

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 24 Mar 2020 14:33:43 +0000
To: Kogan, Misha
Subject: Re: Corona Viruses and cyclodextrins question

I don't know.

Sent from my iPhone

On Mar 24, 2020, at 10:23 AM, Kogan, Misha <(b) (6)> wrote:

Thank you for your response!

Do you think that gamma-cyclodextrin could be as effective beta-cyclodextrin in disrupting the lipid rafts, I have not been able to find any references for it.

It would be great if it worked especially having an FDA approved drug available already...

Thanks again.

Avrimin M. Kogan, MD
Assistant Professor of Anesthesiology
Department of Anesthesiology
NYU Langone Medical Center
550 First Avenue, IRM 605
New York, NY 10016

(b) (6)(office)
(b) (6)

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Tuesday, March 24, 2020 10:13:21 AM
To: Kogan, Misha
Cc: Corbett, Kizzmekia (NIH/VRC) [E]
Subject: RE: Corona Viruses and cyclodextrins question

[EXTERNAL]

Thank you for your email.

Our work on beta-cyclodextran was not carried into clinical evaluation, but I've always wondered if it could temporarily reduce infectability of nasal epithelium. It is an excipient in some nasal sprays, but has never been evaluated experimentally.

Unfortunately, we are so busy with vaccines and antibody development we don't have time to look at this, but feel free.

Take care,

Barney

From: Kogan, Misha (b) (6)
Sent: Tuesday, March 24, 2020 9:58 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: Corona Viruses and cyclodextrins question

Hello Dr. Graham,

I am a clinical anesthesiologist at NYU Langone Medical Center.

I am reaching out to you with a question about your research on pathogenesis of Corona Viruses.

Specifically , regarding your research on pathogenesis of RSV, SARS and CORONA viruses published in 2007. , you wrote that

cyclodextrins can be used to disrupt the lipid rafts and reduce the formation of viral particles. As an anesthesiologist, I use Sugammadex in my clinical practice.

It is a modified gamma cyclodextrin. Can it potentially be used in COVID 19 patients to reduce the formation of viral particles and possibly reduce the severity of symptoms?

Do you have any references to any studies of gamma cyclodextrins vs alfa or beta being used to disrupt the lipid rafts?

Thank you in advance for your response.

.
Avrimin M. Kogan, MD
Assistant Professor of Anesthesiology
Department of Anesthesiology
NYU Langone Medical Center
550 First Avenue, IRM 605
New York, NY 10016
(b) (6) (office)

(b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 23 Mar 2020 13:17:53 +0000
To: Corbett, Kizzmekia (NIH/VRC) [E]
Subject: FW: [REDACTED] (b) (4)

Hi Kizzy,

This will be 3:30 for us. (I didn't state the times correctly in my note back to him). Will that work?

Barney

From: [REDACTED] (b) (6), (b) (4)
Sent: Monday, March 23, 2020 9:14 AM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6) >
Cc: Corbett, Kizzmekia (NIH/VRC) [E] [REDACTED] (b) (6) >; Stein, Judy (NIH/VRC) [C]
[REDACTED] (b) (6); Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6); Stephane Bancel
[REDACTED] (b) (6); [REDACTED] (b) (6), (b) (4)
[REDACTED]
Subject: RE: [REDACTED] (b) (4)

Thank you Barney, 8:30 CET is fine for [REDACTED] (b) (4). I will attend the call with two colleagues from R&D Immunoassays .
Best regards

[REDACTED] (b) (4)

De : Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Envoyé : lundi 23 mars 2020 13:48
À : [REDACTED] (b) (4), (b) (6)
Cc : Corbett, Kizzmekia (NIH/VRC) [E] [REDACTED] (b) (6) >; Stein, Judy (NIH/VRC) [C]
[REDACTED] (b) (6); Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6); Stephane Bancel
[REDACTED] (b) (6) >
Objet : RE: [REDACTED] (b) (4)

External Email

I can meet at 4:30 PM EDT (8:30 CET) with Dr. Corbett to discuss the assay. I think that is all we need to get started.

We are now on daylight savings time, so should be only 5 hours difference.

Barney

From: [REDACTED] (b) (6), (b) (4)
Sent: Monday, March 23, 2020 7:48 AM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Cc: Corbett, Kizzmekia (NIH/VRC) [E] <[REDACTED] (b) (6)>; Stein, Judy (NIH/VRC) [C]
[REDACTED] (b) (6)>; Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6); Stephane Bancel
[REDACTED] (b) (6)
Subject: RE: [REDACTED] (b) (4)

Thank you Stephane and Graham for your quick reaction, Graham would you be available today for a call today to introduce the topic and discuss the scientific aspect on [REDACTED] (b) (4) ?
I propose either 3 or 3.30 pm (EST) , 9 or 9.30 pm (CET)
Best regards

[REDACTED] (b) (4)

De : Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)>
Envoyé : dimanche 22 mars 2020 23:10
À : Stephane Bancel [REDACTED] (b) (6)>; [REDACTED] (b) (6), (b) (4)
[REDACTED]
Cc : Corbett, Kizzmekia (NIH/VRC) [E] [REDACTED] (b) (6); Stein, Judy (NIH/VRC) [C]
[REDACTED] (b) (6) Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6)>
Objet : RE [REDACTED] (b) (4)

External Email

Thanks Stephane,

[REDACTED] (b) (4)

Take care,

Barney

From: Stephane Bancel [REDACTED] (b) (6)>
Sent: Sunday, March 22, 2020 5:02 PM
To: [REDACTED] (b) (6), (b) (4); Graham, Barney (NIH/VRC) [E]

(b) (6)>

Subject: (b) (4)

Barney,

Let me introduce you to (b) (4)

(b) (4)

I leave it to both of you

Cheers

Stephane

 **Please consider the environment before printing this email**

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(b) (4)

From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 20 Mar 2020 21:38:36 +0000
To: Stein, Judy (NIH/VRC) [C]; Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]; Alvarado, Gabriela (NIH/VRC) [C]; Chen, Xuejun (NIH/VRC) [E]; Kong, Wing-Pui (NIH/VRC) [E]
Subject: RE: Request for [REDACTED] (b) (4)

Hi Judy,

Wing might know [REDACTED] (b) (4), (b) (5)

Barney

From: Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6)
Sent: Friday, March 20, 2020 5:36 PM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] [REDACTED] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] [REDACTED] (b) (6); Alvarado, Gabriela (NIH/VRC) [C] [REDACTED] (b) (6); Chen, Xuejun (NIH/VRC) [E] [REDACTED] (b) (6); Kong, Wing-Pui (NIH/VRC) [E] [REDACTED] (b) (6)>
Subject: FW: Request for [REDACTED] (b) (4)

Hi everyone,

[REDACTED] (b) (4), (b) (5)

Thanks

Judy

From: Abraham, Jonathan, M.D., Ph.D. [REDACTED] (b) (6)>
Sent: Friday, March 20, 2020 4:57 PM
To: Stein, Judy (NIH/VRC) [C] <[REDACTED] (b) (6)>
Subject: Request for [REDACTED] (b) (4)

Dear Judy,

I hope this email finds you well and healthy in these difficult times.

I was wondering if [REDACTED] (b) (4)
[REDACTED] (b) (4)

Many thanks,

Jonathan

--

Jonathan Abraham, M.D., Ph.D.

Assistant Professor of Microbiology

Blavatnik Institute | Harvard Medical School

Office: (b) (6)

Lab: (b) (6)

Fax: (617) 432-4787

Website: <http://abrahamlab.med.harvard.edu/>

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 23 Jan 2020 13:45:43 +0000
To: Mascola, John (NIH/VRC) [E]
Cc: Marston, Hilary (NIH/NIAID) [E]
Subject: Re: URGENT review: Moderna press release on CoV - 9 AM THURS release

Agree. [REDACTED] (b) (5)

BG

Sent from my iPhone

On Jan 23, 2020, at 7:35 AM, Mascola, John (NIH/VRC) [E] <[REDACTED] (b) (6)> wrote:

Correct. Copying Barney here to confirm.

[REDACTED] (b) (5)

Sent from my iPhone

On Jan 23, 2020, at 06:36, Marston, Hilary (NIH/NIAID) [E] <[REDACTED] (b) (6)> wrote:

[REDACTED] (b) (5)

On Jan 22, 2020, at 11:49 PM, Mascola, John (NIH/VRC) [E] <[REDACTED] (b) (6)> wrote:

Could then just go back to my initial edits attached.

But of note – one way or another, [REDACTED] (b) (5)

Thanks,
John

From: Routh, Jennifer (NIH/NIAID) [E] [REDACTED] (b) (6)
Sent: Wednesday, January 22, 2020 11:21 PM
To: Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6)>; Graham, Barney (NIH/VRC) [E]
[REDACTED] (b) (6)
Cc: Hiatt, Nissa (NIH/VRC) [C] [REDACTED] (b) (6)>; Gall, Jason (NIH/VRC) [C] [REDACTED] (b) (6)
Carlton, Kevin (NIH/VRC) [E] [REDACTED] (b) (6)>; Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6);
Bok, Karin (NIH/VRC) [E] [REDACTED] (b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E]
[REDACTED] (b) (6); Folkers, Greg (NIH/NIAID) [E] [REDACTED] (b) (6)>; NIAID BUGS
<BUGS@niaid.nih.gov>; Erbelding, Emily (NIH/NIAID) [E] [REDACTED] (b) (6)>; Casseti, Cristina

(NIH/NIAID) [E] (b) (6); Mowatt, Michael (NIH/NIAID) [E] (b) (6);
Marston, Hilary (NIH/NIAID) [E] (b) (6); Ranjan, Mukul (NIH/NIAID) [E]
(b) (6); Embry, Alan (NIH/NIAID) [E] (b) (6); Stemmy, Erik
(NIH/NIAID) [E] <(b) (6)>; Beigel, John (NIH) [E] (b) (6)>; Koup, Richard
(NIH/VRC) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>;
Daucher, Marybeth (NIH/NIAID) [E] (b) (6); Harris, Christina (NIH/NIAID) [E]
(b) (6)>; Prince, Tasheema (NIH/VRC) [C] (b) (6); Billet,
Courtney (NIH/NIAID) [E] (b) (6); Stover, Kathy (NIH/NIAID) [E] (b) (6)>
Subject: RE: URGENT review: Moderna press release on CoV - 9 AM THURS release

Thanks, John & Barney. (b) (5)

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: Mascola, John (NIH/VRC) [E] (b) (6)>
Sent: Wednesday, January 22, 2020 11:12 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Cc: Routh, Jennifer (NIH/NIAID) [E] (b) (6)>; Hiatt, Nissa (NIH/VRC) [C]
(b) (6)>; Gall, Jason (NIH/VRC) [C] (b) (6); Carlton, Kevin (NIH/VRC) [E]
(b) (6)>; Stein, Judy (NIH/VRC) [C] (b) (6)>; Bok, Karin (NIH/VRC) [E]
(b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>; Folkers, Greg
(NIH/NIAID) [E] <(b) (6)>; NIAID BUGS <BUGS@niaid.nih.gov>; Erbeling, Emily
(NIH/NIAID) [E] (b) (6); Cassetti, Cristina (NIH/NIAID) [E] (b) (6)>;
Mowatt, Michael (NIH/NIAID) [E] (b) (6)>; Marston, Hilary (NIH/NIAID) [E]
(b) (6)>; Ranjan, Mukul (NIH/NIAID) [E] (b) (6); Embry, Alan
(NIH/NIAID) [E] (b) (6)>; Stemmy, Erik (NIH/NIAID) [E] (b) (6); Beigel,
John (NIH) [E] (b) (6)>; Koup, Richard (NIH/VRC) [E] (b) (6)>;
Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E]
(b) (6)>; Harris, Christina (NIH/NIAID) [E] <(b) (6)>; Prince,
Tasheema (NIH/VRC) [C] (b) (6)>; Billet, Courtney (NIH/NIAID) [E]
(b) (6)>; Stover, Kathy (NIH/NIAID) [E] (b) (6)>
Subject: RE: URGENT review: Moderna press release on CoV - 9 AM THURS release

Thanks Barney,

From Moderna perspective- (b) (5), (b) (4)

I added a sentence – as Barney suggests, (b) (5)

From: Graham, Barney (NIH/VRC) [E] (b) (6)>

Sent: Wednesday, January 22, 2020 11:04 PM

To: Mascola, John (NIH/VRC) [E] (b) (6)>

Cc: Routh, Jennifer (NIH/NIAID) [E] (b) (6)>; Hiatt, Nissa (NIH/VRC) [C]

(b) (6)>; Gall, Jason (NIH/VRC) [C] (b) (6)>; Carlton, Kevin (NIH/VRC) [E]

(b) (6)>; Stein, Judy (NIH/VRC) [C] (b) (6)>; Bok, Karin (NIH/VRC) [E]

(b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>; Folkers, Greg

(NIH/NIAID) [E] (b) (6)>; NIAID BUGS <BUGS@niaid.nih.gov>; Erbelding, Emily

(NIH/NIAID) [E] (b) (6); Cassetti, Cristina (NIH/NIAID) [E] (b) (6)>;

Mowatt, Michael (NIH/NIAID) [E] <(b) (6)>; Marston, Hilary (NIH/NIAID) [E]

(b) (6)>; Ranjan, Mukul (NIH/NIAID) [E] (b) (6)>; Embry, Alan

(NIH/NIAID) [E] (b) (6)>; Stemmy, Erik (NIH/NIAID) [E] (b) (6)>; Beigel,

John (NIH) [E] (b) (6)>; Koup, Richard (NIH/VRC) [E] (b) (6);

Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Daucher, Marybeth (NIH/NIAID) [E]

(b) (6)>; Harris, Christina (NIH/NIAID) [E] (b) (6)>; Prince,

Tasheema (NIH/VRC) [C] (b) (6)>; Billet, Courtney (NIH/NIAID) [E]

(b) (6)>; Stover, Kathy (NIH/NIAID) [E] (b) (6)

Subject: Re: URGENT review: Moderna press release on CoV - 9 AM THURS release

Thanks John. I was wondering about that phrase. (b) (6)

(b) (6)

Barney

Sent from my iPhone

On Jan 22, 2020, at 10:17 PM, Mascola, John (NIH/VRC) [E] (b) (6)> wrote:

Jen,

A few suggested edits.

Of note, (b) (5).
Hence, my suggested edits to say (b) (5)

If Barney has any additional suggestions – he can let you know

Thanks,
John

From: Routh, Jennifer (NIH/NIAID) [E] (b) (6) >
Sent: Wednesday, January 22, 2020 9:50 PM
To: Hiatt, Nissa (NIH/VRC) [C] (b) (6) >; Mascola, John (NIH/VRC) [E] (b) (6) >; Gall, Jason (NIH/VRC) [C] (b) (6) >; Carlton, Kevin (NIH/VRC) [E] (b) (6) >; Stein, Judy (NIH/VRC) [C] (b) (6) >; Graham, Barney (NIH/VRC) [E] (b) (6) >; Bok, Karin (NIH/VRC) [E] (b) (6) >; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6) >; Folkers, Greg (NIH/NIAID) [E] (b) (6) >; NIAID BUGS <BUGS@niaid.nih.gov>; Erbelding, Emily (NIH/NIAID) [E] <(b) (6) >; Cassetti, Cristina (NIH/NIAID) [E] (b) (6) >; Mowatt, Michael (NIH/NIAID) [E] (b) (6) >; Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Ranjan, Mukul (NIH/NIAID) [E] (b) (6) >; Embry, Alan (NIH/NIAID) [E] (b) (6) >; Stemmy, Erik (NIH/NIAID) [E] (b) (6) >; Beigel, John (NIH) [E] (b) (6) >
Cc: Koup, Richard (NIH/VRC) [E] (b) (6) >; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6) >; Daucher, Marybeth (NIH/NIAID) [E] (b) (6) >; Harris, Christina (NIH/NIAID) [E] (b) (6) >; Prince, Tasheema (NIH/VRC) [C] (b) (6) >; Billet, Courtney (NIH/NIAID) [E] (b) (6) >; Stover, Kathy (NIH/NIAID) [E] (b) (6) >
Subject: RE: URGENT review: Moderna press release on CoV - 9 AM THURS release

+ Alan, Erik and John

Jennifer Routh [E]
News and Science Writing Branch
Office of Communications and Government Relations
National Institute of Allergy and Infectious Diseases (NIAID)
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From: Routh, Jennifer (NIH/NIAID) [E]
Sent: Wednesday, January 22, 2020 9:31 PM
To: Hiatt, Nissa (NIH/VRC) [C] <(b) (6) >; Mascola, John (NIH/VRC) [E]

(b) (6); Gall, Jason (NIH/VRC) [C] (b) (6); Carlton, Kevin (NIH/VRC) [E]
(b) (6) Stein, Judy (NIH/VRC) [C] <(b) (6); Graham, Barney (NIH/VRC)
[E] (b) (6); Bok, Karin (NIH/VRC) [E] <(b) (6); Morabito, Kaitlyn
(NIH/VRC) [E] (b) (6); Folkers, Greg (NIH/NIAID) [E] (b) (6);
NIAID BUGS <BUGS@niaid.nih.gov>; Erbelding, Emily (NIH/NIAID) [E] (b) (6);
Cassetti, Cristina (NIH/NIAID) [E] (b) (6); Mowatt, Michael (NIH/NIAID) [E]
(b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6); Ranjan, Mukul
(NIH/NIAID) [E] (b) (6)
Cc: Koup, Richard (NIH/VRC) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E]
(b) (6); Daucher, Marybeth (NIH/NIAID) [E] (b) (6); Harris,
Christina (NIH/NIAID) [E] <(b) (6); Prince, Tasheema (NIH/VRC) [C]
(b) (6); Billet, Courtney (NIH/NIAID) [E] (b) (6); Stover, Kathy
(NIH/NIAID) [E] (b) (6)

Subject: URGENT review: Moderna press release on CoV - 9 AM THURS release

Importance: High

VRC, DMID, TTIP0 –

Moderna plans to issue the attached press release tomorrow at 9 a.m. EST to coincide with a press conference that CEPI is doing at Davos tomorrow at 3:00-3:15PM (GMT-1). I apologize for the late note, but I only just received the attached draft.

I have added my proposed edits in track changes. If possible, please let me know if you have additional comments or edits. I have noted two places where we need VRC and DMID input.

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

Sent: Wednesday, January 22, 2020 6:24 PM

To: Hiatt, Nissa (NIH/VRC) [C] (b) (6); Mascola, John (NIH/VRC) [E]
(b) (6); Gall, Jason (NIH/VRC) [C] (b) (6); Carlton, Kevin (NIH/VRC) [E]
(b) (6); Stein, Judy (NIH/VRC) [C] (b) (6); Graham, Barney (NIH/VRC)
[E] (b) (6); Bok, Karin (NIH/VRC) [E] (b) (6); Morabito, Kaitlyn
(NIH/VRC) [E] (b) (6)

Cc: Koup, Richard (NIH/VRC) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Daucher, Marybeth (NIH/NIAID) [E] <(b) (6)>; Harris, Christina (NIH/NIAID) [E] <(b) (6)>; Prince, Tasheema (NIH/VRC) [C] (b) (6); Billet, Courtney (NIH/NIAID) [E] (b) (6); 'Stover, Kathy (NIH/NIAID) [E]' (b) (6)

Subject: RE: Heads Up: Moderna Press Release

Update: they are sending me the release shortly and it will go out TOMORROW (Thursday) morning at 9 a.m. EST.

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

Sent: Wednesday, January 22, 2020 5:41 PM

To: Hiatt, Nissa (NIH/VRC) [C] (b) (6); Mascola, John (NIH/VRC) [E] (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6); Carlton, Kevin (NIH/VRC) [E] (b) (6); Stein, Judy (NIH/VRC) [C] (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6); Bok, Karin (NIH/VRC) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)

Cc: Koup, Richard (NIH/VRC) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Daucher, Marybeth (NIH/NIAID) [E] (b) (6); Harris, Christina (NIH/NIAID) [E] (b) (6); Prince, Tasheema (NIH/VRC) [C] (b) (6); Billet, Courtney (NIH/NIAID) [E] (b) (6); 'Stover, Kathy (NIH/NIAID) [E]' (b) (6)

Subject: RE: Heads Up: Moderna Press Release

Thanks, Nissa. I still have not received the release yet, and I am trying to confirm with Moderna if they want to issue at 9 a.m. GMT+1 (Davos time) tomorrow or Monday. I thought they said tomorrow on our call this afternoon, but their earlier email mentions Friday. At this point I am assuming Friday. Either way, I will share with VRC ASAP with details.

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: Hiatt, Nissa (NIH/VRC) [C] (b) (6)>

Sent: Wednesday, January 22, 2020 5:15 PM

To: Mascola, John (NIH/VRC) [E] (b) (6)>; Gall, Jason (NIH/VRC) [C] (b) (6)>; Carlton, Kevin (NIH/VRC) [E] (b) (6)>; Stein, Judy (NIH/VRC) [C] (b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)>; Bok, Karin (NIH/VRC) [E] (b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>

Cc: Koup, Richard (NIH/VRC) [E] (b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E] <(b) (6)>; Harris, Christina (NIH/NIAID) [E] <(b) (6)>; Prince, Tasheema (NIH/VRC) [C] (b) (6)>; Routh, Jennifer (NIH/NIAID) [E] <(b) (6)>

Subject: Heads Up: Moderna Press Release

Hi Everyone,

This is a heads up that Jen will share the Moderna press release possibly tonight with a very tight turnaround. We wanted to let everyone know so that you can share any comments or must-change edits with her.

Thanks in advance.

Best,
Nissa

Nissa Hiatt

Communications

Vaccine Research Center, NIAID, NIH

40 Convent Drive, Bldg 40, Room 1107

Bethesda, MD 20892

(b) (6)

<COV_DRAFT_1.22.2020_Clean NIAID NSWB_jrm.docx>

<COV_DRAFT_1.22.2020_Clean NIAID NSWB_jrm.docx>

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 17 Mar 2020 19:06:02 +0000
To: Ruckwardt, Tracy (NIH/VRC) [E]; Kanekiyo, Masaru (NIH/VRC) [E]; Corbett, Kizzmekia (NIH/VRC) [E]
Cc: Morabito, Kaitlyn (NIH/VRC) [E]; Bok, Karin (NIH/VRC) [E]; Alvarado, Gabriela (NIH/VRC) [C]; Zhang, Yi (NIH/NIAID) [C]; Liu, Catherine (NIH/VRC) [C]; Young, Monique (NIH/VRC) [E]; Boyoglu-Barnum, Seyhan (NIH/VRC) [E]; Creanga, Adrian (NIH/VRC) [E]; Gillespie, Rebecca (NIH/VRC) [E]; Lederhofer, Julia (NIH/VRC) [F]; Dipiazza, Anthony (NIH/VRC) [F]; Nair, Deepika (NIH/VRC) [E]; Chang, Lauren (NIH/VRC) [F]; Phung, Emily (NIH/VRC) [F]; Fisher, Brian (NIH/VRC) [E]; Moin, Syed (NIH/VRC) [E]; Kumar, Azad (NIH/VRC) [E]; Chintalacheruvu, Saavan (NIH/VRC) [F]; Hutchinson, Geoffrey (NIH/VRC) [F]; Ziawo, Cynthia (NIH/VRC) [F]; Abiona, Olubukola (NIH/VRC) [F]; Corbett, Kizzmekia (NIH/VRC) [E]; Derrien-Colemyn, Alexandrine (NIH/VRC) [C]; Loomis, Rebecca (NIH/VRC) [E]; Yap, Christina (NIH/VRC) [F]; Chen, Man (NIH/VRC) [E]; Krug, Peter (NIH/VRC) [C]; Chapman, Latanya (NIH/VRC) [C]; Wang, Lingshu (NIH/VRC) [E]; Kong, Wing-Pui (NIH/VRC) [E]
Subject: RE: Lab attendance and duties

Dear Lab,

If you think you might have covid-19, you should contact OMS, who can coordinate screening and testing as appropriate. If you are tested elsewhere and test positive for covid-19, you should notify OMS and me.

NIAID leadership will work with NIH OD, OMS, and others to notify the community, as appropriate.

The [NIH Guidance for Staff on Coronavirus](#) is the primary source for staff information from NIH and it's being updated regularly.

Barney

From: Graham, Barney (NIH/VRC) [E]
Sent: Monday, March 16, 2020 2:30 PM
To: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6); Kanekiyo, Masaru (NIH/VRC) [E] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Cc: Morabito, Kaitlyn (NIH/VRC) [E] (b) (6); Bok, Karin (NIH/VRC) [E] (b) (6); Alvarado, Gabriela (NIH/VRC) [C] (b) (6); Zhang, Yi (NIH/NIAID) [C] (b) (6); Liu, Catherine (NIH/VRC) [C] (b) (6); Young, Monique (NIH/VRC) [E] (b) (6); Boyoglu-Barnum, Seyhan (NIH/VRC) [E] (b) (6); Creanga, Adrian (NIH/VRC) [E] (b) (6); Gillespie, Rebecca (NIH/VRC) [E] (b) (6); Lederhofer, Julia (NIH/VRC) [F] (b) (6); Dipiazza, Anthony (NIH/VRC) [F] (b) (6); Nair, Deepika (NIH/VRC) [E] (b) (6); Chang, Lauren (NIH/VRC) [F] (b) (6); Phung, Emily (NIH/VRC) [F] (b) (6); Fisher, Brian (NIH/VRC) [E] (b) (6)

Moin, Syed (NIH/VRC) [E] (b) (6)>; Kumar, Azad (NIH/VRC) [E] <(b) (6)>; Chintalacheruvu, Saavan (NIH/VRC) [F] (b) (6)>; Hutchinson, Geoffrey (NIH/VRC) [F] (b) (6)>; Ziwawo, Cynthia (NIH/VRC) [F] (b) (6)>; Abiona, Olubukola (NIH/VRC) [F] (b) (6)>; Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>; Derrien-Colemyn, Alexandrine (NIH/VRC) [C] (b) (6)>; Loomis, Rebecca (NIH/VRC) [E] (b) (6)>; Yap, Christina (NIH/VRC) [F] <(b) (6)>; Chen, Man (NIH/VRC) [E] (b) (6)>; Krug, Peter (NIH/VRC) [C] (b) (6)>; Chapman, Latanya (NIH/VRC) [C] (b) (6)>; Wang, Lingshu (NIH/VRC) [E] (b) (6)>; Kong, Wing-Pui (NIH/VRC) [E] <(b) (6)>

Subject: RE: Lab attendance and duties

On the PI call today, there was a lot of generous offers from other PIs to have there staff help with CoV work if needed over the next few weeks.

In particular, we should organize a meeting before the end of the week (probably virtual) (b) (5)
(b) (5)

Gabriela and Kaitlyn, could you work with Karin to organize this meeting?

Also, some of the other labs have set up WhatsApp groups to communicate between all lab members. Sounded like a good idea.

Best wishes,

Barney

From: Graham, Barney (NIH/VRC) [E]

Sent: Monday, March 16, 2020 2:20 PM

To: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6)>; Kanekiyo, Masaru (NIH/VRC) [E] <(b) (6)>; Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>

Cc: Morabito, Kaitlyn (NIH/VRC) [E] <(b) (6)>; Bok, Karin (NIH/VRC) [E] (b) (6)>; Alvarado, Gabriela (NIH/VRC) [C] (b) (6)>; Zhang, Yi (NIH/NIAID) [C] (b) (6)>; Liu, Catherine (NIH/VRC) [C] (b) (6)>; Young, Monique (NIH/VRC) [E] (b) (6)>; Boyoglu-Barnum, Seyhan (NIH/VRC) [E] (b) (6)>; Creanga, Adrian (NIH/VRC) [E] (b) (6)>; Gillespie, Rebecca (NIH/VRC) [E] (b) (6)>; Lederhofer, Julia (NIH/VRC) [F] (b) (6)>; Dipiazza, Anthony (NIH/VRC) [F] <(b) (6)>; Nair, Deepika (NIH/VRC) [E] (b) (6)>; Chang, Lauren (NIH/VRC) [F] (b) (6)>; Phung, Emily (NIH/VRC) [F] (b) (6)>; Fisher, Brian (NIH/VRC) [E] (b) (6)>; Moin, Syed (NIH/VRC) [E] <(b) (6)>; Kumar, Azad (NIH/VRC) [E] (b) (6)>; Chintalacheruvu, Saavan (NIH/VRC) [F] (b) (6)>; Hutchinson, Geoffrey (NIH/VRC) [F] (b) (6)>; Ziwawo, Cynthia (NIH/VRC) [F]

(b) (6); Abiona, Olubukola (NIH/VRC) [F] <(b) (6)>; Corbett, Kizzmekia (NIH/VRC) [E] (b) (6); Derrien-Colemyn, Alexandrine (NIH/VRC) [C] (b) (6); Loomis, Rebecca (NIH/VRC) [E] (b) (6); Yap, Christina (NIH/VRC) [F] (b) (6); Chen, Man (NIH/VRC) [E] (b) (6); Krug, Peter (NIH/VRC) [C] (b) (6); Chapman, Latanya (NIH/VRC) [C] (b) (6); Wang, Lingshu (NIH/VRC) [E] (b) (6); Kong, Wing-Pui (NIH/VRC) [E] (b) (6)>

Subject: RE: Lab attendance and duties

FYI

How to kill CoV

<https://www.medrxiv.org/content/10.1101/2020.03.09.20033217v2>

MERS CoV on environmental services – Attached

First trial participant enrolled!

<https://www.niaid.nih.gov/news-events/nih-clinical-trial-investigational-vaccine-covid-19-begins>

From: Graham, Barney (NIH/VRC) [E]

Sent: Sunday, March 15, 2020 10:49 PM

To: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6); Kanekiyo, Masaru (NIH/VRC) [E] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>

Cc: Morabito, Kaitlyn (NIH/VRC) [E] (b) (6); Bok, Karin (NIH/VRC) [E] (b) (6) Alvarado, Gabriela (NIH/VRC) [C] (b) (6) Young, Monique (NIH/VRC) [E] (b) (6); Boyoglu-Barnum, Seyhan (NIH/VRC) [E] (b) (6); Creanga, Adrian (NIH/VRC) [E] (b) (6); Gillespie, Rebecca (NIH/VRC) [E] (b) (6); Lederhofer, Julia (NIH/VRC) [F] (b) (6); Dipiazza, Anthony (NIH/VRC) [F] (b) (6); Nair, Deepika (NIH/VRC) [E] (b) (6); Chang, Lauren (NIH/VRC) [F] (b) (6); Phung, Emily (NIH/VRC) [F] (b) (6); Fisher, Brian (NIH/VRC) [E] (b) (6); Moin, Syed (NIH/VRC) [E] (b) (6); Kumar, Azad (NIH/VRC) [E] (b) (6); Chintalacheruvu, Saavan (NIH/VRC) [F] <(b) (6)>; Hutchinson, Geoffrey (NIH/VRC) [F] (b) (6); Ziwawo, Cynthia (NIH/VRC) [F] (b) (6); Abiona, Olubukola (NIH/VRC) [F] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] (b) (6); Derrien-Colemyn, Alexandrine (NIH/VRC) [C] <(b) (6)>; Loomis, Rebecca (NIH/VRC) [E] (b) (6); Yap, Christina (NIH/VRC) [F] (b) (6); Chen, Man (NIH/VRC) [E] (b) (6); Krug, Peter (NIH/VRC) [C] (b) (6); Chapman, Latanya (NIH/VRC) [C] (b) (6)>

Subject: Lab attendance and duties

Dear Lab,

You recently received emails from Dr. Collins and the VRC leadership about what to do during the looming coronavirus pandemic. Let me say a little more about what I expect from you. These are interesting and unprecedented times at least within my lifetime. We have to balance our own personal health against the public health and the functioning of the lab against the functioning of our families. I want this to work out well for everyone and for everyone to stay well. However, it is likely that some of us will eventually encounter the new coronavirus and if that happens we need to be mindful of our own health and the health of others around us. If you think you have been exposed or are developing symptoms, please stay home and contact me and seek medical help if needed.

Although we have been granted liberal telework options, it is important that we find a way to continue the coronavirus work.

(b) (5)

(b) (5)

I will be working off site for the next few days, and will be back in the office on Thursday. I am available by email and phone if needed.

Best wishes,

Barney

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
National Institute of Allergy and Infectious Diseases, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
Bethesda, MD 20892-3017
Phone: (b) (6)

URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 31 Mar 2020 10:27:15 +0000
To: Hiatt, Nissa (NIH/VRC) [C]
Subject: FW: Would like to discuss an approach to attack the Sars-Cov-2 Virus

FYI. I don't have time for this, but maybe OCGR would know how to answer.

BG

From: MICHAEL THOMAS (b) (6)
Sent: Tuesday, March 31, 2020 6:00 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: Would like to discuss an approach to attack the Sars-Cov-2 Virus

Dr. Graham:

I have been looking at a number of papers related to the research at the NIH and other Medical research groups for the past few weeks and would like to discuss an idea I have about attacking the Sars-Cov-2 Virus and destroying or immobilizing it.

I have a Ph.D in Materials Science from Stanford University and believe that there might be a very rapid and effective pathway to neutralize this horrific disease using a simple chemical formulation with a a high level of nontoxicity. I am presently retired and have ~ 30 years experience in scientific semiconductor research and have worked on nanotechnology related processes with over 50 technology related patents. I am also a chemist by training -- which I guess makes me dangerous.

I am sure that you are extremely busy, however, I feel that the approach I would like to propose could potentially lead to a short term amelioration or cure from the disease. Maybe the way that I am coming at the problem could give you a different insight regarding a rapid method of attack.

If you do not have the time to speak with me, I fully understand. However, I would greatly appreciate a courtesy response from you, however short, to please let me know if you simply aren't interested or that I could speak with another member of your staff. I can be reached by phone at (b) (6) (if I don't pickup, please leave a call back number and time) or at my email above.

If you cannot respond, I would appreciate any alternative contact and contact information you could provide -- so that I could pursue other avenues to have my idea evaluated.

I sincerely would like to help "all hands on deck" to defeat this horrible disease. I would appreciate a small chance to contribute to the fight against it.

Sincerely Yours,
Dr. Michael E. Thomas

(b) (6)
(b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 20 Apr 2020 01:28:09 +0000
To: Kate Selivanovitch
Subject: Re: Invitation to the 2021 Physical Virology Gordon Research Conference

Thank you for this invitation, and I would be honored to be part of this. However, it is difficult to plan that far in advance during these complicated times. I can agree to give a virtual lecture and if travel is possible by then and we are not in a new wave of CoV epidemic I will try to come.

Barney

Sent from my iPhone

On Apr 19, 2020, at 7:34 PM, Kate Selivanovitch <(b) (6)> wrote:

Dear Dr. Graham,

My name is Kate Selivanovitch and I am a graduate student in Trevor Douglas' lab at Indiana University. Additionally, I am also the chair of the 2021 Gordon Research Conference Seminars (GRS) in Physical Virology. Trevor provided me with your contact information because I would like to invite you to be our keynote speaker in January 2021. It would be our absolute pleasure for you to be our speaker, however I understand given the timing if you are unable to accept the invitation. If that is the case, I would really appreciate any suggestions you might have and/or potential speakers you could put me in touch with from your organization. My co-chair and I think it would be important for us to invite a speaker who is working as part of the response team to the current pandemic. The GRS would be a wonderful platform to educate young scientists on the importance of the work you are doing and on the work they are or will be a part of in the future.

I have attached a formal invitation and tentative program to this email, but briefly the GRS is a graduate students/post-doc organized and run two-day conference, where young researchers can present and discuss transformative research they are conducting in their laboratories. There will also be poster sessions, discussion sessions, a panel, and what we hope to be your talk.

This year we envision the theme of the keynote talk to be **Global Impacts of viruses and methods to propel research forward**. Your and your organization's expertise in the field and being at the forefront of the coronavirus outbreak, would be invaluable to us as young scientists and we sincerely hope you agree to our invitation.

For more details, you can visit the page below:

<https://www.grc.org/physical-virology-grs-conference/2021/>

There are two sections to this conference. The **GRS (January 23rd-24th 2021)** is the student run section and the GRC (January 24th-29th 2021) is the faculty run section and will take place in **Tuscany, Italy**. We wish for you to attend both, however if you are only available for the dates of the GRS, we understand and will work with your schedule as much as we can.

Thank you again and please do not hesitate to email me with any questions. I am very much looking forward to hearing from you.

Sincerely,
Ekaterina Selivanovitch

Chair, 2021 Physical Virology GRS
Ph.D. Candidate in Chemistry
Trevor Douglas Lab
Indiana University
<GRS2021_Program.pdf>
<BarneyGraham_GRS.pdf>

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 28 Apr 2020 19:59:03 +0000
To: McDermott, Adrian (NIH/VRC) [E]
Subject: RE: SARS-CoV-2 [REDACTED] (b) (4)

Thanks. I'll erase the email I was about to send.

