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**From:** Williams, Nekisha (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9e7bc0290504cebb3bb2f69854562d7-williamsna]  
**Sent:** 1/6/2020 3:16:18 PM  
**To:** Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]  
**Subject:** 197th Meeting of the National Advisory Allergy and Infectious Diseases Council  
**Attachments:** 202101-DAIT-Open Session Council Agenda.docx; Council Agenda January 25, 2021.doc; DMID agenda Jan 2021.docx; 202101 DAIDS ARAC Agenda.doc; NIAID Advisory Council Meeting, Monday, January 25, 2021  
**Location:** Virtual Meeting  
**Start:** 1/25/2021 3:30:00 PM  
**End:** 1/25/2021 9:30:00 PM  
**Show Time As:** Busy

The sessions may be viewed on <http://videocast.nih.gov/>

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
NATIONAL ADVISORY ALLERGY AND INFECTIOUS DISEASES COUNCIL

DIVISION OF ALLERGY, IMMUNOLOGY, AND TRANSPLANTATION  
SUBCOMMITTEE MEETING AGENDA

January 25, 2021  
12:30 p.m. – 3:00 p.m.  
Virtual Meeting

12:30 –12:35 **Director's Report**

*Daniel Rotrosen, M.D.*

12:35 –12:45 **Approaches to Understanding COVID-19 Immunity**

*David Johnson, Ph.D.*

*Autoimmunity and Mucosal Branch*

12:45-1:05 **Genetic and Immunological Causes of Life-threatening COVID-19**

*Jean-Laurent Casanova, M.D, Ph.D.*

*The Rockefeller University*

1:05-1:25 **Pathogenic Role for Plasma Cells and Antibody Secreting Cells in Critically Ill COVID-19 Patients**

*Ignacio E. Sanz, M.D.*

*Emory University*

1:25-1:45 **Structures of Viral Antigens and their Relevance to Vaccine Immunogen Design**

*Stephen C. Harrison, Ph.D.*

*Harvard University*

1:45 – 3:00 **FY 2022 Research Concept Clearances**

- **Emerging Science and Technologies in Transplantation Research (U01 Clinical Trial Not Allowed)**  
*Monica Zamisch, Ph.D.*  
*Transplantation Branch*
- **Radiation-Induced Immune Dysfunction (U01 Clinical Trial Not Allowed)**  
*Thomas Winters, Ph.D.*  
*Radiation and Nuclear Countermeasures Program*
- **Research on Bat Immunology (R21 Clinical Trial Not Allowed)**  
*Kentner Singleton, Ph.D.*  
*Basic Immunology Branch*

3:00 **Wrap-up & Adjournment**

**Future Meeting Dates**

June 7, 2021

September 13, 2021

January 31, 2022

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH  
Bethesda, Maryland

AGENDA

**197<sup>th</sup> Meeting of the  
National Advisory Allergy and Infectious Diseases Council**

**Virtual Meeting**

**January 25, 2021**

**CLOSED SESSION**

**I. SUBCOMMITTEE MEETINGS (Grant Review) – DAIDS, DAIT and DMID**

**Acquired Immunodeficiency Syndrome - Virtual – 8:30 a.m.**

**Allergy, Immunology and Transplantation - Virtual – 8:30 a.m.**

**Microbiology and Infectious Diseases - Virtual – 9:00 a.m.**

**OPEN SESSION**

**Virtual**

**II. CALL TO ORDER**

**Anthony S. Fauci, M.D., Director, NIAID (10:30 a.m. – 10:35 a.m.)**

**III. COUNCIL REMARKS – Anthony S. Fauci, M.D., Director, NIAID**

**(10:35 a.m. – 11:15 a.m.)**

- A. Introductions and Announcements
- B. Consideration of Minutes September 14, 2020, NAAIDC Meeting
- C. Staff and Organizational Changes
- D. Budget and Legislative Update
- E. Other Information Items

**CLOSED SESSION**

**11:15 a.m. – 11:30 a.m.**

**IV. REVIEW OF GRANT APPLICATIONS AND ACTIONS OF SUBCOMMITTEES**

**DAIDS – Carl Dieffenbach, Ph.D.**

**DAIT – Daniel Rotrosen, M.D.**

**DMID – Emily Erbelding, M.D., M.P.H.**

**OPEN SESSION**

**VI. DAIDS, DAIT and DMID ADVISORY SUBCOMMITTEE MEETINGS – 12:30 p.m.**

Combined Meeting of the Council AIDS Subcommittee and the  
AIDS Research Advisory Committee, NIAID  
Virtual, 12:30 p.m. to adjournment

Allergy, Immunology and Transplantation Subcommittee  
Virtual, 12:30 p.m. to adjournment

Microbiology and Infectious Diseases Subcommittee  
Virtual, 12:30 p.m. to adjournment

**Future Meeting Dates**

January 25, 2021  
June 7, 2021  
September 13, 2021  
January 31, 2022  
June 6, 2022  
September 12, 2022

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
NATIONAL ADVISORY ALLERGY AND INFECTIOUS DISEASES COUNCIL  
MICROBIOLOGY AND INFECTIOUS DISEASES SUBCOMMITTEE**

**January 25, 2021**

**VIRTUAL MEETING**

**AGENDA**

- 12:30-1:00 PM**      **Director's Report:** Emily Erbelding, M.D., M.P.H, Director, DMID
- 1:00-1:30 PM**      **DMID COVID-19 Update:** Emily Erbelding, M.D., M.P.H, Director, DMID and Cristina Cassetti, Ph.D., Deputy Director, DMID
- FY 2022 DMID Concepts:**
- 1:30-1:50 PM**      **NIAID Career Development for Advancing the Careers of a Diverse Research Workforce** – Matthew Fenton, Ph.D., Director, Division of Extramural Activities, NIAID
- 1:50-2:10 PM**      **Centers for Research on Structural Biology of Infectious Diseases** – Punam Mathur, M.S., Office of Genomics and Applied Technologies, DMID
- 2:10-2:30 PM**      **DMID Clinical Materials Services** – Jae Arega, M.S., Deputy Director, Office of Regulatory Affairs, DMID
- 2:30-2:50 PM**      **DMID Regulatory Affairs Support** – Jae Arega, M.S., Deputy Director, Office of Regulatory Affairs, DMID
- 2:50-3:10 PM**      **Outbreak Preparedness: Fundamental Virology Focused Research to Understand the Emerging Threat of Bunyavirus Infections** – Rodolfo Alarcon, Ph.D., Program Officer, Virology Branch, DMID
- 3:10-3:30 PM**      **Systems Approach to Understand Mechanisms of Heterogeneous Response to Influenza** – Marciela DeGrace, Ph.D., Program Officer, Respiratory Diseases Branch, DMID
- 3:30 PM**              **Adjournment**

**Future Meeting Dates**

June 7, 2021

September 13, 2021

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
DIVISION OF AIDS (DAIDS)**

**AIDS Research Advisory Committee  
January 25, 2021 (Virtual Meeting)**

**AGENDA**

<b>12:30pm</b>	Welcome and Approval of Minutes	K. Freedberg
<b>12:35pm</b>	Director's Report & SBIR Contract Topics	C. Dieffenbach
<b>12:55pm</b>	Office of AIDS Research Advisory Council (OARAC) Update	T. Burdo

**Concept Review (approval requested)**

<b>1:10pm</b>	<b>Ending the HIV Epidemic (EHE)</b> <ul style="list-style-type: none"><li>• EHE Overview</li><li>• Multidisciplinary Treatment Approaches to End the HIV Epidemic</li><li>• Prevention Strategies to End the HIV Epidemic</li><li>• Respond: Epidemiology to End the HIV Epidemic</li></ul>	A. Lee T. Morton D. Burwen R. McKaig
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**2:10pm BREAK**

**Programmatic Overview: Key Accomplishments & Future Directions**

<b>2:20pm</b>	Therapeutics Research Program	P. Kim
<b>2:50pm</b>	Vaccine Research Program	M. Marovich
<b>3:20pm</b>	Basic Sciences Program	D. Finzi
<b>3:50pm</b>	Prevention Sciences Program	S. Zwierski
<b>4:20pm</b>	Public Comment	
<b>4:25pm</b>	Adjourn	

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**From:** Alperin, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a88268202749402492169e9209e919a5-alperind]  
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**CC:** Alperin, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a88268202749402492169e9209e919a5-alperind]; Mowery, Penny (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=29d83e4b4e014dccb9f809d52b4ee0e2-mowerypj]; Boyd, Chelsea (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d204541db5534c9497e8b5db79ccfda4-boydcd]  
**Subject:** NIAID Advisory Council Meeting, Monday, January 25, 2021  
**Attachments:** 202101-DAIT-Open Session Council Agenda.docx; Council Agenda January 25, 2021.doc; DMID agenda Jan 2021.docx; 202101 DAIDS ARAC Agenda.doc

The 197<sup>th</sup> National Advisory Allergy and Infectious Diseases Council will be held on **Monday, January 25, 2021**, as a virtual meeting. Attached are the agendas associated with the meeting.

In accordance with a Departmental directive, all open sessions will be video cast to the public, meaning you do not have to be using an NIH computer to see them. The full council session will be video cast at 10:30 a.m. until approximately 11:15 a.m. ARAC, the DAIT subcommittee and the DMID subcommittee will be video cast from 12:30pm until the adjournment of their sessions.

The sessions may be viewed on <http://videocast.nih.gov/>

Please let me know if you have any questions concerning the meeting or the video cast.

