölsta	. Anderson consistent commercial constraints	(6)(6)>			
Subject: Homozy	gous for Alpha-1 antitr	ypsin and coronavirus?			
Hil					
I read that you ar coronavirus.	e an expert working fo	or NIAID and that you got inter	viewed about treatments for the		
I am a Swedish pl	nysician specialized in o	clinical chemistry.	(6) (6) and wanted to		
share a hypothes	is I have. I believe that	some patients who are seriou	sly ill in corona virus (or flue/SARS)		
with lung sympto	ms have a lack of non	mal/well functioning Alpha-1-a	antitrypsin for example PiZZ. Alpha-		
		and increases in sick people. I	[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]		
		verely ill person (H1N1) if mea	5.455.0 T. 1.17 J. T. 1.17 T. T. 1.17		
Alpha-1 antitryps		in result in the physician believ	titrypsin gene. An elevated level of ring that there is nothing wrong		
			(ъ) (4)		
	id a marke		14.4		
	나는 아이들은 이번 시간 사람들이 살아 없다면 다른데 없었다.	나는 기계 회원에는 나이 많은 기존하다가 되었습니다. 눈으로 전혀 보고를 가는데 하고 있습니다.	ns might benefit from receiving		
Alpha-1 antiprote	ase inhibitor in addition	on to other medications given	to them. What do you think?		
I believe that this	information can contr	shute in understanding why so	ome supposedly healthy individuals		
		rirus, flue/H1N1 or SARS.	(b) (4)		
Sees really sies an	a cycli die ili colona i	iras, nacyment or samo.			
			- 4		
	State State Committee Comm				
I would appreciat	e if you replied shartly	to me so that I know that my	e-mail has been read.		

Fauci, Anthony (NIH/NIAID) [E]

From:

Best regards, Ulrica Molstad, M.D.

Sent:

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Mon, 3 Feb 2020 00:50:43 +0000

To: James Krellenstein

Subject: RE: 2019-nCoV Testing for Public Health Labs

James:

Thanks for the heads-up. I will see what I can do.

Best, Tony

From: James Krellenstein (b) (6)

Sent: Sunday, February 2, 2020 7:37 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Cc: David Barr (0)(6)>; Lord, Aaron (6)(6)Peter Staley

(b) (6)

Subject: 2019-nCoV Testing for Public Health Labs

Tony:

I hope this email finds you well. Over the past 48 hours, PrEP4All has received multiple requests from leaders of public health departments and public health practitioners to begin publicly pressuring CDC/HHS to ensure that properly equipped public health labs (besides CDC's lab in Atlanta) can perform real time reverse transcription PCR (qRT-PCR) testing for 2019 Novel-Coronavirus (2019-nCoV).

Our understanding is that given the public health emergency declared by HHS, an emergency use authorization (EUA) from the FDA is required for public health labs to perform their own lab developed test for 2019-nCoV, even if it is using the CDC's published qRT-PCR protocol and primer/probe sequences (

https://www.cdc.gov/coronavirus/2019-ncov/downloads/rt-pcr-panel-for-detection-instructions.pdf )
, and the lab is capable of handling BSL3+ samples.

We understand the extreme delicateness of this situation, and also that it is outside of our normal wheelhouse. But given the concerns of our colleagues in the public health sector, we thought it was important to give you a heads up regarding this request.

Let us know if there is anyway we can help.

Sincerely,

James Krellenstein
Data, Science and Policy Committee
The PrEP4All Collaboration
109 S 5th St, Brooklyn, NY 11249
(6) (6)

\_

James B. Krellenstein he - him - his (6) (Sent from a mobile device)

From:	Fauci, Anthony (NIH/NIAID) [E]
Sent:	Sun, 2 Feb 2020 23:54:27 +0000
To:	NIAID OD AM
Subject:	FW: Invitation for an expert panel webinar on the role of micronutrients and
coronavirus	1 W. Invitation for an expert panel weblilar on the role of interonotherits and
Attachments:	2020.02.02 Expert panel objectives.docx
Let us discuss. Pr	robably no.
From:	(b) (6) >
** 2.000 (COO) ***********************************	uary 2, 2020 9:49 AM
To: Fauci, Anthony	
Cc: Peter van-Dael	(b) (b)
Subject: Invitation	for an expert panel webinar on the role of micronutrients and coronavirus
Due to the new are raised regar reached out to establish exper	address you for an expert panel webinar on the role of micronutrients and coronavirus outbreak and the rapidly escalating global spread, lots of questions ding the role of micronutrients in supporting the immune system. DSM has me with a request to organize rapidly a focused expert panel in order to t guidance summarizing key points with respect to the role of micronutrients in body's immune response, in light of the current general consciousness that
among other fa	ctors nutrition is important in combatting infectious diseases. Peter Van Dael, on Science & Advocacy, is responsible for the coordination of this activity at
webinar in orde week, if possib	on this challenge and therefore intend to organize this expert panel through er to manage the challenges related to busy agendas and travel within the next le. The webinar is expected to last for about 3 hours maximum and would be gh the distribution of a short background document I will share in order to scussion.
	ch out to you tomorrow by phone in order to review whether you would be is engagement and whether you would you have potential questions prior to

Manfred Peter

agreeing to participate.

With our best regards,

# Dr. Manfred Eggersdorfer

Professor for Healthy Ageing

(6) (6)

(b) (6)

# Dr. Peter Van Dael

DSM Nutrition Science & Advocacy

From: (b) (6)

Sent: Sun, 2 Feb 2020 18:20:17 -0500

To: Carlos del Rio

Subject: Re: [External] RE: Mexican researchers have defined the structure of the Corona

virus

Very interesting.

On Feb 2, 2020, at 9:07 AM, Del Rio, Carlos

(b) (6)>wrote:

(6)(6) sent me this update. Thought you would enjoy. Interesting to see how they view outbreaks.....

Coronavirus news over the weekend was a small net positive (although there were plenty of negatives). Encouragingly, doctors appear to be having some success treating patients with existing antiviral drugs - GILD's remdesivir improved the clinical conditions of a coronavirus patient in Washington state (WSJ) while Thailand said it had achieved good results using antiviral drugs originally designed for the flu and HIV (Bloomberg). It's way too early to tell whether these drugs will perform well in other patients (and a vaccine is still some time away), but the progress noted in the US and Thailand is positive. The PBOC said it would inject CNY L2T worth of liquidity on Monday 2/3 to ensure markets operate smoothly when they reopen from the New Year holiday (this works out to about CNY150B of net incremental liquidity given CNY 1.05T of reverse reports are set to mature on Monday). The gov't also announced other steps (including waiving equity ownership limits for some insurers) aimed to bolstering market confidence. The global coronavirus case count continues to rise (it now stands at -15K as of Sunday morning w/the death toll north of 300) while more travel restrictions are being imposed by governments and companies around the world (Apple said it would shutter all its stores and offices in China until Feb 9). According to a CNBC update. areas of China responsible for ~80% of GDP and ~90% of exports are set to stay closed until at least Feb 10.

Carlos del Rio, MD. Sent from my iPhone

On Feb 1, 2020, at 11:13 PM, Fauci, Anthony (NIH/NIAID) [E]

Hove it! 00

----Original Message-----

From: Del Rio, Carlos < (6) (6) > Sent: Friday, January 31, 2020 10:05 AM

To: Fauci, Anthony (NIH/NIAID) [E] < (6) (6)

Subject: Mexican researchers have defined the structure of the Corona

virus

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Fauci, Anthony (NIH/NIAID) [E] Sun, 2 Feb 2020 22:56:05 +0000

Sent: To:

Cassetti, Cristina (NIH/NIAID) [E]

Subject:

FW: coronavirus

From: Dr.h.c. Richard Hajdu

(b)(6)>

Sent: Sunday, February 2, 2020 2:00 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(6) (6)

Subject: coronavirus

Dear Anthony Fauci.

I speak hard English so I write to you using google translator.

I have a cured corona virus cure. I am willing to provide you. In laboratory conditions you can try. This medicine can destroy the virus within 12 hours.

If you are interested, it is necessary to provide a way to deliver the medicine to you. I live in the Czech Republic. In the city of Brno.

Dr. Richard Hajdu

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 22:43:15 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: coronavirus - easy, safe, and likely highly effective treatment.

Attachments: Corona Virus Solution b.docx, MedGasRes\_2019\_9\_4\_232\_273962.pdf,

published article on ozone and ebola 3578-10714-4-PB.pdf

#### Please handle.

From: Robert Jay Rowen (6)(6) > Sent: Sunday, February 2, 2020 4:24 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: coronavirus - easy, safe, and likely highly effective treatment.

#### Dear Dr. Fauci,

I am a mere clinician. But I have published repeatedly on a therapy which, I believe, will remedy patients with coronavirus and spare a possible catastrophe, if the virus is as lethal as it appears.

The therapy is ozone. It can be performed, depending on the method, for mere pennies in materials. It is not patentable, so, it lacks profitability needed for some payback for the basic research to get it "approved".

It attacks a key vulnerability on this virus and even Ebola. We got to 5 Ebola cases in Sierra Leone. All 5 recovered almost immediately. No sequela. No one has reported anything like that.

I have used ozone therapy for 33 years, ;longer than anyone in North America. It absolutely changed my practice. I write essentially no prescriptions for antibiotics, including for Lyme disease. This therapy, I recently published, might be the solution the world desperately needs for the emerging crisis in resistant infections.

I am attaching 2 papers I recently published on ozone therapy, And a manuscript we just got done to address corona virus, which I am trying to get published. It is not easy. The medical world is vested in Pharmaceuticals.

I urge you to please look at this. Not patentable, it will never be a darling of industry. But just for that reason (dirt cheap), it could be a savior for thousands or more who might die from a pandemic. I am coming to you about this as one physicist came to President Roosevelt about harnessing the power of the atom at the dawn of world war 2. I do hope you will take note of what I am forwarding to you.

The first file is a word document I am seeking to get published. Usually, an author will hold up on making material like this public until he get published. However, with lives immediately on the line, we want to alert people that the does exist an available very inexpensive and extremely safe medical treatment for this and other infections.

If you have questions, please contact me here. Sincerely,

#### Robert Jay Rowen, MD (6) (6)

www.DrRowenDrSu.com http://www.youtube.com/user/RobertRowenMD https://www.facebook.com/DrRobertJRowen

"The doctor of the future will no longer treat the human frame with drugs, but rather will cure and prevent disease with nutrition", Thomas Edison

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 2 Feb 2020 22:40:07 +0000

To: Greg Folkers ( (b) (6))

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: Getty images from coronavirus presser etc http://bit.ly/2GJ3u5F

See below the link that 606 sent me. It is a picture of me briefing President Reagan at the NIH in 1988. Please insert it into our flickr file with the legend that I just gave. Thanks.

From: (b) (6) (NIH/CC/BEP) [E] (b) (6)

Sent: Sunday, February 2, 2020 5:11 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)

Subject: RE: Getty images from coronavirus presser etc http://bit.ly/2GJ3u5F

The oldest one in the batch:

https://www.gettyimages.com/detail/news-photo/dr-anthony-fauci-lecturing-to-pres-ronald-w-reaganand-news-photo/50454084?adppopup=true

From: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Sent: Saturday, February 1, 2020 10:09 PM

To: (b) (6) (NIH/CC/BEP) [E] (b) (6)

Subject: FW: Getty images from coronavirus presser etc http://bit.ly/2GJ3u5F

fyi

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)

Sent: Saturday, February 1, 2020 9:02 PM
To: NIAID OD AM < NIAIDODAM@niaid.nih.gov>

Subject: Getty images from coronavirus presser etc http://bit.ly/2GJ3u5F



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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 22:36:41 +0000

 To:
 Routh, Jennifer (NIH/NIAID) [E]

Cc: Billet, Courtney (NIH/NIAID) [E]; Stover, Kathy (NIH/NIAID) [E]; Folkers, Greg

(NIH/NIAID) [E];Conrad, Patricia (NIH/NIAID) [E];Marston, Hilary (NIH/NIAID) [E]

Subject: RE: Fauci/Redfield op-ed for review

Attachments: Redfield-Fauci Joint Op-Ed V2 020120\_EOC Cleared Revised wR3 2.2.20 JR HM GF - with additional Fauci tracked changes still showing.docx, Redfield-Fauci Joint Op-Ed V2 020120\_EOC

Cleared Revised wR3 2.2.20 JR HM GF - with Fauci changes added - clean copy.docx

I have gone over the document and have made a number of tracked changes. In addition, for ease of reading I have accepted all the tracked changes and am sending a clean copy. Hence there are 2 attachments: 1) one with all tracked changes; 2) a clean copy accepting all changes. Please note that the CDC has not announced the 3 additional cases and so depending on when this goes out we need to make sure that the official number is 11 and not still 8Thanks!

From: Routh, Jennifer (NIH/NIAID) [E] < (b) (6)

Sent: Sunday, February 2, 2020 4:36 PM

To: Fauci, Anthony (NIH/NIAID) [E] (0) (0) >

Cc: Billet, Courtney (NIH/NIAID) [E] (0) (0) >; Stover, Kathy (NIH/NIAID) [E] (0) (0) >; Conrad, Patricia (NIH/NIAID) [E] (0) (0) >; Conrad, Patricia (NIH/NIAID) [E] (0) (0) >

Subject: Fauci/Redfield op-ed for review

Dr. Fauci -

Attached is the draft op-ed for your review. Greg, Hilary and I have added proposed edits in track changes. We will send back to CDC/HHS one document with all NIAID edits in track changes. HHS would like to get a draft to the White House at some point this evening.

Thanks, Jen

Jennifer Routh [E] News and Science Writing Branch Office of Communications and Gov

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 (b) (6

(b) (b)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 19:24:26 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: Specific Questions About CoronaVirus

Please handle.

From: Rafael C. R. (6) (6) > Sent: Sunday, February 2, 2020 12:34 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: Specific Questions About CoronaVirus

Hi Dr. Fauci, you might not remember me from my previous email. I'm a Brazilian who asked you some months ago about the influenza virus differences across regions. I recently traveled to DC and NY and had a great time there (before the Corona Virus outbreak)

I have some specific questions about the new Corona Virus, and would be very grateful if you can answer them:

1- Using available data, I've made a simple spreadsheet attempting to predict the virus behavior: <a href="https://docs.google.com/spreadsheets/d/1DAHQtFzXO-FKU405k8p864JBVHAlfzsHQghuywaTNbE/edit#gid=0">https://docs.google.com/spreadsheets/d/1DAHQtFzXO-FKU405k8p864JBVHAlfzsHQghuywaTNbE/edit#gid=0</a>

I've used **exponential trend**, although it seems to be spreading slower than the expected, I'd like to know if there's an accurate model for predicting this virus. Also, I assume virus don't always spread exponentially?

2- I listened to your interview podcast <a href="https://edhub.ama-assn.org/jn-learning/audio-player/18197306">https://edhub.ama-assn.org/jn-learning/audio-player/18197306</a>.
Really amazing content. Let's assume this is going to be a worldwide outbreak. How can I get prepared for the worst? Buy water, dry food, stay indoors, withdraw money, etc?

Once again, I'd like to thank you very much for reading this email. I bet this is a very busy time for you, so it means a lot to me

Thank you, Rafael From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sun, 2 Feb 2020 18:33:43 +0000

To: Liang, Jake (NIH/NIDDK) [E]

Cc: Mark Dybul; Conrad, Patricia (NIH/NIAID) [E]; Barasch, Kimberly (NIH/NIAID) [C]

Subject: RE: Favor

Thanks, Jake. Mark will contact you directly.

From: Liang, Jake (NIH/NIDDK) [E] (b) (6) >

Sent: Sunday, February 2, 2020 1:32 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Mark Dybul (b) (6); Conrad, Patricia (NIH/NIAID) [E]

(b) (6); Barasch, Kimberly (NIH/NIAID) [C] (b) (6)

Subject: Re: Favor

Hi, Tony, I just returned from an overseas trip but should be around tomorrow and can certainly clear some time to meet with Mark. I met Mark at the NAM meeting last year and would love to hear what they have to say. Let me know what works. Good luck in dealing with the new coronavirus pandemic (not sure whether it is qualified as one yet; if not, pretty close)!! Jake

Prom: Anthony Fauci < (b) (6)

Date: Sunday, February 2, 2020 at 12:20 PM

To: Jake Liang (b) (6) >

Cc: Mark Dybul (b) (6) >, "Conrad, Patricia (NIH/NIAID) [E]"

(b) (6), "Barasch, Kimberly (NIH/NIAID) [C]" (b) (6)

Subject: Favor

lake:

Sorry for this last minute ask, but (66), Ambassador Mark Dybul, who is the former Head of PEPFAR and the former Director of the Global Fund to Fight AIDS, TB, and Malaria will be at the NIH tomorrow with a scientist who has some very interesting data on hepatitis B. I was supposed to meet with them, but I am swamped with the coronavirus. Is there any chance that you can meet with them briefly tomorrow. I believe that you might be interested in seeing them. I have copied Mark on this e-mail and so I will ask him to e-mail you to see if you can make this happen. Many thanks.

Best regards,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520

Phone: (6) (6) FAX: (301) 496-4409

E-mail: (b) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 18:02:22 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Subject: RE: Seeking comment on Indian paper about new Coronavirus

#### Geeeez

From: Billet, Courtney (NIH/NIAID) [E] (6) (6)

Sent: Sunday, February 2, 2020 12:53 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6); Folkers, Greg (NIH/NIAID) [E]

(b) (6) >; Conrad, Patricia (NIH/NIAID) [E] (b) (6) >; Stover, Kathy (NIH/NIAID) [E] (b) (6) >; Routh, Jennifer (NIH/NIAID) [E] (b) (6) >

Subject: Fwd: Seeking comment on Indian paper about new Coronavirus

FYI re the paper from the Indian researchers.

Talk about trying to put the genie back in the bottle! Yeesh.

From: "Mascola, John (NIH/VRC) [E]" < (b) (6)

Date: Sunday, February 2, 2020 at 10:39:42 AM

To: "Routh, Jennifer (NIH/NIAID) [E]" (b) (6) >, "Graham, Barney (NIH/VRC) [E]"

(b) (6) "Hiatt, Nissa [NIH/VRC) [C]" (b) (6) >

Cc: "Marston, Hilary (NIH/NIAID) [E]" < (b) (6) >, "Billet, Courtney (NIH/NIAID) [E]"

Subject: RE: Seeking comment on Indian paper about new Coronavirus

Also note the following from the author on the BioRxiv comment section:

### Prashant Pradhan 8 hours ago

This is a preliminary study. Considering the grave situation, it was shared in BioRxiv as soon as possible to have creative discussion on the fast evolution of SARS-like corona viruses. It was not our intention to feed into the conspiracy theories and no such claims are made here. While we appreciate the criticisms and comments provided by scientific colleagues at BioRxiv forum and elsewhere, the story has been differently interpreted and shared by social media and news platforms. We have positively received all criticisms and comments. To avoid further misinterpretation and confusions world-over, we have decided to withdraw the current version of the preprint and will get back with a revised version after reanalysis, addressing the comments and concerns. Thank you to all who contributed in this open-review process.

: Authors of the Manuscript

From: Routh, Jennifer (NIH/NIAID) [E] (b)(6)

Sent: Sunday, February 2, 2020 10:35 AM

To: Graham, Barney (NIH/VRC) [E] (b) (6); Hiatt, Nissa (NIH/VRC) [C]
(b) (6)

Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6); Mascola, John (NIH/VRC) [E]
(b) (6)>; Billet, Courtney (NIH/NIAID) [E] (b) (6)>; Stover, Kathy (NIH/NIAID) [E] (c) (d)

Subject: RE: Seeking comment on Indian paper about new Coronavirus

Hi Barney -

We consulted with HHS and ASF. OCGR is going to send a note to the reporter to decline, noting that the paper is not peer-reviewed. Please let us know if you receive similar requests.

Thanks,

Jen

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:

(b) (6)

(b) (6)

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From: Graham, Barney (NIH/VRC) [E] (b) (6)

Sent: Saturday, February 1, 2020 2:11 PM

To: Hiatt, Nissa (NIH/VRC) [C] (b) (0)>; Routh, Jennifer (NIH/NIAID) [E]

(6) (6)>

Cc: Marston, Hilary (NIH/NIAID) [E] (NIH/VRC) [E]

(6) (6)

Subject: FW: Seeking comment on Indian paper about new Coronavirus

Hi Nissa and Jen,

This is one we don't want to answer without high-level input, but wanted you to know about the rising controversy.