BG

From: McDermott, Adrian (NIH/VRC) [E] [REDACTED] (b) (6) >
Sent: Tuesday, April 28, 2020 3:57 PM
To: Posavad PhD, Chris [REDACTED] (b) (6) >
Cc: Julie McElrath [REDACTED] (b) (6); Michael J Gale [REDACTED] (b) (6) Hural PhD, John [REDACTED] (b) (6); Flach, Britta (NIH/VRC) [C] [REDACTED] (b) (6) >; Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6) >; Taylor, Alison (NIH/VRC) [C] [REDACTED] (b) (6) >
Subject: Re: SARS-CoV-2 [REDACTED] (b) (4)

Dear Christine,

How are you? [REDACTED] (b) (5)
[REDACTED] (b) (5)

Thanks
Adrian

*Adrian B McDermott. Ph.D.
Chief, Vaccine Immunology Program
Vaccine Research Center, NIAID, NIH
40 Convent Dr., Room 3508
Bethesda, MD 20892-3015*

Phone (office): [REDACTED] (b) (6)

Phone (Cell): [REDACTED] (b) (6)

From: "Posavad PhD, Chris" [REDACTED] (b) (6)
Date: Tuesday, April 28, 2020 at 3:23 PM
To: Barney Graham [REDACTED] (b) (6) >, "McDermott, Adrian (NIH/VRC) [E]"

(b) (6) >
Cc: Julie McElrath (b) (6), Michael J Gale (b) (6) >, "Hural PhD,
John" (b) (6)
Subject: SARS-CoV-2 (b) (4)

Dear Drs. Graham and McDermott,

We are writing on behalf of (b) (4)
(b) (4)

Best,

Christine Posavad, PhD and John Hural, PhD
On behalf of the IDCRC Laboratory Operations Unit



From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 5 Mar 2020 20:41:35 +0000
To: Hiatt, Nissa (NIH/VRC) [C]
Cc: Routh, Jennifer (NIH/NIAID) [E]; Oplinger, Anne (NIH/NIAID) [E]; Corbett, Kizzmekia (NIH/VRC) [E]
Subject: FW: Arte Report Coronavirus IABS

FYI. Probably should get permission to share this quote. It is true.

Barney

From: Cecilia Marchat | ECO Media TV (b) (6)
Sent: Thursday, March 5, 2020 3:34 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Philippe Sabot - IABS (b) (6)
Subject: Arte Report Coronavirus IABS

Dear Dr. Graham,

I'm contacting you because I am interested in using a statement that you pronounced last Thursday (27 February 2020) during the IABS conference in Lyon for a documentary film that we are currently producing.

My name is Cécilia Marchat, I am working as a journalist for the German TV production company [ECO Media TV](#). Regularly we work for the TV series "[Arte Re:](#)" (32 min. reportage/weekdays on 7.40 pm). We are producing a new "Arte Re:" episode about the consequences of the coronavirus outbreak. The development of a vaccine and the IABS-conference are a narrative strand of this episode. In this context I would like to know if it's possible to quote you with the following sentence : "You 'd like to be prepared with a lot of immunized people before the northern hemisphere season starts in about 8 or 9 months."

I am at your disposal to answer any questions regarding this production and look forward to hearing from you.

Best regards,

Cécilia Marchat
ECO Media TV-Produktion GmbH

Vorsetzen 41

20459 Hamburg

Germany

tel: (b) (6)

fax: ++49 (0)40 40 11 30 1-11

email: marchat@ecomediatv.de

www.ecomediatv.de

www.dbate.de

Geschäftsführer: Dr. Thomas Schuhbauer, Jan Holtz

Amtsgericht HH, HRB 63753

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 29 Jan 2020 12:34:38 +0000
To: (b) (6) Graham
Subject: Fwd: Wuhan coronavirus

FYI. In Science yesterday.

Love BP

Sent from my iPhone

Begin forwarded message:

From: "Hiatt, Nissa (NIH/VRC) [C]" (b) (6)
Date: January 28, 2020 at 5:05:52 PM GMT+1
To: "Graham, Barney (NIH/VRC) [E]" (b) (6) >
Cc: "Prince, Tasheema (NIH/VRC) [C]" <(b) (6)> "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6) >, "Bok, Karin (NIH/VRC) [E]" (b) (6) >, "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6)
Subject: RE: Wuhan coronavirus

Hi Barney,

Here is Jon Cohen's piece in Science with your quotes:
<https://www.sciencemag.org/news/2020/01/scientists-are-moving-record-speed-create-new-coronavirus-vaccines-they-may-come-too> from this morning's NIH news round up.

Best,
Nissa

Nissa Hiatt
Communications
Vaccine Research Center, NIAID, NIH
40 Convent Drive, Bldg 40, Room 1107
Bethesda, MD 20892

(b) (6)
(b) (6)

-----Original Message-----

From: Hiatt, Nissa (NIH/VRC) [C]
Sent: Wednesday, January 22, 2020 3:44 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6) >
Cc: Routh, Jennifer (NIH/NIAID) [E] (b) (6) >; Prince, Tasheema (NIH/VRC)

[C] (b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E]
(b) (6)>; Bok, Karin (NIH/VRC) [E] <(b) (6)>; Corbett,
Kizzmekia (NIH/VRC) [E] <(b) (6)>
Subject: Re: Wuhan coronavirus

Hi Jen,

Thanks for the go ahead in person for Barney to talk to Jon Cohen.

Dr. Graham, please keep us posted how the conversation goes.

Best,
Nissa

Sent from my iPhone

On Jan 22, 2020, at 2:17 PM, Graham, Barney (NIH/VRC) [E] (b) (6)> wrote:
Hi Jen/Nissa,
FYI.
BG

-----Original Message-----

From: Jon Cohen <jcohen@aaas.org>
Sent: Wednesday, January 22, 2020 1:12 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Cc: Fauci, Anthony (NIH/NIAID) [E] (b) (6)>
Subject: Re: Wuhan coronavirus

Hi Barney and Tony,

I'm working on a story about potential drugs and vaccines against coronaviruses. There's a WHO press conference about the PHEIC at 2pm East Coast. Could we speak after 4pm East Coast? I'm interested in speaking with each of you separately if possible.

Thanks,

Jon

On Jan 10, 2020, at 2:15 PM, Graham, Barney (NIH/VRC) [E] (b) (6)> wrote:
Hi Jon,

We have requested sequences and NIAID is working through WHO and diplomatic channels to obtain virus and more information. People are working on this from both ends.

Best wishes,

Barney

-----Original Message-----

From: Jon Cohen <jcohen@aaas.org>
Sent: Friday, January 10, 2020 4:33 PM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>; Fauci, Anthony (NIH/NIAID)
[E] (b) (6)>
Subject: Wuhan coronavirus

Hi Barney and Tony,

Has the NIH requested the Wuhan coronavirus sequence from China?

If so, when, and what has been the response?
Thanks,
Jon

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 26 Mar 2020 13:29:48 +0000
To: Marston, Hilary (NIH/NIAID) [E]
Cc: Morabito, Kaitlyn (NIH/VRC) [E]; Embry, Alan (NIH/NIAID) [E]; Ledgerwood, Julie (NIH/NIAID) [E]; Degrace, Marciela (NIH/NIAID) [E]; Bozick, Brooke (NIH/OD) [E]; Post, Diane (NIH/NIAID) [E]; Chandrasekera, Ruvani (OS/ASPR/SPPR); Andrews, Charla (NIH/NIAID) [C]
Subject: Re: HAARVI sample access

I think (b) (4)

Barney

Sent from my iPhone

On Mar 26, 2020, at 8:50 AM, Marston, Hilary (NIH/NIAID) [E] (b) (6) wrote:

I checked with Amy and they have not. I can check with Karl.

From: "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6) >
Date: Thursday, March 26, 2020 at 8:43 AM
To: Hilary Marston (b) (6) >, Alan Embry (b) (6) >, "Graham, Barney (NIH/VRC) [E]" (b) (6) >, Julie Ledgerwood (b) (6) >
Cc: "Degrace, Marciela (NIH/NIAID) [E]" (b) (6) >, "Bozick, Brooke (NIH/OD) [E]" (b) (6), "Post, Diane (NIH/NIAID) [E]" (b) (6), Ruvani Chandrasekera (b) (6) >, "Andrews, Charla (NIH/NIAID) [C]" (b) (6) >
Subject: Re: HAARVI sample access

Hi all,

I'm including Charla Andrews who is starting to manage the sample sharing for the VRC.

(b) (4), (b) (5)

Best,
Kaitlyn

From: Hilary Marston (b) (6) >
Date: Thursday, March 26, 2020 at 7:34 AM
To: "Embry, Alan (NIH/NIAID) [E]" (b) (6) >, Barney Graham
(b) (6) >, "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6) >, Julie
Ledgerwood (b) (6)
Cc: "Degrace, Marciela (NIH/NIAID) [E]" (b) (6) >, "Bozick, Brooke (NIH/OD)
[E]" (b) (6) "Post, Diane (NIH/NIAID) [E]" (b) (6),
"Chandrasekera, Ruvani (OS/ASPR/SPPR)" (b) (6)
Subject: Re: HAARVI sample access

So far, I understand that (b) (4), (b) (5)
(b) (4), (b) (5)

From: Alan Embry (b) (6)
Date: Wednesday, March 25, 2020 at 10:17 PM
To: "Graham, Barney (NIH/VRC) [E]" (b) (6) >, "Morabito, Kaitlyn (NIH/VRC)
[E]" (b) (6) >, Hilary Marston (b) (6) >, Julie Ledgerwood
(b) (6) >
Cc: "Degrace, Marciela (NIH/NIAID) [E]" (b) (6) >, "Bozick, Brooke (NIH/OD)
[E]" (b) (6) "Post, Diane (NIH/NIAID) [E]" (b) (6)
Subject: FW: HAARVI sample access

I removed UW from this email. (b) (4), (b) (5)
(b) (4), (b) (5)

Thanks,
Alan

From: Helen Y Chu (b) (6)
Sent: Wednesday, March 25, 2020 5:12 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6); Embry, Alan (NIH/NIAID) [E]
<(b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6); Caitlin Wolf
(b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6) Ledgerwood, Julie

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

Subject: Re: HAARVI sample access

Barney and Kaitlyn,

(b) (4)

Thanks.

Helen

From: "Graham, Barney (NIH/VRC) [E]" (b) (6) >

Date: Friday, March 13, 2020 at 8:07 AM

To: Helen Y Chu <(b) (6)>, "Embry, Alan (NIH/NIAID) [E]" (b) (6) >, "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6), Caitlin Wolf (b) (6) >, "Marston, Hilary (NIH/NIAID) [E]" (b) (6) >, "Ledgerwood, Julie (NIH/NIAID) [E]" <(b) (6)>

Subject: RE: HAARVI sample access

Thanks Helen,

(b) (4)

Barney

From: Helen Y Chu (b) (6)

Sent: Friday, March 13, 2020 10:34 AM

To: Embry, Alan (NIH/NIAID) [E] (b) (6) >; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6) >; Caitlin Wolf (b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)

Subject: Re: HAARVI sample access

Alan,

Thanks for clarifying

(b) (4)

(b) (4)

Thanks.

Helen

From: "Embry, Alan (NIH/NIAID) [E]" <(b) (6)>
Date: Friday, March 13, 2020 at 5:23 AM
To: "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6)>, Caitlin Wolf
(b) (6), "Marston, Hilary (NIH/NIAID) [E]" (b) (6), "Graham,
Barney (NIH/VRC) [E]" (b) (6)>, Helen Y Chu (b) (6)>,
"Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6)
Subject: RE: HAARVI sample access

Caitlin and Helen,

(b) (4)

Thank you again,
Alan

From: Morabito, Kaitlyn (NIH/VRC) [E] <(b) (6)>
Sent: Friday, March 13, 2020 8:15 AM
To: Caitlin Wolf (b) (6)>; Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Graham,
Barney (NIH/VRC) [E] (b) (6); Helen Y Chu <(b) (6)>; Embry, Alan
(NIH/NIAID) [E] (b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)
Subject: Re: HAARVI sample access

Hi Caitlin,

(b) (4)

Thanks,
Kaitlyn

From: Caitlin Wolf (b) (6)
Date: Thursday, March 12, 2020 at 2:51 PM
To: Hilary Marston (b) (6)>, Barney Graham (b) (6), Helen
Y Chu (b) (6)>, "Embry, Alan (NIH/NIAID) [E]" (b) (6), Julie
Ledgerwood (b) (6), "Morabito, Kaitlyn (NIH/VRC) [E]"

(b) (6)>

Subject: Re: HAARVI sample access

Hi all,

Will link up with Kaitlyn (b) (4)

(b) (4)

Thanks,

Caitlin Wolf

Research Scientist, Lab Manager

Chu Lab, University of Washington

Allergy and Infectious Disease Division

(b) (6)

From: Marston, Hilary (NIH/NIAID) [E] (b) (6)>

Sent: Thursday, March 12, 2020 7:02 AM

To: Graham, Barney (NIH/VRC) [E] (b) (6); Helen Y Chu (b) (6); Embry, Alan (NIH/NIAID) [E] (b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E]

(b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)

Cc: Caitlin Wolf (b) (6)

Subject: RE: HAARVI sample access

Second this. Your efforts (in this area and obviously many others) have been critical and are so appreciated.

From: Graham, Barney (NIH/VRC) [E] (b) (6)

Sent: Thursday, March 12, 2020 8:05 AM

To: Helen Y Chu (b) (6)>; Embry, Alan (NIH/NIAID) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Marston, Hilary (NIH/NIAID) [E]

(b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>

Cc: Caitlin Wolf (b) (6)

Subject: RE: HAARVI sample access

Thank Helen,

Appreciate your diligence on this. (b) (4)

Barney

From: Helen Y Chu (b) (6) >
Sent: Thursday, March 12, 2020 1:43 AM
To: Embry, Alan (NIH/NIAID) [E] (b) (6) >; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6) >; Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)
Cc: Caitlin Wolf (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6) >
Subject: Re: HAARVI sample access

Understood. Caitlin (from my lab) will reach out to Kaitlyn (NIH VRC) (b) (4)
(b) (4)

(b) (4) Adding Barney on for awareness.

Helen

From: "Embry, Alan (NIH/NIAID) [E]" <(b) (6)>
Date: Wednesday, March 11, 2020 at 10:39 AM
To: Helen Y Chu (b) (6), "Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6) >, "Marston, Hilary (NIH/NIAID) [E]" <(b) (6)>, "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6)
Subject: RE: HAARVI sample access

Helen,

(b) (4)

Thanks again,
Alan

From: Helen Y Chu (b) (6)
Sent: Wednesday, March 11, 2020 1:22 AM
To: Embry, Alan (NIH/NIAID) [E] <(b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Marston, Hilary (NIH/NIAID) [E] (b) (6) Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)
Subject: Re: HAARVI sample access

Yes, of course Alan. (b) (4)
(b) (4)



From: "Embry, Alan (NIH/NIAID) [E]" (b) (6)>
Date: Tuesday, March 10, 2020 at 8:23 PM
To: Helen Y Chu (b) (6)>, Karen Makar (b) (6)
Division of Allergy and Infectious Disease (b) (6), "Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6), "Marston, Hilary (NIH/NIAID) [E]" (b) (6)
Cc: "Wesley C. Van Voorhis" (b) (6) Jacqueline Kirchner (b) (6)>
Subject: RE: HAARVI sample access

Helen,

 (b) (4)

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)
(b) (6)

From: Helen Y Chu <(b) (6)>
Sent: Tuesday, March 10, 2020 2:25 PM
To: Karen Makar (b) (6); Division of Allergy and Infectious Disease
<(b) (6)>; Embry, Alan (NIH/NIAID) [E] (b) (6)>
Cc: Wesley C. Van Voorhis (b) (6) Jacqueline Kirchner
(b) (6)
Subject: Re: HAARVI sample access

(b) (4)

From: Karen Makar <(b) (6)>
Date: Tuesday, March 10, 2020 at 8:18 AM
To: Helen Y Chu (b) (6)>, Division of Allergy and Infectious Disease
(b) (6), "Embry, Alan (NIH/NIAID) [E]" (b) (6)
Cc: "Wesley C. Van Voorhis" <(b) (6)> Jacqueline Kirchner
(b) (6)>
Subject: HAARVI sample access

Dear Helen,

A quick follow up, (b) (4)
(b) (4)

Many thanks,
Karen

From: Karen Makar (b) (6)
Sent: Monday, March 9, 2020 11:05 PM
To: Helen Y Chu (b) (6) Chetan Seshadri (b) (6); Division of Allergy and
Infectious Disease (b) (6)
Cc: Wesley C. Van Voorhis (b) (6)
Subject: Thank you!

Dear Helen,
Thanks for getting back to me and for sending the information! This is extremely helpful. I'll circle back to my colleagues and will follow up very soon.
Karen

Get [Outlook for iOS](#)

From: Helen Y Chu (b) (6) >

Sent: Monday, March 9, 2020 10:53:05 PM

To: Chetan Seshadri (b) (6) >; Karen Makar <(b) (6)> Division of Allergy and Infectious Disease (b) (6)

Cc: Wesley C. Van Voorhis (b) (6) >

Subject: Re: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Karen,

Sending your message onto our research email address. This is the message we've recently sent out.

Feel free to pass on info to others and they can email us at (b) (6).

Thanks.

Helen

Dear all,

The Chu Lab is enrolling individuals with acute SARS-COV2 infection into an immune profiling study called HAARVI (Hospitalized and Ambulatory Adults with Respiratory Viral Infections). These individuals are consented and actively enrolled in the hospital or as outpatients. The goal of collecting these research samples is to establish a central research biorepository that can be accessed by researchers who will need acute and convalescent samples for development of monoclonals, vaccines, and therapeutics as well as natural history studies of SARS COV2 patients. To date, these research samples have been shared with NIH and others who are working on monoclonal antibody development and the work is going well. **These research samples that are collected are separate from clinical samples.**

Requests for clinical samples should go through John Slattery.

My preference is that we not inundate our busy front line providers with multiple requests from different research groups, so if there is a way we can work together to get the research data and samples you want, please let us know and we will work together with you on this. Please note that the same investigators are also getting our experimental treatment protocols going, and that is a priority at this time.

The data and samples include:

1. A baseline questionnaire including symptom onset data, pregnancy, vaping, and other risk factors not well-captured from the medical record
2. Electronic medical record data (after patient consent to access it)
3. Daily nasal swabs x 1 week, either collected at bedside or self-collected
4. Serum, plasma, PBMCs, and whole blood (in Tempus tubes) at multiple time points during the acute phase.
5. Follow-up at day 30 for nose swab, serum, plasma, and PBMCs, including potentially leukopheresis
6. Subsequent outpatient follow-ups TBD

If you would like to collaborate, please contact us at (b) (6) with your name, best point of contact, a 2-3 line description of samples or research you are proposing. We will get back to you, but not within the next 2 weeks. We are in the middle of a public health emergency, and at this time our group is trying our best to enroll patients as safely and ethically as possible and assure access to best treatment options.

The individuals who have already contacted me include [REDACTED] (b) (4)

[REDACTED] If you are on this list, we will be in touch at least two weeks from now to set up a time to talk about specimens and data.

Thanks.

Helen and the HAARVI Team

From: Chetan Seshadri [REDACTED] (b) (6) >

Date: Monday, March 9, 2020 at 3:28 PM

To: Karen Makar [REDACTED] (b) (6)

Cc: Helen Y Chu [REDACTED] (b) (6), "Wesley C. Van Voorhis" [REDACTED] (b) (6) >

Subject: Re: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Hi Karen,

I don't know if anyone has it up and going already but I know that Helen Chu and Wes Van Voorhis are working on it.

I have cc'd them here. You are welcome to follow up with them directly.

Cheers,
Chetan

From: Karen Makar [REDACTED] (b) (6)

Date: Monday, March 9, 2020 at 1:46 PM

To: Chetan Seshadri <[REDACTED] (b) (6)>

Subject: RE: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Thanks, Chetan.

On a completely separate note, do you know which investigators have open protocols to collect biospecimens from local COVID cases? I have many people asking here (especially for PBMCs for Ab discovery work) and it would be great to be able to connect people that are interested.

Karen

From: Chetan Seshadri [REDACTED] (b) (6) >

Sent: Monday, March 9, 2020 10:44 AM

To: Karen Makar [REDACTED] (b) (6)

Cc: Anne Kasmar [REDACTED] (b) (6) >; Lynda Stuart

[REDACTED] (b) (6) >; Holger Kanzler [REDACTED] (b) (6) >; Colleen

Woods [REDACTED] (b) (6) >; Ksenia Koon [REDACTED] (b) (6) >

Subject: Re: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Hi Karen,

Either day works for me. Monday might be slightly preferred as Friday is (b) (6)

Thanks,
Chetan

From: Karen Makar (b) (6)>
Date: Friday, March 6, 2020 at 10:03 AM
To: Karen Makar (b) (6)>
Cc: Anne Kasmar (b) (6)>, Lynda Stuart
(b) (6)>, Holger Kanzler <(b) (6)>,
Colleen Woods (b) (6)>, Ksenia Koon <(b) (6)>
Subject: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Dear Colleagues,

The Collaboration for TB Vaccines Discovery (CTVD) meeting is scheduled for June 17th and 18th in Seattle, WA. As already discussed with many of you, we have planned an adjacent one day workshop focused on the translation of T cell receptor sequencing, analytics and antigen identification into testable TB vaccine candidates. This is currently scheduled for Friday, June 19th. However, we have heard there may be conflicts on that day for some of you and are willing to consider a different day. **Therefore, please email me your preferred date by TUESDAY MARCH 10th:**

	CAN attend	CANNOT attend
Monday, June 15th		
Friday, June 19th		

We will finalize the date choice by the end of next week to coordinate with the official CTVD invitations which will come soon. Please note that the BMGF will cover the costs of your extended stay as part of your attendance of the CTVD meeting. We also constantly monitoring the COVID-19 situation and realize that may impact travel. We will explore all options, including virtual participation.

This workshop builds off of the one we held last year at the CTVD but will have more of an emphasis on translating findings into testable vaccine candidates. Thus, the invitee list is being modified to reflect this focus and more information will be forthcoming. Please feel free to reach out if you have any questions.

Sincerely,
Karen

Karen Makar, Ph.D.

Senior Program Officer & GH-VAP Manager
Discovery & Translational Sciences

V (b) (6)

C (b) (6)

E (b) (6)

Bill & Melinda Gates Foundation

www.gatesfoundation.org

Global Health-Vaccine Accelerator Platforms

www.ghvap.org

From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 8 Mar 2020 17:11:22 +0000
To: Beigel, John (NIH) [E]
Subject: Re: clinical trial for COVID-19

Ok.Thanks. Sung-Han knows Dr. Oh well and did some training with him.

Barney

Sent from my iPhone

On Mar 8, 2020, at 9:04 AM, Beigel, John (NIH) [E] (b) (6) wrote:

Thanks Barney. We still have a team in Seoul. I will ask our team to discuss with Dr Oh (b) (4)
I will get back to you.

--

John Beigel, M.D.
Associate Director for Clinical Research
Division of Microbiology and Infectious Diseases
National Institute of Allergy and Infectious Diseases (NIAID)
Phone: (b) (6)
email (b) (6)

From: "Graham, Barney (NIH/VRC) [E]" (b) (6) >
Date: Sunday, March 8, 2020 at 3:13 AM
To: John Beigel (b) (6)
Subject: FW: clinical trial for COVID-19

Hi John,

The email below came from a clinical investigator in Seoul who worked in my lab for two years as a visiting professor. He is a good investigator and was involved in the South Korean MERS CoV outbreak response. In particular he did the environmental sampling of hospital spaces to determine nosocomial risks.

(b) (4)

Thanks,

Barney

From: Sung-Han Kim, MD. <(b) (6)>
Sent: Sunday, March 8, 2020 1:30 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: RE: clinical trial for COVID-19

Hi Barney,

I think that you are very busy to prepare the vaccine for SARS-CoV-2. Since mid-January, I have been continuously making all efforts to prevent nosocomial transmission of COVID-19 in our hospital.

Fortunately, there have been no COVID-19-related cases in our hospital. (b) (4)
(b) (4)

I heard from Dr. Oh that NIH leads remdesivir clinical trial and two hospitals in South Korea were designated for this trial. Dr. Oh said to me that it is difficult to include another hospital in South Korea. Do you have any information for this NIH-sponsored remdesivir clinical trial? (b) (4)

Best regards,

Sung-Han Kim, MD, PhD.
Professor
Department of Infectious Diseases
Chief
Office for Infection Control
Asan Medical Center
University of Ulsan College of Medicine
388-1 Pungnap-dong, Songpa-gu
Seoul, 138-736, South Korea
TEL: (b) (6) FAX: 82-2-3010-6970
e-mail: (b) (6)

Page appears blank in original

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 10 Feb 2020 19:03:33 +0000
To: Bok, Karin (NIH/VRC) [E]
Subject: RE: Elenes manuscript
Attachments: Graham BioSketch for flu 2020.docx

Here is a slightly updated biosketch.

BG

From: Bok, Karin (NIH/VRC) [E] (b) (6) >
Sent: Monday, February 10, 2020 2:01 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: FW: Elenes manuscript

Monique said you might have an updated biosketch?

Karin.

Karin Bok, MS, PhD
Senior Advisor, Vaccine Development
Office of the Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
phone (b) (6) | mobile: (b) (6) | email (b) (6)
<https://www.niaid.nih.gov/about/vrc>

From: Martha Alexander-Miller <(b) (6)>
Date: Monday, February 10, 2020 at 11:53 AM
To: Karin Bok (b) (6) >
Subject: RE: Elenes manuscript

Karin,

As a reminder I will also need Dr Graham's updated Biosketch. Thanks!

Best,

Martha

Martha A. Alexander-Miller, PhD
Dolores G. Evans PhD Chair in Microbiology and Immunology
Dept. of Microbiology and Immunology
Director Center for Vaccines at the Extremes of Aging
Wake Forest School of Medicine
Wake Forest BioTech Place
Room 2E-018
575 North Patterson Ave.
Winston-Salem, NC 27101
Phone: (b) (6)
FAX: 336 716-9928
<https://school.wakehealth.edu/Departments/Microbiology-and-Immunology>

(b) (6), Administrative Assistant
(b) (6) | Fax 336.716.9928 | (b) (6)
Department of Microbiology & Immunology, Biotech Place 2nd floor

From: Bok, Karin (NIH/VRC) [E] (b) (6)
Sent: Monday, February 10, 2020 10:51 AM
To: Martha Alexander-Miller (b) (6)
Subject: Re: Elenes manuscript

*****CAUTION:** This email originated from an external source. Do not click links or open attachments from unknown senders or unexpected emails.
Forward any suspicious emails to spam@wakehealth.edu

I apologize, (b) (4)

Karin.

Karin Bok, MS, PhD
Senior Advisor, Vaccine Development
Office of the Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
phone: (b) (6) | mobile: (b) (6) | email: (b) (6)
<https://www.niaid.nih.gov/about/vrc> [niaid.nih.gov](https://www.niaid.nih.gov)

From: Karin Bok (b) (6)
Date: Monday, February 10, 2020 at 10:29 AM
To: Martha Alexander-Miller <(b) (6)>
Cc: "Young, Monique (NIH/VRC) [E]" (b) (6)>, "Graham, Barney (NIH/VRC) [E]" (b) (6)>, "Kanekiyo, Masaru (NIH/VRC) [E]" (b) (6)>, "Mascola, John (NIH/VRC) [E]" (b) (6)>
Subject: Re: Elenes manuscript

Dear Dr. Alexander-Miller,

Please find attached (b) (4)
Let me know if you need anything else,

Thank you!

Karin.

Karin Bok, MS, PhD
Senior Advisor, Vaccine Development
Office of the Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
phone: (b) (6) | mobile: (b) (6) | email: (b) (6)
<https://www.niaid.nih.gov/about/vrc> [niaid.nih.gov](https://www.niaid.nih.gov)

From: Martha Alexander-Miller (b) (6)
Date: Friday, February 7, 2020 at 2:26 PM
To: "Graham, Barney (NIH/VRC) [E]" (b) (6)
Cc: Karin Bok (b) (6)>, "Young, Monique (NIH/VRC) [E]" (b) (6)>
Subject: RE: Elenes manuscript

Thanks Barney! I am attaching (b) (4).

Wow the coronavirus thing is crazy! (b) (6)

Best,
Martha

Martha A. Alexander-Miller, PhD
Dolores G. Evans PhD Chair in Microbiology and Immunology
Dept. of Microbiology and Immunology

Director Center for Vaccines at the Extremes of Aging
Wake Forest School of Medicine
Wake Forest BioTech Place
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575 North Patterson Ave.
Winston-Salem, NC 27101
Phone: (b) (6)
FAX: 336 716-9928
<https://school.wakehealth.edu/Departments/Microbiology-and-Immunology>

(b) (6), Administrative Assistant
(b) (6) | Fax 336.716.9928 | (b) (6)
Department of Microbiology & Immunology, Biotech Place 2nd floor

From: Graham, Barney (NIH/VRC) [E] (b) (6)>
Sent: Friday, February 7, 2020 2:12 PM
To: Martha Alexander-Miller (b) (6)
Cc: Bok, Karin (NIH/VRC) [E] (b) (6)>; Young, Monique (NIH/VRC) [E] (b) (6)>
Subject: RE: Elenes manuscript

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(b) (4) Not keeping up in the midst of the CoV response.

I've copied Karin Bok and Monique Young who may be able to help (b) (4)

BG

From: Martha Alexander-Miller (b) (6)
Sent: Thursday, February 6, 2020 12:46 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: RE: Elenes manuscript

Thanks Barney! (b) (4)

FYI

(b) (4)

Best,
Martha

Martha A. Alexander-Miller, PhD
Dolores G. Evans PhD Chair in Microbiology and Immunology
Dept. of Microbiology and Immunology
Director Center for Vaccines at the Extremes of Aging
Wake Forest School of Medicine
Wake Forest BioTech Place
Room 2E-018
575 North Patterson Ave.
Winston-Salem, NC 27101
Phone: (b) (6)
FAX: 336 716-9928
<https://school.wakehealth.edu/Departments/Microbiology-and-Immunology>

(b) (6), Administrative Assistant



(b) (6) | Fax 336.716.9928 |



(b) (6)

Department of Microbiology & Immunology, Biotech Place 2nd floor

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Thursday, February 6, 2020 12:40 PM
To: Martha Alexander-Miller (b) (6); Davide Angeletti
(b) (6); Yewdell, Jon (NIH/NIAID) [E] (b) (6) Kanekiyo, Masaru
(NIH/VRC) [E] (b) (6); Matthew J. Jorgensen (b) (6)
Subject: RE: Elenes manuscript

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(b) (4)

However, I don't think that is necessarily relevant to the conclusions of this paper. Otherwise, nothing to declare.

Barney

From: Martha Alexander-Miller <(b) (6)>
Sent: Thursday, February 6, 2020 12:31 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Davide Angeletti
(b) (6)>; Yewdell, Jon (NIH/NIAID) [E] (b) (6) Kanekiyo, Masaru
(NIH/VRC) [E] (b) (6)>; Matthew J. Jorgensen (b) (6)
Subject: Elenes manuscript
Importance: High

All,

We are ready to resubmit Elene's manuscript and just realized that there is a strict COI statement needed for each author.

I am reaching out to ask you to read the below COI and let me know if you have anything to disclose. Please respond as soon as you can so that we can get this back in. I apologize for not realizing this sooner.

INFO

All authors are expected to disclose all financial relationships that could undermine the objectivity, integrity, or perceived value of a publication. The editors will keep the potential conflicts in mind while evaluating the manuscripts.

JCI Insight requires that all authors issue a statement disclosing all financial holdings, professional affiliations, advisory positions, board memberships, and patent holdings, as described below, even if they believe their conflict is not germane to the content of the submitted paper (these correspond to the first tier of potential conflicts defined for editors). Such potential conflicts will be published in a footnote if the manuscript is ultimately accepted. It is the responsibility of the corresponding author to gather the list of potential conflicts from each author and to communicate the list of all potential conflicts to the editors with the submission.

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- 2.
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retainers, salary (including deferred compensation), honoraria, service on advisory boards, and providing testimony as an expert witness. Income generated by immediate family members (spouse or children) of the author are included.

- 4.
5. Research support. If an author's research was funded by \$50,000 or more per annum from a private or public company in the health care field in the fiscal year preceding the date of the original submission, including funding for personnel working within the laboratory, a potential conflict must be declared.
6. Intellectual property. If an author is an inventor on a planned, pending, or awarded patent, a potential conflict must be declared.

Any questions concerning these potential conflicts should be addressed to editors@insight.jci.org.

Best,
Martha

Martha A. Alexander-Miller, PhD
Dolores G. Evans PhD Chair in Microbiology and Immunology
Dept. of Microbiology and Immunology
Director Center for Vaccines at the Extremes of Aging
Wake Forest School of Medicine
Wake Forest BioTech Place
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Winston-Salem, NC 27101
Phone: (b) (6)
FAX: 336 716-9928
<https://school.wakehealth.edu/Departments/Microbiology-and-Immunology>

(b) (6), Administrative Assistant
 (b) (6) | Fax 336.716.9928 |  (b) (6)
Department of Microbiology & Immunology, Biotech Place 2nd floor

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 4 Nov 2019 22:16:48 +0000
To: Nason, Martha (NIH/NIAID) [E]
Subject: RE: ADVAC application
Attachments: Nason ADVAC recommendation.pdf, ADVAC Justification - Morabito.docx

Hi Martha,

I really like your statement for the ADVAC course.

I've attached two documents here. One is your letter of recommendation that goes in with your package. The other is a justification I had to write for Kaitlyn, maybe to justify her travel, I honestly can't remember. Anyway, some of the language there might be helpful to you.

I'm leaving town tomorrow and won't be back in office until 16th. I should have decent internet access so let me know if you need anything else. I think you have more than an average chance of getting in.

Best wishes,

Barney

From: Nason, Martha (NIH/NIAID) [E] (b) (6)>
Sent: Friday, November 1, 2019 11:14 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: RE: ADVAC application

Thanks. I just talked to Dean and he said he'd write something making it clear I have branch/division support.

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Friday, November 1, 2019 9:50 AM
To: Nason, Martha (NIH/NIAID) [E] (b) (6)
Subject: Re: ADVAC application

Ok that works.

It does need to be clear from Dean or Cliff that you have permission.

I think you have a pretty good chance. (b) (5).

BG

Sent from my iPhone

On Nov 1, 2019, at 9:38 AM, Nason, Martha (NIH/NIAID) [E] (b) (6) > wrote:

As far as I know, Dean is not writing one—he and I both thought that you said you’d write the “internal” letter for me if he let me apply. If that’s a miscommunication, we’d better speak to him asap. Phil Krause at FDA is writing an ‘external’ one for me.

I did also mention it to Cliff Lane, explaining that the website says internal letters should make it clear you have internal support, and he said if I wanted him to write something brief to that end he’d be happy to. I’d need to follow up on that asap as well.

I also talked to Cristina Casseti and Emily Erbelding, both of whom encouraged me to apply, (b) (5)

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Martha

From: Graham, Barney (NIH/VRC) [E] (b) (6)

Sent: Thursday, October 31, 2019 8:39 PM

To: Nason, Martha (NIH/NIAID) [E] (b) (6)

Subject: Re: ADVAC application

I’ll try to get this back to you tomorrow. Deadline is the 15th. I should probably look over Dean’s recommendation letter or we should write it for him.

I’m leaving town on Tuesday and will be gone until 16th. Should have good internet.

BG

Sent from my iPhone

On Oct 31, 2019, at 11:53 AM, Nason, Martha (NIH/NIAID) [E] <(b) (6)> wrote:

poke □

From: Nason, Martha (NIH/NIAID) [E]
Sent: Tuesday, October 22, 2019 10:54 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: ADVAC application

Hi Barney! Just wanted to check in with you and see if you were still willing to (and planning on) writing me a letter for ADVAC. I've taken a stab at my application—if you have a minute to look over it and opine as to whether I am on target and selling myself appropriately, I'd appreciate any feedback!

Thank you as always,
Martha

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 30 Mar 2020 12:53:57 +0000
To: Stein, Judy (NIH/VRC) [C]
Subject: Re: [REDACTED] (b) (4)

[REDACTED] (b) (4), (b) (5)

BG

Sent from my iPhone

On Mar 30, 2020, at 8:41 AM, Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6) > wrote:

Hi Barney,
I just want to check to see if [REDACTED] (b) (4), (b) (5)
[REDACTED]
Thanks
Judy

From: Sagar, Manish [REDACTED] (b) (6) >
Sent: Sunday, March 29, 2020 11:48 AM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6) >
Cc: Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6)
Subject: RE: [REDACTED] (b) (4)

Dear Barney,

[REDACTED] (b) (4)

Thanks

Manish

From: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Sunday, March 29, 2020 11:29 AM

To: Sagar, Manish (b) (6) >
Cc: Stein, Judy (NIH/VRC) [C] (b) (6) >
Subject: Re: (b) (4)

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(b) (4)

Barney

Sent from my iPhone

On Mar 28, 2020, at 3:40 PM, Sagar, Manish <(b) (6)> wrote:

Dear Barney,

Thank you for your reply.