*David Alperin*

Director / SREA Administrator  
Office of Committee Management  
NIAID Service Center  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
5601 Fishers Lane  
Room 4G30  
Rockville, MD 20892-7922

(b)(6)

**NUMBER DURING TELEWORK:** (b)(6)

FAX: 301-402-0989

(b)(6)

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NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
NATIONAL ADVISORY ALLERGY AND INFECTIOUS DISEASES COUNCIL

DIVISION OF ALLERGY, IMMUNOLOGY, AND TRANSPLANTATION  
SUBCOMMITTEE MEETING AGENDA

January 25, 2021  
12:30 p.m. – 3:00 p.m.  
Virtual Meeting

12:30 –12:35 **Director's Report**

*Daniel Rotrosen, M.D.*

12:35 –12:45 **Approaches to Understanding COVID-19 Immunity**

*David Johnson, Ph.D.*

*Autoimmunity and Mucosal Branch*

12:45-1:05 **Genetic and Immunological Causes of Life-threatening COVID-19**

*Jean-Laurent Casanova, M.D, Ph.D.*

*The Rockefeller University*

1:05-1:25 **Pathogenic Role for Plasma Cells and Antibody Secreting Cells in Critically Ill COVID-19 Patients**

*Ignacio E. Sanz, M.D.*

*Emory University*

1:25-1:45 **Structures of Viral Antigens and their Relevance to Vaccine Immunogen Design**

*Stephen C. Harrison, Ph.D.*

*Harvard University*

1:45 – 3:00 **FY 2022 Research Concept Clearances**

- **Emerging Science and Technologies in Transplantation Research (U01 Clinical Trial Not Allowed)**  
*Monica Zamisch, Ph.D.*  
*Transplantation Branch*
- **Radiation-Induced Immune Dysfunction (U01 Clinical Trial Not Allowed)**  
*Thomas Winters, Ph.D.*  
*Radiation and Nuclear Countermeasures Program*
- **Research on Bat Immunology (R21 Clinical Trial Not Allowed)**  
*Kentner Singleton, Ph.D.*  
*Basic Immunology Branch*

3:00 **Wrap-up & Adjournment**

**Future Meeting Dates**

June 7, 2021

September 13, 2021

January 31, 2022



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH  
Bethesda, Maryland

AGENDA

**197<sup>th</sup> Meeting of the  
National Advisory Allergy and Infectious Diseases Council**

**Virtual Meeting**

**January 25, 2021**

**CLOSED SESSION**

**I. SUBCOMMITTEE MEETINGS (Grant Review) – DAIDS, DAIT and DMID**

**Acquired Immunodeficiency Syndrome - Virtual – 8:30 a.m.**

**Allergy, Immunology and Transplantation - Virtual – 8:30 a.m.**

**Microbiology and Infectious Diseases - Virtual – 9:00 a.m.**

**OPEN SESSION**

**Virtual**

**II. CALL TO ORDER**

**Anthony S. Fauci, M.D., Director, NIAID (10:30 a.m. – 10:35 a.m.)**

**III. COUNCIL REMARKS – Anthony S. Fauci, M.D., Director, NIAID**

**(10:35 a.m. – 11:15 a.m.)**

- A. Introductions and Announcements
- B. Consideration of Minutes September 14, 2020, NAAIDC Meeting
- C. Staff and Organizational Changes
- D. Budget and Legislative Update
- E. Other Information Items

**CLOSED SESSION**

**11:15 a.m. – 11:30 a.m.**

**IV. REVIEW OF GRANT APPLICATIONS AND ACTIONS OF SUBCOMMITTEES**

**DAIDS – Carl Dieffenbach, Ph.D.**

**DAIT – Daniel Rotrosen, M.D.**

**DMID – Emily Erbelding, M.D., M.P.H.**

**OPEN SESSION**

**VI. DAIDS, DAIT and DMID ADVISORY SUBCOMMITTEE MEETINGS – 12:30 p.m.**

Combined Meeting of the Council AIDS Subcommittee and the  
AIDS Research Advisory Committee, NIAID  
Virtual, 12:30 p.m. to adjournment

Allergy, Immunology and Transplantation Subcommittee  
Virtual, 12:30 p.m. to adjournment

Microbiology and Infectious Diseases Subcommittee  
Virtual, 12:30 p.m. to adjournment

**Future Meeting Dates**

January 25, 2021  
June 7, 2021  
September 13, 2021  
January 31, 2022  
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September 12, 2022

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
NATIONAL ADVISORY ALLERGY AND INFECTIOUS DISEASES COUNCIL  
MICROBIOLOGY AND INFECTIOUS DISEASES SUBCOMMITTEE**

**January 25, 2021**

**VIRTUAL MEETING**

**AGENDA**

- 12:30-1:00 PM**      **Director's Report:** Emily Erbelding, M.D., M.P.H, Director, DMID
- 1:00-1:30 PM**      **DMID COVID-19 Update:** Emily Erbelding, M.D., M.P.H, Director, DMID and Cristina Cassetti, Ph.D., Deputy Director, DMID
- FY 2022 DMID Concepts:**
- 1:30-1:50 PM**      **NIAID Career Development for Advancing the Careers of a Diverse Research Workforce** – Matthew Fenton, Ph.D., Director, Division of Extramural Activities, NIAID
- 1:50-2:10 PM**      **Centers for Research on Structural Biology of Infectious Diseases** – Punam Mathur, M.S., Office of Genomics and Applied Technologies, DMID
- 2:10-2:30 PM**      **DMID Clinical Materials Services** – Jae Arega, M.S., Deputy Director, Office of Regulatory Affairs, DMID
- 2:30-2:50 PM**      **DMID Regulatory Affairs Support** – Jae Arega, M.S., Deputy Director, Office of Regulatory Affairs, DMID
- 2:50-3:10 PM**      **Outbreak Preparedness: Fundamental Virology Focused Research to Understand the Emerging Threat of Bunyavirus Infections** – Rodolfo Alarcon, Ph.D., Program Officer, Virology Branch, DMID
- 3:10-3:30 PM**      **Systems Approach to Understand Mechanisms of Heterogeneous Response to Influenza** – Marciela DeGrace, Ph.D., Program Officer, Respiratory Diseases Branch, DMID
- 3:30 PM**              **Adjournment**

**Future Meeting Dates**

June 7, 2021

September 13, 2021

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
DIVISION OF AIDS (DAIDS)**

**AIDS Research Advisory Committee  
January 25, 2021 (Virtual Meeting)**

**AGENDA**

<b>12:30pm</b>	Welcome and Approval of Minutes	K. Freedberg
<b>12:35pm</b>	Director's Report & SBIR Contract Topics	C. Dieffenbach
<b>12:55pm</b>	Office of AIDS Research Advisory Council (OARAC) Update	T. Burdo

**Concept Review (approval requested)**

<b>1:10pm</b>	<b>Ending the HIV Epidemic (EHE)</b> <ul style="list-style-type: none"><li>• EHE Overview</li><li>• Multidisciplinary Treatment Approaches to End the HIV Epidemic</li><li>• Prevention Strategies to End the HIV Epidemic</li><li>• Respond: Epidemiology to End the HIV Epidemic</li></ul>	A. Lee T. Morton D. Burwen R. McKaig
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**2:10pm BREAK**

**Programmatic Overview: Key Accomplishments & Future Directions**

<b>2:20pm</b>	Therapeutics Research Program	P. Kim
<b>2:50pm</b>	Vaccine Research Program	M. Marovich
<b>3:20pm</b>	Basic Sciences Program	D. Finzi
<b>3:50pm</b>	Prevention Sciences Program	S. Zwierski
<b>4:20pm</b>	Public Comment	
<b>4:25pm</b>	Adjourn	

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**From:** Williams, Nekisha (NIH/NIAID) [C] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E9E7BC0290504CEBB3BB2F69854562D7-WILLIAMSNA]  
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**To:** Handley, Gray (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1ceb55d4b673477391c9da8a3eb3c75c-handleygr]  
**Subject:** 196th Meeting of the National Advisory Allergy and Infectious Diseases Council  
**Attachments:** 202010-DAIT-Open Session Council Agenda.docx; 202010 DMID Open Session Agenda\_090120.docx; Council Agenda September 14 2020.doc; 202010-DAIDS-ARAC-Agenda.docx  
**Location:** Virtual Meeting  
**Start:** 9/14/2020 2:30:00 PM  
**End:** 9/14/2020 7:30:00 PM  
**Show Time As:** Busy

The sessions may be viewed on <http://videocast.nih.gov/>

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
NATIONAL ADVISORY ALLERGY AND INFECTIOUS DISEASES COUNCIL

DIVISION OF ALLERGY, IMMUNOLOGY, AND TRANSPLANTATION  
SUBCOMMITTEE MEETING AGENDA

September 14, 2020  
1:00 p.m. – 3:30 p.m.  
Virtual Meeting

- 1:00 – 1:05 **Director's Report**  
*Daniel Rotrosen, M.D.*
- 1:05 – 1:15 **Innate and Adaptive Immunity to SARS-CoV2**  
*Alison Deckhut-Augustine, Ph.D.*  
*Basic Immunology Branch*
- 1:15-1:35 **Heterogeneity in T and B Cell Responses in COVID-19 Patients**  
*E. John Wherry, Ph.D.*  
*University of Pennsylvania*
- 1:35-1:55 **Human Monoclonal Antibodies for SARS-CoV-2**  
*James E. Crowe, Jr., M.D.*  
*Vanderbilt University Medical Center*
- 1:55-2:15 **Systems Biological Assessment of Immunity to Severe and Mild COVID-19 Infections**  
*Bali Pulendran, Ph.D.*  
*Stanford University School of Medicine*
- 2:15 – 3:30 **FY 2022 Research Concept Clearances**
- **Human Immunology Project Consortium (HIPC) (U19 Clinical Trial Not Allowed)**  
*Alison Deckhut-Augustine, Ph.D.*  
*Basic Immunology Branch*
  - **Human Immunology Project Consortium (HIPC) - Coordinating Center (U01 Clinical Trial Not Allowed)**  
*Alison Deckhut-Augustine, Ph.D.*  
*Basic Immunology Branch*
  - **The Immunology Database and Analysis Portal (ImmPort)**  
*Quan Chen, M.D., Ph.D.*  
*Office of the Director*
- FY 2023 Research Concept Clearances**
- **Nonhuman Primate Transplantation Tolerance Cooperative Study Group (U01, U19 Clinical Trial Not Allowed)**  
*Julia Shaw, Ph.D.*  
*Transplantation Branch*
- 3:30 **Wrap-up & Adjournment**

**Future Meeting Dates**

January 25, 2021  
June 7, 2021  
September 13, 2021

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
NATIONAL ADVISORY ALLERGY AND INFECTIOUS DISEASES COUNCIL  
MICROBIOLOGY AND INFECTIOUS DISEASES SUBCOMMITTEE**