BG

From: Issam AHMED < Issam.AHMED@afp.com>

Sent: Friday, January 31, 2020 5:27 PM

To: Graham, Barney (NIH/VRC) [E] (6) (6)

Subject: Seeking comment on Indian paper about new Coronavirus

Dear Dr Graham,

I'm a science journalist with news agency Agence France-Presse writing with a request -- apologies for reaching out on a Friday evening! I was told by a contact you may be willing to give an opinion on this paper that has just gone live <a href="https://www.biorxiv.org/content/10:1101/2020.01.30.927871v1.full.pdf">https://www.biorxiv.org/content/10:1101/2020.01.30.927871v1.full.pdf</a> it suggests the new Coronavirus has four inserts similar to HIV-1 and this is not a coincidence.

Thanks you very much, if you are able.

Issam Ahmed

## Issam AHMED

Health, Science and Environment Correspondent 1500 K St. NW - 20005 Washington Tel: (202) 414-0521



June 24, 2020

Virus death toll nears half a million as cases surge in US, Latin America

Join us on:





afp.com

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 2 Feb 2020 17:13:03 +0000

To: Mark Dybul

Subject: RE: A connection to jake

#### Mark:

Thanks for the note. Sorry that I had to cancel. This is White House in full overdrive and I am in the middle of it. Reminiscent of post-anthrax days. I will send an email to Jake today to introduce you. Again, sorry about the cancellation. Hope to see you soon. Regards to Jason.

Tony

----Original Message----

From: Mark Dybul (b) (6): Sent: Sunday, February 2, 2020 11:37 AM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)

Subject: A connection to jake

Hey tony

Know you are buried in coronavirus. Totally understand need to cancel meeting tomorrow. We will set up a zoom in ben things calm down.

We have made additional progress on hbv including data from 2 new mouse models. We were going to share Monday

Realize this is last minute but might it be possible for you to connect me to jake liang in case we can squeeze in a meeting with him (serhat is already on east coast - we took a risk knowing you might have to cancel)?

If you are not comfortable with that I could send him a cold call email mentioning we have shared the data with you. You were kind enough to introduce us at the nam dinner when (b) (6).

Hope you at least have time to enjoy Super Bowl. Hang in there - am sure everyone is leaning heavily on you as usual.

Thanks much

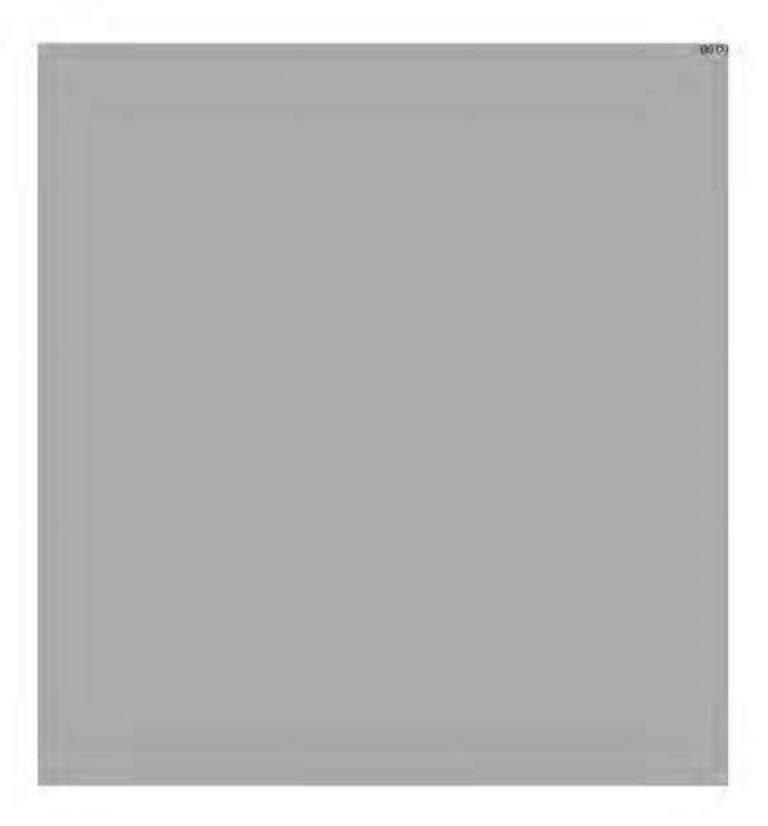
Mark

Sent from my iPhone

From:	Fauci, Anthony (NIH/NI)	AID) [E]	
Sent:	Sun, 2 Feb 2020 16:49:3		
To:	Collins, Francis (NIH/OD		
Cc:	Tabak, Lawrence (NIH/C	5.30.51	
Subject:	FW: Teleconference		
Francis:			
	a minute for a quick call?		
Tony	a minute for a quien suit.		
TOTAL			
From: Jeremy Fa		1	
그렇게 하는데 보고 있어서 뭐 먹어야 하네요?	bruary 2, 2020 11:28 AM	The state of the s	
To: Fauci, Antho	ny (NIH/NIAID) [E] (b) (6)	(b)(6); Collins, Francis (N	IIH/OD) [E]
Cc: Tabak, Lawre	ence (NIH/OD) [E]	(b) (6) >	
Subject: Re: Tele	econference		
Tedros and Bern	hard have apparently gone into	conclavethey need to deci	de today in my view. If
they do prevario	ate, I would appreciate a call wi	th you later tonight or tomor	row to think how we might
take forward.			
Meanwhile			
https://www.ze	rohedge.com/geopolitical/coror	navirus-contains-hiv-insertion	s-stoking-fears-over-
artificially-create	ed-bioweapon		
From: "Fauci. A	Anthony (NIH/NIAID) [E]"	(b) (6)>	
	2 February 2020 at 15:30	2000	
To: Jeremy Far		>, Francis Collins	(b) (6)>
	vrence (NIH/OD) [E]"	(b) (b)	32300
Subject: RE: Te		372.578	
Subject: RE: 16	econterence		
tarana and			
Jeremy:		Total World - Control 1	
	ook so long to weigh in on you	r e-mails with Francis and	
conference cal	ls.		(b) (5)
			(b) i
Best regards,			5
Tony			
From: Jeremy Fa	orrar (b) (6)		

Sent: Sunday, February 2, 2020 7:13 AM

	he options	(b) (5),
Really appreciate us thinking through th	ne options	MACHED
From: Francis Collins <	(6) (6) >	
Date: Sunday, 2 February 2020 at 12:0	CONTRACTOR OF THE PROPERTY OF	
To: Jeremy Farrar <	(b) (6)>	
Cc: "Fauci, Anthony (NIH/NIAID) [E]" (6)	(b)(6), "Tabak, Lawrence (NIH/OD	) [E]"
Subject: RE: Teleconference		
Hi Jeremy,		
Thanks for forwarding these additiona	al reflections from Mike and Bob.	(3)
		(6) (5
Francis		
From: Jeremy Farrar	(6) (6)	
Sent: Sunday, February 2, 2020 6:53 AM		
Sent: Sunday, February 2, 2020 6:53 AM To: Collins, Francis (NIH/OD) [E]	(b) (6)	
Sent: Sunday, February 2, 2020 6:53 AM  To: Collins, Francis (NIH/OD) [E]  Cc: Fauci, Anthony (NIH/NIAID) [E]		
Sent: Sunday, February 2, 2020 6:53 AM To: Collins, Francis (NIH/OD) [E]	(b) (6)	
Sent: Sunday, February 2, 2020 6:53 AM  To: Collins, Francis (NIH/OD) [E]  Cc: Fauci, Anthony (NIH/NIAID) [E]  (b) (6)	(b) (6)	
Sent: Sunday, February 2, 2020 6:53 AM  To: Collins, Francis (NIH/OD) [E]  Co: Fauci, Anthony (NIH/NIAID) [E]  (b) (6)  Subject: Re: Teleconference	(b) (6)	
Sent: Sunday, February 2, 2020 6:53 AM  To: Collins, Francis (NIH/OD) [E]  Cc: Fauci, Anthony (NIH/NIAID) [E]  (b) (6)  Subject: Re: Teleconference	(b) (6)	(b) (:
Sent: Sunday, February 2, 2020 6:53 AM  To: Collins, Francis (NIH/OD) [E]  Cc: Fauci, Anthony (NIH/NIAID) [E]  (b) (6)  Subject: Re: Teleconference	(b) (6)	(b) (



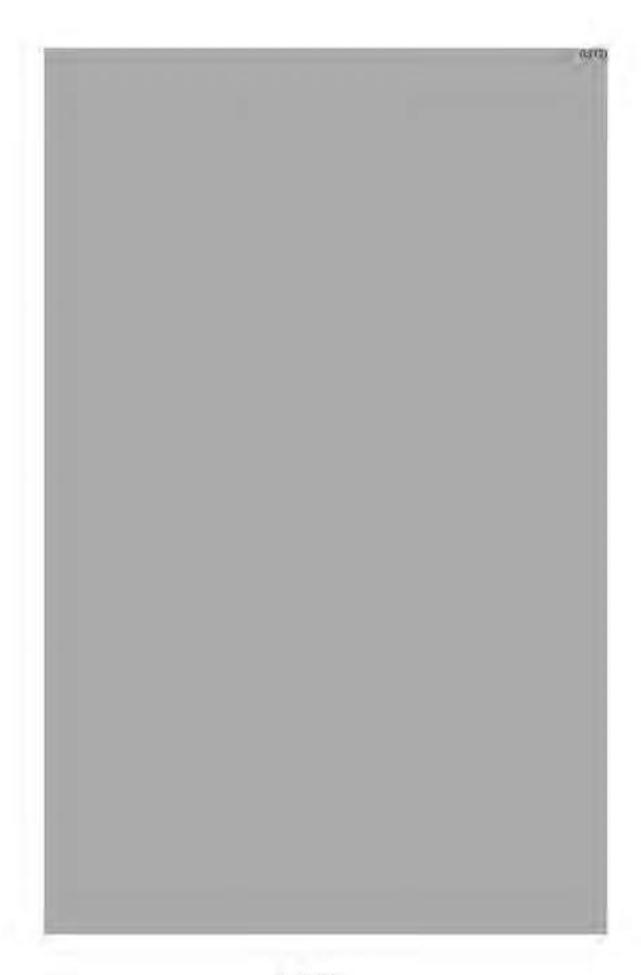
To: Jeremy Farrar Cc: "Fauci, Anthony (	(b)(6) NIH/NIAID) [E]"	(b) (0), "Taba	k, Lawrence (NIH/OD) [E]"
Subject: RE: Teleconf	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW		
Jeremy,			
229713280		_	(6) (
I'm available any time	e today except 3:15 – 5:45	pm EST (on a plane)	for a call to Tedros. Let n
know if I can help get	through his thicket of prot	tectors.	
Francis			
	- Times		
From: Jeremy Farrar Sent: Sunday, February	(b) (6) (2 2020 4-48 AM		
To: Andrew Rambaut <			
Cc: R.A.M. Fouchier	(b) (6); Fa	uci, Anthony (NIH/NIA	ID) [E]
(b) (d	Patrick Vallance	(6) (6	; Drosten, Christian
	(b) (6) >; M.P.G. Koopmans		(b) (d); Eddie Holmes
A SAME OF THE SAME	W	(b) (6); Kristian G. And	
Paul Schreier	70.00 C.III. C. 1 (21)	(b) (a); Ferguso	
	(b) (6); Collins, Francis (NI		(b) (6)>; Tabak, Lawrence (b) (6)
(N)(U (OD) (E)	OWO - India Cald	ing:	(0)(0)
(NIH/OD) [E]	(b) (6)>; Josie Goldi	-	
(NIH/OD) [E] <b>Subject</b> : Re: Teleconfer			
	rence		
Subject: Re: Teleconfer This is a very complex i	rence		
Subject: Re: Teleconfer	rence		(6)

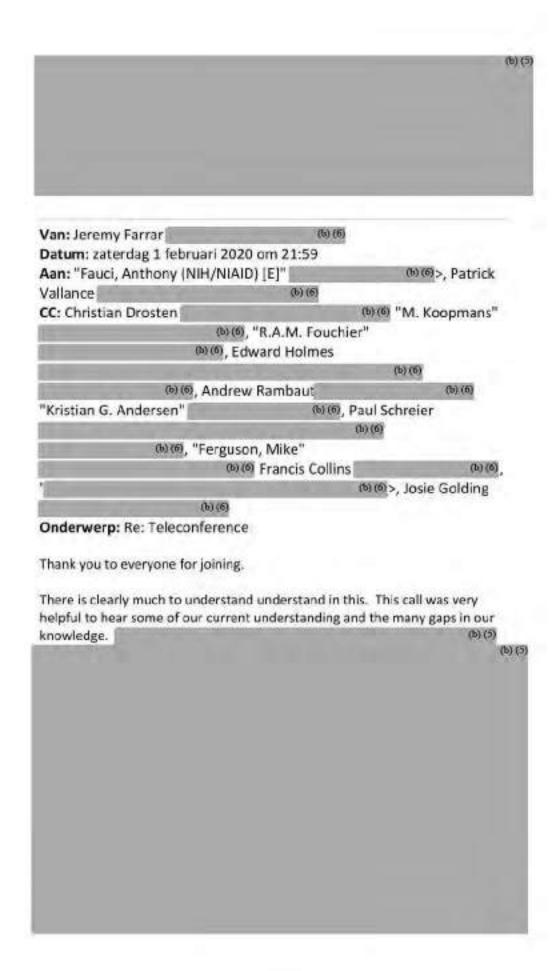
```
(b) (5)
I suggest we don't get into a further scientific discussion here, but wait for that group to be established.
Jeremy
From: '
                                                      (6) (6)
Date: Sunday, 2 February 2020 at 09:38
To: Jeremy Farrar
                                            (b) (6)>
Cc:
                                                            (b) (6)>, "Fauci, Anthony (NIH/NIAID) [E]"
                                                                            (b) (6)>, "Drosten,
                     (6) (6), Patrick Vallance
Christian"
                                         (b) (6), Marion Koopmans <
                                                                                                  (b) (6)
Edward Holmes
                                                                              (b) (6)
                     (b) (6), "Kristian G. Andersen"
                                                                         (b) (6), Paul Schreier
                                                                               (b) (6) Michael FMedSci
                             (6) (6)>, Francis Collins
                                                                         (b) (6)
                                                        (b) (6) Josie Golding
                           (b) (6)
Subject: Re: Teleconference
Dear Jeremey, Ron and all,
Thanks for inviting me on the call yesterday.
                                                                                                   (b) (5)
```



Thanks for organizing this on such short notice, Kind regards

Ron's notes:	
	- (86 C)





(0) (5)

I hope that is a reasonable approach, please send any thoughts or suggestions.

Once again, thank you for making time over a weekend and for such an informed discussion on a complex issue.

Thank you and best wishes Jeremy

From: Jeremy Farrar	(b) (6	1
Date: Saturday, 1 February 2020	at 15:34	
To: "Fauci, Anthony (NIH/NIAID)	[E]"	(b)(6)>, Patrick
Vallance <	(b) (6)	
Cc: "Drosten, Christian"		(6) (6)>, Marion
Koopmans	(6) (6)	
The state of the s		(6)(6) Edward
Holmes		(b) (6)
	(b) (6)	
(b) (6) "Kristia	n G. Andersen"	
(b) (6), Paul Sc	hreier	(b) (6
	(b) (6) >, M	ichael FMedSci
(b) (6	)	

Subject: Teleconference

## 1st February (2nd Feb for Eddie)

Information and discussion is shared in total confidence and not to be shared until agreement on next steps.

Dial in details attached.

Please mute phones.

I will be on email throughout – email Paul or I Paul if any problems If you cannot make it, I will phone you afterwards to update.

One Hour

6am Sydney 8pm CET 7pm GMT 2pm EST 11am PST (Hope I have the times right!)

Thank you for the series of calls and for agreeing to join this call.

#### Agenda

- · Introduction, focus and desired outcomes JF
- · Summary KA
- Comments EH
- Q&A All
- · Summary and next steps JF

Kristian Anderson

Bob Garry - I have not been able to contact Bob. Please forward if you can.

Christian Drosten

Tony Fauci

Mike Ferguson

Ron Fouchier

**Eddie Holmes** 

Marion Koopmans

Stefan Pohlmann

Andrew Rambaut

Paul Schreier

Patrick Vallance

#### Andrew Rambaut

Institute for Evolutionary Biology

Ashworth Laboratories, University of Edinburgh, Edinburgh, EH9 3FL, UK.

contact - (b) (6) http://www.bio.ed.ne.k.| tel (b) (6)

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 2 Feb 2020 15:45:28 +0000

To: Goldner, Shannah (NBCUniversal); Conrad, Patricia (NIH/NIAID) [E]

Subject: RE: Thank you so much

### My pleasure!

From: Goldner, Shannah (NBCUniversal) <shannah.goldner@nbcuni.com>

Sent: Sunday, February 2, 2020 10:33 AM

To: Conrad, Patricia (NIH/NIAID) [E] (b) (6) Fauci, Anthony (NIH/NIAID) [E]

(6) (6)

Subject: Thank you so much

Dr. Fauci, thank you so much for making time for our show this morning. We are very grateful to have you on, sharing your knowledge on this issue. I know you are extremely busy, but again, so many thanks.

Sincerely – and have a good day, though I know a busy one. Shannah

And Patricia, thank you so much for your help and patience with me, I appreciate it.

#### Shannah

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)>

Sent: Saturday, February 01, 2020 8:42 PM

To: Goldner, Shannah (NBCUniversal) < shannah goldner@nbcuni.com >; Fauci, Anthony (NIH/NIAID) [E]

Cc: Antoniak, Cynthia (NBCUniversal, MSNBC) < Cynthia. Antoniak@MSNBC.COM>

Subject: [EXTERNAL] Re: details re tomorrow's MSNBC morning interview

Adding dr Fauci here - he will arrive at the Nebraska ave studio no later than 710 am for your 730 am ET live hit as per below.

If there are any changes or cancellations in the morning please call his cell at (6) (6). My cell is (6) (6)

Thank you.

Sent from my iPhone

On Feb 1, 2020, at 8:32 PM, Goldner, Shannah (NBCUniversal) <shannah.goldner@nbcuni.com> wrote: Patricia, hi...the contact at the NBC bureau (4001 Nebraska Ave) is Parita Desai. The number at the studio is 202-885-4800. The bureau is aware that Dr. Fauci is driving himself and he can park at the bureau.

The interview time is scheduled for approx 7:30am, so if he can be at the studio by 7am for powder and to be seated, that would be appreciated.

The producer in NY who will email you the information details for the segment tomorrow is Cyndi Antoniak. If you need to reach her before she reaches you in the morning, her email is Cynthia.antoniak@nbcuni.com and her phone number is (6) (6)

The interview is one on one with our anchors Kendis Gibson and Cori Coffin.

If you need more information, please let me know. Thank you for your help and your patience today, I appreciate it.

All the best, Shannah

Shannah Goldner MSNBC

W: 212-664-1289 C: (b) (6)

From: Conrad, Patricia (NIH/NIAID) [E] (6) (6)

Sent: Saturday, February 01, 2020 7:54 PM

To: Goldner, Shannah (NBCUniversal) <shannah.goldner@nbcuni.com>

Subject: [EXTERNAL] RE: Thank you so much

## Hi - are we firm for tomorrow? need onsite contact info. thx

From: Goldner, Shannah (NBCUniversal) <shannah.goldner@nbcuni.com>

Sent: Saturday, February 1, 2020 1:28 PM

To: Conrad, Patricia (N:H/NIAID) [E] (b) (6)>

Cc: Routh, Jennifer (NIH/NIAID) [E] (6) (6) Stover, Kathy (NIH/NIAID)

[E] (b) (6) >

Subject: RE: Thank you so much

I will forward all that soon. Thank you!