(b) (4)

Thank you

Best,

Manish

From: Graham, Barney (NIH/VRC) [E] (b) (6)

Sent: Saturday, March 28, 2020 3:25 PM

To: Sagar, Manish (b) (6) >

Cc: Stein, Judy (NIH/VRC) [C] (b) (6)

Subject: RE: (b) (4)

CAUTION: External email. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Dr. Sagar,

Sorry for delayed response. (b) (4)

(b) (4)

Take care,

Barney

From: Sagar, Manish (b) (6) >

Sent: Thursday, March 19, 2020 12:15 PM

To: Graham, Barney (NIH/VRC) [E] <(b) (6)>

Subject: (b) (4)

Dear Dr. Graham,

(b) (4)

Thanks

Manish

Manish Sagar, MD
Boston University, School of Medicine
650 Albany Street, Room 647
Boston, MA 02118

(b) (6)

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From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 13 Feb 2020 18:00:25 +0000
To: Neubauer, Colton (NIH/NIAID) [E]
Subject: RE: Ethics Action Required: SAO Update

Sorry, I've been extremely busy with the coronavirus outbreak and am just returning from Geneva. Will try to figure this out in the next day or two. (b) (6)

Barney

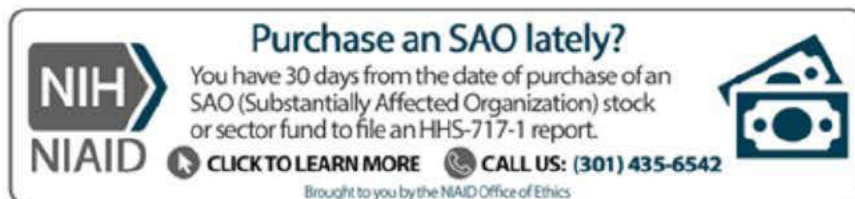
From: Neubauer, Colton (NIH/NIAID) [E] (b) (6)
Sent: Thursday, February 13, 2020 9:36 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6) >
Subject: RE: Ethics Action Required: SAO Update

Barney,

Please let me know if you have any questions regarding the message below.

Thank you!

Colton C. Neubauer
Program Analyst
Office of Ethics, NIH/NIAID
5601 Fishers Lane, Room 6C24, Rockville, MD 20892
(b) (6)



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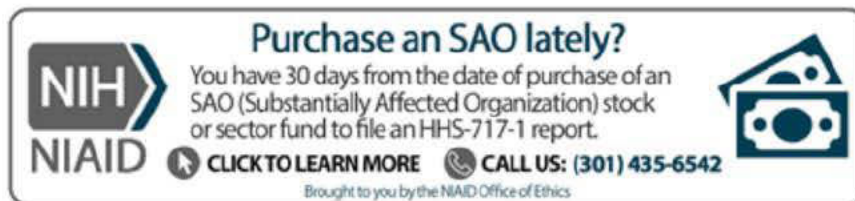
From: Neubauer, Colton (NIH/NIAID) [E]
Sent: Thursday, February 6, 2020 12:13 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: Ethics Action Required: SAO Update

Hello Dr. Graham,

(b) (6)

Thank you!

Colton C. Neubauer
Program Analyst
Office of Ethics, NIH/NIAID
5601 Fishers Lane, Room 6C24, Rockville, MD 20892
(b) (6)



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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 13 Jan 2020 11:17:07 +0000
To: Xavier Saelens
Cc: Jason McLellan; Bert Schepens
Subject: Re: Brief Skype Coronavirus
Attachments: CMB_Signature_Banner.jpg

Hi Xavier,

[REDACTED] (b) (4)
[REDACTED] I could potentially get on a call around 1pm my time today or early tomorrow morning.

Best wishes,

Barney

Sent from my iPhone

On Jan 13, 2020, at 5:30 AM, Xavier Saelens [REDACTED] (b) (6) wrote:

Dear Jason and Barney,

[REDACTED] (b) (4)

Would you have some time later today (Jan 13) or tomorrow at 17.00h (NIH time 11.00h, Tex time 10.00h) for a brief Skype to discuss [REDACTED] (b) (4)

[REDACTED]

Thanks and kind regards,
Xavier

-

Prof. Dr. Xavier Saelens - Principal Investigator

VIB-UGent Center for Medical Biotechnology
Technologiepark-Zwijnaarde 71 - 9052 Gent - Belgium

Tel: [REDACTED] (b) (6)

[REDACTED] (b) (6)

<CMB_Signature_Banner.jpg>





From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 20 Mar 2020 00:59:15 +0000
To: Mascola, John (NIH/VRC) [E]
Cc: Hiatt, Nissa (NIH/VRC) [C]; Austin, Sarah (NIH/NIAID) [E]
Subject: Re: Thank you and next New Yorker story

Agree. Pass through OCGR again and let her go with it.

BG

Sent from my iPhone

On Mar 19, 2020, at 8:03 PM, Mascola, John (NIH/VRC) [E] (b) (6)> wrote:

So much for keeping Kizzy focused. . . . But we should give her the option.

Barney, if you think ok, Nissa can coordinate and run in by OCGR. The initial story was pretty good.

best,
John

From: Kormann, Carolyn <carolyn_kormann@newyorker.com>
Sent: Thursday, March 19, 2020 7:56 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Mascola, John (NIH/VRC) [E]
(b) (6)>; Austin, Sarah (NIH/NIAID) [E] (b) (6)>
Subject: Thank you and next New Yorker story

Hi Barney and John,
Congrats on getting the vaccine trial started. And many thanks again for all your help a couple weeks ago on [the first vaccine story](#) I wrote.
I wonder if you might connect me with Kizzmekia Corbett? I am currently working on a piece that attempts to be a biography of the virus, and then I will be pivoting to a second vaccine piece. I'd like to interview Dr. Corbett for both stories.
Thank you!
Best,
Carolyn

--
Carolyn Kormann
Staff Writer

The New Yorker

1 World Trade Center
New York, NY 10007
c: [REDACTED] (b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 4 Mar 2020 01:53:41 +0000
To: Mascola, John (NIH/VRC) [E]
Subject: Re: Interview with the New Yorker?

Ok. Thanks for the tweet. I got cropped out of most photos because I had my back to the cameras.

I would not know how to look for a tweet. Probably need to figure that out.

Barney

Sent from my iPhone

On Mar 3, 2020, at 8:10 PM, Mascola, John (NIH/VRC) [E] (b) (6)> wrote:

They seem to want to talk to both of us – to get diverse perspectives – so that fine.

From: Graham, Barney (NIH/VRC) [E] (b) (6)>
Sent: Tuesday, March 3, 2020 7:25 PM
To: Mascola, John (NIH/VRC) [E] (b) (6)>
Subject: Re: Interview with the New Yorker?

John, did this same person contact you? If you want to take it, no problem. I was going to offer 7:30 when I'm driving into work, so let me know what you would like to do.

Barney

Sent from my iPhone

On Mar 3, 2020, at 6:54 PM, Mascola, John (NIH/VRC) [E] <(b) (6)> wrote:

Ok. Thanks.

Sent from my iPhone

On Mar 3, 2020, at 18:48, Hiatt, Nissa (NIH/VRC) [C] (b) (6) wrote:

Hi John,

I'm looping you into Barney's similar request so we can coordinate. Looks like Ken was able to get Barney cleared tonight. She's asking for 4 pm tomorrow as a deadline but y'all might have more flexibility than that.

Best,
Nissa

Nissa Hiatt
Communications
Vaccine Research Center, NIAID, NIH
40 Convent Drive, Bldg 40, Rm 1100
Bethesda, MD 20892
Office: (b) (6)
Mobile: (b) (6)
(b) (6)

Begin forwarded message:

From: "Pekoc, Ken (NIH/NIAID) [E]" (b) (6) >
Date: March 3, 2020 at 6:06:29 PM EST
To: "Graham, Barney (NIH/VRC) [E]" (b) (6)
Cc: "Routh, Jennifer (NIH/NIAID) [E]" (b) (6) >, "Hiatt, Nissa (NIH/VRC) [C]" (b) (6)
Subject: RE: Interview with the New Yorker?

Will do, and will simultaneously get approval, and ask her to pin down her deadline time.

Thanks

From: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Sent: Tuesday, March 3, 2020 4:05 PM
To: Pekoc, Ken (NIH/NIAID) [E] (b) (6)
Cc: Routh, Jennifer (NIH/NIAID) [E] (b) (6) >; Hiatt, Nissa (NIH/VRC) [C] (b) (6)
Subject: Re: Interview with the New Yorker?

Why don't you let her know that I would be willing to talk but not by that deadline.

BG

Sent from my iPhone

On Mar 3, 2020, at 6:00 PM, Pekoc, Ken (NIH/NIAID) [E] (b) (6)> wrote:

Can assist, will be here another 10 mins.

Dr. Graham, I can send this up for approval in the next few minutes, but do not know this reporter or her writing. (b) (5)

Here is a little [background](#) about her work at New Yorker.

From: Routh, Jennifer (NIH/NIAID) [E] (b) (6)>
Sent: Tuesday, March 3, 2020 3:51 PM
To: Hiatt, Nissa (NIH/VRC) [C] (b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)>; Pekoc, Ken (NIH/NIAID) [E] (b) (6)
Subject: FW: Interview with the New Yorker?

Looping in Ken, who may be able to handle clearance for this this evening but I can't guarantee it. I am heading out now.

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: Tuesday, March 3, 2020 5:45 PM
To: Hiatt, Nissa (NIH/VRC) [C] (b) (6)>; Routh, Jennifer (NIH/NIAID) [E] (b) (6)>; Oplinger, Anne (NIH/NIAID) [E] (b) (6)>
Subject: Fwd: Interview with the New Yorker?

FYI. I don't mind talking about this if they can communicate the rationale.

Barney

Sent from my iPhone

Begin forwarded message:

From: "Kormann, Carolyn" <carolyn_kormann@newyorker.com>

Date: March 3, 2020 at 5:04:36 PM EST

To: "Graham, Barney (NIH/VRC) [E]" (b) (6)

Subject: Interview with the New Yorker?

Dear Dr. Barney Graham,

I apologize for the email out of the blue. I'm working on a story about the race to develop a COVID-19 vaccine, and I was hoping I could speak with you about the vaccine technologies currently being pursued, and how this effort compares with vaccine R&D for other outbreaks. If you have time this evening (sorry, I know it's late in the day), that'd be great. My deadline is tomorrow afternoon.

Thanks so much.

Best,
Carolyn

--

Carolyn Kormann
Staff Writer

The New Yorker
1 World Trade Center
New York, NY 10007
o: 212-286-7976
c: (b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 10 Apr 2020 19:03:11 +0000
To: Morabito, Kaitlyn (NIH/VRC) [E]; Salata, Carol (NIH/NIAID) [E]
Cc: Stein, Judy (NIH/VRC) [C]; Alvarado, Gabriela (NIH/VRC) [C]; Corbett, Kizzmekia (NIH/VRC) [E]
Subject: RE: [REDACTED] (b) (4)

Hi Carol,

Sorry, I have not seen the other email.

I would [REDACTED] (b) (4), (b) (5)

Barney

From: Morabito, Kaitlyn (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Friday, April 10, 2020 2:46 PM
To: Salata, Carol (NIH/NIAID) [E] [REDACTED] (b) (6) >
Cc: Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6); Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6); Alvarado, Gabriela (NIH/VRC) [C] [REDACTED] (b) (6) >; Corbett, Kizzmekia (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: Re: [REDACTED] (b) (4)

Hi Carol,

I think this [REDACTED] (b) (5), so I'm including Barney Graham who should decide this. I'm including a few others who can help get you a response.

Best,
Kaitlyn

From: Carol Salata [REDACTED] (b) (6) >
Date: Friday, April 10, 2020 at 2:43 PM
To: "Morabito, Kaitlyn (NIH/VRC) [E]" [REDACTED] (b) (6) >
Cc: Judy Stein [REDACTED] (b) (6)
Subject: [REDACTED] (b) (4)

Hi Kaitlyn,

[REDACTED] (b) (4), (b) (5)

Also, we tried reaching out to Barney, but he, understandably, has not responded.

Thanks,

Carol Salata

Carol A. Salata, Ph.D.

Senior Advisor for Technology Transfer

Technology Transfer and Intellectual Property Office

NIAID, NIH, DHHS

5601 Fishers Lane, Room 2G22

Rockville, MD 20892

(b) (6)

(b) (6)

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From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 7 Feb 2020 14:56:21 +0000
To: Krause, Philip (FDA/CBER)
Cc: Stanley Plotkin
Subject: Overview of SARS response
Attachments: Lessons from SARS 2004 overview.pdf

FYI. Mark Denison recommended this book to me. It was a free download from the following link.

<https://www.nap.edu/catalog/10915/learning-from-sars-preparing-for-the-next-disease-outbreak-workshop>

He was there when the discussions happened.

I don't think the biology will necessarily be completely relevant at this point in time since technology options have changed so much, but there are good insights.

Best wishes,

Barney

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
National Institute of Allergy and Infectious Diseases, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
Bethesda, MD 20892-3017
Phone: (b) (6)
URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 8 Apr 2020 20:10:32 +0000
To: Gall, Jason (NIH/VRC) [C]; Mascola, John (NIH/VRC) [E]; Corbett, Kizzmekia (NIH/VRC) [E]; Doria-Rose, Nicole (NIH/NIAID) [E]; Carlton, Kevin (NIH/VRC) [E]
Subject: FW: Twist Bioscience SARS-CoV-2 Tools

FYI. [REDACTED] (b) (5)

Barney

From: Jillian O'Connell <joconnell@twistbioscience.com>
Sent: Wednesday, April 8, 2020 2:48 PM
To: Graham, Barney (NIH/VRC) [E] <[REDACTED]> (b) (6)>
Subject: Twist Bioscience SARS-CoV-2 Tools

Hi Barney,

I hope you are doing well and staying healthy! I'd like to introduce myself as your Inside Sales Specialist from Twist Bioscience.

I'd love to connect on how we may help enable your efforts towards finding a therapeutic for SARS-CoV-2.

Twist's Antibody Optimization(TAO) platform allows you to quickly generate high-diversity and high-quality molecules by removing liabilities and optimizing several antibody properties. <https://www.twistbiopharma.com/antibody-optimization>

Our DNA synthesis platform is capable of producing very large numbers of high-quality genes in short periods so you or your collaborators can screen the candidates and get answers quickly.

Just as we helped [REDACTED] (b) (4) we'd be happy to be part of the solution in any way we can.



Robert Carnahan @RHCarnahan · 1h
Nobody does it better (or faster) than this team!

VUMC Vaccine Center @VUMC_Vaccines · 1h
>1,000 rapidly synthesized #antibody #genes arrived special delivery on a Sunday, thanks to our partner @TwistBioscience. Into cells for expression and testing within hours by our amazing crew, @NargiRachel and @ItsRacheyBaby. More antiviral #COVID19 antibodies in the works!



If this is something that would be applicable to your projects, please let me know. I'm happy to give you a call to discuss our capabilities with you and evaluate how they can accelerate your work.

Cheers,
Jillian

Jillian O'Connell

INSIDE SALES SPECIALIST

P: (b) (6)

E: (b) (6)



[TWITTER](#) | [LINKEDIN](#) | [FACEBOOK](#) | [YOUTUBE](#)

681 Gateway Blvd, South San Francisco, CA 94080

[Would you like to opt out?](#)

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 14 Apr 2020 15:57:31 +0000
To: Stein, Judy (NIH/VRC) [C]; Gall, Jason (NIH/VRC) [C]; Mascola, John (NIH/VRC) [E]
Subject: RE: GH-VAP Platforms for SARS-CoV-2 now available to BMGF and CEPI grantees

Thanks Judy.

BG

From: Stein, Judy (NIH/VRC) [C] (b) (6)>
Sent: Tuesday, April 14, 2020 11:31 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Gall, Jason (NIH/VRC) [C] (b) (6); Mascola, John (NIH/VRC) [E] (b) (6)
Subject: RE: GH-VAP Platforms for SARS-CoV-2 now available to BMGF and CEPI grantees

Hi Barney,

(b) (4), (b) (5)

The specific term is below in case you have any questions.

Thanks,
Judy

(b) (4), (b) (5)

From: Graham, Barney (NIH/VRC) [E] (b) (6)>
Sent: Tuesday, April 14, 2020 10:38 AM
To: Gall, Jason (NIH/VRC) [C] (b) (6); Mascola, John (NIH/VRC) [E] (b) (6)>; Stein, Judy (NIH/VRC) [C] (b) (6)>
Subject: FW: GH-VAP Platforms for SARS-CoV-2 now available to BMGF and CEPI grantees

FYI. This is what Gates is planning to do with our protein. Some of Gates "grantees" (and Nexilis) are obviously companies. (b) (5)

Barney

From: Karen Makar [REDACTED] (b) (6) >

Sent: Tuesday, April 14, 2020 2:32 AM

(b) (6), (b) (4)

Subject: GH-VAP Platforms for SARS-CoV-2 now available to BMGF and CEPI grantees

Dear COVID-19 Vaccine Discovery Partners,

Two months ago, the Foundation **opened up all GH-VAP resources for coronavirus vaccine discovery and development** to BMGF and CEPI grantees. Today, we would like to share **two important platform additions** to the [GH-VAP portal](#) that specifically support COVID-19 vaccines. We anticipate that the services and resources described below will help accelerate your collective work, and ensure high-quality data is generated to inform research and product development decisions.

First, the BMGF has launched a partnership with Nexelis, a state-of-the-art CRO with proven expertise in assay development and advanced laboratory testing services in the fields of infectious diseases, metabolic diseases, and oncology. Initially spun-off of from GSK as NEOMED-LABS, Nexelis has been instrumental in the development, qualification, validation, and large-scale sample testing of assays that supported the FDA filing of nearly 100 new molecular entities, including vaccines, anti-viral drugs and immunotherapy products. [Nexelis](#) has been added as our newest GH-VAP Platform and will focus on [SARS-CoV-2 Immunoassays](#). High quality, optimized and qualified immunoassays that give reproducible results is absolutely critical to allow comparisons between regimens, doses and vaccine constructs. By providing these assays to our grantees and CEPI grantees free of charge via GH-VAP, we enable investigators to minimize their own costs and leverage a highly professional set of common assays to accelerate the development of new potent vaccines.

(b) (4)

In addition, Nexelis will produce and characterize small batches of the full-length spike protein and RBD that will be available for research use and assay benchmarking.

Second, we are offering SARS-CoV-2 reagents through our partnership with the University of Washington Institute for Protein Design (UW-IPD). Recognizing that access to high-quality, well-characterized protein reagents will greatly enable vaccine research, the UW-IPD has produced GLP lots of the following reagents which are now available through GH-VAP. Further details can be found [here](#).

- Human ACE-2 receptor
- Monoclonal antibody CR3022
- SARS-CoV-2 Receptor Binding Protein (RBD)

We would like to take this opportunity to recognize the extraordinary talent, and effort you collectively have brought to rapidly developing a vaccine for COVID-19. Many of you are starting new COVID projects while dealing with lab shutdowns and social distancing. We continue to be grateful for your partnership and your invaluable scientific contributions to this effort. If you would like further information about the above new additions, or have other inquiries related to GH-VAP, please feel free to contact us at ghvapmanager@ghvap.org.

Sincerely,

Karen Makar, *on behalf of the GH-VAP management team*

Karen Makar, Ph.D.

Senior Program Officer & GH-VAP Manager
Discovery & Translational Sciences

V (b) (6)
C (b) (6)
E (b) (6)

Global Health-Vaccine Accelerator Platforms

www.ghvap.org

Here's the view of the current GH-VAP platforms. If you don't have access or don't remember your password, please email ghvapsupport@ghvap.org.

From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 15 Mar 2020 14:32:05 +0000
To: Schwaninger, Julie (NIH/NIAID) [E]
Subject: RE: Reminder: HIPC IOF Proposal Reviews: Due March 12, 2020

Thanks for understanding.

BG

From: Schwaninger, Julie (NIH/NIAID) [E] (b) (6) >
Sent: Thursday, March 12, 2020 4:30 PM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Subject: RE: Reminder: HIPC IOF Proposal Reviews: Due March 12, 2020

Dear Barney,
We understand, and imagine you must be very busy indeed!!
Do not worry about the reviews, as we will ask some NIAID staff to assist with your reviews.
Best regards,
Julie

From: Graham, Barney (NIH/VRC) [E] (b) (6) >
Sent: Tuesday, March 10, 2020 5:00 PM
To: Schwaninger, Julie (NIH/NIAID) [E] (b) (6)
Subject: RE: Reminder: HIPC IOF Proposal Reviews: Due March 12, 2020

I have been completely underwater for the last 6 weeks trying to deal with the new coronavirus. I don't think I'm going to be able to do this. Sorry about that.

Barney

From: Schwaninger, Julie (NIH/NIAID) [E] (b) (6)
Sent: Tuesday, March 10, 2020 3:35 PM
To: Adrian Hayday (b) (6); Graham, Barney (NIH/VRC) [E]
(b) (6) E. John Wherry (b) (6) >; Karolina Palucka
(b) (6) Golding, Hana (FDA/CBER) (b) (6) >
Cc: Togias, Alkis (NIH/NIAID) [E] (b) (6) >; Deckhut, Alison (NIH/NIAID) [E]
(b) (6) >
Subject: Reminder: HIPC IOF Proposal Reviews: Due March 12, 2020
Importance: High

Dear HIPC EAB,

This is a reminder to please **complete your HIPC IOF reviews by March 12, 2020, 8pm Eastern**. The instructions and updated spreadsheet of projects to review are attached, and the complete information is in my original email, below.

If you have any questions, please don't hesitate to reach out. Thank you in advance for your help with this review.

Best regards,
Julie

From: Schwaninger, Julie (NIH/NIAID) [E]
Sent: Friday, January 31, 2020 3:30 PM
To: Adrian Hayday <(b) (6)>; Barney Graham <(b) (6)>; E. John Wherry <(b) (6)>; Karolina Palucka <(b) (6)>; Peter Ghazal <(b) (6)>; Golding, Hana (FDA/CBER) <(b) (6)>
Cc: Togias, Alkis (NIH/NIAID) [E] <(b) (6)>; Deckhut, Alison (NIH/NIAID) [E] <(b) (6)>; Kelly, Halonna (NIH/NIAID) [E] <(b) (6)>; Chen, Quan (NIH/NIAID) [E] <(b) (6)>
Subject: HIPC IOF Proposal Reviews: Due March 12, 2020
Importance: High

Dear HIPC EAB Members,

The January 2020 IOF applications are ready for your review. For this round, the HIPC PI's will serve as the reviewers for the infrastructure applications, and the EAB members will serve as reviewers for the non-infrastructure/pilot proposals.

The attached spreadsheet lists all non-infrastructure/pilot proposals. It is important to note that we are requesting a critical review of all applications, because the Steering Committee can ask the submitter(s) to revise aims and budgets if needed to improve the project.

Please read the *Reviewer Instructions* (attached and also available on the website under "*Review IOF Proposals*">"*Reviewer Instructions*"), which outline how to review the applications online.

To complete your reviews, please log onto the HIPC website: www.immuneprofiling.org. If you have any trouble with your login credentials, please contact Julie Schwaninger <(b) (6)> ASAP for a password reset. Once logged into the website, select "*Review IOF Proposals*," then "*Proposals to Review: IOF*" to display your assigned applications and direct you to the page where you will enter your review. Please remember to **SAVE** your entries. You must hit "**SUBMIT REVIEW**" upon completion of each review, or they will not be counted as final.

All reviews are due by **Thursday, March 12 at 8pm Eastern**, to allow time for the compilation of scores and rebuttals (if needed) prior to the Steering Committee's scheduled discussion of the proposals on March 27th.

If you have any questions please feel free to contact me directly. Thank you for your time in reviewing these proposals.

Best regards,

Julie Schwaninger

Julie M. Schwaninger, M.S.
Health Specialist
National Institute of Allergy and Infectious Diseases, NIH
Allergy, Asthma and Airway Biology Branch
5601 Fishers Lane, Room 6B44
Rockville, MD 20892
Phone: (b) (6)
Fax: (301) 480-4258
Email: (b) (6)

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From: Deckhut, Alison (NIH/NIAID) [E]
Sent: Tuesday, January 14, 2020 4:48 PM
To: Adrian Hayday <(b) (6)>; Karolina Palucka (b) (6)>; Wherry, John <(b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)
Golding, Hana (FDA/CBER) (b) (6)>; Peter Ghazal (b) (6)>
Cc: Tollini Farrell, Grace (NIH/NIAID) [C] (b) (6)>; Schwaninger, Julie (NIH/NIAID) [E] (b) (6)>; Togias, Alkis (NIH/NIAID) [E] (b) (6)>; Kelly, Halonna (NIH/NIAID) [E] (b) (6)
Subject: NIAID HIPC Annual Meeting and IOF project review
Importance: High

Dear Adrian, John, Peter, Barney, Hana and Karolina:

The HIPC annual meeting is rapidly approaching (February 26-27, 2020) and we expect to send you a near final agenda by early next week for this full 2 day meeting. We will miss John at this meeting, but welcome the addition of Hana Golding to the HIPC External Advisory Board.

The HIPC investigators are currently working on their next submission for Opportunity Fund projects, which will be submitted by the end of this week. We've very much appreciated your review of these projects in previous years and hope we can count on you again. The applications would be ready for your review by the latter part of next week and comments would be due by the end of March. We expect that each of you would have 3-5 projects to review (each project is limited to a 5 page project

descriptions). Please let us know if you are able to help us with these reviews and if have any concerns or questions.

All the best,
Alison and Alkis

Alison Deckhut Augustine, Ph.D.
Chief, Basic Immunology Branch
Division of Allergy, Immunology and Transplantation
NIAID, NIH, DHHS
5601 Fishers Lane
Rockville, MD 20852
(b) (6)
Direct: (b) (6)
Main: 301-496-7551

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 15 Apr 2020 21:29:56 +0000
To: Routh, Jennifer (NIH/NIAID) [E]
Cc: Mascola, John (NIH/VRC) [E]; Daucher, Marybeth (NIH/NIAID) [E]; Billet, Courtney (NIH/NIAID) [E]; Stover, Kathy (NIH/NIAID) [E]
Subject: Re: proposed SOP for handling Dr. Corbett media inquiries

I think what you've written is fine. [REDACTED] (b) (5)

BG

Sent from my iPhone

On Apr 15, 2020, at 4:12 PM, Routh, Jennifer (NIH/NIAID) [E] [REDACTED] (b) (6) >
wrote:

Thanks. If we move forward with any requests we can offer [REDACTED] (b) (5)
[REDACTED] (b) (5)

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team
Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

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: [REDACTED] (b) (6)
[REDACTED] (b) (6)

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From: Graham, Barney (NIH/VRC) [E] (b) (6) >
Sent: Wednesday, April 15, 2020 4:06 PM
To: Routh, Jennifer (NIH/NIAID) [E] (b) (6) >
Cc: Mascola, John (NIH/VRC) [E] (b) (6) >; Daucher, Marybeth (NIH/NIAID) [E] (b) (6) >; Billet, Courtney (NIH/NIAID) [E] (b) (6) >; Stover, Kathy (NIH/NIAID) [E] (b) (6) >
Subject: Re: proposed SOP for handling Dr. Corbett media inquiries

Thanks Jen. We are reviewing.

My greatest two concerns (b) (5)
(b) (5)

Barney

Sent from my iPhone

On Apr 15, 2020, at 2:17 PM, Routh, Jennifer (NIH/NIAID) [E] (b) (6) > wrote:

Dr. Mascola –

Please see a proposed SOP for handling media inquiries for Dr. Corbett. I have temporarily paused clearance on all requests for Dr. Corbett for the time being. (b) (5)

(b) (5)

(b) (5)

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]
Sent: Wed, 11 Mar 2020 13:52:57 +0000
To: Daniel Graham (CCI-Atlanta)
Cc: Cynthia Turner-Graham
Subject: Fwd: CANCELLATION OF THE ADVANCED COURSE OF VACCINOLOGY 2020

FYI, along with the international coronavirus meeting and everything else through June.

Sent from my iPhone

Begin forwarded message:

From: advac <advac@unige.ch>
Date: March 11, 2020 at 9:51:01 AM EDT
Subject: CANCELLATION OF THE ADVANCED COURSE OF VACCINOLOGY 2020

Dear ADVAC Lecturer/Facilitator,

Due to the increasing travel restrictions and flight cancellations caused by COVID-19 and considering the policies of the organizing institutions, co-sponsor institutions and their government/umbrella institutions, as well as individual discussions and interactions with a number of you, the decision has been taken jointly by the Mérieux Foundation and the University of Geneva to cancel this year's ADVAC.

Our major funder, the Bill & Melinda Gates Foundation is supportive of this decision.

Clearly, with the recent evolution and spread of the disease and precautionary measures taken by health authorities and organizations (including WHO), the most likely scenario is that a substantial number of lecturers/facilitators as well as participants, would be unable to travel to Les Pensières. The likelihood that the situation will return to normal by early May seems quite improbable.

As you can imagine, this was not an easy decision to take and it is certainly extremely disappointing to many of us actively involved in the preparation of ADVAC. As you all know,

ADVAC is much more than a series of lectures and as such, we cannot consider having a virtual meeting. Both the uncertainty of the evolution of COVID-19 and the risk that some participants and lecturers would not be available at short notice leaves us no choice in our decision.

As a result, the 21st ADVAC will now take place from 10 to 21 May 2021 and all selected participants for ADVAC 2020 will be given the opportunity to attend the course in 2021.

We hope that we can count on you for the Course in 2021 and kindly request that you block the dates. The program will remain essentially as planned for this year and we will update it shortly and send to you with the revised dates of your lecture(s).

Should you incur any cancellation charges on travel arrangements already booked, we will of course, refund these expenses, and you can contact Sandra Angèle (b) (6) (b) (6) with a copy to Laure Meyssirel (b) (6) who will help you with the process.

Extraordinary times like these necessitate extraordinary measures and while we realize that this will be a serious disappointment for some of you, it may also bring relief to others, and we thank you for your understanding.

With kindest regards,

Philippe

Philippe Duclos,

Director, ADVAC

CMU- Centre of Vaccinology

1, rue Michel-Servet

CH1211- Geneva 4

Switzerland

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 18 Mar 2020 16:07:23 +0000
To: Hiatt, Nissa (NIH/VRC) [C]
Subject: FW: Canadian Broadcasting Corp. query re: COVID-19

Same question.

BG

From: ALLISON DEMPSTER <allison.dempster@cbc.ca>
Sent: Monday, March 16, 2020 6:14 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: Canadian Broadcasting Corp. query re: COVID-19

Hello Dr. Graham,

I'm a reporter with CBC's national radio program and podcast 'The Cost of Living'.

We are working on a story about the economics of developing a vaccine for COVID-19. I'm hoping to paint a picture of what it takes to find a vaccine and then manufacture it on a global scale.

I'd be very interested in hearing about what's underway at the Vaccine Research Centre and I thought you might be able to give us some insight on what the challenges are -- why it takes the time and money it does (and how that affects the economics of vaccine development).

Of course, I realize this must be an extraordinarily busy time for you! But if you have time for a taped audio interview, that would be wonderful. I expect it would take 15 minutes.

Any chance we could arrange something for tomorrow (Tues) or Wednesday morning? Let me know what's possible.

--

Thanks,

Allison Dempster
Field Producer-Reporter
CBC National News
Calgary, Alberta
mobile: (b) (6)
twitter: @dempsterCBC

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 20 Apr 2020 22:29:17 +0000
To: Britttni Smith
Subject: RE: Preterm immune Maturation- Peer Review Request for Thrasher Research Fund (ID#15436)

I'm sorry, but we are too busy with the COVID vaccine work.

Barney

From: Britttni Smith <SmithBA@Thrasherresearch.org>
Sent: Monday, April 20, 2020 6:09 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: (b) (6) - Peer Review Request for Thrasher Research Fund (b) (6)

Dear Dr. Graham,

The Thrasher Research Fund provides grants for children's medical research. I am currently establishing a review panel for a project by (b) (6), (b) (4) in considering your research interests and related work, I believe you may be well positioned to review this proposal and offer insights on the merits of this work.

We understand that your work and focus have shifted during this dynamic time with the COVID-19 outbreak. At the Thrasher Research Fund, we hope that you will still consider providing a peer review, as our organization is committed to continuing our mission to improve pediatric care and providing funding during these challenging times.

(b) (6), (b) (4)

The entire review can be completed electronically. I would like to have the review completed within the next four to five weeks, if possible. If you are unable to provide a review in the timeframe, or if you have a conflict of interest, I would appreciate recommendations for alternate reviewers. Any assistance you can provide is appreciated.

Kind regards,

Britttni Smith

Britttni Smith

Research Manager

Thrasher Research Fund

ph: +1 801 240-4720

email: SmithBA@Thrasherresearch.org

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 1 Apr 2020 18:43:24 +0000
To: Carlton, Kevin (NIH/VRC) [E]
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]
Subject: slides
Attachments: (b) (4), (b) (5)

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
National Institute of Allergy and Infectious Diseases, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
Bethesda, MD 20892-3017
Phone: (b) (6)
URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 23 Mar 2020 14:12:37 +0000
To: Mascola, John (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]
Subject: RE: transition

Thanks John,

Kaitlyn and I have reached a compromise. One factor that you may not be aware of is that (b) (6), (b) (5)

[REDACTED]

[REDACTED] (b) (5)

Barney

From: Mascola, John (NIH/VRC) [E] (b) (6) >
Sent: Monday, March 23, 2020 8:46 AM
To: Morabito, Kaitlyn (NIH/VRC) [E] <(b) (6) >
Cc: Graham, Barney (NIH/VRC) [E] (b) (6) >
Subject: Re: transition

Kaitlyn,

We can work to ensure the (b) (6), (b) (5)

And during this time of National emergency, I think (b) (6), (b) (5)

[REDACTED]

Talk with Barney and let me know.

John

On Mar 23, 2020, at 08:10, Morabito, Kaitlyn (NIH/VRC) [E] <(b) (6) > wrote:

John,

We had discussed [REDACTED]

(b) (6), (b) (5)

[REDACTED] (b) (6), (b) (5)

I have a one-on-one with Barney this morning and will discuss options with him then.

Thanks,
Kaitlyn

From: John Mascola <[REDACTED] (b) (6)>

Date: Sunday, March 22, 2020 at 10:21 AM

To: "Morabito, Kaitlyn (NIH/VRC) [E]" [REDACTED] (b) (6)

Cc: Barney Graham [REDACTED] (b) (6)>

Subject: transition

Kaitlyn,

As COVID-19 has become a global pandemic, you can see that the required response is all encompassing.

[REDACTED] (b) (6), (b) (5)

I would like to ask you to [REDACTED]

(b) (6), (b) (5)

Let Barney and me know if you might be able to do this.

Thanks,
John

John R. Mascola, M.D.
Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
email: [REDACTED] (b) (6)
office tel: [REDACTED] (b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 24 Mar 2020 14:35:04 +0000
To: Corbett, Kizzmekia (NIH/VRC) [E]
Cc: Morabito, Kaitlyn (NIH/VRC) [E]; Alvarado, Gabriela (NIH/VRC) [C]; Bok, Karin (NIH/VRC) [E]
Subject: FW: seasonal coronaviruses

Just to our group.

FYI. [REDACTED] (b) (4), (b) (5)
[REDACTED] (b) (4), (b) (5)

Barney

From: Embry, Alan (NIH/NIAID) [E] [REDACTED] (b) (6)
Sent: Tuesday, March 24, 2020 9:59 AM
To: Corbett, Kizzmekia (NIH/VRC) [E] [REDACTED] (b) (6) >
Cc: Stemmy, Erik (NIH/NIAID) [E] [REDACTED] (b) (6); Graham, Barney (NIH/VRC) [E]
[REDACTED] (b) (6) >
Subject: RE: seasonal coronaviruses

Thanks Kizzmekia. [REDACTED] (b) (4)
[REDACTED]

[REDACTED] (b) (4)

No pressure from me at all. [REDACTED] (b) (5)

Thanks,
Alan

From: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Sent: Tuesday, March 24, 2020 9:49 AM
To: Embry, Alan (NIH/NIAID) [E] (b) (6) >
Cc: Stemmy, Erik (NIH/NIAID) [E] (b) (6) >; Graham, Barney (NIH/VRC) [E]
(b) (6)
Subject: Re: seasonal coronaviruses

We have everything (just about). ☺ How they are to be shared is in Dr. Graham's paygrade though. Cc'ing him here.