September 14, 2020

**VIRTUAL MEETING**

**AGENDA**

- 1:00-1:30 PM**      **Director's Report:** Emily Erbelding, M.D., M.P.H, Director, DMID
- 1:30-2:00 PM**      **Update: DMID SARS-CoV-2/COVID-19 Preclinical and Clinical Activities** – Emily Erbelding, M.D., M.P.H, Director, DMID and Cristina Cassetti, Ph.D., Deputy Director, DMID
- FY 2022 DMID Concepts:**
- 2:00-2:20 PM**      **Innovation for TB Vaccine Discovery** – Katrin Eichelberg, Ph.D., Program Officer, Tuberculosis and Other Mycobacterial Diseases Section, Respiratory Diseases Branch, DMID
- 2:20-2:40 PM**      **Basic Research to Inform Vaccine and Therapeutic Development for Non-polio Human Enteroviruses (NPEV)** – Eun-Chung Park, Ph.D., Program Officer, Virology Branch, DMID
- 2:40-3:00 PM**      **Syphilis Specimen Repository** – Thomas Hiltke, Ph.D., Chief, STI Section, Enteric and Sexually Transmitted Infections Branch, DMID
- 3:00-3:20 PM**      **Early Phase Clinical Trials Units** – Seema Nayak, M.D., Director, Office of Clinical Research Resources, DMID
- 3:30 PM**              **Adjournment**

**Future Meeting Dates**

January 25, 2021

June 7, 2021

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
NATIONAL INSTITUTES OF HEALTH  
Bethesda, Maryland

AGENDA

**196<sup>th</sup> Meeting of the  
National Advisory Allergy and Infectious Diseases Council**

**Virtual Meeting**

**September 14, 2020**

**CLOSED SESSION**

**I. SUBCOMMITTEE MEETINGS (Grant Review) – DAIDS, DAIT and DMID**

**Acquired Immunodeficiency Syndrome - Virtual – 8:30 a.m.**

**Allergy, Immunology and Transplantation - Virtual – 8:30 a.m.**

**Microbiology and Infectious Diseases - Virtual – 8:30 a.m.**

**OPEN SESSION**

**Virtual**

**II. CALL TO ORDER**

**Anthony S. Fauci, M.D., Director, NIAID (10:30 a.m. – 10:35 a.m.)**

**III. COUNCIL REMARKS – Anthony S. Fauci, M.D., Director, NIAID**

**(10:35 a.m. – 11:15 a.m.)**

- A. Introductions and Announcements
- B. Consideration of Minutes June 1 2020, NAAIDC Meeting
- C. Staff and Organizational Changes
- D. Budget and Legislative Update
- E. Other Information Items

**IV. Speaker (11:15 a.m. – 11:45 a.m.) - Steven Holland, M.D., Director, Division of Intramural Research, NIAID**

**CLOSED SESSION**



**11:45 a.m. – 12:00 p.m.**

**V. REVIEW OF GRANT APPLICATIONS AND ACTIONS OF SUBCOMMITTEES**

**DAIDS – Carl Dieffenbach, Ph.D.**

**DAIT – Daniel Rotrosen, M.D.**

**DMID – Emily Erbelding, M.D., M.P.H.**

**OPEN SESSION**

**VI. DAIDS, DAIT and DMID ADVISORY SUBCOMMITTEE MEETINGS – 1:00 p.m.**

Combined Meeting of the Council AIDS Subcommittee and the  
AIDS Research Advisory Committee, NIAID  
Virtual, 1:00 p.m. to adjournment

Allergy, Immunology and Transplantation Subcommittee  
Virtual, 1:00 p.m. to adjournment

Microbiology and Infectious Diseases Subcommittee  
Virtual, 1:00 p.m. to adjournment

**Future Meeting Dates**

January 25, 2021

June 7, 2021

September 13, 2021

**NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES  
DIVISION OF AIDS**

**AIDS Research Advisory Committee**

**September 14, 2020**

**1:00 PM**

**Virtual Meeting – Open to the Public**  
NIH Videocast (<https://videocast.nih.gov/>)

**AGENDA**

<b>1:00pm</b>	Welcome and Approval of Minutes	K. Freedberg
<b>1:05pm</b>	Director's Report	C. Dieffenbach
<b>1:20pm</b>	Office of AIDS Research Advisory Council Update	T. Burdo

**Concept Review (approval requested)**

<b>1:35pm</b>	<b>Therapeutics Research Program</b>	
	<ul style="list-style-type: none"><li>• Advancing Vaccine Adjuvant Research for Tuberculosis (TB)</li><li>• Clinical Pharmacology Quality Assurance Program</li></ul>	D. Frank J. Fitzgibbon

**2:15pm**      **BREAK**

<b>2:25pm</b>	<b>Vaccine Research Program</b>	
	<ul style="list-style-type: none"><li>• Innate Immune Memory Impacting HIV Acquisition and/or Control</li></ul>	Q. Dang

<b>2:45pm</b>	<b>Vaccine Research Program/Basic Sciences Program</b>	
	<ul style="list-style-type: none"><li>• Consortium for Innovative AIDS Vaccine and Cure Research</li></ul>	N. Miller, B. Sanders

**3:05pm**      **Public Comment(s)**

**Adjourn**

Future ARAC Meetings: January 25, 2021; June 7, 2021; September 13, 2021

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/23/2020 3:11:14 AM  
**To:** Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]; Embry, Alan (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=882a18a10a134c49acac21cb83fd599d-embrya]  
**CC:** Post, Diane (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d283c9d5c3404cafb3119375103834a-postd]; Degrace, Marciela (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ae0957f149c042e39c6e8edf3d4b9429-degracemm]; Stemmy, Erik (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=585133d3fa194f06aa618678b2817c22-stemmyej]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccb2c0a881ccae-dominiquejk]  
**Subject:** RE: Taiwan coronavirus case

Will do this tomorrow. Good to see mention of our collaboration on Steve Whitehead's dengue studies in Taiwan. We also have connections through their having hosted an EID there a few years ago. In addition, we have recently had a delegation visit and other collaboration is being developed.

Thanks. Gray

---

**From:** Marston, Hilary (NIH/NIAID) [E] (b)(6)  
**Sent:** Wednesday, January 22, 2020 9:33 PM  
**To:** Embry, Alan (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Cc:** Post, Diane (NIH/NIAID) [E] (b)(6); Degrace, Marciela (NIH/NIAID) [E] (b)(6); Stemmy, Erik (NIH/NIAID) [E] (b)(6)  
**Subject:** Re: Taiwan coronavirus case

Fantastic! Gray would someone in OGR be able to draft the letter? We would prioritize virus at this point.

One thing to consider (possibly a silly idea) (b)(5)  
(b)(5)

---

**From:** Alan Embry (b)(6)  
**Date:** Wednesday, January 22, 2020 at 9:29 PM  
**To:** Gray Handley (b)(6), Hilary Marston (b)(6)  
**Cc:** "Post, Diane (NIH/NIAID) [E]" (b)(6); "Degrace, Marciela (NIH/NIAID) [E]" (b)(6); "Stemmy, Erik (NIH/NIAID) [E]" (b)(6)  
**Subject:** FW: Taiwan coronavirus case

Gray and Hilary,

Marciela helped identify a contact in Taiwan for potentially sourcing samples (highlighted below).

Thanks,  
Alan

**From:** Degrace, Marciela (NIH/NIAID) [E] (b)(6)  
**Sent:** Wednesday, January 22, 2020 4:47 PM  
**To:** Embry, Alan (NIH/NIAID) [E] (b)(6); Stemmy, Erik (NIH/NIAID) [E] (b)(6); Post, Diane (NIH/NIAID) [E] (b)(6)  
**Subject:** Fwd: Taiwan coronavirus case

Listening in with Erik. Contact for Taiwan for the virus

Sent from my iPhone

Begin forwarded message:

**From:** (b)(6)  
**Date:** January 21, 2020 at 8:23:03 PM EST  
**To:** Andy Pekosz (b)(6) "Degrace, Marciela (NIH/NIAID) [E]"  
(b)(6) Lauren Sauer (b)(6), "Pekosz, Andrew S."  
(b)(6)  
**Cc:** Kuan-Fu Chen (b)(6), Kathryn Shaw-Saliba (b)(6), TW CEIRS  
(b)(6), Richard Rothman (b)(6)  
**Subject:** Re: Taiwan coronavirus case

Hi Marciela, Lauren and Andy,

I have asked my friend at the Taiwan CDC for the possibility. The director of Taiwan CDC tells us that you can write an official letter to [ihrfocalpoint@cdc.gov.tw](mailto:ihrfocalpoint@cdc.gov.tw) to make a formal request. They previously collaborated with NIH for the dengue fever vaccine development.

I'm traveling now, and the lunar new year holiday starts tomorrow, but I will be working in the 2nd half of the holiday clinically in the ED. Feel free to contact me, and we will see what we can do for the outbreak.

Thanks.

陳冠甫 KFC

Sent from my iPhone

On Jan 22, 2020, at 12:54 AM, Andy Pekosz (b)(6) wrote:

Looping in KFC, who is traveling but in email contact.

Andy

---

Andrew Pekosz, Ph.D.  
Professor and Vice Chair  
W. Harry Feinstone Department of Molecular  
Microbiology & Immunology  
Johns Hopkins University  
Bloomberg School of Public Health  
615 North Wolfe Street, rm W2116  
Baltimore, MD 21205-2103

HAND0000014238

Email: (b)(6)  
Tel: (b)(6)  
Lab: (b)(6)  
Fax: (410)955-0105  
<http://www.jhsph.edu/faculty/directory/profile/1972/andrew-stanley-pekosz>  
Twitter: (b)(6)

**From:** Lauren Sauer (b)(6)  
**Sent:** Tuesday, January 21, 2020 10:49 AM  
**To:** Degrace, Marciela (NIH/NIAID) [E] (b)(6)  
**Cc:** Richard Rothman (b)(6); Pekosz, Andrew S (b)(6); (b)(6); Kathryn Shaw-Saliba (b)(6)  
**Subject:** Re: Taiwan coronavirus case

Hi Marciela,  
We've been having regular calls. We're also working on getting a universal protocol onboarded there so that they can collect TBD samples and data if they get a case. We're also working on a plan to screen their prospective and especially retrospective banked samples (particularly the BALs from more critically ill patients.)

Keep you posted.