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)>

Sent: Saturday, February 01, 2020 1:26 PM

To: Goldner, Shannah (NBCUniversal) <shannah.goldner@nbcuni.com>

Cc: Routh, Jennifer (NIH/NIAID) [E] (b) (6); Stover, Kathy (NIH/NIAID)

(b) (6)

Subject: [EXTERNAL] RE: Thank you so much

Yes — he can do that hit time — just let us know when it is firm. He will drive his car to the studio.

I will need an onsite name and cell number for him at the studio herein dc

(b) (6)
(b) (6); Stover, Kathy (NIH/NIAID)

With that said, I'll confirm the exact time at around 2pm our time, but I think the interview will be at approx 7:30am.

Would you like me to arrange transportation to and from the studio? We'd like Dr. Fauci to be at the studio by 7:10am-ish?

Thank you so much, Shannah

From: Conrad, Patricia (NIH/NIAID) [E]	(6) (6)
Sent: Saturday, February 01, 2020 12:41 PM	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
To: Goldner, Shannah (NBCUniversal) <shanna< td=""><td>h.goldner@nbcuni.com&gt;</td></shanna<>	h.goldner@nbcuni.com>
Cc: Routh, Jennifer (NIH/NIAID) [E]	(b) (b) >; Stover, Kathy (NIH/NIAID)
[E] (b) (6)	
Subject: [EXTERNAL] FW: request for a live into	erview tomorrow morning, on MSNBC
Importance: High	

Good afternoon -

I believe we can make this work – if we can – it would need to be done in your NBC Studio in WDC at 4001 Nebraska Ave NW

Will that work and what would the exact hit time be?

From: Goldner, Shannah (NBCUniversal) <shannah.goldner@nbcuni.com>

Sent: Saturday, February 1, 2020 11:09 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: request for a live interview tomorrow morning, on MSNBC

Importance: High

#### Dr. Fauci, good morning.

Are you available to do an interview tomorrow sometime in the 7:30 to 8am ET hour, to discuss the latest news about the Coronavirus? The interview would be one on one and approx 5mins. I saw you on the Today show yesterday and I would love to get you on MSNBC to discuss this, I know our viewers will have a better understanding of the situation if you can take us through it.

I can arrange a satellite location/transportation/whatever is needed to make this work out.

Thank you for your consideration and I hope to hear from you soon.

All the best,

Shannah

Shannah Goldner MSNBC W: 212-664-1289

W: 212-664-1285 C: (b) (6) From:

Fauci, Anthony (NIH/NIAID) [E] Sun, 2 Feb 2020 15:44:24 +0000

Sent:

Daley, George Q.

To:

Collins, Francis (NIH/OD) [E]

(b) (f); Marston, Hilary (NIH/NIAID)

[E]; Graham, Barney (NIH/VRC) [E]

Subject:

RE: Inquiry and possible pone call

#### George:

Thanks for the note. There is a lot of communications between scientists in China and their colleagues in the USA, many with whom they have been collaborating prior to the outbreak. There is no real "coordination" of this response since we do not know who is doing what until we are told – just like you have done here. Dr. Soumya Swaminathan, Chief Scientist at WHO is organizing a meeting on Feb. 11-12 in Geneva to try and develop a research agenda for nCoV. I am sure that Chinese scientists will be there. It might be helpful to contact her. Her e-mail address is

I hope that this is helpful. I will follow-up with a call.

Best, Tony

From: Daley, George Q. 4

(6)(6)>

Sent: Sunday, February 2, 2020 10:32 AM

To: Fauci, Anthony (NIH/NIAID) [E]

(b) (6); Fauci, Anthony (NIH/NIAID) [E]

(6) (6) >

Subject: Inquiry and possible pone call

## Dear Tony,

Alan Garber, Harvard's Provost, and I met yesterday with a team led by Jack Xia, the CEO of China's Evergrande Company, and Dr Jack Liu, Evergrande's chief health officer, who stated thy were acting on behalf of Dr Zhong Nanshan, China's key point person on the coronavirus outbreak (see below).

they arranged a conference call for tomorrow morning EST with Dr. Zhong.

While I have been mobilizing efforts of our community to react to the virus and to this request, I am not naïve to the challenging politics of such a relationship. I do not want to complicate or duplicate efforts already underway, and am writing to request whatever information you are willing to share on your current efforts to coordinate a response.

If a phone call is more facile, please do not hesitate to try my cell:

Sincerely,

## George

George Q. Daley, MD, PhD
Dean, Harvard Medical School
Caroline Shields Walker Professor of Medicine
Professor of Biological Chemistry and Molecular Pharmacology

Office of the Dean, Gordon Hall
25 Shattuck Street, Boston MA 02115
Contact: (8)(6)

From: Jack Liu Date: Saturday, February 1, 202	20 at 11:26 PM	
To: Public HMS Email	(b) (6)	
Cc: 谈朝晖	(6) (6), 陈敏 Min Chen	
	(b) (6)	
Subject: Follow up on today's n	neeting	
Dear Dr. Daley:		
Dear Dr. Daley: Per our discussion this afternoon i	n the conference room at your school,	(b) (4)
	n the conference room at your school,	(b) (d)
	n the conference room at your school,	(b) (f)
	n the conference room at your school,	(b) (4)

	(b) (4
A STATE OF THE STA	
Jack Liu, MD	

该邮件从移动设备发送

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sun, 2 Feb 2020 15:33:34 +0000

To: Collins, Francis (NIH/OD) [E]

Cc: Tabak, Lawrence (NIH/OD) [E]; Wolinetz, Carrie (NIH/OD) [E]; Conrad, Patricia

(NIH/NIAID) [E];Cassetti, Cristina (NIH/NIAID) [E];Marston, Hilary (NIH/NIAID) [E]

Subject: RE: 2019 novel Coronavirus Global research and Innovation forum: towards a

research roadmap Feb 11-12, 2020 Geneva WHO HQ

## Francis:

This is a meeting aimed at setting research priorities and I do not believe that it impacts or overlaps with the Tedros proposal. I will have my staff submit some names (mostly high level program people) to represent us at this meeting.

Tony

From: Collins, Francis (NIH/OD) [E] (b) (6)
Sent: Sunday, February 2, 2020 10:11 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Cc: Tabak, Lawrence (NIH/OD) [E] (b) (6); Wolinetz, Carrie (NIH/OD) [E]

(6) (6)

Subject: FW: 2019 novel Coronavirus Global research and innovation forum; towards a research

roadmap Feb 11-12, 2020 Geneva WHO HQ

Hi Tony,

Just encountered this message from Soumya of WHO, inviting attendance at a meeting in Geneva on Feb. 11 – 12. I'm not sure how that will fit with the Tedros proposal.

Who would be the right persons from NIH to propose for Soumya's meeting?

#### Francis

From: SWAMINATHAN, Soumya (b) (6) >
Sent: Friday, January 31, 2020 4:41 AM

(b) (6)

(c) Collins, Francis (NIH/OD) [E] (b) (6)

Cc: SATHIYAMOORTHY, Vaseeharan < (6) (6); RIVEROS BALTA, Alina Ximena (6) (6); BORGES, Andrea (6) (6); MCLELLAN, Faith (6) (6) >; HILL, Suzanne Rose (6) (6); GARAPO, Charity Helen (6) (6) >

Subject: 2019 novel Coronavirus Global research and innovation forum: towards a research roadmap Feb 11-12, 2020 Geneva WHO HQ

Dear All,

I am delighted to inform you that WHO is organizing a global research partners forum on February 11<sup>th</sup> and 12<sup>th</sup> in Geneva, to discuss research priorities related to the novel Corona virus. The expected outcome is a research roadmap with clearly defined priorities and a governance framework to take each thematic area forward. Several thematic areas will be considered at the meeting, namely: virus, diagnostics; natural history and transmission; clinical; therapeutics; vaccines; ethics; regulatory science; animal health; data/samples analysis and sharing and; social sciences. We believe that this meeting will be critical in consensus building on the most important research questions, as well as in building global partnerships and collaborations to take this work forward.

This meeting is being organized in partnership with GLOPID R and is being supported by the Bill and Melinda Gates foundation, DFID, Wellcome Trust and several other partners. The secretariat within WHO is the R&D blueprint, co-chaired by Dr Mike Ryan and myself.

As the head of an agency that would play an important role in addressing this new viral outbreak, either by undertaking or funding research, or both, I take great pleasure in inviting you to this meeting. I applicate for the short notice, but you will understand that we have had to plan this in the past few days, keeping in mind the evolving situation.

Kindly let me know if you (or your nominee) will be able to attend and if you need any support from us.

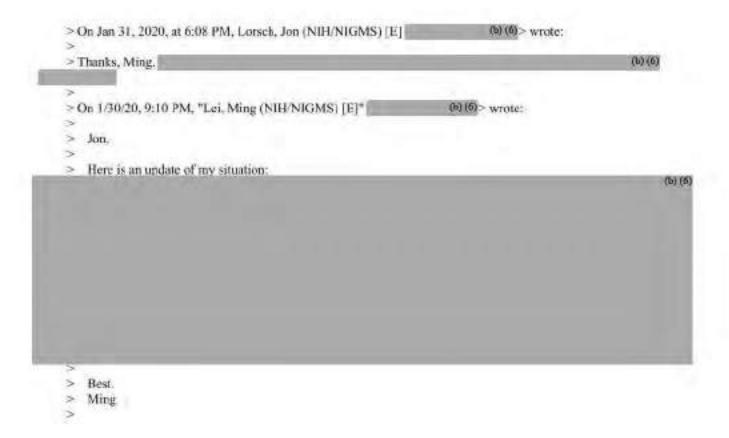
Please copy (6) (6) and (6) (6) in your response.

With best wishes, Soumya Chief Scientist

Sent: Sun, 2 Feb 2020 12:35:48 +0000 To: Lorsch, Jon (NIH/NIGMS) [E] Subject: RE: Update from Ming Exhausted, but OK. Thanks. --- Original Message----From: Lorsch, Jon (NIH/NIGMS) [E] (b) (6) > Sent: Sunday, February 2, 2020 7:35 AM To: Fauci, Anthony (NIH/NIAID) [E] (b) (d) Subject: Re: Update from Ming Thanks, Tony. I hope you are hanging in there! Jon On 2/1/20, 11:20 PM, "Fauci, Anthony (NIH/NIAID) [E]" (b) (6) > wrote: Jon: (b) (6) Best. Tony ----Original Message----From: Lorsch, Jon (NIH/NIGMS) [E] (b) (6) Sent: Friday, January 31, 2020 6:57 AM To: Fauci, Anthony (NIH/NIAID) [E] (b) (b) > Subject: FW: Update from Ming Tony, (b) (b) Jon On 1/31/29, 5:32 AM, "Lei, Ming (NIH/NIGMS) [E]" (b) (6) > wrote: Thanks, Jon. (b) (6) Ming Sent from my iPad

Fauci, Anthony (NIH/NIAID) [E]

From:



From: Sent: Fauci, Anthony (NIH/NIAID) [E] Sun, 2 Feb 2020 11:26:13 +0000

To:

Collins, Francis (NIH/OD) [E]; Tabak, Lawrence (NIH/OD) [E]; Wolinetz, Carrie

(NIH/OD) [E]

Subject:

RE: More on evolution of coronavirus

The Indian paper is really outlandish. Agree about Jon Cohen's nice summary.

From: Collins, Francis (NIH/OD) [E]

Sent: Sunday, February 2, 2020 5:58 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Tabak, Lawrence (NIH/OD) [E]

(b) (6) >; Wolinetz, Carrie (NIH/OD) [E] (b) (6) >

(b) (6)

Subject: More on evolution of coronavirus

In case you haven't seen, attached is the Indian paper claiming HIV sequences have been inserted into 2019-nCoV, which has been roundly debunked.

I found Jon Cohen's piece in Science to be a pretty useful summary:

https://www.sciencemag.org/news/2020/01/mining-coronavirus-genomes-clues-outbreak-s-origins

FC

	Fauci, Anthony (NIH/NIAID) [E] Sun, 2 Feb 2020 04:24:27 +0000	
To:	Cassetti, Cristina (NIH/NIAID) [E]	(6) (4)
Subject: Attachments:		(6)(3)
Attachments		E.
Please handle.		
From: Ryan Muldo		
	nuary 30, 2020 3:33 PM	
	y (NIH/NIAID) [E] < (b) (6)	
Subject:	(b) (4)	
Dear Tony,		
		(6
Cind regards,		
Kind regards, Ryan		
Ryan		
Ryan	arms	
PrEPBiopha	arm	
PrEPBiopha Ryan Muldoon	arm	
PrEPBiopha Ryan Muldoon	arm	
PrEPBiopha Ryan Muldoon CEO		
PrEPBiopha Ryan Muldoon CEO		

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 04:21:44 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Subject: FW: Dear Prof. Anthony Fauci, here is a request from MIT Technology

Review (Chinese)

NIAID inquiries, please.

From: Tao Sun (b) (6)
Sent: Friday, January 31, 2020 2:06 AM

To: Fauci, Anthony (NIH/NIAID) [E] 10) (6)>

Subject: Re: Dear Prof. Anthony Fauci, here is a request from MIT Technology Review (Chinese)

Dear Prof. Anthony Fauci,

Thank you. Dr. Catharine provided me useful information. As the epidemic develops, here are a few new questions to ask. Chinese readers want to know the opinions of foreign independent experts

- 1 Some media said Wuhan virus' fatality rate approaches that of the flu, saying that people need not panic. What do you think of this view? In reality, Chinese residents are already scared and are already rushing to buy masks.
- 2 RO is a developing number, and it is not easy to calculate. Does it make sense to talk about RO at this stage?
- 3 You had talked about asymptomatic patients, and how public health workers should treat asymptomatic people? AND why are some viral infections asymptomatic? Can they wear masks to help prevent epidemics?
- 4 To what extent will the closure of Wuhan prevent the epidemic?

Looking forward to your reply.

Best

Tao Sun (b) (6) > 于2020年1月24日周五 下午3:45写道:

Dear Prof. Anthony Fauci,

I am Tao Sun, a reporter from Beijing. I am currently writing reports for the MIT Technology Review. (Chinese).

JAMA published your article Coronavirus Infections—More Than Just the Common Cold, and Xinhua News Agency reported this article. Here are some questions I would like to ask you.

1 Some people think that it is not necessary to develop a new vaccine against SARS or coronavirus in

Wuhan. The reason is that, firstly, there is no commercial interest to pharmaceutical manufacturers, and secondly, such outbreaks may not return after the extinction. What do you think of these views?

- 2 For the Wuhan virus vaccine being developed, the epidemic is likely to be eliminated after three months, so is it still necessary to develop a vaccine?
- 3 You can talk about SARS. How much does a vaccine against SARS actually play?

Looking forward to your reply.

TAO SUN

DEEPTECH MIT Technology Review

(b) (b)

suntao@mittrchina.com

7th FL, Tower AB Office Park, 10 Jintong West Road, Chaoyang District, Beijing

http://www.mittrchina.com

TAO SUN

DEEPTECH MIT Technology Review

(b) (6)

suntao@mittrchina.com

7th FL, Tower AB Office Park, 10 Jintong West Road, Chaoyang District, Beijing

http://www.mittrchina.com

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 04:08:48 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: Strategy to attack 2019-nCoV coronavirus

Please handle.

From: Jingyue Ju (6) (6) Sent: Friday, January 31, 2020 12:39 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Redfield,

Robert R. (CDC/OD) (b) (6)

Cc: Mary C Boyce (b) (6); Lee Goldman (b) (6) >; Shelanski, Michael

(b) (d)

Subject: Strategy to attack 2019-nCoV coronavirus

Dear Drs. Fauci and Redfield,



Please let me know if you would like to receive the full manuscript.

Thank you very much for your consideration.

Sincerely,

Jingyue

Jingyue Ju, Ph.D.

Samuel Ruben-Peter G. Viele Professor of Engineering Professor of Chemical Engineering and Pharmacology Director, Center for Genome Technology & Biomolecular Engineering Columbia University

Northwest Corner Building, Room 1000M1

Phone: (b) (6) (Office) (b) (6) (Cell)

Fax: 212-851-9330

Email: (b) (6)

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sun, 2 Feb 2020 04:08:13 +0000

To: Arnold Monto

Subject: RE: Coronavirus issues

## Arnold:

Thanks for the note. I actually have recommended to several press people that they contact you when they ask for non-government experts. I will continue to do that.

Best, Tony

From: Arnold Monto 00 (6) > Sent: Friday, January 31, 2020 1:03 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Coronavirus issues

Hi, Tony:

As this progresses, and as other news items quiet, I am concerned that this is not being handled like the 2009 pandemic when you and Rich Besser functioned as something like a tag team. This gets really tricky when public health interventions are the way SARS was handled and remain the focus. I am being contacted by the media currently, not because I was in Beijing at the end of SARS but because of general epidemiology credentials. I am trying to put things into context based on past history, even though I know other sensational information may come to light which will further muddy the waters. And we know who will be the main muddiers.

Keiji put me on the 2009 WHO Emergency Committee as a non-governmental person who was not bound by clearances etc. I am trying to figure out if I can play that role here. I have not yet been contacted by Elizabeth Cohen, our mutual friend, but I am sure I will. The one thing I can do is to try to (6) (4)

I am attaching a paper which I wrote post 2009 which shows how the way it was handled adversely affected programs in much of Europe. It might be of interest to those who were not around at that time.

Regards

Arnold

Arnold S. Monto, M.D.
Thomas Francis Collegiate Professor
Department of Epidemiology
School of Public Health
University of Michigan

1415 Washington Heights Ann Arbor, MI 48109-2029 Tel: (0) (6) Fax: (734) 764-3192 From:

Fauci, Anthony (NIH/NIAID) [E] Sun, 2 Feb 2020 04:01:50 +0000

Sent: To:

toygar civelek

Subject:

RE: Coronavirus

# Many thanks!

From: toygar civelek

(b) (6) >

Sent: Friday, January 31, 2020 2:09 PM

To: Fauci, Anthony (NIH/NIAID) [E]

(6) (6)

Subject: Coronavirus

Dear Mr. Fauci,

I am hoping that this email reaches you as I saw this email address on line on the NIH website.

As we as the public get to hear, read and see with the current coronavirus scare, here in the US and worldwide, it is comforting to have professionals and experts like you, who really know what they are talking about, what is going on, what can be done, timelines, action plans, and inform the public in a reliable and comforting way, yet being very transparent, informing the public on social media.

Kudos to you sir and please keep up the excellent work.

Sincerely,

Mur. Civelek

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sun, 2 Feb 2020 04:01:28 +0000

To: Conrad, Patricia (NIH/NIAID) [E]

Cc: Greg Folkers (6) (6): Barasch, Kimberly (NIH/NIAID) [C]: Greg

Folkers (b) (6)

Subject: FW: Business Council - Invitation to speak at the February 20-21, 2020 meeting

at the Ritz Carlton (22nd and M St. NW), Washington, D.C.

Attachments: Fauci, Anthony Feb. 2020 Invitation.docx, BC Active Members Jan. 2020.pdf

I definitely want o do this. Please respond. Thanks.

From: Marlene Colucci <mcolucci@businesscouncil.com>

Sent: Friday, January 31, 2020 2:00 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E] 69.69 David Rubenstein <David.Rubenstein@carlyle.com>; MaryPat Decker <marypat.decker@carlyle.com>

Subject: Business Council - Invitation to speak at the February 20-21, 2020 meeting at the Ritz Carlton

(22nd and M St. NW), Washington, D.C.

Dear Dr. Fauci.

On behalf of our co-chairs for the winter meeting of The Business Council, David Rubenstein of The Carlyle Group and Ginni Rometty of IBM, we would like to formally invite you to participate in our meeting on February 20-21, 2020 in Washington, D.C. The theme of the meeting is "The Next Decade." (See formal invitation attached as well as list of CEO members).

We would like for you to participate in a 50 minute fireside chat with David Rubenstein (and possibly Dr. Francis Collins) to discuss the current coronavirus as well as what we should expect in the next decade. We want to give our CEOs insights into what the next 10 years will bring in terms of detection, diagnosis and treatment of diseases. All conversations are strictly off the record and closed press. We will cover all lodging and transportation.

As you know, The Business Council is comprised of the chief executive officers of the largest global corporations, representing all segments of the economy. We expect at least 150 CEO members, spouses and speakers to be in attendance.