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team
Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608
40 Convent Drive
Bethesda MD 20892
Laboratory: (b) (6)
Personal: (b) (6)
Fax: (301) 480-2771

From: "Embry, Alan (NIH/NIAID) [E]" (b) (6) >
Date: Tuesday, March 24, 2020 at 9:47 AM
To: Kizzmekia Corbett (b) (6)
Cc: "Stemmy, Erik (NIH/NIAID) [E]" (b) (6) >
Subject: seasonal coronaviruses

Hi Kizzmekia,

We have had a number of people asking if anyone has access to (b) (4)
(b) (6) Do you have either, and if so would you be willing to share with a key lab or 2? I can give you more info if helpful.

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)

(b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 23 Jan 2020 14:33:50 +0000
To: Bok, Karin (NIH/VRC) [E]
Cc: Routh, Jennifer (NIH/NIAID) [E]
Subject: FW: Press release verification

I would send him a copy of the press release and indicate this is all we can say.

BG

From: Joseph Lawler <Joe@jflcapitalmanagement.com>
Sent: Thursday, January 23, 2020 9:12 AM
To: Bok, Karin (NIH/VRC) [E] (b) (6)
Cc: Prince, Tasheema (NIH/VRC) [C] (b) (6)>; Hiatt, Nissa (NIH/VRC) [C] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E] (b) (6)>; Harris, Kara (NIH/NIAID) [E] (b) (6)>; Harris, Christina (NIH/NIAID) [E] (b) (6)>; Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: RE: Press release verification

Dear Dr. Bok,

Thank you for your prompt reply. I searched the NIH Reporter database and was unable to find the grant under which this research was funded. I assume therefore that this collaboration takes the form of a more traditional collaboration between academic laboratories. Can you clarify what the nature of the collaboration is? Also, is Moderna paying NIAID/VRC or vice versa as part of this collaboration? How is this research being funded? Thank you.

Kind regards,
Joseph Lawler

From: Bok, Karin (NIH/VRC) [E] (b) (6)
Sent: Wednesday, January 22, 2020 11:49 AM
To: Joseph Lawler <Joe@jflcapitalmanagement.com>
Cc: Prince, Tasheema (NIH/VRC) [C] (b) (6)>; Hiatt, Nissa (NIH/VRC) [C] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E] (b) (6)>; Harris, Kara (NIH/NIAID) [E] (b) (6)>; Harris, Christina (NIH/NIAID) [E] (b) (6)>; Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: Re: Press release verification

Good Afternoon Dr. Lawler,

Thank you for your interest in NIAID/VRC research. The press release by Moderna Inc. this morning is indeed an accurate statement.

We have an ongoing collaboration with Moderna (since May 2019) on Coronavirus research. Drawing from VRC's extensive research experience with Coronavirus, we are collaborating with Moderna on the preclinical testing of a new vaccine candidate against the 2019 novel coronavirus, based on Moderna's mRNA technology. If this vaccine candidate proves to be successful during our initial testing, it may advance to a Phase I clinical trial in humans.

Best Regards,

Karin.

Karin Bok, MS, PhD

Senior Advisor, Vaccine Development

Office of the Director, Vaccine Research Center

National Institute of Allergy and Infectious Diseases

National Institutes of Health

phone: (b) (6) | mobile: (b) (6) | email: (b) (6)

<https://www.niaid.nih.gov/about/vrc>

From: Joseph Lawler <Joe@jflcapitalmanagement.com>

Sent: Wednesday, January 22, 2020 9:23 AM

To: Hoffman, Hillary (NIH/NIAID) [E] (b) (6)>

Subject: Press release verification

Dear Hillary,

It was nice to speak with you earlier. I am trying to verify that the press release issued by Moderna this morning which is linked below is an accurate statement. Specifically, is the NIH/NIAID/VRC working with Moderna on a Coronavirus vaccine? When did this work start? And What does the actual work entail? Thank you in advance for your prompt attention to this matter.

Kind regards,

Joseph Lawler

<https://www.sec.gov/Archives/edgar/data/1682852/000119312520011410/d873538d8k.htm>

Joseph F. Lawler M.D., Ph.D.

Managing Member

JFL Capital Management

Joe@JFLCapitalmanagement.com



From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 23 Apr 2020 15:27:54 +0000
To: Bok, Karin (NIH/VRC) [E]
Cc: Corbett, Kizzmekia (NIH/VRC) [E]
Subject: RE: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

Sure. This is wide open.

BG

From: Bok, Karin (NIH/VRC) [E] (b) (6)
Sent: Thursday, April 23, 2020 11:04 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Subject: Re: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

Barney,

I would like to listen to this meeting if you don't mind.
Just interested from the pregnancy point of view.

Karin.

Karin Bok, MS, PhD
Senior Advisor, Vaccine Development
Office of the Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
phone: (b) (6) | mobile: (b) (6) | email (b) (6)
<https://www.niaid.nih.gov/about/vrc>

From: "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6) >
Date: Thursday, April 23, 2020 at 8:59 AM
To: "Walker, Mary (NIH/NCI) [E]" (b) (6) >, "Sharon, Elad (NIH/NCI) [E]" (b) (6) >, "Graham, Barney (NIH/VRC) [E]" <(b) (6)>
"Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6) >

Cc: "Streicher, Howard (NIH/NCI) [E]" <(b) (6)>, "Young, Monique (NIH/VRC) [E]" (b) (6)

Subject: Re: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

I am available at all of these times. Monique Young can comment on Dr. Graham's availability.

--

Kizzmekia S. Corbett, PhD

Senior Research Fellow | Scientific Lead

Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center

National Institutes of Allergy and Infectious Diseases

National Institutes of Health

Building 40 Room 2608

40 Convent Drive

Bethesda MD 20892

Laboratory: (b) (6)

Personal: (b) (6)

Fax: (301) 480-2771

From: "Walker, Mary (NIH/NCI) [E]" (b) (6)

Date: Thursday, April 23, 2020 at 8:36 AM

To: "Sharon, Elad (NIH/NCI) [E]" (b) (6) Barney Graham

(b) (6)>, "Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6)>

Cc: Kizzmekia Corbett (b) (6)>, "Streicher, Howard (NIH/NCI) [E]"

(b) (6)>, "Chen, Helen (NIH/NCI) [E]" <(b) (6)>

Subject: RE: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

Good morning,

Listed below are some possible date/times for a teleconference call. Please let me know what works best and I can arrange the call.

Monday, May 4th, 9 – 10 am or 3 – 4 pm ET (best time for all CTEP, IDB: 3 – 4 pm ET)

Tuesday, May 5th, 10 – 11 am ET

Wednesday, May 6th, 10 – 11 am ET

Tuesday, May 12th, 9 – 10 am ET

Kind regards,

Mary Walker
Program Support Assistant
National Cancer Institute
Investigational Drug Branch
9609 Medical Center Drive
Room 5W508
Rockville, MD 20850
Phone: (b) (6)
Fax: 240-276-7894
E-mail: (b) (6)
Website: <http://ctep.cancer.gov>

From: Sharon, Elad (NIH/NCI) [E] (b) (6)>
Sent: Tuesday, April 21, 2020 8:36 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Walker, Mary (NIH/NCI) [E] (b) (6)
Cc: Corbett, Kizzmekia (NIH/VRC) [E] <(b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Streicher, Howard (NIH/NCI) [E] <(b) (6)>; Chen, Helen (NIH/NCI) [E] (b) (6)
Subject: RE: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

Thanks so much for the reply! Maybe we can arrange a brief call. (b) (4)
(b) (4)
(b) (4) I can have Mary Walker arrange for some times to discuss, if there is interest on your side.

From: Graham, Barney (NIH/VRC) [E] (b) (6)>
Sent: Monday, April 20, 2020 5:45 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Sharon, Elad (NIH/NCI) [E] (b) (6)>
Cc: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Streicher, Howard (NIH/NCI) [E] <(b) (6)>; Chen, Helen (NIH/NCI) [E] (b) (6)>
Subject: RE: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

With Dr. Ledgerwood.

Barney

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Monday, April 20, 2020 5:44 PM
To: Sharon, Elad (NIH/NCI) [E] (b) (6)

Cc: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>; Streicher, Howard (NIH/NCI) [E] (b) (6)>; Chen, Helen (NIH/NCI) [E] (b) (6)

Subject: Re: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

Thank you for your proposal.

(b) (4)

(b) (4)

Best wishes,

Barney

Sent from my iPhone

On Apr 20, 2020, at 4:38 PM, Sharon, Elad (NIH/NCI) [E] <(b) (6)> wrote:

If there is any interest in this proposal, please let me know. Trying to help your path-changing work, but also trying to protect our vulnerable patients.

From: Sharon, Elad (NIH/NCI) [E]

Sent: Thursday, April 16, 2020 3:26 PM

To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>

Cc: Auchincloss, Hugh (NIH/NIAID) [E] (b) (6)>; Palmore, Tara (NIH/CC/OD) [E]

(b) (6)>; Lane, Cliff (NIH/NIAID) [E] (b) (6)>; Holland, Steven

(NIH/NIAID) [E] (b) (6)>; Streicher, Howard (NIH/NCI) [E]

(b) (6)>; Chen, Helen (NIH/NCI) [E] (b) (6)>; Marston, Hilary

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

Subject: Use of (b) (4) vaccine for cancer patients and other immunologically vulnerable populations

Dear Dr. Corbett,

My colleagues and I are extremely proud of the efforts put forth by you and your colleagues at the VRC. I wanted to see if we could speak briefly about a proposal I have been discussing (b) (4)

(b) (4)

(b) (4)

(b) (5)

Please let me know if you would be open to discussing this. I am available to talk any time.

Best Regards,
Elad

Elad Sharon, MD, MPH
Senior Investigator, Cancer Therapy Evaluation Program
Co-Chair, Cancer Moonshot Adult Immunotherapy Implementation Team
Division of Cancer Treatment & Diagnosis
National Cancer Institute
Bethesda, Maryland
Phone: (b) (6)
Mobile: (b) (6)
Email: (b) (6)

Course Descriptions:

BIOL101 - Foundations in Biomedical Science I

This course examines the fundamental concepts underlying biomedical science, including the structure and function of biomolecules, such as proteins, enzymes, carbohydrates, lipids, and DNA, as well as the structure and function of cellular components, such as membranes, vesicles, organelles, and the cytoskeleton. This course is designed for students who may have previously studied biology but need a refresher on the main concepts in biomedical science as well as students without a science background who wish to gain a foundation in basic biological mechanisms.

GENL322 - GRE Review

This review course will prepare students for the Graduate Record Examinations (GRE) General Test. Initially, the focus will be on content and test-taking strategies for the Quantitative, Verbal, and Writing portions of the General Test. Numerous example problems will be conducted during class to reinforce the concepts and strategies that will be discussed by the instructor. In the final weeks, students will take full GRE exams as homework and discuss the solutions to problems. The lectures will be interactive, with student participation strongly encouraged. All homework materials will be taken from the Official GRE Verbal and Quantitative Reasoning Practice Question Books or from Official GRE Practice Tests that are provided by ETS (the makers of the test).

TECH391 - Research Ethics I

Scientific misconduct is normally characterized by Fabrication, Falsification and Plagiarism (FFP). This course will explore the normative behaviors that underlie our notions of ethical research practices using a case study approach. Our efforts will focus on practical approaches to identify (and avoid) aberrant research practices.

TECH498 - Leadership Strategies in Biomedical Sciences I

This course focuses on learning to manage and lead people who report to you, across team, and your supervisor. You will learn through scenarios, case studies, and experiential learning, how what you say and do directly impacts outcomes. The roles of managers and leaders in biomedical science companies undergo constant change. This course includes in-depth discussions of leadership skills, communication, conflict resolution, and goal integration. You will have the opportunity to manage and lead your own team to a desired outcome, analyze what works and does not work within the management systems, and suggest alternatives.

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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 16 Mar 2020 18:30:42 +0000
To: Morabito, Kaitlyn (NIH/VRC) [E]
Subject: Accepted: DMID/VRC Coordination of Coronavirus Spike protein and Assays

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 31 Mar 2020 10:31:48 +0000
To: Denison, Mark
Subject: COVID-19

Hi Mark,

(b) (4)

BG

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
National Institute of Allergy and Infectious Diseases, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
Bethesda, MD 20892-3017
Phone: (b) (6)
URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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From: Graham, Barney (NIH/VRC) [E]
Sent: Sat, 28 Mar 2020 13:36:50 +0000
To: Ledgerwood, Julie (NIH/NIAID) [E]
Cc: Mascola, John (NIH/VRC) [E]
Subject: Re: JAMA: Treatment of 5 Critically Ill Patients With COVID-19 With Convalescent Plasma <https://bit.ly/39pIJli>

(b) (4)

Barney

Sent from my iPhone

On Mar 28, 2020, at 9:30 AM, Ledgerwood, Julie (NIH/NIAID) [E] wrote:

(b) (6)

Hi John and Barney

(b) (4)

I haven't heard anything this week.
Julie

From: Folkers, Greg (NIH/NIAID) [E] <(b) (6)>
Sent: Friday, March 27, 2020 10:53 PM
Subject: JAMA: Treatment of 5 Critically Ill Patients With COVID-19 With Convalescent Plasma <https://bit.ly/39pIJli>

Preliminary Communication
March 27, 2020

Treatment of 5 Critically Ill Patients With COVID-19 With Convalescent Plasma

[Chenguang Shen, PhD¹](#); [Zhaoqin Wang, PhD¹](#); [Fang Zhao, PhD¹](#); et al [Yang Yang, MD¹](#); [Jinxiu Li, MD¹](#); [Jing Yuan, MD¹](#); [Fuxiang Wang, MD¹](#); [Delin Li, PhD^{1,2}](#); [Minghui Yang, PhD¹](#); [Li Xing, MM¹](#); [Jinli Wei, MM¹](#); [Haixia Xiao, PhD^{1,2}](#); [Yan Yang, MM¹](#); [Jiuxin Qu, MD¹](#); [Ling Qing, MM¹](#); [Li Chen, MD¹](#); [Zhixiang Xu, MM¹](#); [Ling Peng, MM¹](#); [Yanjie Li, MM¹](#); [Haixia Zheng, MM¹](#); [Feng Chen, MM¹](#); [Kun Huang, MM¹](#); [Yujing Jiang, MM¹](#); [Dongjing Liu, MD¹](#); [Zheng Zhang, MD¹](#); [Yingxia Liu, MD¹](#); [Lei Liu, MD¹](#)

Key Points

Question Could administration of convalescent plasma transfusion be beneficial in the treatment of critically ill patients with coronavirus disease 2019 (COVID-19)?

Findings In this uncontrolled case series of 5 critically ill patients with COVID-19 and acute respiratory distress syndrome (ARDS), administration of convalescent plasma containing neutralizing antibody was followed by an improvement in clinical status.

Meaning These preliminary findings raise the possibility that convalescent plasma transfusion may be helpful in the treatment of critically ill patients with COVID-19 and ARDS, but this approach requires evaluation in randomized clinical trials.

Abstract

Importance Coronavirus disease 2019 (COVID-19) is a pandemic with no specific therapeutic agents and substantial mortality. It is critical to find new treatments.

Objective To determine whether convalescent plasma transfusion may be beneficial in the treatment of critically ill patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.

Design, Setting, and Participants Case series of 5 critically ill patients with laboratory-confirmed COVID-19 and acute respiratory distress syndrome (ARDS) who met the following criteria: severe pneumonia with rapid progression and continuously high viral load despite antiviral treatment; $PAO_2/FIO_2 < 300$; and mechanical ventilation. All 5 were treated with convalescent plasma transfusion. The study was conducted at the infectious disease department, Shenzhen Third People's Hospital in Shenzhen, China, from January 20, 2020, to March 25, 2020; final date of follow-up was March 25, 2020. Clinical outcomes were compared before and after convalescent plasma transfusion.

Exposures Patients received transfusion with convalescent plasma with a SARS-CoV-2–specific antibody (IgG) binding titer greater than 1:1000 (end point dilution titer, by enzyme-linked immunosorbent assay [ELISA]) and a neutralization titer greater than 40 (end point dilution titer) that had been obtained from 5 patients who recovered from COVID-19. Convalescent plasma was administered between 10 and 22 days after admission.

Main Outcomes and Measures Changes of body temperature, Sequential Organ Failure Assessment (SOFA) score (range 0-24, with higher scores indicating more severe illness), PAO_2/FIO_2 , viral load, serum antibody titer, routine blood biochemical index, ARDS, and ventilatory and extracorporeal membrane oxygenation (ECMO) supports before and after convalescent plasma transfusion.

Results All 5 patients (age range, 36-65 years; 2 women) were receiving mechanical ventilation at the time of treatment and all had received antiviral agents and methylprednisolone. Following plasma transfusion, body temperature normalized within 3 days in 4 of 5 patients, the SOFA score decreased, and PAO_2/FIO_2 increased within 12 days (range, 172-276 before and 284-366 after). Viral loads also decreased and became negative within 12 days after the transfusion, and SARS-CoV-2–specific ELISA and neutralizing antibody titers increased following the transfusion (range, 40-60 before and 80-320 on day 7). ARDS resolved in 4 patients at 12 days after transfusion, and 3 patients were weaned from mechanical ventilation within 2 weeks of treatment. Of the 5 patients, 3 have been discharged from the hospital (length of stay: 53, 51, and 55 days), and 2 are in stable condition at 37 days after transfusion.

Conclusions and Relevance In this preliminary uncontrolled case series of 5 critically ill patients with COVID-19 and ARDS, administration of convalescent plasma containing neutralizing antibody was followed by improvement in their clinical status. The limited sample size and study design preclude a definitive statement about the potential effectiveness of this treatment, and these observations require evaluation in clinical trials.

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From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 29 Jan 2020 13:10:27 +0000
To: Corbett, Kizzmekia (NIH/VRC) [E]
Subject: Fwd: Greetings from the Netherlands

Remember her?

BG

Sent from my iPhone

Begin forwarded message:

From: "N.M.A. Okba" (b) (6)
Date: January 29, 2020 at 2:00:59 PM GMT+1
To: "Graham, Barney (NIH/VRC) [E]" (b) (6)
Subject: RE: Greetings from the Netherlands

Dear Dr. Barney,

In light of the emergence of the new CoV, a lot of exciting work to come.... (b) (6)

Waiting for your reply

All the best,
Nisreen

From: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Sent: Thursday, April 18, 2019 4:33 PM
To: N.M.A. Okba (b) (6)
Subject: RE: Greetings from the Netherlands

Nice to hear from you. (b) (6)

Dr. Corbett will be at the Keystone meeting in Ireland and present some of the new CoV work.

Congratulations on your recent paper showing the importance of diverse antibodies.

Best wishes,

Barney

From: N.M.A. Okba <[REDACTED]> (b) (6)
Sent: Thursday, April 18, 2019 8:40 AM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: RE: Greetings from the Netherlands

Dear Dr. Barney,

(b) (6)

Will Dr. Corbett or Dr. Morabito or anyone from your lab be joining the European congress of virology this year? If so, would be a nice chance to meet face-to-face.
Thanks in advance

Best regards,
Nisreen Okba

From: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Tuesday, March 12, 2019 10:07 PM
To: N.M.A. Okba
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [C]
Subject: RE: Greetings from the Netherlands

Hi Nisreen,

(b) (6)

Best wishes,

Barney

From: N.M.A. Okba [REDACTED] (b) (6) >
Sent: Tuesday, March 12, 2019 3:33 PM

To: Graham, Barney (NIH/VRC) [E] (b) (6)

Subject: Greetings from the Netherlands

Dear Dr. Graham,

I hope this e-mail finds you well...

(b) (6)

Best regards,

Nisreen Okba, BPharm, MSc.

(b) (6)

Viroscience



P.O. Box 2040, 3000 CA Rotterdam, The Netherlands

Visiting address: office EE1724, Dr.Molewaterplein 40, 3015 GD Rotterdam, The Netherlands

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From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 8 Mar 2020 17:11:54 +0000
To: Sung-Han Kim MD
Subject: Fwd: clinical trial for COVID-19

FYI

BG

Sent from my iPhone

Begin forwarded message:

From: "Beigel, John (NIH) [E]" [REDACTED] (b) (6)
Date: March 8, 2020 at 9:04:27 AM EDT
To: "Graham, Barney (NIH/VRC) [E]" [REDACTED] (b) (6) >
Subject: Re: clinical trial for COVID-19

Thanks Barney. We still have a team in Seoul. [REDACTED] (b) (5), (b) (4)
[REDACTED] I will get back to you.

--
John Beigel, M.D.
Associate Director for Clinical Research
Division of Microbiology and Infectious Diseases
National Institute of Allergy and Infectious Diseases (NIAID)
Phone: [REDACTED] (b) (6)
email: [REDACTED] (b) (6)

From: "Graham, Barney (NIH/VRC) [E]" [REDACTED] (b) (6) >
Date: Sunday, March 8, 2020 at 3:13 AM
To: John Beigel [REDACTED] (b) (6) >
Subject: FW: clinical trial for COVID-19

Hi John,

The email below came from a clinical investigator in Seoul who worked in my lab for two years as a visiting professor. [REDACTED] (b) (4)

(b) (4)

(b) (4)

Thanks,

Barney

From: Sung-Han Kim, MD. (b) (6)>
Sent: Sunday, March 8, 2020 1:30 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: RE: clinical trial for COVID-19

Hi Barney,

I think that you are very busy to prepare the vaccine for SARS-CoV-2. Since mid-January, I have been continuously making all efforts to prevent nosocomial transmission of COVID-19 in our hospital.

Fortunately, there have been no COVID-19-related cases in our hospital. (b) (5)

(b) (5)

I heard from Dr. Oh that NIH leads remdesivir clinical trial and two hospitals in South Korea were designated for this trial. Dr. Oh said to me that it is difficult to include another hospital in South Korea. Do you have any information for this NIH-sponsored remdesivir clinical trial? (b) (5)

Best regards,

Sung-Han Kim, MD, PhD.
Professor
Department of Infectious Diseases
Chief
Office for Infection Control
Asan Medical Center
University of Ulsan College of Medicine

388-1 Pungnap-dong, Songpa-gu

Seoul, 138-736, South Korea

TEL: (b) (6) FAX: 82-2-3010-6970

e-mail: (b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 10 Feb 2020 19:07:18 +0000
To: Marston, Hilary (NIH/NIAID) [E]
Subject: enhanced disease comments
Attachments: Enhanced Disease_KC_20200207_BG V2.docx,
8_DRAFT_DiseaseEnhancement.docx

FYI

BG

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
National Institute of Allergy and Infectious Diseases, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
Bethesda, MD 20892-3017
Phone: (b) (6)
URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 6 Apr 2020 20:57:50 +0000
To: Baric, Ralph
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Heise, Mark T; mtferris
Subject: Re: SARS2 (b) (4)

Hi Ralph.
Is this a good time to call?

BG

Sent from my iPhone

On Apr 5, 2020, at 10:26 AM, Baric, Ralph S (b) (6) > wrote:

Sounds good. I would enjoy a discussion. I have cc'd Mark and Marty as they will also contribute to the study. ralph

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Saturday, April 4, 2020 3:55 PM
To: Baric, Ralph S (b) (6); Corbett, Kizzmekia (NIH/VRC) [E]
(b) (6) >
Subject: RE: SARS2 (b) (4)

Hi Ralph,

That does sound like a great opportunity. (b) (4)

Barney

From: Baric, Ralph S (b) (6) >
Sent: Saturday, April 4, 2020 1:35 PM
To: Corbett, Kizzmekia (NIH/VRC) [E] <(b) (6)>; Graham, Barney (NIH/VRC) [E]
(b) (6) >
Subject: RE: SARS2 (b) (4)

Hi Kizzie and Barney, Hope you are doing well. (b) (4)
(b) (4)

(b) (4):. Let me know. Hope you are all doing well and staying safe.

Ralph

From: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)

Sent: Friday, April 3, 2020 1:26 PM

To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Leist, Sarah Rebecca
(b) (6)>

Cc: Baric, Ralph S (b) (6)>; Young, Monique (NIH/VRC) [E] <(b) (6)>
Baric, Toni C (b) (6)

Subject: Re: TODAY: Quick Call with NIH Pathologist - Ian Moore

Thanks, Good luck with your big day!!! We can certainly follow up on a call later for later mice. As there will be plenty. Maybe we can get a call next week?

--

Kizzmekia S. Corbett, PhD

Senior Research Fellow | Scientific Lead

Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center

National Institutes of Allergy and Infectious Diseases

National Institutes of Health

Building 40 Room 2608

40 Convent Drive

Bethesda MD 20892

Laboratory: (b) (6)

Personal: (b) (6)

Fax: (301) 480-2771

From: Barney Graham (b) (6)>

Date: Friday, April 3, 2020 at 12:30 PM

To: "Leist, Sarah Rebecca" (b) (6)
Cc: Kizzmekia Corbett (b) (6)>, Ralph Baric (b) (6),
Monique Young (b) (6) "Baric, Toni C" <(b) (6)>
Subject: Re: TODAY: Quick Call with NIH Pathologist - Ian Moore

Thanks for all of this. Sounds like a big day.

One of the main questions is (b) (4)
(b) (4)

Barney

Sent from my iPhone

On Apr 3, 2020, at 12:24 PM, Leist, Sarah Rebecca (b) (6)> wrote:

(b) (4)

Thanks,
Sarah

From: "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6)
Date: Friday, April 3, 2020 at 12:14 PM
To: "Baric, Ralph S" (b) (6)>, "Leist, Sarah Rebecca" (b) (6)>
Cc: "Graham, Barney (NIH/VRC) [E]" (b) (6), "Young, Monique (NIH/VRC) [E]" (b) (6)>, "Baric, Toni C" <(b) (6)>
Subject: TODAY: Quick Call with NIH Pathologist - Ian Moore

Good afternoon, This email serves as an introduction to the pathologist who will be processing the (b) (4) We would like to get on a quick phone call today to go through (b) (4) Are you available today for a quick call? It may be too late to catch (b) (4), but this is an urgent request, if possible.

Thank you.

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead

Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center

National Institutes of Allergy and Infectious Diseases

National Institutes of Health

Building 40 Room 2608

40 Convent Drive

Bethesda MD 20892

Laboratory: (b) (6)

Personal: (b) (6)

Fax: (301) 480-2771

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 30 Mar 2020 12:59:59 +0000
To: Wayne Koff
Subject: Re: Co-author Science or Nature article

Hi Wayne,

Thanks, but I'm not going to have time for this at the moment. Too much going on with keeping the vaccine moving.

Barney

Sent from my iPhone

On Mar 27, 2020, at 11:36 AM, Wayne Koff <[REDACTED]> wrote:

Barney,

We're (Human Vaccines Project) is putting together a small group of authors to craft an article, tentatively entitled: [REDACTED]

(b) (4)

(b) (6), (b) (4)

Looking forward to hearing from you.

All the best,

WK

Wayne C. Koff, PhD
President and CEO
Human Vaccines Project
One Penn Plaza, Suite 6178
New York, NY 10119
Phone: (b) (6)
Email: (b) (6)
Website: www.humanvaccinesproject.org

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 5 Nov 2019 16:47:17 +0000
To: Conrad, Patricia (NIH/NIAID) [E]
Cc: Fauci, Anthony (NIH/NIAID) [E]; Young, Monique (NIH/VRC) [E]
Subject: RE: NAM Form
Attachments: graham-vrc-cv 2019 v4.docx

Caught me at the airport.

CV attached.

BG

From: Conrad, Patricia (NIH/NIAID) [E] (b) (6)
Sent: Tuesday, November 5, 2019 11:21 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6) >
Cc: Fauci, Anthony (NIH/NIAID) [E] (b) (6); Young, Monique (NIH/VRC) [E]
(b) (6)
Subject: RE: NAM Form

The nomination submission requires an updated CV. Please send at your earliest convenience and we will complete the nomination.

Thank you

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: Graham, Barney (NIH/VRC) [E] <[REDACTED] (b) (6)>
Sent: Tuesday, November 5, 2019 7:56 AM
To: Conrad, Patricia (NIH/NIAID) [E] [REDACTED] (b) (6)
Cc: Fauci, Anthony (NIH/NIAID) [E] [REDACTED] (b) (6)
Subject: RE: NAM Form

Thank you.

I suggest a minor clarification in the proposers statement as follows.

[REDACTED] (b) (5)

I added 4 words but I don't think it should add another line of text.

The formatting of the references could be straightened up if possible with equal spacing.

I appreciate everyone's time to do this.

Best wishes,

Barney

From: Conrad, Patricia (NIH/NIAID) [E] [REDACTED] (b) (6)
Sent: Monday, November 4, 2019 4:32 PM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)>
Cc: Fauci, Anthony (NIH/NIAID) [E] [REDACTED] (b) (6)
Subject: NAM Form

Please see attached and call Dr Fauci. Somethings needed to be cut out as they did not fit in the form.

He is in the office tonite if you want to call [REDACTED] (b) (6)

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: 7a15-c754e@nih.gov <7a15-c754e@nih.gov>

Sent: Monday, November 4, 2019 5:20 PM

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

Subject: Message from KM_C754e

From: Graham, Barney (NIH/VRC) [E]
Sent: Sat, 4 Apr 2020 21:58:23 +0000
To: Seder, Robert (NIH/VRC) [E]
Subject: RE: [REDACTED] (b) (5)

Thanks Bob,

The Zoom culture is interesting, so we really haven't sorted it out yet. I'm looking forward to working at IRF with the new leadership. Ian Crozier is a pleasure.

Barney

From: Seder, Robert (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Saturday, April 4, 2020 5:56 PM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: Re: [REDACTED] (b) (5)

BG

Thanks for follow up. Of course your a hero and beyond swamped so obviously I understand. I am just trying to include you in what I consider "major" decisions. Wr can follow up this week. I have everyone [REDACTED] (b) (5) I also have a new plan for conference call etiquette to allow you, Kizzie and Caitlyn ask questions first and Let others follow with me summarizing.

Enjoy the weekend.

Bob

From: "Graham, Barney (NIH/VRC) [E]" [REDACTED] (b) (6) >
Date: Saturday, April 4, 2020 at 4:45:22 PM
To: "Seder, Robert (NIH/VRC) [E]" [REDACTED] (b) (6) >
Subject: RE: [REDACTED] (b) (5)

Hi Bob,

[REDACTED] (b) (5)

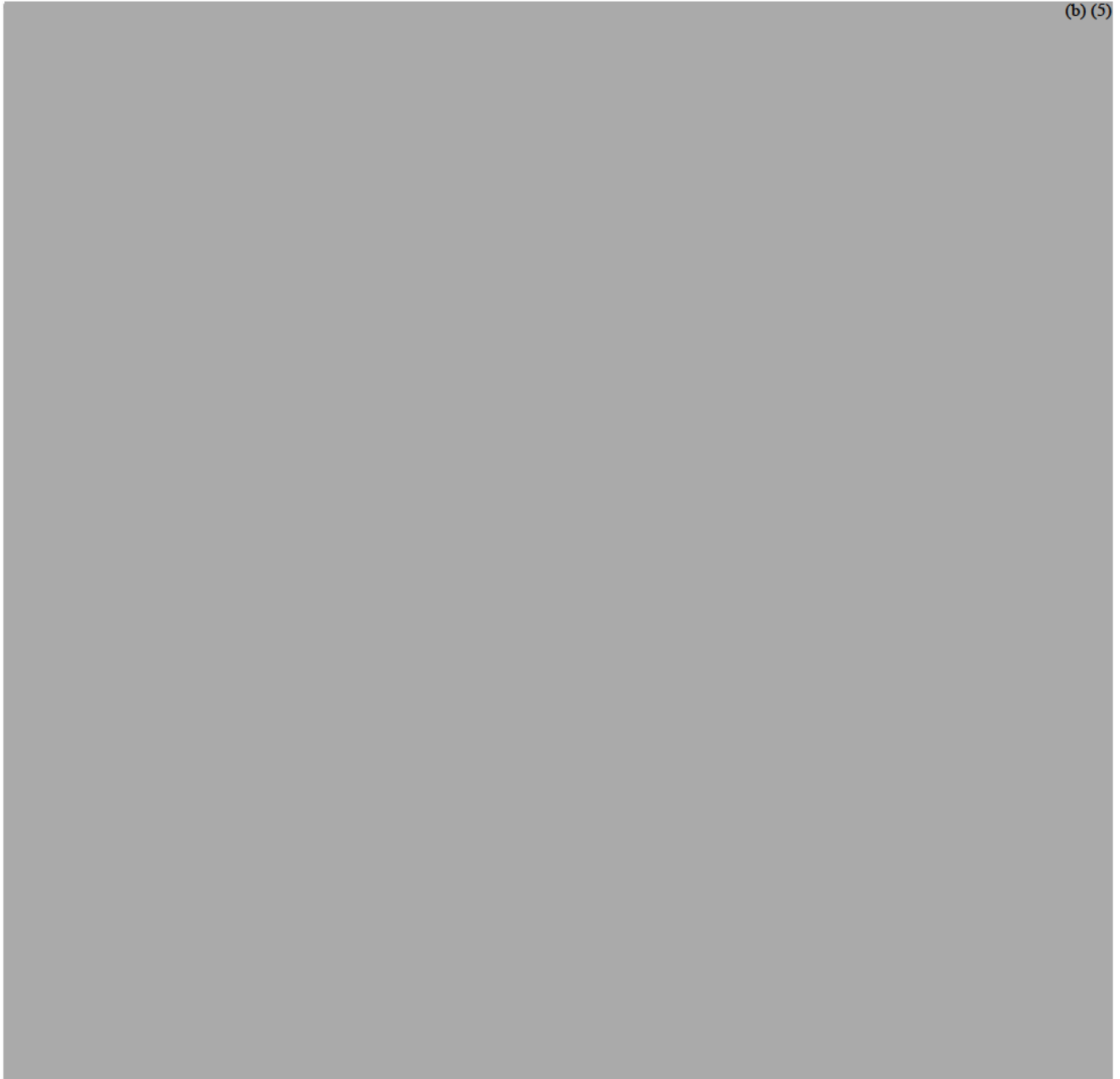
Sorry I didn't call you back yesterday. I got to a point I had to walk away from my computer and phones. I need a little more down time than I used to. Maybe we can find time to talk tomorrow.

Barney

From: Seder, Robert (NIH/VRC) [E] (b) (6)
Sent: Saturday, April 4, 2020 7:46 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: FW: (b) (5)

Hi Barney,

(b) (5)



Bob

Robert A. Seder, M.D.
Chief, Cellular Immunology Section
Vaccine Research Center, NIAID, NIH
40 Convent Drive
Bethesda, Maryland 20892
Office phone: (b) (6)



From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 13 Mar 2020 15:25:40 +0000
To: NIAID OCGR NSWB;Routh, Jennifer (NIH/NIAID) [E];Oplinger, Anne (NIH/NIAID) [E];Hiatt, Nissa (NIH/VRC) [C]
Cc: Mascola, John (NIH/VRC) [E];Ledgerwood, Julie (NIH/NIAID) [E]
Subject: Fwd: FROM RAI 3 - ITALIAN STATE BROADCASTER
Attachments: image.png, ATT00001.htm, Presa Diretta intro EN.pdf, ATT00002.htm

FYI. Seems like something important. Maybe Tony would want to do this.

Barney

Sent from my iPhone

Begin forwarded message:

From: Irene Sicurella (b) (6)>
Date: March 13, 2020 at 11:18:15 AM EDT
To: "Graham, Barney (NIH/VRC) [E]" (b) (6)
Cc: Lisa Iotti (b) (6)>, "NIAID NEWS (NIH/NIAID)" <NIAIDNEWS@niaid.nih.gov>
Subject: FROM RAI 3 - ITALIAN STATE BROADCASTER

Dear Dr. Graham,

my name is Irene Sicurella and I work with Lisa Iotti (in c.c.), senior correspondent for the Italian investigative news program *PRESA DIRETTA* (website: www.presadiretta.rai.it), which airs on prime time on the Italian State Broadcaster Rai3. Please find attached the program's presentation.

I am writing because Italy's State broadcaster has intensified its programming with special reports on the new Coronarivurs and for the next episode of our show, that will air on March 27th, we are trying to collect information about the pandemic and the ongoing scientific research on the vaccine.

As you know, Italy is currently living a quite specific and severe situation in this regard. We know NIAID is collaborating with many academic labs on a possible vaccine for Coronavirus and since you are one of the leading experts on viruses and how they act we think it would be very valuable to have the chance to speak with you about your work. If you are interested and available we could arrange a Skype call in the next days to better discuss the whole topic.