L

On Jan 21, 2020, at 10:14, Degrace, Marciela (NIH/NIAID) [E] (b)(6) wrote:

Any chance KFC has information on the case in Taiwan? As it spreads, it would be good to get samples (convalescent sera, isolates, etc.) from these places.

<https://focustaiwan.tw/society/202001210011>

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/23/2020 5:12:49 PM  
**To:** Williams, Nekisha (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9e7bc0290504cebb3bb2f69854562d7-williamsna]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]  
**Subject:** Accepted: Coronavirus discussion  
**Location:** Conference call  
**Start:** 1/24/2020 4:00:00 PM  
**End:** 1/24/2020 5:00:00 PM  
**Show Time As:** Busy

If the white house meeting goes long I will be late for this call. In which case we will need to move it to the afternoon. G

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/10/2020 2:19:38 PM  
**To:** Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Chen, Ping (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e86e86eeef44552b2918975f5001d13-chenpi]  
**CC:** Rosa, William (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6ad94c8f809d41ad91b1f78754f60c54-rosawi]; Lu, Tami (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=683d9f298f344f53b273ce527aa15d9a-lutt]; Williams, Nekisha (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9e7bc0290504cebb3bb2f69854562d7-williamsna]  
**Subject:** RE: Gao visit

I think Nekisha has done so. I will assure. Gray

---

**From:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 9, 2020 8:41 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Cc:** Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: Gao visit

Hi Gray,

Will you let Patty know that this visit is off?

Best,  
Joyelle

Joyelle Kalei Dominique, MS, MBA  
Acting Director

Office of Global Research  
Office of Science Management and Operations  
National Institute of Allergy and Infectious Diseases  
5601 Fishers Lane, Room 1E42, MSC 9802  
Bethesda, MD 20892-9802

(b)(6)

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**From:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 9, 2020 12:25 PM  
**To:** Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Cc:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: Gao visit

If you have any additional information on Wuhan situation we need to pass that forward. G



**From:** Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 9, 2020 10:46 AM  
**To:** Touchette, Nancy (NIH/NIAID) [E] (b)(6)  
**Cc:** Handley, Gray (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6); Williams, Nekisha (NIH/NIAID) [C] (b)(6); Gaither, Deandra (NIH/NIAID) [C] (b)(6)  
**Subject:** Re: Gao visit

Just got a text message from George that he could not come due to Wuhan pneumonia situation. (His assistant wrote to me early this morning that George could come. I guess she meant he could Not come).

Do we need to provide Wuhan pneumonia outbreak development to ASF anyway?  
Ping

Sent from my iPhone

On Jan 9, 2020, at 9:50 AM, Touchette, Nancy (NIH/NIAID) [E] (b)(6) wrote:

Gray

In order to pre-clear Gao to visit on main campus, we need a scanned copy or photo of his passport. Ping is unable to get that. If you are in touch with him and he can send the passport copy to you, I can pass it along to security to get him a pre-cleared badge. Otherwise, he can just go through the visitor entrance on main campus if he visits there.

Could we also arrange for the VIP lounge before/after his talk Monday and have Fauci join either in person or by skype?

*Nancy*

Nancy Touchette, Ph.D.  
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Office of Global Research  
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5601 Fishers Lane Rm 1E51B MSC 9802  
Bethesda MD 20892-9802

Tel: (b)(6)

Fax: 301-480-2954

E-mail: (b)(6)

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/23/2020 4:56:39 PM  
**To:** Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]  
**Subject:** FW: JAMA/Paules, Marston, Fauci: Coronavirus Infections—More Than Just the Common Cold <http://bit.ly/2Gnkcx>

We might want to include this with each reach out note.

---

**From:** Folkers, Greg (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 23, 2020 11:12 AM  
**Subject:** JAMA/Paules, Marston, Fauci: Coronavirus Infections—More Than Just the Common Cold <http://bit.ly/2Gnkcx>

Viewpoint  
January 23, 2020

# Coronavirus Infections—More Than Just the Common Cold

Catharine I. Paules, MD<sup>1</sup>; Hilary D. Marston, MD, MPH<sup>2</sup>; Anthony S. Fauci, MD<sup>2</sup>

Author Affiliations [Article Information](#)

JAMA. Published online January 23, 2020. doi:10.1001/jama.2020.0757

Human coronaviruses (HCoVs) have long been considered inconsequential pathogens, causing the “common cold” in otherwise healthy people. However, in the 21st century, 2 highly pathogenic HCoVs—severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV)—emerged from animal reservoirs to cause global epidemics with alarming morbidity and mortality. In December 2019, yet another pathogenic HCoV, 2019 novel coronavirus (2019-nCoV), was recognized in Wuhan, China, and has caused serious illness and death. The ultimate scope and effect of this outbreak is unclear at present as the situation is rapidly evolving.

Coronaviruses are large, enveloped, positive-strand RNA viruses that can be divided into 4 genera: alpha, beta, delta, and gamma, of which alpha and beta CoVs are known to infect humans.<sup>1</sup> Four HCoVs (HCoV 229E, NL63, OC43, and HKU1) are endemic globally and account for 10% to 30% of upper respiratory tract infections in adults. Coronaviruses are ecologically diverse with the greatest variety seen in bats, suggesting that they are the reservoirs for many of these viruses.<sup>2</sup> Peridomestic mammals may serve as intermediate hosts, facilitating recombination and mutation events with expansion of genetic diversity. The surface spike (S) glycoprotein is critical for binding of host cell receptors and is believed to represent a key determinant of host range restriction.<sup>1</sup>

Until recently, HCoVs received relatively little attention due to their mild phenotypes in humans. This changed in 2002, when cases of severe atypical pneumonia were described in Guangdong Province, China, causing worldwide concern as disease spread via international travel to more than 2 dozen countries.<sup>2</sup> The new disease became known as severe acute respiratory syndrome (SARS), and a beta-HCoV, named SARS-CoV, was identified as the causative agent. Because early cases shared a history of human-animal contact at live game markets, zoonotic transmission of the virus was strongly suspected.<sup>3</sup> Palm civets and raccoon dogs were initially thought to be the animal reservoir(s); however, as more viral sequence data became available, consensus emerged that bats were the natural hosts.

Common symptoms of SARS included fever, cough, dyspnea, and occasionally watery diarrhea.<sup>2</sup> Of infected patients, 20% to 30% required mechanical ventilation and 10% died, with higher fatality rates in older patients and those with medical comorbidities. Human-to-human transmission was documented, mostly in health care settings. This nosocomial

spread may be explained by basic virology: the predominant human receptor for the SARS S glycoprotein, human angiotensin-converting enzyme 2 (ACE2), is found primarily in the lower respiratory tract, rather than in the upper airway. Receptor distribution may account for both the dearth of upper respiratory tract symptoms and the finding that peak viral shedding occurred late ( $\approx 10$  days) in illness when individuals were already hospitalized. SARS care often necessitated aerosol-generating procedures such as intubation, which also may have contributed to the prominent nosocomial spread.

Several important transmission events did occur in the community, such as the well-characterized mini-outbreak in the Hotel Metropole in Hong Kong from where infected patrons traveled and spread SARS internationally. Another outbreak occurred at the Amoy Gardens housing complex where more than 300 residents were infected, providing evidence that airborne transmission of SARS-CoV can sometimes occur.<sup>4</sup> Nearly 20 years later, the factors associated with transmission of SARS-CoV, ranging from self-limited animal-to-human transmission to human superspreader events, remain poorly understood.

Ultimately, classic public health measures brought the SARS pandemic to an end, but not before 8098 individuals were infected and 774 died.<sup>2</sup> The pandemic cost the global economy an estimated \$30 billion to \$100 billion.<sup>1</sup> SARS-CoV demonstrated that animal CoVs could jump the species barrier, thereby expanding perception of pandemic threats.

In 2012, another highly pathogenic beta-CoV made the species jump when Middle East respiratory syndrome (MERS) was recognized and MERS-CoV was identified in the sputum of a Saudi man who died from respiratory failure.<sup>3</sup> Unlike SARS-CoV, which rapidly spread across the globe and was contained and eliminated in relatively short order, MERS has smoldered, characterized by sporadic zoonotic transmission and limited chains of human spread. MERS-CoV has not yet sustained community spread; instead, it has caused explosive nosocomial transmission events, in some cases linked to a single superspreader, which are devastating for health care systems. According to the World Health Organization (WHO), as of November 2019, MERS-CoV has caused a total of 2494 cases and 858 deaths, the majority in Saudi Arabia. The natural reservoir of MERS-CoV is presumed to be bats, yet human transmission events have primarily been attributed to an intermediate host, the dromedary camel.

MERS shares many clinical features with SARS such as severe atypical pneumonia, yet key differences are evident. Patients with MERS have prominent gastrointestinal symptoms and often acute kidney failure, likely explained by the binding of the MERS-CoV S glycoprotein to dipeptidyl peptidase 4 (DPP4), which is present in the lower airway as well as the gastrointestinal tract and kidney.<sup>3</sup> MERS necessitates mechanical ventilation in 50% to 89% of patients and has a case fatality rate of 36%.<sup>2</sup>

While MERS has not caused the international panic seen with SARS, the emergence of this second, highly pathogenic zoonotic HCoV illustrates the threat posed by this viral family. In 2017, the WHO placed SARS-CoV and MERS-CoV on its Priority Pathogen list, hoping to galvanize research and the development of countermeasures against CoVs.

The action of the WHO proved prescient. On December 31, 2019, Chinese authorities reported a cluster of pneumonia cases in Wuhan, China, most of which included patients who reported exposure to a large seafood market selling many species of live animals. Emergence of another pathogenic zoonotic HCoV was suspected, and by January 10, 2020, researchers from the Shanghai Public Health Clinical Center & School of Public Health and their collaborators released a full genomic sequence of 2019-nCoV to public databases, exemplifying prompt data sharing in outbreak response. Preliminary analyses indicate that 2019-nCoV has some amino acid homology to SARS-CoV and may be able to use ACE2 as a receptor. This has important implications for predicting pandemic potential moving forward. The situation with 2019-nCoV is evolving rapidly, with the case count currently growing into the hundreds. Human-to-human transmission of 2019-nCoV occurs, as evidenced by the infection of 15 health care practitioners in a Wuhan hospital. The extent, if any, to which such transmission might lead to a sustained epidemic remains an open and critical question. So far, it appears that the fatality rate of 2019-nCoV is lower than that of SARS-CoV and MERS-CoV; however, the ultimate scope and effects of the outbreak remain to be seen.