As a participant you and your spouse are also invited to join us for our special reception, dinner and speaker at the REACH (Kennedy Center) on Thursday, February 20 at 6:30pm. It is the best opportunity for you to meet our CEO members and spouses, speakers and other special guests in an informal atmosphere.

If you are interested and available, please let me know. We can also set up a very brief call with you to discuss any additional details and answer any questions you may have. We look forward to hearing from you and would be honored to have you participate with us again.

Warmest regards,

## Marlene

# Marlene Colucci

EXECUTIVE DIRECTOR



 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 03:48:52 +0000

 To:
 Morens, David (NIH/NIAID) [E]

Subject: RE: Potential PHS Officer Deployment

Got it.

From: Morens, David (NIH/NIAID) [E] (b) (6)

Sent: Friday, January 31, 2020 4:54 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Auchincloss, Hugh (NIH/NIAID) [E]

(b) (6)>

Subject: Potential PHS Officer Deployment

Tony & Hugh, in follow up, the PHS has informed all PHS officers that as of 2/3 they are subject to deployment for coronavirus work "without supervisory approval", meaning that if needed, officers can be deployed and assigned anywhere, for indefinite periods, by the Assistant Secretary of Health.

We are hearing that many officers, especially physicians and nurses, may be deployed for quarantine efforts and to assist State agencies.

I haven't heard anything personally, but just want to let you know. These deployment orders can come with almost no advance warning, although I don't expect that.

David M. Morens, M.D.

David

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

6) (6) (assistants: Kimberly Barasch; Whitney Robinson)

= 301 496 4409

(16) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sun, 2 Feb 2020 03:28:01 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

 Subject:
 FW: Control 2019-nCoV Wuhan

Please handle.

From: (b) (6)

Sent: Saturday, February 1, 2020 8:21 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Control 2019-nCoV Wuhan

Tri-Prime Gene Pharmaceutical Co Beijing China Cheng YongQing CEO Tri-Prime Gene.

regards

My name is Robert Vera. I am [908] years old. I live in [90] (0) (6) Ecuador South America. Here in Ecuador in 1999 in shrimp farms in Ecuador there was a lethal disease among shrimp called the white spot virus syndrome. He appeared in 1999 in Ecuador and made shrimp sick and eliminated them. In China it appeared in 1993. White spot virus syndrome is caused by a virus from the nimaviridae family that infects a vibran parahaemolitycus, I applied more than 10 billion liters of natural and organic biological molecules of my invention for 10 years from 2002 to 2011 in more than 10 thousand hectares of shrimp farms. These molecules have antiviral characteristics and inhibit the glycoproteins of viruses. These glycoproteins are what open cell receptors to infect and replicate. Also these natural molecules invented (b) (6) Ecuador in 2001 inhibit the cytokinins that inflame hepatopancreas. Cytokinins cause the desquamation of epithelial cells from tubules that end up collapsing to the liver and shrimp pancreas. These viruses infect the parahaemolitycus vibrating bacteria and create an incurable syndrome in the shrimp. In 2002 we defeated this disease and controlled it ... with this Ecuador to produce little shrimp, now in 2019 it is the number one in the world to export shrimp. In the same way, the coronavirus 2019nCoV Wuhan infects the pneumococci of the lung and the respiratory syndrome develops. Wuhan coronavirus is the seventh among the coronaviruses after sars and mers. Another 4 are simpler in animals that cause the flu. 2019-nCoV causes 2% of deaths. There are 250 dead as of January 31, 2020 and more than 10 thousand infected in China. 20 countries have infections. It is transmitted even without symptoms and its incubation is 2 to 14 days.

We can spray with more than 1000 million liters of these virus inhibitory molecules throughout Wuhan. 1 million hectares (10,000 m2) can be fumigated by fumigation planes as they are made in banana plantations in Ecuador. We can inhibit all viruses with bacteria and biological molecules to inhibit viruses. And we can give them more than 100 million liters to take for more than 100 million liters for humans to more than 100 million inhabitants of the entire province of Hubei in China, so that they do not transmit coronaviruses ... and the seriously ill can also heal They are natural antibacterial, anviral and antifungal biological molecules ... they are immune regenerating cell bioimmunmodulators and immune boosting immune response in immunocompromised people who have diabetes and high blood pressure. Others may have cytokinin and immunoglobulin problems. We can finish with the 2019-nCoV Wuhan in the environment and in humans so be found in the lungs whose epithelial cells are already collapsing with an increase in inflammation and difficulty breathing. We can beat the coronaviruses

throughout China. Atte

Robert Vera



# Los fármacos que pueden combatir el coronavirus chino

 Científicos del Instituto de Salud de Estados Unidos proponen reutilizar antivirales diseñados contra el SARS para acelerar la llegada de tratamientos. Una nueva vacuna podria estar lista en solo tres meses, dicen



Enviado desde mi smartphone Samsung Galaxy.

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat, 1 Feb 2020 23:56:07 +0000

To: Jason Gale

Subject: RE: (BN) Coronavirus Lurking in Feces May Reveal Hidden Risk of Spread

Thanks, Jason. Best regards, Tony

From: Jason Gale (BLOOMBERG/ NEWSROOM:) < j.gale@bioomberg.net>

Sent: Saturday, February 1, 2020 6:20 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Subject: (BN) Coronavirus Lurking in Feces May Reveal Hidden Risk of Spread

## Hello Dr Fauci,

Just been watching the press conference on YouTube with you and your federal colleagues. Thought you might find this interesting, if you have time to breathe let alone read media reports! All the best and hope to see you at the end of next month. Jason

Coronavirus Lurking in Feces May Reveal Hidden Risk of Spread 2020-02-01 06:55:00.469 GMT

#### By Jason Gale

(Bloomberg) — While doctors have focused on respiratory samples from pneumonia cases to identify coronavirus patients, they might have ignored a less apparent and hidden source of the spread: diarrhea.

The novel coronavirus was detected in the loose stool of the first U.S. case — a finding that hasn't featured among case reports from Wuhan, China, the epicenter of the outbreak. However, that doesn't surprise scientists who have studied coronaviruses, nor doctors familiar with the bug that caused SARS.

Diarrhea occurred in about 10-20% of patients afflicted with severe acute respiratory syndrome about 17 years ago and was the source of an explosive SARS outbreak in the Amoy Gardens residential complex in Hong Kong.

SARS and Wuhan viruses bind to the same distinctly shaped protein receptors in the body that are expressed in the lungs and intestines, making these organs the primary targets for both viruses, said Fang Li, an associate professor of veterinary and biomedical sciences at the University of Minnesota. The discovery of the Wuhan virus, dubbed 2019-nCoV, in the

fecal material of the 35-year-old man treated at the Providence

Regional Medical Center Everett in Washington is "interesting," said Scott Lindquist, the state epidemiologist for infectious disease at Washington's Department of Health.

"That adds to the knowledge about this," he told reporters on a conference call Friday. "It's not only excreted in your respiratory secretions, it's also secreted in your stool." Read More: What You Need to Know About the Spreading Coronavirus

Researchers don't yet know how exactly 2019-nCoV spreads from person to person, but suspect it's most likely from coming into contact with virus-containing droplets that could be emitted by an infected person's cough and transferred to their hands or surfaces and objects.

#### Face Masks

That's led to a run on face masks. But those may be of limited benefit in the event the virus is being transmitted via the fecal-oral route, said John Nicholls, a clinical professor of pathology at the University of Hong Kong. Squat latrines, common in China, lacking covers and hands that aren't washed thoroughly with soap and water after visiting the bathroom could be a source of virus transmission, said Nicholls, who was part of the research team that isolated and characterized the SARS virus.

A virus-laden aerosol plume emanating from a SARS patient with diarrhea was implicated in possibly hundreds of cases at Hong Kong's Amoy Gardens housing complex in 2003. That led the city's researchers to understand the importance of the virus's spread through the gastrointestinal tract, and to recognize both the limitation of face masks and importance of cleanliness and hygiene, Nicholls said in an interview.

"I think in Wuhan, that would be a very likely place where you might get the transmission" from fecal material, he said. "If it's using the same receptor as for SARS, I can't see why it shouldn't be replicating in the gut."

Nicholls and colleagues at the University of Hong Kong are testing laboratory models of human tissues and specimens to understand where and how the Wuhan virus replicates, he said.

## **Emerging Evidence**

Doctors have reported diarrhea infrequently in 2019-nCoV patients admitted to Wuhan hospitals, though it's been more prominent among reported cases outside the city, including members of a Shenzhen family infected in Wuhan, and more recently in the first U.S. case in Washington state. That patient experienced a two-day bout of diarrhea from which a sample tested positive.

The lab in Washington didn't attempt to grow the virus from that specimen, said Lindquist, the state epidemiologist, "because it wasn't going to add anything to his care." Many of the emerging coronaviruses are so-called pneumoenteric viruses, meaning they can replicate both in the respiratory tract and the gastrointestinal system, said Ralph Baric, professor of microbiology and immunology at the Gillings School of Global Public Health at the University of North Carolina at Chapel Hill, who has studied coronaviruses for decades.

Overwhelmed by hundreds of severely sick pneumonia patients, doctors in Wuhan might not have focused on any gastric signs, Baric said in a phone interview.

## 'So Overwhelmed'

been missed.

"The Chinese are so overwhelmed at the moment and trying to do a combination of treating patients and dealing with the scope of the outbreak, and then trying to get out papers that describe what's happening," he said.

Any virus in stool is more likely to be present during the acute phase of an infection, occuring before hospitalized patients develop a life-threatening complication known as acute respiratory distress syndrome, Baric said.

"I have also spent most of my time focusing on the respiratory tract symptomology rather than the gut because of the relationship between these different emerging viruses and acute respiratory distress syndrome," he said.

Zijian Feng, deputy director general of Chinese Center for Disease Control and Prevention, and colleagues released a report Wednesday on the first 425 Wuhan cases, and noted that early infections that didn't appear to display typical signs — such as fever and viral pneumonia — or had mild symptoms might have

"The initial focus of case detection was on patients with pneumonia, but we now understand that some patients can present with gastrointestinal symptoms," Feng and co-authors said in their report, which was published in the New England Journal of Medicine.

Emerging evidence of virus-containing diarrhea warrants further investigation, said Peter Collignon, a professor of clinical medicine at the Australian National University Medical School in Canberra, who advises the Australian government on infection control.

"This is something new," Collignon said in an interview.
"We presume it's respiratory droplets, but with SARS there was evidence of other routes. We have to keep an open mind."

To contact the reporter on this story:
Jason Gale in Melbourne at j.gale@bloomberg.net
To contact the editors responsible for this story:
Brian Bremner at bbremner@bloomberg.net;
Shamim Adam at sadam2@bloomberg.net

From:	Fauci, Anthony (NIH/NIAID) [E]			
Sent:	Sat, 1 Feb 2020 23:19:46 +0000			
To:	Cassetti, Cristina (NIH/NIAID) [E]			
Subject:	FW: article from IIT/India on Coronovirus			
Attachments:		(b) (4)		
The same of the same of				
Maria Caralla				
Please handle.				
From: Hong Cai	(6) (6)			
	bruary 1, 2020 5:33 PM			
	rbrody@gmail.com>; Fauci, Anthony (NIH/NIAID) [F]	(b) (6)>		
	from IIT/India on Coronovirus	11098000		
Dear Fauci,				
I knew you must	be super busy with the recent Coronavirus outbreak.	(b) (4)		
		(5) (4)		
		5700		

Thank you for your assistance in advance!



Hong Cai, Ph.D
Co-Founder and CEO
Mesa Biotech, Inc.
6190 Cornerstone Court East, Suite 220
San Diego, CA 92121
www.mesabiotech.com

(b) (6)

(b) (6)

From: WRB (b) (6)

Date: Saturday, February 1, 2020 at 7:27 AM

To: "Anthony (NIH/NIAID) Fauci [E]"	(5) (6)	
Cc: Hong Cai (6) (6)		
Subject: article from IIT/India on Coronovirus		
Hi Tany,		
I hope you are coping with the chaos around of	coronavirus.	
I am 6000 but still active, currently chair of I	Mesa Biotech, a	(9)(4)
		(6) (4)
No doubt you have seen, but in case not, I am	conding a conv	
No doubt you have seen, but in case not, I am	sending a copy.	
Hopefully someone at NIH is trying to replicat	e this study or to find proble	ems with their
methodology.	e this study of to find proble	enis with their
With best wishes,		
Bill		
William R. Brody		
(6) (6) Johns Hopkins University		
Salk Institute for Biologica	l Studies	

From: Fauci, Anthony (NIH/NIAID) [E] Sat, 1 Feb 2020 22:06:26 +0000 Sent: Jeremy Farrar; Collins, Francis (NIH/OD) [E] To: Subject: RE: Teleconference Thanks, Jeremy. We really appreciate what you are doing here. Pleasure to work with you. Best, Tony (b) (6) > From: Jeremy Farrar Sent: Saturday, February 1, 2020 4:00 PM To: Collins, Francis (NIH/OD) [E] < (b) (6) > Cc: Fauci, Anthony (NIH/NIAID) [E] Subject: Re: Teleconference We are altogether as you know! Conversations with you and Tony, and Patrick and others - always great working with you both From: Francis Collins (0)(0)> Date: Saturday, 1 February 2020 at 20:50 To: Jeremy Farrar (6)(6) Cc: "Fauci, Anthony (NIH/NIAID) [E]" (b) (6) Subject: Re: Teleconference Hi Jeremy, I can make myself available at any time 24/7 for the call with Tedros. Just let me know. Thanks for your leadership on this critical and sensitive issue. Francis Sent from my iPhone On Feb 1, 2020, at 3:07 PM, Jeremy Farrar (b) (6) > wrote: I have rejoined so a line is open if any help to rejoin. From: Jeremy Farrar (b) (6)> Date: Saturday, 1 February 2020 at 19:56 To: "Fauci, Anthony (NIH/NIAID) [E]" (6) (6), Francis Collins (b) (6)>, Michael FMedSci (b) (6), Patrick Vallance | (b) (6)

Subject: Re: Teleconference

Can I suggest we shut down the call and then redial in?

Just for 5-10mins?

	Koopmans y, 1 February 2020 at 19	2-43		
		(b) (6) >		
To: Jeremy Fa		STATE OF THE PARTY		was a
Cc: "Fauci, An	thony (NIH/NIAID) [E]"	The second of th	Patrick Va	illance
	(b) (d) "D	rosten, Christian"		
		(b) (6)		
	(b) (6) >, Edward	Holmes		(6) (6)
	The same of the same of		(b) (6)	
	(b)(6)>, "Kristian G. A	ndersen"	(b) (6)	Paul
Schreier	The state of the s	(b) (6	The second secon	( X ( X ( X ( X ( X ( X ( X ( X ( X ( X
<	(6)(6) Michael FMed	Sci	(6)	(6) Francis
Collins	(b) (6)>	V-0,-1		11/2/19/20/20
Subject: Re: T	eleconference			

On 1 Feb 2020, at 19:12, Jeremy Farrar	(b) (6) > wrote:
Kristen and Eddie have shared this and v you.	vill talk through it on the call. Thank
Hope it will help frame the discussions.	
From: Jeremy Farrar	(b) (6)>
Date: Saturday, 1 February 2020 at 1	5:34

1st February (2nd Feb for Eddie)
Information and discussion is shared in total confidence and not to be shared until agreement on next steps.

Dial in details attached.

Please mute phones.

I will be on email throughout – email Paul or I Paul if any problems If you cannot make it, I will phone you afterwards to update.

#### One Hour

6am Sydney 8pm CET 7pm GMT 2pm EST 11am PST (Hope I have the times right!)

Thank you for the series of calls and for agreeing to join this call.

# Agenda

- · Introduction, focus and desired outcomes JF
- Summary KA
- · Comments EH
- · Q&A-All
- · Summary and next steps JF

Kristian Anderson

Bob Garry - I have not been able to contact Bob. Please forward if you can.

Christian Drosten

Tony Fauci

Mike Ferguson

Ron Fouchier

Eddie Holmes

Marion Koopmans

Stefan Pohlmann

Andrew Rambaut

Paul Schreier
Patrick Vallance

<Coronavirus sequence comparison[1].pdf>

From:

Fauci, Anthony (NIH/NIAID) [E]

Sent:

Sat, 1 Feb 2020 22:00:47 +0000 Marston, Hilary (NIH/NIAID) [E]

To:

Conrad, Patricia (NIH/NIAID) [E]

Subject:

FW: FOR YOUR REVIEW: Staff Communication on Novel Coronavirus

Attachments:

Draft\_AllStaff\_Novel\_Coronavirus\_2.1.2020.docx,

Draft\_OHR\_Flexibilities\_Novel\_Coronavirus\_2.1.2020.docx

## Please handle this. Thanks

From: Myles, Renate (NIH/OD) [E] (b) (6)> Sent: Saturday, February 1, 2020 4:12 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>; Billet, Courtney (NIH/NIAID) [E] (b) (6) >; Stover, Kathy (NIH/NIAID) [E] < (b) (6) >; Routh, Jennifer (b) (6)> (NIH/NIAID) [E] Cc: Tabak, Lawrence (NIH/OD) [E] (b) (6)>; Gottesman, Michael (NIH/OD) [E] (b) (6); Johnson, Alfred (NIH/OD) [E] (b) (6) >; Berko, Julie (b) (6); McGowan, Colleen (NIH/OD/ORS) [E] (NIH/OD) [E] (b) (6); Burklow, John (NIH/OD) [E] (b) (6)>; Chandler, Beth (NIH/OD) [E] (b) (6) Subject: FOR YOUR REVIEW: Staff Communication on Novel Coronavirus

Good afternoon, Dr. Fauci and team:

Working in coordination with OHR, ORS, OIR, and others, we have developed two communication products to address questions/concerns that are being raised by NIH staff related to the novel coronavirus. The two products are:

- 1. All staff email from Dr. Collins to provide general information and guidance to NIH staff
- QA for use by Executive Officers (not for broad distribution) on human resources flexibilities in response to coronavirus

These products are provided for your review and guidance. We also plan to share with HHS for review/awareness. The current plan to disseminate these products on Monday. We look forward to your input.

Best, Renate

Renate Myles, MBA Deputy Director for Public Affairs

Office of Communications and Public Lisison

National Institutes of Health

Tot. (b) (6)

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat, 1 Feb 2020 20:03:12 +0000

To: Jeremy Farrar
Subject: RE: Teleconference

Yes

From: Jeremy Farrar (b) (6)
Sent: Saturday, February 1, 2020 2:56 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Collins, Francis (NIH/OD) [E] (b) (6); Ferguson, Mike (b) (6); Patrick Vallance

(b) (6)

Subject: Re: Teleconference

Can I suggest we shut down the call and then redial in?

Just for 5-10mins?

From: Marion Koopmans (b) (6)

Date: Saturday, 1 February 2020 at 19:43
To: Jeremy Farrar (b) (6)

Cc: "Fauci, Anthony (NIH/NIAID) [E]" (b) (6), Patrick Vallance

(b) (6) >, "Drosten, Christian" (b) (6) >,
(b) (6) Edward Holmes
(b) (6) >,
(b) (6) >,
(c) (6) "Kristian G. Andersen" (b)

Paul Schreier (0)(6)
Michael FMedSci (0)(6)>, Francis Collins (0)(6)>

Subject: Re: Teleconference

(b) (5)

On 1 Feb 2020, at 19:12, Jeremy Farrar < (b) (6) > wrote:

Kristen and Eddie have shared this and will talk through it on the call. Thank you.

Hope it will help frame the discussions.

From: Jeremy Farrar (6)(6)>

Date: Saturday, 1 February 2020 at 15:34

1st February (2nd Feb for Eddie)
Information and discussion is shared in total confidence and not to be shared until
agreement on next steps.

Dial in details attached.

Please mute phones.

I will be on email throughout – email Paul or I Paul if any problems

If you cannot make it, I will phone you afterwards to update.

## One Hour

6am Sydney 8pm CET 7pm GMT 2pm EST 11am PST (Hope I have the times right!)

Thank you for the series of calls and for agreeing to join this call.