We look forward to your kind reply

Kindest regards,

Irene Sicurella

--

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 13 Feb 2020 19:30:22 +0000
To: Jon Cohen
Subject: RE: Enhancing antibodies
Attachments: Enhanced Disease_overview.pdf

Hi Jon,

It would be great if you could help teach and clarify some of these issues. People are conflating two different types of biology.

I think the risk of vaccine-enhanced disease is very small if we follow what we have learned from RSV and measles. I think the likelihood of ADE is extremely small for a virus with tropism for respiratory epithelium.

There are two major ways that vaccines have been associated disease enhancement. Antibody dependent enhancement is associated with one type of biology and is more easily demonstrated in animal models than in humans. Classical Fc-mediated ADE enhances infection of some viruses with innate macrophage and monocyte tropism. This has been seen with Dengue and with Feline Infectious Peritonitis Virus (FIPV) which is a coronavirus. FIPV causes a systemic infection and a vasculitis-like syndrome. It is very different than coronaviruses with lung or GI tropism. I think there is a small chance that antibodies alone will enhance 2019-nCoV replication or illness, but it will be checked.

The other biology is like what happened in RSV and measles vaccine-enhanced respiratory disease. I have attached a short summary of the biology as I understand it. We can talk more if you have questions.

Barney

-----Original Message-----

From: Jon Cohen <jcohen@aaas.org>
Sent: Wednesday, February 12, 2020 5:05 PM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Subject: Enhancing antibodies

Hi Barney,

Are you concerned about the potential for vaccines to create enhancing antibodies to COVID-19?

If so, is there any evidence of this you can point me to in animal models?

Thanks,

Jon

From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 17 Apr 2020 22:34:23 +0000
To: Morabito, Kaitlyn (NIH/VRC) [E]
Cc: Hiatt, Nissa (NIH/VRC) [C]; Corbett, Kizzmekia (NIH/VRC) [E]; Stein, Judy (NIH/VRC) [C]
Subject: Re: Help with FOIA Request
Attachments: image001.png, image002.png

(b) (5)

Barney

Sent from my iPhone

On Apr 17, 2020, at 3:32 PM, Morabito, Kaitlyn (NIH/VRC) [E] wrote: (b) (6)

Hi Nissa,

I can confirm that this is the list of people that we submitted to Barney and John (b) (5)

Thanks,
Kaitlyn

From: "Hiatt, Nissa (NIH/VRC) [C]" (b) (6) >
Date: Friday, April 17, 2020 at 3:18 PM
To: Kizzmekia Corbett (b) (6) >, Kaitlyn Morabito (b) (6)
Subject: RE: Help with FOIA Request

Hi Kaitlyn and Kizzmekia,

This is the same request as before. Could one of you confirm that the names are correct for VRC staff to fulfill the request?

John Mascola

Barney Graham
Kizzmekia Corbett
Kaitlyn Morabito
Cynthia Ziwawo
Geoffrey Hutchinson
Olubukola Abiona

Thank you for your help,
Nissa

Nissa Hiatt

Communications
Vaccine Research Center, NIAID, NIH
40 Convent Drive, Bldg 40, Room 1100
Bethesda, MD 20892
Cell: (b) (6)
Office: (b) (6)
(b) (6)

<image001.png>

From: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Sent: Friday, April 17, 2020 12:08 PM
To: Hiatt, Nissa (NIH/VRC) [C] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E]
(b) (6)
Subject: Re: Help with FOIA Request

Is this the same request as before??? Because Kevin replied and you have names.

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team
Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608
40 Convent Drive
Bethesda MD 20892
Laboratory: (b) (6)
Personal: (b) (6)
Fax: (301) 480-2771

From: "Hiatt, Nissa (NIH/VRC) [C]" (b) (6) >
Date: Friday, April 17, 2020 at 11:57 AM
To: Kaitlyn Morabito (b) (6) >, Kizzmekia Corbett
(b) (6)
Subject: Help with FOIA Request

Hi Kaitlyn and Kizzmekia,

The VRC needs to ID the VRC staff members who worked on the development of mRNA-1273 to fulfill a FOIA request. Could you send me a list of the appropriate names?

Thanks in advance for your help!
Nissa

Nissa Hiatt
Communications
Vaccine Research Center, NIAID, NIH
40 Convent Drive, Bldg 40, Room 1100
Bethesda, MD 20892
Cell: (b) (6)
Office: (b) (6)
(b) (6)

<image002.png>



From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 10 Apr 2020 19:12:47 +0000
To: Billet, Courtney (NIH/NIAID) [E]
Cc: Koup, Richard (NIH/VRC) [E]; Hiatt, Nissa (NIH/VRC) [C]
Subject: FW: SARS-CoV2 vaccine
Attachments: SARS-CoV2 Platform Technology Implementation Plan.docx

Hi Courtney,

FYI. This is a strange email from a "doctoral student" who wants a (b) (4) to pursue his vaccine ideas. What he's saying doesn't make sense. I'm sending to you because he appears to have copied the Republican Senator from North Dakota. (b) (5)

Thanks,

Barney

From: Allen, Joseph (b) (6) >
Sent: Friday, April 10, 2020 1:43 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6) >; Koup, Richard (NIH/VRC) [E] (b) (6)
Cc: De Val Alda, Natalia (NIH/NCI) [C] (b) (6) Higinbotham, Kathy (NIH/NCI) [E] (b) (6) >; Auger, Daniel (Hoeven) (b) (6) >
Subject: SARS-CoV2 vaccine

Hi Dr. Graham,

I hope all is well on your end. (b) (4)
(b) (4)

Regards,
Joe

Joseph Allen Jr.
Doctoral Student
Biomedical Engineering
School of Electrical Engineering and Computer Science

University of North Dakota

Upton Hall, Room 366

243 Centennial Drive Stop 7165

Grand Forks, ND 58202-7165

C (b) (6)

(b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 8 Apr 2020 20:27:29 +0000
To: Andrews, Charla (NIH/NIAID) [C]; Morabito, Kaitlyn (NIH/VRC) [E]
Cc: Gall, Jason (NIH/VRC) [C]; Carlton, Kevin (NIH/VRC) [E]; Ledgerwood, Julie (NIH/NIAID) [E]
Subject: RE: (b) (4) Follow-Up Discussion

(b) (4)

BG

From: Andrews, Charla (NIH/NIAID) [C] <(b) (6)>
Sent: Wednesday, April 8, 2020 2:56 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>
Cc: Gall, Jason (NIH/VRC) [C] (b) (6); Carlton, Kevin (NIH/VRC) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)
Subject: FW: (b) (4) Follow-Up Discussion

(b) (4)

CA

From: Payal Sipahimalani (b) (6)
Sent: Wednesday, April 8, 2020 1:59 PM
To: Andrews, Charla (NIH/NIAID) [C] (b) (6)
Cc: Ester Falconer (b) (6)>; Stein, Judy (NIH/VRC) [C] (b) (6)>; Sherie Duncan (b) (6)>
Subject: Re (b) (6) Follow-Up Discussion

Hi Charla,

(b) (4)

(b) (4)

Thank you,
Payal.

On Wed, Apr 8, 2020 at 10:20 AM Andrews, Charla (NIH/NIAID) [C] (b) (6) wrote:
Hi Ester and Payal,

(b) (4)

Best regards

Charla

Charla Andrews M.S., Sc.M. RAC (U.S) [C]
Clinical Trials Program
Vaccine Research Center, NIAID, NIH
(b) (6) (office)
(b) (6) (cell)

--

Payal Sipahimalani, MSc, PMP
Senior Project Manager
AbCellera Biologics Inc.

2215 Yukon Street
Vancouver BC V5Y 0A1

T: (b) (6)

M: (b) (6)

abcellera.com

From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 26 Jan 2020 20:05:30 +0000
To: Leith Greenslade
Cc: Arabella Moore; Anne Detjen; Jessica Winn; Androulla Kyrillou
Subject: RE: checking in on slides
Attachments: Fighting for Breath 30 Jan 2020 -condensed.pptx

Hi Leith,

These are the slides I would like to show.

Slide 1 provides context for where and how these technologies were developed.

Slides 2 and 3 tell the RSV story

Slide 4 can be used to show how the RSV work informs approaches to other virus families including coronavirus. For example, the Wuhan vaccine mentioned in the Moderna press release uses a stabilized spike protein sequence that we provided.

I could use only slides 2 and 3 to explain the RSV story, but I think it would make more sense with slide 1 and if you want me to mention Wuhan I can go to slide 4.

I will also bring this on computer and USB so we can change as you wish.

Barney

From: Leith Greenslade (b) (6)
Sent: Sunday, January 26, 2020 2:20 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Arabella Moore (b) (6); Anne Detjen (b) (6); Jessica Winn (b) (6); Androulla Kyrillou (b) (6)
Subject: checking in on slides

Barney, I imagine you have your hands full with the coronavirus outbreak.

Any chance you could send along your two slides today or tomorrow.

I know you are also bringing a 3D model which will be great.

Also, we expect coronavirus will come up at the Global Forum and there will be a lot of media there.

Keith Klugman will be very active and we have other experts in the room, but I hope you will also be available to comment.

Leith

Leith Greenslade
JustActions
<http://justactions.org>
@JustActions



On Jan 23, 2020, at 8:49 AM, Graham, Barney (NIH/VRC) [E] (b) (6) wrote:

We are a bit consumed with the Wuhan response so I will try to have something by end of weekend. (b) (4)

Barney

Sent from my iPhone

On Jan 23, 2020, at 7:04 AM, Leith Greenslade (b) (6) wrote:

Begin forwarded message:

From: Leith Greenslade (b) (6)

Subject: Your slides for the Global Forum on Childhood Pneumonia

Date: January 19, 2020 at 12:33:23 PM EST

To: "Kain, Dr. Kevin" (b) (6), Heather Zar
(b) (6), CAMPBELL Harry (b) (6), Catharina Boehme
(b) (6), Geoffrey Anguyo (b) (6), bagayana sheillah
Mutetire (b) (6), Bobby Reiner (b) (6), "Graham, Barney
(NIH/VRC) [E]" (b) (6), Kevin Baker (b) (6),
Carina King (b) (6)

Cc: Jessica Winn <(b) (6)>, Arabella Moore
(b) (6)>, Anne Detjen (b) (6) Androulla Kyrillou
(b) (6)>, Roger Rassool (b) (6)

Colleagues,

The drumbeat begins....10 ten days until the Global Forum on Childhood Pneumonia.

We are reaching out to make sure you each send in the slides that will appear on the screens behind you as you speak.

Can you send these to me by Wednesday January 22, noonET, copy (b) (6)

Note you are not required to have slides, but many of you have requested them during briefing sessions and this is what we can accommodate:

Keynotes

Harry Campbell - <10 slides

Heather Zar - <10 slides

Dialogues

Kevin Kain - 2 slides

Kristina Keitel - 2 slides

Innovators

Catharina Boehme - 2 slides

Geoffrey Anguyo - 2 slides

Sheillah Bagayana - 2 slides

Bobby Reiner - 2 slides

Barney Graham - 2 slides

**Note innovators can also bring 3D devices - there will be a high table on stage for you to rest them on

Spotlight

Kevin Baker - 2 slides

Carina King - 2 slides

Don't hesitate to reach out if you have questions and really looking forward to seeing you all soon.

Leith

Leith Greenslade

Co-ordinator

Every Breath Counts Coalition

<image002.png>

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 14 Apr 2020 16:00:51 +0000
To: Petrik, Amy (NIH/NIAID) [E]; Gall, Jason (NIH/VRC) [C]; Mascola, John (NIH/VRC) [E]
Cc: Stein, Judy (NIH/VRC) [C]
Subject: RE: [REDACTED] (b) (4)

Thanks Amy.

BG

From: Petrik, Amy (NIH/NIAID) [E] [REDACTED] (b) (6) >
Sent: Tuesday, April 14, 2020 12:00 PM
To: Gall, Jason (NIH/VRC) [C] [REDACTED] (b) (6) >; Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6) >; Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6)
Cc: Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6) >
Subject: RE: [REDACTED] (b) (4)

Yes, I can respond.

[REDACTED] (b) (4), (b) (5)

Thanks!

From: Gall, Jason (NIH/VRC) [C] [REDACTED] (b) (6)
Sent: Tuesday, April 14, 2020 11:58 AM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6) >; Mascola, John (NIH/VRC) [E] [REDACTED] (b) (6) >; Petrik, Amy (NIH/NIAID) [E] [REDACTED] (b) (6) >
Cc: Stein, Judy (NIH/VRC) [C] <[REDACTED] (b) (6)>
Subject: Re: [REDACTED] (b) (4)

I forgot to mention that [REDACTED] (b) (4), (b) (5)

From: "Gall, Jason (NIH/VRC) [C]" [REDACTED] (b) (6) >
Date: Tuesday, April 14, 2020 at 11:57 AM
To: "Graham, Barney (NIH/VRC) [E]" [REDACTED] (b) (6) >, "Mascola, John (NIH/VRC) [E]" [REDACTED] (b) (6) >, "Petrik, Amy (NIH/NIAID) [E]" [REDACTED] (b) (6)
Cc: Judy Stein [REDACTED] (b) (6)
Subject: Re: [REDACTED] (b) (4)

HA! [REDACTED] (b) (4), (b) (5)
[REDACTED] (b) (4), (b) (5)

From: "Graham, Barney (NIH/VRC) [E]" (b) (6)
Date: Tuesday, April 14, 2020 at 11:56 AM
To: "Mascola, John (NIH/VRC) [E]" (b) (6); "Gall, Jason (NIH/VRC) [C]" (b) (6); "Petrik, Amy (NIH/NIAID) [E]" (b) (6)
Cc: Judy Stein (b) (6)
Subject: RE: (b) (4)

(b) (4), (b) (5)

BG

From: Mascola, John (NIH/VRC) [E] (b) (6)
Sent: Tuesday, April 14, 2020 11:54 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6); Petrik, Amy (NIH/NIAID) [E] (b) (6)
Cc: Stein, Judy (NIH/VRC) [C] (b) (6)
Subject: RE: (b) (4)

So Barney – (b) (4), (b) (5)

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Tuesday, April 14, 2020 11:18 AM
To: Mascola, John (NIH/VRC) [E] (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6); Petrik, Amy (NIH/NIAID) [E] (b) (6)
Cc: Stein, Judy (NIH/VRC) [C] (b) (6)
Subject: RE: (b) (4)

OK. I think Lingshu provided (b) (4), (b) (5)
I think
you have enough to start.

Barney

From: Mascola, John (NIH/VRC) [E] (b) (6)
Sent: Tuesday, April 14, 2020 11:15 AM
To: Gall, Jason (NIH/VRC) [C] (b) (6); Petrik, Amy (NIH/NIAID) [E] (b) (6)
Graham, Barney (NIH/VRC) [E] (b) (6)

Cc: Stein, Judy (NIH/VRC) [C] (b) (6)>
Subject: RE: (b) (4)

Thanks all – this is clarifying. (b) (4), (b) (5)
(b) (4), (b) (5)

(b) (4). But one step at a time.

John

From: Gall, Jason (NIH/VRC) [C] (b) (6)>
Sent: Tuesday, April 14, 2020 11:13 AM
To: Petrik, Amy (NIH/NIAID) [E] (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6); Mascola, John (NIH/VRC) [E] (b) (6)
Cc: Stein, Judy (NIH/VRC) [C] (b) (6)
Subject: Re (b) (4)

(b) (4), (b) (5)

From: "Petrik, Amy (NIH/NIAID) [E]" (b) (6)>
Date: Tuesday, April 14, 2020 at 11:11 AM
To: "Graham, Barney (NIH/VRC) [E]" (b) (6)>, "Mascola, John (NIH/VRC) [E]" (b) (6)>, "Gall, Jason (NIH/VRC) [C]" (b) (6)
Cc: Judy Stein (b) (6)
Subject: RE: (b) (4)

(b) (4), (b) (5)

From: Graham, Barney (NIH/VRC) [E] (b) (6)>
Sent: Tuesday, April 14, 2020 11:07 AM
To: Petrik, Amy (NIH/NIAID) [E] (b) (6); Mascola, John (NIH/VRC) [E] (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6)>
Cc: Stein, Judy (NIH/VRC) [C] (b) (6)
Subject: RE: (b) (4)

(b) (4), (b) (5)

Barney

From: Petrik, Amy (NIH/NIAID) [E] (b) (6) >
Sent: Tuesday, April 14, 2020 10:50 AM
To: Mascola, John (NIH/VRC) [E] (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6) >
Cc: Stein, Judy (NIH/VRC) [C] (b) (6)
Subject: RE: (b) (4)

(b) (4), (b) (5)

From: Mascola, John (NIH/VRC) [E] (b) (6) >
Sent: Tuesday, April 14, 2020 10:43 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6) >
Cc: Stein, Judy (NIH/VRC) [C] (b) (6) >; Petrik, Amy (NIH/NIAID) [E] (b) (6)
Subject: RE: (b) (4)

Adding Amy here.

(b) (5), (b) (4)

Jason, Amy – (b) (5), (b) (4)

Thanks,
John

From: Graham, Barney (NIH/VRC) [E] < (b) (6) >
Sent: Tuesday, April 14, 2020 10:32 AM
To: Gall, Jason (NIH/VRC) [C] (b) (6)
Cc: Stein, Judy (NIH/VRC) [C] (b) (6) >; Mascola, John (NIH/VRC) [E] (b) (6)
Subject: FW: (b) (4)

(b) (5), (b) (4)

Barney

From: Tryn Stimart (b) (6) >
Sent: Tuesday, April 14, 2020 7:51 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Ester Falconer <(b) (6)>; Mascola, John (NIH/VRC) [E]
(b) (6) >; Petrik, Amy (NIH/NIAID) [E] (b) (6); Tryn Stimart
(b) (6) >
Subject: (b) (4)

Good morning Dr. Graham,

(b) (4)

Thank you very much for any guidance you can provide.

I have copied Ester, John as well as Amy Petrik.

Best regards,

Tryn Stimart
AbCellera Biologics Inc.

From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 15 Mar 2020 14:36:19 +0000
To: Corey MD, Larry;Mascola, John (NIH/VRC) [E]
Subject: RE: FW:

Indeed. Or it brings a lot of other baggage with the wisdom.

BG

From: Corey MD, Larry (b) (6)
Sent: Thursday, March 12, 2020 3:15 PM
To: Mascola, John (NIH/VRC) [E] (b) (6)
Cc: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: FW: FW:

Age does not always bring wisdom

From: Daniel Corey (b) (6)
Sent: Thursday, March 12, 2020 7:30 AM
To: Corey MD, Larry (b) (6)>
Subject: Re: FW:

(b) (4)



(b) (4)



On Thu, Mar 12, 2020 at 7:02 AM Corey MD, Larry <(b) (6)> wrote:

(b) (4) hard to know ;

From: Daniel Corey (b) (6) >
Sent: Thursday, March 12, 2020 6:58 AM
To: Corey MD, Larry (b) (6)
Subject: Re: FW:

(b) (4)

On Thu, Mar 12, 2020 at 6:31 AM Corey MD, Larry (b) (6) > wrote:

Please read (b) (4)
(b) (4)

From: Skip Virgin (b) (6)
Sent: Wednesday, March 11, 2020 12:31 PM
To: Corey MD, Larry (b) (6)
Subject:

Herbert W. 'Skip' Virgin M.D., Ph.D.
Executive Vice President, Research
Chief Scientific Officer
Vir Biotechnology
499 Illinois Avenue
San Francisco CA 94158
he/him/his

page appears blank in original

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 30 Apr 2020 19:12:56 +0000
To: Plachy, Lucia (NIH/NIAID) [C]
Cc: Young, Monique (NIH/VRC) [E]
Subject: RE: Assignment for signature [REDACTED] (b) (4)
[REDACTED]
Attachments: 2020-005_Graham_[REDACTED] (b) (4)_GRAHAM.pdf

Attached.

BG

From: Plachy, Lucia (NIH/NIAID) [C] [REDACTED] (b) (6)>
Sent: Monday, April 27, 2020 5:36 PM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Cc: Young, Monique (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: Assignment for signature [REDACTED] (b) (4)
[REDACTED]

Dear Dr. Graham,

I hope that this email finds you well. [REDACTED] (b) (4)
[REDACTED] (b) (4)

This request is not currently urgent, so please respond at your earliest convenience.

Thank you,
Lucia

Lucia Plachy
Paralegal (C)
Technology Transfer and Intellectual Property Office
National Institute of Allergy and Infectious Diseases

National Institutes of Health

5601 Fishers Lane, Rockville, MD 20852

lucia.plachy@nih.gov

Tel. 240.669.5519

Fax. 240.627.3117

(b) (4)

(b) (4)



From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 11 Mar 2020 14:16:31 +0000
To: (b) (6)
Subject: Re: (b) (6)

As of yesterday United airlines suspended all flights to Israel and anyone going into Israel will have to self quarantine for two weeks.

Dad

Sent from my iPhone

On Mar 11, 2020, at 9:31 AM, (b) (6) > wrote:

Sent from my iPhone

Begin forwarded message:

From: (b) (6)
Date: March 9, 2020 at 7:28:09 PM EDT
To: (b) (6)
Subject: (b) (6)
Reply-To: (b) (6)



From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 18 Mar 2020 17:53:39 +0000
To: Sumi Biswas; Corbett, Kizzmekia (NIH/VRC) [E]
Cc: Umesh Shaligram; Gall, Jason (NIH/VRC) [C] (b) (4); Mascola, John (NIH/VRC) [E] (b) (4); Chopra, Nandita (NIH/NIAID) [E]; Umesh Shaligram; Alvarado, Gabriela (NIH/VRC) [C]; Jing Jin; Vien Phan; Genevieve Labbe
Subject: RE: (b) (4)

Great. Thank you. (b) (4)

Barney

From: Sumi Biswas (b) (6) >
Sent: Wednesday, March 18, 2020 1:24 PM
To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Cc: Graham, Barney (NIH/VRC) [E] (b) (6); Umesh Shaligram (b) (6); Gall, Jason (NIH/VRC) [C] (b) (6); (b) (4); k (b) (6); (b) (4); Mascola, John (NIH/VRC) [E] (b) (6); (b) (4); (b) (6); (b) (4); Chopra, Nandita (NIH/NIAID) [E] (b) (6); Umesh Shaligram (b) (6); Alvarado, Gabriela (NIH/VRC) [C] (b) (6); Jing Jin (b) (6); Vien Phan (b) (6); Genevieve Labbe (b) (6) >
Subject: Re: (b) (4)

Dear Barney and Kizzmekia,

Please see (b) (4). Let us know if you have any questions. I have copied Gen who will be able to answer these.

(b) (4)

Thanks in advance

Sumi.

On Wed, 18 Mar 2020 at 14:48, Corbett, Kizzmekia (NIH/VRC) [E] (b) (6) > wrote:
I agree with (b) (4).

--

Kizzmekia S. Corbett, PhD

Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team
Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608
40 Convent Drive
Bethesda MD 20892

Laboratory: (b) (6)
Personal: (b) (6)
Fax: (301) 480-2771

From: Barney Graham (b) (6) >
Date: Wednesday, March 18, 2020 at 9:50 AM
To: Sumi Biswas (b) (6) >
Cc: Umesh Shaligram (b) (6) >, "Gall, Jason (NIH/VRC) [C]" (b) (6) >, (b) (4) < (b) (6), (b) (4) >, "Mascola, John (NIH/VRC) [E]" (b) (6) >, (b) (4) (b) (6), (b) (4), "Chopra, Nandita (NIH/NIAID) [E]" (b) (6) >, Umesh Shaligram (b) (6) >, Kizzmekia Corbett (b) (6) >, "Alvarado, Gabriela (NIH/VRC) [C]" (b) (6) >, Jing Jin (b) (6), Vien Phan (b) (6)
Subject: RE: (b) (4)

Hi Sumi,

(b) (4) We will discuss internally how to proceed.

Best wishes,

Barney

From: Sumi Biswas < (b) (6) >
Sent: Wednesday, March 18, 2020 9:04 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Umesh Shaligram (b) (6) >; Gall, Jason (NIH/VRC) [C] < (b) (6) >; (b) (4) < (b) (6), (b) (4) >; (b) (4) < (b) (6), (b) (4) >; Chopra, Nandita (NIH/NIAID) [E] < (b) (6) >; Umesh Shaligram (b) (6) >; Corbett, Kizzmekia (NIH/VRC) [E] (b) (6) >; Alvarado, Gabriela (NIH/VRC) [C] (b) (6) >; Jing Jin

(b) (6); Vien Phan (b) (6)
Subject: Re: (b) (4)

Dear Umesh,

Thank you for the introduction. Let's try our best to beat this virus.

Dear Jason, Barney and others,

Nice to e meet you and reconnet.

(b) (4)
(b) (4). Also happy to jump on a call to discuss further.

(b) (4)

Best wishes
Sumi.

On Wed, 18 Mar 2020 at 12:33, Graham, Barney (NIH/VRC) [E] (b) (6)> wrote:
Thanks Umesh.

Please keep Dr. Kizzmekia Corbett on any emails related to the coronavirus project. Also, add Gabriela Alvarado for project management.

Barney

Sent from my iPhone

On Mar 18, 2020, at 6:03 AM, Umesh Shaligram (b) (6)> wrote:

Dear Jason and Barney,

I just talked with Sumi who is CEO of SpyBiotech.

(b) (4)

She has previously interacted with you and knows you very well.

(b) (4)

Regards,
Umesh

UMESH SHALIGRAM
Director - R&D
Serum Institute of India Pvt. Ltd.
off Soli Poonawalla Road.
212/2 Hadapsar.
Pune :- (b) (6)
Ph- (b) (6).
Fax- (0091) 20 26993921

From: Umesh Shaligram [mailto: (b) (6)]
Sent: 18 March 2020 13:49
To: (b) (4)
Cc: 'Gall Jason (NIH/VRC) [C]'; 'Chopra Nandita (NIH/NIAID) [E]'; 'Graham, Barney (NIH/VRC) [E]';
'Umesh Shaligram'
Subject: (b) (4)

(b) (4)

Regards,
Umesh

UMESH SHALIGRAM
Director - R&D
Serum Institute of India Pvt. Ltd.
off Soli Poonawalla Road.
212/2 Hadapsar.

Pune :- (b) (6)
Ph- (b) (6)
Fax- (0091) 20 26993921

--

Sumi Biswas
CEO and Co-founder

(b) (6)

www.spybiotech.com

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--

Sumi Biswas
CEO and Co-founder

(b) (6)



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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 23 Mar 2020 14:22:26 +0000
To: Ruckwardt, Tracy (NIH/VRC) [E]; Loomis, Rebecca (NIH/VRC) [E]
Cc: Dipiazza, Anthony (NIH/VRC) [F]; Morabito, Kaitlyn (NIH/VRC) [E]
Subject: RE: (b) (5) Immunogenicity Study (PLACEHOLDER)

Tracy,

If you want to (b) (5)

Barney

From: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6) >
Sent: Monday, March 23, 2020 10:07 AM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>; Loomis, Rebecca (NIH/VRC) [E]
(b) (6) >
Cc: Dipiazza, Anthony (NIH/VRC) [F] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E]
(b) (6)
Subject: Re: (b) (5) Immunogenicity Study (PLACEHOLDER)

I agree (b) (5)

From: "Graham, Barney (NIH/VRC) [E]" (b) (6) >
Date: Sunday, March 22, 2020 at 11:08 PM
To: "Loomis, Rebecca (NIH/VRC) [E]" (b) (6)
Cc: "Dipiazza, Anthony (NIH/VRC) [F]" (b) (6), "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6) >, "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6) >
Subject: Re: (b) (5) Immunogenicity Study (PLACEHOLDER)

We need to wait. (b) (5)
CoV work.

Barney

Sent from my iPhone

On Mar 21, 2020, at 1:07 PM, Loomis, Rebecca (NIH/VRC) [E] (b) (6) wrote:

(b) (5)

Just my thoughts.
Rebecca

From: "Dipiazza, Anthony (NIH/VRC) [F]" (b) (6)>
Date: Saturday, March 21, 2020 at 12:17:14 PM
To: "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6)>, "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6), "Graham, Barney (NIH/VRC) [E]" (b) (6), "Loomis, Rebecca (NIH/VRC) [E]" (b) (6)>
Subject: Re (b) (5) Immunogenicity Study (PLACEHOLDER)

Hi all,

I am deferring to Tracy and Kaitlyn's experience (b) (5).
(b) (5)

Best,
Tony

From: "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6)
Date: Friday, March 20, 2020 at 1:13 PM
To: "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6)>, "Graham, Barney (NIH/VRC) [E]" (b) (6), "Loomis, Rebecca (NIH/VRC) [E]" (b) (6), "Dipiazza, Anthony (NIH/VRC) [F]" (b) (6)
Subject: Re (b) (5) Immunogenicity Study (PLACEHOLDER)

Hi All,

I agree with Tracy here.

(b) (5)

(b) (5)

Kaitlyn

From: Tracy Ruckwardt (b) (6)

Date: Friday, March 20, 2020 at 12:39 PM

To: Barney Graham (b) (6), "Loomis, Rebecca (NIH/VRC) [E]"

(b) (6), "Morabito, Kaitlyn (NIH/VRC) [E]"

(b) (6)

"Dipiazza, Anthony (NIH/VRC) [F]" (b) (6)

Subject: FW: (b) (5) Immunogenicity Study (PLACEHOLDER)

Hi All,

(b) (5)

I just saw Rebecca's e-mail to Chris

(b) (5)

(b) (5)

Tracy

From: "Case, Chris (NIH/NCI) [C]" (b) (6)
Date: Friday, March 20, 2020 at 10:52 AM
To: (b) (6) "Loomis, Rebecca (NIH/VRC) [E]"
(b) (6)>, "Taylor, Alida (NIH/VRC) [E]" (b) (6)
Cc: "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6)>
Subject: RE: (b) (5) Immunogenicity Study (PLACEHOLDER)

Hi Rebecca,

Given the new NIH guidance regarding limitations on research, please let us know if there is any impact to the study plans.

Thanks
Chris

Chris Case, Ph.D. (Contractor)
Manager, Scientific Programs
Frederick National Laboratory for Cancer Research
Leidos Biomedical Research, Inc.
Phone: (b) (6)

From: Dr. Hanne Andersen (b) (6)>
Sent: Thursday, March 19, 2020 11:21 AM
To: Loomis, Rebecca (NIH/VRC) [E] (b) (6)>; Taylor, Alida (NIH/VRC) [E]
(b) (6); Case, Chris (NIH/NCI) [C] (b) (6)>
Cc: Ruckwardt, Tracy (NIH/VRC) [E] <(b) (6)>
Subject: RE: (b) (5) Immunogenicity Study (PLACEHOLDER)

Hi Rebecca,

(b) (5)



(b) (5)

From: Loomis, Rebecca (NIH/VRC) [E] (b) (6)
Sent: Thursday, March 19, 2020 10:54 AM
To: Dr. Hanne Andersen (b) (6)>; Taylor, Alida (NIH/VRC) [E] (b) (6)
Case, Chris (NIH/NCI) [C] (b) (6)
Cc: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6)>
Subject: Re: (b) (5) Immunogenicity Study (PLACEHOLDER)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hanne,

Thank you for sending an updated schedule.

Two items;

(b) (5)

Thank you,
Rebecca

From: "Dr. Hanne Andersen" <(b) (6)>
Date: Thursday, March 19, 2020 at 8:29 AM
To: "Taylor, Alida (NIH/VRC) [E]" (b) (6)>, "Loomis, Rebecca (NIH/VRC) [E]" (b) (6)>, "Case, Chris (NIH/NCI) [C]" (b) (6)
Cc: "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6)
Subject: RE: (b) (5) Immunogenicity Study (PLACEHOLDER)

Here is the suggested schedule with the revisions we discussed earlier in the week.

Best regards,
-Hanne

From: Taylor, Alida (NIH/VRC) [E] (b) (6)
Sent: Wednesday, March 18, 2020 2:34 PM

To: Loomis, Rebecca (NIH/VRC) [E] (b) (6) Dr. Hanne Andersen
(b) (6)>; Case, Chris (NIH/NCI) [C] (b) (6)>
Cc: Ruckwardt, Tracy (NIH/VRC) [E] <(b) (6)>
Subject: RE: (b) (5) Immunogenicity Study (PLACEHOLDER)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Good afternoon Rebecca,

Can you let Hane and Diana know about the changes from the original ASP. I believe you are changing the following:

(b) (5)

Alida

From: Loomis, Rebecca (NIH/VRC) [E] (b) (6)
Sent: Tuesday, March 17, 2020 1:23 PM
To: Andersen, Hanne (b) (6)>; Case, Chris (NIH/NCI) [C]
(b) (6)>; Taylor, Alida (NIH/VRC) [E] (b) (6)
Cc: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6)>
Subject: Re (b) (5) Immunogenicity Study (PLACEHOLDER)

Revised immunization schedule.

<image001.jpg>

Thank you,
Rebecca

From: "Dr. Hanne Andersen" (b) (6)
Date: Tuesday, March 17, 2020 at 11:07 AM
To: "Loomis, Rebecca (NIH/VRC) [E]" (b) (6)>, "Case, Chris (NIH/NCI) [C]"
(b) (6)>, "Taylor, Alida (NIH/VRC) [E]" (b) (6)>
Cc: "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6)>
Subject: RE: (b) (5) Immunogenicity Study (PLACEHOLDER)

Hi Rebecca,
I have responded to the questions below.

-Hanne

From: Loomis, Rebecca (NIH/VRC) [E] <(b) (6)>
Sent: Tuesday, March 17, 2020 10:59 AM
To: Case, Chris (NIH/NCI) [C] (b) (6)>; Dr. Hanne Andersen (b) (6)>; Taylor, Alida (NIH/VRC) [E] (b) (6); Loomis, Rebecca (NIH/VRC) [E] (b) (6)>
Cc: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6)
Subject: Re: (b) (5) Ferret Immunogenicity Study (PLACEHOLDER)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi All,

In preparation for our call this afternoon, I had a few questions.

(b) (5)

Thank you,
Rebecca

From: "Case, Chris (NIH/NCI) [C]" (b) (6)>
Date: Monday, March 16, 2020 at 1:31:51 PM
To: "Andersen, Hanne" (b) (6)>, "Taylor, Alida (NIH/VRC) [E]" (b) (6)>, "Loomis, Rebecca (NIH/VRC) [E]" (b) (6)
Cc: "Ruckwardt, Tracy (NIH/VRC) [E]" (b) (6)
Subject: (b) (5) Immunogenicity Study (PLACEHOLDER)

The purpose of this call is to (b) (5)

Participants:

VRC: Alida Taylor, Rebecca Loomis, Tracy Ruckwardt

Bioqual: Hanne Andersen

Leidos Biomed: Chris Case

Agenda:



(b) (5)

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From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 24 Mar 2020 14:39:26 +0000
To: Morabito, Kaitlyn (NIH/VRC) [E]; Stein, Judy (NIH/VRC) [C]
Cc: Bok, Karin (NIH/VRC) [E]; Corbett, Kizzmekia (NIH/VRC) [E]; Alvarado, Gabriela (NIH/VRC) [C]
Subject: RE: coronavirus PMBC samples

One option is letting them do [REDACTED] (b) (4), (b) (5)
[REDACTED] (b) (4), (b) (5)

Barney

From: Morabito, Kaitlyn (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Tuesday, March 24, 2020 9:49 AM
To: Stein, Judy (NIH/VRC) [C] [REDACTED] (b) (6); Graham, Barney (NIH/VRC) [E]
[REDACTED] (b) (6)
Cc: Bok, Karin (NIH/VRC) [E] [REDACTED] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E]
[REDACTED] (b) (6); Alvarado, Gabriela (NIH/VRC) [C] [REDACTED] (b) (6);>
Subject: Re: coronavirus PMBC samples

Hi VRC team,

[REDACTED] (b) (4), (b) (5)

Kaitlyn

From: "David Kordys, Ph.D." [REDACTED] (b) (6)
Date: Friday, March 20, 2020 at 12:08 PM
To: Judy Stein [REDACTED] (b) (6);>, Darren Morrow [REDACTED] (b) (6);>, "Cynthia Nagle, Ph.D." [REDACTED] (b) (6);>, "Barton Haynes, M.D." [REDACTED] (b) (6);>
Cc: "Petrik, Amy (NIH/NIAID) [E]" [REDACTED] (b) (6);>, "Morabito, Kaitlyn (NIH/VRC) [E]" [REDACTED] (b) (6);>, Karin Bok [REDACTED] (b) (6);>
Subject: RE: coronavirus PMBC samples

Hi Judy,

Thanks for the update. I'm looping in Darren and Cynthia from Duke who (b) (4)

(b) (4)

Best regards,

David



David Kordys, Ph.D.
DHVI Research Agreement Manager
Duke University
Office of Corporate Research Collaborations
2200 West Main Street, Suite 910B Durham, NC 27705
For Campus Mail:
P.O. Box 104025, Durham, NC 27710

Tel (b) (6) M,T, Th) and (b) (6), F)

From: Stein, Judy (NIH/VRC) [C] (b) (6)
Sent: Wednesday, March 18, 2020 12:42 PM
To: David Kordys, Ph.D. (b) (6) >
Cc: Petrik, Amy (NIH/NIAID) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6); Bok, Karin (NIH/VRC) [E] (b) (6)
Subject: RE: coronavirus PMBC samples

Hi David,
I think so – (b) (4),

(b) (4)

Thanks,
Judy

From: David Kordys, Ph.D. (b) (6)
Sent: Wednesday, March 18, 2020 12:16 PM
To: Stein, Judy (NIH/VRC) [C] (b) (6)
Cc: Petrik, Amy (NIH/NIAID) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E]

(b) (6)

Subject: RE: coronavirus PMBC samples

Hi All,

Hope all is well. I'm sure that each of you are also quite overloaded with COVID related agreements, but

(b) (4)

(b) (4) If you would like to set up a time to discuss, please let me know. Email is fine as well.