Drawing on experience from prior zoonotic CoV outbreaks, public health authorities have initiated preparedness and response activities. Wuhan leaders closed and disinfected the first identified market. The United States and several

other countries have initiated entry screening of passengers from Wuhan at major ports of entry. Health practitioners in other Chinese cities, Thailand, Japan, and South Korea promptly identified travel-related cases, isolating individuals for further care. The first travel-related case in the United States occurred on January 21 in a young Chinese man who had visited Wuhan.

Additionally, biomedical researchers are initiating countermeasure development for 2019-nCoV using SARS-CoV and MERS-CoV as prototypes. For example, platform diagnostic modalities are being rapidly adapted to include 2019-nCoV, allowing early recognition and isolation of cases. Broad-spectrum antivirals, such as remdesivir, an RNA polymerase inhibitor, as well as lopinavir/ritonavir and interferon beta have shown promise against MERS-CoV in animal models and are being assessed for activity against 2019-nCoV.<sup>5</sup> Vaccines, which have adapted approaches used for SARS-CoV or MERS-CoV, are also being pursued. For example, scientists at the National Institute of Allergy and Infectious Diseases Vaccine Research Center have used nucleic acid vaccine platform approaches.<sup>6</sup> During SARS, researchers moved from obtaining the genomic sequence of SARS-CoV to a phase 1 clinical trial of a DNA vaccine in 20 months and have since compressed that timeline to 3.25 months for other viral diseases. For 2019-nCoV, they hope to move even faster, using messenger RNA (mRNA) vaccine technology. Other researchers are similarly poised to construct viral vectors and subunit vaccines.

While the trajectory of this outbreak is impossible to predict, effective response requires prompt action from the standpoint of classic public health strategies to the timely development and implementation of effective countermeasures. The emergence of yet another outbreak of human disease caused by a pathogen from a viral family formerly thought to be relatively benign underscores the perpetual challenge of emerging infectious diseases and the importance of sustained preparedness.

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Article Information

**Corresponding Author:** Anthony S. Fauci, MD, Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, 31 Center Dr, MSC 2520, Bldg 31, Room 7A-03, Bethesda, MD 20892-2520 ([afauci@niaid.nih.gov](mailto:afauci@niaid.nih.gov)).

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**Conflict of Interest Disclosures:** None reported.

## References

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- 6.

Graham BS, Mascola JR, Fauci AS. Novel vaccine technologies: essential components of an adequate response to emerging viral diseases. *JAMA*. 2018;319(14):1431-1432. doi:[10.1001/jama.2018.0345](https://doi.org/10.1001/jama.2018.0345)

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**Sent:** 1/28/2020 8:56:02 PM  
**To:** Chen, Ping (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e86e86eeef44552b2918975f5001d13-chenpi]  
**CC:** Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Rosa, William (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6ad94c8f809d41ad91b1f78754f60c54-rosawi]; Lu, Tami (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=683d9f298f344f53b273ce527aa15d9a-lutt]; Bernabe, Gayle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c78e95b3db24482ba3dcbdedc2d3a003-gbernabe]  
**Subject:** RE: 2019-nCoV\_PotentialContactsandSites\_updated28Jan2020.xlsx

See below suggestions. Good to send it via WeChat. Thanks. G

**From:** Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 28, 2020 3:36 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Dominique, Joyelle (NIH/NIAID) [E] (b)(6); Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: 2019-nCoV\_PotentialContactsandSites\_updated28Jan2020.xlsx

Gray, here is my draft. I am going to send with some Chinese language (I provided translation). Please let me know if this is acceptable. Thanks

Ping

(b)(5)

**From:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 28, 2020 3:25 PM  
**To:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6); Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6); Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: 2019-nCoV\_PotentialContactsandSites\_updated28Jan2020.xlsx

I have asked Ping to reach out to George Gao to see if he is interested in having a research information sharing call with ASF. We will see if he even has time to respond.

**From:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 28, 2020 2:47 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6); Chen, Ping

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

**Subject:** 2019-nCoV\_PotentialContactsandSites\_updated28Jan2020.xlsx

Hi all,

Updated spreadsheet. If there is other contact we should be tracking, please include or let me know.

Thanks!

Joyelle

---

**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/9/2020 6:03:43 PM  
**To:** McDonald, David (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed4df702b18a4b56a27b92899e8bd0c1-mcdonalddj2]  
**CC:** Bernabe, Gayle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c78e95b3db24482ba3dcbdedc2d3a003-gbernabe]; Park, Eun-Chung (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ed1c49dc72d4c9f89c55025c8f8f08e-epark]  
**Subject:** RE: NYTimes: China Identifies New Virus Causing Pneumonia-Like Illness

Great minds.

We are already working on having this happen with Eun Chung Park who suggested this a few days ago.

Many will be interested. Gray

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

**From:** McDonald, David (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 9, 2020 9:40 AM  
**To:** Bernabe, Gayle (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Subject:** FW: NYTimes: China Identifies New Virus Causing Pneumonia-Like Illness

Any chance this emerging coronavirus (think SARS) will be covered in our EID? That would be timely.

China Identifies New Virus Causing Pneumonia-Like Illness  
<https://www.nytimes.com/2020/01/08/health/china-pneumonia-outbreak-virus.html?smid=nytcore-ios-share>

Best,  
Dave

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

**From:** David McDonald (b)(6)  
**Sent:** Thursday, January 9, 2020 6:22 AM  
**To:** McDonald, David (NIH/NIAID) [E] (b)(6)  
**Subject:** NYTimes: China Identifies New Virus Causing Pneumonia-Like Illness



---

**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/9/2020 6:05:48 PM  
**To:** Bernabe, Gayle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c78e95b3db24482ba3dcbdedc2d3a003-gbernabe]; Chen, Ping (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e86e86eeef44552b2918975f5001d13-chenpi]  
**CC:** Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]  
**Subject:** FW: coronavirus countermeasures  
**Attachments:** DIR coronavirus activities Jan 2020 1-9-2020.docx

Very useful to have this. G

---

**From:** Miller, Katherine (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 9, 2020 9:06 AM  
**To:** Marston, Hilary (NIH/NIAID) [E] (b)(6); Shaffer, Meredith (NIH/NIAID) [E] (b)(6)  
**Cc:** Barron, Karyl (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6); Folkers, Greg (NIH/NIAID) [E] (b)(6); Eisinger, Robert (NIH/NIAID) [E] (b)(6); Lerner, Andrea (NIH/NIAID) [E] (b)(6); Bushar, Nicholas (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: coronavirus countermeasures

Good morning

Please find attached a description of DIR's coronavirus activities. Of note, the paper reporting the highly promising remdesivir study results is still in revision so we ask that you kindly keep the information internally at this time. Thank you for the opportunity to highlight our activities in this area!

Sincerely,  
Katherine

---

**From:** Marston, Hilary (NIH/NIAID) [E] (b)(6)  
**Sent:** Monday, January 6, 2020 4:26 PM  
**To:** Miller, Katherine (NIH/NIAID) [E] (b)(6); Shaffer, Meredith (NIH/NIAID) [E] (b)(6)  
**Cc:** Barron, Karyl (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6); Folkers, Greg (NIH/NIAID) [E] (b)(6); Eisinger, Robert (NIH/NIAID) [E] (b)(6); Lerner, Andrea (NIH/NIAID) [E] (b)(6); Bushar, Nicholas (NIH/NIAID) [E] (b)(6)  
**Subject:** FW: coronavirus countermeasures

With the caveat that the China pneumonia syndrome etiology is still unreported/unknown to us, ASF is starting to field questions about coronavirus research, esp countermeasures. Would you be able to assemble a summary of DIR countermeasure efforts for the viral family? It would also be helpful to know what animal models we have available if needed for testing (should a viral isolate become available). I know Dr. Munster has a significant research program in the area and there might well be others.

If it is possible to put something together by the end of the week, we would appreciate it.

Thanks so much,

Hilary

Hilary D. Marston, MD, MPH

HAND0000014251

Medical Officer and Policy Advisor for Global Health  
Immediate Office of the Director  
National Institute of Allergy and Infectious Diseases

Cell: (b)(6)

Email (b)(6)

## **DIR Activities in Coronavirus**

### **Animal models of disease**

DIR investigators were the first to develop an animal model of Middle East respiratory syndrome coronavirus (MERS-CoV) (*New England Journal of Medicine*, 2013 ) when MERS-CoV first emerged. The availability of an animal model of disease is instrumental to the development of effective vaccines and therapeutics. DIR investigators have since developed a transgenic mouse model of MERS-CoV disease (*Antiviral Research*, 2015) that can serve as a first-line model for screening prophylactic and therapeutic candidates.

Morbidity and mortality resulting from clinically severe respiratory virus infections like SARS coronavirus (SARS-CoV) are largely the result of acute, uncontrolled inflammation. In order to study inflammatory responses to an appropriate, evolutionarily-relevant model of respiratory virus in a mouse model, DIR investigators developed and characterized the pneumonia virus of mice (PVM) infection model (*Viruses*, 2012).

### **Vaccine Development**

DIR investigators developed a synthetic DNA vaccine candidate against MERS-CoV in collaboration with David Weiner at Perelman School of Medicine, University of Pennsylvania (*Science Translational Medicine*, 2015 ). More recently DIR investigators developed a novel simian adenovirus vaccine candidate against MERS-CoV (*NPJ Vaccines*, 2017). The candidate, ChAdOx MERS-CoV, has successfully passed pre-clinical evaluation, and provides broad protection in a single shot format in both the non-human primate (NHP) model and the transgenic mouse model of disease. The first phase I clinical trials are ongoing in the UK (NCT03399578) and in Saudi Arabia (NCT04170829).