## Agenda

- · Introduction, focus and desired outcomes JF
- Summary KA
- Comments EH
- Q&A All
- · Summary and next steps JF

Kristian Anderson

Bob Garry - I have not been able to contact Bob. Please forward if you can.

Christian Drosten

Tony Fauci Mike Ferguson Ron Fouchier Eddie Holmes Marion Koopmans Stefan Pohlmann Andrew Rambaut Paul Schreier Patrick Vallance

<Coronavirus sequence comparison[1].pdf>

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sat, 1 Feb 2020 19:02:40 +0000

To: Auchincloss, Hugh (NIH/NIAID) [E]

Auchincioss, nugli (Nin/NiAiD) [c]

Subject: FW: Offering assistance during this public health emergency

Please handle.

From: Albert Rizzo (6) (6) Sent: Friday, January 31, 2020 5:11 PM

To: Fauci, Anthony (NIH/NIAID) [E] 09(6)

Cc: Harold Wimmer (b) (6)

Subject: Offering assistance during this public health emergency

Hello Dr. Fauci:

As the coronavirus continues to be a public health emergency, the American Lung Association is closely following guidance and reports being issued by NIAID, WHO, and CDC. Our Association is working to help relay important public health information provided by the various agencies.

As Chief Medical Officer for the American Lung Association, and with the full support of our CEO, Harold Wimmer, and our Board of Directors, I would like to offer the American Lung Association support on strategies that would be appropriate for our organization to participate in or communicate.

I am happy to discuss any potential opportunities in which you feel we may be of assistance.

Sincerely,

Albert A. Rizzo MD FACP FCCP Chief Medical Officer American Lung Association Cell (6) (6)

Fauci, Anthony (NIH/NIAID) [E] From: Sent: Sat. 1 Feb 2020 18:55:58 +0000 To: Cassetti, Cristina (NIH/NIAID) [E] Subject: FW: Consultancy request - Coronavirus Please handle. From: Tatsch, Fernando Franciosi (b) (6) > Sent: Friday, January 31, 2020 6:39 PM To: Fauci, Anthony (NIH/NIAID) [E] (b) (b) > Cc: Bacher, Hans P < (b) (6) >; Vallabh, Bhadrish < (b) (6) > Subject: RE: Consultancy request - Coronavirus Dear Dr. Fauci, The below invitation is for a meeting identical to an advisory board. We wonder if a short phone call could be beneficial to offer further context. With best regards, Fernando Tatsch FERNANDO TATSCH, MD, MBA Therapeutic Area Head - HCV / RSV Global Medical Affairs 2SW 102 08 | 1 N Waukegan Rd | North Chicago, IL 60064 OFFICE | (b) (6) | CELL (b) (d) abbvie.com This communication may contain information that is proprietary, confidential, or exempt from disclosure. If you are not the intended recipients please note that any other dissemination, distribution, use or copying of this communication is strictly prohibited. Anyone who receives this message in error should notify the sender immediately by telephone or by return e-mail and delete it from his or her computer. From: Tatsch, Fernando Franciosi Sent: Thursday, January 30, 2020 4:53 PM (b) (b)

Subject: Consultancy request - Coronavirus

Dear Dr. Fauci,

On behalf of AbbVie, I would like to explore your interest and availability for a scientific consultation.

AbbVie is interested in your scientific view of the 2019-nCoV epidemic.

Your assessment will be very informative for us in the context of (6) (4)

If you are interested, we will need a brief CV in order to elaborate a consultation contract.

Once the contract is executed, we would like to invite you for a phone conference which will include few medical AbbVie colleagues.

Looking forward to hearing from you.

With best regards, Fernando Tatsch

#### FERNANDO TATSCH, MD, MBA

Therapeutic Area Head – HCV / RSV Global Medical Affairs

2SW 102 08 | 1 N Waukegan Rd | North Chicago, IL 60064 OFFICE + (b) (6) | CELL - (b) (6) | EMAIL (b) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 18:50:25 +0000

 To:
 Conrad, Patricia (NIH/NIAID) [E]

Cc: Billet, Courtney (NIH/NIAID) [E];Barasch, Kimberly (NIH/NIAID) [C]

Subject: FW: 60 Minutes / Coronavirus

If we can fit this in next week depending on what is hitting the fan, I will do it.

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6) >

Sent: Friday, January 31, 2020 7:53 PM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6) >

Subject: Fwd: 60 Minutes / Coronavirus

Pls advise

Sent from my iPhone

Begin forwarded message:

From: "Stover, Kathy (NIH/NIAID) [E]" (0) (6)>

Date: January 31, 2020 at 7:52:16 PM EST

To: "Conrad, Patricia (NIH/NIAID) [E]" (b) (6):

Cc: "Billet, Courtney (NIH/NIAID) [E]" (b) (6) >, "Routh, Jennifer (NIH/NIAID)

[E]" (b) (6)

Subject: Fwd: 60 Minutes / Coronavirus

Hi Patty,

See below. Would Dr. Fauci want to meet with this 60 Mins producer, or shall I suggest an alternative? Note, this isn't for on-camera—it's background for a potential story.

Sent from my iPhone

Begin forwarded message:

From: "Lieberman, Marc E." <MLP@cbsnews.com>

Date: January 31, 2020 at 5:57:24 PM EST

To: (b) (6)

Subject: 60 Minutes / Coronavirus

Hi, I am a producer at 60 Minutes researching a possible story about the coronavirus outbreak. The effort to find a vaccine strikes me as interesting and I wonder if we might be to chat about it. I am going to be in the DC area next week. Would you have time for a brief meeting either Wednesday morning or Tuesday? Thanks in advance for your help.

Best,

## Marc Lieberman

Marc Lieberman | Producer | 60 Minutes | w: 212-975-6385 c: 6)(6)

Folkers, Greg (NIH/NIAID) [E] To: Subject: RE: ASF: Dan Chertow invitation No problem with Dan doing this. From: Folkers, Greg (NIH/NIAID) [E] (6)(6)> Sent: Friday, January 31, 2020 10:05 PM To: Billet, Courtney (NIH/NIAID) [E] (b) (6) Fauci, Anthony (NIH/NIAID) [E] (b) (6)> Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6); Conrad, Patricia (NIH/NIAID) [E] (b) (6) Routh, Jennifer (6) (6)>; Stover, Kathy (NIH/NIAID) [E] (b) (6) (NIH/NIAID) [E] Subject: RE: ASF: Dan Chertow invitation Agree with Courtney Dan is a good speaker and would represent nih well From: Billet, Courtney (NIH/NIAID) [E] (b) (6) > Sent: Friday, January 31, 2020 9:40 PM To: Fauci, Anthony (NIH/NIAID) [E] < (b) (6)> Cc: Marston, Hilary (NIH/NIAID) [E] (b) (b) Folkers, Greg (NIH/NIAID) [E] (b) (6)>; Stover, Kathy (b) (6); Conrad, Patricia (NIH/NIAID) [E] (b) (6)> (NIH/NIAID) [E] (b)(0)>; Routh, Jennifer (NIH/NIAID) [E] Subject: ASF: Dan Chertow invitation Dan Chertow has been asked to speak at this event, which has some rather high profile participants and media attendance. He would like to do it. NIH is asking if NIAID is ok with him doing this. Do you agree? From: "Cohen, Justin (NIH/CC/OD) [E]" (b) (6)> Date: Friday, January 31, 2020 at 4:43:08 PM (b) (6), "Fine, Amanda (NIH/OD) [E]" To: "Myles, Renate (NIH/OD) [E]" (b) (6)>, "Routh, Jennifer (NIH/NIAID) [E]" (b) (6)>, "Billet, Courtney (b) (d) (NIH/NIAID) [E]" Cc: "Burklow, John (NIH/OD) [E]" (b) (6), "Wojtowicz, Emma (NIH/OD) [E]"

Fauci, Anthony (NIH/NIAID) [E]

Sat. 1 Feb 2020 18:45:22 +0000

From: Sent:

## (b) (6), "NIAID NEWS (NIH/NIAID)" < NIAIDNEWS@niaid.nih.gov>

Subject: FW: coronavirus speaking opportunity

Obviously given the current environment (not to mention some of the names involved in the event). I want to make sure I'm in lockstep with you all from square one. How would you like me to proceed with the request below? The event is open to the public / press.

From: Chertow, Daniel (NIH/CC/CCMD) [E] (b) (6) >

Sent: Thursday, January 30, 2020 6:16 PM

To: Cohen, Justin (NIH/CC/OD) [E] (b) (0) >; Freimuth, Molly (NIH/CC/OC) [E]

(b) (6)>

Cc: Suffredini, Anthony (NIH/CC/CCMD) [E] (b) (d)>; Masur, Henry (NIH/CC/CCMD) [E]

(b) (6)

Subject: FW: Hudson Institute speaking request

Dear Justin,

I am checking back in with you regarding the below invitation to speak.

I would like to participate in this if possible.

Please confirm that you have received my email.

Thank you.

Sincerely,

Dan

From: "Asha M. George" <asha.george@biodefensecommission.org>

Date: Thursday, January 30, 2020 at 6:09 PM

To: "Chertow, Daniel (NIH/CC/CCMD) [E]" (b) (6) >

Subject: Re: Hudson Institute speaking request

#### Dear Dan.

Sorry, we have changed something slightly. Instead of taking questions directly from the audience, we will obtain questions from the audience via email while the first part of the event occurs, curate them, and then have them available for Senator Lieberman to ask them of the speakers.

Asha

## Asha M. George, DrPH

Executive Director

#### BIPARTISAN COMMISSION ON BIODEFENSE

202,974,2416

biodefensecommission.org

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From: Asha M. George <asha.george@biodefensecommission.org>

Sent: Thursday, January 30, 2020 6:02 PM

To: Chertow, Daniel (NIH/CC/CCMD) [E] (b) (6)

Subject: Re: Hudson Institute speaking request

#### Dear Dan.

Here are some more specifics regarding the event we will holding at Hudson Institute on novel coronavirus. The meeting will be on February 10th, from 2:00 - 3:30 pm in the Stern Conference Center at Hudson Institute, which is located at 1201 Pennsylvania Avenue, NW, 4th floor, Washington, DC 20004.

We also have the executive conference room reserved from 1:30 pm on. Please plan to arrive around then, so that you can talk with Senator Lieberman and the other speakers before the event starts at 2:00 pm. Just ask the receptionist to direct you where to go.

#### Here are the speakers:

- Former Senator Joe Lieberman, co-chair, Bipartisan Commission on Biodefense
- Dr. Julie Gerberding, Executive Vice President & Chief Patient Officer, Strategic Communications, Global Public Policy and Population Health, Merck; former Director, Centers for Disease Control and Prevention
- Dr. Billy Karesh, ex officio, Bipartisan Commission on Biodefense; Executive VP, EcoHealth Alliance
- The Honorable Tim Morrison, Senior Fellow, Hudson Institute; former Deputy Assistant to President Trump for National Security; former Special Assistant to the President and Senior Director for Weapons of Mass Destruction and Biodefense
- · Mr. Eric Brown, Senior Fellow, Hudson Institute

 Dr. Daniel S. Chertow (CAPT - US Public Health Service), Head, Emerging Pathogens Section, Critical Care Medicine Department, Clinical Center & Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, National Institutes of Health (invited)

The setting will be relatively informal. Scooter Libby will first introduce Senator Lieberman. Then Senator Lieberman will make a short opening statement, and look to Billy to set the stage and talk about the zoonotic nature of the disease, associated disease management considerations, etc., in about 5 minutes. The Senator will then ask each of the other speakers to say a few words from their perspectives. After that, Senator Lieberman will ask some questions of the group, allowing you all to answer and converse. All of this should take about 45 minutes. Then we will allow the audience to ask questions.

We are planning for Senator Lieberman to moderate the discussion and take questions from the audience, but if for some reason he cannot do so, then Billy Karesh will.

I hope you will be able to make it, Dan. Let me know if you have any questions (and if you will be able to make it, of course) and I look forward to seeing you on February 10th.

Asha

Asha M. George, DrPH

Executive Director

BIPARTISAN COMMISSION ON BIODEFENSE

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From: Chertow, Daniel (NIH/CC/CCMD) [E]

Sent: Tuesday, January 28, 2020 7:18 PM

To: Asha M. George <asha.george@biodefensecommission.org>

Subject: Re: Hudson Institute speaking request

Dear Asha,

Given that this is a public/press event, I will require additional clearance from my organization in order to participate.

(b) (6) >

I will reach out to them now and get back to you.

Thank you.

Dan

From: "Asha M. George" <asha.george@biodefensecommission.org>

Date: Tuesday, January 28, 2020 at 7:15 PM

To: "Chertow, Daniel (NIH/CC/CCMD) [E]" (6) (6) >

Subject: Re: Hudson Institute speaking request

#### Dear Dan.

Thank you! The meeting will be held on February 10th. We are still trying to nail down a time with Senator Lieberman and Governor Ridge, so I will get back to you about that as soon as possible, hopefully tomorrow.

The meeting will be open to the public and to the press, but Hudson Institute is a think tank, so it's never a negative or rowdy crowd.

Asha

## Asha M. George, DrPH

Executive Director

BIPARTISAN COMMISSION ON BIODEFENSE

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From: Chertow, Daniel (NIH/CC/CCMD) [E] (b) (6)

Sent: Tuesday, January 28, 2020 5:53 PM

To: Asha M. George <asha.george@biodefensecommission.org>

Subject: Re: Hudson Institute speaking request

Dear Asha,

I am available Feb 10<sup>th</sup> or 13<sup>th</sup> and would be happy to present to the group.

Please clarify who will be in attendance and if the event is open or closed to press/public as this would require additional clearance on my end.

Thank you.

Sincerely,

Dan

Daniel S. Chertow, MD, MPH, FCCM, FIDSA CAPT, United States Public Health Service Head, Emerging Pathogens Section Critical Care Medicine Department, NIH Clinical Center & Laboratory of Immunoregulation, NIAID

From: "Asha M. George" <asha.george@biodefensecommission.org>

Date: Monday, January 27, 2020 at 6:09 PM

To: "Chertow, Daniel (NIH/CC/CCMD) [E]"

Subject: Hudson Institute speaking request

(6) (6)

Dear Dr. Chertow,

I am the Executive Director of the Bipartisan Commission on Biodefense, co-chaired by former Senator Joe Lieberman and Governor Tom Ridge. Our fiscal sponsor is Hudson Institute, one of the think tanks here in DC. Hudson Institute's chair of the board of trustees (Sarah May Stern) has asked Hudson Institute to run a 90 minute meeting on the novel coronavirus situation. Hudson has asked us to help them pull a brief meeting together in short order.

Considering your experience on the ground dealing with other outbreaks, Hudson Institute invites you to speak at this event. In addition to one of Hudson Institute's China experts, we are also seeing whether Senator Lieberman and Governor Ridge are available to speak.

Here are the dates they are a looking at: February 6, February 10, and February 13. Could you let me know if you are available and if so, when on those dates?

Thank you for your consideration, Dan. I look forward to hearing from you soon.

Asha

## Asha M. George, DrPH

Executive Director

BIPARTISAN COMMISSION ON BIODEFENSE

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From: Sent: Fauci, Anthony (NIH/NIAID) [E] Sat. 1 Feb 2020 18:43:31 +0000

To:

Kristian G. Andersen

Subject:

RE: FW: Science: Mining coronavirus genomes for clues to the outbreak's origins

Thanks, Kristian. Talk soon on the call.

From: Kristian G. Andersen (b) (6) >

Sent: Friday, January 31, 2020 10:32 PM

To: Fauci, Anthony (NIH/NIAID) [E] (6) (6)

Cc: Jeremy Farrar (b) (6) >

Subject: Re: FW: Science: Mining coronavirus genomes for clues to the outbreak's origins

Hi Tony,

Thanks for sharing. Yes, I saw this earlier today and both Eddie and myself are actually quoted in it. It's a great article, but the problem is that our phylogenetic analyses aren't able to answer whether the sequences are unusual at individual residues, except if they are completely off. On a phylogenetic tree the virus looks totally normal and the close clustering with bats suggest that bats serve as the reservoir. The unusual features of the virus make up a really small part of the genome (<0.1%) so one has to look really closely at all the sequences to see that some of the features (potentially) look engineered.

We have a good team lined up to look very critically at this, so we should know much more at the end of the weekend. I should mention that after discussions earlier today, Eddie, Bob, Mike, and myself all find the genome inconsistent with expectations from evolutionary theory. But we have to look at this much more closely and there are still further analyses to be done, so those opinions could still change.

Best, Kristian

On Fri, Jan 31, 2020 at 18:47 Fauci, Anthony (NIH/NIAID) [E] (b) (6) > wrote:

Jeremy/Kristian:

This just came out today. You may have seen it. If not, it is of interest to the current discussion.

(b) (6)

Best, Tony

From: Folkers, Greg (NIH/NIAID) [E]

Sent: Friday, January 31, 2020 8:43 PM

Subject: Science: Mining coronavirus genomes for clues to the outbreak's origins



As part of a long-running effort to see what viruses bats harbor, researchers in China collect one from a cave in Guandong.

EcoHealth Alliance

# Mining coronavirus genomes for clues to the outbreak's origins

By Jon CohenJan. 31, 2020, 6:20 PM

attaaaggtt tatacettee eaggtaacaa accaaccaac titegatete tigtagatet ...

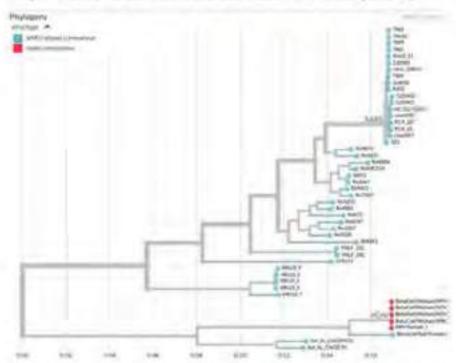
That string of apparent gibberish is anything but: It's a snippet of a DNA sequence from the viral pathogen, dubbed 2019 novel coronavirus (2019-nCoV), that is overwhelming China and frightening the entire world. Scientists are publicly sharing an ever-growing number of full sequences of the virus from patients—53 at last count in the Global Initiative on Sharing All Influenza Data database. These viral genomes are being intensely studied to try to understand the origin of 2019-nCoV and how it fits on the family tree of related viruses found in bats and other species. They have also given glimpses into what this newly discovered virus physically looks like, how it's changing, and how it might be stopped.

"One of the biggest takeaway messages [from the viral sequences] is that there was a single introduction into humans and then human-to-human spread," says Trevor Bedford, a bioinformatics specialist at the University of Washington, Seattle. The role of Huanan Seafood Wholesale Market in Wuhan, China, in spreading 2019-nCoV remains murky, though such sequencing, combined with sampling the market's environment for the presence of the virus, is clarifying that it indeed had an important early role in amplifying the outbreak. The viral sequences, most researchers say, also knock down the idea the pathogen came from a virology institute in Wuhan.

In all, 2019-nCoV has nearly 29,000 nucleotides bases that hold the genetic instruction book to produce the virus. Although it's one of the many viruses whose genes are in the form of RNA, scientists convert the viral genome into DNA, with bases known in shorthand as A, T, C, and G, to make it easier to study. Many analyses of 2019-nCoV's sequences have already appeared on virological.org, nextstrain.org, preprint servers like bioRxiv, and even in peer-reviewed journals. The sharing of the sequences by Chinese researchers allowed public health labs around the world to develop their own diagnostics for the virus, which now has been found in 18 other countries. (Science's news stories on the outbreak can be found here.)