Best regards,

David



David Kordys, Ph.D.
DHVI Research Agreement Manager
Duke University
Office of Corporate Research Collaborations
2200 West Main Street, Suite 910B Durham, NC 27705
For Campus Mail:
P.O. Box 104025, Durham, NC 27710

Tel: (b) (6) (M,T, Th) and (b) (6) (W, F)

From: Stein, Judy (NIH/VRC) [C] <(b) (6)>

Sent: Thursday, March 5, 2020 1:54 PM

To: David Kordys, Ph.D. (b) (6)

Cc: Petrik, Amy (NIH/NIAID) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E]
(b) (6)>

Subject: RE: coronavirus PMBC samples

Hi David,

How goes it.

I will be gone next week but if (b) (4)

(b) (4)

Thanks,
Judy

From: Barton Haynes, M.D. (b) (6)>

Sent: Wednesday, March 4, 2020 3:31 PM

To: Graham, Barney (NIH/VRC) [E] <(b) (6)>; Marston, Hilary (NIH/NIAID) [E]

(b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>
Cc: Degrace, Marciela (NIH/NIAID) [E] (b) (6)>; Gregory Sempowski
(b) (6); Thomas Denny (b) (6); Kelly Soderberg
(b) (6)>; Mascola, John (NIH/VRC) [E] (b) (6)>; David Kordys,
Ph.D. (b) (6); Stein, Judy (NIH/VRC) [C] <(b) (6)>
Subject: RE: coronavirus PMBC samples

Hi Barney: thanks for this. I have cc'd this to david Kordys here at duke (b) (4)

(b) (4)

(b) (4) All the best Bart

Barton F. Haynes, M.D.
Director, Duke Human Vaccine Institute
Frederic M. Hanes Professor of Medicine and Immunology
2 Genome Court
MSRBII Bldg. Room 4090
DUMC 103020
Duke University Medical Center
Durham, NC 27710
Ph: (b) (6)
Fx: 919-684-5230

(b) (6)

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Tuesday, March 3, 2020 11:41 AM
To: Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Barton Haynes, M.D.
(b) (6); Bozick, Brooke (NIH/OD) [E] (b) (6); Ledgerwood, Julie
(NIH/NIAID) [E] (b) (6)
Cc: Degrace, Marciela (NIH/NIAID) [E] (b) (6); Gregory Sempowski
(b) (6)>; Thomas Denny <(b) (6)>; Kelly Soderberg
(b) (6); Mascola, John (NIH/VRC) [E] (b) (6)>
Subject: RE: coronavirus PMBC samples

(b) (4)

Barney

From: Marston, Hilary (NIH/NIAID) [E] (b) (6) >
Sent: Tuesday, March 3, 2020 11:05 AM
To: Barton Haynes, M.D. (b) (6) >; Bozick, Brooke (NIH/OD) [E] (b) (6) >; Graham, Barney (NIH/VRC) [E] (b) (6) >; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6) >
Cc: Degrace, Marciela (NIH/NIAID) [E] <(b) (6) v>; Gregory Sempowski (b) (6) >; Thomas Denny (b) (6) >; Kelly Soderberg (b) (6) >; Mascola, John (NIH/VRC) [E] (b) (6) >
Subject: RE: coronavirus PMBC samples

Adding John, Julie and Barney back to the string for responses. (bear with John and Barney if they are a bit delayed in responding today).

From: Barton Haynes, M.D. (b) (6) >
Sent: Tuesday, March 3, 2020 10:57 AM
To: Bozick, Brooke (NIH/OD) [E] (b) (6) >
Cc: Degrace, Marciela (NIH/NIAID) [E] (b) (6) >; Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Gregory Sempowski (b) (6) >; Thomas Denny (b) (6) >; Kelly Soderberg (b) (6) >
Subject: RE: coronavirus PMBC samples

Hi Hilary, John and Barney:

(b) (4)



Many thanks for your consideration.

All the very best, Bart

Barton F. Haynes, M.D.
Director, Duke Human Vaccine Institute
Frederic M. Hanes Professor of Medicine and Immunology
2 Genome Court
MSRBII Bldg. Room 4090
DUMC 103020
Duke University Medical Center
Durham, NC 27710
Ph: (b) (6)
Fx: 919-684-5230
(b) (6)

From: Bozick, Brooke (NIH/OD) [E] (b) (6)
Sent: Saturday, February 29, 2020 12:39 PM
To: Barton Haynes, M.D. (b) (6) >
Cc: Degrace, Marciela (NIH/NIAID) [E] (b) (6) >; Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Gregory Sempowski <(b) (6)>; Thomas Denny (b) (6) >; Kelly Soderberg (b) (6) >
Subject: RE: coronavirus PMBC samples

Perfect, thank you Bart. I've added your information to our list.

(b) (4)

Brooke

From: Barton Haynes, M.D. (b) (6)
Sent: Friday, February 28, 2020 7:08 AM
To: Bozick, Brooke (NIH/OD) [E] (b) (6)
Cc: Degrace, Marciela (NIH/NIAID) [E] (b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Gregory Sempowski (b) (6); Thomas Denny (b) (6) >; Kelly Soderberg (b) (6) >
Subject: RE: coronavirus PMBC samples

Here you go Brooke. Let me know if you need any additional information.

Don't know if it comes through on the form (b) (4)

(b) (4)

spoke with Barney and John re this as well.

(b) (4)

All the very best Bart

From: Bozick, Brooke (NIH/OD) [E] (b) (6)
Sent: Thursday, February 20, 2020 5:13 PM
To: Barton Haynes, M.D. (b) (6)
Cc: Degrace, Marciela (NIH/NIAID) [E] (b) (6)
Subject: RE: coronavirus PMBC samples

Hi Bart,

My name is Brooke Bozick and I am (b) (4),
(b) (4)

Thank you,
Brooke Bozick

Brooke A. Bozick, Ph.D.
AAAS Science & Technology Policy Fellow, Health Scientist
Respiratory Diseases Branch
Division of Microbiology and Infectious Diseases
NIAID/NIH/DHHS
5601 Fishers Lane, Room 8A16, Rockville, MD 20852
Phone: (b) (6)

Begin forwarded message:

From: "Barton Haynes, M.D." (b) (6)
Date: February 17, 2020 at 4:02:18 PM EST
To: "Marston, Hilary (NIH/NIAID) [E]" (b) (6)>
Cc: "Embry, Alan (NIH/NIAID) [E]" (b) (6), "Degrace, Marciela (NIH/NIAID) [E]" (b) (6)
Subject: RE: coronavirus PMBC samples

Hi Hilary; (b) (4)

All the very best Bart

From: Marston, Hilary (NIH/NIAID) [E] (b) (6)
Sent: Monday, February 17, 2020 3:45 PM
To: Barton Haynes, M.D. (b) (6)
Cc: Embry, Alan (NIH/NIAID) [E] (b) (6); Degrace, Marciela (NIH/NIAID) [E] (b) (6)
Subject: Re: coronavirus PMBC samples

Bart - (b) (4)

Thanks!

On Feb 17, 2020, at 2:53 PM, Graham, Barney (NIH/VRC) [E] (b) (6) wrote:

Hi Bart. (b) (4). This has been a painful process with so much urgency and so long a wait.

(b) (4)

Best wishes,

Barney

Sent from my iPhone

On Feb 17, 2020, at 12:44 PM, Barton Haynes, M.D. (b) (6) wrote:

Hi Barney: (b) (4)

(b) (4)

All the very best Bart

Barton F. Haynes, M.D.
Director, Duke Human Vaccine Institute
Frederic M. Hanes Professor of Medicine and Immunology
2 Genome Court
MSRBII Bldg. Room 4090
DUMC 103020
Duke University Medical Center
Durham, NC 27710
Ph: (b) (6)
Fx: 919-684-5230
(b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 23 Apr 2020 15:40:15 +0000
To: Wanjek, Christopher (NIH/OD) [E]
Subject: RE: request for your Wednesday lecture slides from NIAID colleague
Attachments: COVID IG 22Apr2020 - redacted HO.pdf

Here is a slightly redacted HO you can use.

Barney

From: Wanjek, Christopher (NIH/OD) [E] (b) (6)
Sent: Thursday, April 23, 2020 11:30 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: request for your Wednesday lecture slides from NIAID colleague

Hi. We received this request for your slides from someone in NIAID. Are you able to share them? If so, please contact Cecile Pham (b) (6) directly. Or, if you send them to me, I will pass them on to anyone (internal?) who requests them. Thanks. -chris

Christopher Wanjek
Anagram title: O, I fret to cordon manic music
Official title: Director of Communications
NIH Office of Intramural Research
(b) (6)

From: Pham, Cecile (NIH/NIAID) [C] (b) (6)
Sent: Thursday, April 23, 2020 9:31 AM
To: Wanjek, Christopher (NIH/OD) [E] (b) (6)
Subject: RE: 3 p.m. lecture reminder, CME, and videocast clarification

Hi Christopher,

I learned so much watching his lecture, thank you for organizing. Would it be possible to get a copy of Dr. Graham's PowerPoint Slides as a reference? Thank you, Christopher.

Best regards,
Cecile Pham
Technology Transfer and Patent Specialist
Technology Transfer and Intellectual Property Office (TTIPO)
National Institute of Allergy and Infectious Diseases (NIAID)
National Institutes of Health (NIH)
5601 Fishers Lane, Room 2G59

Rockville, MD 20892

Phone: (b) (6)

Email: (b) (6)

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From: Wanjek, Christopher (NIH/OD) [E] (b) (6)

Sent: Wednesday, April 22, 2020 2:39 PM

To: List COVID19RESEARCH (b) (6) >

Subject: 3 p.m. lecture reminder, CME, and videocast clarification

Hello. Our COVID-19 lecture with Barney Graham will start at 3 p.m. today. We have additional information about watching the videocast live at <https://videocast.nih.gov>.

We mentioned on Monday that you should have Flash Player installed to increase the likelihood of a smooth connection. If you don't have Flash, then the Videocast system automatically switches you over to the HLS stream (HTTP Live Streaming), which NIH Videocast currently has a lower capacity for. That is, the videocast can serve more Flash viewers than HLS viewers.

Note that this lecture will be archived at <https://videocast.nih.gov>, hopefully by early Thursday. Flash Player doesn't matter such much for the archive.

Also, we are pleased to announce that we can offer CME for this lecture. The code is 24873.

The COVID-19 Scientific Interest Group presents:

Rapid COVID-19 Vaccine Development: An Example of the Prototype Pathogen Approach for Pandemic Preparedness

Dr. Barney S. Graham

3:00 p.m. ET, Wednesday, April 22, 2020

<http://videocast.nih.gov> (videocast-only)

Barney S. Graham, M.D., Ph.D., is deputy director of the NIAID Vaccine Research Center and chief of the Viral Pathogenesis Laboratory and Translational Science Core. Dr. Graham is an immunologist, virologist, and clinical trials physician whose primary interests are viral pathogenesis, immunity, and vaccine development. His work is focused on HIV, respiratory syncytial virus (RSV), and emerging viral diseases. He has been involved in the clinical evaluation of candidate HIV vaccines for more than 25 years and has an ongoing interest in science education and expanding research opportunities for under-represented minorities.

***This lecture will be videocast live and quickly archived at <https://videocast.nih.gov>. To watch live, we suggest that you have Adobe Flash Player installed on your computer and that your web browser of choice can access Flash.

***To ensure you have a working player, please refer to the "test computer" page at <https://videocast.nih.gov/BrowserTest>. Instructions for using Flash are available at <https://videocast.nih.gov/Faq/#flash>. For further technical assistance, please consult your local IT support or the NIH IT Service Desk at 301-496-4357. If you cannot log on because of the high demand, please note that the archive will be available the next day.

Lecture summary:

Infectious diseases pose the greatest threat to public health than any other process. Sir William Osler noted that "Humanity has but three great enemies: fever, famine, and war; of these by far the greatest, by far the most terrible, is fever." This remains true

despite advances in sanitation, antimicrobials, and vaccines. While the frequency of pandemic threats seems to be increasing, we fortunately have new tools and technologies to make vaccines with more precision and speed and that support a more proactive approach to pandemic preparedness and response. We advocate a comprehensive and systematic prototype pathogen work plan that addresses the ~25 virus families associated with human infection from which the next pandemic threat will likely arise. Within each relevant virus family a database of information with accompanying reagents, assays, and animal models could be developed for prototypic viruses based on properties of tropism, transmission routes, and other distinguishing features of pathogenesis. Candidate vaccine approaches could be designed based on virus structure, transmission dynamics, entry requirements, and replication strategy.

The prototype pathogen approach for pandemic preparedness has been applied to MERS CoV over the last 7 years. It was informed by structure-based immunogen-design concepts established for RSV F subunit vaccines, and focused on solving coronavirus spike structures, defining mechanisms of CoV neutralization, and evaluating MERS CoV vaccine candidates in collaboration with a commercial mRNA manufacturer. Prior spike protein engineering experience resulted in rapid sequence selection and using the mRNA manufacturing platform provided rapid GMP production a COVID-19 mRNA vaccine in record time. This candidate was tested in mice in ~25 days and humans in ~65 days from the time sequence was released. Clinical and nonclinical evaluation are now proceeding in parallel with hopes to begin efficacy testing before next winter. The proactive preparation not only facilitated vaccine development but provided a stabilized spike protein reagent that is supporting the development of serological assays.

Sign-language interpreters can be provided. Individuals with disabilities who need reasonable accommodation to participate in this event should contact Jacqueline Roberts, [REDACTED] ^{(b) (6)}, or the Federal Relay, 800-877-8339.

To unsubscribe from the COVID19RESEARCH list, click the following link:
<http://list.nih.gov/cgi-bin/wa.exe?SUBED1=COVID19RESEARCH&A=1>

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 17 Mar 2020 19:09:31 +0000
To: Fischer, Elizabeth (NIH/NIAID) [E]
Subject: RE: Coronavirus question

Thanks Beth,

I am sorry to miss this as well and am determined to get there eventually. I'm not sure what to say to the earlier email. (b) (5)

Barney

From: Fischer, Elizabeth (NIH/NIAID) [E] <(b) (6)>
Sent: Tuesday, March 17, 2020 10:50 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: FW: Coronavirus question

Hello Barney,

I am sorry to hear that you won't be visiting us at RML – Anita very much enjoyed visiting with you and we were looking forward to showing you around our microscopy area as well. I imagine your inbox is overflowing but just throwing out the question below to you from Jack Collins at the bottom of this string in case you might be interested in contacting Jack. Best wishes and thanks for all the vital work you do! Beth

Elizabeth R. Fischer, M.A.
Head, Microscopy Unit
Acting Chief, Research Technologies Branch
Rocky Mountain Laboratories/NIAID/NIH
903 South 4th Street
Hamilton, MT 59840
(b) (6)

From: De wit, Emmie (NIH/NIAID) [E] (b) (6)>
Sent: Tuesday, March 17, 2020 8:43 AM
To: Fischer, Elizabeth (NIH/NIAID) [E] (b) (6)>; Munster, Vincent (NIH/NIAID) [E] (b) (6)>; Feldmann, Heinrich (NIH/NIAID) [E] (b) (6)>; Martens, Craig (NIH/NIAID) [E] <(b) (6)>
Subject: RE: Coronavirus question

My suggestion would be to check with Barney Graham at VRC. I think he is developing monoclonal antibodies.

From: Fischer, Elizabeth (NIH/NIAID) [E] (b) (6)
Sent: Tuesday, March 17, 2020 8:40 AM
To: De wit, Emmie (NIH/NIAID) [E] (b) (6)>; Munster, Vincent (NIH/NIAID) [E] (b) (6)>; Feldmann, Heinrich (NIH/NIAID) [E] (b) (6)>; Martens, Craig (NIH/NIAID) [E] (b) (6)>
Subject: FW: Coronavirus question

Hi all, any thoughts?

From: Collins, Jack R. (NIH/NCI) [C] (b) (6)
Sent: Tuesday, March 17, 2020 8:32 AM
To: Fischer, Elizabeth (NIH/NIAID) [E] <(b) (6)>
Subject: Coronavirus question

Beth,

Hope you remember me from some of our meetings. I have an odd request from one of my groups and I thought you might be able to point me in the right direction. (b) (5)

(b) (5)
(b) (5)
(b) (5)
(b) (5). Do you have any suggestions or recommendations for who to contact, where to find, warnings to stay away, etc?

Any help you can provide is much appreciated.
Thanks, and hope you're all doing well at RML.
Jack.

Jack R. Collins, Ph.D. [Contractor]
Director, Advanced Biomedical Computational Science
Leidos Biomedical Research, Inc.
Frederick National Laboratory for Cancer Research
Post Office Box B
Frederick, MD 21702
(b) (6)(voice)
<https://ncifrederick.cancer.gov/isp/abcc/about-us/>
(b) (6)

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From: (b) (6)
Sent: Tue, 31 Mar 2020 07:26:02 -0400
To: Rothenberg, Marc
Subject: Re: <no subject>

Hi Marc,

Thank you for reaching out. I would love for you to weigh in on which of those papers in the SARS literature are an artifact of the reagents vs. a virus-specific effect.

(b) (4)

Take care,

Barney

Sent from my iPhone

On Mar 31, 2020, at 5:40 AM, Rothenberg, Marc (b) (6) > wrote:

Dear Barney,

Thanks for all you and your colleagues are doing to understand and develop a vaccine for COVID-19. I have been reading that SARS-1 vaccines were complicated by eosinophilia, at least in pre-clinical models. (b) (4)

Best wishes for peace, harmony, health and conquering COVID.

Sincerely,

Marc E. Rothenberg MD, PhD (Immediate cell phone access (b) (6))
Professor of Pediatrics
Bunning Chair of Allergy and Immunology
Director, Division of Allergy and Immunology
Director, Cincinnati Center for Eosinophilic Disorders
Cincinnati Children's Hospital Medical Center

(b) (6) (office)

(b) (6) (Assistant)

(b) (6)

Featured Websites (Click each):

[Rothenberg CURED Laboratory](#)

[EGIDExpress \(access to Rothenberg Lab Data\)](#)
[Cincinnati Center for Eosinophilic Disorders](#)
[Rothenberg CURED Research Laboratory Facebook Site](#)
[Consortium of Gastrointestinal Disease Researchers](#)
[Eosinophilic Gastritis Benralizumab Study](#)
[What is EoE? \(click here for Spanish version\)](#)
[2018 Allergy/Immunology Highlights](#)

See EoE research highlights by clicking on the photo below.

[<image001.png>](#)

Divisional Mission-To improve the health and wellbeing of children with allergic and immune conditions through innovative research, outstanding clinical care, and education of the current and next generation of leaders in healthcare and research. [Divisional Video](#)

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[<image002.png>](#)

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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 20 Apr 2020 02:24:04 +0000
To: Corbett, Kizzmekia (NIH/VRC) [E]
Cc: Mascola, John (NIH/VRC) [E]
Subject: Re: Slides to be Sent to (b) (4) Please Review if you Can
Attachments: image002.png

I'm still thinking we need to do the (b) (5)

BG

Sent from my iPhone

On Apr 19, 2020, at 10:18 PM, Corbett, Kizzmekia (NIH/VRC) [E]
(b) (6) wrote:

<image002.png>

(b) (5)

“SO MUCH MORE TO LEARN HERE!” – a pandemic rapid response mantra.

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team
Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608
40 Convent Drive
Bethesda MD 20892
Laboratory: (b) (6)
Personal: (b) (6)
Fax: (301) 480-2771

From: "Mascola, John (NIH/VRC) [E]" (b) (6) >
Date: Sunday, April 19, 2020 at 10:07 PM
To: Barney Graham (b) (6) >, Kizzmekia Corbett (b) (6)
Subject: RE: Slides to be Sent to (b) (4) - Please Review if you Can

Interesting... (b) (5), (b) (4)
(b) (5), (b) (4)
So much more to learn here.

From: Graham, Barney (NIH/VRC) [E] (b) (6) >
Sent: Sunday, April 19, 2020 10:01 PM
To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6); Mascola, John (NIH/VRC) [E] (b) (6)
Subject: RE: Slides to be Sent to (b) (4) - Please Review if you Can

I agree with all your points Kizzy. (b) (5), (b) (4)
(b) (5), (b) (4)

Barney

From: Corbett, Kizzmekia (NIH/VRC) [E] <(b) (6)>
Sent: Sunday, April 19, 2020 1:46 PM
To: Mascola, John (NIH/VRC) [E] (b) (6) >; Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: Slides to be Sent to (b) (4) - Please Review if you Can

Let me know what you think, particularly Dr. Graham let me know if our minds are in synergy (*apt pun*) around (b) (5), (b) (4) (slide 1).

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team
Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608
40 Convent Drive
Bethesda MD 20892

Laboratory: (b) (6)
Personal: (b) (6)
Fax: (301) 480-2771

From: "Mascola, John (NIH/VRC) [E]" (b) (6)
Date: Sunday, April 19, 2020 at 7:45 AM
To: Barney Graham (b) (6), Kizzmekia Corbett (b) (6)
Subject: RE: PK study

Barney, Kizzmekia,

In reflecting on the discussion with (b) (4), (b) (5)
(b) (4), (b) (5)



Thoughts?

John

From: Pegu, Amarendra (NIH/VRC) [F] <(b) (6)>
Sent: Saturday, April 18, 2020 8:49 PM
To: Mascola, John (NIH/VRC) [E] (b) (6)>
Cc: Graham, Barney (NIH/VRC) [E] (b) (6)>; Corbett, Kizzmekia (NIH/VRC) [E]
(b) (6)>
Subject: Re: PK study

Hello John

For a (b) (4), (b) (5),

Thanks

Amar

From: Mascola, John (NIH/VRC) [E] <(b) (6)>
Sent: Saturday, April 18, 2020 8:32:19 PM
To: Pegu, Amarendra (NIH/VRC) [F] <(b) (6)>
Cc: Graham, Barney (NIH/VRC) [E] <(b) (6)>; Corbett, Kizzmekia (NIH/VRC) [E]
<(b) (6)>
Subject: PK study

Hi Amar,

(b) (4), (b) (5)

Thanks,
John

(b) (4), (b) (5)

From: Graham, Barney (NIH/VRC) [E]
Sent: Sat, 28 Mar 2020 13:39:36 +0000
To: Ledgerwood, Julie (NIH/NIAID) [E]
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Misasi, John (NIH/VRC) [E]; Petrik, Amy (NIH/NIAID) [E]; Chen, Grace (NIH/NIAID) [E]
Subject: Re: (b) (5)

We should already have them. Probably need to identify sera from people (b) (5)

(b) (5)

(b) (5)

Barney

Sent from my iPhone

On Mar 28, 2020, at 9:23 AM, Ledgerwood, Julie (NIH/NIAID) [E] (b) (6) >
wrote:

Thanks all

I think we need more information about this. (b) (5)

(b) (5)

Julie

From: Corbett, Kizzmekia (NIH/VRC) [E] <(b) (6)>
Sent: Saturday, March 28, 2020 3:36 AM
To: Misasi, John (NIH/VRC) [E] <(b) (6)>
Cc: Graham, Barney (NIH/VRC) [E] (b) (6); Petrik, Amy (NIH/NIAID) [E] (b) (6); Chen, Grace (NIH/NIAID) [E] <(b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>
Subject: Re (b) (5)

Let's do it!!! (b) (5)

(b) (5)

I'm cc'ing Grace and Julie because I will undoubtedly forget later.

Have a good weekend.

Sent from the mobile device of:

Kizzmekia S. Corbett, PhD

Senior Research Fellow

coVip Scientific Lead

VRC | NIAID | NIH

(b) (6)

From: "Misasi, John (NIH/VRC) [E]" (b) (6) >

Date: Friday, March 27, 2020 at 8:53:40 AM

To: "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6) >

Cc: "Graham, Barney (NIH/VRC) [E]" (b) (6)

Subject: Re (b) (5)

Sorry, hit send instead of cancel.

That said, I am happy to help. I am not sure when it can be arranged will need to be discussed with Julie and Grace...

John Misasi, M.D.

Staff Clinician

NIH/NIAID

Vaccine Research Center

Biodefense Research Section

Rm 2510

40 Convent Drive

Bethesda, MD 20892

(b) (6)

(b) (6)

From: "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6)

Date: Friday, March 27, 2020 at 08:02

To: John Misasi (b) (6)

Subject: Re: (b) (5)

There was nothing in this email.

--

Kizzmekia S. Corbett, PhD

Senior Research Fellow | Scientific Lead

Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center

National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608

40 Convent Drive

Bethesda MD 20892

Laboratory: (b) (6)

Personal: (b) (6)

Fax: (301) 480-2771

From: "Misasi, John (NIH/VRC) [E]" (b) (6)

Date: Friday, March 27, 2020 at 8:01 AM

To: Kizzmekia Corbett (b) (6)

Cc: Barney Graham (b) (6)

Subject: Re: (b) (5)

John Misasi, M.D.

Staff Clinician

NIH/NIAID

Vaccine Research Center

Biodefense Research Section

Rm 2510

40 Convent Drive

Bethesda, MD 20892

(b) (6)

(b) (6)

Sent from my iPhone

On Mar 27, 2020, at 06:34, Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
wrote:

Good morning John,

Per our previous conversation, (b) (5)

(b) (5)

Cheers to you on this beautiful day ☺

--

Kizzmekia S. Corbett, PhD

Senior Research Fellow | Scientific Lead

Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center

National Institutes of Allergy and Infectious Diseases

National Institutes of Health

Building 40 Room 2608

40 Convent Drive

Bethesda MD 20892

Laboratory: (b) (6)

Personal: (b) (6)

Fax: (301) 480-2771

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 28 Apr 2020 21:56:50 +0000
To: Margaret McCluskey; Mascola, John (NIH/VRC) [E]
Cc: Matthew Barnhart
Subject: RE: Moderna Announces IND Submitted to U.S. FDA for Phase 2 Study of mRNA Vaccine (mRNA-1273) Against Novel Coronavirus

Thanks Margaret. We will see.

BG

From: Margaret McCluskey (b) (6)
Sent: Tuesday, April 28, 2020 5:27 PM
To: Mascola, John (NIH/VRC) [E] (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6)>
Cc: Matthew Barnhart (b) (6)
Subject: Fwd: Moderna Announces IND Submitted to U.S. FDA for Phase 2 Study of mRNA Vaccine (mRNA-1273) Against Novel Coronavirus

Congrats! 🎉

Margaret M. McCluskey, RN, MPH
Senior Technical Advisor, HIV Vaccines
US Agency for International Development
GH/Office of HIV & AIDS/RES
USAID Annex/06.2.3D
500 D Street SW
Washington, D.C. 20547
Desk: (b) (6)
Mobile: (b) (6)
Email: (b) (6)
USAID Contractor, GHSI-III - Social Solutions International, Inc.

"It always seems impossible until it's done."
Nelson Mandela

----- Forwarded message -----

From: Folkers, Greg (NIH/NIAID) [E] (b) (6)
Date: Tue, Apr 28, 2020 at 5:24 PM
Subject: Moderna Announces IND Submitted to U.S. FDA for Phase 2 Study of mRNA Vaccine (mRNA-1273) Against Novel Coronavirus
To:

Moderna Announces IND Submitted to U.S. FDA for Phase 2 Study of mRNA Vaccine (mRNA-1273) Against Novel Coronavirus

600 participant Phase 2 study to begin upon IND acceptance and safety data from ongoing NIH-led Phase 1 study

Planning underway for Phase 3 study; study expected to begin in the fall of 2020

CAMBRIDGE, MA, USA | April 27, 2020 | Moderna, Inc., (Nasdaq: MRNA) a clinical stage biotechnology company pioneering messenger RNA (mRNA) therapeutics and vaccines to create a new generation of transformative medicines for patients, today announced that it has submitted an Investigational New Drug (IND) application to the U.S. Food and Drug Administration (FDA) for the company's mRNA vaccine candidate (mRNA-1273) against the novel coronavirus (SARS-CoV-2) to evaluate mRNA-1273 in Phase 2 and late-stage studies if supported by safety data from the Phase 1 study led by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health.

Moderna has received initial feedback from the FDA on the design of the planned Phase 2 study, which is expected to begin in the second quarter of 2020. This study will evaluate the safety, reactogenicity and immunogenicity of two vaccinations of mRNA-1273 given 28 days apart. Each subject will be assigned to receive placebo, a 50 µg or a 250 µg dose at both vaccinations. The company intends to enroll 600 healthy participants across two cohorts of adults ages 18-55 years (n=300) and older adults ages 55 years and above (n=300). Participants will be followed through 12 months after the second vaccination.

"Submitting this IND is an important next step in the clinical development of our mRNA vaccine against SARS-CoV-2, and we are moving rapidly to potentially address this global health emergency," said Tal Zaks, M.D., Ph.D., Chief Medical Officer at Moderna. "We look forward to launching this Phase 2 study as soon as possible, which will provide important information about the safety, reactogenicity and immunogenicity of mRNA-1273."

Subject to data from the Phase 1 and Phase 2 studies and discussions with regulators, a Phase 3 study could begin in the fall of 2020. [Funding](#) from the Biomedical Advanced Research and Development Authority (BARDA), part of the Office of the Assistant Secretary for Preparedness and Response within the U.S. Department of Health and Human Services, supported the planning for these studies and also will support the late-stage clinical development programs, as well as the scale-up of mRNA-1273 manufacturing.

"Safe, effective vaccines are critical to ending this pandemic and preventing future outbreaks of SARS-CoV-2," said BARDA Acting Director Gary Disbrow, Ph.D. "The next steps announced today for this particular vaccine highlight the value of collaboration among government agencies including BARDA and NIAID, and the private sector, to move vaccines and other medical countermeasures forward as rapidly as possible."

About the NIAID-led Phase 1 Study

An open-label Phase 1 study of mRNA-1273 is being conducted by the National Institute of Allergy and Infectious Diseases under its own Investigational New Drug (IND) application. The Phase 1 study, which began on March 16, 2020, completed enrollment of 45 healthy adult volunteers ages 18 to 55 years in the original three dose cohorts (25 µg, 100 µg and 250 µg). The study is [enrolling](#) an additional six cohorts: three cohorts of older adults (ages 56-70) and three cohorts of elderly adults (ages 71 and above). Data from the original cohort of healthy adult volunteers ages 18 to 55 years will be reported once available.

About mRNA-1273

mRNA-1273 is an mRNA vaccine against SARS-CoV-2 encoding for a prefusion stabilized form of the Spike (S) protein, which was selected by Moderna in collaboration with investigators from Vaccine Research Center (VRC) at the National Institute of Allergy and Infectious Diseases (NIAID), a part of the NIH. The first clinical batch, which was funded by the Coalition for Epidemic Preparedness Innovations, was completed on February 7, 2020 and underwent analytical testing; it was shipped to NIH on February 24, 42 days from sequence selection. The first participant in the NIAID-led Phase 1 study of mRNA-1273 was dosed on March 16, 63 days from sequence selection to Phase 1 study dosing. A summary of the company's work to date on SARS-CoV-2 can be found [here](#).

About Moderna's Prophylactic Vaccines Modality

Moderna scientists designed the company's prophylactic vaccines modality to prevent infectious diseases. More than 1,400 participants have been enrolled in Moderna's infectious disease vaccine clinical studies under health authorities in the U.S., Europe and Australia. Clinical data demonstrate that Moderna's proprietary vaccine technology has been generally well-tolerated and can elicit durable immune responses to viral antigens. Based on clinical experience across Phase 1 studies, the company designated prophylactic vaccines a core modality and is working to accelerate the development of its vaccine pipeline.

The potential advantages of an mRNA approach to prophylactic vaccines include the ability to combine multiple mRNAs into a single vaccine, rapid discovery to respond to emerging pandemic threats and manufacturing agility derived from the platform nature of mRNA vaccine design and production. Moderna has built a fully integrated manufacturing plant which enables the promise of the technology platform.

Moderna currently has [nine development candidates](#) in its prophylactic vaccines modality, including:
Vaccines against respiratory infections

- Respiratory syncytial virus (RSV) vaccine for older adults (mRNA-1777 and mRNA-1172 or V172 with Merck)
- RSV vaccine for young children (mRNA-1345)
- Human metapneumovirus (hMPV) and parainfluenza virus type 3 (PIV3) vaccine (mRNA-1653)
- Novel coronavirus (SARS-CoV-2) vaccine (mRNA-1273)
- Influenza H7N9 (mRNA-1851)

Vaccines against infections transmitted from mother to baby

- Cytomegalovirus (CMV) vaccine (mRNA-1647)
- Zika vaccine (mRNA-1893 with BARDA)

Vaccines against highly prevalent viral infections

- Epstein-Barr virus (EBV) vaccine (mRNA-1189)

To date, Moderna has demonstrated positive Phase 1 data readouts for seven prophylactic vaccines (H10N8, H7N9, RSV, chikungunya virus, hMPV/PIV3, CMV and Zika). Moderna's CMV vaccine is currently in a Phase 2 dose-confirmation study. Moderna's investigational Zika vaccine (mRNA-1893), currently in a Phase 1 study, was granted FDA Fast Track designation in August 2019.

About Moderna

Moderna is advancing messenger RNA (mRNA) science to create a new class of transformative medicines for patients. mRNA medicines are designed to direct the body's cells to produce intracellular, membrane or secreted proteins that can have a therapeutic or preventive benefit and have the potential to address a broad spectrum of diseases. The company's platform builds on continuous advances in basic and applied mRNA science, delivery technology and manufacturing, providing Moderna the capability to pursue in parallel a robust pipeline of new development candidates. Moderna

is developing therapeutics and vaccines for infectious diseases, immuno-oncology, rare diseases and cardiovascular diseases, independently and with strategic collaborators.

Headquartered in Cambridge, Mass., Moderna currently has strategic alliances for development programs with AstraZeneca PLC and Merck & Co., Inc., as well as the Defense Advanced Research Projects Agency (DARPA), an agency of the U.S. Department of Defense, and the Biomedical Advanced Research and Development Authority (BARDA), a division of the Office of the Assistant Secretary for Preparedness and Response (ASPR) within the U.S. Department of Health and Human Services (HHS). Moderna has been ranked in the top ten of *Science's* list of top biopharma industry employers for the past five years. To learn more, visit www.modernatx.com.

SOURCE: Moderna Therapeutics

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: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 29 Jan 2020 13:20:01 +0000
To: N.M.A. Okba
Subject: Re: Greetings from the Netherlands
Attachments: image001.png, image002.png, image003.png

Hi Nisreen,

I'm sure you and your lab are very busy as we are. It will give me a lot to talk about at the Nidovirus meeting in May.

I look forward to seeing you there and we can discuss the status of the lab.

Best wishes,

Barney

Sent from my iPhone

On Jan 29, 2020, at 2:00 PM, N.M.A. Okba (b) (6) wrote:

Dear Dr. Barney,

In light of the emergence of the new CoV, a lot of exciting work to come.... (b) (6)

Waiting for your reply

All the best,
Nisreen

From: Graham, Barney (NIH/VRC) [E] (b) (6)
Sent: Thursday, April 18, 2019 4:33 PM
To: N.M.A. Okba (b) (6) >
Subject: RE: Greetings from the Netherlands

Nice to hear from you. (b) (6)

Dr. Corbett will be at the Keystone meeting in Ireland and present some of the new CoV work.

Congratulations on your recent paper showing the importance of diverse antibodies.