### **Therapeutics**

DIR investigators are working towards development of promising therapies against MERS-CoV. MERS-CoV infected rhesus macaques treated with IFN- $\alpha$ 2b and ribavirin showed reduced virus replication, host response moderation and improved clinical outcome. As these two drugs are already used in combination in the clinic for other infections, IFN- $\alpha$ 2b and ribavirin could be considered for the management of MERS-CoV cases (*Nature Medicine*, 2013). Treatment of MERS-CoV-infected common marmosets with either the antibody m336 or hyperimmune plasma reduced signs of clinical disease in the common marmoset (*Antiviral Research*, 2017). More recent work evaluated the prophylactic and therapeutic efficacy of REGN3051 and REGN3048, two fully human neutralizing monoclonal antibodies (mAb), against MERS-CoV (*Antiviral Research*, 2019) and LCA60, a MERS-CoV-neutralizing mAb isolated from a convalescent MERS patient (*Antiviral Research*, 2019). The combined data from both studies, evaluated in the common marmoset model of MERS-CoV infection, show that these mAb treatments may work well prophylactically, but less so therapeutically.

DIR Investigators have a paper in revision with *PNAS* reporting highly promising results from a study of remdesivir as a prophylactic and treatment for MERS-CoV and potentially SARS-CoV. Remdesivir (GS-5734) effectively inhibited MERS-CoV replication in vitro, and showed efficacy against SARS-CoV in a mouse model. Prophylactic remdesivir treatment initiated 24 hours prior to MERS-CoV inoculation in macaques completely prevented clinical disease, strongly inhibited MERS-CoV replication in respiratory tissues, and prevented the formation of lung lesions. When remdesivir was given as a treatment 12 hours post inoculation, a clear clinical benefit was seen, with a reduction in clinical signs, reduced virus replication in the lungs and decreased presence and severity of lung lesions. This data provides

compelling evidence in support testing of the efficacy of remdesivir treatment in the context of a MERS-CoV clinical trial.

#### **Transmission-blocking efforts and reservoir vaccine**

Prophylactic or therapeutic options are not often available for emerging and newly emerging diseases and availability is a challenge in resource poor areas where these outbreaks often occur. The potential to efficiently block cross-species, zoonotic and human-to-human transmission represents a promising approach to eliminate pathogen transmission. Dr. Munster and his team in the DIR are identifying the underlying biotic or abiotic changes in virus-host ecology that allow these emerging viral pathogens to cross the species barrier. The study of zoonotic pathogens in their natural reservoirs will be crucial to study mechanisms of pathogen emergence. The emergence of MERS-CoV highlighted again the role of reservoir and intermediate reservoir species in the disease emergence. A vaccine developed by DIR investigators for reservoir species has shown efficacy in dromedary camels and alpacas (*Viruses*, 2019).

#### **Basic research**

SARS-CoV pathology is generated both by cytotoxic effects of the virus and irregular activation of the innate immune response. DIR investigators are exploring several mechanisms by which a SARS-CoV open reading frame (ORF) accessory protein contributes to disease through activation of intracellular stress pathways, targeting the innate immune response (*Cell Death Discovery*, 2019), and driving multimodal necrotic cell death (*Cell Death Discovery*, 2018).

---

**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/27/2020 9:33:35 PM  
**To:** Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]  
**Subject:** FW: info on Corona Virus from NIH

Just saw this text. Sorry. I sent much simpler version and Hilary can provide more if they want specifics. Thanks. G

---

**From:** Marston, Hilary (NIH/NIAID) [E] (b)(6)  
**Sent:** Monday, January 27, 2020 12:48 PM  
**To:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Cc:** Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: info on Corona Virus from NIH

Defer to Gray but I think it looks great (and please use that language wherever you need it). Suggested (b)(5)  
(b)(5)

---

**From:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Sent:** Monday, January 27, 2020 12:41 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Marston, Hilary (NIH/NIAID) [E] (b)(6)  
**Cc:** Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6)  
**Subject:** FW: info on Corona Virus from NIH

Hi Gray and Hilary,

Reach from the Italian Embassy in DC about 2019-nCoV. Here's a draft email for consideration if you would like to respond, much based off Hilary's research plan and letters we are starting to draft.

---

Dear Ugo,

(b)(5)

(b)(5)

Best,  
Gray

F. Gray Handley  
Associate Director for International Research Affairs  
National Institute of Allergy and Infectious Diseases  
National Institute of Health  
U.S. Department of Health and Human Services

Tel: (b)(6) 5601 Fishers Lane, Room 1E50  
Bethesda, MD 20892-9802

Fax: 301 480 2954

(b)(6)

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Joyelle Kalei Dominique, MS, MBA  
Acting Director

Office of Global Research  
Office of Science Management and Operations  
National Institute of Allergy and Infectious Diseases  
5601 Fishers Lane, Room 1E42, MSC 9802  
Bethesda, MD 20892-9802

(b)(6)

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---

**From:** Scharf, Sarah (NIH/FIC) [E] (b)(6)  
**Sent:** Monday, January 27, 2020 11:38 AM  
**To:** Ugo Della Croce (b)(6)  
**Cc:** Gilli Marco (b)(6); Stefano Lami (b)(6); Sizemore, Christine (NIH/FIC) [E]  
(b)(6); Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: info on Corona Virus from NIH

Dear Ugo,

Thank you for your email. I am copying Joyelle Dominique, who is with NIAID's Office of Global Research and covers Europe. Joyelle will be able to identify a NIAID point of contact for nCoV-2019.

Thank you.

Best,

Sarah

**From:** Ugo Della Croce (b)(6)  
**Sent:** Monday, January 27, 2020 2:40 AM  
**To:** Scharf, Sarah (NIH/FIC) [E] (b)(6)  
**Cc:** Gilli Marco (b)(6); Stefano Lami (b)(6)  
**Subject:** info on Corona Virus from NIH

Dear Sarah,  
the Italian Government is interested in learning what the US is planning to do to limit the spread of the Corona Virus, including scientific actions.

That is why I am asking you to identify a contact at the NIAID who would be willing to provide the vision of the US Administration in this respect.

I am cc'ing my colleagues Stefano Lami and Marco Gilli, since I am travelling and it might be harder to reach me.

Thank you so much.

Best,

Ugo

--

---

**Prof. Ugo Della Croce, PhD**  
Science Counselor

*Embassy of Italy*  
3000 Whitehaven Street NW  
Washington, DC 20008

Office (b)(6)  
Mobile (b)(6)  
e-mail: (b)(6)

---

**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/9/2020 6:08:05 PM  
**To:** Chen, Ping (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e86e86eeef44552b2918975f5001d13-chenpi]  
**Subject:** FW: WSJ: New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak  
<https://on.wsj.com/39PX6a6>

FYI

---

**From:** Park, Eun-Chung (NIH/NIAID) [E] (b)(6)  
**Sent:** Thursday, January 9, 2020 7:20 AM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6)  
**Subject:** FW: WSJ: New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak  
<https://on.wsj.com/39PX6a6>

See the email from Linfa.

Sincerely,

*Eunchung*

(b)(6)

---

**From:** Wang Linfa (b)(6)  
**Sent:** Wednesday, January 8, 2020 11:38 PM  
**To:** Kuhn, Richard J (b)(6)  
**Cc:** Park, Eun-Chung (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: WSJ: New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak  
(b)(6)

Yes, I am happy to make a presentation on that.

I am going to China tmr and will get more first/second hand information on the ground. By the time of the NIH meeting next month, I am sure that I will have enough data to present an interesting story.

Cheers,

LF

*Linfa (Lin-Fa) WANG, PhD FTSE*  
Professor & Director  
Programme in Emerging Infectious Disease  
Duke-NUS Medical School,  
8 College Road, Singapore 169857  
Tel: (b)(6)

---

**From:** Kuhn, Richard J (b)(6)  
**Sent:** Thursday, 9 January, 2020 12:35 PM

HAND0000014255



To: Wang Linfa (b)(6)

Cc: Park, Eun-Chung (NIH/NIAID) [E] (b)(6)

Subject: Re: WSJ: New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak  
<https://on.wsj.com/39PX6a6>

- External Email -

Linfa,

Perfect timing for next month's EID meeting! Can you talk about this or suggest someone from China CDC?

Richard

On Jan 8, 2020, at 11:28 PM, Wang Linfa (b)(6) wrote:

Most likely and it is 80% identical to SARS-CoV at the whole genome level.

The timing of the outbreak in winter and the origin of human infection in a wet market is IDENTICAL to SARS in 2002!

Now even the aetiology is almost the same!

Bat coronaviruses will continue to emerge as I have been saying for the last ten years or so.....

*Linfa (Lin-Fa) WANG, PhD FTSE*  
Professor & Director  
Programme in Emerging Infectious Disease  
Duke-NUS Medical School,  
8 College Road, Singapore 169857  
Tel (b)(6)

---

From: Park, Eun-Chung (NIH/NIAID) [E] (b)(6)

Sent: Wednesday, 8 January, 2020 11:55 PM

To: Richard Kuhn (b)(6) Wang Linfa (b)(6)

(b)(6)

Subject: FW: WSJ: New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak  
<https://on.wsj.com/39PX6a6>

- External Email -

Corona?

Sincerely,

*Eunchung*

PH (b)(6)

(b)(6)

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

**Sent:** Wednesday, January 8, 2020 7:55 AM

**Subject:** WSJ: New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak

<https://on.wsj.com/39PX6a6>

## New Virus Discovered by Chinese Scientists Investigating Pneumonia Outbreak

### Latest tally of people sickened in Wuhan is 59, with seven in a critical condition

<image001.jpg>

Public-health officials in Bangkok hand out disease-monitoring information after performing thermal scans on passengers arriving from Wuhan, China, on Wednesday. Photo: Lauren DeCicca/Getty Images

By

Natasha Khan

Jan. 8, 2020 7:14 am ET

HONG KONG—Chinese scientists investigating a mystery illness that has sickened dozens in central China have discovered a new strain of coronavirus, a development that will test the country's upgraded capabilities for dealing with unfamiliar infectious diseases.

The novel coronavirus was genetically sequenced from a sample from one patient and subsequently found in some of the others affected in the city of Wuhan, according to people familiar with the findings. Chinese authorities haven't concluded that the strain is the underlying cause of sickness in all the patients who have been isolated in Wuhan since the infection first broke out in early December, the people said.

There are many known coronaviruses—some can cause ailments like common colds in humans, while others don't affect humans at all. Some—such as severe acute respiratory syndrome, or SARS, in 2003—have led to deadly outbreaks, lending urgency to efforts to contain the current situation.