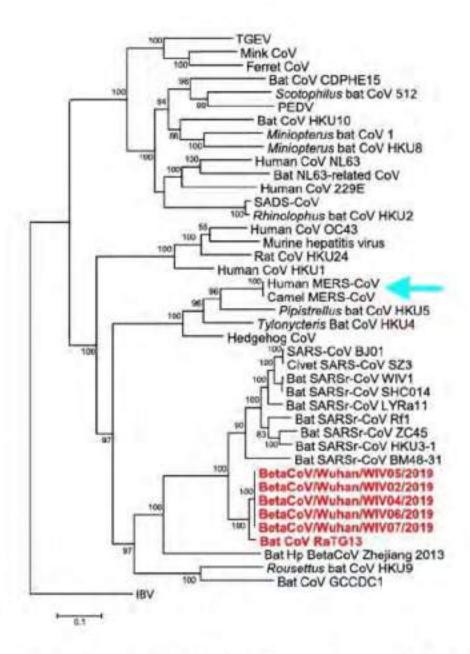
When the first 2019-nCoV sequence became available, researchers placed it on a family tree of known coronaviruses—which are abundant and infect many species—and found that it was most closely related to relatives found in bats. A team led by Shi Zheng-Li, a coronavirus specialist at the Wuhan Institute of Virology, reported on 23 January on bioRxiv that 2019-nCoV's sequence was 96.2% similar to a bat virus and had 79.5% similarity to the coronavirus that causes severe acute respiratory syndrome (SARS), a disease whose initial outbreak was also in China more than 15 years ago. But the SARS coronavirus has a similarly close relationship to bat viruses, and sequence data make a powerful case that it jumped into people from a coronavirus in civets that differed from human SARS viruses by as few as 10 nucleotides. That's one reason why many scientists suspect there's an "intermediary" host species—or several—between bats and 2019-nCoV.

According to Bedford's analysis, the bat coronavirus sequence that Shi Zheng-Li's team highlighted, dubbed RaTG13, differs from 2019-nCoV by nearly 1100 nucleotides. On nextstrain.org, a site he cofounded, Bedford has created coronavirus family trees (example below) that include bat, civet, SARS, and 2019-nCoV sequences. (The trees are interactive—by dragging a computer mouse over them, it's easy to see the differences and similarities between the sequences.)



Bedford's analyses of RaTG13 and 2019-nCoV suggest that the two viruses shared a common ancestor 25 to 65 years ago, an estimate he arrived at by combining the difference in nucleotides between the viruses with the presumed rates of mutation in other coronaviruses. So it likely took decades for RaTG13-like viruses to mutate into 2019-nCoV.

Middle East respiratory syndrome (MERS), another human disease caused by a coronavirus, similarly has a link to bat viruses. But studies have built a compelling case it jumped to humans from camels. And the phylogenetic tree from Shi's bioRxiv paper (below) makes the camel-MERS link easy to see.



The longer a virus circulates in a human populations, the more time it has to develop mutations that differentiate strains in infected people, and given that the 2019-nCoV sequences analyzed to date differ from each other by seven nucleotides at most, this suggests it jumped into humans very recently. But it remains a mystery which animal spread the virus to humans. "There's a very large gray area between viruses detected in bats and the virus now isolated in humans," says Vincent Munster, a virologist at the U.S. National Institute of Allergy and Infectious Diseases who studies coronaviruses in bats, camels, and others species.

Strong evidence suggests the marketplace played an early role in spreading 2019-nCoV, but whether it was the origin of the outbreak remains uncertain. Many of the initially confirmed 2019-nCoV cases—27 of the first 41 in one report, 26 of 47 in another—were connected to the Wuhan market, but up to 45%, including the earliest handful, were not. This raises the possibility that the initial jump into people happened elsewhere.

According to Xinhua, the state-run news agency, "environmental sampling" of the Wuhan seafood market has found evidence of 2019-nCoV. Of the 585 samples tested, 33 were positive for 2019-nCoV and all were in the huge market's western portion, which is where wildlife were sold. "The positive tests from the wet market are hugely important," says Edward Holmes, an evolutionary biologist at the University of Sydney who collaborated with the <u>first group</u> to publicly release a 2019-nCoV sequence. "Such a high rate of positive tests would strongly imply that animals in the market played a key role in the emergence of the virus."

Yet there have been no preprints or official scientific reports on the sampling, so it's not clear which, if any, animals tested positive. "Until you consistently isolate the virus out of a single species, it's really, really difficult to try and determine what the natural host is," says Kristian Andersen, an evolutionary biologist at Scripps Research.

One possible explanation for the confusion about where the virus first entered humans is if there was a batch of recently infected animals sold at different marketplaces. Or an infected animal trader could have transmitted the virus to different people at different markets. Or, Bedford suggests, those early cases could have been infected by viruses that didn't easily transmit and sputtered out. "It would be hugely helpful to have just a sequence or two from the marketplace [environmental sampling] that could illuminate how many zoonoses occurred and when they occurred," Bedford says.



A research group sent fecal and other bodily samples from bats they trapped in caves to the Wuhan Institute of Virology to search for coronaviruses.

#### EcoHealth Alliance

In the absence of clear conclusions about the outbreak's origin, theories thrive, and some have been scientifically shaky. A sequence analysis led by Wei Ji of Peking University and published online by the Journal of Medical Virology received substantial press coverage when it suggested that "snake is the most probable wildlife animal reservoir for the 2019-nCoV." Sequence specialists, however, pilloried it.

Conspiracy theories also abound. A CBC News report about the Canadian government deporting Chinese scientists who worked in a Winnipeg lab that studies dangerous pathogens was distorted on social media to suggest that they were spies who had smuggled out coronaviruses. The Wuhan Institute of Virology, which is the premier lab in China that studies bat and human coronaviruses, has also come under fire. "Experts debunk fringe theory linking China's coronavirus to weapons research," read a headline on a story in The Washington Post that focused on the facility. Concerns about the institute predate this outbreak. Nature ran a story in 2017 about it building a new biosafety level 4 lab and included molecular biologist Richard Ebright of Rutgers University, Piscataway, expressing concerns about accidental infections, which he noted repeatedly happened

with lab workers handling <u>SARS</u> in <u>Beijing</u>. Ebright, who has a long history of raising red flags about studies with dangerous pathogens, also in 2015 <u>criticized an experiment</u> in which modifications were made to a <u>SARS</u>-like virus circulating in Chinese bats to see whether it had the potential to cause disease in humans. Earlier this week, Ebright <u>questioned the accuracy</u> of Bedford's calculation that there are at least 25 years of evolutionary distance between RaTG13—the virus held in the Wuhan virology institute—and 2019-nCoV, arguing that the mutation rate may have been different as it passed through different hosts before humans. Ebright tells <u>Science</u>Insider that the 2019-nCoV data are "consistent with entry into the human population as a natural accident."

Shi did not reply to emails from Science, but her longtime collaborator, disease ecologist Peter Daszak of the EcoHealth Alliance, dismissed Ebright's conjecture. "Every time there's an emerging disease, a new virus, the same story comes out: This is a spillover or the release of an agent or a bioengineered virus," Daszak says. "It's just a shame. It seems humans can't resist controversy and these myths, yet it's staring us right in the face. There's this incredible diversity of viruses in wildlife and we've just scratched the surface. Within that diversity, there will be some that can infect people and within that group will be some that cause illness."



A team of researchers from the Wuhan Institute of Virology and the EcoHealth Alliance have trapped bats in caves all over China, like this one in Guangdong, to sample them for coronaviruses. EcoHealth Alliance

Daszak and Shi's group have for 8 years been trapping bats in caves around China to sample their feces and blood for viruses. He says they have sampled more than 10,000 bats and 2000 other species. They have found some 500 novel coronaviruses, about 50 of which fall relatively close to the SARS virus on the family tree, including RaTG13—it was fished out of a bat fecal sample they collected in 2013 from a cave in Moglang in Yunnan province. "We cannot assume that just because this virus from Yunnan has high sequence identity with the new one that that's the origin," Daszak says, noting that only a tiny fraction of coronaviruses that infect bats have been discovered. "I expect that once we've sampled and sampled across southern China and central China that we're going to find many other viruses and some of them will be closer [to 2019-nCoV]."

It's not just a "curious interest" to figure out what sparked the current outbreak, Daszak says. "If we don't find the origin, it could still be a raging infection at a farm somewhere, and once this outbreak dies, there could be a continued spillover that's really hard to stop. But the jury is still out on what the real origins of this are."

Posted in:

Asia/Pacific

- Health
- Coronavirus

doi:10.1126/science.abb1256



Jon Cohen

Jon is a staff writer for Science.

- Email Jon
- Twitter

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 18:39:50 +0000

 To:
 Billet, Courtney (NIH/NIAID) [E]

Subject: FW: Possible cure medically to the new coronavirus, corona virus, from wuhan

china.

Attachments: medicalcure.docx

NIAID inquiries, please

From: andrew igla (6)(6) > Sent: Saturday, February 1, 2020 2:22 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>

Subject: Fw: Possible cure medically to the new coronavirus, corona virus, from wuhan china.

read this email.

From: andrew igla (b) (6)

Sent: Tuesday, 28 January 2020 6:36 PM

To: secretary@hhs.gov <secretary@hhs.gov>

Subject: Fw: Possible cure medically to the new coronavirus, corona virus, from wuhan china.

From: andrew igla (b) (6) >
Sent: Sunday, 26 January 2020 9:10 PM
To: secretary@hhs.gov <secretary@hhs.gov>

Subject: Possible cure medically to the new coronavirus, corona virus, from wuhan china.

For secretary Azar this email.

From: andrew igla (b) (6) > Sent: Sunday, 26 January 2020 8:59 PM

To: secretary@HHS.gov <secretary@HHS.gov>

Subject: Possible cure medically to the new coronavirus, corona virus, from wuhan china.

From: andrew igla (b) (6)

Sent: Sunday, 26 January 2020 1:25

This email is to be sent to the doctors treating medically patients in hospitals involving the new coronavirus, corona virus, from wuhan china. This email contains the possible medical cure to the new coronavirus, corona virus, from wuhan china. URGENT. Discovered from an australian friend of the american people, andrew igla.

This email is about orally taking zovirax and ciproxin together for one day.

Orally taking ciproxin, inhibiting gyrase, orally taking zovirax, inhibiting viral DNA polymerase, together at the same time, stops viral dna moving medically curing viruses in host cells stoping duplicating viral infected cells and stoping a virus invading new uninfected cells.

Attached document contains possible medical cure to new corona virus from wuhan in china to help you win over this virus.

Dear professor and politican,

My name is andrew igla and work as a research science person in dengue virus and anaconda sea snake virus.

Attached is a business document for you.

Thanks,

Andrew igla. melbourne australia.

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 18:35:10 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: 2019-nCoV

Attachments: Aminopeptidase N inhibitors and Coronaviruses-LANCET 2003.pdf

#### Please handle.

From: Kontoviannis, Dimitrios P (b) (6) >

Sent: Saturday, February 1, 2020 1:28 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >

Subject: FW: 2019-nCoV

Dear Dr Fauci, I enjoyed your recent editorial in JAMA re Coronaviruses
Although the viral disease is not an area of my expertise, you might want to take a look
at a hypothesis we had proposed, long ago (back in the era of SARS), re the potential of
immune-modulating Coronavirus infection natural history with blockage of
aminopeptidase N.

I am not aware of any studies whether aminopeptidase is a receptor of China 2019nCoV, though.

Sincerely DPK

Dimitrios P. Kontoviannis, MD, ScD, PhD (Hon), FACP, FIDSA, FECMM, FAAM, FAAAS

Texas 4000 Distinguished Endowed Professor For Cancer Research Deputy Head, Division of Internal Medicine The University of Texas MD Anderson Cancer Center

ECMM Diamond Excellence in Mycology Center/www.ecmm.info

Adj Professor Baylor College of Medicine Adj Professor UT School of Public Health

Adj Professor University of Houston

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 18:34:43 +0000

 To:
 Tabak, Lawrence (NIH/OD) [E]

Subject: FW: Teleconference

Attachments: Coronavirus sequence comparison[1].pdf

FYI

From: Jeremy Farrar (b) (6) >

Sent: Saturday, February 1, 2020 1:13 PM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6) >; Patrick Vallance (b) (6)

Cc: Drosten, Christian (b) (6); Marion Koopmans

(b) (6) >; R.A.M. Fouchier (b) (6); Edward Holmes

(b) (6) Andrew Rambaut (b) (6); Paul Schreier (b) (6);

(6) (6); Ferguson, Mike (b) (6); Collins, Francis (NIH/OD) [E]

(b) (b)

(b) (6)

Subject: Re: Teleconference

Kristen and Eddie have shared this and will talk through it on the call. Thank you.

Hope it will help frame the discussions.

From: Jeremy Farrar (6) (6)

Date: Saturday, 1 February 2020 at 15:34

#### 1st February (2nd Feb for Eddie)

Information and discussion is shared in total confidence and not to be shared until agreement on next steps.

Dial in details attached.

Please mute phones.

I will be on email throughout – email Paul or I Paul if any problems

If you cannot make it, I will phone you afterwards to update.

#### One Hour

6am Sydney 8pm CET 7pm GMT 2pm EST 11am PST (Hope I have the times right!)

Thank you for the series of calls and for agreeing to join this call.

### Agenda

- · Introduction, focus and desired outcomes JF
- · Summary KA
- · Comments EH
- · Q&A-All
- . Summary and next steps JF

Kristian Anderson

Bob Garry - I have not been able to contact Bob. Please forward if you can.

Christian Drosten

Tony Fauci

Mike Ferguson

Ron Fouchier

Eddie Holmes

Marion Koopmans

Stefan Pohlmann

Andrew Rambaut

Paul Schreier

Patrick Vallance

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat, 1 Feb 2020 18:23:07 +0000

To: Kay Johnson

Subject: RE: thank you for continuing leadership

Kay:

Thank you for your kind note. Much appreciated.

Best regards,

Tony

From: Kay Johnson (b) (6

Sent: Saturday, February 1, 2020 9:15 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: thank you for continuing leadership

Dear Dr. Fauci - We met long ago when I was a young health policy staff person at the Children's Defense Fund and you gave a talk on HIV/AIDS at the annual CDF conference around 1984-86.

When I served on the National Vaccine Advisory Committee (NVAC) during the 1990-91 measles epidemic and helped to write the measles whitepaper, I had other occasions to hear your insights.

Since that time, I have frequently heard you on the PBS NewsHour and NPR, I see your perspectives in JAMA and other journals. (For example, this week I heard NPR piece and read JAMA opinion piece on coronavirus.) In every instance, I am struck again by how clearly you articulate the science, the issues for public concern, and options for our nation's response.

While I've worked with many public health leaders and watched others in the media over the past 35 years of my Maternal and Child Health public policy career, I believe no one is better at communications than you. It is in some ways a thankless job. I am writing to say that your continuing leadership and dedication to our nation's health is deeply appreciated by me and millions of others.

Best regards, Kay

Kay Johnson

President, Johnson Group Consulting, Inc.

voice: (b) (6) fax: 802-482-3008

Email: (b) (6

From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sat, 1 Feb 2020 17:56:42 +0000

To: Cassetti, Cristina (NIH/NIAID) [E]

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: article from IIT/India on Coronovirus

Attachments: 20200130.2019-nCOV sequence paper.927871v1.full.pdf

Please handle.

From: WRB Gmail < (b) (b) >> Sent: Saturday, February 1, 2020 10:27 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Cc: Hong Cai (b) (6)
Subject: article from IIT/India on Coronovirus

Hi Tony,

I hope you are coping with the chaos around coronavirus.



No doubt you have seen, but in case not, I am sending a copy.

Hopefully someone at NIH is trying to replicate this study or to find problems with their methodology.

With best wishes, Bill

William R. Brody

(b) (b) Johns Hopkins University

The for Biologica Salk Institute for Biological Studies From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat. 1 Feb 2020 17:54:38 +0000

To: Greg Folkers (b) (6)

Cc: Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: POLITICO: New FDA chief plans for 'the most serious scenarios' of

coronavirus outbreak

We should make a similar slide for upcoming talks.

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)

Sent: Saturday, February 1, 2020 10:44 AM

Subject: POLITICO: New FDA chief plans for 'the most serious scenarios' of coronavirus outbreak

#### EXCLUSIVE

## New FDA chief plans for 'the most serious scenarios' of coronavirus outbreak

CBD, drug prices, safety — plus Wuhan coronavirus — make for a crowded agenda for Stephen Hahn.



The FDA for years has mostly stayed out of the debate around drug prices | Jacquelyn Martin, File/AP Photo

By SARAH OWERMOHLE and SARAH KARLIN-SMITH

01/31/2020 04:54 PM EST

Updated: 01/31/2020 05:28 PM EST

New FDA commissioner Stephen Hahn faced a jam-packed agenda: opioids, CBD, vaping, and how to let states safely import drugs. Then the Wuhan coronavirus broke out.

The virus was declared a public health emergency by HHS just a few hours after Hahn's exclusive interview with POLITICO Friday. That kicks the agency into overdrive in multiple roles — helping speed vaccine, drug and diagnostic test development while also trying to avoid shortages of drugs and devices the United States needs that are made in China.

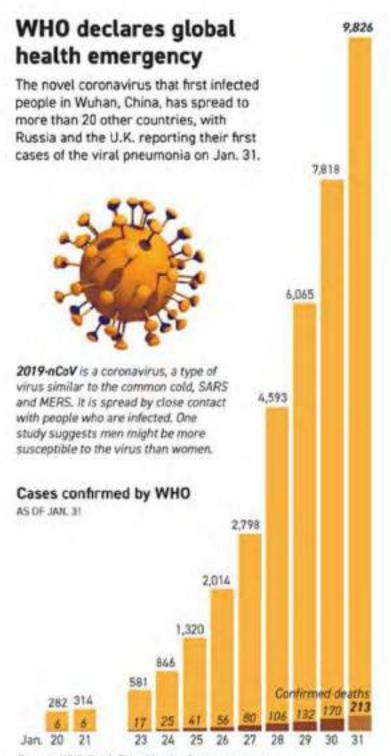
#### Advertisement

Hahn said there have not been any reports yet of disruption of the supply chain or shortages, but the agency is looking ahead and planning for "what could potentially be the most serious of scenarios." As of now FDA inspections in China are being conducted on a case-by-case basis. "We are taking on an individual-by-individual basis what's the regulatory need for anything in China ... versus what are the personnel risks associated," he said.

Monitoring the the situation in China could soon get trickier as the State Department expands mandatory evacuation from affected areas of the country.

The coronavirus also broke out in an election year when President Donald Trump wants to deliver on his promise to bring down drug prices — not traditionally the province of the FDA, a regulatory agency designed to focus on safety and efficacy.

"If my patients couldn't get access to something because of cost — that was a real problem for me as a doctor. Now I'm on the other end of that, but what can we do to make sure that that pipeline flows in the best way possible?" said Hahn, 60, an oncologist, researcher and Washington newcomer. Hahn was confirmed as commissioner on Dec. 18, the night before the administration announced its plan to let states import cheaper medicines from Canada — an approach that prior FDA commissioners opposed over fears it would jeopardize the safety of the drug supply. Trump has endorsed letting states such as Florida do this.



Sources: WHD, South China Morning Post, news reports

By Patterson Clark, POLITICO Pro DataPoint

Patterson Clark/POLITICO Pro DataPoint

"There is a compelling reason that the American people want us to consider this and so we're going to have to figure this one out and balance both of those issues," Hahn said, referring to safety and affordability.

The FDA for years has mostly stayed out of the debate around drug prices; the agency doesn't regulate the cost of medicines or health insurance coverage. But Hahn talked up FDA's role in getting prices down by approving more generics, acknowledging that "the American people are expecting us to do more." Trump has touted the FDA's record on boosting competition via generic approvals.

As FDA works on finalizing the importation rule, Hahn said the agency will be open to addressing criticism that states can't save money bringing in drugs from Canada if the pathway is too burdensome. But he stressed safety is tantamount. "Our primary concern is the protection of the drug supply," he said.

Hahn said he has also talked with CMS Administrator Seema Verma about addressing costs of new brand-name products that are approved with limited data sets, similar to the way CMS decides to cover some medical devices. That approach — known as coverage with evidence development — lets CMS cover a new product on the condition that manufacturers keep providing data.

FDA has not done that, but new medicines are increasingly being approved on smaller clinical trials without hard data on clinical benefits — and can come with six-figure price tags.

As an academic, Hahn had co-written an editorial suggesting that payments for newly approved radiation oncology devices could be linked to older products until enough evidence builds up to show that the new products are superior. Only then would manufacturers have more pricing leeway. "It's a CMS call about coverage with evidence development, but I do think in this world where we are concerned, and rightfully so, about the cost of medicine and health et cetera, that we should be looking at all avenues to approach that," he told POLITICO.