Best wishes,

Barney

From: N.M.A. Okba [REDACTED] (b) (6)
Sent: Thursday, April 18, 2019 8:40 AM
To: Graham, Barney (NIH/VRC) [E] <[REDACTED]> (b) (6)
Subject: RE: Greetings from the Netherlands

Dear Dr. Barney,

[REDACTED] (b) (6)

Will Dr. Corbett or Dr. Morabito or anyone from your lab be joining the European congress of virology this year? If so, would be a nice chance to meet face-to-face.
Thanks in advance

Best regards,
Nisreen Okba

From: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Tuesday, March 12, 2019 10:07 PM
To: N.M.A. Okba
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [C]
Subject: RE: Greetings from the Netherlands

Hi Nisreen,

[REDACTED] (b) (6)

Best wishes,

Barney

From: N.M.A. Okba <(b) (6)>
Sent: Tuesday, March 12, 2019 3:33 PM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Subject: Greetings from the Netherlands

Dear Dr. Graham,

I hope this e-mail finds you well...

(b) (6)

Best regards,

Nisreen Okba, BPharm, MSc.

(b) (6)

Viroscience

<image001.png>

P.O. Box 2040, 3000 CA Rotterdam, The Netherlands

Visiting address: office EE1724, Dr.Molewaterplein 40, 3015 GD Rotterdam, The Netherlands

Email (b) (6) | Telephone (b) (6)

www.erasmusmc.nl

[<image002.png>](#)

[<image003.png>](#)

Erasmus MC
University Medical Center Rotterdam



From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 26 Mar 2020 13:39:40 +0000
To: Jie LIU
Subject: Re: PPE

Thanks Jie,

I think we are OK for now, but appreciate the concern.

BG

Sent from my iPhone

On Mar 26, 2020, at 5:29 AM, Jie LIU (b) (6) wrote:

Hi Barney,

I heard there is a shortage of PPE in US during the pandemic of Covid-19. If VPL or VRC need, I can request a donation from West China Hospital, to protect my colleagues in VRC.

Best wish.

Jie

From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 8 Mar 2020 23:13:17 +0000
To: Boonyaratanakornkit, Jim B; Corbett, Kizzmekia (NIH/VRC) [E]
Cc: Stein, Judy (NIH/VRC) [C]
Subject: RE: CoV spike constructs

Hi Jim,

(b) (4)

Best wishes,

Barney

From: Boonyaratanakornkit, Jim B (b) (6)
Sent: Sunday, March 8, 2020 3:22 PM
To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6); Graham, Barney (NIH/VRC) [E]
(b) (6) >
Subject: Re: CoV spike constructs

Hi Kizzmekia and Barney,

I hope you had a nice weekend although I suspect you have been busy with COVID. I am currently on clinical service in Seattle, and we just had our first cancer patient with COVID unfortunately, and he is not doing well.

(b) (4)

My best,

Jim

--

Jim Boonyaratanakornkit, MD, PhD
Fred Hutchinson Cancer Research Center
1100 Eastlake Ave E, Mail Stop E5-320

e: [REDACTED] (b) (6)
o:
m:

From: ' [REDACTED] (b) (6)
Date: Thursday, March 5, 2020 at 10:23 AM
To: "Corbett, Kizzmekia (NIH/VRC) [E]" [REDACTED] (b) (6) >
Subject: CoV spike constructs

Hi Kizzmekia,

Thank you for taking the time to chat today about CoV. [REDACTED] (b) (4)
[REDACTED] (b) (4)

Address:
Jim Boonyaratanakornkit, MD, PhD
Fred Hutchinson Cancer Center
1100 Eastlake Ave E, Mail Stop E5-320
Seattle, WA 98109

o [REDACTED] (b) (6)
c:

Thank you so much again for your help. I am very excited to share with you our results when I visit the NIH next year.

My best,

Jim

--

Jim Boonyaratanakornkit, MD, PhD

Fred Hutchinson Cancer Research Center
1100 Eastlake Ave E, Mail Stop E5-320

e: [REDACTED] (b) (6)
o: [REDACTED]
m: [REDACTED]

From: (b) (6)
Sent: Mon, 10 Feb 2020 17:42:00 -0500
To: Kayvon Modjarrad
Cc: Corbett, Kizzmekia (NIH/VRC) [E]
Subject: Re: Fluctuating funding and flagging interest hurt coronavirus research, leaving crucial knowledge gaps

It's been entirely predictable. Kizzy's been pretending to stay under the radar, waiting for this moment.

BG

Sent from my iPhone

On Feb 10, 2020, at 4:59 PM, Kayvon Modjarrad (b) (6) wrote:

Not everybody's been sleeping at the wheel...

https://www.statnews.com/2020/02/10/fluctuating-funding-and-flagging-interest-hurt-coronavirus-research/?utm_content=buffer1d31e&utm_medium=social&utm_source=twitter&utm_campaign=twitter_organic

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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 6 Apr 2020 21:10:06 +0000
To: Morabito, Kaitlyn (NIH/VRC) [E]
Cc: Corbett, Kizzmekia (NIH/VRC) [E];Carlton, Kevin (NIH/VRC) [E]
Subject: Re: RD for Covid DNA

Yes please. [REDACTED] (b) (5)

BG

Sent from my iPhone

On Apr 6, 2020, at 5:07 PM, Morabito, Kaitlyn (NIH/VRC) [E] [REDACTED] (b) (6) wrote:

FYI- It seems like Cheng Cheng is planning [REDACTED] (b) (5)

From: Wing-Pui Kong [REDACTED] (b) (6) >
Date: Monday, April 6, 2020 at 5:05 PM
To: "Cheng, Cheng (NIH/VRC) [E]" [REDACTED] (b) (6)
Cc: "Morabito, Kaitlyn (NIH/VRC) [E]" [REDACTED] (b) (6)
Subject: RE: RD for Covid DNA

Hi Cheng,

That is under Barney's RD, Kaitlyn (Cc here)can provide that to you.

Thanks!

Wing

From: Cheng, Cheng (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Monday, April 6, 2020 2:06 PM
To: Kong, Wing-Pui (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: RD for Covid DNA

Hi Wing:

Do you have a RD to cover [REDACTED] (b) (5)

Best
Cheng

From: "Bao, Hana (NIH/VRC) [E]" <[REDACTED] (b) (6)>
Date: Monday, April 6, 2020 at 2:02 PM
To: "Cheng, Cheng (NIH/VRC) [E]" [REDACTED] (b) (6)
Subject: RE: Covid vaccine protocol

Oops - sorry, I meant to also add that I will check with Louis to see if he can esign the original ASP (or if he was waiting for the RD amendment to be approved first).

Best,
Hana

From: Bao, Hana (NIH/VRC) [E]
Sent: Monday, April 6, 2020 2:02 PM
To: Cheng, Cheng (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: RE: Covid vaccine protocol

Hi Cheng,

That's fine – it's up to you! Please be sure to clarify that [REDACTED] (b) (5)
[REDACTED] (b) (5)

Another note : I don't think you can initiate an amendment on that ASP since it's still sitting with the safety officer to sign off on the approval.

Thanks,
Hana

From: Cheng, Cheng (NIH/VRC) [E] [REDACTED] (b) (6)>
Sent: Monday, April 6, 2020 1:59 PM
To: Bao, Hana (NIH/VRC) [E] [REDACTED] (b) (6)>
Subject: Re: Covid vaccine protocol

Hi Hana:

If you look at the protocol, [REDACTED] (b) (5)

Best
Cheng

From: "Bao, Hana (NIH/VRC) [E]" <[REDACTED] (b) (6)>
Date: Monday, April 6, 2020 at 1:10 PM
To: "Cheng, Cheng (NIH/VRC) [E]" [REDACTED] (b) (6)
Subject: RE: Covid vaccine protocol

Hi Cheng,

Can you clarify if this [REDACTED] (b) (5) (b) (5)

Best,
Hana

From: Cheng, Cheng (NIH/VRC) [E] [REDACTED] (b) (6)
Sent: Monday, April 6, 2020 11:16 AM
To: Bao, Hana (NIH/VRC) [E] [REDACTED] (b) (6)
Subject: Covid vaccine protocol

Hi Hana:

I have this [REDACTED] (b) (5) for the Covid vaccine. Please edit.

Best
Cheng

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 30 Mar 2020 13:02:40 +0000
To: Bok, Karin (NIH/VRC) [E]
Cc: Ledgerwood, Julie (NIH/NIAID) [E]; Mascola, John (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]; Corbett, Kizzmekia (NIH/VRC) [E]; Daucher, Marybeth (NIH/NIAID) [E]; Harris, Christina (NIH/NIAID) [E]
Subject: Re: Pregnant women and COVID-19

This should probably be [REDACTED] (b) (5)

Barney

Sent from my iPhone

On Mar 27, 2020, at 10:52 AM, Bok, Karin (NIH/VRC) [E] [REDACTED] (b) (6) wrote:

Julie,

Thank you for the quick reply. I agree Cristina's answer will be key here, and we [REDACTED] (b) (5)

[REDACTED]
[REDACTED] We'll proceed with that.

Karin.

Karin Bok, MS, PhD
Senior Advisor, Vaccine Development
Office of the Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
phone: [REDACTED] (b) (6) mobile: [REDACTED] (b) (6) email: [REDACTED] (b) (6)
<https://www.niaid.nih.gov/about/vrc>

From: "Ledgerwood, Julie (NIH/NIAID) [E]" [REDACTED] (b) (6) >
Date: Friday, March 27, 2020 at 10:37 AM
To: Karin Bok [REDACTED] (b) (6), "Graham, Barney (NIH/VRC) [E]" [REDACTED] (b) (6) >

Cc: "Mascola, John (NIH/VRC) [E]" (b) (6), "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6), "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6), "Daucher, Marybeth (NIH/NIAID) [E]" (b) (6), "Harris, Christina (NIH/NIAID) [E]" <(b) (6)>
Subject: RE: Pregnant women and COVID-19

Thanks Karin---good that you are involved in these important discussions.

Looks like Cristina is part of this group and as you know DMID is leading the current trials efforts for Moderna. I will certainly share this perspective when I am engaged in conversations about populations--and I am sure she will also.

I am not sure what the specific ask here is-- (b) (5)
(b) (5)

Julie

From: Bok, Karin (NIH/VRC) [E] (b) (6)>
Sent: Friday, March 27, 2020 10:13 AM
To: Ledgerwood, Julie (NIH/NIAID) [E] (b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Mascola, John (NIH/VRC) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E] (b) (6); Harris, Christina (NIH/NIAID) [E] (b) (6)
Subject: FW: Pregnant women and COVID-19

Julie,

As a member of PRGLAC I have been helping the director of NICHD draft some talking points on vaccine testing during pregnancy, that is why I am being contacted about this here.

As you know, we have also brought this subject up with Moderna.

(b) (5)

Let me know what you think, we could go ahead and set up the call if you want.

Thanks,

Karin.

Karin Bok, MS, PhD

Senior Advisor, Vaccine Development

Office of the Director, Vaccine Research Center

National Institute of Allergy and Infectious Diseases

National Institutes of Health

phone: (b) (6) | mobile: (b) (6) email: (b) (6)

<https://www.niaid.nih.gov/about/vrc>

From: "Hazra, Rohan (NIH/NICHD) [E]" (b) (6)

Date: Friday, March 27, 2020 at 9:59 AM

To: "Marston, Hilary (NIH/NIAID) [E]" (b) (6) >, "Cassetti, Cristina (NIH/NIAID) [E]" (b) (6) >, Karin Bok (b) (6)

Subject: Pregnant women and COVID-19

Hi Hilary, Cristina, and Karin,

In response to the call from Dr. Collins for proposals to address the COVID-19 pandemic that involve more than one IC (due today), studies in pregnant women are NICHD's first priority. (b) (5)

(b) (5)

(b) (5)

Happy to arrange a time to talk if that is easier.

Thanks!

-Rohan

Rohan Hazra, MD

Acting Associate Director for Extramural Research

Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)

National Institutes of Health

6710B Rockledge Drive, Room 2314 MSC 7002

Bethesda, MD 20892

Voicemail: (b) (6)

email: (b) (6)

From: (b) (6)
Sent: Fri, 8 Nov 2019 05:55:05 +0900
To: Kanekiyo, Masaru (NIH/VRC) [E]
Subject: Fwd: International Society for Vaccines (ISV)/ 2019 meeting highlights
Attachments: ISV 2019 meeting highlights.docx, ATT00001.htm

Hi Masaru,

(b) (5)

I'm giving my talk today and I met your friend (b) (6) yesterday.

BG

Sent from my iPhone

Begin forwarded message:

From: "Yamshchikov, Galina (NIH/NIAID) [E]" <(b) (6)>
Date: November 8, 2019 at 1:14:12 AM GMT+9
To: "Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6)>
Cc: "Chen, Grace (NIH/NIAID) [E]" (b) (6)>, "Gaudinski, Martin (NIH/NIAID) [E]" (b) (6)>, "Widge, Alicia (NIH/NIAID) [E]" (b) (6)>, "Berkowitz, Nina (NIH/NIAID) [E]" (b) (6)>, "Andrews, Charla (NIH/NIAID) [C]" (b) (6)>, "Rothwell, Ro Shauna (NIH/VRC) [C]" (b) (6)>, "Hickman, Somia (NIH/VRC) [C]" (b) (6)>, "Cox, Josephine (NIH/VRC) [C]" (b) (6)>, "Casazza, Joseph (NIH/VRC) [E]" (b) (6)>, "Houser, Katherine (NIH/NIAID) [C]" (b) (6)>, "Coates, Emily (NIH/NIAID) [C]" (b) (6)>, "McDermott, Adrian (NIH/VRC) [E]" (b) (6)>, "Graham, Barney (NIH/VRC) [E]" (b) (6)>

Subject: International Society for Vaccines (ISV)/ 2019 meeting highlights

Dear Julie and all,

Thank you for a great opportunity to attend the annual ISV meeting. The meeting was very good and had many interesting presentations that are relevant to VRC programs. Attached for your

attention is a summary of the meeting highlights I compiled.

In addition to traditional sessions on vaccine development, there was a plenary session on “the influence of microbiome on immune response to vaccines” that I found very informative. I have a book of abstracts, happy to provide if there are questions or more information needed.

Kind regards,
Galina

Galina Yamshchikov, M.S.,
Lead Protocol Specialist
Clinical Trials Program
VRC/NIAID/NIH
9000 Rockville Pike
Building 40, Room 1202G
Bethesda, MD 20892-3017

Phone: (b) (6)

Cell: (b) (6)

Email: (b) (6)

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From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 5 Apr 2020 03:24:51 +0000
To: Kaslow, David
Cc: Hall, Lee (NIH/NIAID) [E]
Subject: Re: PATH here to help
Attachments: image002.png

Thanks David. Good to have the support. These kinds of events have a way of aligning priorities. I just hope we can remember this time to finish the deal.

Barney

Sent from my iPhone

On Apr 4, 2020, at 7:28 PM, Kaslow, David (b) (6) wrote:

Dear Lee and Barney,

I hope this note finds you and your families well in these extraordinary times.

PATH's CEO, Nikolaj Gilbert, recently sent a summary of our relevant capabilities (see below and attached) to NIH.

While DMID, VRC and NIH at-large is already well-positioned both within the US and elsewhere, if something comes up where PATH may be able to help out, please do not hesitate to contact me directly.

Be well,
David

<image002.png>

David C. Kaslow, MD
Vice President, Essential Medicines
Head, Center for Vaccine Innovation and Access

Mail: PO Box 900922 | Seattle, WA 98109 USA
Street: 2201 Westlake Avenue, Suite 200 | Seattle, WA 98121 USA
Telephone: (b) (6) | Mobile: (b) (6) | Fax: +1 206.285.6619
Email: (b) (6) | Skype: (b) (6)

(b) (6) (Executive Assistant)
(b) (6)
Web: www.path.org

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From: Development <development@path.org>

Sent: Tuesday, March 31, 2020 6:44 PM

To: Sandine, Carla (b) (6)>

Subject: Responding to COVID-19



[View this email as a webpage](#)



Dear friends,

This is not how I had planned to first reach out to most of our partners. But together, as a global community, we're facing a challenge unprecedented in our lifetimes: the COVID-19 global pandemic.

Thank you for all you are doing to address the outbreak. We are so grateful for the investments you are making, for your team members working to respond, and for the years of preparatory system strengthening work we've already partnered on together. Like you, [we are responding to COVID-19 around the world](#).

Here are a few examples of our team's efforts today:

- In the **Democratic Republic of the Congo**, we are honored to house the DRC's Presidential COVID Task Force in our Kinshasa offices

and work side by side with our government partners, providing technical and logistical support as they develop a national response plan.

- In **India**, we're partnering with private industry to develop data analytics, logistical solutions, and rapid diagnostics.
- In **Senegal**, [we're supporting surveillance measures](#) by utilizing and expanding existing systems originally developed for Ebola and malaria.
- In **Tanzania**, we're training health workers on preventive measures like safe water, sanitation, and hygiene, and supporting the Ministry of Health in planning its response.
- In the **United States**, our health technology engineers are providing design and fabrication support to manufacture personal protective equipment for frontline health workers in Seattle.
- In **Vietnam**, [we're developing dashboards, mapping tools, case forms](#), and community-based surveillance systems that enable targeted response.

As you consider your response, **we want to familiarize you with everything PATH can offer to support COVID-19 efforts: [click here to download our capabilities PDF](#).**

Thank you again for all you are doing to address this global crisis. We see you. We're with you. And we're proud to be working alongside you. Let us know how we can help.

Thanks, and take good care.

(b) (6)

Nikolaj Gilbert
President and CEO

PATH

Mail: PO Box 900922 | Seattle, WA 98109

Street: 2201 Westlake Avenue, Suite 200 | Seattle, WA 98121

Tel: 206.285.3500 | Fax: 206.285.6619

Web: path.org

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<PATH_COVID Capabilities_2020_v2.pdf>

<PATH_one-pager_AtAGlance_2020_v1_rev02.pdf>



From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 13 Mar 2020 15:29:02 +0000
To: RIVEROS BALTA, Alina Ximena
Subject: Accepted: WEBEX call - update on COVID vaccines research activities

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 13 Feb 2020 20:40:20 +0000
To: Jon Cohen
Subject: RE: Enhancing antibodies

In some of the early tween-ether inactivated or formalin-inactivated measles vaccines, a certain level of neutralizing activity was induced but waned over a period of 4-5 years. The overall binding antibody and CD4 T cells did not wane as much and some older children got an atypical measles disease. It was in the 1950's or early 1960's.

Barney

-----Original Message-----

From: Jon Cohen <jcohen@aaas.org>
Sent: Thursday, February 13, 2020 2:41 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: Re: Enhancing antibodies

You spell out the RSV 1966 problem. What is the measles vaccine enhancement?

> On Feb 13, 2020, at 11:30 AM, Graham, Barney (NIH/VRC) [E] (b) (6)> wrote:

>

> Hi Jon,

>

> It would be great if you could help teach and clarify some of these issues. People are conflating two different types of biology.

>

> I think the risk of vaccine-enhanced disease is very small if we follow what we have learned from RSV and measles. I think the likelihood of ADE is extremely small for a virus with tropism for respiratory epithelium.

>

> There are two major ways that vaccines have been associated disease enhancement. Antibody dependent enhancement is associated with one type of biology and is more easily demonstrated in animal models than in humans. Classical Fc-mediated ADE enhances infection of some viruses with innate macrophage and monocyte tropism. This has been seen with Dengue and with Feline Infectious Peritonitis Virus (FIPV) which is a coronavirus. FIPV causes a systemic infection and a vasculitis-like syndrome. It is very different than coronaviruses with lung or GI tropism. I think there is a small chance that antibodies alone will enhance 2019-nCoV replication or illness, but it will be checked.

>

> The other biology is like what happened in RSV and measles vaccine-enhanced respiratory disease. I have attached a short summary of the biology as I understand it. We can talk more if you have questions.

>

> Barney

>

>

>

> -----Original Message-----

> From: Jon Cohen <jcohen@aaas.org>
> Sent: Wednesday, February 12, 2020 5:05 PM
> To: Graham, Barney (NIH/VRC) [E] (b) (6)>
> Subject: Enhancing antibodies

>

> Hi Barney,

>

> Are you concerned about the potential for vaccines to create enhancing antibodies to COVID-19?
>
> If so, is there any evidence of this you can point me to in animal models?
>
> Thanks,
>
> Jon
> <Enhanced Disease_overview.pdf>

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 13 Jan 2020 16:39:54 +0000
To: Mascola, John (NIH/VRC) [E]
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]; Bok, Karin (NIH/VRC) [E]
Subject: Fwd: Wuhan inquiry from NIH

FYI. [REDACTED] (b) (5).

BG

Sent from my iPhone

Begin forwarded message:

From: George GAO [REDACTED] (b) (6)>
Date: January 13, 2020 at 10:50:44 AM EST
To: "Graham, Barney (NIH/VRC) [E]" [REDACTED] (b) (6)
Subject: Re: Wuhan inquiry from NIH

Keep in touch

发自我的iPhone

在 2020年1月13日, 23:05, Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)>
写道:

Thank you for the role you played in releasing the sequences.
Best wishes,
Barney

Sent from my iPhone

On Jan 10, 2020, at 11:53 AM, George GAO [REDACTED] (b) (6)> wrote:

Dear Dr Barney
Many thanks for your email.
I am working on the matter to push for seq sharing.
Bedt wishes
George

发自我的iPhone

在 2020年1月11日, 00:30, Graham, Barney (NIH/VRC) [E] <[REDACTED]> (b) (6)
写道:

Dear Dr. Gao,

I am writing to ask you for information about the Wuhan coronavirus. I am deputy director of the NIAID Vaccine Research Center on the NIH campus in Bethesda. We share many mutual interests and I have followed your work closely over the last few years. I was hoping to see you next week at the bunyavirus workshop but found out that you would not be able to attend. I'm sure this is likely because of your obligations related to the Wuhan outbreak.

Since The MERS CoV outbreak we have learned a lot about CoV spike structure and stabilization and antigenic sites associated with neutralization. I know that your lab is highly capable of characterizing the new virus, but we would be very willing and interested to help with this. Since this virus is likely to not be confined to China alone, we also feel some obligation to initiate our local processes for pandemic preparedness. While this may or may not be necessary, and hopefully the outbreak will not expand, I'm hoping that you would be willing to share sequences with our group at NIAID, especially for spike. We would very much enjoy collaborating with you on this new pathogen.

Best wishes,

Barney

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
Vaccine Research Center, NIAID, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
[Bethesda, MD 20892-3017](https://www.niaid.nih.gov/research/barney-graham-md-phd)
Phone: [REDACTED] (b) (6)
URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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page appears blank in original

From: Graham, Barney (NIH/VRC) [E]
Sent: Fri, 7 Feb 2020 17:29:45 +0000
To: Hiatt, Nissa (NIH/VRC) [C]; Corbett, Kizzmekia (NIH/VRC) [E]
Cc: Young, Monique (NIH/VRC) [E]; Prince, Tasheema (NIH/VRC) [C]; Harris, Christina (NIH/NIAID) [E]
Subject: RE: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Good choice.

BG

From: Hiatt, Nissa (NIH/VRC) [C] (b) (6)
Sent: Friday, February 7, 2020 11:59 AM
To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6) >
Cc: Young, Monique (NIH/VRC) [E] (b) (6); Prince, Tasheema (NIH/VRC) [C] (b) (6); Harris, Christina (NIH/NIAID) [E] (b) (6) >; Graham, Barney (NIH/VRC) [E] (b) (6) >
Subject: Re: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Hi everyone,

It looks like NPR can't do the following week but suggested visiting on Tuesday, Wednesday, or Thursday of next week with an inperson interview of Kizzy. If you would like to do this option, maybe he could interview Barney on the phone separately to still get an audio interview recorded with both of you. As long as the phone connection is strong during the phone interview, the quality of the recording should be fine.

If you would like to do this next week, what day and 2 hour (max) time window should I suggest for the visit to building 40?

I am also happy to press them more on making the following week work.

Thanks to everyone for your help scheduling this visit!
Nissa

On Feb 6, 2020, at 7:31 PM, Corbett, Kizzmekia (NIH/VRC) [E] (b) (6) wrote:

I'm available at those times.

Sent from the mobile device of:

Kizzmekia S. Corbett, PhD

Senior Research Fellow

coVip Scientific Lead

NIH | NIAID | VRC

(b) (6)

From: "Young, Monique (NIH/VRC) [E]" (b) (6) >

Date: Thursday, February 6, 2020 at 7:22:59 PM

To: "Hiatt, Nissa (NIH/VRC) [C]" (b) (6) >, "Corbett, Kizzmekia (NIH/VRC) [E]"

(b) (6) >

Cc: "Prince, Tasheema (NIH/VRC) [C]" (b) (6) >, "Harris, Christina (NIH/NIAID) [E]"

<(b) (6) >, "Graham, Barney (NIH/VRC) [E]" (b) (6) >

Subject: RE: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Hi Nissa –

Availability for Dr. Graham.

Tue Feb 18th

11:30 am – 1:00 pm

Fri Feb 21st

10:00 am – 11:00 am

3:30 pm – 4:30 pm

Thanks...Monique

(b) (6)

From: Hiatt, Nissa (NIH/VRC) [C] (b) (6) >

Sent: Thursday, February 6, 2020 5:22 PM

To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6) Young, Monique (NIH/VRC) [E]

(b) (6) >

Cc: Prince, Tasheema (NIH/VRC) [C] (b) (6) >; Harris, Christina (NIH/NIAID) [E]

(b) (6) >; Graham, Barney (NIH/VRC) [E] (b) (6)

Subject: RE: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Hi Monique,

Does Barney have availability the following week, Feb. 18-21? With a preference for earlier in the week. Unfortunately 2/14 will not work for the NPR request.

Thanks for your help!

Nissa

Nissa Hiatt

Communications
Vaccine Research Center, NIAID, NIH
40 Convent Drive, Bldg 40, Room 1107
Bethesda, MD 20892

(b) (6)

From: Hiatt, Nissa (NIH/VRC) [C]
Sent: Thursday, February 6, 2020 4:41 PM
To: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>; Young, Monique (NIH/VRC) [E]
(b) (6)>
Cc: Prince, Tasheema (NIH/VRC) [C] (b) (6)>; Harris, Christina (NIH/NIAID) [E]
(b) (6); Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: RE: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Hi,

Checking to see if they have flexibility for Friday, Feb. 14. Will be in touch!

Best,
Nissa

Nissa Hiatt
Communications
Vaccine Research Center, NIAID, NIH
40 Convent Drive, Bldg 40, Room 1107
Bethesda, MD 20892

(b) (6)

From: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Sent: Thursday, February 6, 2020 4:35 PM
To: Young, Monique (NIH/VRC) [E] (b) (6)>; Hiatt, Nissa (NIH/VRC) [C]
(b) (6)
Cc: Prince, Tasheema (NIH/VRC) [C] (b) (6)>; Harris, Christina (NIH/NIAID) [E]
(b) (6)>; Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: Re: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Is there any day next week (except Feb. 14) that this would work for you?
Nissa's request...

Thus, Nissa... how would you like to handle this?

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead
Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608
40 Convent Drive
Bethesda MD 20892
Laboratory: (b) (6)
Personal: (b) (6)
Fax: (301) 480-2771

From: Monique Young (b) (6)
Date: Thursday, February 6, 2020 at 4:33 PM
To: "Hiatt, Nissa (NIH/VRC) [C]" (b) (6)
Cc: "Prince, Tasheema (NIH/VRC) [C]" (b) (6); "Harris, Christina (NIH/NIAID) [E]" (b) (6), Kizzmekia Corbett (b) (6); Barney Graham (b) (6)
Subject: RE: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Hi Nissa –

Dr. Graham is traveling Feb 10 – 13th. I will hold Fri Feb 14th 10:00 am – 12:00 pm if that will work for you.

He has meetings at 12:00 pm through the remainder of the day.

Please advise.

Thanks...Monique
(b) (6)

From: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)
Sent: Thursday, February 6, 2020 4:23 PM
To: Hiatt, Nissa (NIH/VRC) [C] (b) (6)>
Cc: Prince, Tasheema (NIH/VRC) [C] (b) (6); Harris, Christina (NIH/NIAID) [E] (b) (6); Young, Monique (NIH/VRC) [E] (b) (6)>
Subject: Re: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

I think that Dr. Graham is away most of next week. Monique can comment on his availability next week and I will fall in line.

--

Kizzmekia S. Corbett, PhD
Senior Research Fellow | Scientific Lead

Coronavirus Vaccines & Immunopathogenesis (coVip) Team

Viral Pathogenesis Laboratory | Vaccine Research Center
National Institutes of Allergy and Infectious Diseases
National Institutes of Health

Building 40 Room 2608

40 Convent Drive

Bethesda MD 20892

Laboratory: (b) (6)

Personal: (b) (6)

Fax: (301) 480-2771

From: "Hiatt, Nissa (NIH/VRC) [C]" (b) (6)

Date: Thursday, February 6, 2020 at 10:16 AM

To: (b) (6)>

Cc: "Prince, Tasheema (NIH/VRC) [C]" (b) (6)>, "Harris, Christina (NIH/NIAID) [E]" (b) (6)>

Subject: FW: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Hi Barney and Kizzy,

I got a bit more information on timing for this request. NPR is willing to wait to get in to the lab and to have the opportunity to speak with you. The timing is at your discretion and what works best for your group. Also, radio has a LOT less set up and equipment than TV.

Best,

Nissa

Nissa Hiatt

Communications

Vaccine Research Center, NIAID, NIH

40 Convent Drive, Bldg 40, Room 1107

Bethesda, MD 20892

(b) (6)

From: Oplinger, Anne (NIH/NIAID) [E] (b) (6)

Sent: Thursday, February 6, 2020 9:37 AM

To: Graham, Barney (NIH/VRC) [E] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>

Cc: Hiatt, Nissa (NIH/VRC) [C] (b) (6); Harris, Kara (NIH/NIAID) [E] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E] (b) (6)>; NIAID COGCORE <COGCORE@mail.nih.gov>; NIAID Media Inquiries <mediainquiries@niaid.nih.gov>

Subject: NPR Radio Interview Request: Novel Coronavirus (Week of Feb. 3)

Reporter: Rob Stein, correspondent, senior editor

Organization: NPR

Phone #(s): (b) (6) rstein@npr.org

Subject: novel coronavirus—research at NIAID VRC

Deadline: loose, week of Feb. 10 if possible

Spokesperson: TBD

Expected place of publication (print, online, broadcast): broadcast

Expected date of publication/airing: TBD

Expected prominence (e.g. front page, Sunday, evening/morning show, etc.): not known

Hello Drs. Graham and Corbett,

Rob Stein has reached out to me (his original ask is below) to see if he could arrange an **in person** visit to the VRC to learn more about nCoV activities there. In subsequent exchanges with him, I said that VRC's work is largely constrained to vaccine efforts (he had asked about gene sequencing) and that he cannot see the virus itself under microscope at your labs. He would still want to get into the labs themselves to see and record activities happening there.

As you know, he is an experienced reporter and we anticipate that any radio piece he produces will be well done. We can definitely negotiate about the particulars of a visit—he is asking for separate interviews of 30 min each—but I want to see if either or both of you would be open to this. The one firm request is that he wants to do this in person. He wanted to bring a still photographer, but would definitely drop that request and just take a few shots with his phone, if that would make it easier.

He has been directed to the b-roll and sound bites we've posted, so he may be somewhat up to speed on the general contours of your projects by the time any interview happens.

Is there any day next week (except Feb. 14) that this would work for you?

From: Rob Stein <RStein@npr.org>

Sent: Monday, February 3, 2020 4:25 PM

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

Subject: coronavirus

Hi,

Hope you're well. I heard on the CDC call today that NIH has gotten the virus. Any chance of I could get a visit to the lab where it's being studied?

Rob

<image001.jpg>

Rob Stein | Correspondent/Senior Editor | rstein@npr.org | (b) (6) | @robsteinnews |

Anne A. Oplinger

Office of Communications

National Institute of Allergy and Infectious Diseases

National Institutes of Health
Bldg 31, Rm. 7A17D
Media Line: (301) 402-1663
General Line: (301) 594-3961
(b) (6)

From: (b) (6)
Sent: Tue, 3 Mar 2020 21:34:45 -0500
To: Dennis Burton
Subject: Re: More SARS-CoV-2

(b) (4)

Barney

Sent from my iPhone

> On Mar 3, 2020, at 7:37 PM, Dennis Burton (b) (6) > wrote:

>

> Thanks Barney. (b) (4)

(b) (4). But I am not well versed in this. Dennis

>

>>> On Mar 3, 2020, at 4:22 PM, Graham, Barney (NIH/VRC) [E] (b) (6) > wrote:

(b) (4)

>> Barney

>> Sent from my iPhone

>>>> On Mar 3, 2020, at 7:10 PM, Dennis Burton (b) (6) > wrote:

>>> Barney,

>>> Sorry to keep bothering you but, (b) (4), I have a couple of quick questions for you:

(b) (4)

>>> Thanks,
>>> Dennis

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 2 Apr 2020 11:36:49 +0000
To: Loftus, Peter
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Hiatt, Nissa (NIH/VRC) [C]
Subject: Re: Interview request

Hi Peter,

The 12-18 month timeline is still our best hope.

I'm not sure I understand the second comment about Feb 25, but maybe Dr. Corbett does.

Take care,

Barney

Sent from my iPhone

On Apr 1, 2020, at 5:06 PM, Loftus, Peter <peter.loftus@wsj.com> wrote:

Thank you both for answers to the follow up questions. I think we are close to wrapping up our story.

I just wanted to triple-check that the best-case scenario -- assuming all the things you cite here go smoothly -- is 12-18 months for the vaccine to become available? Meaning, early next year at best?

And just to triple check on the mouse testing - you said results Feb. 25, and do you remember when that testing started?

On Sat, Mar 28, 2020 at 6:06 PM Graham, Barney (NIH/VRC) [E] (b) (6) wrote:

Hi Peter,

Sorry for not getting back to this. I gave a few answers below.

Can you give me a sense of the main factors that could lead to things taking longer?

RESPONSE: 1) There has never been a licensed human coronavirus vaccine before, 2) there has never been a licensed mRNA vaccine before, 3) most vaccine development efforts are measured in decades, not in months, so this would be unprecedented timeline, 4) The vaccine may not work as well as we want and may take some revision, 5) the animal models to test the vaccine may not work as well as we want and will take time to improve, 6) if too many people become infected who are critical for the research, manufacturing, and clinical trial work there could be delays. This could include delays in shipping because flights are canceled or in any number of services we usually take for granted

Or, a related question: how challenging is it to develop a vaccine against an emerging infectious disease, and why might it take some time despite the urgent and quick response so far?

RESPONSE: Making a vaccine in response to a new emerging disease in time to influence the immediate course of the epidemic has never been done, but our hope is that new technologies and pre-existing knowledge will make this possible.

Barney

From: Loftus, Peter <peter.loftus@wsj.com>
Sent: Wednesday, March 25, 2020 4:42 PM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Cc: Corbett, Kizzmekia (NIH/VRC) [E] <(b) (6)>
Subject: Re: Interview request

Thanks so much to both of you for taking time to speak on a Saturday, and amid all that you are working on.

I have follow-up questions that I am hoping you can answer:

-Dr. Corbett, you mentioned that around Jan. 1, you set up alerts on your phone for news about the virus in Wuhan. Can you elaborate on why - as in, what was it about the situation at that time that caught your interest (or concerned you) and motivated you to set up alerts? And to clarify, did you mean setting up something like a Google news alert, or is there some sort of alert system for NIH or scientists generally?

-Dr. Graham, at the end of our call you mentioned that a 12-18 month time frame is a hope-for outcome and assumes many things would have to go smoothly.

Can you give me a sense of the main factors that could lead to things taking longer? Or, a related question: how challenging is it to develop a vaccine against an emerging infectious disease, and why might it take some time despite the urgent and quick response so far?

Thanks!

On Sat, Mar 21, 2020 at 2:33 PM Graham, Barney (NIH/VRC) [E] (b) (6) wrote:

(b) (6)

Barney

From: Loftus, Peter <peter.loftus@wsj.com>
Sent: Saturday, March 21, 2020 2:32 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>
Subject: Re: Interview request

Hi what number should I call?

On Sat, Mar 21, 2020 at 11:34 AM Graham, Barney (NIH/VRC) [E] (b) (6) wrote:

Ok. Let's try for 2:30. If you call me I will add Dr. Corbett.

Barney

Sent from my iPhone

On Mar 21, 2020, at 11:19 AM, Peter Loftus <peter.loftus@wsj.com> wrote:

Thanks, I'm free from 12:30 to 1:30 and then after about 2:15.

Peter Loftus

The Wall Street Journal

Peter.Loftus@wsj.com

(b) (6)

On Mar 21, 2020, at 11:10 AM, Graham, Barney (NIH/VRC) [E] <(b) (6)> wrote:

Would it be possible to schedule this today? Monday will be difficult. If you could propose a time this afternoon we will try to be available.