The number of reported cases of viral pneumonia in Wuhan, the capital of Hubei province, was 59 on Sunday, rising from 27 on Dec. 31, according to Wuhan's Municipal Health Commission, with seven people in a critical condition. No deaths have been reported.

The disease afflicting patients in Wuhan hasn't been transmitted from human to human, and health-care workers have remained uninfected, according to city health officials as of Jan. 5, suggesting that what is sickening them is for now less virulent than SARS. Those ill in Wuhan are believed to have become sick through exposure to animals linked to a live seafood and animal market.

Health experts say one risk is that the disease could become a bigger threat as tens of millions of Chinese travel around the country during the Lunar New Year holidays that begin in just over two weeks.

Health authorities in Singapore and Hong Kong, cities that have direct flights from Wuhan, have issued alerts and quarantined patients travelling from the region who show signs of fever or breathing difficulties.

—Stephanie Yang contributed to this article.

**Write to** Natasha Khan at [natasha.khan@wsj.com](mailto:natasha.khan@wsj.com)

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/31/2020 10:52:37 PM  
**To:** Bernabe, Gayle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c78e95b3db24482ba3dcbdedc2d3a003-gbernabe]  
**CC:** Williams, Nekisha (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9e7bc0290504cebb3bb2f69854562d7-williamsna]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]  
**Subject:** Dr Suwannachai -DDC\_Invite  
**Attachments:** Dr Suwannachai -DDC\_Invite.docx

Here you go. Review once more but if OK, this is ready to go. Thanks. G

Page 073 of 189

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

Page 074 of 189

Withheld pursuant to exemption

(b)(5)

of the Freedom of Information and Privacy Act

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/31/2020 10:20:31 PM  
**To:** Gupta, Ranjan (NIH/FIC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d44bbcf3da8242cbb028d7002c6a9769-guptar]  
**CC:** Chopra, Nandita (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eecb444f83bd4620a3b6fbed3a4bf74a-nchopra]; Choi, Susan (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=617209e4c1fd41828b5262a8e5bfe599-choisc]; Sizemore, Christine (NIH/FIC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=05494833e0fc47a9acac194cd338b201-csizemore]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]  
**Subject:** RE: Some GOI interests during Dr. Collins' visit to India

Given how busy everyone is here, it would be easiest for us if you went ahead and drafted the briefing and then we can review it and add to it if needed. You were so recently here and are so completely familiar with these issues that I expect we will be able to pretty easily just update and clear what you write. I can add on anything new that comes from our dinner with Vijay. Thanks. Gray

---

**From:** Gupta, Ranjan (NIH/FIC) [E] (b)(6)  
**Sent:** Friday, January 31, 2020 4:27 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Cc:** Chopra, Nandita (NIH/NIAID) [E] (b)(6); Choi, Susan (NIH/NIAID) [C] (b)(6); Sizemore, Christine (NIH/FIC) [E] (b)(6); Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: Some GOI interests during Dr. Collins' visit to India

Gray, I am mostly settled in at FIC, except for a few minor things that are in the works. Good to know that you will be meeting with VijayRaghavan tonight. That would give you more insights. As for the materials, if I can have them anytime by COB Friday, Feb 7, that would be great!

Thanks,  
Ranjan

---

**From:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Sent:** Friday, January 31, 2020 4:19 PM  
**To:** Gupta, Ranjan (NIH/FIC) [E] (b)(6)  
**Cc:** Chopra, Nandita (NIH/NIAID) [E] (b)(6); Choi, Susan (NIH/NIAID) [C] (b)(6); Sizemore, Christine (NIH/FIC) [E] (b)(6); Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: Some GOI interests during Dr. Collins' visit to India

Ranjan, Thanks for this helpful note.

Dr. Fauci and I are invited to dinner tonight with VijayRaghavan. Although there is a chance ASF will not be available due to downtown requirements, I am sure Vijay also will raise these issues with us.

We will be glad to contribute to the briefing documents for Dr. Collins, particularly to provide whatever is needed related to preparedness and work being done on nCoV. Just let us know when those materials are in preparation and we can provide whatever you need.

(b)(6)

Gray

**From:** Gupta, Ranjan (NIH/FIC) [E] (b)(6)

**Sent:** Friday, January 31, 2020 3:24 PM

**To:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E]

(b)(6)

**Cc:** Chopra, Nandita (NIH/NIAID) [E] (b)(6); Choi, Susan (NIH/NIAID) [C] (b)(6)  
Sizemore, Christine (NIH/FIC) [E] (b)(6); Gupta, Ranjan (NIH/FIC) [E] (b)(6)

**Subject:** Some GOI interests during Dr. Collins' visit to India

Dear Joyelle and Gray,

Last evening, I attended the Indian Embassy reception for Dr. K. Vijayraghavan, Principal Science Advisor to the Govt. of India.

He mentioned that one of the topics that he (and others) would like to discuss with Dr. Collins in Delhi (March 11) is research preparedness for Emerging Infectious Diseases, in particular reference to the ongoing Coronavirus outbreak (not surprising). A second topic of interest is Artificial Intelligence (AI) and its applications to health solutions.

I wanted to share this with you, in case you / NIAID wish to share any talking points or bullets (or websites) on the above topics, to include in Dr. Collins' briefing document.

Also, if there are any other issues you may wish to highlight, just let me know.

Thanks,  
Ranjan

Ranjan Gupta, Ph.D  
NIH Fogarty International Center (FIC)  
Division of International Relations

(b)(6)

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/21/2020 8:36:09 PM  
**To:** Bushar, Nicholas (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2d9b0d47cfb94aedb072be87746d439d-busharnd]  
**Subject:** Accepted: 2019-nCoV Outbreak Update  
**Location:** Skype Meeting  
**Start:** 1/22/2020 9:00:00 PM  
**End:** 1/22/2020 10:00:00 PM  
**Show Time As:** Busy

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/29/2020 8:43:35 PM  
**To:** Chen, Ping (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e86e86eeef44552b2918975f5001d13-chenpi]; Bernabe, Gayle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c78e95b3db24482ba3dcbdedc2d3a003-gbernabe]  
**CC:** Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Rosa, William (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6ad94c8f809d41ad91b1f78754f60c54-rosawi]; Lu, Tami (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=683d9f298f344f53b273ce527aa15d9a-lutt]  
**Subject:** RE: WHO China Partner Update #2 - 2019-nCoV

We have been asked for names which we will send to WHO tomorrow. G

---

**From:** Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Sent:** Wednesday, January 29, 2020 3:25 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6)  
**Cc:** Dominique, Joyelle (NIH/NIAID) [E] (b)(6); Rosa, William (NIH/NIAID) [E] (b)(6); Lu, Tami (NIH/NIAID) [E] (b)(6)  
**Subject:** FW: WHO China Partner Update #2 - 2019-nCoV

Based on this WHO update, it looks like an international technical team will be in China sent by WHO. Don't know the list but U.S. CDC would be a major player. Has NIAID been contacted?  
Ping

---

**From:** WP CHN WR <wpchnwr@who.int>  
**Sent:** Wednesday, January 29, 2020 11:00 AM  
**Subject:** WHO China Partner Update #2 - 2019-nCoV

Dear colleagues and partners,

Please find attached the latest partner update for 29 January 2020 with relevant links and resources to keep you up-to-date on the 2019-nCoV situation.

Best regards,  
WHO China Office

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/31/2020 10:27:02 PM  
**To:** Mary Anne Handley (b)(6)  
**Subject:** RE: LHPS Health Update

Crazy here. You may have seen my boss doing a press conference.

I only wish your director had taken the opportunity that by far the MOST dangerous thing you can do to put your child at risk of disease and even death is to NOT provide them the full regimen of recommended childhood vaccines. Many more children die of vaccine preventable diseases each year than will ever be even threatened by nCoV. (b)(6)

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**From:** Mary Anne Handley (b)(6)  
**Sent:** Friday, January 31, 2020 4:17 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Subject:** FW: LHPS Health Update

Hi G.

The rumors and, in a few instances, hysteria continues...

I thought I'd share what we hope is the last email blast out to our school community regarding Coronavirus as we try to stop the rumors and incorrect information swirling around. Thanks again for your input. I can only imagine the level of concern from the public that your office must be dealing with.

It's been a long, busy week...I'm ready for the weekend...I hope you have a nice one planned. (b)(6)

Goodbye for now -

**Mary Anne Handley**  
Lower School Associate Director  
407-206-1900 ext (b)(6) [www.lhps.org](http://www.lhps.org)  
**Lake Highland Preparatory School**  
901 Highland Avenue | Orlando, Florida 32803  
[Twitter](#) | [Facebook](#)  
*Celebrating 50 Years: A Tradition of Success*

**From:** Lake Highland Preparatory School <[lhps@lhps.org](mailto:lhps@lhps.org)>  
**Sent:** Friday, January 31, 2020 2:38 PM  
**To:** Mary Anne Handley (b)(6)  
**Subject:** LHPS Health Update

**LAKE HIGHLAND  
PREPARATORY SCHOOL**

*Central Florida's School of Opportunity*

PRESIDENT'S OFFICE

HAND0000014283

January 31, 2020

Dear Highlander families,

In the last two days, rumors have abounded at LHPS about the Coronavirus, and I want to dispel your questions and worry. Be assured we are closely following the news about the Novel (new) Coronavirus and the common Coronavirus as our students' health and safety are always our top concern. We are also trying to stay abreast of all the rumors which seem to flourish in potentially risky situations such as this. **Importantly, we firmly believe that no member of our immediate Lake Highland family (student or employee) has been exposed to, or has contacted, the highly-publicized, Novel Coronavirus.**

More specifically, no student or employee at LHPS has been diagnosed with the virus. We (our school nurse, (b)(6) our head of security, (b)(6) and members of our administration team) have consulted with experts at the National Institutes of Health (NIH), Center for Disease Control (CDC), Florida Department of Health (FDOH), and a pediatric, infectious disease specialist. All of these medical/health professionals have assured us that our students at LHPS are not at risk and they should continue to attend school as normal. Of course, your family may decide to keep your child(ren) at home, and we will support your decision.

We continue to follow all appropriate protocols in our health clinic, and we have increased our cleaning efforts for all campus facilities. Finally, we will keep you posted about any changes we hear on the local, state, national or international level that could affect our students.