Over the last few years, some critics have said the FDA is overcorrecting and moving too quickly to approve drugs without adequate evidence. But Hahn did not indicate he would put the brakes on. "At the end of the day there is this balance between the gold standard and being efficient and getting things in people's hands I'm totally confident in the agency's ability to do that." Hahn must balance all that while leading the FDA's response to the Wuhan crisis, which has heightened some lawmakers' concern about U.S. reliance on Chinese drug manufacturing after incidents of contamination with carcinogens.

"We have to be concerned about the supply chain to make sure that we have enough of what we need if there are any potential outbreaks here," Rep. Susan Brooks (R-Ind.) said after a closed-door briefing Thursday for Energy and Commerce committee members with top health officials. The fact that China manufactures much of the protective medical gear used in U.S. hospitals and clinics "should cause us to be reexamining what we're doing in China versus what should be brought back to this country." she said.

Outside of the coronavirus, a host of thorny regulatory issues await Hahn. Industry and lawmakers have pressed for a clear FDA framework on selling cannabidiol, the popular hemp and marijuana byproduct decriminalized by the 2018 farm bill — and since sold as medicine, dietary supplements and infused in food, cosmetics and skincare products.

"You cannot walk down the street without seeing the products" but there is a dearth of solid data on how safe and effective CBD actually is, said Hahn.

Those CBD challenges have fueled larger discussions about how to better regulate the vast dietary supplement market, where manufacturers often push legal boundaries by making unverified claims about how herbal or homeopathic products can help people.

"It will be something else next," said Hahn. We don't want to overstep our bounds but we want to make sure that safe and effective products are in the hands of people."

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From: Fauci, Anthony (NIH/NIAID) [E]

Sent: Sat, 1 Feb 2020 17:51:31 +0000

To: Auchincloss, Hugh (NIH/NIAID) [E]

Subject: RE: Continued

OK. Stay tuned.

--- Original Message---

From: Auchineloss, Hugh (NIH/NIAID) [E] (b) (6)

Sent: Saturday, February 1, 2020 11:47 AM

To: Fauci, Anthony (NIH/NIAID) [E] < (b) (0) >

Subject: Continued

The paper you sent me says the experiments were performed before the gain of function pause but have since been reviewed and approved by NIH. Not sure what that means since Emily is sure that no Coronavirus work has gone through the P3 framework. She will try to determine if we have any distant ties to this work abroad.

Sent from my iPad

 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 17:32:40 +0000

 To:
 Cassetti, Cristina (NIH/NIAID) [E]

Subject: FW: 2019 Novel Coronavirus: NanoViricides Confirms It Has Been Working On A

Treatment For The Novel Wuhan Coronavirus

Pease handle.

----Original Message-----

From: Amit Gupta (b) (6): Sent: Saturday, February 1, 2020 12:23 PM

To: Fasci, Anthony (NIH/NIAID) [E] 0) (6) >

Subject: 2019 Novel Coronavirus: NanoVirusides Confirms It Has Been Working On A Treatment For The Novel

Wohan Coronavirus

Dear Dr. Fauci.

Wondering if you have see the coronavirus treatment news. I know you were involved in Ebola previously. You are a great Scientist and Doctor.

Coronavirus update: WHO says prepare for local coronavirus outbreaks in other countries;

What do you think about this treatment.

Regards, Amit

SHELTON, CONNECTICUT — Thursday, January 30, 2020 — NanoViricides, Inc. (NYSE Amer.: NNVC) (the 
\*Company"), a global leader in the development of highly effective antiviral therapies based on a novel 
nanomedicines platform, is confirming public disclosures in articles by various industry journals and other articles, 
that it is working on developing a treatment for the novel coronavirus 2019-nCoV, or the Wuhan coronavirus.

"We have already initiated a program for developing a treatment for the 2019-nCOV," said Anil R. Diwan, PhD, President and Executive Chairman of the Company, adding, "Our platform technology enables possibly the most rapid pathway for new drug development against viral diseases. Of course, we will need support from governmental and international agencies such as the US CDC, WHO, and Chinese CDC to successfully develop these treatments, and, if developed, to get them to the patients in the fastest possible time. At this time, the Company does not have a collaboration with any of these agencies, and we have not been contacted by any of these entities or asked to develop a treatment for this virus. We had collaborations with the CDC and USAMRIID in the past. The Company intends to pursue a relevant collaboration for testing of our drug candidates soon."

The new 2019-nCoV is known to be closely related to the SARS-CoV of 2002-2003 epidemic. In fact it has been shown to use the same cell surface receptor as SARS-CoV, namely ACE2.

"We have already found some lead candidate ligands in our chemical library that can bind to the SARS-CoV spike protein in the same fashion as it binds to the cognate receptor, ACE2, using molecular modeling tools," explained Dr. Diwan, adding, "We believe this means we may already be significantly ahead in developing a potential treatment for the new Wuhan virus."

While the Company commissions synthesis of the anti-aCoV nanoviricide drug candidates for testing, some of which are already in our hands, in parallel, the Company has also started preparing for testing of the candidates in cell cultures against certain known BSL2 coronaviruses, including ones that use the ACE2 receptor. Less threatful viruses in the same family that use the same receptor can serve as valid test viruses for screening our broad-spectrum antiviral drug candidates. The Company has its own BSL2-certified virology laboratory at its Shelton campus where

it intends to perform this testing.

The Company has its own cGMP-capable drug manufacturing facility. This highly customizable facility can be employed to produce several thousand doses of drugs per batch for treating coronavirus patients, if the Company's drug successfully transitions to obtaining an exploratory treatment approval for use in patients.

The Company's platform technology has already proven that it can result in safe drugs. The Company's first INDready clinical drug candidate, namely NV-HHV-101, has successfully undergone a standard battery of Safety and Toxicological testing, as previously disclosed by the Company in press releases and SEC filings.

The Company is building on its previous work against coronaviruses. The Company's technology relies on copying the human cell-surface receptor to which the virus binds, and making small chemicals that are called "ligands" that will bind to the virus in the same fashion as the cognate receptor. These ligands are chemically attached to a nanomicelle, to create a nanoviricide. It is anticipated that when a virus comes in contact with the nanoviricide, not only would it land on the nanoviricide surface, binding to the copious number of ligands presented there, but it would also get entrapped because the nanomicelle polymer would turn around and fuse with the virus lipid envelop, harnessing a well known biophysical phenomenon.

"It is like a 'Venus-Fly-Trap' for the virus," explained Dr. Diwan.

The Company focuses on developing broad-spectrum ligands and, thereby, broad-spectrum nanoviricides, copying the specific human cellular receptor. No matter how much a virus mutates, it lands on the same cell surface receptor, and binds in the same fashion. Thus, it is highly unlikely that a virus might escape a nanoviricide against it, in spite of mutations.

In 2014, the Company had worked on developing antiviral treatments against MERS-CoV, and coronaviruses in general. It had developed potential candidates for testing in animal models. The MERS-CoV threat was eclipsed by the Ebola epidemic of 2015. The Company developed viable drug candidates against Ebola in a rapid response time of a few weeks and sent them for testing to USAMRIID. These initial candidates showed significant activity. The Company believes that another cycle of optimization would have resulted in a candidate ready for animal testing under the criteria established by USAMRIID then.

During these previous crises, the Company did not have the modern labs, the cGMP drug manufacturing facility or the BSL2 virology testing facility, all of which were commissioned after 2015 at its modern campus in Shelton, CT.

The Company is preparing an IND application for its first clinical drug candidate to go into human clinical trials. This drug candidate, NV-HHV-101, is a skin cream with the treatment of shingles rash as its first indication. It has shown broad-spectrum activity against HSV-1 (cause of "cold sores"), HSV-2 (cause of "genital ulcers"), and VZV (the varicella-zoster virus, that causes chickenpox in children and immune-compromised humans, and shingles in adults).

NV-HHV-101 has already gone through standard battery of safety-toxicological testing, which provides confidence that our platform is capable of creating safe drugs.

The Company has its own cGMP-capable drug manufacturing facility where it intends to produce the drugs for clinical supply.

The Company's top priority remains working on its first IND application for NV-HHV-101. The Company intends to solicit interest and financing from government agencies in order to accelerate its work on the coronaviruses.

The market size for the treatment of shingles is estimated at approximately one billion dollars by various estimates. These estimates take into account the Shingrix® vaccine as well as existing vaccines. About 500,000 to 1 million cases of shingles occur in the USA alone every year.

The market size for our immediate target drugs in the HerpeCide<sup>TM</sup> program is variously estimated at billions to tens of billions of dollars. The Company believes that its dermal topical cream for the treatment of shingles rash will be

its first drug heading into clinical trials. The Company believes that additional topical treatment candidates in the HerpeCide<sup>TM</sup> program, namely, HSV-1 "cold sores" treatment, and HSV-2 "genital ulcers" treatment are expected to follow the shingles candidate into IND-enabling development and then into human clinical trials. These additional candidates are based on NV-HHV-101, thereby maximizing return on investments and shareholder value.

The Company develops its class of drugs, that we call nanoviricides®, using a platform technology. This approach enables rapid development of new drugs against a number of different viruses. A nanoviricide is a "biomimetic" - it is designed to "look like" the cell surface to the virus. The nanoviricide® technology enables direct attacks at multiple points on a virus particle. It is believed that such attacks would lead to the virus particle becoming ineffective at infecting cells. Antibodies in contrast attack a virus particle at only a maximum of two attachment points per antibody. In addition, the nanoviricide technology also simultaneously enables attacking the rapid intracellular reproduction of the virus by incorporating one or more active pharmaceutical ingredients (APIs) within the core of the nanoviricide. The nanoviricide technology is the only technology in the world, to the best of our knowledge, that is capable of both (a) attacking extracellular virus, thereby breaking the reinfection cycle, and simultaneously (b) disrupting intracellular production of the virus, thereby enabling complete control of a virus infection.

#### About NanoViricides

NanoViricides, Inc.(www.nanoviricides.com)is a development stage company that is creating special purpose nanomaterials for antiviral therapy. The Company's novel nanoviricide® class of drug candidates are designed to specifically attack enveloped virus particles and to dismantle them. Our lead drug candidate is NV-HHV-101 with its first indication as dermal topical cream for the treatment of shingles rash. The Company is also developing drugs against a number of viral diseases including oral and genital Herpes, viral diseases of the eye including EKC and herpes keratitis, H1N1 swine flu, H5N1 bird flu, seasonal Influenza, HIV, Hepatitis C, Rabies, Dengue fever, and Ebola virus, among others. The Company's technology is based on broad, exclusive, sub-licensable, field licenses to drugs developed in these areas from TheraCour Pharma, Inc. This press release contains forward-looking statements that reflect the Company's current expectation regarding future events. Actual events could differ materially and substantially from those projected herein and depend on a number of factors. Certain statements in this release, and other written or oral statements made by NanoViricides, Inc. are "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You should not place undue reliance on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are, in some cases, beyond the Company's control and which could, and likely will, materially affect actual results, levels of activity, performance or achievements. The Company assumes no obligation to publicly update or revise these forward-looking statements for any reason, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future. Important factors that could cause actual results to differ materially from the company's expectations include, but are not limited to, those factors that are disclosed under the heading "Risk Factors" and elsewhere in documents filed by the company from time to time with the United States Securities and Exchange Commission and other regulatory authorities. Although it is not possible to predict or identify all such factors, they may include the following: demonstration and proof of principle in preclinical trials that a nanoviricide is safe and effective; successful development of our product candidates; our ability to seek and obtain regulatory approvals, including with respect to the indications we are seeking; the successful commercialization of our product candidates; and market acceptance of our products. FDA refers to US Food and Drug Administration. IND application refers to "Investigational New Drug" application. CMC refers to "Chemistry, Manufacture, and Controls".

Contact: NanoViricides, Inc. info@nanoviricides.com 
 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 13:19:06 +0000

 To:
 Tabak, Lawrence (NIH/OD) [E]

Subject: FW: IMPORTANT

Attachments: Baric, Shi et al - Nature medicine - SARS Gain of function.pdf

#### Here it is

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520

Phone: (b) (6) FAX: (301) 496-4409

E-mail: (b) (6)

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 12:43:22 +0000

 To:
 Marston, Hilary (NIH/NIAID) [E]

 Co:
 Conrad, Patricia (NIH/NIAID) [E]

Subject: FW: 2019 novel Coronavirus Global research and innovation forum: towards a

research roadmap Feb 11-12, 2020 Geneva WHO HQ

Attachments: Global Research Forum dv2AMHR AM.PDF

We need to talk about this later in the day.. I am on Conference calls now. I will call you later. Apparently Soumya is reaching out separately to other people in NIAID.

From: SWAMINATHAN, Soumya (6) (6)

Sent: Saturday, February 1, 2020 7:19 AM

To: Fauci, Anthony (NIH/NIAID) [E] (b) (6)

Subject: 2019 novel Coronavirus Global research and innovation forum: towards a research roadmap

Feb 11-12, 2020 Geneva WHO HQ

Dear Tony

I am delighted to inform you that WHO is organizing a global research partners forum on February 11<sup>th</sup> and 12<sup>th</sup> in Geneva, to discuss research priorities related to the novel Corona virus. The expected outcome is a research roadmap with clearly defined priorities and a governance framework to take each thematic area forward. Several thematic areas will be considered at the meeting, namely: virus, diagnostics; natural history and transmission; clinical; therapeutics; vaccines; ethics; regulatory science; animal health; data/samples analysis and sharing and; social sciences. We believe that this meeting will be critical in consensus building on the most important research questions, as well as in building global partnerships and collaborations to take this work forward.

This meeting is being organized in partnership with GLOPID R and is being supported by the Bill and Melinda Gates foundation, DFID, Wellcome Trust and several other partners. The secretariat within WHO is the R&D blueprint, co-chaired by Dr Mike Ryan and myself.

As the head of an agency that would play an important role in addressing this new viral outbreak, either by undertaking or funding research, or both, I take great pleasure in inviting you to this meeting. I applicate for the short notice, but you will understand that we have had to plan this in the past few days, keeping in mind the evolving situation.

Kindly let me know if you (or your nominee) will be able to attend and if you need any support from us.

Please copy (6) (6) and (6) (6) in your response.

With best wishes, Soumya

Dr Soumya Swaminathan

## Chief Scientist

PS: Sorry if this is a duplication – just want to make sure the key people receive the invite. Sorry about the short notice!

From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat, 1 Feb 2020 12:32:57 +0000

To: (b) (6

Subject: FW: 2019 novel Coronavirus Global research and innovation forum: towards a

research roadmap Feb 11-12, 2020 Geneva WHO HQ

Attachments: Global Research Forum dv2AMHR AM.PDF

Cliff:

Whom should I nominate? See yellow highlight

Tony

From: SWAMINATHAN, Soumya < (b) (6)

Sent: Saturday, February 1, 2020 7:19 AM

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Dr Soumya Swaminathan

### Chief Scientist

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat, 1 Feb 2020 12:29:36 +0000

To: Auchincloss, Hugh (NIH/NIAID) [C] (b) (6)

Cc: (b) (6)

Subject: FW: Science: Mining coronavirus genomes for clues to the outbreak's origins

As per my prior e-mail.

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)

Sent: Friday, January 31, 2020 8:43 PM

Subject: Science: Mining coronavirus genomes for clues to the outbreak's origins



As part of a long-running effort to see what viruses bats harbor, researchers in China collect one from a cave in Guandong. EcoHealth Alliance

# Mining coronavirus genomes for clues to the outbreak's origins

By Jon CohenJan. 31, 2020, 6:20 PM

attaaaggtt tataccttcc caggtaacaa accaaccaac tttcgatctc ttgtagatct ...

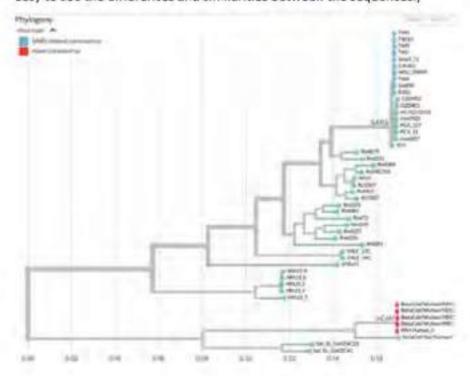
That string of apparent gibberish is anything but: It's a snippet of a DNA sequence from the viral pathogen, dubbed 2019 novel coronavirus (2019-nCoV), that is overwhelming China and frightening the entire world. Scientists are publicly sharing an ever-growing number of full sequences of the virus from patients—53 at last count in the Global Initiative on Sharing All Influenza Data database. These viral genomes are being intensely studied to try to understand the origin of 2019-nCoV and how it fits on the family tree of related viruses found in bats and other species. They have also given glimpses into what this newly discovered virus physically looks like, how it's changing, and how it might be stopped. "One of the biggest takeaway messages [from the viral sequences] is that there was a single introduction into humans and then human-to-human spread," says Trevor Bedford, a bioinformatics specialist at the University of Washington, Seattle. The role of Huanan Seafood Wholesale Market in

Wuhan, China, in spreading 2019-nCoV remains murky, though such sequencing, combined with sampling the market's environment for the presence of the virus, is clarifying that it indeed had an important early role in amplifying the outbreak. The viral sequences, most researchers say, also knock down the idea the pathogen came from a virology institute in Wuhan.

In all, 2019-nCoV has nearly 29,000 nucleotides bases that hold the genetic instruction book to produce the virus. Although it's one of the many viruses whose genes are in the form of RNA, scientists convert the viral genome into DNA, with bases known in shorthand as A, T, C, and G, to make it easier to study. Many analyses of 2019-nCoV's sequences have already appeared on <u>virological.org</u>, <u>nextstrain.org</u>, preprint servers like bioRxiv, and even in peer-reviewed journals. The sharing of the sequences by Chinese researchers allowed public health labs around the world to develop their own diagnostics for the virus, which now has been found in 18 other countries. (*Science*'s news stories on the outbreak <u>can</u> be found here.)

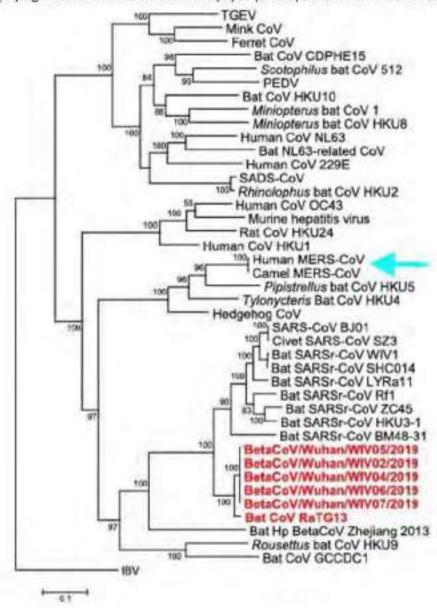
When the first 2019-nCoV sequence became available, researchers placed it on a family tree of known coronaviruses—which are abundant and infect many species—and found that it was most closely related to relatives found in bats. A team led by Shi Zheng-Li, a coronavirus specialist at the Wuhan Institute of Virology, reported on 23 January on bioRxiv that 2019-nCoV's sequence was 96.2% similar to a bat virus and had 79.5% similarity to the coronavirus that causes severe acute respiratory syndrome (SARS), a disease whose initial outbreak was also in China more than 15 years ago. But the SARS coronavirus has a similarly close relationship to bat viruses, and sequence data make a powerful case that it jumped into people from a coronavirus in civets that differed from human SARS viruses by as few as 10 nucleotides. That's one reason why many scientists suspect there's an "intermediary" host species—or several—between bats and 2019-nCoV.

According to Bedford's analysis, the bat coronavirus sequence that Shi Zheng-Li's team highlighted, dubbed RaTG13, differs from 2019-nCoV by nearly 1100 nucleotides. On nextstrain.org, a site he cofounded, Bedford has created coronavirus family trees (example below) that include bat, civet, SARS, and 2019-nCoV sequences. (The trees are interactive—by dragging a computer mouse over them, it's easy to see the differences and similarities between the sequences.)



Bedford's analyses of RaTG13 and 2019-nCoV suggest that the two viruses shared a common ancestor 25 to 65 years ago, an estimate he arrived at by combining the difference in nucleotides between the viruses with the presumed rates of mutation in other coronaviruses. So it likely took decades for RaTG13-like viruses to mutate into 2019-nCoV.