Barney Graham

Barney S. Graham, MD, PhD

Senior Investigator

Deputy Director, Vaccine Research Center

Chief, Viral Pathogenesis Laboratory

National Institute of Allergy and Infectious Diseases, NIH

40 Convent Drive, MSC 3017

Bldg 40, Room 2502

Bethesda, MD 20892-3017

Phone: (b) (6)

URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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Sent from my iPhone

--

Peter Loftus
REPORTER

THE WALL STREET JOURNAL.

M: (b) (6) O: +1 215 881 7127
E: peter.loftus@wsj.com
Twitter: @Lofus

 | DOW JONES

--

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D | DOW JONES

--

Peter Loftus
REPORTER

THE WALL STREET JOURNAL.

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E: peter.loftus@wsj.com
Twitter: @Lofus

D | DOW JONES

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 8 Apr 2020 20:29:57 +0000
To: Vivek Kumar
Subject: RE: [REDACTED] (b) (4)

Thank you for your email. This would have to be a question for [REDACTED] (b) (4)

Best wishes,

Barney

From: Vivek Kumar [REDACTED] (b) (6)
Sent: Wednesday, April 8, 2020 3:58 PM
To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6) >
Subject: [REDACTED] (b) (4)

Hi Dr Graham,

My name is Vivek Kumar and I am an Asst. Prof. of BME at the New Jersey Institute of Technology.

[REDACTED] (b) (4)

Glad to discuss in more detail.

Vivek A. Kumar, Ph.D.
Asst. Prof. Biomedical Engineering (NJIT)
Asst. Prof. Chemical, Biological & Pharmaceutical Engineering (NJIT)
Adj. Asst. Prof. Restorative Dentistry (Rutgers)

[REDACTED] (b) (6)

[Schedule a meeting](#)

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 14 Apr 2020 16:13:25 +0000
To: Mauro Piacentini; Markus Maeurer
Cc: Ippolito Giuseppe
Subject: RE: URGENT

I'm sorry, but I did not see the first email. Will try to answer tonight.

Take care,

Barney

From: Mauro Piacentini (b) (6)
Sent: Tuesday, April 14, 2020 11:10 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6); Markus Maeurer
(b) (6) >
Cc: Ippolito Giuseppe (b) (6) >
Subject: URGENT

Dear Dr. Graham and Maeurer,

Could you , please, send to me your written opinion about the proposal(attached) for the development of a vaccine for the treatment of Covid-19 patients by Reithera and The National Institute for infectious Diseases IRCCS "Lazzaro Spallanzani".

Sorry for disturbing you again

Mauro Piacentini

- Full Professor of Cellular and Developmental Biology
- Editor-inChief of Cell Death & Disease
- Founder and Senior Editor of Cell Death and Differentiation
- Director of the Laboratory of Cell Biology and EM of the National Institute for Infectious Diseases IRCCS "Lazzaro Spallanzani"
- President of the National Research Committee of the Ministry of Health

From: Graham, Barney (NIH/VRC) [E]
Sent: Sun, 15 Mar 2020 14:41:07 +0000
To: Morabito, Kaitlyn (NIH/VRC) [E]; Marston, Hilary (NIH/NIAID) [E]; Embry, Alan (NIH/NIAID) [E]; Ledgerwood, Julie (NIH/NIAID) [E]; Andrews, Charla (NIH/NIAID) [C]
Subject: RE: HAARVI sample access

(b) (5)

Barney

From: Morabito, Kaitlyn (NIH/VRC) [E] (b) (6) >
Sent: Thursday, March 12, 2020 3:02 PM
To: Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Graham, Barney (NIH/VRC) [E] (b) (6) >; Embry, Alan (NIH/NIAID) [E] (b) (6) >; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6) >; Andrews, Charla (NIH/NIAID) [C] (b) (6) >
Subject: Re: HAARVI sample access

Including NIAID only,

(b) (5), (b) (4)

From: Caitlin Wolf (b) (6) >
Date: Thursday, March 12, 2020 at 2:51 PM
To: Hilary Marston (b) (6) >, Barney Graham (b) (6) >, Helen Y Chu (b) (6) >, "Embry, Alan (NIH/NIAID) [E]" (b) (6) >, Julie Ledgerwood (b) (6) >, "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6) >
Subject: Re: HAARVI sample access

Hi all,

Will link up with Kaitlyn (b) (4)

(b) (4)

Thanks,

Caitlin Wolf

Research Scientist, Lab Manager

Chu Lab, University of Washington

Allergy and Infectious Disease Division

(b) (6)

From: Marston, Hilary (NIH/NIAID) [E] (b) (6)
Sent: Thursday, March 12, 2020 7:02 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6); Helen Y Chu (b) (6); Embry, Alan (NIH/NIAID) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)
Cc: Caitlin Wolf (b) (6)
Subject: RE: HAARVI sample access

Second this. Your efforts (in this area and obviously many others) have been critical and are so appreciated.

From: Graham, Barney (NIH/VRC) [E] <(b) (6)>
Sent: Thursday, March 12, 2020 8:05 AM
To: Helen Y Chu (b) (6); Embry, Alan (NIH/NIAID) [E] <(b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)
Cc: Caitlin Wolf (b) (6)>
Subject: RE: HAARVI sample access

Thank Helen,

Appreciate your diligence on this. (b) (4)

Barney

From: Helen Y Chu <(b) (6)>
Sent: Thursday, March 12, 2020 1:43 AM
To: Embry, Alan (NIH/NIAID) [E] (b) (6); Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Marston, Hilary (NIH/NIAID) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)
Cc: Caitlin Wolf (b) (6); Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: Re: HAARVI sample access

Understood. Caitlin (from my lab) will reach out to Kaitlyn (NIH VRC) (b) (4)
(b) (4)

(b) (4) Adding Barney on for awareness.

Helen

From: "Embry, Alan (NIH/NIAID) [E]" (b) (6) >
Date: Wednesday, March 11, 2020 at 10:39 AM
To: Helen Y Chu (b) (6), "Ledgerwood, Julie (NIH/NIAID) [E]"
(b) (6), "Marston, Hilary (NIH/NIAID) [E]" (b) (6),
"Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6)
Subject: RE: HAARVI sample access

Helen,

(b) (4)

Thanks again,
Alan

From: Helen Y Chu (b) (6) >
Sent: Wednesday, March 11, 2020 1:22 AM
To: Embry, Alan (NIH/NIAID) [E] (b) (6) Ledgerwood, Julie (NIH/NIAID) [E]
(b) (6) Marston, Hilary (NIH/NIAID) [E] (b) (6) >; Morabito, Kaitlyn
(NIH/VRC) [E] (b) (6) >
Subject: Re: HAARVI sample access

Yes, of course Alan. (b) (4)

(b) (4)

From: "Embry, Alan (NIH/NIAID) [E]" (b) (6)
Date: Tuesday, March 10, 2020 at 8:23 PM
To: Helen Y Chu (b) (6)>, Karen Makar <(b) (6)>,
Division of Allergy and Infectious Disease (b) (6)>, "Ledgerwood, Julie (NIH/NIAID) [E]" <(b) (6)>, "Marston, Hilary (NIH/NIAID) [E]" (b) (6)
Cc: "Wesley C. Van Voorhis" (b) (6), Jacqueline Kirchner
(b) (6)>
Subject: RE: HAARVI sample access

Helen,

(b) (4)

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: Helen Y Chu (b) (6)
Sent: Tuesday, March 10, 2020 2:25 PM
To: Karen Makar (b) (6); Division of Allergy and Infectious Disease
(b) (6)>; Embry, Alan (NIH/NIAID) [E] (b) (6)
Cc: Wesley C. Van Voorhis (b) (6)>; Jacqueline Kirchner
(b) (6)
Subject: Re: HAARVI sample access

(b) (4)

From: Karen Makar (b) (6) >
Date: Tuesday, March 10, 2020 at 8:18 AM
To: Helen Y Chu (b) (6), Division of Allergy and Infectious Disease
(b) (6) >, "Embry, Alan (NIH/NIAID) [E]" (b) (6) >
Cc: "Wesley C. Van Voorhis" (b) (6) >, Jacqueline Kirchner
(b) (6) >
Subject: HAARVI sample access

Dear Helen,

A quick follow up, (b) (4)
(b) (4)

Many thanks,
Karen

From: Karen Makar (b) (6) >
Sent: Monday, March 9, 2020 11:05 PM
To: Helen Y Chu (b) (6); Chetan Seshadri (b) (6) >; Division of Allergy and Infectious Disease (b) (6)
Cc: Wesley C. Van Voorhis (b) (6) >
Subject: Thank you!

Dear Helen,
Thanks for getting back to me and for sending the information! This is extremely helpful. I'll circle back to my colleagues and will follow up very soon.
Karen

Get [Outlook for iOS](#)

From: Helen Y Chu (b) (6)
Sent: Monday, March 9, 2020 10:53:05 PM
To: Chetan Seshadri (b) (6); Karen Makar (b) (6) >; Division of Allergy and Infectious Disease (b) (6)
Cc: Wesley C. Van Voorhis (b) (6)
Subject: Re: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Karen,
Sending your message onto our research email address. This is the message we've recently sent out. Feel free to pass on info to others and they can email us at (b) (6).
Thanks.
Helen

Dear all,

The Chu Lab is enrolling individuals with acute SARS-COV2 infection into an immune profiling study called HAARVI (Hospitalized and Ambulatory Adults with Respiratory Viral Infections). These individuals are consented and actively enrolled in the hospital or as outpatients. The goal of collecting these research samples is to establish a central research biorepository that can be accessed by researchers who will need acute and convalescent samples for development of monoclonals, vaccines, and therapeutics as well as natural history studies of SARS COV2 patients. To date, these research samples have been shared with NIH and others who are working on monoclonal antibody development and the work is going well. **These research samples that are collected are separate from clinical samples. Requests for clinical samples should go through John Slattery.**

My preference is that we not inundate our busy front line providers with multiple requests from different research groups, so if there is a way we can work together to get the research data and samples you want, please let us know and we will work together with you on this. Please note that the same investigators are also getting our experimental treatment protocols going, and that is a priority at this time.

The data and samples include:

1. A baseline questionnaire including symptom onset data, pregnancy, vaping, and other risk factors not well-captured from the medical record
2. Electronic medical record data (after patient consent to access it)
3. Daily nasal swabs x 1 week, either collected at bedside or self-collected
4. Serum, plasma, PBMCs, and whole blood (in Tempus tubes) at multiple time points during the acute phase.
5. Follow-up at day 30 for nose swab, serum, plasma, and PBMCs, including potentially leukopheresis
6. Subsequent outpatient follow-ups TBD

If you would like to collaborate, please contact us at (b) (6) with your name, best point of contact, a 2-3 line description of samples or research you are proposing. We will get back to you, but not within the next 2 weeks. We are in the middle of a public health emergency, and at this time our group is trying our best to enroll patients as safely and ethically as possible and assure access to best treatment options.

The individuals who have already contacted me include (b) (4)
(b) (4)

(b) (4). If you are on this list, we will be in touch at least two weeks from now to set up a time to talk about specimens and data.

Thanks.

Helen and the HAARVI Team

From: Chetan Seshadri (b) (6)

Date: Monday, March 9, 2020 at 3:28 PM

To: Karen Makar (b) (6) >

Cc: Helen Y Chu (b) (6)>, "Wesley C. Van Voorhis" (b) (6)
Subject: Re: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Hi Karen,

I don't know if anyone has it up and going already but I know that Helen Chu and Wes Van Voorhis are working on it.

I have cc'd them here. You are welcome to follow up with them directly.

Cheers,
Chetan

From: Karen Makar (b) (6)
Date: Monday, March 9, 2020 at 1:46 PM
To: Chetan Seshadri (b) (6)
Subject: RE: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Thanks, Chetan.

On a completely separate note, do you know which investigators have open protocols to collect biospecimens from local COVID cases? I have many people asking here (especially for PBMCs for Ab discovery work) and it would be great to be able to connect people that are interested.

Karen

From: Chetan Seshadri (b) (6)
Sent: Monday, March 9, 2020 10:44 AM
To: Karen Makar (b) (6)
Cc: Anne Kasmar (b) (6); Lynda Stuart (b) (6); Holger Kanzler (b) (6); Colleen Woods (b) (6); Ksenia Koon (b) (6)
Subject: Re: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Hi Karen,

Either day works for me. Monday might be slightly preferred as Friday is (b) (6)

Thanks,
Chetan

From: Karen Makar (b) (6)>
Date: Friday, March 6, 2020 at 10:03 AM
To: Karen Makar (b) (6)>
Cc: Anne Kasmar (b) (6)>, Lynda Stuart

(b) (6)>, Holger Kanzler (b) (6)>,
Colleen Woods <(b) (6)>, Ksenia Koon (b) (6)
Subject: RESPONSE REQUESTED: TCRs in vaccine design workshop at CTVD

Dear Colleagues,

The Collaboration for TB Vaccines Discovery (CTVD) meeting is scheduled for June 17th and 18th in Seattle, WA. As already discussed with many of you, we have planned an adjacent one day workshop focused on the translation of T cell receptor sequencing, analytics and antigen identification into testable TB vaccine candidates. This is currently scheduled for Friday, June 19th. However, we have heard there may be conflicts on that day for some of you and are willing to consider a different day. **Therefore, please email me your preferred date by TUESDAY MARCH 10th:**

	CAN attend	CANNOT attend
Monday, June 15th		
Friday, June 19th		

We will finalize the date choice by the end of next week to coordinate with the official CTVD invitations which will come soon. Please note that the BMGF will cover the costs of your extended stay as part of your attendance of the CTVD meeting. We also constantly monitoring the COVID-19 situation and realize that may impact travel. We will explore all options, including virtual participation.

This workshop builds off of the one we held last year at the CTVD but will have more of an emphasis on translating findings into testable vaccine candidates. Thus, the invitee list is being modified to reflect this focus and more information will be forthcoming. Please feel free to reach out if you have any questions.

Sincerely,

Karen

Karen Makar, Ph.D.

Senior Program Officer & GH-VAP Manager
Discovery & Translational Sciences



Bill & Melinda Gates Foundation

www.gatesfoundation.org

Global Health-Vaccine Accelerator Platforms

www.ghvap.org

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 15 Apr 2020 22:37:55 +0000
To: Reilly, Deborah (NIH/VRC) [E]
Subject: Accepted: COVID-19 Daily Check-in

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 30 Apr 2020 19:20:41 +0000
To: Handley, Gray (NIH/NIAID) [E]; Erbelding, Emily (NIH/NIAID) [E]
Cc: Marston, Hilary (NIH/NIAID) [E]; Auchincloss, Hugh (NIH/NIAID) [E]
Subject: RE: WHO Request Advice

(b) (5)

Barney

From: Handley, Gray (NIH/NIAID) [E] (b) (6)>
Sent: Thursday, April 30, 2020 2:38 PM
To: Graham, Barney (NIH/VRC) [E] <(b) (6)>; Erbelding, Emily (NIH/NIAID) [E]
(b) (6)
Cc: Marston, Hilary (NIH/NIAID) [E] (b) (6)>; Auchincloss, Hugh (NIH/NIAID) [E]
(b) (6)>
Subject: WHO Request Advice

Emily and Barney,

WHO has asked us for nominees to serve on a SAGE Working Group on COVID-19 vaccines. Soumya has told me they are seeking individuals who are very knowledgeable but unconflicted by having a candidate of their own or associated with their institution. This group of experts will be asked to help prioritize candidates for the SAGE and WHO. Their other tasks are unclear but you all may have heard about this separately due to your role on SAGE.

Thanks for any thoughts so we can respond to this tomorrow, if possible.

Gray

From: "WILDER-SMITH, Annelies" <(b) (6)>
Date: Friday, April 24, 2020 at 3:59 AM
To: Hilary Marston (b) (6) (b) (6)
(b) (6)>, "Whitehead, Steve (NIH/NIAID) [E]"
(b) (6)>, dkaslow (b) (6)
Subject: could you please disseminate the call for nominations

Dear Hilary, dear Kirsten, dear David

I hope this email finds you well. We live in crazy times. Let us get science back on the driving seat!

Could you please disseminate the call for nominations for COVID vaccine experts for our SAGE working group on COVID vaccines within NIH, PATH, BMGF and any other institutions or networks relevant to this rapidly evolving subject?

Many thanks, Annelies

<ToR SAGE WG on Covid vaccines_23 April.docx>

From: Graham, Barney (NIH/VRC) [E]
Sent: Wed, 18 Mar 2020 18:02:36 +0000
To: Lawrence Wright
Subject: RE: Covid-19

Looks like I have clearance to speak with you. May be easier to try this weekend.

Barney

-----Original Message-----

From: Lawrence Wright (b) (6)
Sent: Monday, March 16, 2020 5:42 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: Re: Covid-19

Thanks, Barney. The publication date has been moved up from May 28 to April 23. It would be sooner but it turns out there are only two printers who still do book jackets, so we're in line.

Are you using the 3D model of the covid-19 spike protein? It's such an ungainly entity.

That sounds really hopeful about the phase 1 trial. I suspect that the NY'er believes it already has that covered because of Kormann's piece. Maybe we could talk about what makes this virus distinct?

I dropped a note to Catherine Bullis in the communications office.

Larry

> On Mar 16, 2020, at 4:15 PM, Graham, Barney (NIH/VRC) [E] (b) (6) wrote:

>

> Hi Larry,

>

> I've been wondering about you and your book during this crisis and hope you can get it out.

>

> We are executing some of the things we discussed for your book. Since we had been working on coronavirus intensively for the last 7 years, we knew the spike structure and stabilizing mutations to produce the right antigen once the sequence came out on January 10th. (b) (4)

> Our phase 1 clinical trial started today in Seattle. It's a good story.

>

> Last week I interviewed with another New Yorker writer (Korman). She wrote part of the story, but was not a biologist so I'm not sure how much she appreciated what we were doing.

>

> Let me know what you would like to do. I am extremely busy and have been on the phone all day, but some things are more fun than others. I recommend that you contact the NIAID OCGR (Office of communications and government relations) because they would need to get clearance from above.

>

> Best wishes,

>

> Barney

>

>
>
> -----Original Message-----
> From: Lawrence Wright [REDACTED] (b) (6)>
> Sent: Monday, March 16, 2020 4:38 PM
> To: Graham, Barney (NIH/VRC) [E] [REDACTED] (b) (6)
> Subject: Covid-19
>
> Dear Barney,
>
> I'm certainly in an odd spot, with this novel looming on the horizon and reality outracing me. I often reflect on how grateful I am for the guidance you and others provided.
>
> The New Yorker is desperate for me to write something about Covid-19. I wonder if there's something you can talk to me about concerning efforts to develop a vaccine, and the characteristics of this new virus that distinguish it from other diseases.
>
> If so, let's set a time to talk. I'm mindful that your time is short and valuable.
>
> Hope you and yours are all well.
>
> Larry

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 23 Mar 2020 14:31:00 +0000
To: u.weiss@nature.com
Subject: RE: Nature review request on ms 2020-03-03894A

Hi Ursula,

I appreciate your invitation. At the moment we are so tied up in managing the (b) (4) experiments and (b) (4) to keep the clinical development on track, I don't think I can review. (b) (6), (b) (4)

We are now working at about 5-10% workforce in the building.

Sorry not to be able to help here.

Barney

From: u.weiss@nature.com <u.weiss@nature.com>
Sent: Monday, March 23, 2020 9:30 AM
To: Graham, Barney (NIH/VRC) [E] <bgraham@mail.nih.gov>
Subject: Nature review request on ms (b) (6)

*** Strictly Confidential ***

Dear Dr. Graham,

A manuscript has been submitted to Nature, which we were hoping you would be interested in reviewing. (b) (6), (b) (4)

(b) (6), (b) (4)

Is this a paper that you would be able to review for us within 10 days? If so, please let me know as soon as possible, and I will send instructions to you on how to access the manuscript.

If you are unable to review this paper, we would be grateful if you could suggest potential alternative

reviewers, keeping in mind that Nature-branded journals strive toward an equitable demographic representation within our reviewer pool, for example, with respect to gender and geography. More information about our commitment to diversity can be found [here](#).

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Many thanks in advance for your help; I look forward to hearing from you.

Yours sincerely,

Ursula Weiss, PhD
Senior Editor, Nature
u.weiss@nature.com

(b) (6)

(b) (6), (b) (4)

Please note that your contact details are being held on our editorial databases which are used only for the management of the peer review process, and we might contact you in relation to Nature Research journals other than this one when your expertise is appropriate. If you would prefer us not to contact you in the future please let us know by emailing nature@nature.com.

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From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 24 Mar 2020 14:40:45 +0000
To: Hiatt, Nissa (NIH/VRC) [C]
Cc: Routh, Jennifer (NIH/NIAID) [E]; Oplinger, Anne (NIH/NIAID) [E]
Subject: FW: National Geographic Podcast

FYI.

BG

From: Brian Gutierrez <Brian.Gutierrez@natgeo.com>
Sent: Tuesday, March 24, 2020 9:45 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Subject: National Geographic Podcast

Hello Dr. Graham,

I'm a podcast producer with National Geographic and we're working on an episode about the challenges of developing vaccines for coronaviruses – both historically and especially for COVID-19.

You must be incredibly busy with your work and other media requests, but do you happen to have 15 minutes to speak on the phone today or tomorrow? I'd love to ask you a few questions about your research.

Thank you,

Brian

--

 BRIAN GUTIERREZ

PODCAST PRODUCER
NATIONAL GEOGRAPHIC USA



BRIAN.GUTIERREZ@NATGEO.COM
PHONE: (202) 791-2643
MOBILE PHONE: (b) (6)
1145 17TH STREET, NW
WASHINGTON, DC, USA 20036
NATIONALGEOGRAPHIC.COM

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From: Graham, Barney (NIH/VRC) [E]
Sent: Sat, 22 Feb 2020 19:34:48 +0000
To: Bok, Karin (NIH/VRC) [E]; Mascola, John (NIH/VRC) [E]; Ledgerwood, Julie (NIH/NIAID) [E]; Gall, Jason (NIH/VRC) [C]
Cc: Ruckwardt, Tracy (NIH/VRC) [E]; Kanekiyo, Masaru (NIH/VRC) [E]; Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]; Chen, Grace (NIH/NIAID) [E]; Daucher, Marybeth (NIH/NIAID) [E]; Harris, Christina (NIH/NIAID) [E]; Hiatt, Nissa (NIH/VRC) [C]; Alvarado, Gabriela (NIH/VRC) [C]
Subject: RE: VRC (NIAID)-BMGF
Attachments: BMGF-NIAID 28Feb2020.docx

See some comments in the tracked Word document. I'm not sure we should take the time to review all this in detail. We just did this with Gates about 2 months ago.


Barney

From: Bok, Karin (NIH/VRC) [E] (b) (6)
Sent: Thursday, February 20, 2020 12:17 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>; Mascola, John (NIH/VRC) [E] (b) (6)>; Ledgerwood, Julie (NIH/NIAID) [E] (b) (6) Gall, Jason (NIH/VRC) [C] (b) (6)>
Cc: Ruckwardt, Tracy (NIH/VRC) [E] (b) (6)>; Kanekiyo, Masaru (NIH/VRC) [E] (b) (6); Corbett, Kizzmekia (NIH/VRC) [E] (b) (6)>; Morabito, Kaitlyn (NIH/VRC) [E] (b) (6)>; Chen, Grace (NIH/NIAID) [E] (b) (6)>; Daucher, Marybeth (NIH/NIAID) [E] (b) (6); Harris, Christina (NIH/NIAID) [E] (b) (6); Hiatt, Nissa (NIH/VRC) [C] (b) (6)>; Alvarado, Gabriela (NIH/VRC) [C] (b) (6)
Subject: VRC (NIAID)-BMGF

Good Morning,

In preparation for this in person meeting next week (Friday February 28, 1.30-5 PM), I wanted to give you a couple of updates:

(b) (5), (b) (4)



Karin.

Karin Bok, MS, PhD

Senior Advisor, Vaccine Development

Office of the Director, Vaccine Research Center

National Institute of Allergy and Infectious Diseases

National Institutes of Health

phone: (b) (6) | mobile: (b) (6) | email: (b) (6)

<https://www.niaid.nih.gov/about/vrc>

From: Graham, Barney (NIH/VRC) [E]
Sent: Thu, 23 Jan 2020 15:56:36 +0000
To: Bok, Karin (NIH/VRC) [E]
Cc: Kanekiyo, Masaru (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]; Stein, Judy (NIH/VRC) [C]
Subject: RE: (b) (4) follow-up

If it's easy.

BG

From: Bok, Karin (NIH/VRC) [E] (b) (6)>
Sent: Thursday, January 23, 2020 10:54 AM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: Kanekiyo, Masaru (NIH/VRC) [E] (b) (6); Morabito, Kaitlyn (NIH/VRC) [E] (b) (6); Stein, Judy (NIH/VRC) [C] (b) (6)
Subject: Re: (b) (4) follow-up

One more thing-do we need to modify the (b) (4). (b) (5)
(b) (6)

Let me know, thanks!

Karin.

Karin Bok, MS, PhD
Senior Advisor, Vaccine Development
Office of the Director, Vaccine Research Center
National Institute of Allergy and Infectious Diseases
National Institutes of Health
phone (b) (6) mobile: (b) (6) email (b) (6)
<https://www.niaid.nih.gov/about/vrc>

Sent from my iPhone

On Jan 22, 2020, at 7:09 PM, Kanekiyo, Masaru (NIH/VRC) [E] (b) (6)> wrote:

Barney,
I need some (b) (4) before we move forward.

Masaru

** Sent from [Outlook](#) mobile app

From: Graham, Barney (NIH/VRC) [E] (b) (4) >
Sent: Wednesday, January 22, 2020 6:22:36 PM
To: (b) (4), (b) (6) >; (b) (6)
(b) (6)
Cc: (b) (6) >; Morabito, Kaitlyn (NIH/VRC) [E]
(b) (6) >; Kanekiyo, Masaru (NIH/VRC) [E] (b) (6)
Subject: RE (b) (4) follow-up

Thank you on both counts. (b) (4)
(b) (4)


Best wishes,

Barney

From: (b) (4), (b) (6)
Sent: Wednesday, January 22, 2020 6:12 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)
Cc: (b) (4)
Subject: (b) (4) follow-up

Hi Barney and Karen- Hope all is well with you. (b) (4)
(b) (4)

(b) (6), (b) (4)



From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 17 Mar 2020 19:10:31 +0000
To: Young, Monique (NIH/VRC) [E]
Cc: Ruckwardt, Tracy (NIH/VRC) [E]; Kanekiyo, Masaru (NIH/VRC) [E]; Corbett, Kizzmekia (NIH/VRC) [E]; Bok, Karin (NIH/VRC) [E]
Subject: FW: PLEASE READ: Expanding Telework
Attachments: Coronavirus Update: IT Support and Telework During the Coronavirus Outbreak

FYI.

BG

From: Hirsch, Marie (NIH/VRC) [E] (b) (6)
Sent: Tuesday, March 17, 2020 10:42 AM
To: VRC Bldg 40 PI Group <VRCPIGROUP@mail.nih.gov>
Cc: VRC Program Managers <VRCProgramManagers@mail.nih.gov>; VRC Bldg 40 AO <VRCAO@mail.nih.gov>
Subject: FW: PLEASE READ: Expanding Telework
Importance: High

Hi Everyone,

Here is some information for staff who don't have laptops.

Marie

From: Hazell, Kimberly (NIH/NIAID) [E] (b) (6)>
Sent: Tuesday, March 17, 2020 9:27 AM
To: NIAID OEAB (b) (6)
Cc: Sullivan, Kevin (NIH/NIAID) [E] (b) (6); Hirsch, Marie (NIH/VRC) [E] (b) (6)>
Subject: PLEASE READ: Expanding Telework and Training and Professional Development Resources
Importance: High

Good morning,

In light of the coronavirus national emergency and the urging of government officials to broadly allow staff to telework to limit the spread of infection, we will be making exceptions to our current telework eligibility criteria to include as many people as possible on a temporary basis. Unfortunately, there are not enough laptops for staff and those that do have government equipment, may not have full-time work to do while teleworking, particularly because of the suspension of almost all government travel and meetings for the foreseeable future.

Staff that have been approved to telework, have government equipment, and are on an active, approved telework agreement should telework.

Those who do not have equipment currently have two options: take your PC, keyboard, mouse, PIV reader, and monitor home on property pass or use your personal IT equipment with a PIV reader and log into the NIAID network through Citrix. Please refer to the email that was sent from NIAID News and Information last night, a copy is also attached to this email for steps that you must take before you leave the office today.

Those not currently on an approved telework agreement will need to complete the online telework training and submit an ad-hoc telework request. You will be approved on a temporary basis through April 3rd which will be extended at the direction of government officials to continue social distancing.

Please hang in there and continue to communicate any needs with your supervisors as we face this unprecedented situation together.

Thanks,

Kimberly Hazell
Chief, OD & Extramural Administration Branch, OAS
National Institute of Allergy & Infectious Diseases
National Institutes of Health
5601 Fishers Lane Room 2D40 MSC 9810
Rockville, MD 20892-9810

Typically, I telework on Wednesday so am not physically in the office. Please reach me by phone: (b) (6) or email: (b) (6)

Phone: (b) (6)
Mobile: (b) (6)
eFAX: 301-451-5611
Email: (b) (6)

"The depth of your character determines the breadth of your influence." -- Boyd Bailey

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From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 16 Mar 2020 19:01:19 +0000
To: Corbett, Kizzmekia (NIH/VRC) [E]; Morabito, Kaitlyn (NIH/VRC) [E]; Andrews, Charla (NIH/NIAID) [C]
Cc: Ledgerwood, Julie (NIH/NIAID) [E]; Alvarado, Gabriela (NIH/VRC) [C]; Bok, Karin (NIH/VRC) [E]; Young, Monique (NIH/VRC) [E]
Subject: RE: Coronavirus Clinical Liaison Tasks

Yes, I think we need to set up a virtual meeting and make sure we all have clarity on what to be focused on.

BG

From: Corbett, Kizzmekia (NIH/VRC) [E] (b) (6) >
Sent: Monday, March 16, 2020 2:58 PM
To: Morabito, Kaitlyn (NIH/VRC) [E] (b) (6) >; Andrews, Charla (NIH/NIAID) [C] (b) (6) >
Cc: Ledgerwood, Julie (NIH/NIAID) [E] (b) (6); Graham, Barney (NIH/VRC) [E] <(b) (6)>; Alvarado, Gabriela (NIH/VRC) [C] (b) (6) >; Bok, Karin (NIH/VRC) [E] (b) (6); Young, Monique (NIH/VRC) [E] (b) (6) >
Subject: Re: Coronavirus Clinical Liaison Tasks

Do you think it's worth having meeting with all of us to go over roles and responsibilities in the next week or so. Kaitlyn and I discussed at 1pm.

Sent from the mobile device of:
Kizzmekia S. Corbett, PhD
Senior Research Fellow
coVip Scientific Lead
VRC | NIAID | NIH
(b) (6)

From: "Morabito, Kaitlyn (NIH/VRC) [E]" (b) (6)
Date: Monday, March 16, 2020 at 2:35:47 PM
To: "Andrews, Charla (NIH/NIAID) [C]" (b) (6) >
Cc: "Ledgerwood, Julie (NIH/NIAID) [E]" (b) (6), "Graham, Barney (NIH/VRC) [E]" (b) (6) >, "Alvarado, Gabriela (NIH/VRC) [C]" (b) (6) >, "Bok, Karin (NIH/VRC) [E]" (b) (6) >, "Corbett, Kizzmekia (NIH/VRC) [E]" (b) (6) >
Subject: Coronavirus Clinical Liaison Tasks

Hi Charla,

I've written up a summary of the coronavirus clinical liaison tasks

(b) (5)

(b) (5)

Once you've had a chance to review, I'm happy to chat by phone to answer any questions. I'm working on a similar document for Gaby, that I will share as well, and you two can review and see if there's any other ways that you would prefer to split tasks.

Thanks,
Kaitlyn

--

Kaitlyn M. Morabito, M.S., Ph.D.

Scientific Program Manager, Vaccine Development for RSV and Emerging Viral Diseases

Viral Pathogenesis Laboratory, Vaccine Research Center

National Institutes of Allergy and Infectious Diseases, NIH

Bldg. 40, Rm. 2508

40 Convent Drive

Bethesda, MD 20892

(b) (6)

From: Graham, Barney (NIH/VRC) [E]
Sent: Tue, 28 Apr 2020 22:42:26 +0000
To: Lisa Conti
Cc: Corbett, Kizzmekia (NIH/VRC) [E]; Joel Blankson
Subject: RE: invited JCI viewpoint
Attachments: Graham_COVID-19 viewpoint for JCI_LC edit_BG.docx

Hi Lisa,

Thank you for your comments and for relatively minimal edits. I liked your one sentence summary and I changed the section titles a little but kept to less than 9 words. I also answered the conflict of interest questions and filled out the acknowledgements. Let me know if we need to add the patent statement to the acknowledgements.

We appreciate the opportunity to publish in JCI.

Best wishes,

Barney

From: Lisa Conti <science_editor@the-jci.org>
Sent: Sunday, April 26, 2020 3:58 PM
To: Graham, Barney (NIH/VRC) [E] (b) (6)>
Subject: Re: invited JCI viewpoint

Hi Barney,

Thank you so much for writing this excellent Commentary for us! The Board found the piece very interesting. I have attached some suggested edits, most of which serve to conform to JCI style and grammar guides. Please go through and add additional edits to this document. Please have your final text to me by Tuesday, April 28th.

Cheers,
Lisa

On 4/16/20 3:41 PM, Graham, Barney (NIH/VRC) [E] wrote:
Dear Lisa,

Please find a brief commentary attached reviewing some of our thoughts on COVID-19 and pandemic preparedness.

Thank you for the opportunity to publish in the Journal of Clinical Investigation. Please let me know if you need any additional information. If there are going to be any publication charges I would need to know prior to acceptance.

Best wishes and take care,

Barney

Barney S. Graham, MD, PhD
Senior Investigator
Deputy Director, Vaccine Research Center
Chief, Viral Pathogenesis Laboratory
National Institute of Allergy and Infectious Diseases, NIH
40 Convent Drive, MSC 3017
Bldg 40, Room 2502
Bethesda, MD 20892-3017
Phone: (b) (6)

URL: <https://www.niaid.nih.gov/research/barney-graham-md-phd>

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--

Lisa Conti, Ph. D.
Assistant Science Editor
The Journal of Clinical Investigation
science_editor@the-jci.org

From: Graham, Barney (NIH/VRC) [E]
Sent: Mon, 20 Apr 2020 02:28:45 +0000
To: Schwartzberg, Pamela (NIH/NIAID) [E]
Cc: Sereti, Irini (NIH/NIAID) [E]; Lionakis, Michail (NIH/NIAID) [E]; Wanjek, Christopher (NIH/OD) [E]; Dearolf, Charles (NIH/OD) [E]; Roberts, Jacqueline (NIH/OD) [E]
Subject: RE: Your lecture on Wednesday
Attachments: COVID IG webinar 22Apr2020.docx

I will plan to give this talk by myself. Dr. Corbett can give her own talk later when we have the preclinical data published.

I've attached the abstract summary of the talk here as requested.

Take care,

Barney

From: Schwartzberg, Pamela (NIH/NIAID) [E] <pam[REDACTED] (b) (6)>
Sent: Sunday, April 19, 2020 9:36 PM
To: Graham, Barney (NIH/VRC) [E] <[REDACTED] (b) (6)>
Cc: Sereti, Irini (NIH/NIAID) [E] [REDACTED] (b) (6); Lionakis, Michail (NIH/NIAID) [E] <[REDACTED] (b) (6)>; Wanjek, Christopher (NIH/OD) [E] [REDACTED] (b) (6); Dearolf, Charles (NIH/OD) [E] [REDACTED] (b) (6); Roberts, Jacqueline (NIH/OD) [E] [REDACTED] (b) (6)
Subject: Your lecture on Wednesday

Dear Barney,

On behalf of the COVID-19 interest group steering committee, I wanted to thank you for agreeing to give a lecture this week. We especially appreciate that you agreed on very short notice (and I understand requiring you to rearrange your schedule). I also understand that you were also subsequently asked if Kizzmekia Corbett could share the last 10 minutes of the talk. After discussion with the group this evening, we felt that while it would be great to hear from Dr Corbett, it might be better to do so at a different time. Would that be ok with you? We are happy to have your lecture in whichever format you prefer.

Again, we greatly appreciate you stepping in. Last week, we had a very large virtual "attendance", and we have heard that people are very much looking forward to your talk.

Best wishes,
Pam Schwartzberg on behalf of the COVID-19 SIG

Please note my new address:

Pamela L. Schwartzberg, MD PhD

Senior Investigator

Laboratory of Immune System Biology

National Institute of Allergy and Infectious Diseases

and National Human Genome Research Institute

National Institutes of Health

Bldg 4, Room 228

Bethesda, MD 20892

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