If you want more information about the virus, a helpful link from the CDC is:

[Click here about Coronavirus](#)

In summary, I want to assure you once again that there has not been any evidence of the virus at Lake Highland, nor is there evidence that any child at Lake Highland has been exposed to the virus.

Please feel free to reach out to our school nurse, (b)(6) or me if you have any questions.

Warmest regards,

(b)(6)

**Alfred G. Harms, Jr.**

Vice Admiral, U.S. Navy (Ret.)

President

407-206-1900 ext. (b)(6) | [www.lhps.org](http://www.lhps.org)

**Lake Highland Preparatory School**

901 Highland Avenue | Orlando, Florida 32803

*Celebrating 50 Years: A Tradition of Success*



*Lake Highland Preparatory School | 901 Highland Avenue | Orlando, FL 32803*

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Lake Highland Preparatory School would like to continue connecting with you via email. If you prefer to be removed from our list, please contact Lake Highland Preparatory School directly. To stop receiving all email messages distributed through our SchoolMessenger service, follow this link and confirm: [Unsubscribe](#)

SchoolMessenger is a notification service used by the nation's leading school systems to connect with parents, students and staff through voice, SMS text, email, and social media.

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/21/2020 9:19:14 PM  
**To:** Eiss, Robert (NIH/FIC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=707887ee7ba548e1a0ae55f683ce2017-eissr]  
**Subject:** RE: ICRS rescheduled for January 29, 3:30 PM - 5:00 PM

Thus Davos exactly replicates the inequities of the world! And I bet the Oranges do the heavy lifting. G

---

**From:** Eiss, Robert (NIH/FIC) [E] (b)(6)  
**Sent:** Tuesday, January 21, 2020 3:23 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Cc:** Williams, Nekisha (NIH/NIAID) [C] (b)(6); Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: ICRS rescheduled for January 29, 3:30 PM - 5:00 PM

I did confirm that with Hugh that Wednesday is available on his schedule

I just got caught up in the busy and fluid preparations for the World Economic Summit the last couple weeks – thus the rescheduling I went once My memory is that invitees wear badges of different colors to identify their status, and what social events they are eligible to access Bad luck if you are issued lowly orange. No champagne reception at the Belvedere in that case

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**From:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 21, 2020 3:13 PM  
**To:** Eiss, Robert (NIH/FIC) [E] (b)(6)  
**Cc:** Williams, Nekisha (NIH/NIAID) [C] (b)(6); Dominique, Joyelle (NIH/NIAID) [E] (b)(6)  
**Subject:** RE: ICRS rescheduled for January 29, 3:30 PM - 5:00 PM

Hi Rob. I am booked from 3-4 but available after that. I assume you have checked with Hugh so if this time works for him, I am less essential. Would like to be there if possible.

Thanks. Gray

---

**From:** Eiss, Robert (NIH/FIC) [E] (b)(6)  
**Sent:** Tuesday, January 21, 2020 2:56 PM  
**To:** Kline, Lydia (NIH/OD) [E] (b)(6); Smolskis, Mary (NIH/NIAID) [E] (b)(6); Tapley, Kate (NIH/OD) [E] (b)(6); Western, Karl (NIH/NIAID) [V] (b)(6); Millum, Joseph (NIH/CC/BEP) [E] (b)(6); Collier, Elaine (NIH/NCATS) [E] (b)(6); Engelgau, Michael (NIH/NHLBI) [V] (b)(6); Mensah, George (NIH/NHLBI) [E] (b)(6); Kutlesic, Vesna (NIH/NICHD) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6); Nightingale, Stuart (NIH/OD) [C] (b)(6); Gross, Thomas (NIH/NCI) [E] (b)(6); Berger, Adam (NIH/OD) [E] (b)(6); Rausch, Dianne (NIH/NIMH) [E] (b)(6)  
**Cc:** Auchincloss, Hugh (NIH/NIAID) [E] (b)(6); Harshman, Terri (NIH/NCI) [E] (b)(6); Flores Rivas, Silvia (NIH/NIAID) [E] (b)(6); Sizemore, Christine (NIH/FIC) [E] (b)(6); Grady, Christine (NIH/CC/BEP) [E] (b)(6); Harshman, Terri (NIH/NCI) [E] (b)(6); Kilmarx, Peter (NIH/FIC) [E] (b)(6); Officer, Jackie (NIH/FIC) [E] (b)(6); Nuriddin, Fajar (NIH/FIC) [C] (b)(6); Pringle, Beverly (NIH/NIMH) [E] (b)(6)

(b)(6)

**Subject:** ICRS rescheduled for January 29, 3:30 PM - 5:00 PM

Dear colleagues,

We are rescheduling tomorrow's ICRS meeting to next week, due to conflicting commitments. The meeting will now take place on **Wednesday, January 29, from 3:30 PM-5:00 PM**. I will confirm the conference room location in Building 31. Could you kindly confirm your availability so that we can ensure this date is viable for the group? Thanks for your flexibility

Following are planned agenda topics, and welcome additional ideas:

- *Wuhan coronavirus – plans for a response*
- *GDPR update*
- *Relevant items from World Economic Forum (Dr. Collins participating)*
- *HIROs annual meeting in March*
- *Update on the NIH Common Fund's Harnessing Data Science for Health Discovery and Innovation in Africa program*
- *NCI- Cancer Research UK Grand Challenges - a novel funding model (tentative)*
- *Update on ClinRegs (tentative)*

I am very pleased to welcome Dr. Dianne Rausch to the group. Dianne is replacing Beverly Pringle, (b)(6) I anticipate many of you know Dianne, who serves as Director of NIMH's Division of AIDS Research.

Best,

---

**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/29/2020 8:40:21 PM  
**To:** Touchette, Nancy (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0ac9c36a14da43c0b720120c49d50867-ntouchette]; Smith, Steven T (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0a2563e1fd43719928186e141f6dec-smithsteve]; Adomako, Melissa (NIH/NIAID) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=865438cd6d534b6c922d66d9d17ee262-adomakom2]  
**CC:** Rosa, William (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6ad94c8f809d41ad91b1f78754f60c54-rosawi]; Dominique, Joyelle (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5c55f75b58f14ab2b2ccbac0a881ccae-dominiquejk]; Lu, Tami (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=683d9f298f344f53b273ce527aa15d9a-lutt]  
**Subject:** RE: GVIRF

Thanks. Do we know who is attending this meeting for NIAID, if anyone? Sorry if I have just forgotten something I have been told before.

---

**From:** Touchette, Nancy (NIH/NIAID) [E] (b)(6)  
**Sent:** Wednesday, January 29, 2020 2:59 PM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Smith, Steven T (NIH/NIAID) [E] (b)(6)  
**Cc:** Rosa, William (NIH/NIAID) [E] (b)(6); Dominique, Joyelle (NIH/NIAID) [E] <joyelle.dominique@nih.gov>; Lu, Tami (NIH/NIAID) [E] (b)(6)  
**Subject:** GVIRF

Hi Gray,

Just wanted to give you a heads-up that we had a discussion today about the possibility of postponing the GVIRF, scheduled for March 10-12 in Seoul, to later this year, given the coronavirus outbreak and the large number of people from China and other parts of Asia who will be attending. WHO is reluctant to do this, but we will continue to monitor the situation and discuss at our next planning meeting, a week from today. We may know more after the WHO emergency meeting tomorrow.

*Nancy*

Nancy Touchette, Ph.D.  
Health Research Program and Policy Analyst  
Office of Global Research  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Department of Health and Human Services  
5601 Fishers Lane Rm 1E51B MSC 9802  
Bethesda MD 20892-9802

Tel: (b)(6)  
Fax: 301-480-2954  
E-mail: (b)(6)





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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/21/2020 9:21:38 PM  
**To:** Marston, Hilary (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ab30660917b942ffba9ae95d631116f3-marstonhd]  
**Subject:** FW: coronavirus infection update in the China CDC Weekly

fyi

---

**From:** Chen, Ping (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 21, 2020 11:09 AM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6); Bernabe, Gayle (NIH/NIAID) [E] (b)(6)  
Stemmy, Erik (NIH/NIAID) [E] (b)(6)  
**Subject:** coronavirus infection update in the China CDC Weekly

<http://weekly.chinacdc.cn/news/TrackingtheEpidemic.htm#Beijing%20Municipality%20Update>

the link contains the updates on the cases of the new coronavirus outbreak by the China CDC Weekly. Use Chrome as the browser as the Explorer did not work for me.

Ping

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**From:** Handley, Gray (NIH/NIAID) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1CEB55D4B673477391C9DA8A3EB3C75C-HANDLEYGR]  
**Sent:** 1/14/2020 4:29:57 PM  
**To:** Park, Eun-Chung (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ed1c49dc72d4c9f89c55025c8f8f08e-epark]  
**Subject:** (b)(5)

(b)(5)

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**From:** Park, Eun-Chung (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 14, 2020 11:22 AM  
**To:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Subject:** (b)(5)

(b)(5)

Sincerely,  
*Eunchung*

PH: (b)(6)  
(b)(6)

---

**From:** Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 14, 2020 11:20 AM  
**To:** Park, Eun-Chung (NIH/NIAID) [E] (b)(6)  
**Subject:** (b)(5)

(b)(5)

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**From:** Park, Eun-Chung (NIH/NIAID) [E] (b)(6)  
**Sent:** Tuesday, January 14, 2020 11:08 AM  
**To:** NIAID VB <VARB@niaid.nih.gov>; RDBViral <NIAIDRDBViral@mail.nih.gov>; Casseti, Cristina (NIH/NIAID) [E] (b)(6); Erbelding, Emily (NIH/NIAID) [E] (b)(6); Handley, Gray (NIH/NIAID) [E] (b)(6)  
**Subject:** (b)(5)

(b)(5)

Sincerely,  
*Eunchung*

PH: (b)(6)  
(b)(6)

---

**From:** Anthony, Simon J. (b)(6)  
**Sent:** Monday, January 13, 2020 10:35 PM  
**To:** Park, Eun-Chung (NIH/NIAID) [E] (b)(6)  
**Subject:** (b)(4)

Dear Eun Chung,

You have likely seen that the Wuhan CoV genomes were released yesterday. We did a quick evaluation of them today and thought you might be interested to see our notes. Nothing fancy, of course, but you might still find it useful or interesting.

Cheers!  
Simon