Middle East respiratory syndrome (MERS), another human disease caused by a coronavirus, similarly has a link to bat viruses. But studies have built a compelling case it jumped to humans from camels. And the phylogenetic tree from Shi's bioRxiv paper (below) makes the camel-MERS link easy to see.



The longer a virus circulates in a human populations, the more time it has to develop mutations that differentiate strains in infected people, and given that the 2019-nCoV sequences analyzed to date differ from each other by seven nucleotides at most, this suggests it jumped into humans very recently. But it remains a mystery which animal spread the virus to humans. "There's a very large gray area between viruses detected in bats and the virus now isolated in humans," says Vincent Munster, a virologist at the

U.S. National Institute of Allergy and Infectious Diseases who studies coronaviruses in bats, camels, and others species.

Strong evidence suggests the marketplace played an early role in spreading 2019-nCoV, but whether it was the origin of the outbreak remains uncertain. Many of the initially confirmed 2019-nCoV cases—27 of the first 41 in one report, 26 of 47 in another—were connected to the Wuhan market, but up to 45%, including the earliest handful, were not. This raises the possibility that the initial jump into people happened eisewhere.

According to Xinhua, the state-run news agency, "environmental sampling" of the Wuhan seafood market has found evidence of 2019-nCoV. Of the 585 samples tested, 33 were positive for 2019-nCoV and all were in the huge market's western portion, which is where wildlife were sold. "The positive tests from the wet market are hugely important," says Edward Holmes, an evolutionary biologist at the University of Sydney who collaborated with the <u>first group</u> to publicly release a 2019-nCoV sequence. "Such a high rate of positive tests would strongly imply that animals in the market played a key role in the emergence of the virus."

Yet there have been no preprints or official scientific reports on the sampling, so it's not clear which, if any, animals tested positive. "Until you consistently isolate the virus out of a single species, it's really, really difficult to try and determine what the natural host is," says Kristian Andersen, an evolutionary biologist at Scripps Research.

One possible explanation for the confusion about where the virus first entered humans is if there was a batch of recently infected animals sold at different marketplaces. Or an infected animal trader could have transmitted the virus to different people at different markets. Or, Bedford suggests, those early cases could have been infected by viruses that didn't easily transmit and sputtered out. "It would be hugely helpful to have just a sequence or two from the marketplace [environmental sampling] that could illuminate how many zoonoses occurred and when they occurred," Bedford says.



A research group sent fecal and other bodily samples from bats they trapped in caves to the Wuhan Institute of Virology to search for coronaviruses.

#### EcoHealth Alliance

In the absence of clear conclusions about the outbreak's origin, theories thrive, and some have been scientifically shaky. A sequence analysis led by Wei Ji of Peking University and published online by the Journal of Medical Virology received substantial press coverage when it suggested that "snake is the most probable wildlife animal reservoir for the 2019-nCoV." Sequence specialists, however, pilloried it. Conspiracy theories also abound. A CBC News report about the Canadian government deporting Chinese scientists who worked in a Winnipeg lab that studies dangerous pathogens was distorted on social media to suggest that they were spies who had smuggled out coronaviruses. The Wuhan Institute of

Virology, which is the premier lab in China that studies bat and human coronaviruses, has also come under fire. "Experts debunk fringe theory linking China's coronavirus to weapons research," read a headline on a story in The Washington Post that focused on the facility.

Concerns about the institute predate this outbreak. Nature ran a story in 2017 about it building a new biosafety level 4 lab and included molecular biologist Richard Ebright of Rutgers University, Piscataway, expressing concerns about accidental infections, which he noted repeatedly happened with lab workers handling SARS in Beijing. Ebright, who has a long history of raising red flags about studies with dangerous pathogens, also in 2015 criticized an experiment in which modifications were made to a SARS-like virus circulating in Chinese bats to see whether it had the potential to cause disease in humans. Earlier this week, Ebright questioned the accuracy of Bedford's calculation that there are at least 25 years of evolutionary distance between RaTG13—the virus held in the Wuhan virology institute—and 2019-nCoV, arguing that the mutation rate may have been different as it passed through different hosts before humans. Ebright tells ScienceInsider that the 2019-nCoV data are "consistent with entry into the human population as a natural accident,"

Shi did not reply to emails from Science, but her longtime collaborator, disease ecologist Peter Daszak of the EcoHealth Alliance, dismissed Ebright's conjecture. "Every time there's an emerging disease, a new virus, the same story comes out: This is a spillover or the release of an agent or a bioengineered virus," Daszak says. "It's just a shame. It seems humans can't resist controversy and these myths, yet it's staring us right in the face. There's this incredible diversity of viruses in wildlife and we've just scratched the surface. Within that diversity, there will be some that can infect people and within that group will be some that cause illness."



A team of researchers from the Wuhan Institute of Virology and the EcoHealth Alliance have trapped bats in caves all over China, like this one in Guangdong, to sample them for coronaviruses. EcoHealth Alliance

Daszak and Shi's group have for 8 years been trapping bats in caves around China to sample their feces and blood for viruses. He says they have sampled more than 10,000 bats and 2000 other species. They have found some 500 novel coronaviruses, about 50 of which fall relatively close to the SARS virus on the family tree, including RaTG13—it was fished out of a bat fecal sample they collected in 2013 from a cave in Moglang in Yunnan province. "We cannot assume that just because this virus from Yunnan has high sequence identity with the new one that that's the origin," Daszak says, noting that only a tiny fraction of coronaviruses that infect bats have been discovered. "I expect that once we've sampled and sampled and sampled across southern China and central China that we're going to find many other viruses and some of them will be closer [to 2019-nCoV]."

It's not just a "curious interest" to figure out what sparked the current outbreak, Daszak says. "If we don't find the origin, it could still be a raging infection at a farm somewhere, and once this outbreak dies, there could be a continued spillover that's really hard to stop. But the jury is still out on what the real origins of this are."

Posted in:

- · Asia/Pacific
- Health
- Coronavirus

doi:10.1126/science.abb1256



Jon Cohen
Jon is a staff writer for Science.

- Email Jon
- Twitter

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From: Fauci, Anthony (NIH/NIAID) [E]
Sent: Sat, 1 Feb 2020 12:29:01 +0000

To: Auchincloss, Hugh (NIH/NIAID) [C] (b) (6)

Cc: (b) (6)

Subject: IMPORTANT

Attachments: Baric, Shi et al - Nature medicine - SARS Gain of function.pdf

### Hugh:

It is essential that we speak this AM. Keep your cell phone on. I have a conference call at 7:45 AM with Azar. It likely will be over at 8:45 AM. Read this paper as well as the e-mail that I will forward to you now. You will have tasks today that must be done.

Thanks,

Tony

Anthony S. Fauci, MD
Director
National Institute of Allergy and Infectious Diseases
Building 31, Room 7A-03
31 Center Drive, MSC 2520
National Institutes of Health
Bethesda, MD 20892-2520
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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 02:48:59 +0000

 To:
 Kadlec, Robert (OS/ASPR/IO)

Cc: (b) (6

Subject: FW: Science: Mining coronavirus genomes for clues to the outbreak's origins

Bob:

This just came out today. Gives a balanced view.

Best, Tony

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)>

Sent: Friday, January 31, 2020 8:43 PM

Subject: Science: Mining coronavirus genomes for clues to the outbreak's origins



As part of a long-running effort to see what viruses bats harbor, researchers in China collect one from a cave in Guandong.

EcoHealth Alliance

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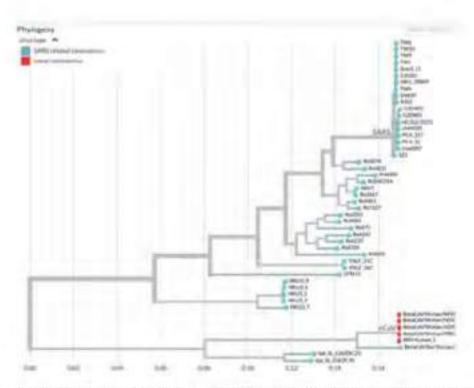
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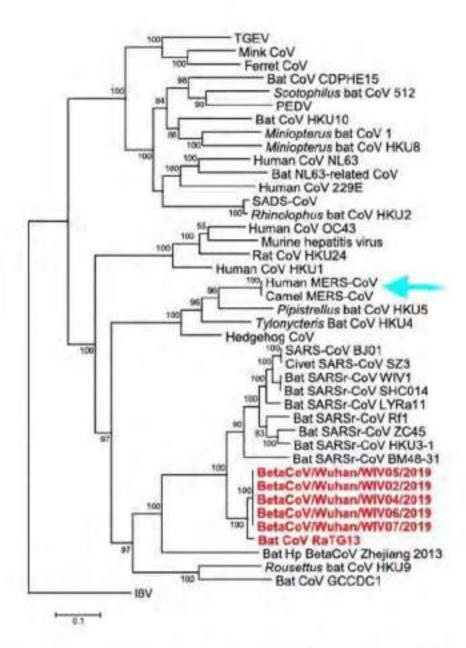
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#### EcoHealth Alliance

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Posted in:

- Asia/Pacific
- Health

 Coronavirus doi:10.1126/science.abb1256



Jon Cohen
Jon is a staff writer for Science.

- Email Jon
- Twitter

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 From:
 Fauci, Anthony (NIH/NIAID) [E]

 Sent:
 Sat, 1 Feb 2020 02:46:21 +0000

 To:
 Mascola, John (NIH/VRC) [E]

Subject: FW: Science: Mining coronavirus genomes for clues to the outbreak's origins

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From: Folkers, Greg (NIH/NIAID) [E] (6) (6)

Sent: Friday, January 31, 2020 8:43 PM

Subject: Science: Mining coronavirus genomes for clues to the outbreak's origins



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attaaaggtt tataccttcc caggtaacaa accaaccaac tttcgatctc ttgtagatct ...

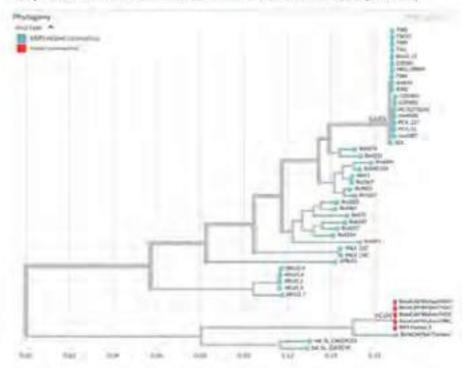
That string of apparent gibberish is anything but: It's a snippet of a DNA sequence from the viral pathogen, dubbed 2019 novel coronavirus (2019-nCoV), that is overwhelming China and frightening the entire world. Scientists are publicly sharing an ever-growing number of full sequences of the virus from patients—53 at last count in the Global Initiative on Sharing All Influenza Data database. These viral genomes are being intensely studied to try to understand the origin of 2019-nCoV and how it fits on the family tree of related viruses found in bats and other species. They have also given glimpses into what this newly discovered virus physically looks like, how it's changing, and how it might be stopped. "One of the biggest takeaway messages [from the viral sequences] is that there was a single introduction into humans and then human-to-human spread," says Trevor Bedford, a bioinformatics specialist at the University of Washington, Seattle. The role of Huanan Seafood Wholesale Market in Wuhan, China, in spreading 2019-nCoV remains murky, though such sequencing, combined with sampling the market's environment for the presence of the virus, is clarifying that it indeed had an

important early role in amplifying the outbreak. The viral sequences, most researchers say, also knock down the idea the pathogen came from a virology institute in Wuhan.

In all, 2019-nCoV has nearly 29,000 nucleotides bases that hold the genetic instruction book to produce the virus. Although it's one of the many viruses whose genes are in the form of RNA, scientists convert the viral genome into DNA, with bases known in shorthand as A, T, C, and G, to make it easier to study. Many analyses of 2019-nCoV's sequences have already appeared on <u>virological.org</u>, <u>nextstrain.org</u>, preprint servers like bioRxiv, and even in peer-reviewed journals. The sharing of the sequences by Chinese researchers allowed public health labs around the world to develop their own diagnostics for the virus, which now has been found in 18 other countries. (*Science*'s news stories on the outbreak <u>can</u> be found here.)

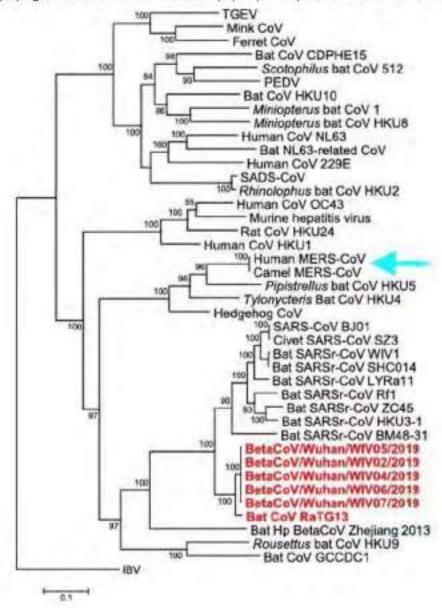
When the first 2019-nCoV sequence became available, researchers placed it on a family tree of known coronaviruses—which are abundant and infect many species—and found that it was most closely related to relatives found in bats. A team led by Shi Zheng-Li, a coronavirus specialist at the Wuhan Institute of Virology, reported on 23 January on bioRxiv that 2019-nCoV's sequence was 96.2% similar to a bat virus and had 79.5% similarity to the coronavirus that causes severe acute respiratory syndrome (SARS), a disease whose initial outbreak was also in China more than 15 years ago. But the SARS coronavirus has a similarly close relationship to bat viruses, and sequence data make a powerful case that it jumped into people from a coronavirus in civets that differed from human SARS viruses by as few as 10 nucleotides. That's one reason why many scientists suspect there's an "intermediary" host species—or several—between bats and 2019-nCoV.

According to Bedford's analysis, the bat coronavirus sequence that Shi Zheng-Li's team highlighted, dubbed RaTG13, differs from 2019-nCoV by nearly 1100 nucleotides. On nextstrain.org, a site he cofounded, Bedford has created coronavirus family trees (example below) that include bat, civet, SARS, and 2019-nCoV sequences. (The trees are interactive—by dragging a computer mouse over them, it's easy to see the differences and similarities between the sequences.)



Bedford's analyses of RaTG13 and 2019-nCoV suggest that the two viruses shared a common ancestor 25 to 65 years ago, an estimate he arrived at by combining the difference in nucleotides between the viruses with the presumed rates of mutation in other coronaviruses. So it likely took decades for RaTG13-like viruses to mutate into 2019-nCoV.

Middle East respiratory syndrome (MERS), another human disease caused by a coronavirus, similarly has a link to bat viruses. But studies have built a compelling case it jumped to humans from camels. And the phylogenetic tree from Shi's bioRxiv paper (below) makes the camel-MERS link easy to see.



The longer a virus circulates in a human populations, the more time it has to develop mutations that differentiate strains in infected people, and given that the 2019-nCoV sequences analyzed to date differ from each other by seven nucleotides at most, this suggests it jumped into humans very recently. But it remains a mystery which animal spread the virus to humans. "There's a very large gray area between viruses detected in bats and the virus now isolated in humans," says Vincent Munster, a virologist at the U.S. National Institute of Allergy and Infectious Diseases who studies coronaviruses in bats, camels, and others species.

Strong evidence suggests the marketplace played an early role in spreading 2019-nCoV, but whether it was the origin of the outbreak remains uncertain. Many of the initially confirmed 2019-nCoV cases—27 of the first 41 in one report, 26 of 47 in another—were connected to the Wuhan market, but up to 45%, including the earliest handful, were not. This raises the possibility that the initial jump into people happened elsewhere.

According to Xinhua, the state-run news agency, "environmental sampling" of the Wuhan seafood market has found evidence of 2019-nCoV. Of the 585 samples tested, 33 were positive for 2019-nCoV and all were in the huge market's western portion, which is where wildlife were sold. "The positive tests from the wet market are hugely important," says Edward Holmes, an evolutionary biologist at the University of Sydney who collaborated with the <u>first group</u> to publicly release a 2019-nCoV sequence. "Such a high rate of positive tests would strongly imply that animals in the market played a key role in the emergence of the virus."

Yet there have been no preprints or official scientific reports on the sampling, so it's not clear which, if any, animals tested positive. "Until you consistently isolate the virus out of a single species, it's really, really difficult to try and determine what the natural host is," says Kristian Andersen, an evolutionary biologist at Scripps Research.

One possible explanation for the confusion about where the virus first entered humans is if there was a batch of recently infected animals sold at different marketplaces. Or an infected animal trader could have transmitted the virus to different people at different markets. Or, Bedford suggests, those early cases could have been infected by viruses that didn't easily transmit and sputtered out. "It would be hugely helpful to have just a sequence or two from the marketplace [environmental sampling] that could illuminate how many zoonoses occurred and when they occurred," Bedford says.



A research group sent fecal and other bodily samples from bats they trapped in caves to the Wuhan Institute of Virology to search for coronaviruses.

#### EcoHealth Alliance

In the absence of clear conclusions about the outbreak's origin, theories thrive, and some have been scientifically shaky. A sequence analysis led by Wei Ji of Peking University and published online by the Journal of Medical Virology received substantial press coverage when it suggested that "snake is the most probable wildlife animal reservoir for the 2019-nCoV." Sequence specialists, however, pilloried it. Conspiracy theories also abound. A CBC News report about the Canadian government deporting Chinese scientists who worked in a Winnipeg lab that studies dangerous pathogens was distorted on social media to suggest that they were spies who had smuggled out coronaviruses. The Wuhan Institute of Virology, which is the premier lab in China that studies bat and human coronaviruses, has also come

under fire. "Experts debunk fringe theory linking China's coronavirus to weapons research," read a headline on a story in The Washington Post that focused on the facility.

Concerns about the institute predate this outbreak. Nature ran a story in 2017 about it building a new biosafety level 4 lab and included molecular biologist Richard Ebright of Rutgers University, Piscataway, expressing concerns about accidental infections, which he noted repeatedly happened with lab workers handling SARS in Beiling. Ebright, who has a long history of raising red flags about studies with dangerous pathogens, also in 2015 criticized an experiment in which modifications were made to a SARS-like virus circulating in Chinese bats to see whether it had the potential to cause disease in humans. Earlier this week, Ebright questioned the accuracy of Bedford's calculation that there are at least 25 years of evolutionary distance between RaTG13—the virus held in the Wuhan virology institute—and 2019-nCoV, arguing that the mutation rate may have been different as it passed through different hosts before humans. Ebright tells ScienceInsider that the 2019-nCoV data are "consistent with entry into the human population as a natural accident."

Shi did not reply to emails from Science, but her longtime collaborator, disease ecologist Peter Daszak of the EcoHealth Alliance, dismissed Ebright's conjecture. "Every time there's an emerging disease, a new virus, the same story comes out: This is a spillover or the release of an agent or a bioengineered virus," Daszak says. "It's just a shame. It seems humans can't resist controversy and these myths, yet it's staring us right in the face. There's this incredible diversity of viruses in wildlife and we've just scratched the surface. Within that diversity, there will be some that can infect people and within that group will be some that cause illness."



A team of researchers from the Wuhan Institute of Virology and the EcoHealth Alliance have trapped bats in caves all over China, like this one in Guangdong, to sample them for coronaviruses. EcoHealth Alliance

Daszak and Shi's group have for 8 years been trapping bats in caves around China to sample their feces and blood for viruses. He says they have sampled more than 10,000 bats and 2000 other species. They have found some 500 novel coronaviruses, about 50 of which fall relatively close to the SARS virus on the family tree, including RaTG13—it was fished out of a bat fecal sample they collected in 2013 from a cave in Moglang in Yunnan province. "We cannot assume that just because this virus from Yunnan has high sequence identity with the new one that that's the origin," Daszak says, noting that only a tiny fraction of coronaviruses that infect bats have been discovered. "I expect that once we've sampled and sampled across southern China and central China that we're going to find many other viruses and some of them will be closer [to 2019-nCoV]."

It's not just a "curious interest" to figure out what sparked the current outbreak, Daszak says. "If we don't find the origin, it could still be a raging infection at a farm somewhere, and once this outbreak

dies, there could be a continued spillover that's really hard to stop. But the jury is still out on what the real origins of this are."

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- Coronavirus

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